

z/OS



# SDSF Operation and Customization

*Version 2 Release 2*

**Note**

Before using this information and the product it supports, read the information in "Notices" on page 625.

This edition applies to Version 2 Release 2 of z/OS (5650-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

© **Copyright IBM Corporation 1997, 2016.**

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

---

# Contents

<b>Figures</b> . . . . .	<b>xi</b>	Saving and printing tabular data . . . . .	11
<b>Tables</b> . . . . .	<b>xiii</b>	Action characters and overtypable fields from the command line . . . . .	12
<b>About this document</b> . . . . .	<b>xvii</b>	HASPINDEX removal . . . . .	12
<b>z/OS information</b> . . . . .	<b>xix</b>	Column changes. . . . .	13
<b>How to send your comments to IBM</b> . . . . .	<b>xxi</b>	Exploit an IBM z Integrated Information Processor (zIIP) . . . . .	13
If you have a technical problem . . . . .	xxi		
<b>Summary of changes</b> . . . . .	<b>xxiii</b>		
Summary of changes, Version 2 Release 2 (V2R2)   as updated October, 2016 . . . . .	xxiii		
Summary of changes, Version 2 Release 2 (V2R2)   as updated June, 2016 . . . . .	xxiii		
Summary of changes, Version 2 Release 2 (V2R2)   as updated April, 2016 . . . . .	xxiv		
Summary of changes, Version 2 Release 2 (V2R2)   as updated March, 2016 . . . . .	xxv		
Summary of changes, Version 2 Release 2 (V2R2)   as updated December, 2015. . . . .	xxv		
Summary of changes for z/OS Version 2 Release 2   (V2R2) . . . . .	xxvi		
Summary of changes, Version 2 Release 1 (V2R1)   as updated March, 2014 . . . . .	xxvii		
z/OS Version 2 Release 1 summary of changes . . . . .	xxvii		
<b>Chapter 1. Exploiting new functions</b> . . . . .	<b>1</b>		
z/OS V2R2 summary as updated October, 2016. . . . .	1		
AS panel . . . . .	1		
DYNX panel . . . . .	1		
PROC panel . . . . .	2		
z/OS V2R2 summary as updated June, 2016. . . . .	2		
z/OS V2R2 summary as updated April, 2016 . . . . .	3		
Enqueue panel. . . . .	3		
System Symbols panel . . . . .	3		
z/OS V2R2 summary as updated December, 2015 . . . . .	4		
Authorized program facility panel . . . . .	4		
Link list panel . . . . .	4		
Link pack area panel . . . . .	5		
Page panel . . . . .	5		
PARM panel . . . . .	6		
SRCH panel . . . . .	6		
System panel . . . . .	6		
z/OS V2R2 summary . . . . .	7		
Job Device panel . . . . .	7		
Job Memory panel . . . . .	8		
Job Delay panel . . . . .	8		
Job Step panel . . . . .	9		
Job Group panel . . . . .	9		
Job Dependency panel . . . . .	9		
REXX enhancements . . . . .	10		
System command enhancements . . . . .	11		
		<b>Chapter 2. Using ISFPARMS for customization and security</b> . . . . .	<b>15</b>
		ISFPARMS overview . . . . .	15
		ISFPARMS format alternatives . . . . .	15
		Converting ISFPARMS assembler macros to statements. . . . .	17
		Reverting to the ISFPARMS defined with assembler macros . . . . .	17
		Samples . . . . .	18
		Auditing ISFPARMS . . . . .	18
		Diagnosing security . . . . .	18
		Rules for coding ISFPARMS . . . . .	18
		Statements. . . . .	19
		Assembler macros . . . . .	19
		Conditional processing . . . . .	20
		WHEN Statement . . . . .	20
		System symbols . . . . .	22
		Global initialization parameters (OPTIONS or ISFPMAC). . . . .	22
		Example of the OPTIONS statement and ISFPMAC macro. . . . .	23
		OPTIONS or ISFPMAC reference . . . . .	23
		Server group definition parameters (SERVERGROUP, SERVER, COMM) . . . . .	28
		Example of the SERVERGROUP statement . . . . .	29
		SERVERGROUP statement . . . . .	29
		SERVER statement . . . . .	29
		COMM statement . . . . .	30
		Summary of rules for defining a server group . . . . .	32
		Server connection (CONNECT). . . . .	32
		Example of the CONNECT statement. . . . .	32
		CONNECT statement . . . . .	33
		Group authorization parameters (GROUP or ISFGRP) . . . . .	34
		Group membership. . . . .	34
		Group function . . . . .	35
		Examples of the GROUP statement and ISFGRP macro . . . . .	36
		Group membership parameters reference . . . . .	37
		Group function parameters reference . . . . .	39
		Action characters and overtypable fields for each command level . . . . .	74
		Variable field lists (FLD or ISFFLD) . . . . .	86
		Example of the FLD statement and ISFFLD macro . . . . .	87
		FLD and ISFFLD syntax . . . . .	87
		Name tables (NTBL or ISFNTBL) . . . . .	91

Examples of the NTBL statement and ISFNTBL macro . . . . .	91
NTBL and ISFNTBL syntax . . . . .	92
Usage notes . . . . .	92
Customized properties (PROPLIST) . . . . .	93
Example of the PROPLIST and associated statements . . . . .	93
PROPLIST syntax . . . . .	93
Code page (TRTAB/TRDEF or ISFTR) . . . . .	103
Examples of the TRTAB statement and ISFTR macro . . . . .	104
TRTAB and ISFTR syntax . . . . .	105
Coding a translate table . . . . .	107

### Chapter 3. Using the SDSF server . . . 109

Defining the input . . . . .	109
Starting the server . . . . .	110
Starting the SDSFAUX server . . . . .	110
Processing the statements . . . . .	110
Accessing the server . . . . .	111
Logging . . . . .	111
Security . . . . .	112
Using the server for sysplex data . . . . .	112
Device panels . . . . .	112
Sysplex-wide panels . . . . .	112
SYSLOG panel . . . . .	113
Servers with server groups and WebSphere MQ . . . . .	113
Server operator commands . . . . .	120
Start the SDSF server . . . . .	120
Change server options . . . . .	124
Display server options . . . . .	127
Display information about server communications . . . . .	128
Refresh ISFPARMS . . . . .	129
Start communications . . . . .	130
Stop communications . . . . .	131
Stop the SDSF server . . . . .	132

### Chapter 4. Columns on the SDSF panels . . . . . 135

Address Space Memory panel (AS) . . . . .	135
Authorized Program Facility panel (APF) . . . . .	137
Display Active Users panel (DA) . . . . .	137
Dynamic Exits panel (DYNX) . . . . .	140
Enclaves panel (ENC) . . . . .	141
Enqueue panel (ENQ) . . . . .	142
Health Check History panel (CKH) . . . . .	144
Health Checker panel (CK) . . . . .	144
Held Output panel (H) . . . . .	146
Initiator panel (INIT) . . . . .	148
Input Queue panel (I) . . . . .	149
JESPLEX panel (JP) . . . . .	152
Job Class panel (JC) . . . . .	152
Job Data Set panel (JDS) . . . . .	154
Job Delay panel (JY) . . . . .	157
Job Dependency panel . . . . .	158
Job Device panel (JD) . . . . .	158
Job Group panel (JG) . . . . .	160
Job Memory panel (JM) . . . . .	161
Job Step panel (JS) . . . . .	162

Job 0 (J0) . . . . .	163
Lines panel (LI) . . . . .	164
Link List panel (LNK) . . . . .	166
Link Pack Area panel (LPA) . . . . .	167
Multi-Access Spool panel (MAS) and JESPLEX (JP) panel . . . . .	168
Network Connections (NC) . . . . .	169
Network Servers (NS) . . . . .	171
Nodes panel (NO) . . . . .	172
Output Descriptors panel (OD) . . . . .	174
Output Queue panel (O) . . . . .	175
Page panel (PAG) . . . . .	178
PARMLIB panel (PARM) . . . . .	179
Printer panel (PR) . . . . .	179
Proclib panel (PROC) . . . . .	184
Processes panel (PS) . . . . .	184
Punch panel (PUN) . . . . .	185
Reader panel (RDR) . . . . .	187
Resource panel (RES) . . . . .	189
Resource Monitor (RM) panel . . . . .	189
Scheduling Environment panel (SE) . . . . .	190
Spool Offload panel (SO) . . . . .	190
Spool Volumes panel (SP) . . . . .	193
Search panel (SRCH) . . . . .	195
Status panel (ST) . . . . .	195
System Symbols panel (SYM) . . . . .	198
System panel (SYS) . . . . .	199
System Requests panel (SR) . . . . .	200

### Chapter 5. Using SAF for security . . . 203

Relationship of SAF and ISFPARMS . . . . .	203
Using ISFPARMS as a backup to SAF . . . . .	203
Changing authorization dynamically . . . . .	204
Auditing access attempts . . . . .	204
Diagnosing security . . . . .	204
SAF concepts for SDSF resources . . . . .	205
Protecting SDSF function . . . . .	205

### Chapter 6. SDSF and RACF . . . . . 217

Security administration . . . . .	217
Brief summary of RACF commands . . . . .	217
Delegation of RACF administrative authority . . . . .	218
SDSF resource group class . . . . .	218
Establishing SAF security with RACF . . . . .	219
RACF authorization checking and ISFPARMS security . . . . .	219
Considerations for broad access . . . . .	219
Using RACLIST and REFRESH . . . . .	220
Using RACLIST and REFRESH with the SDSF class . . . . .	220
Using RACLIST and REFRESH with the OPERCMDS class . . . . .	220
Using conditional access . . . . .	221
Sample RACF commands . . . . .	221
Multilevel Security . . . . .	221

### Chapter 7. Protecting SDSF functions 223

Action characters . . . . .	223
Protecting the objects of action characters . . . . .	223

Protecting the generated MVS and JES commands . . . . .	224	Example of protecting MAS members . . . . .	267
Protecting action characters as separate resources . . . . .	224	Membership in groups . . . . .	267
Setting up generic profiles . . . . .	225	Controlling membership in groups . . . . .	267
Examples of protecting action characters . . . . .	225	Example of protecting membership in a group in ISFPARMS . . . . .	267
Tables of action characters . . . . .	225	MVS and JES commands on the command line . . . . .	268
Authorized program facility data sets . . . . .	249	Protecting the slash command . . . . .	268
Protecting authorized program facility data sets	249	Slash command and User Log . . . . .	268
Example of protecting authorized program facility data sets . . . . .	249	Example of protecting the slash command . . . . .	268
Authorized SDSF commands . . . . .	249	Network connections . . . . .	268
Protecting SDSF commands . . . . .	249	Protecting network connections . . . . .	269
Setting up generic profiles . . . . .	251	Example of protecting network connections . . . . .	269
Examples of protecting commands . . . . .	252	Network servers . . . . .	269
Checks on the CK and CKH panels . . . . .	252	Protecting network servers . . . . .	269
Protecting checks . . . . .	252	Example of protecting network servers . . . . .	270
Example of protecting checks . . . . .	253	Nodes . . . . .	270
Destination names . . . . .	253	Protecting nodes . . . . .	270
Protecting destination names . . . . .	253	Example of protecting nodes . . . . .	270
Initializing destinations . . . . .	254	OPERLOG . . . . .	271
Example of protecting destination names . . . . .	254	Protecting the log stream . . . . .	271
Destination operator authority . . . . .	254	Overtimeable fields . . . . .	271
Protecting operator authority by destination . . . . .	255	Protecting the overtimeable field . . . . .	271
Dynamic exit information . . . . .	256	Protecting the objects of overtimeable fields . . . . .	271
Protecting dynamic exits . . . . .	256	Protecting the generated MVS and JES commands . . . . .	272
Example of protecting dynamic exits . . . . .	256	Generic profiles . . . . .	272
Enclaves . . . . .	256	Examples of protecting overtimeable fields . . . . .	273
Protecting enclaves . . . . .	256	Tables of overtimeable fields . . . . .	274
Example of protecting enclaves . . . . .	257	Page data sets . . . . .	310
Enqueue information . . . . .	257	Protecting page data sets . . . . .	310
Protecting Enqueue Information . . . . .	257	Example of protecting page data sets . . . . .	310
Example of protecting enqueue information . . . . .	257	PARMLIB data sets . . . . .	311
Initiators . . . . .	257	Protecting PARM data sets . . . . .	311
Protecting initiators . . . . .	257	Example of protecting PARM data sets . . . . .	311
Example of protecting initiators . . . . .	258	Printers . . . . .	311
JES2 resources on the RM panel . . . . .	258	Protecting printers . . . . .	311
Protecting JES2 resources . . . . .	258	Permitting access only while using SDSF . . . . .	312
Example of protecting JES2 resources . . . . .	259	Examples of protecting printers . . . . .	312
Job classes . . . . .	259	Processes (z/OS UNIX System Services) . . . . .	312
Protecting job classes . . . . .	259	Protecting processes . . . . .	312
Example of protecting job classes . . . . .	259	Example of protecting processes . . . . .	313
Job devices . . . . .	259	Proclibs . . . . .	313
Protecting job devices . . . . .	259	Protecting proclibs . . . . .	313
Example of protecting job devices . . . . .	260	Example of protecting proclibs . . . . .	313
Jobs, job groups, output groups, and SYSIN/SYSOUT data sets . . . . .	260	Punches . . . . .	313
Protecting jobs, job groups, output groups, and SYSIN/SYSOUT data sets . . . . .	260	Protecting punches . . . . .	313
Permitting other users to view your data . . . . .	263	Permitting access only while using SDSF . . . . .	314
Providing function comparable to NOTIFY authority . . . . .	263	Example of protecting punches . . . . .	314
Examples of protecting jobs and output groups	264	Readers . . . . .	314
Lines . . . . .	265	Protecting readers . . . . .	314
Protecting lines . . . . .	265	Example of protecting readers . . . . .	315
Example of protecting lines . . . . .	266	Resources defined to WLM . . . . .	315
Link list data sets . . . . .	266	Protecting WLM resources . . . . .	315
Protecting link list data sets . . . . .	266	Example of protecting resources . . . . .	315
Example of protecting link list data sets . . . . .	266	Scheduling environments . . . . .	315
MAS and JESPLEX members . . . . .	266	Protecting scheduling environments . . . . .	315
Protecting MAS and JESPLEX members . . . . .	266	Example of protecting scheduling environments	316
		SDSF server . . . . .	316
		Protecting the SDSF server . . . . .	316
		Examples of protecting the SDSF server . . . . .	317
		Spool offloaders . . . . .	317

Protecting spool offloaders . . . . .	317
Example of protecting spool offloaders . . . . .	318
Spool volumes . . . . .	318
Protecting spool volumes . . . . .	318
Example of protecting spool volumes . . . . .	318
SYSLOG . . . . .	318
Protecting the logical log . . . . .	319
System Symbol information . . . . .	319
Protecting system symbol information . . . . .	319
Example of protecting system symbol information . . . . .	319
System information . . . . .	319
Protecting system information . . . . .	319
Example of protecting system information . . . . .	320
System requests . . . . .	321
Protecting system requests . . . . .	321
Example of protecting system requests . . . . .	321
User log (ULOG) . . . . .	321
Protecting the ULOG . . . . .	321
Examples of protecting ULOG . . . . .	322
WebSphere MQ . . . . .	322
Protecting the queues . . . . .	323
Allowing the server to communicate with remote servers . . . . .	323
Allowing the server to define queues . . . . .	324
Defining connection security for SDSF . . . . .	324
Defining context security for SDSF . . . . .	325
Assigning user IDs . . . . .	325
Example . . . . .	325

## Chapter 8. Converting ISFPARMS to SAF security. . . . . 327

Getting started . . . . .	327
SDSF environment . . . . .	327
Migration considerations . . . . .	327
Examples of RACF security for SDSF groups . . . . .	328
Providing group authority . . . . .	329
Group 1 — system programmers . . . . .	329
Group 2 — operators . . . . .	331
Group 3 — end users . . . . .	334
Summary of profiles for group 1, group 2, and group 3 . . . . .	337
Using the Security Conversion Assist . . . . .	340
Diagnosing security . . . . .	344

## Chapter 9. Using installation exit routines. . . . . 345

Installation exit routines . . . . .	345
Using the ISFUSER module . . . . .	345
Installation exit points . . . . .	346
SAF considerations for exit points . . . . .	346
Initialization exit point . . . . .	347
Command authority exit point . . . . .	349
SYSOUT display authority exit point . . . . .	350
SDSF termination exit point . . . . .	351
Pre-SAF exit point . . . . .	351
Post-SAF exit point . . . . .	352
SAF indeterminate exit point . . . . .	352
Table build exit point . . . . .	353

## Chapter 10. Installation and configuration considerations. . . . . 355

JES3 considerations . . . . .	355
Getting started running SDSF in the JES3 environment . . . . .	355
JES2 considerations . . . . .	357
DESTDEF considerations . . . . .	357
SDSF with a secondary JES2 subsystem . . . . .	357
SDSF considerations . . . . .	358
Issuing MVS and JES commands . . . . .	358
Console for issuing MVS and JES commands . . . . .	358
Storing MVS and JES commands . . . . .	359
RMF considerations . . . . .	360
WebSphere MQ considerations . . . . .	361
z/OS libraries . . . . .	361
WebSphere MQ configuration . . . . .	361
Storage estimates . . . . .	362
Queues . . . . .	363
ISPF considerations . . . . .	364
ISFISP entry point . . . . .	365
Specifying that SDSF should process JES2 . . . . .	366
z/OSMF considerations . . . . .	366
Using the SDSF classic interface . . . . .	376

## Chapter 11. Introduction to SDSF application services . . . . . 377

SDSF panels . . . . .	377
SDSF commands . . . . .	378
Taking action against an object . . . . .	379
Changing values in columns . . . . .	379
Filtering and sorting panel information . . . . .	380
Complex filters . . . . .	380
Issuing MVS or JES commands . . . . .	381
Browsing job output and checks . . . . .	381
Printing from SDSF Panels . . . . .	381

## Chapter 12. Using SDSF in batch . . . . . 383

Invoking SDSF in batch . . . . .	383
Specifying that SDSF should process JES2 . . . . .	384
Using program name SDSF . . . . .	384
SDSF panels and commands . . . . .	384
Action characters . . . . .	384
Using program name ISFAFD . . . . .	384
Commands . . . . .	385
PF keys . . . . .	387
Action characters . . . . .	388
Overtimeable fields . . . . .	388
Notes on using program name ISFAFD . . . . .	389
Security and SDSF in batch . . . . .	389
Using SAF . . . . .	389
Using ISFPARMS . . . . .	390

## Chapter 13. Using SDSF with the REXX programming language . . . . . 391

Other sources of information . . . . .	392
Programming practices . . . . .	392
Generating an exec . . . . .	393
Exec basics . . . . .	393

Adding the SDSF host command environment with ISFCALLS . . . . .	394
Result codes . . . . .	394
Issuing commands with ISFEXEC . . . . .	395
Examples of using ISFEXEC . . . . .	395
Return codes for ISFEXEC . . . . .	396
Messages . . . . .	396
Issuing panel commands with ISFEXEC . . . . .	396
Issuing WHO and QUERY commands with ISFEXEC . . . . .	404
Issuing system commands with ISFEXEC . . . . .	404
Issuing action characters and modifying columns with ISFACT . . . . .	404
Modifying related fields . . . . .	406
Using tokens . . . . .	406
Examples of using ISFACT . . . . .	407
Return codes for ISFACT . . . . .	407
Options for action characters and overtypeable fields . . . . .	407
Special variables for secondary panels . . . . .	409
Browsing output . . . . .	411
Browsing output with ISFBROWSE . . . . .	411
Browsing jobs with an external utility . . . . .	414
Browsing checks with the S action character . . . . .	415
Examples of browsing output . . . . .	416
Printing output . . . . .	416
Examples of printing . . . . .	418
Getting all of the values for a single row . . . . .	418
Return codes for ISFGET . . . . .	419
Data returned for ISFGET . . . . .	419
Options for getting all of the values for a row . . . . .	419
Special variables with ISFGET . . . . .	420
Browsing the system log with ISFLOG . . . . .	420
Examples of using ISFLOG . . . . .	421
Options for the ISFLOG command . . . . .	422
Special variables for use with the ISFLOG command . . . . .	422
Return codes for ISFLOG . . . . .	425
Issuing system commands with ISFSLASH . . . . .	425
Examples of using ISFSLASH . . . . .	426
Options for slash (/) commands . . . . .	426
Special variables for slash (/) commands . . . . .	426
Return codes for ISFSLASH . . . . .	427
Using special variables to invoke SDSF function . . . . .	428
SDSF command . . . . .	428
Filter commands . . . . .	429
Options commands . . . . .	430
Trace commands . . . . .	431
Dropping special variables with ISFRESET . . . . .	431
Invoking a REXX exec with an action character . . . . .	432
SDSF with REXX reference . . . . .	434
SDSF commands reference . . . . .	434
Action character reference . . . . .	438
Special variables reference . . . . .	440
Examples of REXX execs . . . . .	450
Access an SDSF panel . . . . .	451
Cancel a job . . . . .	452
Cancel a set of jobs . . . . .	453
List job data sets . . . . .	454
Modify values in columns . . . . .	455
Modify a value for a set of jobs . . . . .	456

Browse job output with EXECIO . . . . .	457
Browse job output with ISFBROWSE (basic) . . . . .	458
Browse job output with ISFBROWSE . . . . .	459
Browse a single data set with EXECIO . . . . .	460
Browse a single data set with ISFBROWSE . . . . .	462
Browse check output from the CK panel . . . . .	464
Browse check output from the CK panel using ISFBROWSE . . . . .	464
Browse check output from the CKH panel . . . . .	466
Print to SYSOUT . . . . .	467
List action characters . . . . .	468
Issue system commands using ISFSLASH . . . . .	468
Work with the last 24 hours of SYSLOG . . . . .	469
Work with the current day of the system log . . . . .	469
Find a message in the system log . . . . .	470
Work with the last 24 hours of OPERLOG . . . . .	471
Issue the WHO command . . . . .	472
Invoking an exec with the % action character . . . . .	473
System REXX and SDSF . . . . .	475
Security and REXX . . . . .	475
Determining which group in ISFPARMS a user is assigned to . . . . .	475
Diagnosing errors in a REXX exec . . . . .	476

## Chapter 14. Using SDSF with the Java programming language . . . . . 477

Where to look for information . . . . .	477
Simplifying systems management with SDSF Java . . . . .	478
Enabling your application to use SDSF Java . . . . .	478
Installation verification . . . . .	479
Writing a Java application . . . . .	480
Example . . . . .	480
Working with objects . . . . .	481
Obtaining column values . . . . .	481
Actions and overtypes . . . . .	481
Using runners and request settings . . . . .	482
Determining which runner to use . . . . .	483
Samples . . . . .	484
Running the samples . . . . .	485
Troubleshooting . . . . .	485
Tracing . . . . .	486
Security and Java . . . . .	487
Determining which group in ISFPARMS a user is assigned to . . . . .	487
Protecting runners . . . . .	487
Protecting methods . . . . .	487

## Chapter 15. SDSF messages and codes . . . . . 505

Displaying message help . . . . .	505
User authorization . . . . .	505
SDSF messages . . . . .	505
Messages with HSF message numbers . . . . .	534
Messages with ISF message numbers . . . . .	539
Messages for IBM Health Checker for z/OS . . . . .	577
SDSF user abend codes . . . . .	581

## Appendix A. SDSF problem management . . . . . 585

Observing and identifying a problem . . . . .	585
---	-----

Gathering information about a problem . . . . .	585
Dumps . . . . .	585
Trace . . . . .	585
Module information . . . . .	585
SDSF problem index . . . . .	586
Problems with the Repeat-Find PF keys (PF5 and PF17) . . . . .	586
Problems with the LOG, RETRIEVE and TUTOR commands . . . . .	586
Users are experiencing authorization problems SDSF has abended. . . . .	586
Documentation is incorrect . . . . .	587
An SDSF message is incorrect . . . . .	587
A message was not found in the tutorial . . . . .	588
Data on an SDSF panel is garbled or incorrect . . . . .	588
RMF exit is not installed. . . . .	588
Communication problems within a server group . . . . .	588

**Appendix B. SAF equivalents for  
ISFPARMS. . . . . 591**

ACTION . . . . .	591
ACTIONBAR . . . . .	591
APPC . . . . .	591
AUPDT . . . . .	591
AUTH=ABEND . . . . .	591
AUTH=ACTION . . . . .	591
AUTH=ALL . . . . .	591
AUTH=ALLOPER . . . . .	592
AUTH=ALLUSER . . . . .	592
AUTH=APF . . . . .	592
AUTH=AS . . . . .	592
AUTH=CK . . . . .	592
AUTH=DA . . . . .	592
AUTH=DEST . . . . .	593
AUTH=DYNX . . . . .	593
AUTH=ENC . . . . .	593
AUTH=ENQ . . . . .	593
AUTH=FINDLIM . . . . .	593
AUTH=H . . . . .	593
AUTH=I . . . . .	594
AUTH=INIT . . . . .	594
AUTH=INPUT . . . . .	594
AUTH=JC . . . . .	594
AUTH=JG . . . . .	594
AUTH=J0 . . . . .	594
AUTH=LI . . . . .	594
AUTH=LNK . . . . .	595
AUTH=LOG . . . . .	595
AUTH=LPA . . . . .	595
AUTH=MAS . . . . .	595
AUTH=NC . . . . .	595
AUTH=NO . . . . .	595
AUTH=NS . . . . .	595
AUTH=O . . . . .	596
AUTH=PAG . . . . .	596
AUTH=PARM . . . . .	596
AUTH=PR . . . . .	596
AUTH=PREF . . . . .	596
AUTH=PROC . . . . .	596
AUTH=PS . . . . .	596
AUTH=PUN . . . . .	597

AUTH=RDR . . . . .	597
AUTH=RES . . . . .	597
AUTH=RM . . . . .	597
AUTH=RSYS . . . . .	597
AUTH=SE . . . . .	597
AUTH=SO . . . . .	597
AUTH=SP . . . . .	598
AUTH=SR . . . . .	598
AUTH=ST . . . . .	598
AUTH=SYS . . . . .	598
AUTH=SYSID . . . . .	598
AUTH=SYSNAME . . . . .	598
AUTH=TRACE . . . . .	598
AUTH=ULOG . . . . .	599
BROWSE . . . . .	599
CMDAUTH=DEST . . . . .	599
CMDAUTH=DISPLAY . . . . .	599
CMDAUTH=GROUP . . . . .	599
CMDAUTH=INIT . . . . .	599
CMDAUTH=NOTIFY . . . . .	600
CMDAUTH=MSG . . . . .	600
CMDAUTH=USERID . . . . .	600
CMDAUTH=ALL . . . . .	600
CMDLEV . . . . .	601
CONFIRM . . . . .	601
CPUFMT . . . . .	601
CTITLE . . . . .	601
CURSOR . . . . .	601
DADFLT . . . . .	601
DATE . . . . .	601
DATESEP . . . . .	601
DEST . . . . .	602
DISPLAY . . . . .	602
DSPAUTH=ADEST . . . . .	602
DSPAUTH=ALL . . . . .	602
DSPAUTH=AMDEST . . . . .	602
DSPAUTH=AMSG . . . . .	603
DSPAUTH=GROUP . . . . .	603
DSPAUTH=GRPMSG . . . . .	603
DSPAUTH=NOTIFY . . . . .	603
DSPAUTH=USERID . . . . .	604
EMCSAUTH . . . . .	604
EMCSREQ . . . . .	604
GPLEN . . . . .	604
GPREF . . . . .	604
ICMD . . . . .	604
IDEST . . . . .	604
IDSP . . . . .	605
IDSPD . . . . .	605
ILOGCOL . . . . .	605
INPUT . . . . .	605
ISTATUS . . . . .	605
ISYS . . . . .	605
LANG . . . . .	605
LOG/LOGOPT . . . . .	605
OWNER . . . . .	605
PREFIX . . . . .	605
RSYS . . . . .	606
SYSID . . . . .	606
UPCTAB . . . . .	606
VALTAB . . . . .	606



VIO . . . . .	606
XCMD . . . . .	606
XDSP . . . . .	606
XDSPD . . . . .	606
XSTATUS. . . . .	607

**Appendix C. SDSF resource names  
for SAF security . . . . . 609**

**Appendix D. Accessibility . . . . . 621**  
Accessibility features . . . . . 621

Consult assistive technologies . . . . .	621
Keyboard navigation of the user interface . . . . .	621
Dotted decimal syntax diagrams . . . . .	621

**Notices . . . . . 625**

Policy for unsupported hardware. . . . .	626
Minimum supported hardware . . . . .	627
Programming interface information . . . . .	627
Trademarks . . . . .	627

**Index . . . . . 629**



---

## Figures

1. Server Group Example . . . . .	114	8. Refresh ISFPARMS — Syntax . . . . .	129
2. Server Group Example—Alternate JES2s	115	9. Start Communications — Syntax . . . . .	130
3. Server Group Example—All Servers . . . . .	116	10. Stop Communications — Syntax . . . . .	131
4. Server Group Example—Server Group on SY2	117	11. STOP the SDSF Server — Syntax . . . . .	132
5. Change Server Options — Syntax . . . . .	125	12. Example of a Profile Description to Change	342
6. Display Server Options — Syntax . . . . .	128	13. A Sample SDSF Tabular Panel . . . . .	378
7. Display Information About Server Communications — Syntax . . . . .	128	14. Sample ISFPARMS to Restrict Batch . . . . .	390



## Tables

1. Exploitation tasks for the AS panel . . . . .	1	53. Columns on the JM Panel . . . . .	162
2. Exploitation tasks for the DYNX panel . . . . .	1	54. Columns on the JS Panel . . . . .	162
3. Exploitation tasks for the PROC panel . . . . .	2	55. Columns on the J0 Panel . . . . .	163
4. Exploitation tasks for the ENQ panel . . . . .	3	56. Columns on the LI Panel . . . . .	164
5. Exploitation tasks for the SYM panel . . . . .	3	57. Columns on the LNK Panel . . . . .	166
6. Exploitation tasks for the APF panel . . . . .	4	58. Columns on the LPA Panel . . . . .	167
7. Exploitation tasks for the LNK panel . . . . .	4	59. Columns on the MAS and JP Panel . . . . .	168
8. Exploitation tasks for the LPA panel . . . . .	5	60. Columns on the NC Panel . . . . .	169
9. Exploitation tasks for the PAG panel . . . . .	5	61. Columns on the NS Panel . . . . .	171
10. Exploitation tasks for the PARM panel . . . . .	6	62. Columns on the NO Panel . . . . .	172
11. Exploitation tasks for the SRCH panel . . . . .	6	63. Columns on the OD Panel . . . . .	174
12. Exploitation tasks for the SYS panel . . . . .	7	64. Columns on the O Panel . . . . .	175
13. Exploitation tasks for the Job Device panel	7	65. Columns on the PAG Panel . . . . .	178
14. Exploitation tasks for the Job Memory panel	8	66. Columns on the PARM Panel . . . . .	179
15. Exploitation tasks for the Job Delay panel	8	67. Columns on the PR Panel . . . . .	179
16. Exploitation tasks for the Job Step panel . . . . .	9	68. Columns on the PROC Panel . . . . .	184
17. Exploitation tasks for the Job Group panel	9	69. Columns on the PS Panel . . . . .	184
18. Exploitation tasks for the Job Dependency panel. . . . .	10	70. Columns on the PUN Panel . . . . .	185
19. New Columns on the SDSF Panels . . . . .	13	71. Columns on the RDR Panel . . . . .	187
20. Summary of ISFPARMS Statements and Macros . . . . .	16	72. Columns on the RES Panel . . . . .	189
21. Authorized commands with CMDLEV and CMDAUTH=ALL . . . . .	47	73. Columns on the RM Panel . . . . .	189
22. Command Level 0 Action Characters . . . . .	75	74. Columns on the SE Panel . . . . .	190
23. Command Level 1 Action Characters . . . . .	76	75. Columns on the SO Panel . . . . .	190
24. Command Level 2 Action Characters . . . . .	77	76. Columns on the SP Panel . . . . .	193
25. Command Level 2 Overtypable Fields	77	77. Columns on the SRCH Panel . . . . .	195
26. Command Level 3 Action Characters . . . . .	79	78. Columns on the ST Panel . . . . .	195
27. Command Level 3 Overtypable Fields	80	79. Columns on the System Symbols . . . . .	198
28. Command Level 4 Action Characters . . . . .	85	80. Columns on the SYS Panel . . . . .	199
29. Command Level 4 Overtypable Fields	85	81. Columns on the SR Panel . . . . .	200
30. Command Level 5 Overtypable Fields	86	82. SDSF Functions and the Classes and Resources Required to Protect Them . . . . .	206
31. Command Level 6 Overtypable Fields	86	83. SDSF Resources That Protect the JD and JM Action Characters . . . . .	225
32. Field List Parameters . . . . .	89	84. Generic Profiles for Commands Generated by Actions Characters . . . . .	225
33. Properties to Specify with the PROPERTY Statement . . . . .	94	85. Action Characters . . . . .	226
34. WebSphere MQ Queues Used by SDSF	118	86. Action Characters by OPERCMDS Resource Name . . . . .	242
35. Queues Used to Define Queues . . . . .	119	87. OPERCMDS Resources That Protect Issuing Action Characters for JES2 Resources . . . . .	248
36. Columns on the AS Panel . . . . .	136	88. SAF Resources for Authorized Program Facility Data Sets . . . . .	249
37. Columns on the APF Panel . . . . .	137	89. SDSF Class Resource Names and SDSF Commands . . . . .	250
38. Columns on the DA Panel . . . . .	137	90. Authority Required to Checks for Actions and Overtypes. . . . .	252
39. Columns on the DYNX Panel . . . . .	140	91. Authority Required to the Log Stream Used for Check History . . . . .	253
40. Columns on the ENC Panel . . . . .	141	92. Authority Required for Destination Names	254
41. Columns on the ENQ Panel . . . . .	143	93. Authority Required for Destination Operator Authority . . . . .	255
42. Columns on the CKH Panel . . . . .	144	94. SAF Resources for Dynamic Exits . . . . .	256
43. Columns on the CK Panel . . . . .	144	95. SAF Resources for Enclaves . . . . .	256
44. Columns on the H Panel . . . . .	146	96. SAF Resources for Enqueue Information	257
45. Columns on the INIT Panel . . . . .	148	97. Authority Required to Initiator Resource for Actions and Overtypes . . . . .	257
46. Columns on the I Panel . . . . .	149		
47. Columns on the JC Panel . . . . .	152		
48. Columns on the JDS Panel . . . . .	154		
49. Columns on the JY Panel . . . . .	157		
50. Columns on the Job Dependency Panel	158		
51. Columns on the JD Panel . . . . .	159		
52. Columns on the JG Panel . . . . .	160		

98. Authority Required to JES2 Resources for Actions and Overtypes . . . . .	258	134. Authority Required for Communication with Remote Servers . . . . .	324
99. Authority Required to Job Class Resource for Actions and Overtypes . . . . .	259	135. Authority Required for Server Definition of Queues . . . . .	324
100. SAF Resources for Job Devices . . . . .	260	136. Authority Required for Connection Security	325
101. Authority Required to JESSPOOL Resources	261	137. Authority Required for Context Security	325
102. Authority Required to Lines Resources for Actions and Overtypes . . . . .	265	138. Sample GROUP statements, Group 1	330
103. SAF Resources for Link List Data Sets	266	139. Profile for Membership in Group 1 — System Programmers . . . . .	330
104. Authority Required to MAS or JESPLEX Members for Actions and Overtypes . . . . .	267	140. Profiles for Function of Group 1 — System Programmers . . . . .	331
105. Authority Required for membership in an ISFPARMS group . . . . .	267	141. Sample GROUP statements, Group 2	332
106. Authority Required for the Slash Command	268	142. Profiles for Membership in Group 2 — Operators . . . . .	332
107. Authority Required to Network Connection Resources for Actions and Overtypes . . . . .	269	143. Profiles for Function of Group 2 — Operators	332
108. Authority Required to Network Servers Resources for Actions and Overtypes . . . . .	269	144. Sample GROUP statements, Group 3	335
109. Authority Required to Nodes Resources for Actions and Overtypes . . . . .	270	145. Profile for Membership in Group 3 — End Users . . . . .	335
110. Authority Required for Accessing the Log Stream . . . . .	271	146. Profiles for Function of Group 3 — End Users	335
111. Generic Profiles for Overtypable Fields	272	147. Profiles for Groups 1, 2, and 3 . . . . .	337
112. Overtypable Fields . . . . .	274	148. Data Sets Required by the Security Conversion Assist . . . . .	341
113. Actions with Overtypes on the PR and PUN Panels in a JES3 Environment . . . . .	295	149. Profile Description Example. . . . .	341
114. Overtypable Fields Sorted by OPERCMDS Resource Name . . . . .	295	150. Profile Descriptions That May Require a Change to the Access List . . . . .	342
115. OPERCMDS Resources That Protect Overtyping JES2 Resources . . . . .	310	151. GROUP/ISFGRP Parameters Supported	343
116. SAF Resources for Page Data Sets . . . . .	310	152. Summary of Possible WebSphere MQ System Parameters Changes . . . . .	361
117. SAF Resources for PARM Data Sets . . . . .	311	153. Message Size Estimates . . . . .	362
118. Authority Required to Printer Resources for Actions and Overtypes . . . . .	311	154. Resources in the ZMFAPLA Class. . . . .	368
119. Authority Required to z/OS UNIX Processes for Actions and Overtypes . . . . .	312	155. z/OSMF Views and Corresponding z/OS SDSF Commands . . . . .	368
120. SAF Resources for Proclibs . . . . .	313	156. Actions on the Active Jobs Table . . . . .	369
121. Authority Required to Punch Resources for Actions and Overtypes . . . . .	313	157. Actions on the All Jobs Table . . . . .	370
122. Authority Required to Reader Resources for Actions and Overtypes . . . . .	314	158. Actions on the Input Queue Table . . . . .	371
123. Authority Required to SAF Resources for WLM Resources . . . . .	315	159. Actions on the Output Queue Table . . . . .	372
124. Authority Required to Scheduling Environment Resource for Actions . . . . .	316	160. Actions on the Held Output Queue Table	373
125. Authority Required to Server Functions	316	161. Actions on the Job Data Set Table . . . . .	373
126. Authority Required to Offloader Resources for Actions and Overtypes . . . . .	317	162. Actions on the Health Check Table . . . . .	373
127. Authority Required to Spool Volume Resources for Actions and Overtypes . . . . .	318	163. Actions on the Health Check History Table	374
128. Authority Required for Accessing the Logical Log . . . . .	319	164. Actions on the System Table . . . . .	374
129. SAF Resources for System Symbol Information . . . . .	319	165. Actions on the APF Table . . . . .	375
130. SAF Resources for System Information	320	166. Actions on the PAG Table . . . . .	375
131. Authority Required to System Request Resource for Action Characters. . . . .	321	167. Actions on the LNK Table . . . . .	375
132. Resource that Protects the Extended Console	322	168. Actions on the PARM Table. . . . .	375
133. Authority Required for the WebSphere MQ Queues . . . . .	323	169. Summary of SDSF Interfaces . . . . .	377
		170. Commands for Getting Help on Using SDSF	377
		171. Summary of Commands for Filtering	380
		172. Contents of the Log Stamp . . . . .	386
		173. Using SDSF with REXX . . . . .	391
		174. Controlling the Columns on SDSF Panels	397
		175. Special REXX Variables for Printing to SYSOUT . . . . .	416
		176. Special REXX Variables for Printing to a Data Set . . . . .	417
		177. Special Variables for Printing to a File	418
		178. SDSF Commands and REXX . . . . .	435
		179. Action Characters Not Supported with REXX	439
		180. Special REXX Variables . . . . .	440
		181. SDSF Commands and Runners. . . . .	483
		182. ISFAPf Methods for Action Characters	487

183. ISFActive Methods for Action Characters	488		206. ISFParmlib Methods for Action Characters	497
184. ISFDynx Methods for Action Characters	489		207. ISFPrinter Methods for Action Characters	497
185. ISFEnclave Methods for Action Characters	489		208. ISFProcess Methods for Action Characters	498
186. ISFENQ Methods for Action Characters	489		209. ISFProclib Methods for Action Characters	498
187. ISFHealthCheck Methods for Action Characters . . . . .	489		210. ISFPunch Methods for Action Characters	498
188. ISFHealthCheckArchive Methods for Action Characters . . . . .	490		211. ISFReader Methods for Action Characters	499
189. ISFHeldOutput Methods for Action Characters . . . . .	490		212. ISFRequestSettings Methods for Commands that Require Authorization . . . . .	499
190. ISFInitiator Methods for Action Characters	491		213. ISFResourceMonitor Methods for Action Characters . . . . .	499
191. ISFInput Methods for Action Characters	491		214. ISFSchedulingEnvironment Methods for Action Characters . . . . .	499
192. ISFJESplex Methods for Action Characters	492		215. ISFSpool Methods for Action Characters	500
193. ISFJobClass Methods for Action Characters	493		216. ISFSpoolOffload Methods for Action Characters . . . . .	500
194. ISFJobDataSet Methods for Action Characters	493		217. ISFStatus Methods for Action Characters	500
195. ISFJobDevice Methods for Action Characters	493		218. ISFSystem Methods for Action Characters	502
196. ISFJobGroup Methods for Action Characters	494		219. ISFSystemSymbol Methods for Action Characters . . . . .	502
197. ISFJobStep Methods for Action Characters	494		220. ISFSystemRequest Methods for Action Characters . . . . .	503
198. ISFJob0 Methods for Action Characters	495		221. ISFWLMResource Methods for Action Characters . . . . .	503
199. ISFLine Methods for Action Characters	495		222. SDSF Abend Codes . . . . .	581
200. ISFLnkLst Methods for Action Characters	495		223. Security Classes, Resource Names, and What They Protect . . . . .	609
201. ISFNetworkConnection Methods for Action Characters . . . . .	495		224. SDSF Class Resource Names and Overtimeable Fields . . . . .	612
202. ISFNetworkServer Methods for Action Characters . . . . .	496			
203. ISFNode Methods for Action Characters	496			
204. ISFOutput Methods for Action Characters	496			
205. ISFPage Methods for Action Characters	497			





---

## About this document

This document is for use with z/OS<sup>®</sup> System Display and Search Facility (SDSF). It is intended primarily for system programmers and operators, and assumes you are familiar with the z/OS operating system, including JES. This document contains information about migration, customization, security, operation, maintenance and problem determination, including explanations of SDSF messages.

This document also describes how to use SDSF's application services to write REXX execs or Java<sup>™</sup> programs that exploit SDSF function. It includes a quick introduction to SDSF function and terminology for people who are not already experienced users of SDSF but want to exploit SDSF's application services.

Complete information about using SDSF, such as commands, action characters and messages, is provided in the online help for z/OS SDSF. In addition, introductory information is available on the Internet at <http://www.ibm.com/systems/z/os/zos/features/sdsf/>.



---

## **z/OS information**

This information explains how z/OS references information in other documents and on the web.

When possible, this information uses cross document links that go directly to the topic in reference using shortened versions of the document title. For complete titles and order numbers of the documents for all products that are part of z/OS, see *z/OS V2R2 Information Roadmap*.

To find the complete z/OS library, go to IBM Knowledge Center (<http://www.ibm.com/support/knowledgecenter/SSLTBW/welcome>).



---

## How to send your comments to IBM

We appreciate your input on this documentation. Please provide us with any feedback that you have, including comments on the clarity, accuracy, or completeness of the information.

Use one of the following methods to send your comments:

**Important:** If your comment regards a technical problem, see instead “If you have a technical problem.”

- Send an email to [mhvrcfs@us.ibm.com](mailto:mhvrcfs@us.ibm.com).
- Send an email from the "Contact us" web page for z/OS (<http://www.ibm.com/systems/z/os/zos/webqs.html>).

Include the following information:

- Your name and address
- Your email address
- Your phone or fax number
- The publication title and order number:
  - z/OS SDSF Operation and Customization
  - SA23-2274-09
- The topic and page number or URL of the specific information to which your comment relates
- The text of your comment.

When you send comments to IBM®, you grant IBM a nonexclusive right to use or distribute the comments in any way appropriate without incurring any obligation to you.

IBM or any other organizations use the personal information that you supply to contact you only about the issues that you submit.

---

## If you have a technical problem

Do not use the feedback methods that are listed for sending comments. Instead, take one or more of the following actions:

- Visit the IBM Support Portal ([support.ibm.com](http://support.ibm.com)).
- Contact your IBM service representative.
- Call IBM technical support.



---

## Summary of changes

This information includes terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations for the current edition are indicated by a vertical line to the left of the change.

---

### Summary of changes, Version 2 Release 2 (V2R2) as updated October, 2016

Changes made to z/OS V2R2 as updated October, 2016

#### New

- “Address Space Memory panel (AS)” on page 135 panel is added. The Address Space Memory (AS) panel shows system storage utilization for all address spaces in the sysplex.
- “Dynamic Exits panel (DYNX)” on page 140 panel is added. The Dynamic Exits (DYNX) panel shows all of the dynamic exits in the sysplex, their status, and the modules that implement the exit.
- “Proclib panel (PROC)” on page 184 panel is added. The Proclib (PROC) panel shows the procedure libraries being used by JES. The PROC panel shows the procedure libraries for the local member only. This panel is available only in SDSF V2R2 and only when running JES2.

#### Changed

- “Job Class panel (JC)” on page 152 is updated to show the addition of the promotion rate column.
- “Search panel (SRCH)” on page 195 is updated to show support for the PROC panel.

---

### Summary of changes, Version 2 Release 2 (V2R2) as updated June, 2016

Changes made to z/OS V2R2 as updated June, 2016

#### New

- “z/OSMF considerations” on page 366 is updated to show the addition of the APF, LPA, LNK, PAG, PARM, and SYS pages.
- “Page panel (PAG)” on page 178 is updated to note that RMF and the RMF Monitor 1 tasks must be active in order to see rows on the PAG display.
- “Job Device panel (JD)” on page 158 and “Job Memory panel (JM)” on page 161 are updated to describe new SDSFAUX-based JD and JM panels.
- “Protecting jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260 is updated to describe the SDSFAUX-based Job Memory and Job Device panels.
- New custom properties have been added to ISFPRMxx to force the JM and JD panels to use the original implementation and not the SDSFAUX-based panels, as described in “PROPLIST syntax” on page 93

- The automatic start of SDSFAUX can be suppressed using special values on the CONNECT statement AUXPROC or AUXNAME keywords, as described in “Server connection (CONNECT)” on page 32.
- The following new messages have been added:
  - “HSF0028W” on page 535
  - “HSF0030W” on page 535
  - “HSF0078W” on page 538

### Changed

- “ISF452E” on page 559 is updated with a revised description.
- “ISF453I” on page 560 is updated with return and reason codes.
- Minor editorial updates have been made.

---

## Summary of changes, Version 2 Release 2 (V2R2) as updated April, 2016

Changes made to z/OS V2R2 as updated April, 2016

### New

- SDSF is now enhanced with the following new tabular panels:
  - ENQ (enqueues for each system in the sysplex)
  - SYM (system static and dynamic symbols for each system in the sysplex)
 You can sort, filter, and arrange columns on the new panels. Authorization is controlled using the existing SDSF security scheme, with new resources added to represent the panels. You can access these panels through SDSF, SDSF REXX, and the SDSF Java API.
- “Display Active Users panel (DA)” on page 137 is updated to show that the N action character invokes the ENQ panel as a secondary display to show all enqueues associated with the ASID for the row.
- New keywords and options have been added to the ISFPARMS GROUP statement function parameters.
 

The ISFPRM01 sample in ISF.SISFJCL has been updated accordingly, with every option specified with its default value.
- The following new messages have been added:
  - “ISF450I” on page 558
  - “ISF451I” on page 558
  - “ISF453I” on page 560

### Changed

- Table 181 on page 483 is updated to show runners for enqueues and system symbols.
- “Group function parameters reference” on page 39 is updated with additional group function parameters.
- “Command level 0” on page 75 is updated for the ENQ and SYM panels.
- “Command level 1” on page 76 is updated for the ENQ and SYM panels.
- “FLD and ISFFLD syntax” on page 87 is updated for the ENQ and SYM panels.
- “Protecting SDSF commands” on page 249 is updated for the ENQ and SYM panels.



- “Protecting system information” on page 319 is updated with new action characters for the ENQ, SYM, and SYS panels.
- “Tables of action characters” on page 225 is updated with new action characters for the ENQ, SYM, and SYS panels.
- “PROPLIST syntax” on page 93 is updated with new properties for ENQ and SYM.
- “ISF437I” on page 558 is updated with a revised description.
- “DATA NOT AVAIL system-name” on page 510 is updated with a revised description.
- “ISF452E” on page 559 is updated with return and reason codes.
- Minor editorial updates have been made.

---

## Summary of changes, Version 2 Release 2 (V2R2) as updated March, 2016

Changes made to z/OS V2R2 as updated March, 2016

### Changed

“Protecting SDSF commands” on page 249 and Table 89 on page 250, are updated to show that some commands (APF, LNK, LPA, PAG, PARM, and SYS) require use of the SDSFAUX address space, and that access to SDSFAUX is controlled through access to the ISF.CONNECT.sysname resource. The user must be permitted to this resource in addition to the resources that protect the individual commands.

“Summary of SAF resources for SDSF function” on page 206 is updated to reflect the connection to SDSFAUX, and the APF, LNK, LPA, PAG, PARM, and SYS resources.

Minor editorial updates have been made.

---

## Summary of changes, Version 2 Release 2 (V2R2) as updated December, 2015

Changes made to z/OS V2R2 as updated December, 2015

### New

- SDSF is now enhanced with a new address space called SDSFAUX that provides information about the systems in the sysplex and their system data sets. The information is shown on the following new tabular panels:
  - LNK (link list data sets)
  - LPA (link pack area data set list)
  - APF (authorized program facility data set list)
  - PAGE (page data sets)
  - PARM (parmlib data sets)
  - SYS (system information)

You can sort, filter, and arrange columns on the new panels. Authorization is controlled using the existing SDSF security scheme, with new resources added to represent the panels. You can access these panels through SDSF, SDSF REXX, and the SDSF Java API.

- A new SRCH (search) command allows you to locate members in the LNK, LPA, APF, and PARM data sets.

**Note:** The SRCH command provides a different capability from the SEARCH command. SRCH implements a member search using a data set list, whereas SEARCH searches the SDSF help and tutorial.

- New keywords and options have been added to the ISFPARMS GROUP statement function parameters.  
The ISFPRM01 sample in ISF.SISFJCL has been updated accordingly, with every option specified with its default value.
- The HSF component prefix is now used for parts and messages. Both ISF and HSF are registered to the SDSF product. The SMP/E packaging contains new elements that reference the HSF prefix.
- When SDSF trace is active, SDSFAUX tracing is also active. The trace records are written to the HSFTRACE data set allocated by the SDSFAUX address space.

### Changed

“Protecting action characters as separate resources” on page 224, which applies to the JD, JM and JY action characters, is updated to explain that access to the SDSF resources is checked only when access to the JESSPOOL resources has been denied.

---

## Summary of changes for z/OS Version 2 Release 2 (V2R2)

Changes are made for z/OS Version 2 Release 2 (V2R2)

### New

- Panels are added to show devices and memory used by a job, and reasons that a job might be delayed. For more information, refer to “Job Device panel” on page 7, “Job Memory panel” on page 8 and “Job Delay panel” on page 8.
- A Job Step panel lets you work with the steps for a job. In addition, a column for job step is added to the Job Data Set panel. For more information, refer to “Job Step panel” on page 9.
- A new Job Group panel shows information about JES2 job groups, that is, groups of jobs that are related with a relationship defined through JCL. A new Job Dependency panel shows dependencies between jobs in a group. In addition, columns related to job groups are added to the Input Queue and Status panels. For more information, refer to “Job Group panel” on page 9, “Job Dependency panel” on page 9 and “Column changes” on page 13.
- A SNAPSHOT command lets you display the data from a tabular panel (such as DA, or ST) in a browse or edit session. You might then use SDSF's Print function to print the data, or ISPF functions to copy it to a data set.
- You can issue a REXX exec against a row on a tabular panel, using an action character. For more information, refer to “REXX enhancements” on page 10.
- An RGEN command generates a REXX exec for the current panel and displays it with ISPF Edit. For more information, refer to “REXX enhancements” on page 10.

### Changed

- SDSF now allows some processing to be performed on a IBM z Integrated Information Processor (zIIP), if one has been configured.

- The System Command Extension pop-up now allows you to supply comments for commands and assign commands to groups. The number of commands saved between sessions is increased. Management of saved commands is enhanced.
- You can issue action characters and overtype fields from the command line. Refer to “Action characters and overtypeable fields from the command line” on page 12.
- The HASPINDEX data set is no longer used. For more information, refer to “HASPINDEX removal” on page 12.
- SDSF's REXX support now includes a COMPACT option, which results in panel data being returned in the SDSFROW stem variable, rather than in stem variables for each column. This can dramatically reduce the number of variables, and therefore the amount of storage, required to satisfy a request for a panel. Restrictions in SDSF's REXX support for action characters that access other panels have been removed, so that REXX execs may now include, for example, the ST action character on the JC and SE panels, to display the ST panel and the R action character on the SE panel, to display the RES panel. For more information, refer to “REXX enhancements” on page 10.

### Deleted

Several messages and ISFPARMS parameters related to HASPINDEX were removed from this information. For more information, refer to “HASPINDEX removal” on page 12.

---

## Summary of changes, Version 2 Release 1 (V2R1) as updated March, 2014

Changes made to z/OS V2R1 as updated March, 2014

### Changed

SDSF provides support for function in z/OSMF. For more information refer to “z/OSMF considerations” on page 366.

---

## z/OS Version 2 Release 1 summary of changes

See the following publications for all enhancements to z/OS Version 2 Release 1 (V2R1):

- *z/OS Migration*
- *z/OS Planning for Installation*
- *z/OS Summary of Message and Interface Changes*
- *z/OS Introduction and Release Guide*



---

## Chapter 1. Exploiting new functions

Migration information is in *z/OS Migration*. This topic contains information about exploiting new functions in this release. It describes changes to the security and customization of SDSF and is intended for system programmers. Information about using the new functions can be found in the What's New topic of SDSF's online help.

---

### z/OS V2R2 summary as updated October, 2016

The updates that were introduced to SDSF in z/OS V2R2 as updated October, 2016 are as follows:

- “AS panel”
- “DYNX panel”
- “PROC panel” on page 2

#### AS panel

The Address Space Memory (AS) panel shows system storage utilization for all address spaces in the sysplex. You display this panel with the AS action character.

#### Exploitation tasks

*Table 1. Exploitation tasks for the AS panel*

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the AS command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the ASFLDS and ASFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

#### DYNX panel

The Dynamic Exits (DYNX) panel shows all of the dynamic exits in the sysplex, their status, and the modules that implement the exit. You display this panel with the DYNX action character.

#### Exploitation tasks

*Table 2. Exploitation tasks for the DYNX panel*

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the DYNX command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249

Table 2. Exploitation tasks for the DYNX panel (continued)

Task	Reference Information
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypeable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the DYNXFLDS and DYNXFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## PROC panel

The Proclib (PROC) panel shows the procedure libraries being used by JES. This panel is available only in SDSF V2R2 and only when running JES2. You display this panel with the PROC action character.

### Exploitation tasks

Table 3. Exploitation tasks for the PROC panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the PROC command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypeable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the PROCFLDS and PROCFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## z/OS V2R2 summary as updated June, 2016

The updates that were introduced to SDSF in z/OS V2R2 as updated June 2016 are as follows for PTF UI90051, APAR PI60412:

- “z/OSMF considerations” on page 366 is updated to show the addition of the APF, LPA, LNK, PAG, PARM, and SYS pages. If z/OSMF was never installed, you should install it. If it has already been installed, review the security configuration to ensure that users have access to the new panels.
- The automatic start of SDSFAUX can be suppressed using special values on the CONNECT statement AUXPROC or AUXNAME keywords. See “Server connection (CONNECT)” on page 32 for information about exploiting this feature.
- See “Job Device panel (JD)” on page 158 and “Job Memory panel (JM)” on page 161 for information on exploiting the new SDSFAUX-based JD and JM panels.

## z/OS V2R2 summary as updated April, 2016

The updates that were introduced to SDSF in z/OS V2R2 as updated April 2016 are as follows:

- “Enqueue panel”
- “System Symbols panel”

### Enqueue panel

The Enqueue (ENQ) panel allows authorized users to display active system enqueues. The panel shows the major and minor names for the enqueue, as well as the job name waiting for or holding the enqueue. You display this panel with the ENQ action character. The ENQC command provides a convenient means of showing all enqueues with contention. That is, ENQC shows currently held enqueues that are required by another job.

#### Exploitation tasks

Table 4. Exploitation tasks for the ENQ panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the ENQ command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the ENQFLDS and ENQFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

### System Symbols panel

The System Symbols panel (SYM) allows authorized users to display the system dynamic and static symbols defined for each system in the sysplex. System symbols are elements that allow systems to share parmlib definitions while retaining unique values in those definitions. System symbols act like variables in a program; they can take on different values, based on the input to the program. You display this panel with the SYM action character.

#### Exploitation tasks

Table 5. Exploitation tasks for the SYM panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the SYM command with the ISFCMD.DSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35

Table 5. Exploitation tasks for the SYM panel (continued)

Task	Reference Information
Optionally, customize columns on the panel using the SYMFLDS and SYMFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## z/OS V2R2 summary as updated December, 2015

The updates that were introduced to SDSF in z/OS V2R2 as updated December 2015 are as follows:

- “Authorized program facility panel”
- “Link list panel”
- “Link pack area panel” on page 5
- “Page panel” on page 5
- “PARM panel” on page 6
- “SRCH panel” on page 6
- “System panel” on page 6

### Authorized program facility panel

The APF List (APF) panel allows authorized users to display the data sets in the APF list. You display this panel with the APF action character.

#### Exploitation tasks

Table 6. Exploitation tasks for the APF panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the APF command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the APFFLDS and APFFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

### Link list panel

The link list (LNK) panel allows authorized users to display the data sets in the link list. You display this panel with the LNK action character.

#### Exploitation tasks

Table 7. Exploitation tasks for the LNK panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110



Table 7. Exploitation tasks for the LNK panel (continued)

Task	Reference Information
Control use of the LNK command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the LNKFLDS and LNKFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## Link pack area panel

The link pack area (LPA) panel allows authorized users to display the link pack area data sets. You display this panel with the LPA action character.

### Exploitation tasks

Table 8. Exploitation tasks for the LPA panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the LPA command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the LPAFLDS and LPAFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## Page panel

The page (PAG) panel allows authorized users to display the page data sets. You display this panel with the PAG action character.

### Exploitation tasks

Table 9. Exploitation tasks for the PAG panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the PAG command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the PAGFLDS and PAGFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## PARM panel

The PARMLIB (PARM) panel allows authorized users to display the data sets in the PARM concatenation. You display this panel with the PARM action character.

### Exploitation tasks

Table 10. Exploitation tasks for the PARM panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the PARM command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the PARMFLDS and PARMFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## SRCH panel

The SRCH panel shows the results of a member search from a data set list. You display this panel with the SRCH action character from the LNK, LPA, APF, or PARM panels.

**Note:** The SRCH command provides a different capability from the SEARCH command. SRCH implements a member search using a data set list, whereas SEARCH searches the SDSF help and tutorial.

### Exploitation tasks

Table 11. Exploitation tasks for the SRCH panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the SRCHFLDS and SRCHFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## System panel

The System Panel (SYS) allows authorized users to display information about systems in the sysplex, such as CPU busy, storage utilization, and IPL information. You display this panel with the SYS action character.

## Exploitation tasks

Table 12. Exploitation tasks for the SYS panel

Task	Reference Information
Ensure that the SDSF server and SDSFAUX address space are started.	“Starting the SDSFAUX server” on page 110
Control use of the SYS command with the ISFCMD.ODSP.xxx resources	“Protecting SDSF commands” on page 249
Control use of the action characters using SAF or the CMDLEV parameter in ISFPARMS	“Action characters and overtypeable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel using the SYSFLDS and SYSFLD2 parameters and FLD statements in ISFPARMS	“FLD and ISFFLD syntax” on page 87

## z/OS V2R2 summary

The updates that were introduced to SDSF in z/OS V2R2 are as follows:

- “Job Device panel”
- “Job Memory panel” on page 8
- “Job Delay panel” on page 8
- “Job Step panel” on page 9
- “Job Group panel” on page 9
- “Job Dependency panel” on page 9
- “REXX enhancements” on page 10
- “System command enhancements” on page 11
- “Saving and printing tabular data” on page 11
- “Action characters and overtypeable fields from the command line” on page 12
- “HASPINDEX removal” on page 12
- “Column changes” on page 13
- “Exploit an IBM z Integrated Information Processor (zIIP)” on page 13

## Job Device panel

The Job Device panel let you see information about devices being used by a job. You display this panel with the JD action character on the AS, DA, I, INIT, NS and ST panels.

## Exploitation tasks

Table 13. Exploitation tasks for the Job Device panel

Task	Reference Information
Control use of the JD action character with the ISFDISP.DEVICES.userid.jobname resource in the SDSF class. For security defined with ISFPARMS, the JD action character is command level 0.	“Action characters” on page 223 or “Group function parameters reference” on page 39
Control use of action characters on the Job Device panel using SAF or the CMDLEV parameter in ISFPARMS.	“Action characters and overtypeable fields for each command level” on page 74 or “Group function” on page 35

Table 13. Exploitation tasks for the Job Device panel (continued)

Task	Reference Information
Optionally, customize columns on the panel for your installation using the JDDFLDS and JDDFLD2 parameters and FLD statements in ISFPARMS.	“Variable field lists (FLD or ISFFLD)” on page 86

## Job Memory panel

The Job Memory panel let you view the system memory being used by a job. You display this panel with the JM action character on the AS, DA, I, INIT, NS and ST panels.

### Exploitation tasks

Table 14. Exploitation tasks for the Job Memory panel

Task	Reference Information
Control use of the JM action character with the ISFDISP.STORAGE.userid.jobname resource in the SDSF class. For security defined with ISFPARMS, the JM action character is command level 0.	“Action characters” on page 223 or “Group function parameters reference” on page 39
Optionally, customize columns on the panel for your installation using the JDMFLDS and JDMFLD2 parameters and FLD statements in ISFPARMS.	“Variable field lists (FLD or ISFFLD)” on page 86

## Job Delay panel

The Job Delay panel let you display reasons that a job might be delayed. You display this panel with the JY action character on the DA panel.

### Exploitation tasks

Table 15. Exploitation tasks for the Job Delay panel

Task	Reference Information
Give users authority to the RMF service that SDSF uses to collect data for the panel. RMF protects the service with SAF profiles in the FACILITY class, ERBSDS.MON3DATA and ERBSDS.MON3EXIT.ISFRMFXY. Note that if the generic profile ERBSDS.* already exists, for SDSF's use of RMF for the DA panel, that profile also applies to the Job Delay panel.  For the RMF service to be available, RMF Monitor III must be started.	“RMF considerations” on page 360
Control use of the JY action character with the ISFDISP.DELAYS.userid.jobname resource in the SDSF class. For security defined with ISFPARMS, the JY action character is command level 0.	“Action characters” on page 223 or “Group function parameters reference” on page 39

Table 15. Exploitation tasks for the Job Delay panel (continued)

Task	Reference Information
Optionally, customize columns on the panel for your installation using the JDYFLDS and JDYFLD2 parameters and FLD statements in ISFPARMS.	“Variable field lists (FLD or ISFFLD)” on page 86

## Job Step panel

The Job Step panel let you view the steps for a job. You display this panel with the JS action character on the DA, H, I, O and ST panels.

In addition, a StepNum column is added to the Job Data Set panel.

### Exploitation tasks

Table 16. Exploitation tasks for the Job Step panel

Task	Reference Information
Access to the Job Step panel with the JS action character is protected by JESSPOOL resources for the JES EVENTLOG, which SDSF uses to obtain job step information. For security defined with ISFPARMS, the JS action character is command level 0.	“Action characters” on page 223, “Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260, and “Group function parameters reference” on page 39
Optionally, customize columns on the JS and JDS panels for your installation using the JSFLDS and JSFLD2 parameters and FLD statements in ISFPARMS.	“Variable field lists (FLD or ISFFLD)” on page 86

## Job Group panel

The Job Group panel lets you display information about JES2 job groups, or execution zones, which are created when JCL is submitted that describes a relationship between a set of jobs. Access the Job Group panel with the JG command.

### Exploitation tasks

Table 17. Exploitation tasks for the Job Group panel

Task	Reference Information
Control use of the JG command using SAF or the AUTH parameter in ISFPARMS.	“Authorized SDSF commands” on page 249, “Group function” on page 35
Control use of action characters on the Job Group panel using SAF or the CMDLEV parameter in ISFPARMS.	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel for your installation using the JGFLDS and JGFLD2 parameters and FLD statements in ISFPARMS.	“Variable field lists (FLD or ISFFLD)” on page 86

## Job Dependency panel

The Job Dependency panel lets you view:

- For a selected job group, all of the dependencies within the group

- For a selected job:
  - Jobs that it is dependent on
  - Jobs that have dependencies on it.

Access the Job Dependency panel with the JP action character from the JG panel (job groups) and the I and ST panels (jobs).

## Exploitation tasks

Table 18. Exploitation tasks for the Job Dependency panel

Task	Reference Information
Control use of the JP action character using SAF or the AUTH parameter in ISFPARMS.	“Action characters and overtypable fields for each command level” on page 74 or “Group function” on page 35
Optionally, customize columns on the panel for your installation using the JDPFLDS and JDPFLD2 parameters and FLD statements in ISFPARMS.	“Variable field lists (FLD or ISFFLD)” on page 86

## REXX enhancements

SDSF adds several enhancements to the REXX support.

- You can now invoke a REXX exec with the % action character, when SDSF is running under ISPF. This allows you to create a customized action character that performs a desired function against a row on a tabular panel.

The syntax of the % action character is:

`%(exec-name user-arguments)`

All execs are passed a fixed set of arguments identifying the panel and row. You specify additional arguments as needed.

- A new RGEN command generates a REXX exec for the current panel and displays it with ISPF Edit. From there, you might use the CREATE command to copy it to a data set. The exec includes ISFEXEC and ISFACT statements for accessing the panel, and special variables as appropriate, such as those for filtering.
- A new COMPACT option on the ISFACT, ISFEXEC, and ISFGET commands causes data for an entire row to be returned in a new SDSFROW stem variable, rather than in a separate stem variable for each column. This can dramatically reduce the number of variables, and therefore the amount of storage, required to satisfy a request for a panel.
- Restrictions in SDSF's REXX support for action characters that access other panels have been removed, so that REXX execs may now include, for example, the ST action character on the JC and SE panels, to display the ST panel and the R action character on the SE panel, to display the RES panel.
- When you access a panel with an action character, you can use new special variables that use a prefix to ensure that the variables are unique.

## Exploitation tasks

When using the % action character, to allow the exec name and any arguments to fit in the NP column, you might first expand the NP column with the:

- `+n` action character, where *n* is a number from 4 through 20. This change is temporary.
- ARRANGE command or pop-up. This change is saved under ISPF.

Alternatively, you can type the % action character by itself, or add a trailing +, to display a pop-up on which you can supply the exec name and arguments. The pop-up requires ISPF.

The exec must be in a data set that is allocated to DDNAME SYSEXEC or SYSPROC.

When adding the COMPACT option to ISFEXEC, ISFACT or ISFGET statements, use the SDSFROW, ISFCOLS, SDSFCOLSTART, SDSFCOLLEN and SDSFCOLCOUNT variables to access the data. If you are modifying an existing exec, replace the use of variables for individual columns with the new variables. For details, refer to “Panel data returned” on page 398. You should also ensure that the exec didn't already use variable names SDSFCOLSTART and SDSFCOLLEN, and make any changes if necessary.

Add the newly supported action characters to REXX execs as desired. To ensure that the special variables created for the panels are unique, use the PREFIX option on the ISFACT statement, and use new variables with names beginning with SDSF, such as SDSFICOLS and SDSFTITLES. For more information, refer to “Special variables for secondary panels” on page 409.

For more information about using REXX with SDSF, refer to Chapter 13, “Using SDSF with the REXX programming language,” on page 391.

## System command enhancements

Using the System Command Extension pop-up, you can assign system commands to groups and add comments to describe them. New pop-ups, filtering and sorting help you work with saved commands. The size of the pop-up now reflects the screen size of your emulator session. The number of commands saved in the ISPF profile has been increased, and if you allocate ISPF table library ISFTABL, the number is increased further.

### Exploitation tasks

For compatibility, commands stored with prior releases of SDSF are imported into z/OS V2R2 SDSF as ungrouped, that is, not belonging to any group.

To use the ISPF table data set to allow more commands to be stored across sessions, refer to “Storing MVS and JES commands” on page 359.

For information about using the / command to issue system commands, refer to the SDSF online help.

You can use the PROPERTY statement in ISFPARMS to control how many commands are stored between sessions under ISPF, and whether the size of the System Command Extension pop-up varies with the screen size of the emulator session. For more information, see the Command.SLASH.CommandLimit and Command.SLASH.NoDynamicPanels properties in “PROPLIST syntax” on page 93.

## Saving and printing tabular data

The SNAPSHOT command lets you display the data that is displayed on a tabular panel (such as DA or ST) with SDSF's browse function or with ISPF Browse or Edit. You might then print the data using SDSF's Print function, or use ISPF's CREATE command to copy the data to a data set.

## Exploitation tasks

There are no exploitation tasks for this enhancement. For information on using SNAPSHOT, refer to the SDSF online help.

## Action characters and overtypeable fields from the command line

You can issue action characters against rows on a tabular panel from the command line, and overwrite the values in columns from the command line. This provides a quick alternative to typing action characters in the NP column or overtyping columns in the table. The syntax for action characters from the command line is:

```
rows action-character
```

where *rows* can be one or more row numbers or ranges of row numbers. For overtyping fields from the command line, the syntax is:

```
rows column-title=value
```

Display row numbers with the SET ROWNUM ON command.

## Exploitation tasks

There are no exploitation tasks for this enhancement. There is no change to security when action characters are issued or fields are overtyped from the command line rather than in the tables.

For more information refer to the SDSF online help.

## HASPINDEX removal

The HASPINDEX data set is no longer used. Previously, SDSF used it to manage SYSLOG data sets that were created on z/OS systems prior to z/OS V1R11.

## Exploitation tasks

No actions are required to exploit this change. You can delete the HASPINDEX data set. If you are sharing the HASPINDEX data set between systems, delete the data set when all systems that share it are at the z/OS V2R2 level.

You can delete the related parameters from ISFPARMS. If those parameters are present in ISFPARMS, SDSF ignores them but issues a message. The parameters are:

- IDBLKS
- INDEX
- INDXVOL
- NIDBUF.

You may also want to remove any allocations of file HASPINDEX from logon procedures or initial CLISTS.

For more information, refer to “OPTIONS or ISFPMAC reference” on page 23.

Custom property Log.Syslog.UseHaspIndx, which was used to force the use of the HASPINDEX-based SYSLOG, is now obsolete and is ignored. You can remove it from ISFPARMS.

Messages related to the HASPINDEX data set are no longer issued.



## Column changes

Columns are added to the SDSF panels. They are described in Table 19.

Table 19. New Columns on the SDSF Panels.

Panel	Column Name	Title (Displayed)	Width	Description
I, ST	ASID	ASID	5	ASID of the active job
I, ST	ASIDX	ASID	5	ASID of the active job, in hexadecimal
I, ST	FLUSHACT	FlushAct	8	Flush action indicator (JES2 only)
I, ST	HOLDUNTIL	HoldUntil	19	HOLDUNTIL date and time (JES2 only)
I, ST	JGSTATUS	JGStatus	8	Status of the job within the dependency network (JES2 only)
I, ST	JOBGROUP	JobGroup	8	Name of the job group associated with job (JES2 only)
I, ST	JOBGRPID	JobGrpId	8	JES2 job group job ID
I, ST	JOBSET	JobSet	8	Job set within the job group to which this job belongs (JES2 only)
I, ST	STARTBY	StartBy	19	STARTBY date and time (JES2 only)
JDS	ODISP	ODisp	5	JES output disposition (JES3 only)
I, ST	SYSNAME	SysName	8	MVS system name where the job is executing
JC	SYSSYM	SysSym	8	Indicates if system symbols are allowed in batch jobs. Now available for JES3.
I, ST	WITH	With	8	Name of the job or started task that the job must run with (on the same system) (JES2 only)
ENC	USERID	UserID	8	User ID associated with the request

The ODisp column on the H and O panels is no longer JES2-only.

### Exploitation tasks

If you have customized field lists for the panels that are affected by this enhancement, you may want to update your field lists to reflect the changes to columns. For more information, refer to “Variable field lists (FLD or ISFFLD)” on page 86.

If you have REXX execs that work with the I and ST panels, you may want to update them for these columns. For example, you may want to modify the ISFCOLS special variable to include these columns.

## Exploit an IBM z Integrated Information Processor (zIIP)

SDSF now allows some processing to be performed on a zIIP, if one has been configured.

### Exploitation tasks

If a zIIP has been configured, there are no exploitation tasks for this enhancement.



---

## Chapter 2. Using ISFPARMS for customization and security

This topic describes SDSF's internal parameters, ISFPARMS, and explains how to use ISFPARMS to customize SDSF and provide security for SDSF.

---

### ISFPARMS overview

ISFPARMS defines global and group options and the format of the panels. The options include things like the name of the JES subsystem to process, what generic and wildcard characters to allow in SDSF commands, and whether to display the action bar on SDSF panels. The format of the panels includes the order and titles of the columns.

In a JES2 environment, ISFPARMS can also be used to provide security for SDSF functions, though SAF, which provides better granularity and auditability, is the recommended method. When you use SAF for user authorization, you need ISFPARMS only to define your global and group options. You might also use ISFPARMS as a backup to SAF. Using SAF for security is described in Chapter 5, “Using SAF for security,” on page 203.

In a JES3 environment, SDSF function can be protected only with SAF.

You can further customize authorization with an installation exit routine, as described in Chapter 9, “Using installation exit routines,” on page 345.

### ISFPARMS format alternatives

SDSF provides two alternatives for ISFPARMS:

- Assembler macros that you define, assemble, and then link into the SDSF load library. This is the original format for defining ISFPARMS, and it continues to be supported for compatibility in the JES2 environment. However, some functions, such as conditional processing and defining a server group for sysplex support, are not available using this format, and it is not supported in the JES3 environment.
- The ISFPRM $xx$  member of PARMLIB. This is the **recommended format**. The statements in ISFPRM $xx$  are easier to define and are more dynamic than the assembler macros: they can be updated without reassembling or link-editing. For a JES3 environment, you must use the ISFPRM $xx$  member.

The statements in ISFPRM $xx$  are processed by an SDSF server, which is controlled by MVS operator commands. The server and associated commands are described in detail in Chapter 3, “Using the SDSF server,” on page 109.

SDSF provides a utility for converting ISFPARMS assembler macros to ISFPRM $xx$  statements. See “Converting ISFPARMS assembler macros to statements” on page 17.

In some cases, SDSF may revert from processing ISFPRM $xx$  to the ISFPARMS defined with assembler macros. This is described in “Reverting to the ISFPARMS defined with assembler macros” on page 17.

For simplicity, this information refers to both the assembler macro ISFPARMS and PARMLIB member ISFPRM $xx$  as ISFPARMS.

To assist you in defining your ISFPARMS, SDSF provides sample ISFPRMxx members as well as a sample ISFPARMS defined with assembler macros. You can modify the appropriate sample to meet the needs of your installation.

The statements and corresponding assembler macros that make up ISFPARMS are summarized in Table 20.

Table 20. Summary of ISFPARMS Statements and Macros

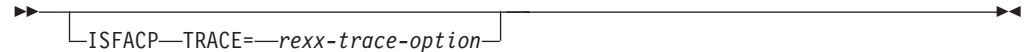
Statement	Assembler Macro	Required	Description	Refer to
OPTIONS	ISFPMAC	Assembler only	Specifies global SDSF initialization parameters.	"Global initialization parameters (OPTIONS or ISFPMAC)" on page 22
SERVERGROUP + SERVER + COMM	Not available	For sysplex data only	Defines the group of servers that provide sysplex data, and the communication between servers, when using WebSphere MQ. Used only in a JES2 environment.	"Server group definition parameters (SERVERGROUP, SERVER, COMM)" on page 28
CONNECT	Not available	No	Defines server connection properties, SDSFAUX options, and the XCF application server name.	"CONNECT statement" on page 33
GROUP	ISFGRP	No	Defines a group of users and the SDSF functions that will be available to a member of the group. Also includes initialization parameters.  You can use SAF along with your group definitions to control membership and authorization.	"Group authorization parameters (GROUP or ISFGRP)" on page 34
FLD + FLDENT	ISFFLD	No	Customizes the fields shown on an SDSF primary or alternate panel for members of a group. Associated with an ISFGRP macro or GROUP statement.	"Variable field lists (FLD or ISFFLD)" on page 86
NTBL + NTBLENT	ISFNTBL	No	Specifies such things as user IDs, job names, and destination names to further qualify group membership and authority. Associated with an ISFGRP macro or GROUP statement.	"Name tables (NTBL or ISFNTBL)" on page 91
PROPLIST + PROPERTY	Not available	No	Specifies a property to customize. Provides an alternative to a user exit routine. Associated with a GROUP statement.	"Customized properties (PROPLIST)" on page 93
TRTAB + TRDEF	ISFTR	Assembler only	Specifies the code page that SDSF uses for members of the group. Associated with an ISFGRP macro or GROUP statement.	"Code page (TRTAB/TRDEF or ISFTR)" on page 103
WHEN	Not available	No	Provides conditional processing of statements	"Conditional processing" on page 20

---

## Converting ISFPARMS assembler macros to statements

If you already have defined ISFPARMS with the assembler macros, you can use a conversion utility provided by SDSF to convert them to the statement format used in ISFPRMxx. The utility displays a panel on which you type the names of the input data set (ISFPARMS assembler macros) and output data set (statements), as well as the assembler macro library you use when assembling SDSF. You invoke the utility by typing the ISFACP command on the ISPF command line.

The syntax of the ISFACP command is shown below:



```
ISFACP—TRACE=—rexx-trace-option—
```

Because the macros in ISFPARMS can be coded in different ways, the conversion may not be exact. You may need to make corrections to the generated statements.

The conversion utility processes only SDSF macros. For the utility to resolve macro labels to names, the labels must be on the same line as the macros. The conversion utility will attempt to add the labels if it recognizes common coding conventions, such as a label defined with a DS 0H, DS 0F, or EQU \* immediately preceding an SDSF macro.

---

## Reverting to the ISFPARMS defined with assembler macros

SDSF is connected to the SDSF server during SDSF initialization, and uses the server to process the ISFPARMS defined with statements. However, if the server is not active or if no statements are in effect, SDSF reverts to the ISFPARMS defined with the assembler macros.

If you have migrated to an ISFPARMS defined with statements, you may want to restrict or prevent SDSF from reverting to the ISFPARMS defined with assembler macros. You can do this by:

- Defining SAF profiles for the SERVER.NOPARM resource in the SDSF class. This profile is checked when the required server is not active or when no ISFPARMS statements are in effect. If the user has READ access to the profile (or if SAF returns an indeterminate response) SDSF reverts to the ISFPARMS in assembler macro format.

If the user does not have access to the profile, SDSF does not revert to the assembler macros and the user is not authorized to SDSF.

- Coding only one ISFGRP macro, for system programmers, so that only those users can access SDSF when the server is not available.
- Coding no ISFGRP macros. In that case, users cannot be assigned to a group, and so they cannot access SDSF.

For information about defining the ISFGRP macro, see “Group authorization parameters (GROUP or ISFGRP)” on page 34.

Note that if you code the SERVER parameter in the assembler ISFPARMS, SDSF will use it to define the default SDSF server. All other parameters will be taken from the ISFPARMS statements processed by the server.

---

## Samples

SDSF supplies the following samples in the AISFJCL library:

- ISFPRM00, which is an ISFPARMS in statement format that matches SDSF's sample ISFPARMS in assembler macro format
- ISFPRM01, which is the same as ISFPRM00 with the addition of field lists for the tabular displays.

A sample ISFPARMS module in assembler macro format for the JES2 environment is provided in member ISFPARMS of the data set ISF.SISFSRC1, with the JES2 feature. The ISFPARMS sample provides security with ISFPARMS parameters only. Sample ISFPARMS parameters in conjunction with SAF profiles are shown in "Examples of RACF security for SDSF groups" on page 328.

---

## Auditing ISFPARMS

When you use the statement format of ISFPARMS, SDSF provides an audit trail of all statements that have been processed. The statements and any associated error messages are written to a log file that you allocate in the server JCL.

---

## Diagnosing security

SDSF's security trace function helps you understand and diagnose SDSF security (SAF or ISFPARMS). In response to the actions that you take, such as issuing commands or overtyping columns, it issues messages that describe the associated SAF resources or ISFPARMS statements. You control security trace with commands, REXX variable or Java methods.

- With the SET SECTRACE command, you turn security tracing on and specify how the associated messages are handled.
  - SET SECTRACE ON causes the trace messages to be sent to the ULOG.
  - SET SECTRACE WTP causes the messages to be issued as write-to-programmer messages. Use this if security prevents you from accessing SDSF or the user log.
- With the SECTRACE option on the SDSF command, you can turn security tracing on as soon as you access SDSF.
- When SDSF SECTRACE is active, SDSFAUX SECTRACE is also activated. SDSFAUX uses SECTRACE to record the results of security calls for diagnosis.
- With the ISFSECTRACE REXX special variable, you can control security tracing from a REXX exec.
- With ISFRequestSettings methods addISFSecTrace and removeISFSecTrace, you can control security tracing from a Java program.

For more information about the commands, refer to the online help. You could use the SEARCH command, for example, SEARCH SET SECTRACE. For more information about the REXX special variable, refer to Chapter 13, "Using SDSF with the REXX programming language," on page 391. For more information about Java, refer to Chapter 14, "Using SDSF with the Java programming language," on page 477.

---

## Rules for coding ISFPARMS

This section describes the rules for syntax and implementation of ISFPARMS.

## Statements

Enter statements as card images in a data set that you create with any editor. The data set is identified to the SDSF server through the server startup JCL.

The ISFPARMS statements use a *keyword(value)* format. For example, a GROUP statement might look like this:

```
GROUP TSOAUTH(JCL,OPER,ACCT),  
      AUTH(LOG,I,O,H,DA,INIT,PR,LI,NO,DEST)
```

The complete set of rules for specifying ISFPARMS statements follows.

### General rules for coding statements

- A statement is 80 characters long. Use columns 1 through 72 for the statement; columns 73 through 80 are ignored.
- A statement can span any number of lines. To indicate that the statement continues on the next line, use a trailing comma.
- Enclose comments in a */\*\*/* pair, for example, */\* comment \*/*. You can include comments anywhere in a record that a blank is valid. A comment cannot span lines; it must be closed on the line on which it begins.
- When you use a trailing comma to continue a statement, the only thing that can follow the comma on that line is a comment.
- Completely blank lines (in columns 1 through 72) are ignored; you can intersperse them freely with statements.

### Rules for statement types, keywords, and values

The exact syntax of each of the statements is defined in the remainder of this topic. However, the following general rules apply to the statements and their keywords:

- Parameters must be separated from one another by a comma or a blank. Any number of blanks may appear between keywords, values, and commas, and parentheses.
- Each statement must have at least one keyword on the same line.
- Values are translated to uppercase. If the value contains embedded blanks or is case-sensitive, enclose it in single quotes.
- Parameters can be in any order in a statement.
- Statements can appear in any order; however, FLDENT statements must appear after an FLD statement and NTBLENT statements must appear after an NTBL statement.
- To specify a value of blanks, enclose one or more blanks in single quotation marks, for example, ' '.

#### Duplicate statements:

In general, when SDSF encounters a duplicate statement, it uses the values from the last statement. However, duplicate FLDENT and NTBLENT statements are processed multiple times. For example, a duplicate field appears twice in the list.

## Assembler macros

Code the ISFPARMS module according to standard MVS assembler language rules. The macros use a *keyword=value* format. In addition,

- The ISFPMAC macro must be the first macro in ISFPARMS, and only one ISFPMAC macro may be coded.
- The ISFGRP macros must be coded second, after the ISFPMAC macro and before any ISFNTBL, ISFFLD, and ISFTR macros.

- At least one ISFTR macro must be included.

After coding the ISFPARMS module, assemble and link-edit it. ISFPARMS must be reentrant. You can use the SMP/E procedure described in Chapter 10, “Installation and configuration considerations,” on page 355.

---

## Conditional processing

To facilitate using a common ISFPARMS for multiple systems, SDSF provides support for:

- A WHEN statement that allows you to identify statements that apply to a particular system
- System symbols in the ISFPARMS statements.

Conditional processing is available only with the statement format of ISFPARMS. It is not available with the assembler format of ISFPARMS.

Note that, even with conditional processing, if you want to use a common ISFPARMS with different levels of SDSF, you must ensure that the ISFPARMS does not include support (such as new keywords or values) that was introduced in the higher level of SDSF.

### WHEN Statement

The WHEN statement can be used to conditionally process an entire ISFPARMS statement (OPTIONS, GROUP, and so on). The WHEN statement specifies one or more conditions which are compared to the current environment. All of the conditions must be true for the statements that follow to be processed.

In processing a WHEN statement, SDSF checks each of the values against the current system. If all values match the current system, the statements that follow the WHEN statement are processed until the next WHEN is encountered, or until the end of the file is reached. If any of the values do not match the current system, the statements that follow the WHEN statement are checked for syntax but not processed, until the next WHEN is encountered.

The WHEN statement cannot be used to conditionally process a single parameter within a statement. For example, use WHEN to conditionally process an entire OPTIONS statement with all of its parameters, not to conditionally process just the TIMEOUT parameter of OPTIONS. This means that if even a few parameters in a statement vary between systems, multiple versions of the statement may be required. (System symbols, described in “System symbols” on page 22, can be used to replace the value for a single parameter.)

Messages logged by the server indicate which initialization statements are being processed.

WHEN and all of its parameters are optional. WHEN with no parameters causes the statements that follow (until the next WHEN) to be selected; this can be used to end a preceding WHEN.

The parameters are in the format *keyword(value)*. The value for *value* can be any text string, including standard pattern matching characters:

- \*, which represents any string of characters
- %, which represents any single character.



The SYMBOL keyword lets you specify an expression for the value.

## WHEN parameters

The parameters that describe the processing conditions are described below.

Parameter	Description
LPARNAME( <i>lpar-name</i> )	Name of the LPAR
SYSNAME ( <i>system-name</i> )	Name of the system
SYSPLEX ( <i>sysplex-name</i> )	Name of the sysplex
HWNAME ( <i>processor-name</i> )	Name of the CPC
VMUSERID ( <i>vm-userid</i> )	User ID of a VM system under which MVS is running
SERVER ( <i>sdsf-server-name</i> )	Name of the SDSF server
SYMBOL( <i>expression</i> )	Evaluate an expression using one or more symbols

LPARNAME (*lpar-name*)

Names a logical partition that is defined to a processor, which is one of the following: the partition name specified on the 'add partition' panel in HCD, or the partition name specified on the resource or chpid statement that is input to the I/O configuration program (IOCP). Specify a value of ' ' (one or more blanks enclosed by single quotation marks) to indicate a processor that is not initialized in lpar mode.

SYSNAME (*system-name*)

Specifies the name assigned to an MVS system.

SYSPLEX (*sysplex-name*)

Names the sysplex this MVS system is in.

HWNAME (*processor-name*)

Names the central processor complex (CPC) as defined to HCD. Note: specify a value of ' ' (one or more blanks enclosed by single quotation marks) to indicate a processor with no name.

VMUSERID (*vm-userid*)

Specifies the user ID of a VM system under which MVS is running as a guest. Specify a value of ' ' (one or more blanks enclosed by single quotation marks) to indicate a system not running as a guest under VM.

SERVER (*sdsf-server-name*)

Names the SDSF server processing the statements.

SYMBOL (*expression*)

Checks for a value for any system static symbol. These are defined in the IEASYMxx parmlib member.

The format is WHEN SYMBOL(*x*= | ^=*y*,...) where the operands *x* and *y* can be either strings or symbols. The comparison is either equal or not equal. A symbol is expressed as &*name*. The operands can be specified in either order (for example, &SYSNAME=SYS1 or SYS1=&SYSNAME). If an operand does not evaluate to a symbol, the string is checked as is.

For the "equal" condition, the strings must match in length and content. Strings are case sensitive. To specify a "not equal" condition, use ^=, /= or \=.

You can specify any number of conditions, separated by a comma; all must be true for the statement to be accepted.

You can combine the SYMBOL keyword with any other WHEN keyword; all keywords must evaluate to true to be accepted.

If more than one SYMBOL keyword is present, the last one replaces any prior ones regardless of the previous conditions that were processed (that is, conditions cannot be replaced individually).

#### **Examples of the WHEN statement:**

1. WHEN SYMBOL(&SYSNAME ^=SY1)  
This is accepted when the value of symbol SYSNAME is not equal to SY1. Note that this will also be accepted if SYSNAME is not a defined symbol, as the character string &SYSNAME is not equal to the string SY1.
2. WHEN SYMBOL(&SYSNAME=SY1, &SYSPLEX=PLEX1)  
This is accepted when the value of symbol SYSNAME is equal to SY1, and the value of symbol SYSPLEX is equal to PLEX1.
3. WHEN SYMBOL(&SYSPLEX=PLEX1) SYSNAME(SY1)  
This example shows a WHEN with two conditions, one of which uses a symbol. This WHEN is accepted when the value of the symbol SYSPLEX is PLEX1 and the sysname is SY1.

## **System symbols**

Statements can include system symbols for keyword values. Symbols in ISFPARMS are identified by an initial ampersand (&). They also have an ending period, though the period is required only if omitting it would cause ambiguity. It is required if the character that follows is a period.

System symbols are not supported in the assembler macro format of ISFPARMS.

For example, the MENUS data set name may vary by system. A system symbol can be used to substitute the data set name when ISFPARMS is processed. To define the MENUS data set, you might use:

```
MENUS(&SYSPFX..ISF.SISFPLIB)
```

where &SYSPFX is a symbol for the system name. When ISFPARMS is processed, the system name is substituted for &SYSPFX, resulting in a MENUS data set name that is correct for the system. Note that in this example, the ending period for &SYSPFX. is required, so that the period used to separate data set qualifiers is preserved. The server initialization log will show the actual value used when the statement was processed.

---

## **Global initialization parameters (OPTIONS or ISFPMAC)**

The OPTIONS statement or ISFPMAC macro specifies the global initialization parameters for SDSF.

In ISFPARMS assembler macros, ISFPMAC must be the first macro, and there can be only one ISFPMAC macro.

## Example of the OPTIONS statement and ISFPMAC macro

OPTIONS Statement		ISFPMAC Macro	
<b>1</b>	OPTIONS SYSOUT(A),	<b>1</b>	ISFPMAC SYSOUT=A,
<b>2</b>	LINECNT(55),	<b>2</b>	LINECNT=55,
<b>3</b>	MENUS(ISF.SISFPLIB),	<b>3</b>	MENUS='ISF.SISFPLIB',
<b>4</b>	FINDLIM(100000),SCRSIZE(3440),	<b>4</b>	FINDLIM=100000,SCRSIZE=3440,
<b>5</b>	SCHARS('*%'),DCHAR('?'),TRACE(C000)	<b>5</b>	SCHARS=*%,DCHAR=?,TRACE=C000

On line **1**, the SYSOUT parameter specifies the default SYSOUT class for the SDSF PRINT command.

On line **2**, the LINECNT parameter specifies 55 lines per page of printed output when using the PRINT command to print portions of the system log or output data sets.

On line **3**, the MENUS parameter specifies that the name of the SDSF help panel data set is ISF.SISFPLIB.

**Note:** This parameter applies only when SDSF is running under TSO or as a TMP. It is not used when SDSF is running as an ISPF dialog.

On line **4**, the FINDLIM parameter specifies that the FIND command will search up to 100,000 lines on a single pass before displaying the number of lines searched. In the above example, the SCRFSIZE parameter specifies that the maximum screen size on which SDSF will be used is 3440 characters.

On line **5**, the SCHARS parameter specifies the search character used for PREFIX and OWNER pattern matching. The DCHAR parameter specifies the display query character. The TRACE parameter specifies the events you wish to trace with the TRACE facility.

## OPTIONS or ISFPMAC reference

The parameters that can be coded in the OPTIONS statement or ISFPMAC macro are show below. Defaults are underlined.

OPTIONS	ISFPMAC	Description
ADMSYMBL ( <i>symbol-sets-dsn</i> )	ADMSYMBL= <i>symbol-sets-dsn</i>	GDDM symbols
ATHOPEN ( <u>YES</u> )   (NO)	ATHOPEN= <u>YES</u>   NO	Obsolete and ignored.
DCHAR ('?')   ( <i>'query-char'</i> )	DCHAR=?   <i>query-char</i>	Query character
DSI ( <u>NO</u> )   (YES)	DSI= <u>NO</u>   YES	Data set integrity enqueue
FINDLIM ( <u>5000</u> )   ( <i>lines-searched</i> )	FINDLIM= <u>5000</u>   <i>lines-searched</i>	Lines searched by FIND
JESNAME ( <i>user-JES2-name</i> )   ( <i>JES2-name</i> )	JESNAME= <i>user-JES2-name</i>   <i>JES2-name</i>	Name of the JES2 subsystem that is processed
JES3NAME ( <i>user-JES3-name</i> )   ( <i>JES3-name</i> )	Not available	Name of the JES3 subsystem that is processed
LINECNT ( <u>55</u> )   ( <i>lines</i> )	LINECNT= <u>55</u>   <i>lines-per-page</i>	Lines per page
LOGLIM ( <u>0</u> )   ( <i>hours-searched</i> )	LOGLIM= <u>0</u>   <i>hours-searched</i>	Hours of OPERLOG data filtered
MENUS ( <u>ISF.SISFPLIB</u> )   ( <i>ds-name</i> )	MENUS= <u>ISF.SISFPLIB</u>   <i>ds-name</i>	SDSF panels data set
MENUVOL ( <i>volume-serial</i> )	MENUVOL= <i>volume-serial</i>	Panels data set volser

OPTIONS	ISFPMAC	Description
SCHARS ( <u>'*%'</u> )   ( <i>'search-characters'</i> )	SCHARS= <u>*%</u>   <i>search-characters</i>	Pattern matching characters
SCRSIZE ( <u>1920</u> )   ( <i>screen-size</i> )	SCRSIZE= <u>1920</u>   <i>screen-size</i>	Screen size
N/A	SERVER= <u>SDSF</u>   <i>SDSF-server-name</i>	Default SDSF server name
SYSOUT ( <u>A</u> )   ( <i>class</i> )	SYSOUT= <u>A</u>   <i>class</i>	Default print class
TIMEOUT ( <u>5</u> )   ( <i>seconds</i> )	TIMEOUT= <u>5</u>   <i>seconds</i>	Default timeout interval (JES2 only)
TRACE ( <u>C000</u> )   ( <i>trace-masks</i> )	TRACE= <u>C000</u>   <i>trace-masks</i>	Default trace masks
TRCLASS ( <u>A</u> )   ( <i>class</i> )	TRCLASS= <u>A</u>   <i>class</i>	Default trace SYSOUT class
UNALLOC ( <u>NO</u> )   (YES)	UNALLOC= <u>NO</u>   YES	Free files at termination

OPTIONS	ISFPMAC
ADMSYMBL ( <i>symbol-sets-data-set-name</i> )	ADMSYMBL= <i>symbol-sets-data-set-name</i>

Defines a default GDDM symbol sets data set to be used when displaying page-mode data with the V action character.

*symbol-sets-data-set-name* is the name of a cataloged data set for the GDDM symbol sets. This data set will be dynamically allocated by SDSF only if the ADMSYMBL ddname is not already allocated.

There is no default for ADMSYMBL. If you don't specify this keyword, SDSF will not allocate a symbol sets data set.

OPTIONS	ISFPMAC
DCHAR ( <u>'?'</u> )   ( <i>'query-char'</i> )	DCHAR= <u>?</u>   <i>query-char</i>

Defines the query character for use with commands, to display their current values. The character you specify must be different from the SCHARS value. Also, be sure to tell your users what the new query character is. The default is ?. When using statements, enclose the query character in quotation marks.

OPTIONS	ISFPMAC
DSI ( <u>NO</u> )   (YES)	DSI= <u>NO</u>   YES

**YES**

specifies that dynamically allocated data sets are to be enqueued upon by SDSF for the user when they are allocated.

**NO** is the default and specifies that dynamically allocated data sets are not to be enqueued upon (for data set reservation) by SDSF for the user when they are allocated.

OPTIONS	ISFPMAC
FINDLIM ( <u>5000</u> )   ( <i>lines-searched</i> )	FINDLIM= <u>5000</u>   <i>lines-searched</i>

Specifies the maximum number of lines the FIND command will search on a single pass before displaying the number of lines searched. When running under ISPF,

the FINDLIM value is saved and restored across sessions if the user is authorized to issue the command. See the online help for a description of the FIND command.

OPTIONS	ISFPMAC
JESNAME ( <i>user-JES-name</i> )   ( <i>JES-name</i> )	JESNAME= <i>user-JES-name</i>   <i>JES-name</i>

Indicates the name of the JES2 subsystem. The name can be 1 to 4 characters. The default is the JES system the user is currently running under.

For information on specifying this parameter when SDSF is installed to run with a secondary JES2 subsystem, see “SDSF with a secondary JES2 subsystem” on page 357. This applies to JES2 only; for JES3, use the JES3NAME parameter.

OPTIONS	ISFPMAC
JES3NAME (*)   ( <i>JES-name</i> )	not available

Indicates the name of the JES3 subsystem. The name can be 1 to 4 characters. The default is \*, which requests the JES system the user is currently running under.

OPTIONS	ISFPMAC
LINECNT ( <u>55</u> )   ( <i>lines</i> )	LINECNT= <u>55</u>   <i>lines-per-page</i>

Specifies the number of lines per page of printed output when using the PRINT command to print portions of the SYSLOG or OPERLOG.

OPTIONS	ISFPMAC
LOGLIM ( <u>0</u> )   ( <i>hours-searched</i> )	LOGLIM= <u>0</u>   ( <i>hours-searched</i> )

Specifies the maximum amount of OPERLOG data, in hours, that SDSF will search on a single pass for OPERLOG records that meet filter criteria. If LOGLIM is omitted, the value is set to 0, which indicates no maximum.

Valid values are 0-999.

SDSF searches the OPERLOG data until it finds enough records to fill the screen, or until it reaches the limit, whichever comes first.

Users can override *hours* with the LOGLIM command. Under ISPF, the LOGLIM value is saved across sessions.

OPTIONS	ISFPMAC
MENUS ( <u>ISF.SISFPLIB</u> )   ( <i>data-set-name</i> )	MENUS= <u>ISF.SISFPLIB</u>   <i>data-set-name</i>

| Specifies the name of the SDSF panel data set. This dataset requires READ access  
 | when SDSF is running as a TSO command.. The MENUS and MENUVOL  
 | parameters are used only for dynamic allocation of the panels when running under  
 | TSO. If the SDSFMENU DD statement was included in the TSO logon procedure,  
 | that data set is used.

<b>OPTIONS</b>	<b>ISFPMAC</b>
MENUVOL ( <i>volume-serial</i> )	MENUVOL= <i>volume-serial</i>

Specifies the volume serial number of the SDSF panel data set. It can be 1 to 6 characters long. If this parameter is omitted, the data set is assumed to be cataloged correctly. The MENUS and MENUVOL parameters are used only for dynamic allocation. If the SDSFMENU DD statement was included in the TSO logon procedure, that data set is used.

<b>OPTIONS</b>	<b>ISFPMAC</b>
SCHARS ( <u>'*%'</u> )   ( <i>'search-characters'</i> )	SCHARS= <u>'*%'</u>   <i>search-characters</i>

Specifies the generic and placeholder characters. These characters are used wherever pattern matching is supported.

The values for *search-characters* are of the form *ab*, where *a* is the generic character and *b* is the placeholder character. The values cannot be alphabetic, numeric, or national characters; they cannot be @, #, \$, &; the ISPF end-of-line character, the current query character, blank, or equal to each other. In addition, using :, ( or ) may interfere with using system symbols with filtering. The defaults are \* and %.

When you use statements, enclose the characters in quotation marks.

<b>OPTIONS</b>	<b>ISFPMAC</b>
SCRSIZE ( <u>1920</u> )   ( <i>screen-size</i> )	SCRSIZE= <u>1920</u>   <i>screen-size</i>

Specifies the maximum size, in characters, of the largest terminal screen on which SDSF will be used.

<b>OPTIONS</b>	<b>ISFPMAC</b>
not available	SERVER= <u>SDSF</u>   <i>SDSF-server-name</i>

Not valid in statements. Specifies the default SDSF server job name to be used in processing ISFPARMS statements. It is 1 to 8 characters. If this parameter is omitted, the default server is SDSF. Users can override the server name with the SERVER keyword on the SDSF command. See Chapter 3, "Using the SDSF server," on page 109.

Specifying a value with the SERVER parameter allows you to restrict use of a particular server. This may be desirable in a test environment, or when SDSF maintenance is applied.

As an alternative to this parameter, you can define a default server with the CONNECT statement. Using CONNECT may eliminate your need for any assembler ISFPARMS. See "CONNECT statement" on page 33.

<b>OPTIONS</b>	<b>ISFPMAC</b>
SYSOUT ( <u>A</u> )   ( <i>class</i> )	SYSOUT= <u>A</u>   <i>class</i>

Specifies the default SYSOUT class for the SDSF PRINT command.

<b>OPTIONS</b>	<b>ISFPMAC</b>
TIMEOUT (5)   ( <i>seconds</i> )	TIMEOUT= <u>5</u>   <i>seconds</i>

Specifies the default timeout interval, in seconds, for awaiting sysplex data on the JES2 device and resource panels, and on the SYSLOG panel, when sysplex data is provided with WebSphere® MQ or XCF. A value of 0 means that SDSF should not wait, that is, sysplex data is not available on those panels. This parameter is allowed in the assembler ISFPMAC macro, but the sysplex support requires the statement format of ISFPARMS.

If this parameter is omitted, 5 seconds is used.

This is ignored in a JES3 environment.

For more information, see “Using the server for sysplex data” on page 112.

<b>OPTIONS</b>	<b>ISFPMAC</b>
TRACE (C000)   ( <i>trace-masks</i> )	TRACE= <u>C000</u>   <i>trace-masks</i>

Specifies the default event mask to be used by the trace facility. You can trace several events at one time by combining the mask values (in hexadecimal). The *mask* is a hexadecimal number that is 2, 4, 6, or 8 characters long. Each bit in the number represents a specific SDSF event to be traced. Leading zeros are not required, but the resulting mask must have an even number of digits.

The trace masks are:

<b>Mask</b>	<b>Description</b>
FFFFFFFF	Unconditional trace
00800000	Message service
00400000	Communications events
00200000	ISFPARMS statements
00100000	Filter
00080000	Log processing
00040000	Internal interfaces
00020000	ISPF services
00010000	RMF processing
00008000	SDSF initialization
00004000	SDSF JES2 initialization
00002000	Call
00001000	Return
00000800	TSO data stream, ISPF buffers, batch input and output
00000400	Device and node processing
00000200	GDDM processing
00000100	SJF processing
00000080	SAF processing
00000040	Spool I/O and SRB processing

Mask	Description
00000020	SSI processing, MVS/JES commands and job classes
00000010	Data set processing
00000008	External interfaces, WLM scheduling environments and WLM resources
00000004	User exit call, return, and parameter list
00000002	ULOG functions
00000001	Reserved
00000000	No trace

SDSF trace is intended to be used under the direction of IBM service.

OPTIONS	ISFPMAC
TRCLASS ( <u>A</u> )   ( <i>class</i> )	TRCLASS= <u>A</u>   <i>class</i>

Specifies the default sysout class used by SDSF when dynamically allocating a trace file.

OPTIONS	ISFPMAC
UNALLOC ( <u>NO</u> )   (YES)	UNALLOC= <u>NO</u>   YES

**YES**

indicates that when an SDSF session is terminated, all dynamically allocated data sets are to be freed.

**NO** is the default and indicates that SDSF will not free dynamically allocated data sets. They will be available if the user should begin another SDSF session before logging off.

## Server group definition parameters (SERVERGROUP, SERVER, COMM)

A server group is a group of SDSF servers that communicate to provide sysplex-wide data using WebSphere MQ. It is not needed if all systems in the sysplex are at the z/OS V1R13 level or higher.

When one or more systems in the sysplex is at the z/OS V1R12 level or lower, you may need a server group to display sysplex-wide data on device and resource panels. For more information on the requirements for sysplex-wide data, refer to "Using the server for sysplex data" on page 112.

You define a server group for each SDSF server, using these statements:

- **SERVERGROUP.** This marks the beginning of the server group definition.
- **SERVER.** Each **SERVER** statement provide details about an SDSF server in the group.
- **COMM.** This statement provides information about the method of communication between servers.

You can define a server group only with statements; there are no equivalent assembler macros.



In addition to defining a server group, you may want to define a default server, using the CONNECT statement. See “CONNECT statement” on page 33. You can also define a default server with the SERVER parameter of the ISFGRP macro in the assembler version of ISFPARMS.

## Example of the SERVERGROUP statement

```
1 SERVERGROUP
2  SERVER NAME(SDSF),SYSNAME(SY1),JESNAME(JES2),MEMBER(AQFT),
   COMM(SDSFSY1)
3  SERVER NAME(SDSF),SYSNAME(SY2),JESNAME(JES2),MEMBER(AQTS)
4  COMM NAME(SDSFSY1),TYPE(MQS),QMGR(MQ1),QPREFIX(ISF)
```

On line **1** in the example, the SERVERGROUP statement begins the server group definition.

On line **2**, the first server in the group is defined. The name of the server is SDSF, and it resides on system SY1. This server will process requests for JES2 subsystem JES2, member name AQFT. The COMM parameter refers to a COMM statement named SDSFSY1. The COMM statement, which follows, defines values that are used in communicating with the server.

On line **3**, a second server, also named SDSF but residing on system SY2, and processing JES2 subsystem JES2, member AQTS, is defined. No COMM parameter is present, so the communication will use defaults.

On line **4**, a COMM statement defines characteristics for communicating with the server. The value for the TYPE parameter, MQS, identifies this communication as using WebSphere MQ. The QMGR and QPREFIX parameters define the WebSphere MQ queue manager name and queue prefix values.

As a result of this server group definition, data from server SDSF on SY1 will be merged with the data from server SDSF on SY2.

For more examples and further discussion of server groups, see Chapter 3, “Using the SDSF server,” on page 109.

## SERVERGROUP statement

The SERVERGROUP statement has no parameters. It marks the beginning of a server group definition. You should code only one SERVERGROUP statement; if a second one is encountered, it replaces the previous one.

Note that the presence of a SERVERGROUP statement causes SDSF to use the server to gather sysplex-wide data. If you do not require the sysplex support provided by the server group, it is recommended that you not define a SERVERGROUP statement or its associated SERVER and COMM statements.

## SERVER statement

A server group must include at least two SERVER statements, including one for the *local* server, up to a maximum of 32 servers. The local server is the one specified on the SERVER parameter of the ISFPMAC macro in ISFPARMS. From the user's perspective, it is the server the user is connected to.

The following table shows the parameters that you can code on a SERVER statement.

Parameter	Description
NAME ( <i>server-name</i> )	Name of the SDSF server
SYSNAME ( <i>system-name</i> )	Name of the system on which the server resides
JESNAME ( <i>JES-subsystem-name</i> )	Name of the JES subsystem for which this server will obtain data
MEMBER ( <i>jes-member-name</i> )	Name of the JES member for which this server will obtain data
COMM ( <i>COMM-statement-name</i> )	Characteristics of the communication method
STOP (YES   <u>NO</u> )	Initial state of the server

The parameters are described in detail below.

**NAME** (*server-name*)

Names the SDSF server to be included in the server group. The server name is a 1-8 character job name.

The server name must be unique on a system. If you code more than one SERVER statement with the same values for NAME and SYSNAME, the last statement is used.

**SYSNAME** (*system-name*)

Names the system on which the SDSF server runs. The system must be in the same sysplex as systems for the other servers in the group.

**JESNAME** (*JES-subsystem-name*)

Names the JES subsystem for which data is to be gathered.

**MEMBER** (*JES-member-name*)

Names the member of the MAS for which data is to be gathered. The member must be in the same MAS as the members for the other servers in the group.

**COMM** (*COMM-statement-name*)

Names the COMM statement that describes the communication for this server group. If this is omitted, the communication uses default values.

**STOP** (YES | NO)

Specifies the initial state of the server when the server group is activated. STOP(YES) indicates that the server will initially be in the stopped state. You might want to use STOP(YES) when you:

- Include servers in the server group definition before the servers are actually available
- Include servers for JES2s that you don't ordinarily use. An initial state of stopped avoids the need to enter the operator STOP command as soon as the server comes up.

To start the server, you must issue the START command. See "Server operator commands" on page 120 for more information.

## COMM statement

The COMM statement is optional. If it is omitted, default values for all parameters are used.

The following table shows the parameters that you code on a COMM statement.

Parameter	Description
COMM ( <i>name</i> )	Name of the COMM statement, referenced by the COMM parameter of a SERVER statement
TYPE (MQS)	Communication type, WebSphere MQ
QMGR ( <i>MQ-queue-manager-name</i> )	Name of the WebSphere MQ queue manager
QPREFIX ( <u>ISF</u> )   ( <i>MQ-prefix</i> )	WebSphere MQ queue prefix
CLUSTER( <i>cluster-name</i> )   CLUSNL( <i>namelist</i> )	WebSphere MQ clustering options
QREPLACE(YES  <u>NO</u> )	Setting for whether the SDSF server should replace existing definitions for the queues it creates
QDELETE(YES  <u>NO</u> )	Setting for whether queues created by the SDSF server will be deleted when the server is shut down
QDEFINE( <u>YES</u>   NO)	Setting for whether the SDSF server should issue WebSphere MQ DEFINE commands to define required WebSphere MQ objects during SDSF initialization

The parameters are described in detail below.

**COMM** (*name*)

Names the COMM statement, for reference by the COMM parameter of a SERVER statement. The name can be 1 to 8 alphabetic, numeric, or national characters (@, #, \$) and must begin with an alphabetic character.

**TYPE** (MQS)

Names the type of communication between SDSF servers. If you specify this parameter, the value must be MQS, for WebSphere MQ. MQS is the default.

**QMGR** (*MQ-queue-manager*)

Names the WebSphere MQ queue manager on which the server request queue and client queue are defined. If you want the default queue manager for the system, either omit QMGR or specify QMGR with a value of at least one blank, for example, QMGR (' '). You can define a default queue manager as part of WebSphere MQ customization, using program CSQBDEFV.

For more information on the queues, see “WebSphere MQ” on page 322.

**QPREFIX** (ISF) | (*queue-prefix*)

WebSphere MQ queue prefix. The prefix is the high-level qualifier of the queue names that are used by SDSF. Because WebSphere MQ uses the queue names for security, changing the prefix may affect your security profiles. The default, if you omit the QPREFIX parameter, is ISF.

For more information on protecting the queues, see “WebSphere MQ” on page 322.

**CLUSTER**(*cluster-name*) | **CLUSNL**(*namelist*)

Names the WebSphere MQ cluster or cluster list. Specify either CLUSTER or CLUSNL if you have implemented clusters.

**CLUSTER**(*cluster-name*)

specifies the name of the WebSphere MQ cluster.

**CLUSNL**(*namelist*)

specifies the name of the list of WebSphere MQ clusters.

**QREPLACE**(YES|NO)

Defines whether the SDSF server will replace any existing WebSphere MQ objects that it creates, that is, the client request queue and the model queue. The default is NO, meaning that the server will use the existing definitions as

is. YES specifies that the server will replace the WebSphere MQ objects. Use QREPLACE to alter a queue definition if it was created without WebSphere MQ clustering, and clustering has since been implemented.

Note that QREPLACE(NO) does not prevent the SDSF server from issuing WebSphere MQ DEFINE commands; to do that, use QDEFINE(NO).

#### **QDEFINE(YES|NO)**

Defines whether the SDSF server should issue WebSphere MQ DEFINE commands during SDSF initialization to define the required WebSphere MQ objects, that is, the client request queue and the model queue. The default is YES. If you specify QDEFINE(NO), you must have first defined the queues, either by issuing the DEFINE commands, or by previously starting the server with QDEFINE(YES). The DEFINE commands used to define the queues are logged in the server log. See “Logging” on page 111 for details. If QDEFINE(NO) is specified, and the SDSF server later requires an WebSphere MQ object that is not present, SDSF initialization will fail.

#### **QDELETE(YES|NO)**

Defines whether WebSphere MQ objects created by the SDSF server in this instance will be deleted when communications is ended. The default is NO. The affected WebSphere MQ objects are the client request queue and the model queue.

## **Summary of rules for defining a server group**

1. A server may have only one server group. If a second SERVERGROUP statement is encountered, it replaces the first statement.
2. A server group must have at least two servers, one of which must be the local server.
3. A server group may include no more than 32 servers.
4. All servers in a server group must be in the sysplex.
5. All JES2s in the server group must be in the MAS.

---

## **Server connection (CONNECT)**

The CONNECT statement defines the server connection, including whether the server is the default SDSF server and the XCF application server name. It can also request that XCF not be used to provide sysplex data. For more information, refer to “Using the server for sysplex data” on page 112.

CONNECT can be placed anywhere in the ISFPARMS statements.

You can use a CONNECT AUXPROC or AUXNAME of NONE to prevent the automatic start of SDSFAUX.

## **Example of the CONNECT statement**

```
CONNECT DEFAULT(YES),  
XCFSRVNM(SAME)
```

This statement indicates that the server processing ISFPRMxx is the default server, replacing any other default server that might have been defined previously, and that the XCF application server name is derived based on the SDSF server name.

## CONNECT statement

The following table shows the parameters that you code on a CONNECT statement.

Parameter	Description
AUXPROC( <i>SDSFAUX-procedure-name</i>   NONE)	Specifies the SDSFAUX procedure name or NONE to suppress starting of SDSFAUX.
AUXNAME( <i>SDSFAUX-jobname</i>   NONE)	Specifies the SDSFAUX job name or NONE to suppress starting of SDSFAUX.
AUXSAF(FAILRC4   NOFAILRC4)	Specifies the action to be taken by SDSFAUX when a SAF authentication request results in a return code 04 (indeterminate response).
DEFAULT(YES   NO   COND)	Indicates whether the server is identified as the default server. Users are connected to the default server unless another server is specified, either with the SERVER keyword in the assembler ISFPARMS, or with the SERVER parameter on the SDSF command used to access SDSF.
XCFSRVNM( <i>server-name</i>   SAME   NONE)	Defines the XCF application server name, or requests that XCF should not be used to provide sysplex data

The parameters are described in detail below.

### **AUXPROC(*SDSFAUX-procedure-name* | NONE)**

#### *SDSFAUX-procedure-name* | NONE

indicates the procedure name for starting SDSFAUX. The default is SDSFAUX. You can use an AUXPROC of NONE to prevent the automatic start of SDSFAUX.

If you were to specify AUXPROC(HSFSRJCL) and AUXNAME(SDSFAUX), then the start command would be S HSFSRJCL.SDSFAUX.

### **AUXNAME(*SDSFAUX-job-name* | NONE)**

#### *SDSFAUX-job-name* | NONE

indicates the job name to use when starting the SDSFAUX address space. The default is SDSFAUX. You can use an AUXNAME of NONE to prevent the automatic start of SDSFAUX.

If you were to specify AUXPROC(HSFSRJCL) and AUXNAME(SDSFAUX), then the start command would be S HSFSRJCL.SDSFAUX.

### **AUXSAF(FAILRC4 | NOFAILRC4)**

#### **FAILRC4**

indicates that the requests should fail (not authorized). This is the default.

#### **NOFAILRC4**

indicates that the request should not fail (authorized).

### **DEFAULT(YES | NO | COND)**

#### **YES**

indicates this server is to be made the default server unconditionally, replacing any other default server if necessary.

**NO** indicates the server is not to be made the default. If the server had previously been made the default, it will remain the default until it terminates. This is the case if the DEFAULT parameter is not specified.

### COND

indicates that the server will be made the default unless another default server is already defined.

If you define a default server, you do not need to code the SERVER keyword in the assembler ISFPARMS.

There can be only one default server for a system at any given time.

### XCFSRVNM(SAME | *server-name* | NONE)

#### SAME

indicates that the XCF application server name is derived from the SDSF server name. This is the default, and so is the case if the XCFSRVNM parameter is omitted.

When you use SAME, all SDSF servers that are to participate in sysplex requests must have the same name. (The server name is either the job name or the started task ID.)

#### *server-name*

specifies the customizable portion of the XCF application server name, ISFSRVR.*server-name*. *server-name* can be up to 8 characters, and can consist of alphabetic characters, numeric characters and the national characters @, #, or \$.

When you use *server-name*, the names of the SDSF servers that are to participate in sysplex requests do not need to be the same.

#### NONE

indicates that the server should not identify itself to XCF and so will not respond to sysplex requests through XCF. A value of NONE for the local system (the system the user is logged on to) causes SDSF to attempt to revert to using server groups and WebSphere MQ to provide sysplex-wide data. A value of NONE for a remote system requests that this remote system not be included in the sysplex-wide data.

---

## Group authorization parameters (GROUP or ISFGRP)

A GROUP statement or ISFGRP macro defines:

- The members of a group of users
- Which functions the members of the group may perform
- Customization values, such as columns on SDSF panels, and date format

## Group membership

You can define membership in the groups in ISFPARMS with:

- SAF. This is required for the JES3 environment. For the JES2 environment, it is optional, but recommended, as it is dynamic and allows you to assign users to the same group regardless of the environment from which they invoke SDSF (interactive, batch, REXX or Java).
- Parameters on the GROUP statements or ISFGRP macros. You define who belongs to the group on the basis of procedure name, terminal name, user ID, and TSO authority. This applies only to the JES2 environment. SDSF does not use ISFPARMS statements for group membership in the JES3 environment.

SDSF scans ISFPARMS from the beginning and assigns users to the first group for which they are qualified. This means that the order of the group definitions is important: Arrange them from most selective to least selective.

Users can display the name of the group to which they belong with the WHO command.

A user must be assigned to a group in order to use SDSF. When a user tries to access SDSF but is not assigned to any group, SDSF issues message ISF024I.

## Using SAF to control group membership

When using SAF to define who belongs to an ISFPARMS group, you:

1. Assign a name to each group, as follows:
  - With a GROUP statement, using the NAME parameter.
  - With an ISFGRP macro, using the macro label. The label must start in column 1 and be 1-8 characters. It must conform to standard assembler language programming conventions and be unique within ISFPARMS.
2. Define SAF profiles `GROUP.group-name.server-name`, in the SDSF class, and permit users to them as appropriate. For more information, see “Membership in groups” on page 267.

SDSF works through the groups in ISFPARMS, checking for READ access to the SAF resource `GROUP.group-name.server-name` in the SDSF class. (If the SDSF client is not connected to the SDSF server, *server-name* is blank.) If the user is authorized to the group through the SAF profile, then the user is assigned to the group, regardless of whether he may be authorized to groups that occur later in ISFPARMS. If the user is not authorized to the group through the SAF profile, SDSF goes on to the next group.

In a JES2 environment, if SAF cannot make a decision because the SDSF class is inactive or the profile is not defined, SDSF reverts to ISFPARMS to determine membership in the group. In a JES3 environment, SAF fails the request.

If you do not assign a name to a group, SDSF generates one: ISF plus the index value of the group, in the format `ISFnmmmm`. However, because this name will change when you add or subtract groups from ISFPARMS, it is not suitable for use with SAF. To avoid conflicts with the SDSF-generated names, you should *not* assign names in the format `ISFnmmmm`.

The ISFPARMS and statements shipped with SDSF use the following names:

- ISFSPROG for group 1
- ISFOPER for group 2
- ISFUSER for group 3

If you do not want SAF checking to occur, you can write a user exit using the pre-SAF exit point. See Chapter 9, “Using installation exit routines,” on page 345.

## Group function

The group function parameters can be used to determine which functions the members of a group can perform.

Some of these parameters have equivalents in SAF. For more information, see Chapter 5, “Using SAF for security,” on page 203 and Appendix B, “SAF equivalents for ISFPARMS,” on page 591.

## Examples of the GROUP statement and ISFGRP macro

GROUP Statement	ISFGRP Macro
<pre> <b>1</b> GROUP IUID(LOGAUTH), <b>2</b>     PREFIX(USERID), <b>3</b>     AUTH(ALLUSER) <b>4</b> NTBL NAME(LOGAUTH)       NTBLENT STRING(ASR),OFFSET(1)       NTBLENT STRING(RND),OFFSET(1) </pre>	<pre> <b>1</b> ISFGRP IUID=LOGAUTH, <b>2</b>     PREFIX=USERID, <b>3</b>     AUTH=(ALLUSER) <b>4</b> LOGAUTH ISFNTBL ASR,1,RND,1 </pre>

On line **1** in the example, the IUID parameter works with an ISFNTBL macro or NTBL statement labeled LOGAUTH, on the line marked by **4**. The result is to include in the group any user whose ID contains the character string *ASR* beginning in the first position or the character string *RND* beginning in the first position.

On line **2**, the PREFIX parameter limits the jobs displayed on the DA, I, O, H, and ST panels to those jobs whose job names begin with the group member's user ID.

On line **3**, the AUTH parameter identifies the SDSF panels that members of this user group are allowed to display, and the SDSF commands that they are allowed to issue. In this case, they are authorized to all "end user" commands, that is, I, O, H, DA, ST and SE.

GROUP Statement	ISFGRP Macro
<pre> <b>1</b> GROUP TSOAUTH(JCL,OPER,ACCT), <b>2</b>     XUID(XLIST), <b>3</b>     AUTH(LOG,I,O,H,DA,INIT,PR,NO,DEST) <b>4</b> GROUP TSOAUTH(JCL), <b>5</b>     IFIELDS(DFLD) <b>6</b> NTBL NAME(XLIST)       NTBLENT STRING(\$\$),OFFSET(1)       NTBLENT STRING(OPER),OFFSET(3) <b>7</b> FLD NAME(DFLD) TYPE(IN)       FLDENT COLUMN(JNUM),TITLE('JOB NUM'),WIDTH(7)       FLDENT COLUMN(JPRIO),TITLE(PRTY),WIDTH(4) </pre>	<pre> <b>1</b> ISFGRP TSOAUTH=(JCL,OPER,ACCT), <b>2</b>     XUID=XLIST, <b>3</b>     AUTH=(LOG,I,O,H,DA,INIT,PR,NO,DEST)) <b>4</b> ISFGRP TSOAUTH=(JCL), <b>5</b>     IFIELDS=DFLD <b>6</b> XLIST ISFNTBL \$\$,1,OPER,3 <b>7</b> DFLD ISFFLD JNUM,'JOB NUM',7,       JPRIO,PTY,4,TYPE=IN </pre>

On line **1** in the example, TSOAUTH defines a group of users with a TSO authority of JCL, OPER, and ACCT.

On line **2**, the XUID parameter is also a group membership parameter. It works with an ISFNTBL macro or NTBL statement on the line marked by **6** to exclude from the group of users defined by the TSOAUTH parameter any user whose ID contains the character string *\$\$* beginning in the first position or the character string *OPER* beginning in the third position.

On line **3**, the AUTH parameter identifies the SDSF commands this user group is allowed to issue.

On line **4**, the second group definition begins. TSOAUTH defines a group of users based on TSO authority.

On line **5**, the IFIELDS parameter works with an ISFFLD macro or FLD statement beginning on the line marked by **7** to define a variable field list on the Input Queue panel for the group. The list contains the column JNUM, with the



title *JOB NUM*, with a width of seven characters, and the column *JPRIO*, with the title *PRTY*, with a width of four characters. *TYPE=IN* indicates that the field list is for the Input Queue panel.

GROUP Statement		ISFGRP Macro	
<b>1</b>	GROUP NAME(ISFUSER) AUTH(DA,I,O,H,ST,DEST,PREF),	<b>1</b>	ISFUSER ISFGRP AUTH=(DA,I,O,H,ST,DEST,PREF),
<b>2</b>	PREFIX(USERID)	<b>2</b>	PREFIX=USERID

On line **1** in the example, the group is given a name, ISFUSER. The name is assigned through the label on the ISFGRP macro and through the NAME parameter on the GROUP statement. All members of this group are authorized to a SAF resource in the format *GROUP.group-name.server-name*. In this case, the SAF resource is *GROUP.ISFUSER.server-name*. With RACF®, to authorize users to this group, for a server named SDSF, you place these users in the access list for the profile *GROUP.ISFUSER.SDSF*.

On line **2**, the PREFIX parameter specifies that the users will only see jobs whose names begin with their user IDs.

For more examples, see samples ISFPRM00 and ISFPRM01 in ISF.SISFJCL.

## Group membership parameters reference

The group membership parameters are not used in the JES3 environment. For JES3, see “Using SAF to control group membership” on page 35.

GROUP	ISFGRP	Description
NAME ( <i>group-name</i> )	<i>macro label</i>	Group name, used in SAF resource
ILPROC ( <i>NTBL-name</i> )	ILPROC= <i>ISFNTBL-label</i>	Includes users by logon procedure. See note below.
XLPROC ( <i>NTBL-name</i> )	XLPROC= <i>ISFNTBL-label</i>	Excludes users by logon procedure. See note below.
ITNAME ( <i>NTBL-name</i> )	ITNAME= <i>ISFNTBL-label</i>	Includes users by terminal name. See note below.
XTNAME ( <i>NTBL-name</i> )	XTNAME= <i>ISFNTBL-label</i>	Excludes users by terminal name. See note below.
IUID ( <i>NTBL-name</i> )	IUID= <i>ISFNTBL-label</i>	Includes users by user ID. See note below.
XUID ( <i>NTBL-name</i> )	XUID= <i>ISFNTBL-label</i>	Excludes users by user ID. See note below.
TSOAUTH ( <i>attributes</i> )	TSOAUTH= <i>attributes</i>	Includes users by TSO authority

### Note:

The ILPROC, ITNAME, and IUID parameters *include* members. If you use more than one of these to define a group, a user must meet the requirements of all of them in order to qualify for inclusion in the group. For instance, if you specify IUID=Y and ILPROC=Z, a user must have both of these attributes (Y and Z) to be included in the group. If none of the parameters is specified on an ISFGRP macro, all users will qualify for that group.

The XLPROC, XTNAME, and XUID parameters *exclude* members, and they override the parameters that include members. For instance, if a user qualifies for a group based on the IUID parameter, but is excluded from the group based on the XLPROC parameter, the user is excluded.

The values for logon proc, user ID and terminal name vary with how users invoke SDSF (interactively, batch, REXX or Java). For more information, see “Security and SDSF in batch” on page 389, “Security and REXX” on page 475 and “Security and Java” on page 487.

<b>GROUP</b>	<b>ISFGRP</b>
NAME ( <i>group-name</i> )	<i>macro label</i>

Names the group. Assign a name to a group when you want to use SAF to control membership in the group. SDSF checks authorization to the resource `GROUP.group-name.server-name`.

You might also name groups to make them easier to find and identify.

The *group-name* must be 1-8 alphanumeric characters, beginning with an alphabetic character.

<b>GROUP</b>	<b>ISFGRP</b>
ILPROC ( <i>NTBL-name</i> )	<code>ILPROC=ISFNTBL-macro-label</code>

Specifies that a user whose **logon procedure name** is in the list created by the specified ISFNTBL macro or NTBL statement is included in this group. If this parameter is omitted, logon procedure names are not used to determine inclusion in this group.

<b>GROUP</b>	<b>ISFGRP</b>
XLPROC ( <i>NTBL-name</i> )	<code>XLPROC=ISFNTBL-macro-label</code>

Specifies that a user whose logon procedure name is in the list created by the specified NTBL macro or NTBL statement is excluded from this group. If this parameter is omitted, logon procedure names are not used to determine exclusion from this group.

<b>GROUP</b>	<b>ISFGRP</b>
ITNAME ( <i>NTBL-name</i> )	<code>ITNAME=ISFNTBL-macro-label</code>

Specifies that a user whose **terminal name** is in the list created by the specified ISFNTBL macro or NTBL statement is included in this group. If this parameter is omitted, terminal names are not used to determine inclusion in this group.

<b>GROUP</b>	<b>ISFGRP</b>
XTNAME ( <i>NTBL-name</i> )	<code>XTNAME=ISFNTBL-macro-label</code>

Specifies that a user whose terminal name is in the list created by the specified SFNTBL macro or NTBL statement is excluded from this group. If this parameter is omitted, terminal names are not used to determine exclusion from this group.

<b>GROUP</b>	<b>ISFGRP</b>
IUID ( <i>NTBL-name</i> )	<code>IUID=ISFNTBL-macro-label</code>

Indicates that a user whose **user ID** is in the list created by the specified ISFNTBL macro or NTBL statement is included in this group. If this parameter is omitted, user IDs are not used to determine inclusion in this group.

GROUP	ISFGRP
XUID ( <i>NTBL-name</i> )	XUID= <i>ISFNTBL-macro-label</i>

Indicates that a user whose user ID is in the list created by the specified ISFNTBL macro or NTBL statement is excluded from this group. If this parameter is omitted, user IDs are not used to determine exclusion from this group.

GROUP	ISFGRP
TSOAUTH ( <i>TSO-authority-list</i> )	TSOAUTH=( <i>TSO-authority-list</i> )

Indicates that a user with *all* of the **TSO authorities** listed (ACCT, OPER, JCL, MOUNT) is included in this group. If the list contains more than one TSO authority, separate them with a comma. The TSO authorities work together in a logical “AND” process. That is, if you specify more than one TSO authority, a user must have all those specified to become eligible for inclusion in the group. If this parameter is omitted, TSO authorities are not used to determine inclusion in this group.

## Group function parameters reference

All parameters apply in the JES2 environment; those parameters that apply in the JES3 environment are indicated in the table. Parameters that do not apply in the JES3 environment are primarily parameters that:

- Provide security. You must use SAF for security in the JES3 environment.
- Relate to SDSF's sysplex support that uses the SDSF server and WebSphere MQ. This does not apply in the JES3 environment.
- Define field lists for panels that are not available in the JES3 environment.

In a JES3 environment, parameters that do not apply are ignored.

GROUP	ISFGRP	Description
ACTION ( <u>NONE</u> )   (ALL)   ( <i>routing-code-list</i> )	ACTION= <u>NONE</u>   ALL   ( <i>routing-code-list</i> )	Display of outstanding WTORs in LOG
ACTIONBAR ( <u>YES</u> )   (NO)	ACTIONBAR= <u>YES</u>   NO	Display of the action bar
APFFLDS ( <i>FLD-name</i> )	APFFLDS= <i>ISFFLD-label</i>	Primary field list for APF
APFFLD2 ( <i>FLD-name</i> )	APFFLD2= <i>ISFFLD-label</i>	Alternate field list for APF
APPC ( <u>ON</u> )   (OFF)	APPC= <u>ON</u>   OFF	Display of APPC transaction sysout (JES2 only)
ASFLDS ( <i>FLD-name</i> )	ASFLDS= <i>ISFFLD-label</i>	Primary field list for AS
ASFLD2 ( <i>FLD-name</i> )	ASFLD2= <i>ISFFLD-label</i>	Alternate field list for AS
AUPDT ( <u>2</u> )   ( <i>interval</i> )	AUPDT= <u>2</u>   <i>interval</i>	Minimum auto update interval
AUTH ( <i>command-list</i> )	AUTH=( <i>command-list</i> )	SDSF commands (JES2 only)
BROWSE (S   SB   SE   <u>NONE</u> )	BROWSE=S   SB   SE   <u>NONE</u>	Default browse action character
CKFLDS ( <i>FLD-name</i> )	CKFLDS= <i>ISFFLD-label</i>	Primary field list for CK
CKFLD2 ( <i>FLD-name</i> )	CKFLD2= <i>ISFFLD-label</i>	Alternate field list for CK
CKHFLDS ( <i>FLD-name</i> )	CKHFLDS= <i>ISFFLD-label</i>	Primary field list for CKH
CKHFLD2 ( <i>FLD-name</i> )	CKHFLD2= <i>ISFFLD-label</i>	Alternate field list for CKH
CMDAUTH ( <i>auth-list</i> )	CMDAUTH=( <i>auth-list</i> )	Action characters, overtypes, / commands

GROUP	ISFGRP	Description
CMDLEV ( <u>0</u> )   ( <i>level</i> )	CMDLEV= <u>0</u>   <i>level</i>	Command authorization level (JES2 only)
CONFIRM ( <u>ON</u> )   (OFF)   (ALWAYS)	CONFIRM= <u>ON</u>   OFF   ALWAYS	Confirmation of action characters
CPUFMT( <u>LONG</u> )   (SHORT)	CPUFMT= <u>LONG</u>   SHORT	Format of CPU on DA title line
CTITLE ( <u>ASIS</u> )   (UPPER)	CTITLE= <u>ASIS</u>   UPPER	Case of text, such as column titles
CURSOR ( <u>ON</u> )   (OFF)   TOP	CURSOR= <u>ON</u>   OFF   TOP	Cursor placement
CUSTOM( <i>proplist-name</i> )	Not supported	Customization of properties
DADFLT ( <i>types-and-pos</i> )	DADFLT=( <i>types-and-pos</i> )	Types of jobs on DA
DATE (MMDDYYYY)   (DDMMYYYY)   (YYYYMMDD)	DATE=MMDDYYYY   DDMMYYYY   YYYYMMDD	Date format
DATESEP ( <u>/</u> )   (-)   (.)	DATESEP= <u>/</u>   -   .	Date separator
DEST ( <i>NTBL-name</i> )	DEST= <i>ISFNTBL-label</i>	Destinations
DFIELDS ( <i>FLD-name</i> )	DFIELDS= <i>ISFFLD-label</i>	Primary field list for DA
DFIELD2 ( <i>FLD-name</i> )	DFIELD2= <i>ISFFLD-label</i>	Alternate field list for DA
DISPLAY ( <u>OFF</u> )   (ON)	DISPLAY=OFF   ON	Display of current values
DSPAUTH ( <i>auth-list</i> )	DSPAUTH=( <i>auth-list</i> )	Types of jobs the group can browse
DYNXFLDS ( <i>FLD-name</i> )	DYNXFLDS= <i>ISFFLD-label</i>	Primary field list for DYNX
DYNXFLD2 ( <i>FLD-name</i> )	DYNXFLD2= <i>ISFFLD-label</i>	Alternate field list for DYNX
EMCSAUTH ( <u>MASTER</u>   ALL)	EMCSAUTH= <u>MASTER</u>   ALL	Authority used with the EMCS console
EMCSREQ (YES   <u>NO</u> )	EMCSREQ=YES   <u>NO</u>	EMCS required for system commands
ENCFLDS ( <i>FLD-name</i> )	ENCFLDS= <i>ISFFLD-label</i>	Primary field list for ENC
ENCFLD2 ( <i>FLD-name</i> )	ENCFLD2= <i>ISFFLD-label</i>	Alternate field list for ENC
ENQFLDS ( <i>FLD-name</i> )	ENQFLDS= <i>ISFFLD-label</i>	Primary field list for ENQ
ENQFLD2 ( <i>FLD-name</i> )	ENQFLD2= <i>ISFFLD-label</i>	Alternate field list for ENQ
GPLEN ( <i>prefix-length</i> )	GPLEN= <i>prefix-length</i>	Length of the group prefix
GPREF ( <i>group-prefix</i> )	GPREF= <i>group-prefix</i>	Group prefix string
HFIELDS ( <i>FLD-name</i> )	HFIELDS= <i>ISFFLD-label</i>	Primary field list for H
HFIELD2 ( <i>FLD-name</i> )	HFIELD2= <i>ISFFLD-label</i>	Alternate field list for H
ICMD ( <i>NTBL-name</i> )	ICMD= <i>ISFNTBL-label</i>	Jobs to be included with CMDAUTH
IDEST ( <i>NTBL-name</i> )	IDEST= <i>ISFNTBL-label</i>	Initial list of destinations
IDSP ( <i>NTBL-name</i> )	IDSP= <i>ISFNTBL-label</i>	Jobs to be included with DSPAUTH
IDSPD ( <i>NTBL-name</i> )	IDSPD= <i>ISFNTBL-statement</i>	Jobs for which messages can be displayed
IFIELDS ( <i>FLD-name</i> )	IFIELDS= <i>ISFFLD-label</i>	Primary field list for I
IFIELD2 ( <i>FLD-name</i> )	IFIELD2= <i>ISFFLD-label</i>	Alternate field list for I
ILOGCOL ( <u>1</u> )   ( <i>position</i> )	ILOGCOL= <u>1</u>   <i>position</i>	Starting column for LOG
INPUT ( <u>OFF</u> )   (ON)	INPUT= <u>OFF</u>   ON	SYSIN data sets shown with browse
INTFLDS ( <i>FLD-name</i> )	INTFLDS= <i>ISFFLD-label</i>	Primary field list for INIT
INTFLD2 ( <i>FLD-name</i> )	INTFLD2= <i>ISFFLD-label</i>	Alternate field list for INIT

<b>GROUP</b>	<b>ISFGRP</b>	<b>Description</b>
ISTATUS ( <i>NTBL-name</i> )	ISTATUS= <i>ISFNTBL-name</i>	Jobs included on DA, H, I, O, PS and ST
ISYS ( <u>LOCAL</u> )   (NONE)	ISYS= <u>LOCAL</u>   NONE	Systems shown on sysplex panels
JCFLDS ( <i>FLD-name</i> )	JCFLDS= <i>ISFFLD-label</i>	Primary field list for JC
JCFLD2 ( <i>FLD-name</i> )	JCFLD2= <i>ISFFLD-label</i>	Alternate field list for JC
JDDFLDS ( <i>FLD-name</i> )	JDDFLDS= <i>ISFFLD-label</i>	Primary field list for JD
JDDFLD2 ( <i>FLD-name</i> )	JDDFLD2= <i>ISFFLD-label</i>	Alternate field list for JD
JDMFLDS ( <i>FLD-name</i> )	JDMFLDS= <i>ISFFLD-label</i>	Primary field list for JM
JDMFLD2 ( <i>FLD-name</i> )	JDMFLD2= <i>ISFFLD-label</i>	Alternate field list for JM
JDPFLDS ( <i>FLD-name</i> )	JDPFLDS= <i>ISFFLD-label</i>	Primary field list for Job Dependency
JDPFLD2 ( <i>FLD-name</i> )	JDPFLD2= <i>ISFFLD-label</i>	Alternate field list for Job Dependency
JDSFLDS ( <i>FLD-name</i> )	JDSFLDS= <i>ISFFLD-label</i>	Primary field list for JDS
JDSFLD2 ( <i>FLD-name</i> )	JDSFLD2= <i>ISFFLD-label</i>	Alternate field list for JDS
JDYFLDS ( <i>FLD-name</i> )	JDYFLDS= <i>ISFFLD-label</i>	Primary field list for JY
JDYFLD2 ( <i>FLD-name</i> )	JDYFLD2= <i>ISFFLD-label</i>	Alternate field list for JY
JGFLDS ( <i>FLD-name</i> )	JGFLDS= <i>ISFFLD-label</i>	Primary field list for JG
JGFLD2 ( <i>FLD-name</i> )	JGFLD2= <i>ISFFLD-label</i>	Alternate field list for JG
J   JSFLDS ( <i>FLD-name</i> )	JSFLDS= <i>ISFFLD-label</i>	Primary field list for JS
JSFLD2 ( <i>FLD-name</i> )	JSFLD2= <i>ISFFLD-label</i>	Alternate field list for JS
J0FLDS ( <i>FLD-name</i> )	J0FLDS= <i>ISFFLD-label</i>	Primary field list for J0 (JES3 only)
J0FLD2 ( <i>FLD-name</i> )	J0FLD2= <i>ISFFLD-label</i>	Alternate field list for J0 (JES3 only)
LANG ( <u>ENGLISH</u> )   (ENG)   (JAPANESE)   (JPN)	LANG= <u>ENGLISH</u>   ENG   JAPANESE   JPN	Default language
LINEFLDS ( <i>FLD-name</i> )	LINEFLDS= <i>ISFFLD-name</i>	Primary field list for LI
LINEFLD2 ( <i>FLD-name</i> )	LINEFLD2= <i>ISFFLD-name</i>	Alternate field list for LI
LNKFLDS ( <i>FLD-name</i> )	LNKFLDS= <i>ISFFLD-name</i>	Primary field list for LNK
LNKFLD2 ( <i>FLD-name</i> )	LNKFLD2= <i>ISFFLD-name</i>	Alternate field list for LNK
LOG ( <u>OPERACT</u> )   (OPERLOG)   (SYSLOG)	LOG= <u>OPERACT</u>   OPERLOG   SYSLOG	Default Log panel
LPAFLDS ( <i>FLD-name</i> )	LPAFLDS= <i>ISFFLD-name</i>	Primary field list for LPA
LPAFLD2 ( <i>FLD-name</i> )	LPAFLD2= <i>ISFFLD-name</i>	Alternate field list for LPA
MASFLDS ( <i>FLD-name</i> )	MASFLDS= <i>ISFFLD-name</i>	Primary field list for MAS and JP
MASFLD2 ( <i>FLD-name</i> )	MASFLD2= <i>ISFFLD-name</i>	Alternate field list for MAS and JP
NCFLDS( <i>FLD-name</i> )	NCFLDS= <i>ISFFLD-name</i>	Primary field list for NC
NCFLD2( <i>FLD-name</i> )	NCFLD2S= <i>ISFFLD-name</i>	Alternate field list for NC
NODEFLDS ( <i>FLD-name</i> )	NODEFLDS= <i>ISFFLD-name</i>	Primary field list for NO
NSFLDS ( <i>FLD-name</i> )	NSFLDS= <i>ISFFLD-name</i>	Primary field list for NS
NSFLD2 ( <i>FLD-name</i> )	NSFLD2= <i>ISFFLD-name</i>	Alternate field list for NS
NODEFLD2 ( <i>FLD-name</i> )	NODEFLD2= <i>ISFFLD-name</i>	Alternate field list for NO
ODFLDS ( <i>FLD-name</i> )	ODFLDS= <i>ISFFLD-name</i>	Primary field list for OD
ODFLD2 ( <i>FLD-name</i> )	ODFLD2= <i>ISFFLD-name</i>	Alternate field list for OD

<b>GROUP</b>	<b>ISFGRP</b>	<b>Description</b>
OIELDS ( <i>FLD-name</i> )	OIELDS= <i>ISFFLD-name</i>	Primary field list for O
OIELD2 ( <i>FLD-name</i> )	OIELD2= <i>ISFFLD-name</i>	Alternate field list for O
OWNER ( <u>NONE</u> )   (USERID)	OWNER= <u>NONE</u>   USERID	Default for OWNER
PAGFLDS ( <i>FLD-name</i> )	PAGFLDS= <i>ISFFLD-name</i>	Primary field list for PAG
PAGFLD2 ( <i>FLD-name</i> )	PAGFLD2= <i>ISFFLD-name</i>	Alternate field list for PAG
PARMFLDS ( <i>FLD-name</i> )	PARMFLDS= <i>ISFFLD-name</i>	Primary field list for PARM
PARMFLD2 ( <i>FLD-name</i> )	PARMFLD2= <i>ISFFLD-name</i>	Alternate field list for PARM
PREFIX ( <u>NONE</u> )   (USERID)   (GROUP)	PREFIX= <u>NONE</u>   USERID   GROUP	Default for PREFIX
I PROCFLDS ( <i>FLD-name</i> )	PROCFLDS= <i>ISFFLD-label</i>	Primary field list for PROC
I PROCFLD2 ( <i>FLD-name</i> )	PROCFLD2= <i>ISFFLD-label</i>	Alternate field list for PROC
PRTFLDS ( <i>FLD-name</i> )	PRTFLDS= <i>ISFFLD-label</i>	Primary field list for PR
PRTFLD2 ( <i>FLD-name</i> )	PRTFLD2= <i>ISFFLD-label</i>	Alternate field list for PR
PSFLDS ( <i>FLD-name</i> )	PSFLDS= <i>ISFFLD-label</i>	Primary field list for PS
PSFLD2 ( <i>FLD-name</i> )	PSFLD2= <i>ISFFLD-label</i>	Alternate field list for PS
PUNFLDS ( <i>FLD-name</i> )	PUNFLDS= <i>ISFFLD-label</i>	Primary field list for PUN
PUNFLD2 ( <i>FLD-name</i> )	PUNFLD2= <i>ISFFLD-label</i>	Alternate field list for PUN
RDRFLDS ( <i>FLD-name</i> )	RDRFLDS= <i>ISFFLD-label</i>	Primary field list for RDR
RDRFLD2 ( <i>FLD-name</i> )	RDRFLD2= <i>ISFFLD-label</i>	Alternate field list for RDR
RESFLDS ( <i>FLD-name</i> )	RESFLDS= <i>ISFFLD-label</i>	Primary field list for RES
RESFLD2 ( <i>FLD-name</i> )	RESFLD2= <i>ISFFLD-label</i>	Alternate field list for RES
RMFLDS ( <i>FLD-name</i> )	RMFLDS= <i>ISFFLD-label</i>	Primary field list for RM (JES2 only)
RMFLD2 ( <i>FLD-name</i> )	RMFLD2= <i>ISFFLD-label</i>	Alternate field list for RM (JES2 only)
RSYS (LOCAL   <u>NONE</u> )	RSYS=LOCAL   <u>NONE</u>	WTORs shown on Log
SEFLDS ( <i>FLD-name</i> )	SEFLDS= <i>ISFFLD-label</i>	Primary field list for SE
SEFLD2 ( <i>FLD-name</i> )	SEFLD2= <i>ISFFLD-label</i>	Alternate field list for SE
SOFLDS ( <i>FLD-name</i> )	SOFLDS= <i>ISFFLD-label</i>	Primary field list for SO (JES2 only)
SOFLD2 ( <i>FLD-name</i> )	SOFLD2= <i>ISFFLD-label</i>	Alternate field list for SO (JES2 only)
SPFLDS ( <i>FLD-name</i> )	SPFLDS= <i>ISFFLD-label</i>	Primary field list for SP
SPFLD2 ( <i>FLD-name</i> )	SPFLD2= <i>ISFFLD-label</i>	Alternate field list for SP
SRCHFLDS ( <i>FLD-name</i> )	SRCHFLDS= <i>ISFFLD-name</i>	Primary field list for SRCH
SRCHFLD2 ( <i>FLD-name</i> )	SRCHFLD2= <i>ISFFLD-name</i>	Alternate field list for SRCH
SRFLDS ( <i>FLD-name</i> )	SRFLDS= <i>ISFFLD-label</i>	Primary field list for SR
SRFLD2 ( <i>FLD-name</i> )	SRFLD2= <i>ISFFLD-label</i>	Alternate field list for SR
STFLDS ( <i>FLD-name</i> )	STFLDS= <i>ISFFLD-label</i>	Primary field list for ST
STFLD2 ( <i>FLD-name</i> )	STFLD2= <i>ISFFLD-label</i>	Alternate field list for ST
I SYMFLDS ( <i>FLD-name</i> )	SYMFLDS= <i>ISFFLD-label</i>	Primary field list for SYM
I SYMFLD2 ( <i>FLD-name</i> )	SYMFLD2= <i>ISFFLD-label</i>	Alternate field list for SYM
SYSFLDS ( <i>FLD-name</i> )	SYSFLDS= <i>ISFFLD-name</i>	Primary field list for SYS
SYSFLD2 ( <i>FLD-name</i> )	SYSFLD2= <i>ISFFLD-name</i>	Alternate field list for SYS

GROUP	ISFGRP	Description
SYSID ( <i>system-id</i> )	SYSID= <i>system-id</i>	System ID for LOG in a JES2 environment (JES2 only)
SYSID3 ( <i>system-id</i> )	Not supported	System ID for LOG in a JES3 environment
UPCTAB ( <u>TRTAB2</u> )   ( <i>TRTAB-name</i> )	UPCTAB= <u>TRTAB2</u>   <i>TRTAB-name</i>	Upper case translation table
VALTAB ( <u>TRTAB</u> )   ( <i>TRTAB-name</i> )	VALTAB= <u>TRTAB</u>   <i>TRTAB-name</i>	Valid character translation table
VIO ( <u>SYSALLDA</u> )   ( <i>unit-name</i> )	VIO= <u>SYSALLDA</u>   <i>unit-name</i>	VIO unit name for viewing page-mode output
XCMD ( <i>NTBL-name</i> )	XCMD= <i>ISFNTBL-label</i>	Jobs to be excluded when processing CMDAUTH
XDSP ( <i>NTBL-name</i> )	XDSP= <i>ISFNTBL-label</i>	Jobs to be excluded when processing DSPAUTH
XDSPD ( <i>NTBL-name</i> )	XDSPD= <i>ISFNTBL-label</i>	Jobs to be excluded for which messages can be displayed
XSTATUS ( <i>NTBL-name</i> )	XSTATUS= <i>ISFNTBL-label</i>	Jobs excluded from DA, H, I, O, PS and ST

GROUP	ISFGRP
ACTION ( <u>NONE</u> )   (ALL)   ( <i>routing-code-list</i> )	ACTION= <u>NONE</u>   ALL   ( <i>routing-code-list</i> )

Specifies routing codes that determine which write-to-operator-with-reply (WTOR) messages should be displayed at the bottom of the SYSLOG panel for members of this group.

**ALL**

specifies that WTOR messages for MCS routing codes 1 through 28 are to be displayed.

**NONE**

specifies that no WTOR messages are to be displayed. This is the default.

**(*routing-code-list*)**

specifies that WTOR messages for specific routing codes are to be displayed. If you specify more than one option in your routing code list, enclose the list in parentheses and separate each option with a comma. The list can be made up of one or more of the following options:

- One or more decimal routing codes. The possible routing codes are 1 through 28.
- **MVS**, which enables the 12 routing codes used by MVS-JES. The routing codes used by MVS-JES are 1 through 12.
- **USER**, which enables the routing codes reserved for customer use. The routing codes reserved for customer use are 13 through 28.
- **ALL** or **NONE**, if you are using statements. ALL and NONE are described above. If included in the list, they are added to other items in the list.

The setting of the ACTION parameter can be changed by an authorized user through the use of the ACTION command. (See the AUTH parameter.)

GROUP	ISFGRP
ACTIONBAR ( <u>YES</u> )   (NO)	ACTIONBAR= <u>YES</u>   NO

Sets an initial value for the display of the action bar.

**YES**

indicates that the action bar is displayed.

**NO** indicates that the action bar is not displayed.

If the ACTIONBAR parameter is omitted, the initial setting is to display the action bar.

Users can override the ACTIONBAR setting with the Set Screen Characteristics pop-up.

GROUP	ISFGRP
APFFLDS (FLD-statement-name)	APFFLDS=ISFFLD-macro-label

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the APF panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
APFFLD2 (FLD-statement-name)	APFFLD2=ISFFLD-macro-label

Names an ISFFLD macro or FLD statement that defines the **Alternate** variable field list for the APF panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
APPC (ON)   (OFF)	APPC= <u>ON</u>   OFF

Controls whether a group member will see APPC transactions on the H and O panels. (Applies to JES2 only.)

**ON** indicates that APPC transactions are displayed.

**OFF**

indicates that APPC transactions are not displayed.

If the APPC parameter is omitted, APPC transactions are displayed. Users can override the APPC setting with the APPC command or pull-down choice.

GROUP	ISFGRP
ASFLDS (FLD-statement-name)	ASFLDS=ISFFLD-macro-label

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the AS panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
ASFLD2 (FLD-statement-name)	ASFLD2=ISFFLD-macro-label



Names an ISFFLD macro or FLD statement that defines the **Alternate** variable field list for the AS panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
AUPDT (2)   ( <i>interval</i> )	AUPDT= <u>2</u>   <i>interval</i>

Specifies the minimum automatic update interval, in seconds, that can be specified by members of this group. *interval* is a number from 0 to 255. The default is 2. A value of 0 indicates that the members of this group are not allowed to use the automatic update facility.

GROUP	ISFGRP
AUTH ( <i>authorized-command-list</i> )	AUTH=( <i>authorized-command-list</i> )

Indicates which SDSF commands a member of the group is authorized to use. (Applies to JES2 only.) The values that can be included in *authorized-command-list* are:

- **ALL**, for all SDSF commands.
- **ALLOPER**, for all “operator” commands. The list of operator commands is the same as that for **ALL**, except for the omission of **ABEND**, **INPUT** and **TRACE**.
- **ALLUSER**, for all “end user” commands. The end user commands are **DA**, **H**, **I**, **JG**, **O**, **SYM**, **ST** and **SE**.
- Any SDSF command that requires authorization, which is: **ABEND**, **ACTION**, **APF**, **AS**, **CK**, **DA**, **DEST**, **DYNX**, **ENC**, **ENQ**, **FINDLIM**, **H**, **I**, **INIT**, **INPUT**, **JC**, **JG**, **LI**, **LNK**, **LOG**, **LPA**, **MAS**, **NC**, **NO**, **NS**, **O**, **PAG**, **PARM**, **PR**, **PREF**, **PROC**, **PS**, **PUN**, **RDR**, **RES**, **RM**, **RSYS**, **SE**, **SO**, **SP**, **SR**, **ST**, **SYM**, **SYS**, **SYSID**, **SYSNAME**, **TRACE**, and **ULOG**

You can combine any value with any other value or values. If the list contains more than one item, separate the items with a comma. Using **ALL**, **ALLOPER** or **ALLUSER** rather than a list of individual commands can eliminate the need to update the **AUTH** parameter when new authorized commands are added to SDSF.

For information about further controlling the use of a panel accessed by one of the commands listed above, see the descriptions of the **PREFIX**, **DEST**, and **OWNER** commands, and the description of the **XSTATUS** parameter.

GROUP	ISFGRP
BROWSE (S   SB   SE   NONE)	BROWSE=S   SB   SE   NONE

Specifies the default browse action character, which is invoked when a user selects a row on a panel by placing the cursor in the NP column and pressing Enter. This applies to all panels that support browse.

**S** is SDSF browse.

**SB** is ISPF browse.

**SE** is ISPF edit.

**NONE**

specifies that there should be no default browse action character. This is also the case if this parameter is omitted.

<b>GROUP</b>	<b>ISFGRP</b>
CKFLDS ( <i>FLD-statement-name</i> )	CKFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the CK panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
CKFLD2 ( <i>FLD-statement-name</i> )	CKFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the CK panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
CKHFLDS ( <i>FLD-statement-name</i> )	CKHFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the CKH panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
CKHFLD2 ( <i>FLD-statement-name</i> )	CKHFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the CKH panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
CMDAUTH ( <i>authorization-list</i> )	CMDAUTH=( <i>authorization-list</i> )

For JES2, indicates the jobs, TSO user IDs, started tasks, initiators, printers and punches for which members of this group can:

- Issue action characters and overtime fields
- Issue MVS and JES system commands from the command line with the SDSF / command

For either JES2 or JES3, you can request that a WTO be issued for attempts to issue unauthorized system commands. (See the MSG option.)

To use the / command, users must have authority to issue commands for all jobs. To give this authority, use either the ALL value described in this topic or a SAF equivalent. Users also need authority to the console that SDSF uses to issue the command. See "Issuing MVS and JES commands" on page 358 for more information. To see command responses on their terminals, users must also be authorized to the ULOG command, which is controlled with the AUTH parameter or the ISFCMD.ODSP.ULOG.*jesx* SAF resource in the SDSF class.

To allow members of a group to control printers from the Printer panel, or punches from the Punch panel, when relying on ISFPARMS for user authorization, you

must include CMDAUTH values of ALL or DEST in the group's *command-authorization-list* and must give sufficient command level authority with the CMDLEV parameter. You can authorize more flexible control of printers or punches by using a SAF security scheme.

The CMDAUTH parameter works with the CMDLEV, ICMD, and XCMD parameters. To specify CMDAUTH using the SAF security scheme, see Appendix B, "SAF equivalents for ISFPARMS," on page 591.

(*authorization-list*) specifies CMDAUTH values. If the list contains more than one value, the values must be separated by a comma.

**ALL (JES2 only)**

authorizes a group member to issue commands for all the jobs, TSO user IDs, started tasks, initiators, and printers authorized by the CMDAUTH values of DEST, DISPLAY, GROUP, INIT, NOTIFY, and USERID. The ALL value does not control write-to-operator (WTO) messages; you must specify MSG to have WTO messages issued.

**Note:** Specifying ALL for CMDAUTH is the only way through ISFPARMS to authorize a user to issue MVS and JES2 commands by use of the / command. However, you can give this authority with a SAF equivalent.

When you specify ALL for CMDAUTH, you can use the CMDLEV parameter to limit the MVS and JES2 commands that a user is authorized to issue with the / command, as shown in Table 21.

Table 21. Authorized commands with CMDLEV and CMDAUTH=ALL

CMDLEV	Authorized Commands when CMDAUTH is ALL	MVS/JES2 Commands Authorized for Use with the / Command
0	This is the default.	None authorized
1	Displays information using display and list commands.	\$D, \$L, D
2	Cancels or purges a job, started task, or TSO user. Releases held output.	\$C, \$O, \$P, C
3	Releases or holds a job.	\$A, \$H, E
4	JES2 SET command. Restarts a job, or the MVS RESET command.	\$E, \$T, \$TO
5	Routes job output.	\$R
6	JES2 printer control commands or any JES2 command.	\$B, \$F, \$I, \$\$, \$Z
7	Any MVS command, the command to stop or withdraw JES2 from the system (\$PJES2), or JES2 commands that send commands to other MAS members or nodes.	All MVS/JES2 commands

You should control use of the / command as you would the master console.

**DEST (JES2 only)**

allows a group member to issue action characters and use overtypable fields for any job, printer or punch whose destination matches the value specified in the ISFNTBL macro or NTBL statement of the DEST parameter.

When destination names are not protected by a SAF security scheme, SDSF displays only those jobs, printers and punches having destination names specified with the DEST and IDEST parameters.

For more information, see "Destination names" on page 253.

**Note:**

1. The DEST function does not affect the DA panel.
2. For jobs, the destination is the user-defined name for the JES2 route code and is defined on the *DESTID* statement in the JES2 parameters. It can also be the route code in the form of *PRTnnnn*, *PUNnn*, *RMTnnnn*, *Unnnn*, *Rnnnn*, and *LOCAL*. For printers and punches, *destid* is the internal route code name in the form *Unnnn* and *Rnnnn*. U is used for a local printer defined by *PRTnnnn*, or a local punch defined by *PUNnn*. R is used for a remote printer or punch defined by *RMTnnnn* statements in the JES2 parameters.

The destination name coded on the ISFNTBL macro or NTBL statement for the DEST parameter must match the DEST field on the panel, for all panels except the JDS panel. For the JDS panel, the DEST value that SDSF uses for authority checking is the DEST value shown on the panel from which the JDS panel was invoked, such as ST, O, or I.

3. Commands affecting printers and punches have further restrictions on them. One type of command authority is based on the destination name of the printer or punch. If you specify DEST for the CMDAUTH parameter and define a list of destination names with the DEST parameter, the user can only issue commands to the printers or punches that are in the list pointed to by the DEST parameter. For example, if the list contains PRT22 as a valid destination name, then any command of form \$xPRT22,yyy would be allowed. If the list contains RMT22 as a valid destination name, then any command of the form \$xR22,yyy would be allowed (where x is any command and yyy are any operands).

**DISPLAY (JES2 only)**

allows a member to issue the D (Display) and L (List) action characters for any job, regardless of CMDLEV. These action characters cause the \$D (Display) and \$L (List) commands to be generated.

**GROUP (JES2 only)**

allows a member to issue commands for any job whose job name begins with the group's prefix. (See the GPREF and GPLEN parameters.) If NOTIFY is also specified, a member can issue commands for jobs whose NOTIFY matches the group prefix.

**INIT (JES2 only)**

authorizes the user to control the system initiators from the Initiator panel.

**NOTIFY (JES2 only)**

allows a member to issue commands for any job for which the NOTIFY parameter of the job card contains the member's user ID. If GROUP is also specified, a member can issue commands for jobs whose NOTIFY matches the group prefix.

**MSG**

issues a security WTO message whenever a member of this group issues a command (the WTO message is always issued when an SDSF user attempts to issue a system command for which the user is not authorized). The WTO message is also issued for all SSI requests.

**USERID (JES2 only)**

allows a member to issue commands for any job whose job name begins with the member's user ID.

GROUP	ISFGRP
CMDLEV ( <u>0</u> )   ( <i>level</i> )	CMDLEV= <u>0</u>   <i>level</i>

Specifies command level to which a group member is authorized. Use a value of 0 through 7 for *level*. (Applies to JES2 only.)

The command level determines the action characters that a group member can issue, the fields that a group member can overtype, and the MVS and JES2 commands that a group member can issue from the command line. The CMDLEV parameter works with the CMDAUTH, ICMD, and XCMD parameters.

Each command level is inclusive of all those with a lower number. For example, a user with a command level of 3 can perform the functions requiring a command level of 3, 2, 1, and 0.

For a complete list of the action characters and overtypeable fields for each command level, see "Action characters and overtypeable fields for each command level" on page 74.

To authorize use of the / command so that MVS and JES2 commands can be issued from the command line, you must specify ALL for CMDAUTH. For a summary of the authorized MVS and JES2 commands for each command level when CMDAUTH is set to ALL, see the discussion of CMDAUTH.

A member can issue the D and L action characters for any job, on the panels to which he is authorized, when CMDAUTH is set to DISPLAY, regardless of CMDLEV.

To allow members of a group to control printers from the Printer panel, or punches from the PUN panel, you must give sufficient command level authority with the CMDLEV parameter and must include CMDAUTH values of ALL or DEST in the group's *command-authorization-list*. You can authorize more flexible control of printers or punches by using a SAF security scheme.

To specify CMDLEV using the SAF security scheme, see Appendix B, "SAF equivalents for ISFPARMS," on page 591.

GROUP	ISFGRP
CONFIRM ( <u>ON</u> )   (OFF)   (ALWAYS)	CONFIRM= <u>ON</u>   OFF   ALWAYS

Specifies whether SDSF requests confirmation of destructive action characters (such as cancel or purge).

**ON** indicates that the action characters will require confirmation.

If CONFIRM is omitted, the value is ON.

**OFF**

indicates that the action characters will not require confirmation.

**ALWAYS**

indicates that the action characters will require confirmation, and that users cannot turn off confirmation with the SET CONFIRM OFF command.

GROUP	ISFGRP
CPUFMT ( <u>LONG</u> )   (SHORT)	CPUFMT= <u>LONG</u>   SHORT

Specifies whether SDSF displays the MVS, LPAR and IBM zEnterprise Application Assist Processor (zAAP) views of CPU busy on the title line of the DA panel, or only the MVS view. The LPAR and zAAP views require RMF.

**LONG**

indicates that all values are displayed. The LPAR view is shown only when in LPAR mode. The zAAP view is shown only when a zAAP is defined and the system is in LPAR-mode.

**SHORT**

indicates that only the MVS view is shown.

The MVS view (the first value on the title line) is a better indicator of a CPU bottleneck. The LPAR view (the second value, if present) takes into account several states related to PR/SM™. The zAAP view (the third value, if present) shows usage of the IBM zEnterprise Application Assist Processor .

GROUP	ISFGRP
CTITLE ( <u>ASIS</u> )   (UPPER)	CTITLE= <u>ASIS</u>   UPPER

Specifies how the case of text is displayed, specifically:

- Column titles on SDSF panels
- Text on the primary option menu
- Text on the print pop-ups
- Column titles on pop-ups
- Text displayed by SET ACTION
- Column titles displayed by SET DISPLAY
- Pop-ups when SDSF is running under TSO

Note that the case of column titles has no effect on commands that accept column titles as parameters, such as LOCATE or SORT.

**ASIS**

preserves the case. It is the default.

**UPPER**

folds text to uppercase. Column titles are folded to uppercase regardless of how they are defined in field lists in ISFPARMS.

GROUP	ISFGRP
CURSOR ( <u>ON</u> )   (OFF)   (TOP)	CURSOR= <u>ON</u>   OFF   TOP

Specifies how SDSF should control placement of the cursor on tabular panels (except OD).

**ON** causes the cursor to return to the NP column for the last row you worked

with. If the row is not on the screen, because it would require a scroll or because system or user activity caused it to be removed from the display, the cursor is returned to the command line.

If CURSOR is omitted, the value is ON.

**OFF**

causes the cursor to return to the command line.

**TOP**

causes the last row you worked with to be scrolled to the top of the screen. The cursor returns to the command line.

GROUP	ISFGRP
CUSTOM ( <i>proplist-name</i> )	Not supported

Names a PROPLIST statement that customizes certain SDSF properties. For information about the PROPLIST statement, see “Customized properties (PROPLIST)” on page 93.

GROUP	ISFGRP
DADFLT ( <i>types-and-positions</i> )	DADFLT=( <i>types-and-positions</i> )

Indicates the default address space types and positions to be shown on the DA panel when members of this group enter a DA command without any parameters. If the list contains more than one item, separate the items with a comma.

If this parameter is not coded with at least one value for address space position (IN, OUT, TRANS, READY) and at least one value for address space type (STC, INIT, TSU, JOB), then no address spaces are displayed when the DA command is entered with no parameters.

The possible values for the parameter follow. When RMF is installed, SDSF uses RMF as the source of data for the panel.

- IN** Displays swapped-in address spaces
- OUT** Displays swapped-out address spaces
- TRANS**  
Displays address spaces that are in transition
- READY**  
Displays address spaces that are ready for execution
- STC** Displays started tasks
- INIT** Displays initiators
- TSU** Displays TSO users
- JOB** Displays batch jobs

GROUP	ISFGRP
DATE ( <u>MMDDYYYY</u> )   (DDMMYYYY)   (YYYYMMDD)	DATE= <u>MMDDYYYY</u>   DMMYYYY   YYYYMMDD

Sets a date format for this group: *month day year*, *day month year*, or *year month day*. SDSF uses this format when displaying dates on tabular panels and on the title line of the log panels. Commands that accept dates (LOCATE, PRINT, and FILTER) use this format.

If DATE is omitted, SDSF uses MMDDYYYY.

Users can override the date format with the SET DATE command or pop-up.

Specify the separator to be used between month, day, and year with the DATESEP parameter.

GROUP	ISFGRP
DATESEP (/)   (-)   (.)	DATESEP=_/   -   .

Sets a date separator for this group: slash (/), dash (-), or period (.). SDSF uses this separator between the month, day, and year when displaying dates on tabular panels and on the title line of the log panels. Commands with dates as parameters (LOCATE, PRINT, and FILTER) accept this separator.

If DATESEP is omitted, SDSF uses the slash (/).

Users can override the date separator with the SET DATE command or pop-up.

GROUP	ISFGRP
DEST (NTBL-statement-name)	DEST=ISFNTBL-macro-label

Names an ISFNTBL macro or NTBL statement that can be used to limit a group member to particular jobs, printers, punches, action characters, and overtypeable fields for all SDSF panels, except the DA panel. The DEST parameter works with the IDEST, CMDAUTH, and DSPAUTH parameters.

You can use the ISFNTBL macro or NTBL statement that you name to perform two functions:

**1. To restrict the destination names that a group member can use with the DEST command.**

The DEST command limits SDSF displays to jobs having the destination names it specifies.

If either the DEST or IDEST parameter is not coded for a user's group, the group members can specify any of the installation's destination names on the DEST command, unless a member is not authorized to use a destination name through the SAF security scheme.

When a SAF security scheme is not used, both the DEST and the IDEST parameters must be specified to restrict destination name usage on the DEST command. Only the destination names specified in either the DEST or IDEST lists are valid on the DEST command, and jobs for all destinations cannot be displayed.

For more information, see "Destination names" on page 253.

**2. To restrict the jobs, printers or punches for which users can enter action characters and overtype fields on SDSF panels.**

The DEST parameter works with the CMDAUTH and DSPAUTH parameters to perform this function. If CMDAUTH is set to DEST or DSPAUTH is set to ADEST for a group, the members of the group can use action characters and overtypeable fields on SDSF panels only for jobs, printers or punches whose DESTID matches the destinations specified in the DEST parameter's ISFNTBL macro or NTBL statement.

**Printers and Punches:** To control printers and punches, the destination name must be coded on the ISFNTBL macro as follows:



- If the printer or punch is defined in the JES parameters as local, with PRT $n$  or PUN $n$ , use U $n$ .
- If the printer or punch is defined in the JES parameters as remote, with RMT $n$ , use R $n$ .

For example, the following would identify all local and remote printer and punches starting with 1: ISFNTBL U1,1,R1,1. Also, ISFNTBL 'U1 ',1 identifies only local printer 1 and punch 1; ISFNTBL 'R1 ',1 identifies only remote printer 1 and punch 1.

To allow members of a group to control printers from the Printer panel, or punches from the Punch panel, when relying on ISFPARMS for authorization, you must give sufficient command level authority with the CMDLEV parameter and must include CMDAUTH values of ALL or DEST in the group's *command-authorization-list*. You can authorize more flexible control of printers and punches by using a SAF security scheme. To specify DEST using the SAF security scheme, see "Destination names" on page 253.

**Jobs:** For jobs, the destination name must be coded on the ISFNTBL macro or NTBL statement to match the DEST field on the panel, for all panels except the JDS panel. For the JDS panel, the DEST value that SDSF uses for authority checking is the DEST value shown on the panel from which the JDS panel was invoked, such as ST, O, or I.

For example, consider a job on the Status panel showing a value of DEST1 in the DEST field, but having individual data sets within that job with DEST values of DEST2. When a user invokes the JDS panel by entering '?' against that job and then selects an individual data set with a DEST value of DEST2, the DEST value used for authority checking is DEST1 from the Status panel. Similarly, if the user selects the job from the Status panel by entering 'S' against the job, the DEST value used for authority checking is DEST1.

GROUP	ISFGRP
DFIELD5 (FLD-statement-name)	DFIELD5=ISFFLD-macro-label

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the DA panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
DFIELD2 (FLD-statement-name)	DFIELD2=ISFFLD-macro-label

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the DA panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
DISPLAY (OFF)   (ON)	DISPLAY=OFF   ON

Specifies whether SDSF is to display the current values for DEST, OWNER, PREFIX, SORT, and FILTER on the SDSF tabular panels. The default is OFF.

Users can query and override the setting with the SET DISPLAY command or pull-down choice.

<b>GROUP</b>	<b>ISFGRP</b>
DSPAUTH ( <i>authorization-list</i> )	DSPAUTH=( <i>authorization-list</i> )

Specifies for which jobs the members of this group can display SYSOUT and SYSIN data sets with the Output Data Set panel. See also the IDSP, IDSPD, XDSP, and XDSPD parameters.

Two other parameters (IDSPD and XDSPD) and several values for the DSPAUTH parameter (AMDEST, AMMSG, and GRPMSG) refer to the ability of a user to display **messages only**. These parameters and values restrict the display of SYSOUT data sets with DSIDs less than 101, which are considered “message” data sets. By default, the message data sets are the non-spun JES2 job logs, allocation and termination messages, and the JCL listing.

If the user has issued the INPUT ON command, “messages” also includes input JCL, internal text, and the checkpoint/restart journal.

Note that when data is transferred to JES2 from other systems, such as JES3 or RSCS, DSID numbering cannot be compatible with JES2 numbering.

To specify DSPAUTH using the SAF security scheme, see Appendix B, “SAF equivalents for ISFPARMS,” on page 591.

*(display-authorization-list)*

specifies DSPAUTH values. If the list contains more than one value, the values must be separated by a comma.

**ADEST**

allows a group member to display output from jobs whose destination names match the value specified through the DEST parameter. This parameter cannot be used to authorize the display of output from the Display Active Users panel.

The destination name coded on the NTBL macro or NTBL statement for the DEST parameter must match the DEST field on the panel, for all panels except the JDS panel. For the JDS panel, the DEST value that SDSF uses for authority checking is the DEST value shown on the panel from which the JDS panel was invoked, such as ST, O, or I.

**ALL**

allows a member to display output from all jobs.

**AMDEST**

allows a member to display **messages only** from jobs whose destination names match the value specified with the DEST parameter. This parameter cannot be used to authorize the display of output from the DA panel.

The destination name coded on the NTBL macro or NTBL statement for the DEST parameter must match the DEST field on the panel, for all panels except the JDS panel. For the JDS panel, the DEST value that SDSF uses for authority checking is the DEST value shown on the panel from which the JDS panel was invoked, such as ST, O, or I.

**AMSG**

allows a member to display **messages only** from all jobs.

**GROUP**

allows a member to display output from jobs whose names begin with the

group's prefix (see the GPREF and GPLEN parameters). If NOTIFY is also specified, a member can issue commands for jobs whose NOTIFY matches the group prefix.

**GRPMMSG**

allows a member can display **messages only** from jobs whose names begin with the group's prefix.

**NOTIFY**

allows a member to display output from any job on which the NOTIFY parameter of the job card contains the member's user ID. If GROUP is also specified, a member can issue commands for jobs whose NOTIFY matches the group prefix.

**USERID**

allows a member to display output from jobs whose names begin with the member's TSO user ID.

GROUP	ISFGRP
DYNXFLDS ( <i>FLD-statement-name</i> )	DYNXFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the DYNX panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
DYNXFLD2 ( <i>FLD-statement-name</i> )	DYNXFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **Alternate** variable field list for the DYNX panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
EMCSAUTH ( <u>MASTER</u>   ALL)	EMCSAUTH= <u>MASTER</u>   ALL

Indicates the authority that will be used when activating the EMCS console. For a description of SDSF's use of the console, see "Issuing MVS and JES commands" on page 358.

**MASTER**

specifies MASTER authority. This is the default.

**ALL**

specifies SYS,IO,CONS authority. Note that profiles in the OPERCMDS class can be used to permit SDSF users to commands that require MASTER authority when EMCSAUTH=ALL is specified in ISFPARMS.

GROUP	ISFGRP
EMCSREQ (YES   <u>NO</u> )	EMCSREQ=YES   <u>NO</u>

Controls whether SDSF must use the EMCS console for system commands. For a description of SDSF's use of the console, see "Issuing MVS and JES commands" on page 358.

**YES**

specifies that SDSF must use the EMCS console.

**NO**

specifies that the EMCS console is not required. SDSF will use console ID 0 (INTERNAL) to issue commands when an EMCS console is not active. This is the default.

GROUP	ISFGRP
ENCFLDS ( <i>FLD-statement-name</i> )	ENCFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the ENC panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
ENCFLD2 ( <i>FLD-statement-name</i> )	ENCFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the ENC panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
ENQFLDS ( <i>FLD-statement-name</i> )	ENQFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the ENQ panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
ENQFLD2 ( <i>FLD-statement-name</i> )	ENQFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the ENQ panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
GPLEN ( <i>prefix-length</i> )	GPLEN= <i>prefix-length</i>

Defines a prefix for a group. This prefix can be used with the CMDAUTH parameter to determine which jobs members of a group can use action characters, or with the DSPAUTH parameter to determine which jobs the members can display SYSOUT and SYSIN data sets.

To create the prefix, SDSF takes as many characters as are specified by *group-prefix-length* from the members' TSO user IDs. *Group-prefix-length* can be 1 to 8.

For example, if you have operator IDs defined as OPER1, OPER2, and OPER3, you might put the operators in a group with a group membership parameter and set GPLEN to 4 to define a group prefix of OPER for that group.

**Note:** By specifying GROUP for both the CMDAUTH and the DSPAUTH parameter, you limit the operators' use of action characters to those jobs whose names begin with OPER.

You can code either GPLEN or GPREF, but not both. GPREF is described below. GPLEN works in conjunction with a value of GROUP for the PREFIX parameter.

GROUP	ISFGRP
GPREF ( <i>group-prefix</i> )	GPREF= <i>group-prefix</i>

Specifies a prefix for an authorization group. This prefix can be used with the CMDAUTH parameter to determine for which jobs the members of a group can use action characters, or with the DSPAUTH parameter to determine for which jobs the members can display SYSOUT and SYSIN data sets. The group prefix can be 1 to 8 characters and can include the generic and placeholder characters (\* and % by default).

**Note:** The generic search character must be appended to the group prefix in order for it to be treated like a prefix.

You can code either GPLEN or GPREF, but not both. GPREF works in conjunction with GROUP for the PREFIX parameter.

GROUP	ISFGRP
HFIELDS ( <i>FLD-statement-name</i> )	HFIELDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the H panel. If this parameter is omitted, the default primary variable field list is used. (Applies to JES2 only.)

GROUP	ISFGRP
HFIELD2 ( <i>FLD-statement-name</i> )	HFIELD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the H panel. If this parameter is omitted, the default alternate variable field list is used. (Applies to JES2 only.)

GROUP	ISFGRP
ICMD ( <i>NTBL-statement-name</i> )	ICMD= <i>ISFNTBL-macro-label</i>

Indicates that a member of this group can issue action characters, at a level controlled by the CMDLEV parameter, for jobs whose names are in the list created by the specified ISFNTBL macro or NTBL statement. This will be in addition to those jobs for which the group is authorized to issue commands by virtue of the CMDAUTH parameter.

GROUP	ISFGRP
IDEST ( <i>NTBL-statement-name</i> )	IDEST= <i>ISFNTBL-macro-label</i>

Names an ISFNTBL macro or NTBL statement that determines which jobs SDSF displays at session initialization to members of the group. This parameter does not affect the Display Active Users panel. See also the ISTATUS and XSTATUS parameters.

If the IDEST parameter is coded for a group, the SDSF panels are initialized with only those jobs having destination names listed in the NTBL macro or NTBL statement. The ISFNTBL macro or NTBL statement can contain from 1 to 4 valid destination names. Any of the names in this list that are invalid (not defined to the active JES subsystem), or to which the user is not authorized through SAF, are not used as initial destinations.

If the IDEST parameter is not coded, the SDSF panels are initialized with jobs for all destinations, unless a member is not authorized to a destination name through the SAF security scheme.

If both the IDEST and the DEST parameters are coded, members can use the DEST command to display only jobs with destination names contained in the ISFNTBL macro or NTBL statements for DEST and IDEST.

The members can use the DEST command to display jobs and outputs for *all* destinations, regardless of the user ID on the node. Also, if you are not using a SAF security scheme, and have coded both the DEST and IDEST parameters, you must list all destination names that are in the NTBL macro or NTBL statement for IDEST in the ISFNTBL macro or NTBL statement for DEST. If not, those IDEST destinations will not be used as initial destinations.

It is important to have an IDEST parameter for a user group that is denied view authority to all jobs through the SAF security scheme, regardless of destination. The IDEST parameter establishes a set of default destinations for a user that is used when the SDSF session is initialized, or that may be requested using the DEST command without specifying any destination names. To specify IDEST using the SAF security scheme, see "Destination names" on page 253.

To restrict destination name usage on the DEST command when a SAF security scheme is not used, both the DEST and the IDEST parameters must be specified. If either is missing, a user can display jobs for *all* destinations.

GROUP	ISFGRP
IDSP ( <i>NTBL-statement-name</i> )	IDSP= <i>ISFNTBL-macro-label</i>

Indicates that a member of this group can browse the output of jobs whose names are in the list created by the specified ISFNTBL macro or NTBL statement. This is in addition to those jobs for which the group is authorized to display output by virtue of the DSPAUTH parameter.

GROUP	ISFGRP
IDSPD ( <i>NTBL-statement-name</i> )	IDSPD= <i>ISFNTBL-statement-name</i>

Indicates that a member of this group can display **messages only** through the Output Data Set panel, from jobs whose names are in the list created by the specified ISFNTBL macro or NTBL statement. This is in addition to those jobs for which the group is authorized to display output by virtue of the DSPAUTH parameter.

The XDSPD parameter and the DSPAUTH parameter values AMDEST, AMMSG, and GRPMSG also refer to the ability of a user to display **messages only**. These parameters and values restrict the display of SYSOUT data sets with DSIDs less than 101, which are considered “message” data sets. (When data is transferred to JES2 from other systems, such as JES3 or RSCS, DSID numbering may not be compatible with JES2 numbering.)

GROUP	ISFGRP
IFIELDS ( <i>FLD-statement-name</i> )	IFIELDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the I panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
IFIELD2 ( <i>FLD-statement-name</i> )	IFIELD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the I panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
ILOGCOL ( <u>1</u> )   ( <i>position</i> )	ILOGCOL= <u>1</u>   <i>position</i>

Indicates which position (or column) of the SYSLOG or OPERLOG will be the first position displayed on the panel. *position-number* can be any number from 1 through 255.

This parameter is ignored if the screen on which the SYSLOG or OPERLOG is displayed can display the entire width of the SYSLOG/OPERLOG. Also, if the value for *position-number* is so high that less than a full screen of data is displayed on the SYSLOG or OPERLOG panel, SDSF adjusts the starting position number to display a full screen of data. For example, if the width of the screen on which the SYSLOG is displayed is 80 characters, SDSF adjusts the value of *position-number* to ensure that 80 characters of data are displayed.

GROUP	ISFGRP
INPUT ( <u>OFF</u> )   (ON)	INPUT= <u>OFF</u>   ON

Sets an initial value to control whether SYSIN data sets are displayed when users browse a job.

**OFF**

specifies that SYSIN data sets should not be displayed.

**ON**

specifies that SYSIN data sets should be displayed.

If INPUT is omitted, OFF is used.

Authorized users can override the INPUT value with the INPUT command or the associated pull-down choice.

<b>GROUP</b>	<b>ISFGRP</b>
INTFLDS ( <i>FLD-statement-name</i> )	INTFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Initiator panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
INTFLD2 ( <i>FLD-statement-name</i> )	INTFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines **alternate** variable field list for the INIT panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
ISTATUS ( <i>NTBL-statement-name</i> )	ISTATUS= <i>ISFNTBL-statement-name</i>

Indicates that jobs whose job names are in the list created by the specified ISFNTBL macro or NTBL statement are to always be displayed on the DA, H, I, O, PS and ST panels unless specifically excluded by the XSTATUS parameter.

There is an exception for the Held Output Queue. When the user enters the H command with no parameter, jobs in the ISTATUS list always appear, except when the user has PREFIX=\*. In this case, jobs that don't match the user's user ID don't appear, even if they are on the ISTATUS list.

<b>GROUP</b>	<b>ISFGRP</b>
ISYS ( <u>LOCAL</u> )   (NONE)	ISYS= <u>LOCAL</u>   NONE

Sets an initial value to limit the data, based on a system, that a group member will see on the sysplex panels (CK, DA, ENC, INIT, LI, NO, PR, PS, PUN, RDR, RM and SO). (Applies to JES2 only.)

**LOCAL**

indicates that the panels will show data for the system the user is logged on to.

**NONE**

indicates that data on the panels is not limited by system, that is, all systems in the sysplex will be shown.

If ISYS is omitted, LOCAL is used.

Authorized users can override the ISYS value with the SYSNAME command or pull-down choice.

<b>GROUP</b>	<b>ISFGRP</b>
JCFLDS ( <i>FLD-statement-name</i> )	JCFLDS= <i>ISFFLD-macro-label</i>



Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Class panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JCFLD2 ( <i>FLD-statement-name</i> )	JCFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Class panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
JDDFLDS ( <i>FLD-statement-name</i> )	JDDFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Device panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDDFLD2 ( <i>FLD-statement-name</i> )	JDDFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Device panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDMFLDS ( <i>FLD-statement-name</i> )	JDMFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Memory panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDMFLD2 ( <i>FLD-statement-name</i> )	JDMFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Memory panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDPFLDS ( <i>FLD-statement-name</i> )	JDPFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Dependency panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDPFLD2 ( <i>FLD-statement-name</i> )	JDPFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Dependency panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDSFLDS ( <i>FLD-statement-name</i> )	JDSFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Data Set panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDSFLD2 ( <i>FLD-statement-name</i> )	JDSFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Data Set panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
JDYFLDS ( <i>FLD-statement-name</i> )	JDYFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Delay panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JDYFLD2 ( <i>FLD-statement-name</i> )	JDYFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Delay panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JGFLDS ( <i>FLD-statement-name</i> )	JGFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Group panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JGFLD2 ( <i>FLD-statement-name</i> )	JGFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Group panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JSFLDS ( <i>FLD-statement-name</i> )	JSFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job Step panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
JSFLD2 ( <i>FLD-statement-name</i> )	JSFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job Step panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
J0FLDS ( <i>FLD-statement-name</i> )	J0FLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Job 0 panel. If this parameter is omitted, the default primary variable field list is used. (JES3 only)

GROUP	ISFGRP
J0FLD2 ( <i>FLD-statement-name</i> )	J0FLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Job 0 panel. If this parameter is omitted, the default alternate variable field list is used. (JES3 only)

GROUP	ISFGRP
LANG (ENGLISH)   (ENG)   (JAPANESE)   (JPN)	LANG= <u>ENGLISH</u>   ENG   JAPANESE   JPN

Selects, for an SDSF session under ISPF, the language to be used for the help and tutorial panels, provided the corresponding language feature is installed. The SET LANG command allows the user to select either English (ENGLISH or ENG) or Japanese (JAPANESE or JPN). SET LANG can be queried with the SET LANG ? command and, under ISPF, the LANG value is saved and restored across sessions.

GROUP	ISFGRP
LINEFLDS ( <i>FLD-statement-name</i> )	LINEFLDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the LI panel. If this parameter is omitted, the default primary variable field list is displayed. (Applies to JES2 only.)

GROUP	ISFGRP
LINEFLD2 ( <i>FLD-statement-name</i> )	LINEFLD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the LI panel. If this parameter is omitted, the default alternate variable field list is displayed. (Applies to JES2 only.)

<b>GROUP</b>	<b>ISFGRP</b>
LNKFLDS ( <i>FLD-statement-name</i> )	LNKFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the LNK panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
LNKFLD2 ( <i>FLD-statement-name</i> )	LNKFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the LNK panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
LOG ( <u>OPERACT</u> )   (OPERLOG)   (SYSLOG)	LOG= <u>OPERACT</u>   OPERLOG   SYSLOG

Names the default Log panel. The default Log panel is displayed when the LOG command is entered with no parameters, or the Log choice of the Display pull-down is selected.

<b>GROUP</b>	<b>ISFGRP</b>
LPAFLDS ( <i>FLD-statement-name</i> )	LPAFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the LPA panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
LPAFLD2 ( <i>FLD-statement-name</i> )	LPAFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the LPA panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
MASFLDS ( <i>FLD-statement-name</i> )	MASFLDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the MAS (JES2) and JP (JES3) panels. If this parameter is omitted, the default primary variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
MASFLD2 ( <i>FLD-statement-name</i> )	MASFLD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the MAS (JES2) and JP (JES3) panels. If this parameter is omitted, the default alternate variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
NCFLDS ( <i>FLD-statement-name</i> )	NCFLDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the NC panel. If this parameter is omitted, the default primary variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
NCFLD2 ( <i>FLD-statement-name</i> )	NCFLD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the NC panel. If this parameter is omitted, the default alternate variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
NODEFLDS ( <i>FLD-statement-name</i> )	NODEFLDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the NODES panel. If this parameter is omitted, the default primary variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
NODEFLD2 ( <i>FLD-statement-name</i> )	NODEFLD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the NODES panel. If this parameter is omitted, the default alternate variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
NSFLDS ( <i>FLD-statement-name</i> )	NSFLDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the NS panel. If this parameter is omitted, the default primary variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
NSFLD2 ( <i>FLD-statement-name</i> )	NSFLD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the NS panel. If this parameter is omitted, the default alternate variable field list is displayed.

<b>GROUP</b>	<b>ISFGRP</b>
ODFLDS ( <i>FLD-statement-name</i> )	ODFLDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Output Descriptors panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
ODFLD2 ( <i>FLD-statement-name</i> )	ODFLD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the OD panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
OIELDS ( <i>FLD-statement-name</i> )	OIELDS= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Output Queue panel. If this parameter is omitted, the default primary variable field list is used. (Applies to JES2 only.)

<b>GROUP</b>	<b>ISFGRP</b>
OFIELD2 ( <i>FLD-statement-name</i> )	OFIELD2= <i>ISFFLD-statement-name</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Output Queue panel. If this parameter is omitted, the default alternate variable field list is used. (Applies to JES2 only.)

<b>GROUP</b>	<b>ISFGRP</b>
OWNER ( <u>NONE</u> )   (USERID)	OWNER= <u>NONE</u>   USERID

Limits the jobs that a group member will see on the DA, H, I, O, PS and ST panels.

It provides a default for the OWNER command.

**USERID**

indicates that only those jobs whose owner is the member's user ID are displayed.

**NONE**

is the default. Jobs displayed are not limited by owner.

Users who are authorized to issue the OWNER command (which can be protected only through SAF security) can override the OWNER parameter with the OWNER command or pull-down choice, or the SELECT command.

<b>GROUP</b>	<b>ISFGRP</b>
PAGFLDS ( <i>FLD-statement-name</i> )	PAGFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the PAG panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
PAGFLD2 ( <i>FLD-statement-name</i> )	PAGFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the PAG panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
PARMFLDS ( <i>FLD-statement-name</i> )	PARMFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the PARM panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
PARMFLD2 ( <i>FLD-statement-name</i> )	PARMFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the PARM panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
PREFIX (NONE)   (USERID)   (GROUP)	PREFIX= <u>NONE</u>   USERID   GROUP

Limits the jobs that a group member will see on the DA, H, I, O, PS and ST panels.

The possible values for the PREFIX parameter are:

**USERID**

indicates that only those jobs whose name begins with the member's user ID are displayed, unless this parameter is overridden by the ISTATUS parameter.

**GROUP**

indicates that only those jobs whose name begins with the group's prefix are displayed, unless overridden by the ISTATUS parameter.

**Note:** PREFIX=GROUP works in conjunction with GPLLEN and GPREF.

**NONE**

is the default. All jobs are displayed. Only those jobs whose names begin with the member's user ID are displayed on the Held Output panel.

On the O panel, users will see netmail when their current PREFIX matches a job's netmail ID. The netmail ID is displayed as part of the DEST field. See also the ISTATUS and XSTATUS parameters.

Users who are authorized to issue the PREFIX command can override the PREFIX parameter with the PREFIX command or pull-down choice, or the SELECT command.

Specifying USERID or GROUP for end users of your system improves the performance of SDSF and makes more efficient use of system resources.

GROUP	ISFGRP
PROCFlds ( <i>FLD-statement-name</i> )	PROCFlds= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the PROC panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
PROCFD2 ( <i>FLD-statement-name</i> )	PROCFD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **Alternate** variable field list for the PROC panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
PRTFLDS ( <i>FLD-statement-name</i> )	PRTFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Printer panel. If this parameter is omitted, the default primary variable field list is used. (Applies to JES2 only.)

GROUP	ISFGRP
PRTFLD2 ( <i>FLD-statement-name</i> )	PRTFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Printer panel. If this parameter is omitted, the default alternate variable field list is used. (Applies to JES2 only.)

GROUP	ISFGRP
PSFLDS ( <i>FLD-statement-name</i> )	PSFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Process panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
PSFLD2 ( <i>FLD-statement-name</i> )	PSFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Process panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
PUNFLDS ( <i>FLD-statement-name</i> )	PUNFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro that defines the **primary** field list for the Punch panel. If this parameter is omitted, the default primary variable field list is displayed.

GROUP	ISFGRP
PUNFLD2 ( <i>FLD-statement-name</i> )	PUNFLD2= <i>ISFFLD-macro-label</i>



Names an ISFFLD macro that defines the **alternate** field list for the Punch panel. If this parameter is omitted, the default alternate variable field list is displayed.

GROUP	ISFGRP
RDRFLDS ( <i>FLD-statement-name</i> )	RDRFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro that defines the **primary** field list for the Reader panel. If this parameter is omitted, the default primary variable field list is displayed.

GROUP	ISFGRP
RDRFLD2 ( <i>FLD-statement-name</i> )	RDRFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro that defines the **alternate** field list for the Reader panel. If this parameter is omitted, the default alternate variable field list is displayed.

GROUP	ISFGRP
RESFLDS ( <i>FLD-statement-name</i> )	RESFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Resource panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
RESFLD2 ( <i>FLD-statement-name</i> )	RESFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Resource panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
RMFLDS ( <i>FLD-statement-name</i> )	RMFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the RM panel. If this parameter is omitted, the default primary variable field list is used.(Applies to JES2 only.)

GROUP	ISFGRP
RMFLD2 ( <i>FLD-statement-name</i> )	RMFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the RM panel. If this parameter is omitted, the default alternate variable field list is used.(Applies to JES2 only.)

GROUP	ISFGRP
RSYS (LOCAL)   (NONE)	RSYS=LOCAL   <u>NONE</u>

Sets an initial value to limit WTORs, based on system, that a group member will see on the Log panels.

**LOCAL**

indicates that only WTORS issued by the system the user is logged on to are displayed.

**NONE**

indicates that WTORS are not limited by system, that is, all WTORS for all systems are shown.

If RSYS is omitted, NONE is used.

<b>GROUP</b>	<b>ISFGRP</b>
SEFLDS ( <i>FLD-statement-name</i> )	SEFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Scheduling Environment panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
SEFLD2 ( <i>FLD-statement-name</i> )	SEFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Scheduling Environment panel. If this parameter is omitted, the default alternate variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
SOFLDS ( <i>FLD-statement-name</i> )	SOFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Spool Offload panel. If this parameter is omitted, the default primary variable field list is used.(Applies to JES2 only.)

<b>GROUP</b>	<b>ISFGRP</b>
SOFLD2 ( <i>FLD-statement-name</i> )	SOFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Spool Offload panel. If this parameter is omitted, the default alternate variable field list is used.(Applies to JES2 only.)

<b>GROUP</b>	<b>ISFGRP</b>
SPFLDS ( <i>FLD-statement-name</i> )	SPFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Spool Volumes panel. If this parameter is omitted, the default primary variable field list is used.

<b>GROUP</b>	<b>ISFGRP</b>
SPFLD2 ( <i>FLD-statement-name</i> )	SPFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Spool Volumes panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
SRCHFLDS ( <i>FLD-statement-name</i> )	SRCHFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the SRCH panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
SRCHFLD2 ( <i>FLD-statement-name</i> )	SRCHFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the SRCH panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
SRFLDS ( <i>FLD-statement-name</i> )	SRFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the System Requests panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
SRFLD2 ( <i>FLD-statement-name</i> )	SRFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the System Requests panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
STFLDS ( <i>FLD-statement-name</i> )	STFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the Status panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
STFLD2 ( <i>FLD-statement-name</i> )	STFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the Status panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
SYMFLDS ( <i>FLD-statement-name</i> )	SYMFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the SYM panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
SYMFLD2 ( <i>FLD-statement-name</i> )	SYMFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the SYM panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
SYSFLDS ( <i>FLD-statement-name</i> )	SYSFLDS= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **primary** variable field list for the SYS panel. If this parameter is omitted, the default primary variable field list is used.

GROUP	ISFGRP
SYSFLD2 ( <i>FLD-statement-name</i> )	SYSFLD2= <i>ISFFLD-macro-label</i>

Names an ISFFLD macro or FLD statement that defines the **alternate** variable field list for the SYS panel. If this parameter is omitted, the default alternate variable field list is used.

GROUP	ISFGRP
SYSID ( <i>system-id</i> )	SYSID= <i>system-id</i>

Indicates the default system ID of the system log which a member of this group displays on the SYSLOG panel in a JES2 environment.. If this parameter is omitted, the default is the current system log. This parameter is useful in a JES2 multi-access spool environment. The setting of SYSID can be changed by the user through use of the SYSID command if the user is authorized to use it, through the AUTH parameter. (Applies to JES2 only.)

GROUP	ISFGRP
SYSID3 ( <i>system-id</i> )	SYSID3= <i>system-id</i>

Indicates the default system ID of the system log which a member of this group displays on the SYSLOG panel in a JES3 environment. If this parameter is omitted, the default is the current system log. The setting of SYSID3 can be changed by the user through use of the SYSID command if the user is authorized to use it, through the AUTH parameter. (Applies to JES3 only.)

GROUP	ISFGRP
UPCTAB ( <u>TRTAB2</u> )   ( <i>TRTAB-statement-name</i> )	UPCTAB= <u>TRTAB2</u>   <i>TRTAB-statement-name</i>

Assigns a name to the translation table that converts lowercase characters to uppercase. Use this parameter to request a code page other than the default code page for a group of users.

This parameter works with an ISFTR macro, TRTAB statement, or TRDEF statement. SDSF looks for:

- An ISFTR macro or TRTAB statement with the character string *TR-statement-name* in the UPCTAB parameter.
- A TRDEF statement with the character string *TR-statement-name* in the NAME parameter. Use TRDEF to define your own translation table.

*TR-statement-name* can be any character string that is a valid label for your assembler. The default is TRTAB2.

If you are using statements and omit UPCTAB, the code page defaults to **SDSF**. For more information, see “Code page (TRTAB/TRDEF or ISFTR)” on page 103.

GROUP	ISFGRP
VALTAB ( <u>TRTAB</u> )   ( <i>TRTAB-statement-name</i> )	VALTAB= <u>TRTAB</u>   <i>TRTAB-statement-name</i>

Assigns a name to the translation table that checks for valid characters. Use this parameter to request a code page other than the default code page for a group of users.

This parameter works with an ISFTR macro, TRTAB statement, or TRDEF statement. SDSF looks for:

- An ISFTR macro or TRTAB statement with the character string *TR-statement-name* in the VALTAB parameter.
- A TRDEF statement with the character string *TR-statement-name* in the NAME parameter. Use TRDEF to define your own translation table.

*TR-statement-name* can be any character string that is a valid label for your assembler. The default is TRTAB.

If you are using statements, and omit VALTAB, the code page defaults to **SDSF**. For more information, see “Code page (TRTAB/TRDEF or ISFTR)” on page 103.

GROUP	ISFGRP
VIO ( <u>SYSALLDA</u> )   ( <i>unit-name</i> )	VIO= <u>SYSALLDA</u>   <i>unit-name</i>

Specifies the unit name to be used for a temporary file when viewing page-mode output. (Applies to JES2 only.) If VIO is not specified, SDSF uses the default, SYSALLDA. Specification of a unit name that refers to a VIO device is strongly recommended for performance and security reasons.

GROUP	ISFGRP
XCMD ( <i>NTBL-statement-name</i> )	XCMD= <i>ISFNTBL-macro-label</i>

Indicates that a member of this group *cannot* issue SDSF action characters at a level controlled by the CMDLEV parameter for jobs whose names are in the list created by the specified ISFNTBL macro or NTBL statement. This parameter overrides both the CMDAUTH and ICMD parameters.

GROUP	ISFGRP
XDSP ( <i>NTBL-statement-name</i> )	XDSP= <i>ISFNTBL-macro-label</i>

Indicates that a member of this group *cannot* display, through the Output Data Set panel, messages and user output from jobs whose names are in the list created by the specified ISFNTBL macro or NTBL statement. This parameter overrides the DSPAUTH, IDSP, IDSPD, and XDSPD parameters.

GROUP	ISFGRP
XDSPD ( <i>NTBL-statement-name</i> )	XDSPD= <i>ISFNTBL-macro-label</i>

Indicates that a member of this group *cannot* display, on the Output Data Set panel, output for jobs whose names are in the list created by the ISFNTBL macro or NTBL statement. A member can display **messages only**. This parameter overrides the DSPAUTH, IDSPD, and IDSP parameters.

The IDSPD parameter and the DSPAUTH parameter values AMDEST, AMSG, and GRPMSG also refer to the ability of a user to display **messages only**. These parameters and values restrict the display of SYSOUT data sets with DSIDs less than 101, which are considered “message” data sets. (When data is transferred to JES2 from other systems, such as JES3 or RSCS, DSID numbering may not be compatible with JES2 numbering.)

GROUP	ISFGRP
XSTATUS ( <i>NTBL-statement-name</i> )	XSTATUS= <i>ISFNTBL-macro-label</i>

Indicates that jobs whose names are in the list created by the specified ISFNTBL macro or NTBL statement will be excluded from all SDSF panels for members of this group. This parameter overrides all other parameters that control which jobs are displayed, including ISTATUS.

## Action characters and overtypable fields for each command level

The tables that follow are a reference for coding the CMDLEV parameter. The table shows the action characters that can be issued and the fields that can be overtyped for each command level.

The CMDLEV parameter is ignored in a JES3 environment.

Each command level is inclusive of all those with a lower number. For example, a user with a command level of 3 can perform the functions requiring a command level of 3, 2, 1, and 0.

If an action character or overtypable field is valid on a panel, the column for Where Valid is marked with one or more panel names.

The SDSF panels that appear in the tables that follow are Address Space Memory (**AS**), Authorized Program Facility (**APF**), Health Checker (**CK**), Health Check History (**CKH**), Display Active Users (**DA**), Dynamic Exits (**DYNX**), Enclaves (**ENC**), Enqueues (**ENQ**), Held Output Queue (**H**), Input Queue (**I**), Initiator (**INIT**), Job Class (**JC**), Job Data Set (**JDS**), Job Dependency (**JP**), Job Device (**JD**), Job Group (**JG**), Job Memory (**JM**), Job Step (**JS**), Job Delay (**JY**), Lines (**LI**), Link List (**LNK**), Link Pack Area (**LPA**), Multi-Access Spool (**MAS**), Network Connection (**NC**), Nodes (**NO**), Network Server (**NS**), Output Queue (**O**), Output Descriptors (**OD**), Page (**PAG**), PARMLIB (**PARM**), Printer (**PR**), Process (**PS**), Proclibs (**PROC**), Punch (**PUN**), Reader (**RDR**), Resource (**RES**),

Resource Monitor (**RM**), Scheduling Environment (**SE**), Spool Offload (**S0**), Spool Volumes (**SP**), Search (**SRCH**), System Requests (**SR**), System symbols (**SYM**), System (**SYS**), and Status (**ST**).

Some action characters and overtypable columns have specific requirements, indicated by a superscript:

- <sup>RMF</sup> indicates that the DA panel must be obtaining its data from RME.

## Command level 0

Table 22. Command Level 0 Action Characters

Action Characters	SDSF Actions, or MVS and JES2 Commands Issued	Where Valid
+	Expand NP column width	All tabular panels except OD
//	Block	All tabular panels except OD
=	Repeat	All tabular panels except OD
?	List job data sets	DA H I O OD ST
%	Invoke REXX exec	All tabular panels except OD and SRCH
I	Display more information	ENC I ST
JD	Display job devices	AS DA I INIT NS ST
JP	Display job dependencies	I JG ST
JM	Display job memory	AS DA I INIT NS ST
JS	Display job steps	DA H I O ST
JY	Display job delays	DA
M	Match a multisystem enclave	ENC
N	Display enqueues	DA
Q	Display output descriptors	DA H I JDS O ST
R	Display WLM resources. See note.	SE
S	Display check results or job data sets. See note.	CK CKH DA H I JDS JG JS O OD ST
SB SE	Display check results, job data sets, or MVS data sets. See note.	APF CK CKH DA H I JDS JG JS LNK LPA O OD PARM SRCH ST
SJ	Display check results or job data sets. See note.	DA H I JDS JG JS O OD ST
SBI	Browse REXX input data set using ISPF browse	CK
SBO	Browse REXX output data set using ISPF browse	CK
SEI	Edit REXX input data set using ISPF browse	CK
SEO	Edit REXX output data set using ISPF browse	CK
ST	Display associated jobs. See note.	JC JG SE
V	View page-mode data. See note.	JDS OD

Table 22. Command Level 0 Action Characters (continued)

Action Characters	SDSF Actions, or MVS and JES2 Commands Issued	Where Valid
X	Print data set. See note.	CK CKH DA H I JDS JG JS O OD ST
XC	Print data set and close print file	CK CKH DA H I JDS JG JS O OD ST
XD XDC	Print data set using Open Print Data Set panel	CK CKH DA H I JDS JG JS O OD ST
XF XFC	Print data set using Open Print File panel	CK CKH DA H I JDS JG JS O OD ST
XS XSC	Print data set using Open Print panel for SYSOUT	CK CKH DA H I JDS JG JS O OD ST

**Note:**

The R, S, ST on JC and SE, V and X action characters are not controlled by command level (CMDLEV parameter). See the DSPAUTH parameter for information on S and V. R and ST are controlled by access to the RES and ST commands. See the AUTH parameter for information.

## Command level 1

Table 23. Command Level 1 Action Characters

Action Characters	SDSF Actions, or MVS and JES2 Commands Issued	Where Valid
D	\$D (Display)	DA I ST INIT JC LI MAS NC NO NS PR PUN RDR RM SO SP
D	D (Display)	APF DYNX ENQ LNK LPA PAG PARM PROC PS RES SE SR SYM SYS
D (all forms)	\$D (Display)	JG
D (all forms)	D (Display)	APF DYNX JD LNK LPA PAG PARM PROC SYM SYS
DA	\$D (Display)	NS
DC	\$D (Display)	NO
DL	\$D (Display)	DA I ST INIT NC NS PR PUN RDR SP
DP	\$D (Display)	I NO ST
DS	\$D (Display)	NS
J	\$J	MAS
J	\$D (Display)	SP
JD	\$J	MAS
JH	\$J	MAS
JJ	\$J	MAS
JS	\$J	MAS
L	\$L (List) \$DO Display check history	DA I H O ST CK
LL	\$L (List) \$DO	DA H O ST
ST	Display ST	JC



## Command level 2

Table 24. Command Level 2 Action Characters

Action Characters	SDSF Actions, or MVS and JES2 Commands Issued	Where Valid
A	\$TO (Set output)	H O
C	\$C (Cancel) \$CO (Cancel) See notes 1 and 2.	DA H I JDS O ST LI NO PR PUN RDR SO H O
C	\$C	JG
CA	\$C,ARMRESTART	DA I ST
CD	\$C (Cancel, dump). See note 2.	DA I ST
CDA	\$C,D,ARMRESTART	DA I ST
CP	\$C	JG
E	Erase output descriptors	OD
E	\$E (Restart)	DA I ST LI NO PR PUN SO
EC	\$E (Restart)	DA I ST
ES ESH	\$E (Restart)	DA I ST
H	\$H (Hold)	DA I ST
H	\$H	JG
H	\$TO (Set output)	H O
H	SSI	JDS
O	\$O (Release). See note 1.	JDS ST
O	\$TO (Release). See note 1.	H
OK	\$TO (Release). See note 1.	H
P	\$C (Purge) \$CO (Purge) See notes 1 and 2.	DA H I JDS O ST H O
P	\$C	JG
PP	\$C (Purge protected). See note 2.	DA I ST
W	\$T (Set)	DA I JDS ST

### Notes:

1. SDSF uses the subsystem interface (SSI) when you enter a C, O, or P action character on the JDS panel. When all data sets are deleted by use of the C and P action characters on the H panel, SDSF issues \$O.
2. When a TSU job is canceled or purged on the DA, I, or ST panels, SDSF issues the MVS command, C U=*userid* or C U=*userid*,DUMP rather than \$C; a \$C is used to cancel a TSU job on the DA panel. When an active APPC transaction program is canceled or purged on the DA panel, SDSF issues C *jobname*,A=*asid* rather than \$C.

Table 25. Command Level 2 Overtimeable Fields

Overtimeable Fields	MVS and JES2 Commands Issued	Where Valid
ADDRESS		JDS OD

Table 25. Command Level 2 Overtimeable Fields (continued)

Overtimeable Fields	MVS and JES2 Commands Issued	Where Valid
AFPPARMS		JDS OD
BUILDING		JDS OD
BURST	\$TO (set Output)	H O
C	\$TO (Set output). See note.	H O JDS
C	\$T	I ST
CC	SSI	JDS
COLORMAP		JDS OD
COMSETUP		JDS OD
DEPARTMENT		JDS OD
DEST	\$TO (Set output). See note.	H O JDS
FCB	\$TO (Set output)	H O
FLASH	\$TO (Set output)	DA H O
FORMDEF		JDS OD
FORMLEN		JDS OD
FORMS	\$TO (Set output). See note.	H O JDS
INTRAY		OD
IP DESTINATION		OD
ITY		JDS
NAME		JDS OD
NOTIFY		JDS OD
OCOPYCNT		JDS OD
ODISP	\$TO (Set output)	H O
OFFSETXB		JDS OD
OFFSETXF		JDS OD
OFFSETYB		JDS OD
OFFSETYF		JDS OD
OUTBIN		OD
OUTBN		JDS
OVERLAYB		JDS OD
OVERLAYF		JDS OD
PAGEDEF		JDS OD
PORT		JDS
PORTNO		OD
PRTOPTNS		OD
PRTQUEUE		OD
PRMODE	\$TO (Set Output)	H O
PRTDEST	\$R (Route)	I ST

Table 25. Command Level 2 Overtypable Fields (continued)

MVS and JES2		
Overtypable Fields	Commands Issued	Where Valid
RETAINF		OD
RETAINS		OD
RETRYL		OD
RETRYT		OD
ROOM		JDS OD
TITLE		JDS OD
UCS	\$TO (Set output)	H O
USERDATA		OD
USERDATA1		JDS
USERLIB		JDS OD
WTR	\$TO (Set Output). See note.	H O JDS

**Note:**

SDSF uses the subsystem interface (SSI) when you overtype fields on the JDS panel.

### Command level 3

Table 26. Command Level 3 Action Characters

Action Characters	MVS and JES2 Commands Issued	Where Valid
A	F (Modify Activate)	CK
A	\$A (Release)	DA I ST
A	\$A (Release)	JG
AI	SETAUTOR	SR
Bx	\$B (Back space)	PR PUN
C	*C	NC
C	C (Cancel)	PS
C	K C	SR
D	F (Modify Display)	CK
DL	F (Modify Display)	CK
DP	F (Modify Display)	CK
DPO	F (Modify Display)	CK
DS	F (Modify Display)	CK
E	F (Modify Refresh)	CK
E	\$E (Restart)	NC NS
Fx	\$F (Forward space)	PR PUN
H	F (Modify Deactivate)	CK
H	\$H (Hold)	JC
I	\$I (Interrupt)	PR PUN

Table 26. Command Level 3 Action Characters (continued)

Action Characters	MVS and JES2 Commands Issued	Where Valid
I	\$T (Set)	LI
J	\$SJ (Start)	I ST
K	C (Cancel)	DA
K	CANCEL	NS
K	F (Modify)	PR
K	F (Modify)	PS
KD	C (Cancel, dump)	DA
KD	CANCEL	NS
N	\$N (Repeat)	PR PUN
P	F (Modify Delete)	CK
P	\$P (Stop)	INIT LI PR PUN RDR SO SP
P	\$P (Stop)	NC NS
PC	\$P (Stop)	SP
PF	F (Modify Delete,Force)	CK
R	F (Modify Run)	CK
R <sup>RMF</sup>	RESET	DA
R		ENC
R	R (Reply)	SR
RQ <sup>RMF</sup>	RESET	DA
RQ		ENC
Q	\$T (Set)	LI
S	\$S (Start)	INIT LI MAS PR PUN RDR SO SP
S	\$S (Start)	NC NS
SN	\$S (Start)	NC NO
SR	\$S (Start)	SO
ST	\$S (Start)	SO
T	F (Modify)	PS
U	F (Modify Update,Repcat)	CK
Y <sup>RMF</sup>	P (Stop)	DA
Y	STOP	NS
Z	\$Z (Halt)	INIT PR PUN RDR SP
Z	FORCE	DA
Z	FORCE	NS

Table 27. Command Level 3 Overtypable Fields

Overtypable Fields	MVS and JES2 Commands Issued	Where Valid
ACTIVE	\$T (Set)	JC
ADISC	\$T (Set)	LI
ANODE	\$T (Set)	LI NC

Table 27. Command Level 3 Overtypable Fields (continued)

Overtypable Fields	MVS and JES2 Commands Issued	Where Valid
APPL	\$T (Set)	NS
APPLID	\$T (Set)	LI
ARCHIVE	\$T (Set)	SO
ASIS	\$T (Set)	PR
AUTH	\$T (Set)	JC
AUTHORITY	\$T (Set)	NO RDR
BLP	\$T (Set)	JC
C	\$T (Set)	I ST RDR
CATEGORY	F (Modify)	CK
CCTL	\$T (Set)	PR PUN
CHAR1-4	\$T (Set)	PR
CKPTHOLD	\$T (Set)	MAS
CKPTLINE	\$T (Set)	PR PUN
CKPTMODE	\$T (Set)	PR
CKPTPAGE	\$T (Set)	PR PUN
CKPTSEC	\$T (Set)	PR
CLASSES	\$T (Set)	INIT
CLASS1-8	\$T (Set)	INIT
CM PCT	\$T (Set)	PR PUN
CODE	\$T (Set)	LI
COMMAND	\$T (Set)	JC
COMP	\$T (Set)	LI PR PUN
COMPACT	\$T (Set)	NC PR PUN
CONNECT	\$T (Set)	LI NC
CONN-INT	\$T (Set)	LI NC
COPYMARK	\$T (Set)	PR
CP	\$T (Set)	NO
CPR	\$T (Set)	JC
CPY	\$T (Set)	JC
CPYMOD	\$T (Set)	PR
CRTIME	\$T (Set)	SO
CTR	\$T (Set)	LI NC NS
DEBUG	F (Modify)	CK
DFCB	\$T (Set)	PR
DORMANCY	\$T (Set)	MAS
DSENQSHR	\$T (Set)	JC
DSNAME	\$T (Set)	SO
DUPLEX	\$T (Set)	LI
EINTERVAL	F (Modify)	CK

Table 27. Command Level 3 Overtimeable Fields (continued)

Overtimeable Fields	MVS and JES2 Commands Issued	Where Valid
END	\$T (Set)	NO
EXECNODE	\$R (Route)	I ST
FCBL	\$T (Set)	PR
FLS	\$T (Set)	PUN
FSATRACE	\$T (Set)	PR
FSSNAME	F (Modify)	PR
GROUP	\$T (Set)	JC
HOLD	\$T (Set)	NO RDR
HONORTRC	\$T (Set)	PR
INTERVAL	F (Modify)	CK
INTF	\$T (Set)	LI
IPNAME	\$T (Set)	NC NS
JCLIM	\$T (Set)	JC
JESLOG	\$T (Set)	JC
JRNL	\$T (Set)	JC
JRNUM	\$T (Set)	LI
JTNUM	\$T (Set)	LI
JTR	\$T (Set)	LI NC NS
K	\$T (Set)	PR
LABEL	\$T (Set)	SO
LIMIT	\$T (Set)	RM
LINE	\$T (Set)	NO NC
LINECCHR	\$T (Set)	LI
LINE-LIMIT	\$T (Set)	LI NC PR PUN SO
LOG	\$T (Set)	LI NS
LOGMODE	\$T (Set)	NC NO
LOGON	\$T (Set)	NC NO
LRECL	\$T (Set)	PR PUN
M	\$T (Set)	PR
MAX-TIME	\$T (Set)	JC
MBURST	\$T (Set)	SO
MC	\$T (Set)	RDR
MDEST	\$T (Set)	SO
MFCB	\$T (Set)	SO
MFLH	\$T (Set)	SO
MFORMS	\$T (Set)	SO
MHOLD	\$T (Set)	SO
MODE	\$T (Set)	PR
MODSP	\$T (Set)	SO

Table 27. Command Level 3 Overtypable Fields (continued)

Overtypable Fields	MVS and JES2 Commands Issued	Where Valid
MPRMODE	\$T (Set)	SO
MSAFF	\$T (Set)	SO
MSGLV	\$T (Set)	JC
MUCS	\$T (Set)	SO
MWRITER	\$T (Set)	SO
NETSRV	\$T (Set)	NC NO
NEWPAGE	\$T (Set)	PR
NODE	\$SN (Start)	LI
NODENAME	\$T (Set)	NO
NOTIFY	\$T (Set)	SO
NPRO	\$T (Set)	PR
ODISP	\$T (Set)	JC
OUT	\$T (Set)	JC
PAGE-LIMIT	\$T (Set)	LI NC PR SO
PARAMETERS	F (Modify)	CK
PASSWORD	\$T (Set)	LI NS
PAU	\$T (Set)	PR PUN
PEN	\$T (Set)	NO
PGN	E (Reset)	DA
PGN	\$T (Set)	JC
PGNM	\$T (Set)	JC
PI	\$T (Set)	RDR
PL	\$T (Set)	RDR
PMG	\$T (Set)	NO
PORT	\$T (Set)	NC NS
PROMORT	\$T (Set)	JC
PROT	\$T (Set)	SO
PRTDEST	\$T (Set)	RDR
PRTY	\$T (Set)	I ST
PRTY	\$TO (Set output)	H O
PRV	\$T (Set)	NO
PSEL	\$T (Set)	PR
PUNDEST	\$T (Set)	RDR
QHLD	\$T (Set)	JC
QUIESCE	E (Reset)	DA
RECV	\$T (Set)	NO
REGION	\$T (Set)	JC
RESERVED	\$T (Set)	SP
REST	\$T (Set)	LI NC NO

I

Table 27. Command Level 3 Overtimeable Fields (continued)

Overtimeable Fields	MVS and JES2 Commands Issued	Where Valid
RESTART	\$T (Set)	LI NS
REST-INT	\$T (Set)	LI NS
RST	\$T (Set)	JC
RTPD	\$T (Set)	SO
SAFF	\$T (Set)	I JG SP ST
SAFF1	\$T (Set)	RDR
SBURST	\$T (Set)	PR SO
SCHEDULING-ENV	\$T (Set)	I JC JG SO ST
SCN	\$T (Set)	JC
SDISP	\$T (Set)	SO
SECURE	\$T (Set)	NC NS
SELECT	\$T (Set)	PR PUN
SENTRS	\$T (Set)	NO
SEP	\$T (Set)	PR PUN
SEPCHAR	\$T (Set)	PR
SEPDS	\$T (Set)	PR PUN
SETUP	\$T (Set)	PR PUN
SEVERITY	F (Modify)	CK
SFCB	\$T (Set)	PR SO
SFLH	\$T (Set)	PR SO
SFORMS	\$T (Set)	PR PUN SO
SHOLD	\$T (Set)	SO
SJOBNAME	\$T (Set)	PR PUN SO
SOCKET	\$T (Set)	NS
SODSP	\$T (Set)	SO
SODSP	\$T (Set)	LI NC
SOWNER	\$T (Set)	PR PUN SO
SPEED	\$T (Set)	LI
SPRMODE1	\$T (Set)	PR PUN SO
SRANGE	\$T (Set)	PR PUN SO
SRNUM	\$T (Set)	LI
SRVCLASS	E (Reset)	DA
SRVCLASS		ENC
SRVCLASS	\$T (Set)	I ST
SSAFF	\$T (Set)	SO
SSCHEDULING-ENV	\$T (Set)	SO
SSRVCLASS	\$T (Set)	SO
STACK	\$T (Set)	NS
STNUM	\$T (Set)	LI



Table 27. Command Level 3 Overtimeable Fields (continued)

Overtimeable Fields	MVS and JES2	
	Commands Issued	Where Valid
SUBNET	\$T (Set)	NO
SUCS	\$T (Set)	PR SO
SUS	\$T (Set)	PR PUN
SVOL	\$T (Set)	PUN SO
SVOL1	\$T (Set)	PR
SWA	\$T (Set)	JC
SWRITER	\$T (Set)	PR PUN SO
SYNCTOL	\$T (Set)	MAS
SYSSYM	\$T (Set)	JC
TP6	\$T (Set)	DA
TP26	\$T (Set)	DA
TR	\$T (Set)	LI NC NO NS PR PUN RDR
TRANS	\$T (Set)	NO
TRANSP	\$T (Set)	LI
TRKCELL	\$T (Set)	PR
UCSV	\$T (Set)	PR
UJP	\$T (Set)	JC
USERDATE	F (Modify)	CK
USO	\$T (Set)	JC
VOLS	\$T (Set)	SO
VALIDATE	\$T (Set)	SO
VERBOSE	F (Modify)	CK
VTR	\$T (Set)	LI NC NS
WARN%	\$T (Set)	RM
WTOTYPE	F (Modify)	CK
XEQDEST	\$T (Set)	RDR
XBM	\$T (Set)	JC

## Command level 4

Table 28. Command Level 4 Action Characters

Action Characters	MVS and JES2	
	Commands Issued	Where Valid
E	\$E (Restart)	MAS
P	\$P (Stop)	MAS
ZM	\$J	MAS

Table 29. Command Level 4 Overtimeable Fields

Overtimeable Fields	MVS and JES2	
	Commands Issued	Where Valid
MCLASS	\$T (Set)	SO

Table 29. Command Level 4 Overtypable Fields (continued)

Overtypable Fields	MVS and JES2	
	Commands Issued	Where Valid
SCLASS	\$T (Set)	PR PUN SO
System	F (Modify)	RES

## Command level 5

Table 30. Command Level 5 Overtypable Fields

Overtypable Fields	MVS and JES2	
	Commands Issued	Where Valid
SDEST1	\$T (Set)	PR PUN SO
SENDP	\$T (Set)	NO
UNIT	\$T (Set)	LI PR PUN RDR SO
VERIFYP	\$T (Set)	NO

## Command level 6

Table 31. Command Level 6 Overtypable Fields

Overtypable Fields	MVS and JES2	
	Commands Issued	Where Valid
WORK-SELECTION	\$T (Set)	LI NC PR PUN SO

## Command level 7

Command level 7 authorizes the user to all action characters and overtypable fields.

## Variable field lists (FLD or ISFFLD)

An FLD statement along with FLDENT statements, or an ISFFLD macro, defines the fields that are displayed on an SDSF panel. It is associated with the field list for a particular panel by an ISGRP macro or GROUP statement.

In ISFPARMS assembler macros, the ISFFLD macros must come after the ISFGRP macros. When you use statements, the statements can be in any order.

You can define a **primary** and **alternate** variable field list for each SDSF panel. The primary field list contains those fields that are shown upon entry into a panel. The alternate field list contains fields that can be displayed by use of the ? command.

For using SDSF interactively, it is important to locate overtypable fields on the panel so that the entire field is visible on one screen. An overtypable field can be overtyped only when the entire field is visible.

The fields that are available on a panel can also be affected by the JES level. The ARRANGE command allows users to change the order and widths of the fields in each field list.

With SDSF's support for REXX, users can develop REXX execs that have dependencies on specific columns. You should be aware when removing columns from a field list that this may impact REXX execs.

## Example of the FLD statement and ISFFLD macro

FLD and FLDENT Statements		ISFFLD Macro	
<b>1</b>	GROUP TSOAUTH(JCL,OPER,ACCT),	<b>1</b>	ISFGRP TSOAUTH=(JCL,OPER,ACCT),
<b>2</b>	IFIELDS(DFLD)	<b>2</b>	IFIELDS=DFLD
<b>3</b>	FLD NAME(DFLD) TYPE(IN)	<b>3</b>	DFLD ISFFLD JNUM,'JOBNUM',7,
	FLDENT COLUMN(JNUM),TITLE('JOBNUM'),WIDTH(7)	<b>4</b>	JPRI0,'PRTY',4,
<b>4</b>	FLDENT COLUMN(JPRI0),TITLE(PRTY),WIDTH(4)	<b>5</b>	TYPE=IN

On line **2** of the example, the IFIELDS parameter refers to an ISFFLD macro (with the macro label) or FLD statement (with the NAME parameter).

The ISFFLD macro and FLD statement begin on the line marked with **3**. Each defines a column for the JES job number, with a title of 'JOBNUM' and a width of 7 characters; and a column for the JES input queue priority, with a title of PRTY and width of 4 characters (line **4**). The TYPE parameter identifies the panel as the IN or Input Queue panel (line **5** in the ISFGRP macro, line **3** of the FLD example).

## FLD and ISFFLD syntax

### FLD and FLDENT statements

```
FLD NAME(FLD-statement-name),TYPE(panel-ID)
      FLDENT COLUMN(column),TITLE(title),WIDTH(width)
```

### ISFFLD macro

```
label ISFFLD column,title,width,...,TYPE=panel-ID
```

*label* or *FLD-statement-name*

names the ISFFLD macro or FLD statement referenced by a group. The name can be alphabetic, numeric, or national characters (@, #, \$) and must begin with an alphabetic character.

*column*

is a 2-to-8-character name, as defined by SDSF, for a column on an SDSF panel that displays tabular information. Chapter 4, "Columns on the SDSF panels," on page 135 includes tables of the columns for each panel.

You will achieve better SDSF performance if the primary field list contains only those fields that SDSF can obtain from in-storage control blocks. These are marked as having *immediate* access in the tables in Chapter 4, "Columns on the SDSF panels," on page 135. Those fields that require an I/O operation to the spool data set (*delayed* access) should be in the alternate field list.

*title*

is the title that appears on a panel for the column defined by *column*.

When you define a title using mixed case, enclose it in single quotation marks to ensure that it is displayed in mixed case. The case of the column titles does not affect commands that use titles as parameters, such as SORT and FILTER. The CTITLE parameter of the GROUP statement can be used to fold all column titles to uppercase.

If the title contains blanks, you *must* enclose it in single quotation marks. Similarly, users entering commands with column titles as parameters will be required to enclose those titles within quotation marks. For this reason, you may want to avoid coding titles that contain blanks.

A title must not be more than 18 characters long.

*width*

is the width of the column on the panel. The width must be at least as long as the title. Use D to get the SDSF default length.

When displaying numeric values that are too large for the column width, SDSF scales them using these abbreviations: T (thousands), M (millions), B (billions), KB (kilobytes), MB (megabytes), GB (gigabytes), TB (terabytes) and PB (petabytes).

*panel-ID*

is one of the following, corresponding to the SDSF tabular panel for which this variable field list was designed:

**APF** Authorized Program Facility panel  
**AS** Address Space Memory panel  
**CK** Health Checker panel  
**CKH** Health Checker History panel  
**DA** Display Active Users panel  
**DYNX** Dynamic Exits panel  
**ENC** Enclaves panel  
**ENQ** Enqueues panel  
**HOLD**  
Held Output Queue panel  
**IN** Input Queue panel  
**INT** Initiator panel  
**JC** Job Class panel  
**JDD** Job Device panel  
**JDM** Job Memory panel  
**JDP** Job Dependency panel  
**JDS** Job Data Set panel  
**JDY** Job Delay panel  
**JG** Job Group panel  
**JS** Job Step panel  
**J0** Job 0 panel  
**LINE** Lines panel  
**LNK** Link List panel  
**LPA** Link Pack Area panel  
**MAS** Multi-Access Spool panel (JES2) and JESPLEX panel (JES3)  
**NC** Network connection panel  
**NODE**  
Nodes panel  
**NS** Network server panel  
**OD** Output Descriptors panel  
**OUT** Output Queue panel  
**PAG** Page panel  
**PARM** PARMLIB panel  
**PROC** Proclib panel  
**PRT** Printer panel  
**PS** Process panel  
**PUN** Punch panel  
**RDR** Reader panel  
**RES** Resource panel  
**RM** Resource Monitor panel  
**SE** Scheduling Environment panel  
**SO** Spool Offload panel  
**SP** Spool Volumes panel

**SR** System Requests panel  
**SRCH** Search panel  
**STAT** Status panel  
**SYM** System Symbols panel  
**SYS** System Information panel

Table 32 shows, for each SDSF panel, the ISFGRP and GROUP parameters that name the primary and alternate field lists, and where to find a complete list of fields.

*Table 32. Field List Parameters*

Panel	ISFGRP or GROUP Parameter	Reference for Field List
APF	APFFLDS, APFFLD2	"Authorized Program Facility panel (APF)" on page 137
AS	ASFLDS, ASFLD2	"Address Space Memory panel (AS)" on page 135
CK	CKFLDS, CKFLD2	"Health Checker panel (CK)" on page 144
CKH	CKHFLDS, CKHFLD2	"Health Check History panel (CKH)" on page 144
DA	DFIELDS, DFIELD2	"Display Active Users panel (DA)" on page 137
DYNX	DYNXFLDS, DYNXFLD2	"Dynamic Exits panel (DYNX)" on page 140
ENC	ENCFLDS, ENCFLD2	"Enclaves panel (ENC)" on page 141
ENQ	ENQFLDS, ENQFLD2	"Enqueue panel (ENQ)" on page 142
H	HFIELDS, HFIELD2	"Held Output panel (H)" on page 146
I	IFIELDS, IFIELD2	"Input Queue panel (I)" on page 149
INIT	INTFLDS, INTFLD2	"Initiator panel (INIT)" on page 148
JC	JCFLDS, JCFLD2	"Job Class panel (JC)" on page 152
JD	JDDFLDS, JDDFLD2	"Job Device panel (JD)" on page 158
JDP	JDPFLDS, JDPFLD2	"Job Dependency panel" on page 158
JDS	JDSFLDS, JDSFLD2	"Job Data Set panel (JDS)" on page 154
JG	JGFLDS, JGFLD2	"Job Group panel (JG)" on page 160
JM	JDMFLDS, JDMFLD2	"Job Memory panel (JM)" on page 161
JP	MASFLDS, MASFLD2	"JESPLEX panel (JP)" on page 152 and "Multi-Access Spool panel (MAS) and JESPLEX (JP) panel" on page 168

Table 32. Field List Parameters (continued)

Panel	ISFGRP or GROUP Parameter	Reference for Field List
JS	JSFLDS, JSFLD2	"Job Step panel (JS)" on page 162
JY	JDYFLDS, JDYFLD2	"Job Delay panel (JY)" on page 157
J0	J0FLDS, J0FLD2	"Job 0 (J0)" on page 163
LI	LINEFLDS, LINEFLD2	"Lines panel (LI)" on page 164
LNK	LNKFLDS, LNKFLD2	"Link List panel (LNK)" on page 166
LPA	LPAFLDS, LPAFLD2	"Link Pack Area panel (LPA)" on page 167
MAS	MASFLDS, MASFLD2	"Multi-Access Spool panel (MAS) and JESPLEX (JP) panel" on page 168 and "JESPLEX panel (JP)" on page 152
NC	NCFLDS, NCFLD2	"Network Connections (NC)" on page 169
NO	NODEFLDS, NODEFLD2	"Nodes panel (NO)" on page 172
NS	NSFLDS, NSFLD2	"Network Servers (NS)" on page 171
O	OFLDS, OFIELD2	"Output Queue panel (O)" on page 175
OD	ODFLDS, ODFLD2	"Output Descriptors panel (OD)" on page 174
PAG	PAGFLDS, PAGFLD2	"Page panel (PAG)" on page 178
PARM	PARMFLDS, PARMFLD2	"PARMLIB panel (PARM)" on page 179
PROC	PROCFLDS, PROCFLD2	"Proclib panel (PROC)" on page 184
PS	PSFLDS, PSFLD2	"Processes panel (PS)" on page 184
PUN	PUNFLDS, PUNFLD2	"Punch panel (PUN)" on page 185
RDR	RDRFLDS, RDRFLD2	"Reader panel (RDR)" on page 187
RES	RESFLDS, RESFLD2	"Resource panel (RES)" on page 189
RM	RMFLDS, RMFLD2	"Resource Monitor (RM) panel" on page 189
SE	SEFLDS, SEFLD2	"Scheduling Environment panel (SE)" on page 190
SO	SOFLDS, SOFLD2	"Spool Offload panel (SO)" on page 190
SP	SPFLDS, SPFLD2	"Spool Volumes panel (SP)" on page 193

Table 32. Field List Parameters (continued)

Panel	ISFGRP or GROUP Parameter	Reference for Field List
SR	SRFLDS, SRFLD2	"System Requests panel (SR)" on page 200
SRCH	SRCHFLDS, SRCHFLD2	"Search panel (SRCH)" on page 195
ST	STFLDS, STFLD2	"Status panel (ST)" on page 195
SYM	SYMFLDS, SYMFLD2	"System Symbols panel (SYM)" on page 198
SYS	SYSFLDS, SYSFLD2	"System panel (SYS)" on page 199

## Name tables (NTBL or ISFNTBL)

An NTBL statement along with NTBLENT statements, or an ISFNTBL macro, works in conjunction with an ISFGRP macro or GROUP statement in placing an SDSF user into a group, or in determining which SDSF functions are available to a member of a group.

In ISFPARMS assembler macros, the ISFNTBL macros must follow the ISFGRP macros.

### Examples of the NTBL statement and ISFNTBL macro

NTBL and NTBLENT Statements	ISFNTBL Macro
<b>1</b> GROUP TSOAUTH(JCL,OPER,ACCT), <b>2</b> XUID(XLIST) <b>3</b> NTBL NAME(XLIST) NTBLENT STRING(\$S),OFFSET(1) NTBLENT STRING(OPER),OFFSET(3)	<b>1</b> ISFGRP TSOAUTH=(JCL,OPER,ACCT), <b>2</b> XUID=XLIST <b>3</b> XLIST ISFNTBL \$\$,1,OPER,3

On line **1** of the example, the TSOAUTH parameter of the ISFGRP macro or GROUP statement defines a group of users with TSO authority of JCL, OPER, and ACCT.

On line **2**, the XUID parameter works with the ISFNTBL macro, or the combination of NTBL and NTBLENT statements, beginning on line **3**, to exclude from the user group any user with an ID that has the character string \$S beginning in the first position, or the character string OPER beginning in the third position.

NTBL and NTBLENT Statements	ISFNTBL Macro
<b>1</b> GROUP TSOAUTH(JCL), <b>2</b> PREFIX(USERID), <b>3</b> XSTATUS(EXCLUDE) <b>4</b> NTBL NAME(EXCLUDE) NTBLENT STRING(RSCS)	<b>1</b> ISFGRP TSOAUTH=(JCL), <b>2</b> PREFIX=USERID, <b>3</b> XSTATUS=EXCLUDE <b>4</b> EXCLUDE ISFNTBL RSCS,1

On line **1** of the example, the TSOAUTH parameter of the ISFGRP macro or GROUP statement defines a group of users with TSO authority of JCL. Line **2** defines which jobs will be included on SDSF panels.

On line **3**, the XSTATUS parameter works with the ISFNTBL macro, or the combination of NTBL and NTBLENT statements, beginning on line **4**, to exclude from the SDSF panels any job whose name begins with the characters RSCS. The OFFSET parameter is omitted and defaults to 1.

For more examples, see samples ISFPRM00 and ISFPRM01 in ISF.SISFJCL.

## NTBL and ISFNTBL syntax

### NTBL and NTBLENT Statements

```
NTBL NAME(NTBL-statement-name) TYPE(DEST)
      NTBLENT STRING(string) OFFSET(beginning-column-of-string)
```

### ISFNTBL Macro

```
label ISFNTBL string, beginning-column-of-string,... [TYPE=DEST]
```

*label* or *NTBL-statement-name*

names the ISFNTBL macro or NTBL statement. The name must be 2-8 alphabetic, numeric, or national characters (@, #, \$) and must begin with an alphabetic character.

*string*

is a character string.

If a character string contains blanks, it must be enclosed in single quotation marks.

*beginning-column-of-string*

is the beginning column number of the character string. In the NTBLENT statement, OFFSET(*beginning-column-of-string*) is optional. If it is omitted, *beginning-column-of-string* defaults to 1.

#### TYPE

is an optional parameter. The value of DEST indicates that this definition contains enhanced destination names. If you are using these longer destination names, you must specify the TYPE parameter, with a value of DEST.

## Usage notes

If you code name tables for destination names, you may want to put the installation-defined destination names last. Installation-defined names may be most likely to cause an error, and when SDSF encounters an error during initialization, it continues initialization with the destination names that were processed successfully before the error.

An ISFNTBL macro or NTBL statement can be referred to by the following parameters of one or more ISFGRP macros or GROUP statements:

- DEST
- ICMD
- IDEST
- IDSP
- IDSPD
- ILPROC
- ISTATUS
- ITNAME



IUID  
XCMD  
XDSP  
XDSPD  
XLPROC  
XSTATUS  
STNAME  
XUID

---

## Customized properties (PROPLIST)

A PROPLIST statement, along with PROPERTY statements, defines customized values for certain SDSF properties. It provides an alternative to writing user exit routines to customize those properties. A user exit routine that customizes the same property as a PROPERTY statement overrides the value on the PROPERTY statement.

The PROPLIST statement is associated with a group of users through the CUSTOM parameter on the GROUP statement.

The PROPLIST statement has no equivalent in ISFPARMS assembler macros.

### Example of the PROPLIST and associated statements

```
1 GROUP NAME(DEPTA),  
2   CUSTOM(USERPROP)  
   .  
   .  
3 PROPLIST NAME(USERPROP)  
   4   PROPERTY NAME(Security.Browse.LogNOFAIL) VALUE(TRUE)
```

On line **2** of the example, the CUSTOM parameter refers to a PROPLIST statement with the NAME parameter.

The PROPLIST statement with the appropriate name begins on the line marked with **3**. It consists of one PROPERTY statement, on the line marked with **4**, which specifies the Security.Browse.LogNOFAIL property.

## PROPLIST syntax

### PROPLIST and PROPERTY statements

```
PROPLIST NAME(proplist-statement-name),  
             PROPERTY NAME(property-name) VALUE(value)
```

*proplist-statement-name*

names the PROPLIST statement referenced by the CUSTOM parameter in a GROUP statement. The name can be 1 to 8 alphabetic, numeric, or national characters (@, #, \$) and must begin with an alphabetic or national character.

*property-name*

names the property. The properties are described in Table 33 on page 94.

*value*

specifies the setting for the property.

Table 33 shows the properties that you can specify with the `PROPERTY` statement, and the corresponding flag that you could set in a user exit routine to achieve the same result. The user exit overrides the `PROPERTY` statement.

*Table 33. Properties to Specify with the `PROPERTY` Statement*

Name	Values	Description	Corresponding Field for User Exit
Browse.CoreBuf.NoSwap	TRUE or FALSE	Affects the browsing of job data sets. A value of TRUE requests that SDSF not attempt to gather data not yet written to spool if the job is swapped out. This is ignored for systems other than the one you are logged onto. FALSE is the default.	UPRSFLG3.UPRS3SWP
Browse.Suppress.DupDS	TRUE or FALSE	Controls whether duplicate SYSOUT data sets are included when you browse or print a job. A value of TRUE requests that duplicate SYSOUT data sets not be included. FALSE is the default.	UPROFLG3.UPRO3NOD
Comm.Release.Mode	1 or 2	<p>Sets the mode that SDSF uses for communication to provide sysplex-wide data on SDSF panels. For more information, refer to “Using the server for sysplex data” on page 112.</p> <p>A value of 1 sets the communication mode to Z12, which requests that SDSF revert to using WebSphere MQ for communications if one or more systems is z/OS V1R12 or lower. Systems must be in the server group.</p> <p>A value of 2 sets the communication mode to Z13, which requests that SDSF use the sysplex support that was introduced in z/OS V1R13 SDSF. SDSF uses XCF for communications and does not use the server group. Systems that you wish to be included must be at least z/OS V1R13. This is the default.</p>	UPRCMODE
Command.FILTER.SymbolsDisabled	TRUE or FALSE	Controls the use of system symbols with filtering. If the value is TRUE, any symbols in a string are not resolved. If the value is FALSE, symbols are resolved. FALSE is the default.	UPRS6FSY

Table 33. Properties to Specify with the PROPERTY Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Command.HOLD.AddGenChar	TRUE or FALSE	Affects the job name parameter on the H command. If the value is TRUE, SDSF appends a generic pattern-matching character to the job name specified with the H command, unless the job name already ends with a generic character or is already the maximum length (8 characters). For example, the command H GREER would result in H GREER*. FALSE is the default.	UPROFLG1.UPRO1GHO
Command.INIT.DefaultJESManaged	TRUE or FALSE	Controls the rows that are shown on the initiator panel by default. If the value is TRUE, only JES-managed initiators are shown by default. FALSE is the default.	UPROFLG2.UPRO2IDJ
Command.PREFIX.AddGenChar	TRUE or FALSE	Affects the PREFIX command. If the value is TRUE, SDSF appends a generic pattern-matching character to the prefix specified with the PREFIX command, unless the prefix already ends with a generic character or is already the maximum length (8 characters). For example, the command PREFIX JONES would result in a prefix of JONES*. FALSE is the default.	UPROFLG1.UPRO1GPF
Command.SLASH.CommandLimit	20 - 2000	Sets the number of system commands entered with the / command that SDSF stores. When the number is exceeded, the oldest command is removed from the list. The default is 1,000. System commands are stored only when using SDSF under ISPF.	UPRCMDLM

Table 33. Properties to Specify with the *PROPERTY* Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Command.SLASH.Name	/, ( or )	<p>Specifies a single character to use when issuing system commands through SDSF (usually referred to as the slash command). You would use this character with all forms of the slash command, including I/ and W/. Enclose the character in single quotation marks, for example VALUE(' '). The default is /.</p> <p>This also affects the character used with the REXX ISFEXEC command. The REXX ISFSLASH command is preferred, as it does not require the character to be coded with the command.</p>	UPRSLCMD UPRSLCIC UPRSLCWC
Command.SLASH.NoDynamicPanels	TRUE or FALSE	Controls whether the size of the System Command Extension pop-up varies with the screen size of the emulator session. If the value is TRUE, the size of the pop-up does not vary. If the value is FALSE, the size of the pop-up varies. FALSE is the default.	UPROFLG4.UPRO4CDP
Command.STAT.AddGenChar	TRUE or FALSE	Affects the job name parameter on the ST command. If the value is TRUE, SDSF appends a generic pattern-matching character to the job name specified with the ST command, unless the job name already ends with a generic character or is already the maximum length (8 characters). For example, the command ST GREER would result in ST GREER*. FALSE is the default.	UPROFLG1.UPRO1GST
Console.EMCS.ConModChars	String of up to 32 characters consisting of A-Z, 0-9, @, #, \$.	Names the list of suffixes to use when modifying the console name when the console activation fails due to the console being in use. The default is \$#@12345.	UPXCONSF

Table 33. Properties to Specify with the PROPERTY Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Console.EMCS.CrossShare	TRUE or FALSE	A value of TRUE allows sharing of an EMCS console if it is in use but was activated in a different address space than the user. Console sharing means that commands will be issued using that console, and any responses will be directed to the ULOG for the task that has activated the console. A value of FALSE specifies that console can be shared only if it has been activated in the same address space as the user. The option to allowing sharing is effective only when console sharing is permitted. See Console.EMCS.NoShare. FALSE is the default.	UPRSFLG5.UPRS5CSX
Console.EMCS.DataSpaceSize	1 - 2048	Controls the size of the dataspace used when the EMCS console is activated. The data space size controls the number of messages that may be queued to the console prior to them being retrieved. The value indicates the size in megabytes. 2048 is the default.	UPRCONSZ
Console.EMCS.NoConMod	TRUE or FALSE (the default)	Disables modification of the console name when console activation fails due to the console being in use. A value of TRUE disables the function and a value of FALSE enables it. FALSE is the default.	UPROFLG2.UPRO2NMD
Console.EMCS.NoShare	TRUE or FALSE	A value of TRUE specifies that an EMCS console can be shared if it is already active. See Console.EMCS.CrossShare for controlling sharing of the EMCS console across address spaces. FALSE is the default.	UPRSFLAG.UPRSNOCS
Log.Operlog.ViewAll	TRUE or FALSE	Controls the lines shown on the OPERLOG panel. If the value is TRUE, the OPERLOG panel includes data from the inactive portion of the log stream. FALSE is the default.	UPROFLG2.UPRO2OVW

Table 33. Properties to Specify with the PROPERTY Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Panel.All.JESPLexScope	TRUE or FALSE	Controls the scope of the APF, AS, CK, DA, DYNX, ENC, ENQ, LNK, LPA, PAG, PARM, PS, SYM, and SYS panels. If the value is TRUE, the scope of the panels is JESPLex-wide. If the value is FALSE, the scope of the panels is sysplex-wide. FALSE is the default.	UPROFLG3.UPRO3JPC, UPROFLG3.UPRO3JPD, UPROFLG3.UPRO3JPE, UPROFLG3.UPRO3JPP, UPROFLG4.UPRO4JAP, UPROFLG4.UPRO4JLN, UPROFLG4.UPRO4JLP, UPROFLG4.UPRO4JPA, UPROFLG4.UPRO4JPM, UPROFLG4.UPRO4JSM, UPROFLG4.UPRO4JSY, UPROFLG5.UPRO5JEN, UPROFLG5.UPRO5JAS, UPROFLG5.UPRO5JDY
Panel.APF.JESPLexScope	TRUE or FALSE	Controls scope of the APF panel. If the value is TRUE, the scope of the APF panel is JESPLex-wide. If the value is FALSE, the scope of the APF panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JAP
Panel.AS.JESPLexScope	TRUE or FALSE	Controls scope of the AS panel. If the value is TRUE, the scope of the AS panel is JESPLex-wide. If the value is FALSE, the scope of the AS panel is sysplex-wide. FALSE is the default.	UPROFLG5.UPRO5JAS
Panel.CK.JESPLexScope	TRUE or FALSE	Controls the scope of the CK panel. If the value is TRUE, the scope of the CK panel is JESPLex-wide. If the value is FALSE, the scope of the CK panel is sysplex-wide. FALSE is the default.	UPROFLG3.UPRO3JPC
Panel.CKH.DefaultCKLim	1-999999	Sets the default maximum number of instances for a check for IBM Health Checker for z/OS that will be read from the logstream for the CKH panel. Users can override this with the SET CKLIM command. The default is 10.	UPRCKLIM

Table 33. Properties to Specify with the PROPERTY Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Panel.DA.CPUPctBasedLPAR	TRUE or FALSE	Affects normalization of the CPU% column on the DA panel. If the value is TRUE, the CPU% column is normalized using the LPAR value for CPU busy for the system. If the value is FALSE, the CPU% column is normalized with the MVS value for CPU busy for the system. The LPAR value takes into account several states related to PR/SM. The LPAR value requires RMF. If the LPAR value is not available, SDSF uses the MVS value to normalize the CPU% column. FALSE is the default.	UPRSFLG6.UPRS6DNL
Panel.DA.DynamiczAAPCols	TRUE or FALSE	Affects the display of columns on the DA panel. If the value is TRUE, SDSF includes the columns related to a zAAP only if a zAAP is defined in the set of systems being shown, and includes the columns related to a zIIP only if a zIIP is defined in the set of systems being shown. If the value is FALSE, the inclusion of the columns does not depend on whether the special processor is defined. FALSE is the default.	UPROFLG1.UPRO1DYZ
Panel.DA.JESPLexScope	TRUE or FALSE	Controls the scope of the DA panel. If the value is TRUE, the scope of the DA panel is JESPLex-wide. If the value is FALSE, the scope of the DA panel is sysplex-wide. FALSE is the default.	UPROFLG3.UPRO3JPD
Panel.DA.ShowTitleSIO	TRUE or FALSE	Affects the contents of the title line on the DA panel. If the value is TRUE, the system SIO rate is included, but the system zAAP use is not. If the value is FALSE, the SIO rate is omitted, and the system zAAP use is shown if a zAAP is defined on the local system. FALSE is the default.	UPRSFLG5.UPRS5DSI
Panel.DYNX.JESPLexScope	TRUE or FALSE	Controls scope of the DYNX panel. If the value is TRUE, the scope of the DYNX panel is JESPLex-wide. If the value is FALSE, the scope of the DYNX panel is sysplex-wide. FALSE is the default.	UPROFLG5.UPRO5JDY

Table 33. Properties to Specify with the *PROPERTY* Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Panel.ENC.JESplexScope	TRUE or FALSE	Controls the scope of the ENC panel. If the value is TRUE, the scope of the ENC panel is JESplex-wide. If the value is FALSE, the scope of the ENC panel is sysplex-wide. FALSE is the default.	UPROFLG3.UPRO3JPE
Panel.ENQ.JESplexScope	TRUE or FALSE	Controls scope of the ENQ panel. If the value is TRUE, the scope of the ENQ panel is JESplex-wide. If the value is FALSE, the scope of the ENQ panel is sysplex-wide. FALSE is the default.	UPROFLG5.UPRO5JEN
Panel.JDD.NoUseAux	TRUE or FALSE	Controls whether SDSFAUX is used to gather data for the Job Device (JD) panel. When the value is TRUE, SDSFAUX will not be used. When the value is FALSE, SDSFAUX will be used if it is active and the user is authorized to connect. FALSE is the default. When JD is access from the AS panel, SDSFAUX is always used and this property is ignored.	UPROFLG6.UPRO6NJD
Panel.JM.NoUseAux	TRUE or FALSE	Controls whether SDSFAUX is used to gather data for the Job Memory (JM) panel. When the value is TRUE, SDSFAUX will not be used. When the value is FALSE, SDSFAUX will be used if it is active and the user is authorized to connect. FALSE is the default. When JM is accessed from the AS panel, SDSFAUX is always used and this property is ignored.	UPROFLG6.UPRO6NJM
Panel.LNK.JESplexScope	TRUE or FALSE	Controls scope of the LNK panel. If the value is TRUE, the scope of the LNK panel is JESplex-wide. If the value is FALSE, the scope of the LNK panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JLN
Panel.LPA.JESplexScope	TRUE or FALSE	Controls scope of the LPA panel. If the value is TRUE, the scope of the LPA panel is JESplex-wide. If the value is FALSE, the scope of the LPA panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JLP



Table 33. Properties to Specify with the PROPERTY Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Panel.PAG.JESPLexScope	TRUE or FALSE	Controls scope of the PAG panel. If the value is TRUE, the scope of the PAG panel is JESPLex-wide. If the value is FALSE, the scope of the PAG panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JPA
Panel.PARM.JESPLexScope	TRUE or FALSE	Controls scope of the PARM panel. If the value is TRUE, the scope of the PARM panel is JESPLex-wide. If the value is FALSE, the scope of the PARM panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JPM
Panel.PR.DevNameAlwaysShort	TRUE or FALSE	Controls how device names are formatted on the PR panel. If the value is TRUE, the device names are shown in a shortened format. Otherwise, the name is shown with dots between subtypes. FALSE is the default.	UPROFLG2.UPRO2DF8
Panel.PS.JESPLexScope	TRUE or FALSE	Controls the scope of the PS panel. If the value is TRUE, the scope of the PS panel is JESPLex-wide. If the value is FALSE, the scope of the PS panel is sysplex-wide. FALSE is the default.	UPROFLG3.UPRO3JPP
Panel.PUN.DevNameAlwaysShort	TRUE or FALSE	Controls how device names are formatted on the PUN panel. If the value is TRUE, the device names are shown in a shortened format. Otherwise, the name is shown with dots between subtypes. FALSE is the default.	UPROFLG2.UPRO2DU8
Panel.RDR.DevNameAlwaysShort	TRUE or FALSE	Controls how device names are formatted on the RDR panel. If the value is TRUE, the device names are shown in a shortened format. Otherwise, the name is shown with dots between subtypes. FALSE is the default.	UPROFLG2.UPRO2DR8
Panel.Settings.DisablePointAndShoot	TRUE or FALSE	Controls the use of point-and-shoot fields on the SDSF primary option menu and the column titles of tabular panels. If the value is TRUE, the fields are not conditioned for point-and-shoot. FALSE is the default.	UPROFLG2.UPRO2PNS

Table 33. Properties to Specify with the *PROPERTY* Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Panel.SYM.JESplexScope	TRUE or FALSE	Controls scope of the SYM panel. If the value is TRUE, the scope of the SYM panel is JESplex-wide. If the value is FALSE, the scope of the SYM panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JSM
Panel.SYS.JESplexScope	TRUE or FALSE	Controls scope of the SYS panel. If the value is TRUE, the scope of the SYS panel is JESplex-wide. If the value is FALSE, the scope of the SYS panel is sysplex-wide. FALSE is the default.	UPROFLG4.UPRO4JSY
Print.CCTL.AlwaysUseASA	TRUE or FALSE	<p>Specifies how SDSF's print function handles carriage control. A value of TRUE causes SDSF to always use ASA carriage control when printing, regardless of the record format of the output data set. A value of FALSE causes SDSF to handle carriage control based on the record format of the output, as follows:</p> <ul style="list-style-type: none"> <li>• If the record format includes A, then the print function uses ASA (ANSI) carriage control.</li> <li>• If the record format includes M, then the print function uses machine carriage control.</li> <li>• Otherwise, SDSF removes carriage control characters if they are present in the source.</li> </ul> <p>TRUE is the default.</p>	
Security.Browse.LogNOFAIL	TRUE or FALSE	Specifies the SAF logging option to use when a job's data sets are browsed from an SDSF panel, with the exceptions of the JDS and OD panels. If the value is TRUE, the SAF logging setting is LOG=NOFAIL (rather than the default, LOG=ASIS). FALSE is the default.	UPROFLG1.UPRO1LNF

Table 33. Properties to Specify with the *PROPERTY* Statement (continued)

Name	Values	Description	Corresponding Field for User Exit
Security.SAFNoDec.WarnMsg	TRUE or FALSE	Specifies the SAF no-decision option in a JES3 environment. If the value is TRUE, an SDSF message is issued whenever a SAF no-decision result (return code 04) is converted to a failure. The message includes the class name, resource name and access level being checked. This setting can be helpful during a conversion period; once you have defined the SAF profiles, set the value to FALSE. FALSE is the default.	UPROFLG1.UPRO1SFW
Security.Syslog.UseSAFRecvr	TRUE or FALSE	Controls the use of RECVR when processing the logical SYSLOG. A value of TRUE indicates that a RECVR equal to the current user ID will be used when the logical SYSLOG is opened. This causes the authorization check to the logical SYSLOG to always succeed (see note). FALSE is the default.	UPROFLG1.UPRO1RCV

**Note:** The resource is *nodeid*.+MASTER+.SYSLOG.SYSTEM.*sysname*.

## Code page (TRTAB/TRDEF or ISFTR)

A TRTAB statement or ISFTR macro specifies the code page that SDSF uses for a group of users. SDSF uses the code page to ensure that it displays valid characters on the terminal and to convert lowercase characters to uppercase.

A code page consists of two translation tables. One table contains the character set that is valid for a group of users and the other contains the uppercase characters for that character set. SDSF folds all input data, such as action characters, to uppercase and verifies all the data it displays, such as field titles, for valid characters. If SDSF encounters a character that is not in the valid character set table, it displays that character as a blank.

The code page you specify does not apply to the pull-downs and pop-ups displayed by ISPF. For them, ISPF uses the code page defined for the terminal type currently in effect.

If none of the code pages that can be specified with the CODPAG parameter match the needs of your installation, you can code your own translation tables in ISFPARMS or in your statements. See “Coding a translate table” on page 107 for more information.

The ISFTR macro in ISFPARMS must follow all ISFGRP macros.

## Examples of the TRTAB Statement and ISFTR macro

TRTAB Statement	ISFTR Macro
No TRTAB coded	ISFTR

This example shows the minimum coded parameters for the ISFTR macro and the TRTAB statement. The ISFTR macro includes no parameters. THE TRTAB statement is omitted altogether. In this case, the VALTAB and UPCTAB parameters are not coded here, nor in the group definitions (ISFGRP macros or GROUP statements). All SDSF users are assigned the default code page, SDSF.

TRTAB Statement	ISFTR Macro
<b>1</b> GROUP TSOAUTH(JCL,OPER,ACCT),	<b>1</b> ISFGRP TSOAUTH=(JCL,OPER,ACCT),
<b>2</b> AUTH(LOG,I,O,H,DA,DEST,PREF,	<b>2</b> AUTH=(LOG,I,O,H,DA,DEST,PREF,
<b>3</b> ACTION,INPUT,ST,INIT,PR,SE),	<b>3</b> ACTION,INPUT,ST,INIT,PR,SE),
<b>4</b> CMDAUTH(ALL),	<b>4</b> CMDAUTH=(ALL),
<b>5</b> CMDLEV(7),	<b>5</b> CMDLEV=7,
<b>6</b> DSPAUTH(ALL),	<b>6</b> DSPAUTH=(ALL),
<b>7</b> VALTAB(VAL500),	<b>7</b> VALTAB=VAL500,
<b>8</b> UPCTAB(UPC500)	<b>8</b> UPCTAB=UPC500
<b>9</b> GROUP TSOAUTH(JCL),	<b>9</b> ISFGRP TSOAUTH=(JCL),
<b>10</b> AUTH(I,O,H,DA,ST),	<b>10</b> AUTH=(I,O,H,DA,ST),
<b>11</b> CMDAUTH(USERID,NOTIFY),	<b>11</b> CMDAUTH=(USERID,NOTIFY),
<b>12</b> CMDLEV(2),	<b>12</b> CMDLEV=2,
<b>13</b> DSPAUTH(USERID,NOTIFY),	<b>13</b> DSPAUTH=(USERID,NOTIFY),
<b>14</b> PREFIX(USERID)	<b>14</b> PREFIX=USERID
<b>15</b> TRTAB CODPAG(CP00500),VALTAB(VAL500),	<b>15</b> ISFTR CODPAG=CP00500,VALTAB=VAL500,
<b>16</b> UPCTAB(UPC500)	<b>16</b> UPCTAB=UPC500
<b>17</b>	<b>17</b> ISFTR

On line **1** of the example, the TSOAUTH parameter defines a group of users with TSO authority of JCL, OPER, and ACCT.

On lines **2**, **3**, **4**, **5**, and **6** the parameters define authorization levels for members of the group.

On line **7**, the VALTAB parameter specifies VAL500 as the name of the translation table that checks for valid characters.

On line **8**, the UPCTAB parameter specifies UPC500 as the name of the translation table that converts lowercase characters to uppercase.

The translation tables are generated by an ISFTR macro or TRTAB statement that has VALTAB and UPCTAB parameters that name the same translation tables, which is found on line **15**. The CODPAG parameter specifies the code page, CP00500, that is to be used for the group of users.

On line **9** of the example, the TSOAUTH parameter defines a group of users with TSO authority of JCL. It includes no VALTAB or UPCTAB parameters. This tells SDSF to use the default code page, SDSF. Lines **10** through **14** define authority.

On line **17** in the assembler example is the ISFTR macro with no parameters. This assigns the default code page, SDSF, which will be used with the second group of users. Assigning the default code page in this manner is not required with statements.

## TRTAB and ISFTR syntax

### TRTAB Statement

TRTAB CODPAG (*code-page*),  
VALTAB (*valid-character-translation-table-name*),  
UPCTAB (*uppercase-translation-table-name*)

### ISFTR Macro

ISFTR CODPAG=*code-page*,  
VALTAB= *valid-character-translation-table-name*  
UPCTAB= *uppercase-translation-table-name*

### CODPAG

Specifies an alternate code page, *code-page*, that SDSF will use for a group of users. The valid character and uppercase translation tables generated by SDSF correspond to the CODPAG you specify.

If you omit this parameter, SDSF uses code page **SDSF** (or CP00037, when running SDSF in batch with program name ISFAFD).

*code-page* can be:

**SDSF** USA WP, Original.

SDSF consists of CP00001 plus three optical character reader (OCR) characters, which results in mixed-case characters in the help and tutorial panels, SDSF panels, and the SDSF Primary Option menu.

**CASE** Same as SDSF, but characters are folded to uppercase.

**CP00037**

USA/Canada – CECP

**CP00273**

Germany F.R./Austria – CECP

**CP00275**

Brazil – CECP

**CP00277**

Denmark, Norway – CECP

**CP00278**

Finland, Sweden – CECP

**CP00280**

Italy – CECP

**CP00281**

Japan (Latin) – CECP

**CP00284**

Spain/Latin America – CECP

**CP00285**

United Kingdom – CECP

**CP00290**

Japanese (Katakana) Extended

**CP00297**

France – CECP

**CP00420**

Arabic, Bilingual

**CP00424**

Israel (Hebrew) Extended

**CP00500**

International #5

**CP00803**  
 Hebrew Character Set A  
**CP00833**  
 Korean Extended  
**CP00836**  
 Simplified Chinese Extended  
**CP00870**  
 Latin 2/Multilingual/ROECE  
**CP00871**  
 Iceland – CECP  
**CP00875**  
 Greece  
**CP01025**  
 Cyrillic, Multilingual  
**CP01026**  
 Latin 5/Turkey  
**CP01027**  
 Japanese (Latin) Extended  
**CP01047**  
 Latin 1/Open systems  
**CP01112**  
 Baltic, Multilingual  
**CP01122**  
 Estonia  
**CP01140**  
 ECECP USA, Canada, Netherlands, Portugal, Brazil, Australia, New Zealand  
**CP01141**  
 ECECP Austria, Germany  
**CP01142**  
 ECECP Denmark, Norway  
**CP01143**  
 ECECP Finland, Sweden  
**CP01144**  
 ECECP Italy  
**CP01145**  
 ECECP Spain, Latin America (Spanish)  
**CP01146**  
 ECECP UK  
**CP01147**  
 ECECP France  
**CP01148**  
 ECECP Belgium, Canada, Switzerland  
**CP01149**  
 ECECP Iceland  
**CP01153**  
 EBCDIC Latin 2 Multilingual with Euro Extended  
**CP01159**  
 T-Chinese EBCDIC

**VALTAB**

Specifies the name of the valid character set translation table. If omitted, SDSF uses TRTAB for the name. TRTAB cannot be used as a default name more than once.

Use the same value for *valid-character-translation-table-name* that you used in the VALTAB parameter of the ISFGRP macro or GROUP statement for the group. If

you have more than one ISFTR macro in ISFPARMS, you must use a unique name for each *valid-character-translation-table-name*.

### UPCTAB

Specifies the name of the uppercase translation table. If omitted, SDSF uses TRTAB2 for the name. TRTAB2 cannot be used as a default name more than once.

Use the same value for *uppercase-translation-table-name* that you used in the UPCTAB parameter of the ISFGRP macro or GROUP statement for the group. If you have more than one ISFTR macro in ISFPARMS, you must use a unique name for each *uppercase-translation-table-name*.

## Coding a translate table

To code your own translate table, use the VALTAB and UPCTAB parameters of an ISFGRP macro or GROUP statement to assign the translate tables to a group of users. Then, if you are using ISFPARMS assembler macros, code the translate table in the ISFPARMS module, after the ISFGRP macros. If you are using statements, define the translate table with the TRDEF statement.

The translate tables must be 256 bytes each.

### TRDEF syntax TRDEF Statement

TRDEF NAME(*table-name*),  
DATA(*hex-characters*)

**NAME**(*table-name*)  
names the translate table being defined. The name is referenced in the UPCTAB or VALTAB parameter of a GROUP statement.

**DATA**(*hex-characters*)  
specifies the translate table, which must be 256 bytes.

### Example of the TRDEF statement

```
1  GROUP TSOAUTH(JCL,OPER,ACCT),
    AUTH(LOG,I,O,H,DA,DEST,PREF,SYSID,
    ACTION,INPUT,FINDLIM,ST,INIT,PR),
    CMDAUTH(ALL),
    CMDLEV(7),
    DSPAUTH(ALL),
2  VALTAB(UVALTAB),
3  UPCTAB(UUPCTAB)
4  TRDEF NAME(UVALTAB), /* Valid character table */
5  DATA(000102030405060708090A0B0C0D0E0F, /* 00-0F */
    101112131415161718191A1B1C1D1E1F, /* 10-1F */
    202122232425262728292A2B2C2D2E2F, /* 20-2F */
    303132333435363738393A3B3C3D3E3F, /* 30-3F */
    404142434445464748494A4B4C4D4E4F, /* 40-4F */
    505152535455565758595A5B5C5D5E5F, /* 50-5F */
    606162636465666768696A6B6C6D6E6F, /* 60-6F */
    707172737475767778797A7B7C7D7E7F, /* 70-7F */
    808182838485868788898A8B8C8D8E8F, /* 80-8F */
    909192939495969798999A9B9C9D9E9F, /* 90-9F */
    A0A1A2A3A4A5A6A7A8A9AAABACADAEAF, /* A0-AF */
    B0B1B2B3B4B5B6B7B8B9BABBBBCDBBEF, /* B0-BF */
    C0C1C2C3C4C5C6C7C8C9CACBCCDCECF, /* C0-CF */
    D0D1D2D3D4D5D6D7D8D9DADBDCDDDEDF, /* D0-DF */
    E0E1E2E3E4E5E6E7E8E9EAEBECEDEEFF, /* E0-EF */
    F0F1F2F3F4F5F6F7F8F9FAFBFCFDFEFF) /* F0-FF */
6  TRDEF NAME(UUPCTAB), /* Upper case table */
```

```

7      DATA(000102030405060708090A0B0C0D0E0F, /* 00-0F */
        101112131415161718191A1B1C1D1E1F, /* 10-1F */
        202122232425262728292A2B2C2D2E2F, /* 20-2F */
        303132333435363738393A3B3C3D3E3F, /* 30-3F */
        404142434445464748494A4B4C4D4E4F, /* 40-4F */
        505152535455565758595A5B5C5D5E5F, /* 50-5F */
        606162636465666768696A6B6C6D6E6F, /* 60-6F */
        707172737475767778797A7B7C7D7E7F, /* 70-7F */
        808182838485868788898A8B8C8D8E8F, /* 80-8F */
        909192939495969798999A9B9C9D9E9F, /* 90-9F */
        A0A1A2A3A4A5A6A7A8A9AAABACADAEAF, /* A0-AF */
        B0B1B2B3B4B5B6B7B8B9BABBBCBDBEBF, /* B0-BF */
        C0C1C2C3C4C5C6C7C8C9CACBCCDCECF, /* C0-CF */
        D0D1D2D3D4D5D6D7D8D9DADBDCDDDEDF, /* D0-DF */
        E0E1E2E3E4E5E6E7E8E9EAEBECEDEEEF, /* E0-EF */
        F0F1F2F3F4F5F6F7F8F9FAFBFCFDFEFF) /* F0-FF */

```

On the line marked with **1**, a GROUP statement begins the definition of a group. On the line marked with **2**, the VALTAB parameter gives the valid character translation table the name UVALTAB. On the line marked with **3**, the UPCTAB parameter gives the uppercase translation table the name UUPCTAB. The names UVALTAB and UUPCTAB are used to associate these parameters with TRDEF statements on lines **4** and **6**. The valid character translate table is defined beginning on line **5**. The uppercase translate table is defined beginning on line **7**.



---

## Chapter 3. Using the SDSF server

The SDSF server is an address space that SDSF uses to:

- Process ISFPARMS statements.
- Provide sysplex support. This consists of sysplex-wide data for JES2 devices and for system resources (CK, ENC, INIT, LI, NO, PR, PS, PUN, RDR, RM and SO panels) as well as the most recent SYSLOG data for remote systems (SYSLOG panel). For more information, refer to “Using the server for sysplex data” on page 112.
- Manage the starting and stopping of the SDSFAUX address space. SDSFAUX is used to provide data gathering support and other services for SDSF panels.

To process ISFPARMS, the server must be active on each system that contains SDSF users. To provide sysplex data, the server must be active on each system that is to be included on SDSF panels. Use the WHO command or pop-up to verify that the server is in use.

Multiple SDSF servers may be run on the same system; however, you must assign them unique names. Only one server with a particular name can be active on the system. The level of the server must match the level of the SDSF application.

**Note:** There can be only a single SDSFAUX address space active in the system. If a second SDSF server tries to start SDSFAUX, the start is rejected because SDSFAUX is already active. However, the active SDSFAUX is available from any SDSF server in the same system.

You control the server through the MVS operator START, STOP, and MODIFY commands. (The START command names the server; the MODIFY command refreshes the ISFPARMS statements, changes server options, and displays and controls server communications.) For details on the commands, see “Server operator commands” on page 120.

Sample JCL for the server is in member ISFSRJCL of data set ISF.SISFJCL.

Sample JCL for SDSFAUX is in member HSFSRJCL of data set ISF.SISFJCL.

**Note:** SDSFAUX uses services to load modules that require SISFLOAD to be present in the system lnkfst. If SISFLOAD is not in the lnkfst, SISFLOAD must be added as a //STEPLIB in the SDSFAUX JCL procedure and APF authorized.

When SISFLOAD is in the lnkfst and LNKAUTH=APFTAB, then SISFLOAD must be added to the APF list.

---

### Defining the input

The input to the SDSF server is the ISFPARMS statements. By default, SDSF assumes the statements reside in PARMLIB, in member ISFPRM00. You can use a PARMLIB member with a different suffix by specifying that suffix on the command you use to start the server. See “Start the SDSF server” on page 120. Or you can use your own partitioned data set, rather than PARMLIB, by defining it using ddname SDSFPARM in the server JCL.

For details on defining the ISFPARMS statements, see Chapter 2, “Using ISFPARMS for customization and security,” on page 15.

---

## Starting the server

You start the server using the START command. The command takes the server name as a parameter. Optional parameters identify the suffix of PARMLIB member ISFPRMxx that contains the statements to be read, as well as other options. For details, see “Start the SDSF server” on page 120.

---

## Starting the SDSFAUX server

The SDSFAUX address space is automatically started by the SDSF server address space when the server starts. Conversely, SDSFAUX is automatically stopped when the SDSF server is stopped.

Perform the following steps:

1. Ensure that the SAF SDSF class is RACLISTed. SDSFAUX fails all authorization requests if the SAF SDSF class is not RACLISTed. For more information on RACLIST, see Chapter 6, “SDSF and RACF,” on page 217.
2. Define a user ID associated with the SDSFAUX started task by adding a profile in the SAF STARTED class. You can use the same user ID you used for the SDSF server. For example, the profile SDSF\*. \*\* applies to both the SDSF and SDSFAUX started tasks.

The SDSF server user ID must have access to the appropriate OPERCMDS resources so that the START and STOP operator commands can be issued to start and stop the SDSFAUX address space.

Keep the following additional considerations in mind:

- By default, the SDSF server starts SDSFAUX with the S SDSFAUX operator command. You can change the SDSFAUX procedure and job names, or not start SDSFAUX by default, using the AUXPROC and AUXNAME keywords of the CONNECT statement as described in the “CONNECT statement” on page 33.
- If SDSFAUX is already active, any changes to parameters related to SDSFAUX on the CONNECT statement such as AUXPROC, AUXNAME, and AUXSAF are ignored. If you make changes to the CONNECT statement related to SDSFAUX, stop the SDSF server and wait for SDSFAUX to end. Then, restart the SDSF server for the changes to take effect.
- If SDSFAUX does not automatically start or stop, you can use the START and STOP commands, respectively. For example, S SDSFAUX starts SDSFAUX and P SDSFAUX stops it. In addition, SDSFAUX is also started when you refresh ISFPRMxx, such as with the F SDSF,REFRESH command.

---

## Processing the statements

When the server is started, it reads the statements from the input data set.

You can activate new parameters at any time with the MODIFY command, which you can enter from the console or from SDSF by users that are authorized to use the slash (/) command. Changes take effect the *next* time users access SDSF. A TEST parameter allows you to check the syntax of the statements without activating them. See “Refresh ISFPARMS” on page 129 for more information.

A server supports a single ISFPARMS. To run multiple levels of ISFPARMS, you must have a unique server for each level. You may, for example, have a unique ISFPARMS corresponding to each JESNAME. You access a specific ISFPARMS by using the SERVER keyword on the SDSF command. By controlling access to the server, you can control the statements that apply to the user. See “Accessing the server” for more information. Note that conditional processing and support for system symbols reduces the need for multiple levels of ISFPARMS. See “Conditional processing” on page 20 for details.

---

## Accessing the server

**Note:** SDSF V2R1 and higher makes use of 64-bit memory wherever possible. If you use the z/OS default of 2GB for all address spaces, then no action is required. If you have set a MEMLIMIT default for TSO users and batch jobs that is below 512MB, consider increasing the value to avoid any problems relating to SDSF use of 64-bit memory.

When the user accesses SDSF, the SDSF client attempts to connect to the SDSF server. The server that the client connects to is known as the *local* server. The following determine which server the client connects to, in this order:

1. The SERVER parameter of the SDSF command used to invoke SDSF (described below)
2. The SERVER keyword on the ISFPMAC macro of ISFPARMS.
3. The default server as defined by the CONNECT statement in ISFPARMS. See “CONNECT statement” on page 33.

If none of those names the server to be used, the client attempts to connect to server SDSF.

The user can request a specific server by adding a SERVER parameter to the SDSF command that invokes SDSF. The format of the server parameter is SERVER(*server-name*). For example, you might enter

- SDSF SERVER(SDSFT) from the TSO READY prompt or
- S.SERVER(SDSFT) from the ISPF command line.

When you use the SERVER parameter with the SDSF command, you cannot add any other SDSF commands. To use the SERVER parameter you must have READ access to the ISFCMD.OPT.SERVER SAF resource in the SDSF class. (The SERVER parameter can be protected only through SAF, not ISFPARMS.)

---

## Logging

The SDSF server logs all statements processed, and any associated error messages, to a log file. With the server START command, you can control the destination of the log file (SYSOUT or the hardcopy log). When the destination is SYSOUT, SDSF uses the class specified in the server JCL if one is specified there, or the class specified in the LOGCLASS option on the START command. If no SYSOUT class is specified, SDSF uses class A. When SDSF dynamically allocates the log, it is freed when it is closed. In the event of an error allocating the log, SDSF redirects any log messages to the hardcopy log. Messages issued by the server are documented in Chapter 15, “SDSF messages and codes,” on page 505.

The SDSFAUX log is written to the HSFLOG data set allocated by the SDSFAUX address space. It contains messages related to SDSFAUX processing for use by IBM service personnel.

---

## Security

Security for the SDSF server is provided with SAF resources. You can protect these aspects of the server related to processing ISFPARMS statements:

- Use of the SERVER parameter on the SDSF command, which specifies a server name that overrides the default server name defined in ISFPARMS.
- Reverting from ISFPARMS in statement format to ISFPARMS in assembler macro format, when the server is not available or no ISFPARMS statements are defined.
- Use of the server operator commands.

For details on these aspects of server security, see “SDSF server” on page 316.

If you are using the server to provide sysplex data, you must also protect the WebSphere MQ queues used by SDSF. For details, see “WebSphere MQ” on page 322.

SDSF's sysplex support provided by the SDSF server and WebSphere MQ cannot be used in the multilevel security environment. If you want to implement multilevel security and are already using this sysplex support, you should disable the sysplex support by removing the server group definitions from ISFPARMS. For more information on multilevel security, see *z/OS Planning for Multilevel Security and the Common Criteria*.

---

## Using the server for sysplex data

The SDSF server is used to provide sysplex-wide data on SDSF panels. (JES data is JESPLEX-wide. The term *sysplex-wide* is used here to include the JESPLEX-wide data on panels that show JES data.)

### Device panels

These device panels are sysplex-wide by default in all supported environments: INIT, LI, NO, PR, PUN, RDR and SO.

The SDSF server is never required for sysplex-wide data in a JES3 environment.

### Sysplex-wide panels

An SDSF server is required on each system for sysplex-wide CK, ENC, PS and RM panels, in both JES2 and JES3 environments. Similarly, an SDSF server with the SDSFAUX address space started is required on each system for sysplex-wide APF, AS, DYNX, ENQ, LNK, LPA, PAG, PARM, SYM, and SYS panels.

SDSFAUX is also required on the local and target systems when using the JD and JM action characters.

When one or more systems that you want to include is at the z/OS V1R12 level, the server group defined in ISFPARMS is also required, along with WebSphere MQ. Additional configuration may be required. Refer to “Using z/OS V1R12 compatibility mode” on page 113.

When all systems that you want to include are at the z/OS V1R13 level, SDSF uses XCF to communicate between SDSF servers, and does not use a server group defined in ISFPARMS. XCF communication between SDSF servers requires a common server name for all systems. If all of your SDSF servers do not have the same name, you can use the XCFSRVNM parameter on the CONNECT statement in ISFPARMS to meet this requirement. For more information, refer to “Server connection (CONNECT)” on page 32. You can exclude a system from a sysplex-wide panel by specifying XCFSRVNM(NONE) on the CONNECT statement in the ISFPARMS for that system.

The APF, AS, DYNX, ENQ, LNK, LPA, PAG, PARM, SYM, and SYS panels are available only in the SDSF V2R1 environment and above. Sysplex-wide data is not shown for systems below the V2R1 level.

### Using z/OS V1R12 compatibility mode

When one or more systems that you want to include is at the z/OS V1R12 or lower level, you must obtain sysplex-wide data for the CK, ENC, PS and RM panels as in z/OS V1R12 SDSF and earlier releases. This requires an SDSF server on each system, a server group defined in ISFPARMS and WebSphere MQ for communication between servers. Perform these steps:

1. Configure SDSF's sysplex support as described in “Servers with server groups and WebSphere MQ.”
2. If both the system you log on to and at least one other system are at the z/OS V1R12 or lower level, request that SDSF run in Z12 compatibility mode, which causes SDSF to revert to using the server group and WebSphere MQ for communications. To request Z12 compatibility mode:

Who	Method	Details
Users	Command: SET CMODE Z12	Refer to the online help.
System programmers	Custom property in ISFPARMS: Comm.Release.Mode	“Customized properties (PROPLIST)” on page 93

If you do not set the compatibility mode to Z12 and both the system you log on to and at least one other system are at the z/OS V1R13 level, then SDSF will use XCF for communications and any lower level systems will be omitted.

### SYSLOG panel

Displaying the latest data (data not yet written to spool) on the SYSLOG panel when you browse the SYSLOG for a remote system that is z/OS V1R11 JES2 requires SDSF servers with WebSphere MQ and z/OS V1R12 compatibility mode. Refer to “Using z/OS V1R12 compatibility mode” for details.

### Servers with server groups and WebSphere MQ

A server group is the group of SDSF servers that the local SDSF server communicates with, using WebSphere MQ, to provide sysplex data. All SDSF servers must be in the same sysplex, and all associated JESes must be in the same MAS. Communication between servers with WebSphere MQ is described in “Server communications with WebSphere MQ” on page 118.

In defining a server group, you identify the systems and their related primary or secondary JESes that will participate in a sysplex-wide request. Each different combination of systems and JESes requires a separate instance of the SDSF server.

For details on defining a server group, see “Server group definition parameters (SERVERGROUP, SERVER, COMM)” on page 28.

Note that if a server group is not defined, SDSF does not use the server and WebSphere MQ to gather the data.

The following figures illustrate some server groups.

For details on the statements you use to define a server group, see “Server group definition parameters (SERVERGROUP, SERVER, COMM)” on page 28.

### Example — two primary JES2s

Figure 1 shows a sysplex with MVS systems SY1 and SY2. An SDSF user logs on to SY1, invokes SDSF and is connected to the server SDSF. This is the user's local server. The server processes ISFPARMS, which contains a server group definition consisting of the two servers named SDSF, shown with shading. These servers each gather data for JES2 subsystems name JES2. The user's panels will show data from the two JES2s.

Other SDSF servers are running on these systems, each named SDSFA. These servers, which gather data for alternate JES2s, are not part of the server group. Data from the alternate JES2s will not be included on the user's panels.

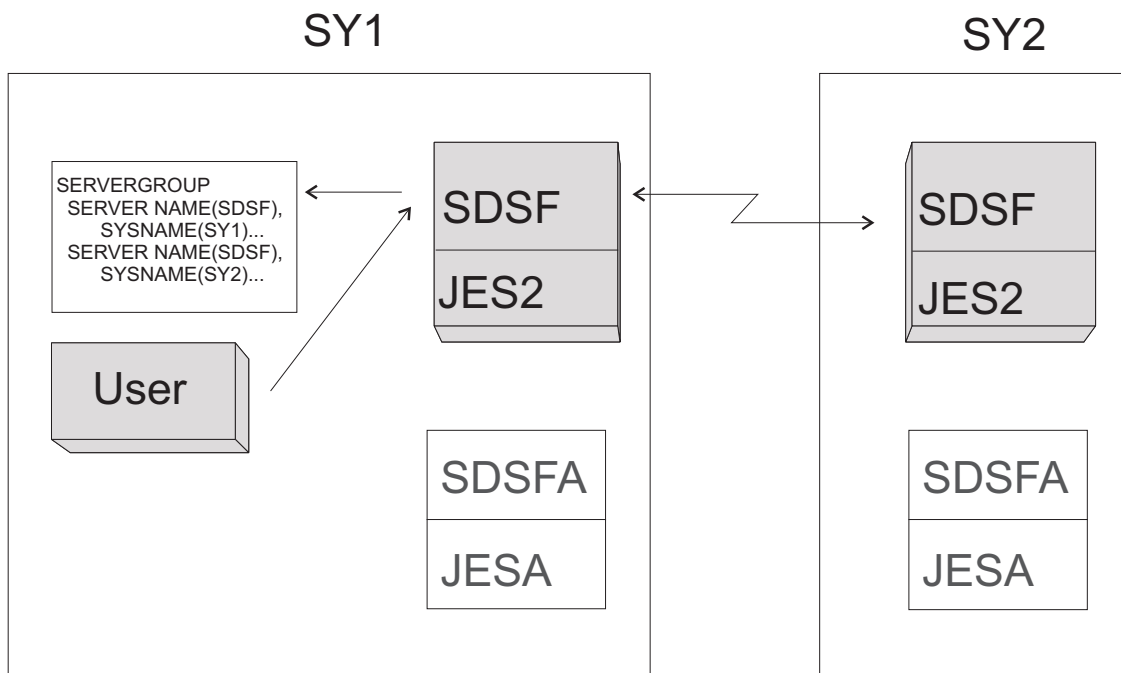


Figure 1. Server Group Example

### Example — two alternate JES2s

Figure 2 on page 115 shows the same sysplex. This time, the SDSF user is connected to the SDSF server SDSFA that collects data for the alternate JES. (The user might, for example, have invoked SDSF with the command `s.server(sdsfa).`) The server group defined in the ISFPARMS processed by that server consists of the two servers named SDSFA. The user's panels will show data from the two JESAs.

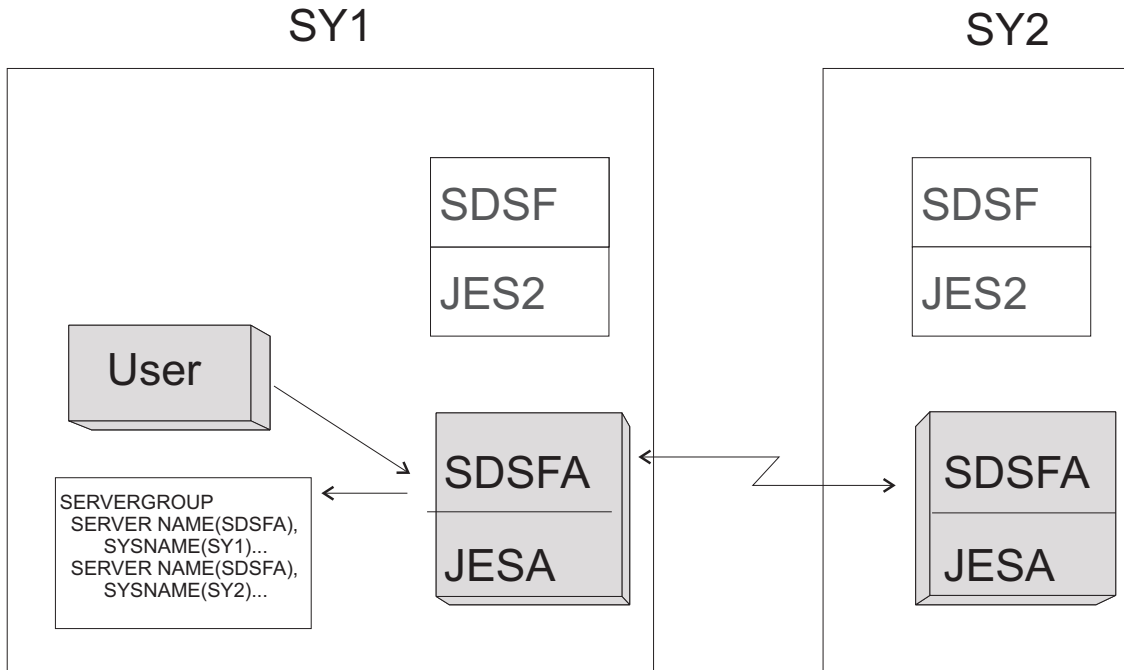


Figure 2. Server Group Example—Alternate JES2s

### Example — all JES2s

Figure 3 on page 116 shows the same sysplex. All SDSF servers are in the sysplex, and all associated JESes are in the same MAS. The SDSF user is connected to the SDSF server SDSF. The server group defined in the ISFPARMS processed by that server is made up of all four servers. The user's panels will show data from the two primary and alternate JESs.

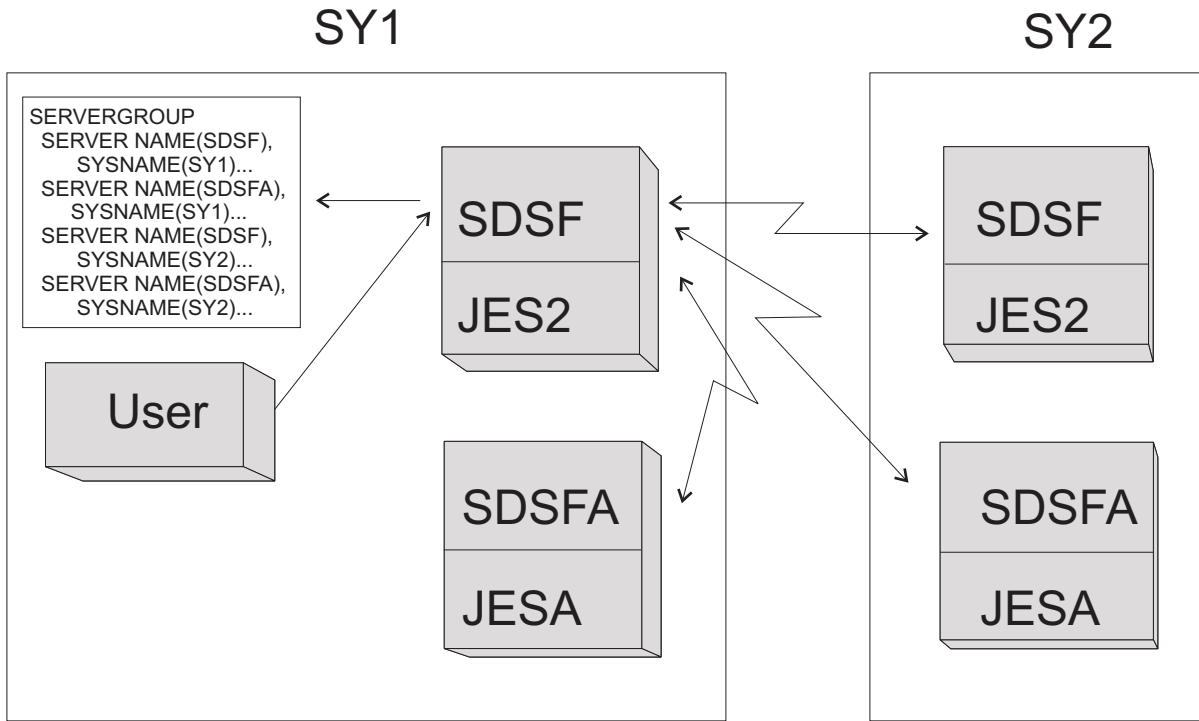


Figure 3. Server Group Example—All Servers

### Example — server group on SY2

Note the server groups defined for each server are independent of each other. In the previous example, server SDSF3 on SY1 and server SDSF on SY2 are in the same server group. However, server SDSF on SY2 may have a different server group defined in the ISFPARMS it processes than server SDSF3 has in the ISFPARMS it processes. Figure 4 on page 117 shows a user logged on to SY2 and connected to server SDSF there, which processes an ISFPARMS with a server group consisting of three servers. All SDSF servers are in the sysplex, and all associated JESes are in the same MAS.



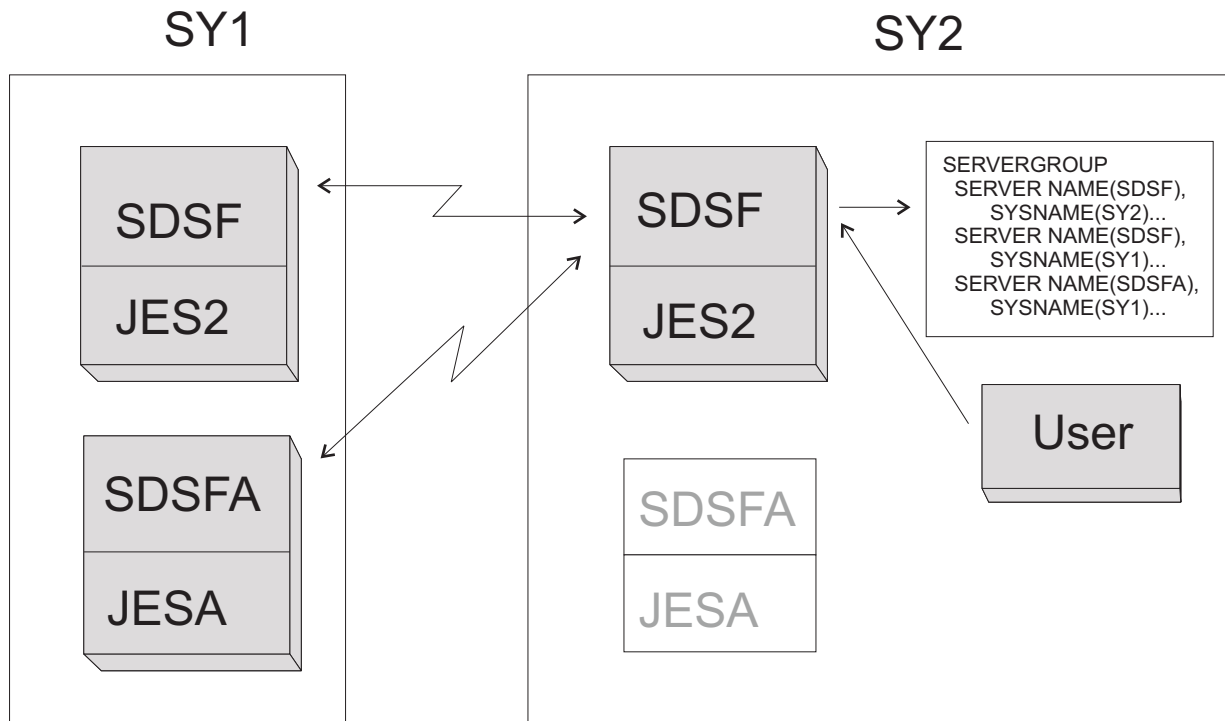


Figure 4. Server Group Example—Server Group on SY2

### Adding or modifying a server group About this task

If a server group has been defined and is in use, use the following procedure to add or change the server group:

1. Make the change to ISFPARMS.
2. End server communications with the `MODIFY server-name, STOP, C, TERM` command.
3. Use the `MODIFY server-name, REFRESH` command to cause the new ISFPARMS to be processed.

If no server group was defined when the server was started, you can:

1. Add a server group to the ISFPARMS .
2. Use the `MODIFY server-name, REFRESH` command to refresh the statements and add the group.

Alternatively, you could, after modifying the ISFPARMS, restart the server with the `START` command.

SDSF's syntax checking of initialization statements does not check for the presence of a server group's servers or systems. This means that you can use the initialization statements to define a server group, and start the server, even if the server group you have defined includes servers or systems that are not yet present. You can then start the servers or systems at a later time.

## Server communications with WebSphere MQ

To provide sysplex data, SDSF servers can communicate through WebSphere MQ, which must be up and operational on each system in the server group. The WebSphere MQ queue managers must be configured to communicate using channels, as described in *WebSphere MQ Intercommunication*, SC33–1872. This section describes the WebSphere MQ queues used by SDSF. For information on configuration tasks required to use WebSphere MQ with SDSF, see “WebSphere MQ considerations” on page 361. Server communication for sysplex data does not apply in the JES3 environment.

### Queues used by SDSF:

SDSF uses several WebSphere MQ queues, including:

- A model queue, which is used in creating other queues. This is defined by the SDSF server.
- Temporary, dynamic queues used to communicate between the SDSF server and the user. These are created dynamically by WebSphere MQ.

The queues are shown in Table 133 on page 323.

Table 34. WebSphere MQ Queues Used by SDSF

Queue	Queue Name	Required Access	
		Server	Client
Server request queue	<i>queue-prefix</i> .SERVER.server.system.REQUESTQ	Yes	None
Client request queue, used to send work to the server, and to send work from the server to remote servers	<i>queue-prefix</i> .CLIENT.server.system.REQUESTQ	Yes	Put only
ReplyTo queue, used by the client to receive server responses	<i>queue-prefix</i> .USER.userid.* (the final qualifier is a unique string generated by WebSphere MQ)	Yes	Yes
Model queue, used to create dynamic queues	<i>queue-prefix</i> .MODEL.QUEUE	Yes	Yes

SDSF uses both a server and a client request queue. The client request queue is actually an alias for the server request queue. The two queues work together so that SDSF users can put requests on the server queue, but cannot read the queue. The client request queue is defined by SDSF so that users' reading of the queue is prohibited by WebSphere MQ.

The WebSphere MQ DEFINE commands that the SDSF server uses to define the model queue (and the client request queue) are logged in the server log. See “Logging” on page 111 for details.

It is possible, through the use of QDEFINE(NO) on the COMM statement in ISFPARMS, to request that SDSF not dynamically define the model queue and client request queue at initialization. In this case, the queues must already exist. See “COMM statement” on page 30 for more information.

### Defining queues:

SDSF uses queues provided by WebSphere MQ to create a temporary ReplyTo queue and to submit the WebSphere MQ DEFINE commands that define queues. The queues used in this process are shown in Table 35 on page 119.

Table 35. Queues Used to Define Queues

Queue	Queue Name	Required Access	
		Server	Client
Model queue, used to create the temporary server RreplyTo queue	SYSTEM.COMMAND.REPLY.MODEL	Yes	No
Command input queue, used to submit DEFINE commands	SYSTEM.COMMAND.INPUT	Yes	No

*WebSphere MQ clustering:* SDSF recommends the use of clustering with the WebSphere MQ queue managers. Clustering is a configuration technique that provides these benefits in SDSF:

- Significant reduction in the WebSphere MQ definitions required to link queue managers together
- Improved awareness of the status of SDSF servers in the server group, eliminating the need for the client to wait for a timeout when a remote server in the server group is not active.

Clusters are groups of queue managers that can make their associated queues available to every other queue manager in the cluster. Communication between queue managers is simplified, reducing the number of channels that need to be defined. Without clustering, an installation must define a sender and a receiver channel for every queue manager with which a given queue manager will communicate. With clustering, the installation must define only a sender channel and a receiver channel for each cluster. Channels are not required for communicating between queue managers within the cluster of queue managers.

Clustering is enabled by defining a queue with the cluster attribute, or, if the queue is part of more than one cluster, a cluster name list. The queue manager must also have a repository defined for the cluster (with the WebSphere MQ `alter qmgr` command) and appropriate cluster sender and receiver channels must have been activated between the participating queue managers.

Clustering is described in *WebSphere MQ Queue Manager Clusters*.

When you use clustering, you specify the cluster name or namelist with the `CLUSTER` or `CLUSNL` parameters on the `COMM` statement in `ISFPARMS`.

If you do not use WebSphere MQ clustering, the addition of queues used by SDSF may require you to perform some WebSphere MQ configuration so that the queue managers for those queues can communicate, including defining a queue manager alias. Communication between queue managers is described in *WebSphere MQ Intercommunication*. The use of the queue manager alias with SDSF is described in “Communication between queue managers in a non-clustered environment” on page 363.

*Solving communication problems:*

For possible explanations and solutions to problems with communication between SDSF servers, see “Communication problems within a server group” on page 588.

*Security:*

You can protect the queues with SAF. See “WebSphere MQ” on page 322.

## Server operator commands

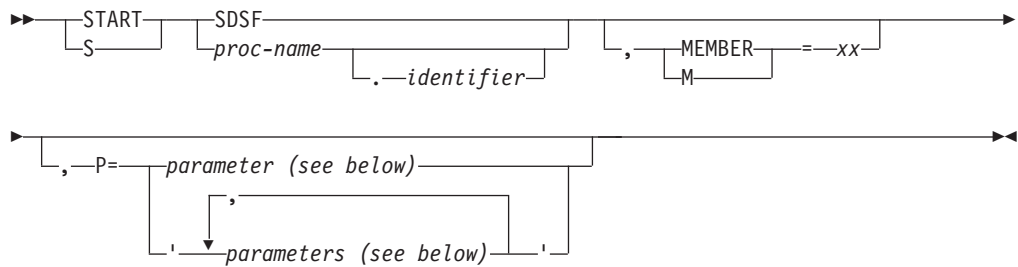
You control the server with the MVS operator commands described on the pages that follow.

### Start the SDSF server

Use the server START command to initialize the SDSF server address space, and to control server options. When the server is initialized, the server is ready to process requests from the SDSF application.

#### Format

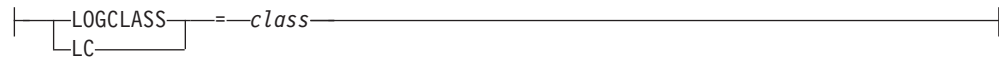
##### Server START Command



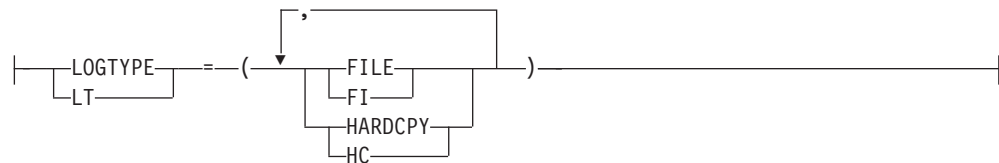
#### Message Folding:



#### Log Class:



#### Log Type:



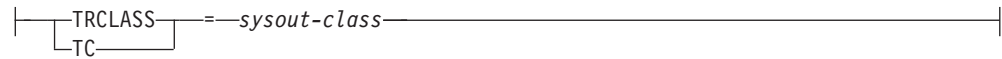
#### ARM:



### Trace:



### Trace SYSOUT Class:



### Debug:



#### *proc-name*

is the name of the SDSF server to be started. The SDSF server name is the same as the procedure name; the server must run as a started task.

#### *identifier*

is an identifier that is used as the server name, instead of the procedure name.

#### **MEMBER or M=xx**

specifies the suffix of member name ISFPRMxx, which contains the statements to be read. The default for xx is 00. The data set is either PARMLIB or a data set defined in the server JCL using ddname SDSFPARM.

#### *parameters*

are the following:

#### **NOFOLDMSG or NOFM**

specifies that server messages should not be folded to uppercase; they are in mixed case. This is the default.

#### **FOLDMSG or FM**

specifies that server messages should be folded to uppercase.

#### **LOGCLASS or LC (*class*)**

specifies the default SYSOUT class for the server log. If no SDSFLOG is defined in the JCL, SDSF will dynamically allocate a log to this class. The default is A.

#### **LOGTYPE or LT**

specifies the destination of the server log. The options are as follows:

#### **FILE or FI**

specifies that the report will be written to file with the ddname SDSFLOG. This is the default, unless the SDSF server is running under MSTR.

#### **HARDCPY or HC**

specifies that messages issued during processing of ISFPARMS will be written to the hardcopy log (syslog). This is the default if the SDSF server is running under MSTR.

**ARM**

specifies that ARM registration will be done if ARM is active in the system. The server will register using the following values:

- element name: ISFserver-name@&sysclone
- element type: SYSSDSF
- termtype: ELEMTYPE

**NOARM**

specifies that ARM registration will not be done.

**TRACE or TR**

specifies the trace option. Tracing should be used under the direction of IBM service personnel. The options are as follows:

**ALL**

is equivalent to a mask of X'FFFFFFFF'.

**NONE**

is equivalent to a mask of X'00000000'.

**ON** starts tracing

*trace-mask*

specifies the event mask to be used. You can trace several events at one time by combining the mask values (in hexadecimal). The *mask* is a hexadecimal number that is 2, 4, 6, or 8 characters long. Each bit in the number represents a specific SDSF event to be traced. Leading zeros are not required, but the resulting mask must have an even number of digits. Possible values of *mask* are:

Mask	Description
FFFFFFFF	Unconditional trace
00800000	Message service
00400000	Communications events
00200000	ISFPARMS statements
00100000	Filter
00080000	Log processing
00040000	Internal interfaces
00020000	ISPF services
00010000	RMF processing
00008000	SDSF initialization
00004000	SDSF JES initialization
00002000	Call
00001000	Return
00000800	TSO data stream, ISPF buffers, batch input and output
00000400	Device and node processing
00000200	GDDM processing
00000100	SJF processing
00000080	SAF processing
00000040	Spool I/O and SRB processing
00000020	SSI processing, MVS/JES commands and job classes

Mask	Description
00000010	Data set processing
00000008	External interfaces, WLM scheduling environments and WLM resources
00000004	User exit call, return, and parameter list
00000002	ULOG functions
00000001	Reserved
00000000	No trace

**TRCLASS or TC** (*sysout-class*).

specifies the SYSOUT class to be used when dynamically allocating a trace file. If no ISFTRACE ddname is present in the server JCL, a trace will be allocated to SYSOUT using this class.

**NODEBUG or NODB**

specifies that the server should not run in diagnostic mode. This is the default.

**DEBUG or DB**

specifies that the server should run in diagnostic mode. This parameter is intended for use by IBM Service.

### Notes to users

1. You must start the server before any users access SDSF, so that the statements can be read.
2. You can start multiple SDSF servers, as long as the server names are unique on a system.
3. When tracing is active, significant performance degradation may occur. A significant amount of trace output may be generated.
4. If the installation has defined an SDSFLOG DD statement in the server proc and SDSF is running under MSTR, you must specify LOGTYPE=FILE. The default value of HARDCPY will cause the server log not to be written to SDSFLOG.
5. The SDSFAUX log is written to the HSFLOG data set allocated by the SDSFAUX address space. It contains messages related to SDSFAUX processing.

### Examples

1. S SDSF

This command starts the SDSF server address space with the name SDSF.

2. S SDSF,M=01

This command starts the SDSF server address space with the name SDSF. Statements will be read from member ISFPRM01 of the data set defined in the server JCL. Member ISFPRM01 is made the default member for any subsequent MODIFY *server*,REFRESH commands.

3. S SDSF,M=01,P='FM,LC(H)'

This command starts the SDSF server address space, with the name SDSF. Statements will be read from member ISFPRM01 of the data set defined in the server JCL. Server messages will be folded to uppercase. The default SYSOUT class for the server log is H.

4. S SDSFT

This command starts the SDSF server address space with the name SDSFT.

5. S SDSF.SDSFA

This command starts the SDSF server address space with proc SDSF and server name SDSFA. The server name, SDSFA, corresponds to the name coded in the ISFPMAC macro of ISFPARMS, or on the SDSF command.

## **Change server options**

Use the MODIFY command to dynamically change server options. You can specify a test mode to cause the syntax of the statements to be checked without activating the statements.

### **Format**

The syntax is shown in Figure 5 on page 125.



## Change Server Options

►► `MODIFY` `SDSF` `server-name`, `-parameter (see below)` ►►  
└─┬─┘ └─┬─┘  
F server-name

### Message Folding:

┌─┬─┬─┬─┐  
│ NOFOLDMSG  
│ NOFM  
│ FOLDMSG  
│ FM  
└─┬─┬─┬─┬─┘

### Log Class:

┌─┬─┬─┐ = `-class`  
│ LOGCLASS  
│ LC  
└─┬─┬─┬─┘

### Log Type:

┌─┬─┬─┐ = ( `FILE` )  
│ LOGTYPE  
│ LT  
└─┬─┬─┬─┬─┬─┬─┘  
│ FILE  
│ FI  
│ HARDCPY  
│ HC

### Trace:

┌─┬─┬─┐ = `ALL`  
│ TRACE  
│ TR  
└─┬─┬─┬─┬─┬─┬─┘  
│ NONE  
│ ON  
│ OFF  
│ trace-mask

### Trace SYSOUT Class:

┌─┬─┬─┐ = `-sysout-class`  
│ TRCLASS  
│ TC

### Debug:

┌─┬─┬─┬─┐  
│ NODEBUG  
│ NODB  
│ DEBUG  
│ DB  
└─┬─┬─┬─┬─┘

Figure 5. Change Server Options — Syntax

`server-name`  
is the name of the SDSF server to be modified.

## TEST

indicates that the syntax of the statements is to be syntax checked, but the statements are not to be activated.

### *parameter*

is one of the following:

#### **NOFOLDMSG or NOFM**

specifies that server messages should not be folded to uppercase; they are in mixed case. This is the default.

#### **FOLDMSG or FM**

specifies that server messages be folded to uppercase.

#### **LOGCLASS or LC (*class*)**

specifies the default SYSOUT class for the server log. If no SDSFLOG is defined in the JCL, SDSF will dynamically allocate a log to this class. The default is A.

#### **LOGTYPE or LT**

specifies the destination of the server log. The options are as follows:

##### **FILE or FI**

specifies that the report will be written to file with the ddname SDSFLOG.

##### **HARDCPY or HC**

specifies that messages issued during processing of ISFPARMS will be written to the hardcopy log (syslog)

#### **TRACE or TR**

Sets the trace option. Tracing should be used under the direction of IBM service personnel. The options are as follows:

##### **ALL**

is equivalent to a mask of X'FFFFFFFF'.

##### **NONE**

is equivalent to a mask of X'00000000'.

**ON** starts tracing.

##### **OFF**

stops tracing.

### *trace-mask*

specifies the event mask to be used. You can trace several events at one time by combining the mask values (in hexadecimal). The *mask* is a hexadecimal number that is 2, 4, 6, or 8 characters long. Each bit in the number represents a specific SDSF event to be traced. Leading zeros are not required, but the resulting mask must have an even number of digits. Possible values of *mask* are:

Mask	Description
FFFFFFFF	Unconditional trace
00800000	Message service
00400000	Communications events
00200000	ISFPARMS statements
00100000	Filter
00080000	Log processing

Mask	Description
00040000	Internal interfaces
00020000	ISPF services
00010000	RMF processing
00008000	SDSF initialization
00004000	SDSF JES initialization
00002000	Call
00001000	Return
00000800	TSO data stream, ISPF buffers, batch input and output
00000400	Device and node processing
00000200	GDDM processing
00000100	SJF processing
00000080	SAF processing
00000040	Spool I/O and SRB processing
00000020	SSI processing, MVS/JES commands and job classes
00000010	Data set processing
00000008	External interfaces, WLM scheduling environments and WLM resources
00000004	User exit call, return, and parameter list
00000002	ULOG functions
00000001	Reserved
00000000	No trace

**TRCLASS or TC** (*sysout-class*)

specifies the SYSOUT class to be used when dynamically allocating a trace file. If no ISFTRACE ddname is present in the server JCL, a trace will be allocated to SYSOUT using this class.

**NODEBUG or NODEB**

specifies that the server should not run in diagnostic mode.

**DEBUG or DB**

specifies that the server should run in diagnostic mode. This parameter is intended for use by IBM Service.

**Note to users**

When tracing is active, significant performance degradation may occur. A significant amount of trace output may be generated.

**Example**

```
F SDSFK,LC(H)
```

This command changes the default SYSOUT class for the server log to H.

**Display server options**

Use the MODIFY,D command to display options for the SDSF server.

## Format

The syntax is shown in Figure 6.

### Display Server Options

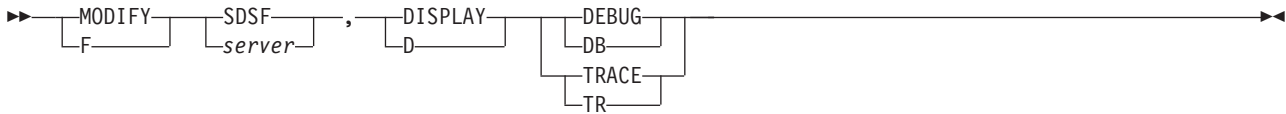


Figure 6. Display Server Options — Syntax

#### **DEBUG or DB**

displays the current setting for diagnostic mode.

#### **TRACE or TR**

displays the current setting for trace.

#### **Example**

F SDSF,D,TRACE

This command displays the current setting for trace.

## Display information about server communications

Use this command to display information about the servers and the communication between SDSF servers.

### Format

The syntax is shown in Figure 7.

### Display Information About Server Communications

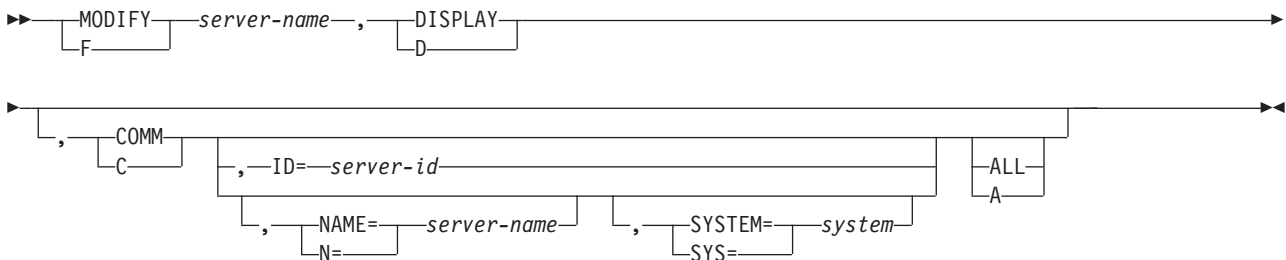


Figure 7. Display Information About Server Communications — Syntax

#### *server-name*

is the name of the SDSF server.

#### **DISPLAY or D**

displays information about the server, including the status of the server and server communications

#### **COMM or C**

displays information about the servers, including their ID, status and the system they are processing.

**ID=server-id**

displays information for the server with the indicated ID. The server ID can be displayed with the F server-name, D command. Leading zeros are not required.

**NAME or N=server-name**

displays information for the server with the indicated name. The server name can be a pattern.

**SYSTEM or SYS=system-name**

is the system on which the server runs. The system name can be a pattern.

**ALL or A**

displays information about WebSphere MQ, including the queue manager name and a count of requests processed by the server.

## Refresh ISFPARMS

Use this command to refresh ISFPARMS statements. You can specify a test mode to cause the syntax of the statements to be checked without activating the statements.

### Format

The syntax is shown in Figure 8.

### Refresh ISFPARMS

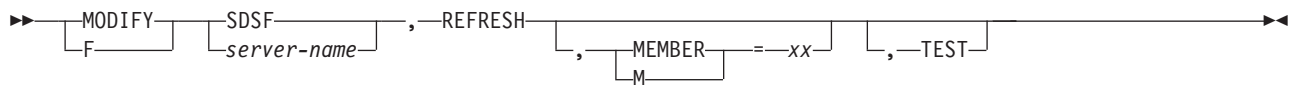


Figure 8. Refresh ISFPARMS — Syntax

*server-name*

is the name of the SDSF server to be modified.

### REFRESH

indicates that a new set of statements is to be processed.

### MEMBER or M(xx)

specifies the suffix of member name ISFPRMxx, which contains the statements to be read. The data set is either PARMLIB or a data set defined in the server JCL using ddname SDSFPARM. The default for xx is whatever was used to start the server. For example, if you start the server with S SDSF,M=01, then refresh it with F SDSF,REFRESH, the member suffix used for the refresh is 01. If no suffix was specified on the START command, the suffix default is 00.

### TEST

indicates that the syntax of the statements is to be syntax checked, but the statements are not to be activated.

### Notes to users

1. A MODIFY REFRESH command processes only the statements defined in the current input stream. Any statements processed prior to the refresh are discarded when the new parameters are activated. If an error occurs, the current ISFPARMS remain in effect.

2. When SDSF is running on multiple systems in either a MAS or a sysplex, the SDSF server must be active on each system. Although the servers can share the same parameter data set, a MODIFY REFRESH command must be issued against each server.
3. If a server group has been defined and is in use, you cannot dynamically modify or delete it with the MODIFY *server-name*, REFRESH command. SERVERGROUP and SERVER statements are ignored. Instead, you should
  - a. Make the change to ISFPARMS
  - b. End server communications with the MODIFY *server-name*, STOP,C,TERM command
  - c. Use the MODIFY *server-name*, REFRESH command to cause the new ISFPARMS to be processed

### Examples

1. F SDSF,REFRESH

This command activates a new set of statements for server SDSF. Because no member is specified, SDSF uses the member that was used when the server was started.

2. F SDSFK,REFRESH,TEST

This command causes the syntax of statements to be checked for server SDSFK. The statements will not be activated.

3. F SDSFT,REFRESH,M=01,TEST

This command causes the syntax of statements to be checked for server SDSFT. Statements will be read from member ISFPRM01 of the data set defined in the server JCL. The statements will not be activated.

## Start communications

Use this command to logically start communications between SDSF servers. You might use it if a server has been previously stopped with the STOP command or was defined with the STOP(YES) on the SERVER statement in ISFPARMS, or if XCF has been stopped.

### Format

The syntax is shown in Figure 9.

### Start Communications

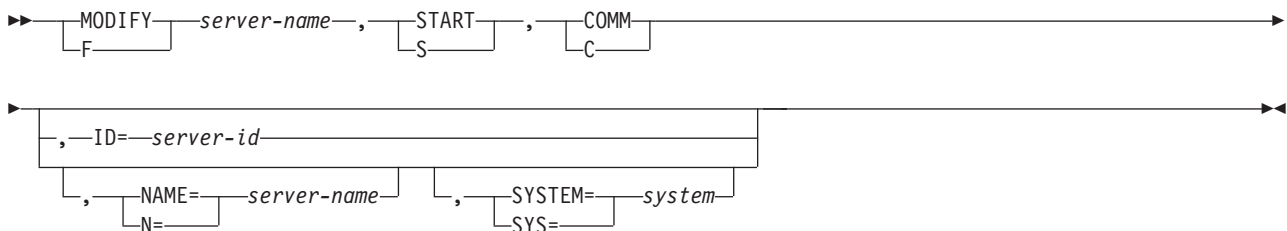


Figure 9. Start Communications — Syntax

*server-name*  
is the name of the SDSF server.

**START or S**  
indicates that the action is start.

**COMM or C**

causes communication between servers to be started. For WebSphere MQ communications, if no parameters follow, this causes communication for all servers in the server group to be started. The server group is the one defined for *server-name*.

**ID=server-id**

causes communication for the server with the indicated ID to be started. The server ID can be displayed with the F server-name,D,C command. Leading zeros are not required.

This applies only when WebSphere MQ is being used for communication between servers defined in the server group in ISFPARMS. It does not apply when XCF is being used for communication.

**NAME or N=server-name**

is the name of the server for which communication is to be started. The server name can be a pattern.

This applies only when WebSphere MQ is being used for communication between servers defined in the server group in ISFPARMS. It does not apply when XCF is being used for communication.

**SYSTEM or SYS=system-name**

is the system on which the server runs. The system name can be a pattern.

This applies only when WebSphere MQ is being used for communication between servers defined in the server group in ISFPARMS. It does not apply when XCF is being used for communication.

## Stop communications

Use this command to stop communications between SDSF servers. You might use this command if a server is known to be unavailable, so that SDSF does not send requests to that server or wait for responses from it.

### Format

The syntax is shown in Figure 10.

#### Stop Communications

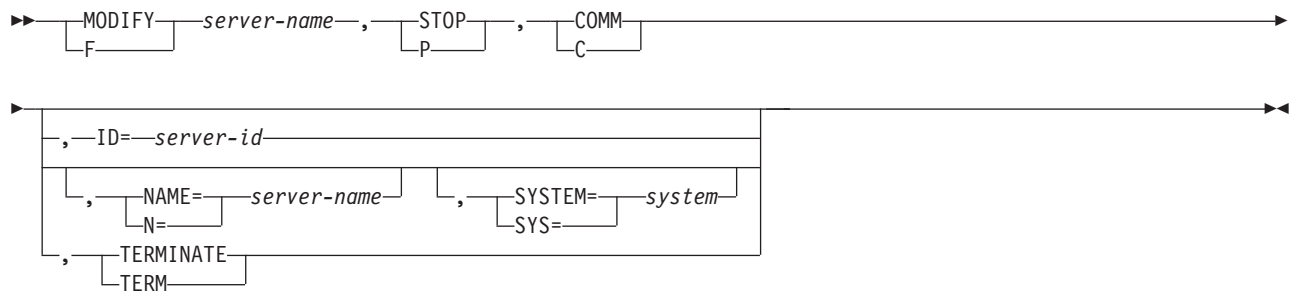


Figure 10. Stop Communications — Syntax

**server-name**

is the name of the SDSF server.

**STOP or P**

indicates that the action is stop.

**COMM or C**

causes communication between servers to be stopped. For WebSphere MQ communications, if no parameters follow, this causes communication for all servers in the server group to be stopped. The server group is the one defined for *server-name*.

**ID=server-id**

causes communication for the server with the indicated ID to be stopped. The server ID can be displayed with the F *server-name,D,C* command. Leading zeros are not required.

This applies only when WebSphere MQ is being used for communication between servers defined in the server group in ISFPARMS. It does not apply when XCF is being used for communication.

**NAME or N=server-name**

is the name of the server for which communication is to be stopped. The server name can be a pattern.

This applies only when WebSphere MQ is being used for communication between servers defined in the server group in ISFPARMS. It does not apply when XCF is being used for communication.

**SYSTEM or SYS=system-name**

is the system on which the server runs. The system name can be a pattern.

This applies only when WebSphere MQ is being used for communication between servers defined in the server group in ISFPARMS. It does not apply when XCF is being used for communication.

**TERMINATE or TERM**

ends communications. With WebSphere MQ communications, after this command, you can issue a MODIFY command with the REFRESH parameter to change the server group, and then re-activate communications. TERM can also be used to stop communications initialization.

**Note to users**

The initial status of the server can be defined as stopped with the STOP keyword of the SERVER statement in ISFPARMS. See “Server group definition parameters (SERVERGROUP, SERVER, COMM)” on page 28 for more information.

## Stop the SDSF server

Use the STOP command to end the server.

**Format**

The syntax of the STOP command is shown in Figure 11.

**Server STOP Command**

Figure 11. STOP the SDSF Server — Syntax

*server-name*

is the name of the SDSF server to be stopped.



## **Example**

P SDSF

This command stops server SDSF.



---

## Chapter 4. Columns on the SDSF panels

This topic describes the columns on SDSF panels that display data in a tabular format. Use this information when coding:

- FLD statements or ISFFLD macros, to customize which columns are included on a tabular panel, as well as their order, titles and widths.
- REXX execs or Java programs. Reference columns by their *names* rather than by their *titles*.

End users can use the ARRANGE command to reorder or change the widths of the columns. The ARRANGE command cannot modify the column titles or specify which columns are displayed. ARRANGE is described in the online help.

When displaying numeric values that are too large for the column width, SDSF scales them using these abbreviations: T (thousands), M (millions), B (billions), KB (kilobytes), MB (megabytes), GB (gigabytes), TB (terabytes) and PB (petabytes).

The fields on the title lines of SDSF panels cannot be customized. They are described in the online help.

In the tables that follow, an X in the *Delay* column indicates that obtaining the data may require an I/O operation. These columns are typically in the alternate field list. I/O operations are performed only when the columns are visible on the screen or being sorted. SDSF performance is best when columns that require an I/O operation are at the end of the field list. If there are no columns requiring I/O, the Delay column is not included.

---

### Address Space Memory panel (AS)

The Address Space Memory (AS) panel shows system storage utilization for all address spaces in the sysplex. It provides a convenient means for identifying address spaces that are consuming the most common storage area (CSA) and system queue area (SQA). It also shows memory object usage, such as the number of memory objects owned, the current size of the memory object, and the highest size used.

Actions on the AS panel provide access to the Job Memory (JM) panel and the Job Device (JD) panel for the selected address space. JM complements AS by showing subpool usage within the address space. JD shows allocations, TCP/IP connections, and coupling facility connection (CF) usage.

You can use the fast path select (S) command to filter results, as follows. Leading zeros are not required when specifying the job number.

- **jobname** *jobid*, where *jobid* is optional and is the job type (JOB, TSU, STC, J, T, S) followed by the job number.
- **jobname** *job-number*, where *job-number* is optional
- *job-number*

In REXX execs and Java programs, reference columns by name rather than by title.

| *Table 36. Columns on the AS Panel*

Column name	Title (Displayed)	Width	Description
JNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
ASIDX	ASIDX	5	Address space identifier in hexadecimal
REAL	Real	5	Current utilization of real storage in frames
FIXED	Fixed	5	Number of fixed real storage frames
CSA	CSA	8	CSA storage below the 16MB line in bytes
CSAPCT	CSA%	6	Percentage of CSA storage below the line being used
ECSA	ECSA	8	CSA storage above the 16MB line in bytes
ECSAPCT	ECSA%	6	Percentage of CSA above the 16MB line being used
SQA	SQA	8	SQA storage below the 16MB line in bytes
SQAPCT	SQA%	6	Percentage of SQA below the line being used
ESQA	ESQA	8	SQA storage above the 16MB line in bytes
ESQAPCT	ESQA%	6	Percentage of SQA above the line being used
AUX	Aux	6	Non-VIO slots being used
MEMLIMIT	MemLimit	8	Memory limit for 64-bit storage objects
MOBJNUM	MemObjNum	9	Number of memory objects for address space
MOBJ	MemObjUsed	10	Total allocated memory object size in MB
MOBJHWM	MemObjHWM	9	High-water mark allocated to memory objects in MB
HVCOMNUM	HVComNum	8	Number of high virtual common memory objects
HVCOM	HVComUsed	9	High virtual common memory size in MB
HVCOMHWM	HVComHWM	8	High virtual common memory high-water mark in MB
SHRMONUM	ShrMONum	8	Number of shared memory objects for address space
SHRMO	ShrMOUsed	9	Total size of shared memory objects in MB
SHRMOHWM	ShrMOHWM	8	Shared memory objects high-water mark in MB
FIXEDB	FixedB	6	Number of fixed frames below 16MB line
STEPN	StepName	8	Step name
PROCS	ProcStep	8	Procedure step name
JOBID	JobID	8	JES job ID, or work ID
OWNERID	Owner	8	User ID of job creator
POS	Pos	3	Address space position. For example: swapped in, swapped out, non-swappable, in transition
SWAPR	SR	2	Swap-out reason code
JTYPE	Type	4	Job type (STC, TSU, JOB)
ASID	ASID	5	Address space identifier
SUBSYS	SSName	6	Subsystem name
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Level of the operating system

## Authorized Program Facility panel (APF)

The APF panel shows the data sets defined to the authorized program facility (APF) for each system in the sysplex.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 37. Columns on the APF Panel

Column name	Title (Displayed)	Width	Description
DSNAME	DSNAME	13-44 (Varies based on longest name.)	Data set name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number
VOLSER	VolSer	6	Volume serial
STATUS	Status	8	Data set status
BLKSIZE	BlkSize	7	Data set block size
EXTENT	Extent	6	Number of extents
SMS	SMS	3	SMS indicator. YES if the data set is SMS managed. Otherwise, NO
LRECL	LRecl	5	Logical record length
DSORG	DSOrg	5	Data set organization
RECFM	RecFm	5	Record format
DEFVOL	DefVol	6	Defined volume
CRDATE	CrDate	8	Data set creation date
REFDATE	RefDate	8	Data set last referenced date
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Operating system level

## Display Active Users panel (DA)

The DA panel shows information about MVS address spaces (jobs, started tasks, and TSO users) that are running. SDSF obtains the information from RMF when it is installed. Columns for which RMF is required are indicated by <sup>RMF</sup>.

The N action character invokes the ENQ panel as a secondary display to show all enqueues associated with the ASID for the row. To protect the N action character to display enqueues from the DA panel, protect the ENQ command. This is described in "Authorized SDSF commands" on page 249.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 38. Columns on the DA Panel

Column Name	Title (Displayed)	Width	Description	Delay
JNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	
STEPN	StepName	8	Job step name (TSO logon procedure name for TSO users)	

Table 38. Columns on the DA Panel (continued)

Column Name	Title (Displayed)	Width	Description	Delay
PROCS	ProcStep	8	Procedure step name (terminal ID for TSO users)	
JTYPE	Type <sup>1</sup>	4	Type of address space	
JNUM	JNum <sup>1</sup>	6	JES job number	
JOBID	JobID	8	JES job ID	
OWNERID	Owner	8	User ID of job owner, or default values of ++++++++ or ????????, if user ID not defined to RACF	
JCLASS	C	1 or 8	JES input class at the time the job was selected for execution. Default width expands to 8 if there are long class names in the MAS.	
POS	Pos	3	Address space position	
DP	DP	2	Address space dispatching priority in hexadecimal	
REAL	Real	4	Current real storage usage in frames	
PAGING	Paging	6	Demand paging rate for address space	
EXCPRT	SIO	6	EXCP rate in EXCPs per second for address space. The value is approximate, and derived from this calculation: the job delta EXCP count (from RMF or the ASCB) divided by the total time interval.	
CPUPR	CPU% <sup>2</sup>	6	Percent of CPU time consumed by and on behalf of the address space during the most recent interval measured	
ASID	ASID	4	Address space identifier	
ASIDX	ASIDX	5	Address space identifier in hexadecimal	
EXCP	EXCP-Cnt	9	Accumulated EXCP count for the current job step for the address space. Uses hexadecimal scaling.	
CPU	CPU-Time	10	Accumulated CPU time consumed by and on behalf of the address space, for the current job step, in seconds	
SWAPR	SR	2	Swap out reason code	
STATUS	Status	6	JES job status	
SYSNAME <sup>RMF</sup>	SysName	8	System name where job is executing	
SPAGING <sup>RMF</sup>	SPag	4	System demand paging rate for system that the job is executing on. The value is the same for all rows for a system.	
SCPU <sup>RMF</sup>	SCPU%	5	System CPU percentage for system that is processing the job. The value is the same for all rows for a system.	
WORKLOAD <sup>RMF</sup>	Workload	8	Workload name	
SRVCLASS <sup>RMF</sup>	SrvClass	8	Service class name	
PERIOD <sup>RMF</sup>	SP	2	Service class period	
RESGROUP <sup>RMF</sup>	ResGroup	8	Resource group name	

Table 38. Columns on the DA Panel (continued)

Column Name	Title (Displayed)	Width	Description	Delay
SERVER <sup>RMF</sup>	Server	8	Server indicator (resource goals are not being honored)	
QUIESCE <sup>RMF</sup>	Quiesce	7	Quiesce indicator (address space is quiesced)	
EPCU <sup>RMF</sup>	EPCU-Time	10	Total CPU time consumed by and within the address space, for the current job step, in seconds	
ECPUPR <sup>RMF</sup>	EPCU%	6	CPU usage by and within the address space	
CPUCRIT <sup>RMF</sup>	CPUCrit	7	Current address space CPU-protection	
STORCRIT <sup>RMF</sup>	StorCrit	8	Current address space storage protection	
RPTCLASS <sup>RMF</sup>	RptClass	8	Report class	
MEMLIMIT <sup>RMF</sup>	MemLimit	8	Memory limit	
TRANACT <sup>RMF</sup>	Tran-Act	10	Elapsed time the transaction has been active	
TRANRES <sup>RMF</sup>	Tran-Res	10	Elapsed time the transaction was swapped in	
SPIN <sup>RMF</sup>	Spin	4	Indicator of whether job can be spun	X
SECLABEL	SecLabel	8	Security label of the address space	
GCPTIME <sup>RMF</sup>	GCP-Time	8	Accumulated general processor service time, in seconds	
ZAAPTIME <sup>RMF</sup>	zAAP-Time	9	Accumulated IBM zEnterprise Application Assist Processor (zAAP) service time, in seconds	
ZAAPCPTM <sup>RMF</sup>	zACP-Time	9	CPU time consumed on general processors by work that was eligible for a zAAP, in seconds	
GCPUSE <sup>RMF</sup>	GCP-Use%	8	Percent of the total general processor time used by the address space in the most recent interval	
ZAAPUSE <sup>RMF</sup>	zAAP-Use%	9	Percent of the total zAAP time used by the address space in the most recent interval	
SZAAP <sup>RMF</sup>	SzAAP%	6	zAAP view of CPU use for the system, in the most recent interval. The value is the same for all rows for a system.	
SZIIP <sup>RMF</sup>	SzIIP%	6	IBM z Integrated Information Processor (zIIP) utilization for the system that is processing the job. This is a system value and so is the same for all rows for a system.	
PROMOTED <sup>RMF</sup>	Promoted	8	Indicates whether the address space is currently promoted due to a chronic resource contention	
ZAAPNTIM <sup>RMF</sup>	zAAP-NTime	10	Normalized zAAP service time, in seconds	
ZIIPTIME <sup>RMF</sup>	zIIP-Time	9	CPU time consumed on zIIPs, in seconds	
ZIIPCPTM <sup>RMF</sup>	zICP-Time	9	CPU time consumed on general processors by work that was eligible for a zIIP, in seconds	
ZIIPNTIM <sup>RMF</sup>	zIIP-NTime	10	Normalized zIIP service time, in seconds	
ZIIPUSE <sup>RMF</sup>	zIIP-Use%	9	Percent of the total zIIP time used by the address space in the most recent interval	

Table 38. Columns on the DA Panel (continued)

Column Name	Title (Displayed)	Width	Description	Delay
SLCPU <sup>RMF</sup>	SLCPU%	6	Percentage of time the LPAR is busy for the system, in the most recent interval. The value for SLCPU% is the same for all rows for a system.	
IOPRIOGRP <sup>RMF</sup>	IOPrioGrp	9	WLM I/O priority group	
JOBCORR	JobCorrelator	32	User portion of the job correlator (JES2 only)	

Notes on the table:

1. Not included in the default field list.
2. SDSF calculates the value for the CPU% column. It is the ratio between the CPU time used by one job and the CPU time used by all jobs, in the interval between times that the user presses Enter.
3. Columns with information for zAAPs and zIIPs are shown only if at least one of the appropriate specialized processors (zAAP or zIIP) has been configured for a system that is within the scope of the systems being shown on the panel. Note that changing the systems being shown (with the SYSNAME or FILTER commands) once the DA panel is displayed does not affect whether SDSF includes or omits the column.

## Dynamic Exits panel (DYNX)

The Dynamic Exits (DYNX) panel shows all of the dynamic exits in the sysplex, their status, and the modules that implement the exit.

You can use the fast path select (S) command with an EXITNAME to filter results.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 39. Columns on the DYNX Panel

Column name	Title (Displayed)	Width	Description
EXITNAME	EXITNAME	16	Dynamic exit name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number for module in list
MODNAME	ModName	8	Module name implementing exit
ACTIVE	Active	6	Exit active (YES or NO)
FASTPATH	FastPath	8	Exit FASTPATH option (YES or NO). FASTPATH processing means that the system does not provide as much function, and therefore the overall processing time is less.
MODEPA	ModEPA	8	Module entry point address
MODLOADPT	LoadPt	8	Module load point address if available
MODSIZE	ModLen	8	Module length if available
JNAME	FiltJob	8	Jobname for which exit is to get control
STOKEN	FiltSTok	16	Address space token (STOKEN) for which exit is to get control
ABENDNUM	NumAbend	8	Number of abends before exit inactivates



Table 39. Columns on the DYNX Panel (continued)

Column name	Title (Displayed)	Width	Description
ABENDCON	ConAbend	8	Consecutive abend option (YES – consecutive abends before inactivation, NO – cumulative abends before inactivation)
SEQMAX	SeqMax	6	Maximum module sequence number
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Level of the operating system

## Enclaves panel (ENC)

The Enclaves panel shows enclaves.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 40. Columns on the ENC Panel

Column name	Title (Displayed)	Width	Description
NAME	NAME	16	Token that identifies the enclave. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SSTYPE	SSType	6	Subsystem type (for example, DB2®, MQ)
STATUS	Status	8	Active or inactive
ESRVCLS	SrvClass	8	Service class
PERIOD	Per	3	Period number
PGN	PGN	3	Performance group
RPTCLS	RptClass	8	Report class
RESGROUP	ResGroup	8	Resource group
CPU	CPU-Time	10	Total CPU time
OWNSYS	OwnerSys	8	Enclave owner system
JNAME	OwnerJob	8	Enclave owner jobname
ASID	OwnerAS	7	Enclave owner ASID (displayed only if this enclave is the original)
ASIDX	OwnerASXA	8	Enclave owner ASID in hexadecimal (displayed only if this enclave is the original)
ORIGINAL	Original	8	Indicates, for an enclave that has been exported, if this is the original. Value is YES or NO.
ESCOPE	Scope	8	Scope of the enclave; LOCAL (single-system) or MULTISYS (multisystem capable; there is an export token for the enclave)
TYPE	Type	4	IND (Independent) or DEP (dependent)
WORKLOAD	Workload	8	Workload name
QUIESCE	Quiesce	12	Indicates if the enclave is in a quiesce delay, which occurs if the address space has been reset with the MVS RESET,QUIESCE command. Value is YES, YES-IMPLICIT (quiesced through enclave server quiesce) or NO.
SYSNAME	SysName	8	Name of the system that provided the data

Table 40. Columns on the ENC Panel (continued)

Column name	Title (Displayed)	Width	Description
SYSLEVEL	SysLevel	25	Level of the operating system
SUBSYS	Subsys	8	Subsystem name
ZAAPTIME	zAAP-Time	9	Cumulative zAAP time consumed by dispatchable units running in the enclave on the local system. See note below.
ZAAPCPTM	zACP-Time	9	Cumulative zAAP on CP time consumed by dispatchable units running in the enclave on the local system. See note below.
ZIIPTIME	zIIP-Time	9	Cumulative zIIP time consumed by dispatchable units running in the enclave on the local system. See note below.
ZIIPCPTM	zICP-Time	9	Cumulative zIIP on CP time consumed by dispatchable units running in the enclave on the local system. See note below.
PROMOTED	Promoted	8	Indicates whether the address space is currently promoted due to a chronic resource contention
ZAAPNTIM <sup>RMF</sup>	zAAP-NTime	10	zAAP service time, in seconds, normalized for the slower CP
ZIIPNTIM <sup>RMF</sup>	zIIP-NTime	10	zIIP service time, in seconds, normalized for the slower CP
ARRTIME	Arrival-Time	19	Date and time the enclave was created
ARRINTV	Arrival-Int	11	Interval since the enclave was created ( <i>hh:mm:ss</i> )
CPUCRIT	CPUCrit	7	CPU protection
IOPRIOGRP	IOPrioGrp	9	WLM I/O priority group
USERID	UserID	8	User ID associated with the request

**Note:** This column shows time consumed by dispatchable units running in the enclave on the local system. For a multisystem enclave, time consumed on other systems is not included. The value may decrease between invocations if the transaction is restarted to avoid an overflow of internal accumulators.

## Enqueue panel (ENQ)

Enqueuing is the mechanism by which a program requests control of a serially reusable resource. The Enqueue (ENQ) panel allows authorized users to display active system enqueues. The panel shows the major and minor names for the enqueuer, as well as the job name waiting for or holding the enqueue. Parameters on the ENQ command control which major and system names are shown. By default, only major SYSDSN enqueues on the local system are shown.

You can also access the ENQ panel from the DA panel using the N action character. When ENQ is accessed in this way, all enqueues used by the selected address space are shown.

**Note:** Major and minor names can contain hexadecimal characters that cannot be displayed by SDSF. SDSF translates control characters (0x00 through 0x3F) to periods. Other characters are not translated and their display varies based on

factors such as the emulator. You can use the D action character to display major and minor names in hexadecimal, but the length is limited by the message text in the response.

The **ENQC** command provides a convenient means of showing all enqueues with contention. That is, **ENQC** shows currently held enqueues that are required by another job. **ENQC** does not accept any parameters.

In REXX execs and Java programs, reference columns by name rather than by title.

*Table 41. Columns on the ENQ Panel*

Column name	Title (Displayed)	Width	Description
MINOR	MINOR	52	Minor name (RNAME). This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro. Control characters are translated to periods.
MAJOR	Major	8	Major name (QNAME). Control characters are translated to periods.
REQTYPE	Req	3	Request type (SHR or EXC)
JOBNAME	JobName	8	Job name holding or requesting enqueue
ASID	ASID	4	Job name ASID (decimal)
ASIDX	ASIDX	6	Job name ASID (hexadecimal)
LEVEL	Level	10	Request level: ENQ-normal enqueue, Reserve-hardware reserve, Global enq-hardware reserve converted to global enqueue
SMC	SMC	3	Step must complete indicator
SCOPE	Scope	8	Enqueue scope (step, system, systems, global)
STATUS	Status	6	Resource status (own, wait)
OWNERS	Owners	6	Number of resource owners for enqueue
WAITERS	Waiters	7	Number of tasks waiting for enqueue
WAITEXC	WaitExc	7	Number of tasks waiting for exclusive use
WAITSHR	WaitShr	7	Number of tasks waiting for shared use
UNIT	Unit	4	Device address for reserves
USERDATA	UserData	32	User data passed on ISGENQ
REQTIME	ReqTime	19	Date and time of request
ENQTOKEN	EnqToken	64	Enqueue token
RNAMEL	RNameLong	127	Longer version of minor name, up to 127 characters. Control characters are translated to periods.
SYSNAME	SysName	8	System name

## Health Check History panel (CKH)

The CKH panel shows information about instances of a check selected from the CK panel.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 42. Columns on the CKH Panel

Column name	Title (Displayed)	Width	Description
COUNT	Count	17	Count of this instance of the check
OWNER	CheckOwner	16	Check owner
STATUS	Status	18	Check status
RESULT	Result	6	Result code from the check
DIAG1	Diag1	8	Diagnostic data from check, word 1
DIAG2	Diag2	8	Diagnostic data from check, word 2
DATEE	Start-Date-Time	19	Date and time the check started (YYYY.DDD HH:MM:SS)
DATEN	End-Date-Time	19	Date and time the check ended (YYYY.DDD HH:MM:SS)
SYSPLEX	Sysplex	8	Sysplex name for the sysplex on which the check ran
SYSNAME	SysName	8	System name for the system on which the check ran
NAME	Name	32	Check name

## Health Checker panel (CK)

The CK panel shows information from IBM Health Checker for z/OS about the active checks.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 43. Columns on the CK Panel

Column name	Title (Displayed)	Width	Description
NAME	NAME	32	Check name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
OWNER	CheckOwner	16	Check owner
STATE	State	18	Check state
STATUS	Status	18	Check status
RESULT	Result	6	Result code from the last invocation of the check
DIAG1	Diag1	8	Diagnostic data from check, word 1
DIAG2	Diag2	8	Diagnostic data from check, word 2
DIAGFROM	DiagFrom	8	Source of the diagnostic data, words 1 and 2: ABEND, HCHECKER or CHECKRTN
GLOBAL	Global	6	Indicator of whether the check is global
GLOBALSYS	GlobalSys	9	Name of the system on which the global check is running
EXCOUNT	ExcCount	8	Number of exceptions detected by this check on the last iteration
COUNT	RunCount	8	Number of times the check has been invoked

Table 43. Columns on the CK Panel (continued)

Column name	Title (Displayed)	Width	Description
FAIL	Fail	4	Number of times the check failed
SEVERITY	Severity	8	Severity level of the check (HIGH, MEDIUM, LOW, NONE)
SEVCODE	SevCode	7	Numeric severity level of the check
WTOTYPE	WTOType	9	WTO type issued when an exception is found (EVENTUAL, CRITICAL, INFO, HC, NONE or a descriptor code)
MODIFIED	ModifiedBy	26	How the check was modified
POLSTAT	PolicyStatus	18	Policy error status
WTONUM	WTONum	6	Number of WTOs issued by the check
NUMCAT	NumCat	6	Number of categories in which the check is defined
CATEGORY	Category	16	Category name. Users can view the complete set of categories by typing + alone in this column.
CATEGORY2 -CATEGORY4	Category2 – Category4	16	Category names 2 to 4.
CATEGORY5 -CATEGORY16	Category5 – Category16	16	Category names 5 to 16. By default, these appear only in the alternate field list.
EXITNAME	ExitName	8	Exit modname that added the check
MODNAME	ModName	8	Check module name
MSGNAME	MsgName	8	Message load module name
USERDATE	UserDate	8	Current date of the check
DEFDATE	DefDate	8	Default date of the check
DEBUG	Debug	5	Debug mode indicator
DATEE	Start-Date-Time	19	Date and time the check last started (YYYY.DDD HH:MM:SS)
INTERVAL	Interval	8	Time interval at which the check runs (HHH:MM)
SCHDATE	NextSch-Date-Time	19	Date and time the check is next scheduled to run (YYYY.DDD HH:MM:SS)
SCHINT	NextSch-Int	11	Time remaining to the date and time the check is next scheduled to run, in HHHHH:MM:SS
LOGDATE	Log-Date-Time	19	Date and time of the last successful write to System Logger
DELDATE	Deleted-Date-Time	19	Date and time the check was deleted
PROCNAME	ProcName	8	Health Checker procedure name
STCID	TaskID	8	Health Checker started task ID
REASON	Reason	126	Description of the reason for check
UPDREAS	UpdateReason	48	Description of updates to the check. The width can be increased to 126.
PARMLEN	ParmLen	7	Length of the check parameters
PARM	Parameters	32	Check parameters. Only characters A-Z, 0-9, #, @, \$ and blanks are shown. Any other value is translated to a period.
SYSLEVEL	SysLevel	25	Level of the operating system
SYSNAME	SysName	8	System name

Table 43. Columns on the CK Panel (continued)

Column name	Title (Displayed)	Width	Description
EINTERVAL	EInterval	9	Interval at which the check will run when it has raised an exception
EXECNAME	ExecName	8	Name of the exec to run
LOCALE	Locale	8	Where the check is running
ORIGIN	Origin	8	Origin of the check
VERBOSE	Verbose	7	Verbose mode for the check
REXXIN	RexxIn	44	REXX input data set name
REXXOUT	RexxOut	44	REXX output data set name
LOGSTREAM	LogStream	26	Name of the logstream used to record this check

## Held Output panel (H)

The Held Output panel shows the user information about SYSOUT data sets for jobs, started tasks, and TSO users on any *held* JES output queue.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 44. Columns on the H Panel

Column name	Title (Displayed)	Width	Description	Delay
JNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	
JNUM	JNum <sup>1</sup>	6	JES job number	
JOBID	JobID	8	JES job ID	
OWNERID	Owner	8	User ID of SYSIN/SYSOUT owner, or default values of ++++++++ or ????????, if user ID not defined to RACF	
DPRIO	Prty	4	JES output group priority	
OCLASS	C	1	JES output class	
OUTDISP	ODisp	5	JES output disposition	
DESTN	Dest	18	JES print destination name	
RECCNT	Tot-Rec	9	Output total record count (lines). Blank for page-mode data.	
PAGECNT	Tot-Page	9	Output page count (lines). Blank if not for page-mode data.	
FORMS	Forms	8	Output form number	
FCBID	FCB	4	Output FCB ID	
STATUS	Status	16	JES job status	
UCSID	UCS	4	Output UCS ID (print train required)	
WTRID	Wtr	8	Output external writer name	
FLASHID	Flash	5	Output flash ID	
BURST	Burst	5	3800 burst indicator	
PRMODE	PrMode	8	Printer process mode	
DEST	Rmt	5	JES print routing. Remote number if routing is not local. (JES2 only)	

Table 44. Columns on the H Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
NODE	Node	5	JES print node (JES2 only)	
SECLABEL	SecLabel	8	Security label of data sets	
OGNAME	O-Grp-N	8	Output group name (JES2 only)	
OGID	OGID1	5	Output group ID 1 (JES2 only)	
OGID2	OGID2	5	Output group ID 2 (JES2 only)	
JPRIO	JP	2	Job priority	
DSDATE	CrDate	10	Data set creation date. The installation can change the CRDATE column to 19, so that the date and time is included. (JES2 only)	
OHREASON	OHR	3	Output hold reason code	
OHRSTXT	Output-Hold-Text	37	Output hold reason text	
DEVID	Device	18	Output device name	
DSYSID	SysID	5	Printing system (JES2 only)	
OFFDEVS	Offs	4	List of offload devices for a job or output that has been offloaded (JES2 only)	
RETCODE	Max-RC	10	Return code information for the job	
JTYPE	Type	4	Type of address space	
ROOMN	RNum	8	JES job room number	X
PNAME	Programmer-Name	20	JES programmer name	X
ACCTN	Acct	4 (JES2) 8 (JES3)	JES account number	X
NOTIFY	Notify	8	TSO user ID from NOTIFY parameter on job card	X
ISYSID	ISys	4 (JES2) 8 (JES3)	JES input system ID	X
TIMER	Rd-Time	8	Time that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
DATER	Rd-Date	8	Date that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
ESYSID	ESys	4 (JES2) 8 (JES3)	JES execution system ID	X
TIMEE	St-Time	8	Time that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
DATEE	St-Date	8	Date that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
TIMEN	End-Time	8	Time that execution ended. In the SDSF task of z/OSMF, this is replaced by the End-DateTime column.	X
DATEN	End-Date	8	Date that execution ended. In the SDSF task of z/OSMF, this is replaced by the End-DateTime column.	X
ICARDS	Cards	5	Number of cards read for job	X

Table 44. Columns on the H Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
JCLASS	JC	1 or 8	JES input job class. Default width expands to 8 if there are long class names in the MAS.	
MCLASS	MC	2	Message class of job	X
SUBGROUP	SubGroup	8	Submitter group	X
JOBACCT1	JobAcct1 <sup>1</sup>	20	Job accounting field 1	X
JOBACCT2	JobAcct2 <sup>1</sup>	20	Job accounting field 2	X
JOBACCT3	JobAcct3 <sup>1</sup>	20	Job accounting field 3	X
JOBACCT4	JobAcct4 <sup>1</sup>	20	Job accounting field 4	X
JOBACCT5	JobAcct5 <sup>1</sup>	20	Job accounting field 5	X
JOBCORR	JobCorrelator	32	User portion of the job correlator (JES2 only)	
DATETIMER	Rd-DateTime	19	Date and time that the job was read in. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the Rd-Date and Rd-Time columns.	X
DATETIMEE	St-DateTime	19	Date and time that execution began. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the St-Date and St-Time columns.	X
DATETIMEN	End-DateTime	19	Date and time that execution ended. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the End-Date and End-Time columns.	X

Notes on the table:

1. This column is not included in the default field list.

## Initiator panel (INIT)

The Initiator panel allows users to display information about JES initiators that are defined in the active JES on their CPUs.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 45. Columns on the INIT Panel

Column name	Title (Displayed)	Width	Description
INTNAME	ID	4 (JES2) 8 (JES3)	Initiator ID (JES2) or group or class name (JES3). This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	10	Initiator status
ICLASS	Classes	8	JES2 initiator classes (JES2 only). Multi-character classes and groups shows as periods (.).
JNAME	JobName	8	Job name
STEPN	StepName	8	Job step name
PROCS	ProcStep	8	Procedure step name (JES2 only)
JTYPE	Type	4	Type of address space
JNUM	JNum <sup>1</sup>	6	JES job number



Table 45. Columns on the INIT Panel (continued)

Column name	Title (Displayed)	Width	Description
JOBID	JobID	8	JES job ID or work ID
JCLASS	C	8	JES input class at time job was selected for execution
ASID	ASID	4	Address space identifier
ASIDX	ASIDX	5	Address space identifier in hexadecimal
OWNERID	Owner	8	User ID of the owner of the active job
SYSNAME	SysName	8	System name
DSYSID	SysID	5 (JES2) 8 (JES3)	JES member name (JES2) or the system on which the job is active under the class (JES3, resource type of INIT)
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	JES level
SECLABEL	SecLabel	8	Security label of the job
SRVCLASS	SrvClass	8	For JES-managed initiators, shows the service class of the active job. For WLM-managed initiators, shows the service class the initiator is running.
IMODE	Mode	4	Initiator mode (group rows only)
BARRIER	Barrier	7	Group scheduling barrier (JES3 only, group rows only)
DEFAULT	Default	7	Default group indicator (JES3 only)
DEFCNT	DefCount	8	Defined initiator count (JES3 only, group rows only)
ALLOCCNT	AllocCount	10	Allocated initiator count (JES3 only)
USECOUNT	UseCount	8	In-use initiator count
ALLOC	Alloc	5	Allocation option (JES3 only, group rows only), which determines when the execution resources are to be allocated to the JES-managed group
UNALLOC	Unalloc	7	Unallocation indicator (JES3 only, group rows only)
GROUP	Group	8	Group name
RESTYPE	ResType	7	Resource type (group or class)
ICLASS1-8	Class1-8	8	JES2 initiator classes 1-8, including multi-character classes and groups (JES2 only)

Notes on the table:

1. JNUM is not included in the default field list.

## Input Queue panel (I)

The Input Queue panel allows the user to display information about jobs, started tasks, and TSO users on the JES input queue or executing.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 46. Columns on the I Panel.

Column name	Title (Displayed)	Width	Description	Delay
JNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	
JOBID	JobID	8	JES job ID	

Table 46. Columns on the I Panel (continued).

Column name	Title (Displayed)	Width	Description	Delay
JTYPE	Type	4	Type of address space	
JNUM	JNum <sup>1</sup>	6	JES job number	
OWNERID	Owner	8	User ID of job owner, or default values of ++++++++ or ????????, if user ID not defined to RACF 1.9 and later	
JPRIO	Prty	4	JES2 input queue priority	
JCLASS	C	1 or 8	JES input class. Default width expands to 8 if there are long class names in the MAS.	
POS	Pos	5	Position within JES input queue class	
PRTDEST	PrtDest	18	JES print destination name	
ROUTE	Rmt	5	JES print routing. Remote number if routing is not local. (JES2 only)	
NODE	Node	5	JES print node (JES2 only)	
SYSAFF	SAff	5 (JES2) 8 (JES3)	JES execution system affinity (if any)	
ACTSYS	ASys	4 (JES2) 8 (JES3)	JES execution system ID (for logged-on users only)	
STATUS	Status	17	Status of job	
SECLABEL	SecLabel	8	Security label of job	
TGNUM	TGNum	5	Track groups used by job	
TGPCT	TGPct	6	Percentage of total track group usage	
ORIGNODE	OrigNode	8	Origin node name	
EXECNODE	ExecNode	8	Execution node name	
DEVID	Device	18	JES device name	
SRVCLS	SrvClass	8	Service class	
WLMPOS	WPos	5	Position on the WLM queue	
SCHENV	Scheduling-Env	16	Scheduling environment for the job	
DELAY	Dly	3	Indicator that job processing is delayed	
SSMODE	Mode	4	Subsystem managing the job (JES or WLM)	
ROOMN	RNum	8	JES job room number	X
PNAME	Programmer-Name	20	JES programmer name field	X
ACCTN	Acct	4 (JES2) 8 (JES3)	JES account number field	X
NOTIFY	Notify	8	TSO user ID from NOTIFY parameter on job card	X
ISYSID	ISys	4 (JES2) 8 (JES3)	JES input system ID	X
TIMER	Rd-Time	8	Time that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X

Table 46. Columns on the I Panel (continued).

Column name	Title (Displayed)	Width	Description	Delay
DATER	Rd-Date	8	Date that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
ESYSID	ESys	4 (JES2) 8 (JES3)	JES execution system ID	X
TIMEE	St-Time	8	Time that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
DATE	St-Date	8	Date that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
ICARDS	Cards	5	Number of cards read for job	X
MCLASS	MC	2	MSGCLASS of job	X
TSREC	Tot-Lines	10	Total number of spool records for job	X
SPIN	Spin	4	Indicator of whether the job is eligible to be spun	
SUBGROUP	SubGroup	8	Submitter group	X
PHASENAME	PhaseName	20	Name of the phase the job is in	
PHASE	Phase	8	Number of the phase the job is in	
JOBACCT1	JobAcct1 <sup>1</sup>	20	Job accounting field 1	X
JOBACCT2	JobAcct2 <sup>1</sup>	20	Job accounting field 2	X
JOBACCT3	JobAcct3 <sup>1</sup>	20	Job accounting field 3	X
JOBACCT4	JobAcct4 <sup>1</sup>	20	Job accounting field 4	X
JOBACCT5	JobAcct5 <sup>1</sup>	20	Job accounting field 5	X
SUBUSER	SubUser	8	Submitting user ID	
DELAYRSN	DelayRsn	32	Reason for the job delay (JES2 only). The width can be expanded to 127.	
JOBCORR	JobCorrelator	32	User portion of the job correlator (JES2 only)	
ASID	ASID	5	ASID of the active job	
ASIDX	ASIDX	5	ASID of the active job, in hexadecimal	
SYSNAME	SysName	8	MVS system name where the job is executing	
JOBGROUP	JobGroup	8	Name of the job group associated with job (JES2 only)	
JOBGRPID	JobGrpId	8	JES2 job group job ID	
JOBSET	JobSet	8	Job set within the job group to which this job belongs (JES2 only)	
JGSTATUS	JGStatus	8	Status of the job within the dependency network (JES2 only)	
FLUSHACT	FlushAct	8	Flush action indicator (JES2 only)	
HOLDUNTIL	HoldUntil	19	HOLDUNTIL date and time (JES2 only)	
STARTBY	StartBy	19	STARTBY date and time (JES2 only)	

Table 46. Columns on the I Panel (continued).

Column name	Title (Displayed)	Width	Description	Delay
WITH	With	19	Name of the job or started task that the job must run with (on the same system) (JES2 only)	
DATETIMER	Rd-DateTime	19	Date and time that the job was read in. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the Rd-Date and Rd-Time columns.	X
DATETIMEE	St-DateTime	19	Date and time that execution began. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the St-Date and St-Time columns.	X

Notes on the table:

1. This column is not included in the default field list.

## JESPLEX panel (JP)

The JESPLEX (JP) panel simplifies the display and control of members in a JES3 JESPLEX. It is analogous to the JES2 MAS panel, and they share a common field list. For a description of the columns, see “Multi-Access Spool panel (MAS) and JESPLEX (JP) panel” on page 168.

## Job Class panel (JC)

The JC panel allows the user to display information about job classes.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 47. Columns on the JC Panel

Column name	Title (Displayed)	Width	Description
JOBCL	CLASS	8	Job class. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
JSTATUS	Status	8	Class status
MEMBER	Member	8	Member name (JES3 only)
GROUP	Group	8	Group name
JMODE	Mode	4	Manager of the class
WAITCNT	Wait-Cnt	8	Number of jobs waiting for execution (non-WLM jobs only) (JES2 only)
XEQCNT	Xeq-Cnt	8	Number of active jobs
HOLDCNT	Hold-Cnt	8	Number of held jobs (JES2 only)
JCODISP	ODisp	13	Output disposition for normal and abnormal end of the job (JES2 only)
QHELD	QHld	4	Job class hold indicator (JES2 only)
JHOLD	Hold	4	Job hold indicator (JES2 only)
XBM	XBM	8	Name of the execution batch monitor (XBM) procedure to be executed by jobs running in the class (JES2 only)
JCLIM	JCLim	5	Job class limit for the system (JES2 only)

Table 47. Columns on the JC Panel (continued)

Column name	Title (Displayed)	Width	Description
TDEPTH	TDepth	6	Maximum job count for the class (JES3 only). This is analogous to the JCLim column for JES2.
JPGN	PGN	3	Default performance-group number (JES2 only)
JAUTH	Auth	4	MVS operator command groups that are to be executed (JES2 only)
BLP	BLP	3	Perform bypass label processing (JES2 only)
COMMAND	Command	7	Disposition of commands read from the input stream (JES2 only)
JLOG	Log	3	Job log indicator
MSGLEVEL	MsgLV	5	Message level value (JES2 only)
OUTPUT	Out	3	SYSOUT write indicator (JES2 only)
PROCLIB	PL	2	Default procedure library number (JES2 only)
PROMORT	PromoRt	7	STARTBY promotion rate (JES2 only)
REGION	Region	6	Default region size assigned to each job step (JES2 only)
SWA	SWA	5	Placement of SWA control blocks created for jobs, in relation to 16 megabytes in virtual storage (JES2 only)
TIME	Max-Time	11	Default for the maximum time that each job step may run (JES2 only)
ACCT	Acct	4	Requirement for the account number on a JCL JOB statement (JES2 only)
COPY	Cpy	3	Queue jobs for output processing as though TYPRUN=COPY were specified on the JOB statement (JES2 only)
JOURNAL	Jrnl	4	Save job-related information in a job journal
PGMRNAME	PgNm	4	Programmer name required on a JCL JOB statement (JES2 only)
RESTART	Rst	3	Requeue for execution jobs that had been executing before the IPL of the system was repeated and a JES2 warm start was performed
SCAN	Scn	3	Queue jobs for output processing immediately after JCL conversion (JES2 only)
IEFUJP	UJP	3	Take the IEFUJP exit when a job is purged (JES2 only)
IEFUSO	USO	3	Take the IEFUSO installation exit when the SYSOUT limit is reached for a job (JES2 only)
TYPE6	Tp6	3	Produce type 6 SMF records (JES2 only)
TYPE26	Tp26	4	Produce type 26 SMF records (JES2 only)
CONDPURG	CPr	3	Conditionally purge system data sets in this time-sharing user class (JES2 only)
JMCLASS	MC	2	Message class for all time-sharing sessions (default logon message class for all TSO/E logons) (JES2 only)
SCHENJC	Scheduling-Env	16	Scheduling environment for the job (JES2 only)
JESLOG	JESLog	13	Spin options for the jobs' JES2 joblog and messagelog
XBMPROC	XBMProc	8	Procedure name for XBM/2 job (JES2 only)

Table 47. Columns on the JC Panel (continued)

Column name	Title (Displayed)	Width	Description
DUPJOB	DupJob	6	Duplicate job names acceptable for this class (JES2 only)
SDEPTH	SDepth	6	Setup depth (JES3 only)
PARTNAM	PartName	8	Spool partition name (JES3 only)
PRITRK	PriTrk	6	Primary track group allocation (JES3 only)
SECTRK	SecTrk	6	Secondary track group allocation (JES3 only)
PRIO	Prio	4	Priority (JES3 only)
JOBRC	JobRC	6	Indicates whether the last (LASTRC) or max (MAXRC) step completion code is reported as the job completion code (JES2 only)
CLACTIVE	Active	6	Indicates if the class is currently active (JES2 only)
DSENQSHR	DSEnqShr	8	Indicates if JES should change data set enqueues to shared access when exclusive access is not required (JES2 only)
SYSSYM	SysSym	8	Indicates if system symbols are allowed in batch jobs

## Job Data Set panel (JDS)

The Job Data Set panel allows the user to display information about SYSOUT data sets for a selected job, started task, and TSO user.

When the JDS panel is accessed from the DA, I, or ST panel, the values for all the columns are obtained from the spool data set. When the JDS panel is accessed from the H or O panel, the values for some columns are obtained from in-storage control blocks.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 48. Columns on the JDS Panel

Column name	Title (Displayed)	Width	Description	Delay
DDNAME	DDNAME	8	DD name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	
STEPN	StepName	8	Job step name	
PROCS	ProcStep	8	Procedure step name	
DSID	DSID	4	Data set ID number	
OWNERID	Owner	8	User ID of SYSIN/SYSOUT owner, or default values of ++++++++ or ????????, if user ID not defined to RACF 1.9 and later	
OCLASS	C	1	JES output class	
DESTN	Dest	18	JES print destination name	
RECCNT	Rec-Cnt	7	Data set record count	
PAGECNT	Page-Cnt	8	Data set page count. Blanks if not page-mode data.	
BYTECNT	Byte-Cnt	8	Data set byte count	
COPYCNT	CC	2	Data set copy count	

Table 48. Columns on the JDS Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
DEST	Rmt	5	JES2 print routing. Remote number if routing is not local (JES2 only).	
NODE	Node	5	JES2 print node (JES2 only)	
OGNAME	O-Grp-N	8	Output group name (JES2 only)	
SECLABEL	SecLabel	8	Security label of data sets	
PRMODE	PrMode	8	Data set process mode	
BURST	Burst	5	Data set burst indicator	
DSDATE	CrDate-CrTime	19	Data set creation date and time, or, if ***** N/A ***** , the creation date and time were not available.	
FORMS	Forms	8	Output form number	
FCBID	FCB	4	Output FCB ID	
UCSID	UCS	4	Output UCS ID	
WTRID	Wtr	8	Output special writer ID or data set ID	
FLASHID	Flash	5	Output flash ID	
FLASHC	FlashC	6	Flash count	
SEGID	SegID	5	Data set segment number	
DSNAME	DSName	44	Output data set name	
CHARS	Chars	20	Character arrangement table names	
CPYMOD	CpyMod	6 (JES2) 8 (JES3)	Copy modification module name	
CPYMODFT	CpyModFT	8	Copy modification table reference character (JES2 only)	
PAGEDEF	PageDef	7	Library member used by PSF to specify print characteristics such as page width	X
FORMDEF	FormDef	7	Library member used by PSF to specify print characteristics such as overlays	X
ODTITLE	Title	20	Report title to be printed on separator pages . This column can be expanded to 60.	X
ODNAME	Name	20	Name to be printed on separator pages . This column can be expanded to 60.	X
ODBLDG	Building	10	Building identification to be printed on separator pages . This column can be expanded to 60.	X
ODDEPT	Department	10	Department identification to be printed on separator pages . This column can be expanded to 60.	X
ODROOM	Room	10	Room identification to be printed on separator pages. This column can be expanded to 60.	X
ODADDR	Address-Line1	20	Address to be printed on separator pages . This column can be expanded to 60	X
ODADDR2	Address-Line2	20	Output address line 2. This column can be expanded to 60.	X
ODADDR3	Address-Line3	20	Output address line 3. This column can be expanded to 60.	X

Table 48. Columns on the JDS Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
ODADDR4	Address-Line4	20	Output address line 4. This column can be expanded to 60.	X
OUTBIN	OutBn	5	Output bin	X
COMSETUP	ComSetup	8	Setup options for microfiche printers	X
FORMLEN	FormLen	10	Form length	X
COLORMAP	ColorMap	8	AFP resource for the data set containing color translation information	X
INTRAY	ITy	3	Paper source	X
OVERLAYB	OverlayB	8	Overlay for the back of each sheet	X
OVERLAYF	OverlayF	8	Overlay for the front of each sheet	X
OFFSETXB	OffsetXB	13	Offset in the x direction from the page origin for the back of each page	X
OFFSETXF	OffsetXF	13	Offset in the x direction from the page origin for the front of each page	X
OFFSETYB	OffsetYB	13	Offset in the y direction from the page origin for the back of each page	X
OFFSETYF	OffsetYF	13	Offset in the y direction from the page origin for the front of each page	X
PORTNO	Port	5	Number of the TCP/IP port where the FSS connects to the printer	X
ODNOTIFY	Notify	17	Print complete notification message	X
ODUSRLIB	UserLib	44	Libraries containing Advanced Function Printing (AFP) resources to be used by Print Services (PSF) when processing SYSOUT data sets.	X
USERDATA	UserData1	60	User data. Access values 2-16 by typing + alone in the column.	X
AFPPARMS	AFPParms	54	Names a data set that contains the parameters to be used by the AFPPrint Distributor	X
QUEUE	Queue	5	Names the JES3 queue the data set is on (TCP, BDT, HOLD, WTR) (JES3 only)	
SPIN	Spin	4	Indicates whether this is a spin data set	
SELECT	Sel	3	Indicates whether the data set is selectable	
TP	TP	3	Indicates whether SYSOUT was created by a transaction program.	
TPJNAME	TPJName	8	Job name of the transaction program that created the data set	
TPJOBID	TPJobID	8	Job ID of the transaction program that created the data set	
TPACCT	TPAcct	8	Account number of the transaction program	
TPTIMER	TRd-Time	8	Start time for entry of the transaction program. In the SDSF task of z/OSMF, this is replaced by the TRd-DateTime column.	
TPDATER	TRd-Date	8	Start date for entry of the transaction program. In the SDSF task of z/OSMF, this is replaced by the TRd-DateTime column.	



Table 48. Columns on the JDS Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
TPTIMEE	TSt-Time	8	Start time for execution of the transaction program. In the SDSF task of z/OSMF, this is replaced by the TSt-DateTime column.	
TPDATEE	TSt-Date	8	Start date for execution of the transaction program. In the SDSF task of z/OSMF, this is replaced by the TSt-DateTime column.	
RECFM	RecFm	5	Record format	
SPINNABLE	W	3	Indicates if the data set is open and spinnable (JES2 only)	
OCOPYCNT	OCopyCnt	8	Copy count specified with COPYCNT. Used by InfoPrint printers.	X
LRECL	LRecl	5	Logical record length	
TPDATETIMER	TRd-DateTime	19	Start date and time for entry of the transaction program. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the TRd-Date and TRd-Time columns.	
TPDATETIMEE	TSt-DateTime	19	Start date and time for execution of the transaction program. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the TSt-Date and TSt-Time columns.	
STEPNUM	StepNum	5	Step number	
OUTDISP	ODisp	5	JES output disposition (JES3 only)	

## Job Delay panel (JY)

The Job Delay panel allows the user to view reasons why the job might be delayed.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 49. Columns on the JY Panel

Column name	Title (Displayed)	Width	Description
DESC	TYPE	32	Delay description. It is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SOURCE	Src	3	Source of this sample information (WLM or RMF)
SAMP	Samples	7	Number of samples in the interval that correspond to this delay
PERCENT	Percent	7	Percent of samples in the interval that correspond to this delay
INTERVAL	Interval	8	Sampling interval for WLM delays (milliseconds)
MINTIME	MinTime	8	Length of RMF sampling interval in seconds
FIRSTSMP	First-Sample	19	Time stamp of the first sample in the interval
LASTSAMP	Last-Sample	19	Time stamp of the last sample in the interval

---

## Job Dependency panel

The Job Dependency panel allows authorized users to view, for a selected job, the jobs that it is dependent on and the jobs that have dependencies on it, or, for a selected job group, all of the dependencies in the job group. The panel shows the conditions for each dependency.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 50. Columns on the Job Dependency Panel

Column name	Title (Displayed)	Width	Description
JOBNAME	JOBNAME	8	Job name. It is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
JOBID	JobID	8	Job ID
DEPEND	Dependency	10	Type of dependency the job has with the job or jobset
DJOBNAME	DJobName	8	Name of the job on which this job is dependent
DJOBID	DJobID	8	ID of the job on which this job is dependent
TIME	Time	19	Date and time associated with a HOLDUNTIL or STARTBY dependency
WHEN	When	64	Condition tested for the dependency
ACTION	Action	7	Action taken when the condition is met
OTHERWISE	Otherwise	9	Action taken when the condition is not met
STATUS	Status	8	Status of the dependency

---

## Job Device panel (JD)

The Job Device panel allows the user to display information about devices that a job is using.

### SDSFAUX-based Job Device panel

The JD panel was introduced in SDSF V2R2 and shows allocations, TCPIP connections, and CF structures for an address space. As of SDSF V2R2 SPE3 (PI60412), the internal implementation is being changed to use SDSFAUX. The original V2R2 implementation restricts the JD action to jobs running under JES. The new implementation removes this restriction and allows JD to be issued for any active address space. Note that when JD is issued from the initiator panel, the initiator must be actively running a job.

Because JD can now be issued for any address space, the user must have read access in the SDSF class to **ISFJOB.DDNAME.owner.jobname.system**. (If the job has no owner, ++++++ is used. The JESSPOOL resource is no longer checked.

**Note:** SDSF translates resource names containing asterisks to plus signs. For example, an owner of \*MASTER\* is translated to +MASTER+.

The SDSFAUX-based version of the JD panel is used only when the following conditions are met. Otherwise, the original version of the JD panel is used.

- The SDSF server must be active.
- The custom property **Panel1.JDD.NoUseAux** must be false.
- SDSFAUX must be active on the target system and at the V2R2 SPE3 (PI60412) level or later.
- The user must be authorized to connect to SDSFAUX (read access in the SDSF class to **ISF.CONNECT.system.**)
- The user must have read access in the SDSF class to **ISFCMD.ODSP.DEVICE.system.**

In REXX execs and Java programs, reference columns by name rather than by title.

Table 51. Columns on the JD Panel

Column name	Title (Displayed)	Width	Description
NAME	Name	16	DDNAME, CF connection name, or TCP/IP server name. It is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQUENCE	Seq	3	DD allocation sequence (DDs only)
TYPE	Type	4	Type of row item (DD, IP or CF)
STATUS	Status	8	Current status
DSNAME	DataSetName	54	Data set name (or path name) (DDs only)
STRNAME	StrName	8	CF structure name (CFs only)
VOLSER	VolSer	6	Volume serial or CF name (CFs and DDs only)
UNIT	Unit	4	Unit address. Only the first one is displayed. For subsystem data sets, displays the subsystem name. 'DMY', 'HFS' or 'SMS' may be displayed for applicable data sets as well.
UNITCT	UnitCt	6	Unit count
IPADDR	IPAddr	24	IP address. IP address and Port are the local address for connections with a status of 'Listen' and the remote address for other status values. (TCP/IP connections only)
PORT	Port	5	Port. IP address and Port are the local address for connections with a status of 'Listen' and the remote address for other status values. (TCP/IP connections only)
RECFM	RecFM	5	Record format
LRECL	LReCL	5	Logical record length
BLKSIZE	BlkSize	5	Block size
INBUFSZ	InBufSz	5	Receive buffer size (TCP/IP connections only)
OUTBUFSZ	OutBufSz	8	Send buffer size (TCP/IP connections only)
DISP1	Disp1	5	Disposition status (OLD, NEW, SHR, MOD) (DDs only)
DISP2	Disp2	5	Normal termination disposition (KEEP, DELETE, PASS, CATLG, UNCATLG) (DDs only)

Table 51. Columns on the JD Panel (continued)

Column name	Title (Displayed)	Width	Description
DISP3	Disp3	5	Abnormal termination disposition (KEEP, DELETE, PASS, CATLG, UNCATLG) (DDs only)
EXCPCT	EXCP-Cnt	5	Number of requests (e.g. EXCPs or bytes, for TCP/IP connections) (DDs only and TCP/IP connections only)
BYTESIN	BytesIn	8	Number of bytes received on connection (TCP/IP connections only)
BYTESOUT	BytesOut	8	Number of bytes sent on connection (TCP/IP connections only)
OPEN	Open	5	Open count (DDs only)
POLICY	Policy	8	CF policy name (CFs only)
STIME	Start-Time	19	Connection start time (TCP/IP connections only)
LASTIME	Last-Time	19	Connection last activity time (TCP/IP connections only)
RESID	ResourceId	19	Resource ID (TCP/IP connections only)
STACK	Stack	8	Stack name (TCP/IP connections only)
APPL	Appl	8	TELNET target application name (TCP/IP connections only)
LUNAME	LUName	8	TELNET client LU name (TCP/IP connections only)
CLIENT	Client	8	TELNET client user ID (TCP/IP connections only)
APPLDATA	AppIData	40	Application data associated with the request (TCP/IP connections only)
DSORG	DSOrg	5	Data set organization (requires SDSFAUX)
SMS	SMS	3	SMS indicator: YES if data set is SMS managed (requires SDSFAUX)
CONNECT	ConnectTime	11	Device connect time in milliseconds (requires SDSFAUX)
AVGCONN	AvgConnTime	11	Average device connect time in milliseconds (requires SDSFAUX)

## Job Group panel (JG)

The Job Group panel allows the user to view JES2 job groups, or execution zones. Execution zones are created when JCL is submitted that describes a relationship between a set of jobs.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 52. Columns on the JG Panel

Column name	Title (Displayed)	Width	Description
JOBGROUP	JOBGROUP	8	Job group name. It is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
JOBGRPID	JobGrpID	8	Group ID – JobId(job number) of associated logging job for the group
OWNER	Owner	8	User ID of the owner of the job group
STATUS	Status	10	Status of the job group
CRETCODE	Current-CC	10	Completion code of the job group.

Table 52. Columns on the JG Panel (continued)

Column name	Title (Displayed)	Width	Description
SYSAFF	SAff	5	List of JES members (affinity mask) where jobs in the zone (group) can run
SHCENV	Scheduling-Env	16	Scheduling environment where jobs in the group can run
ONERR	OnError	7	Action to take when a job group is determined to be in error.
ERRSTAT	ErrStat	7	Current error status
ERRCOND	ErrorCond	18	Error condition
SECLABEL	SecLabel	8	Security label associated with the job group

## Job Memory panel (JM)

The Job Memory panel allows the user to view the system memory being used by a job.

### SDSFAUX-based Job Memory panel

The JM panel was introduced in SDSF V2R2 and displays storage usage within an address space by subpool and key. As of SDSF V2R2 SPE3 (PI60412), the JM implementation is being changed to use SDSFAUX. The original V2R2 implementation restricts the JM action to jobs running under JES. The new implementation removes this restriction and allows JM to be issued for any active address space. Note that when JM is issued from the initiator panel, the initiator must be actively running a job.

Because JM can now be issued for any address space, the user must have read access in the SDSF class to **ISFJOB.STORAGE.owner.jobname.system**. (If the job has no owner, ++++++++ is used. The JESSPOOL resource is no longer checked.

**Note:** SDSF translates resource names containing asterisks to plus signs. For example, an owner of \*MASTER\* is translated to +MASTER+.

The SDSFAUX-based version of the JM panel is used only when the following conditions are met. Otherwise, the original version of the JM panel is used.

- The SDSF server must be active.
- The custom property **Panel.JM.NoUseAux** must be false.
- SDSFAUX must be active on the target system and at the V2R2 SPE3 (PI60412) level or later.
- The user must be authorized to connect to SDSFAUX (read access in the SDSF class to **ISF.CONNECT.system**.)
- The user must have read access in the SDSF class to **ISFCMD.ODSP.STORAGE.system**.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 53. Columns on the JM Panel

Column name	Title (Displayed)	Width	Description
TYPE	TYPE	8	Type of storage (for example, Private or LSQA). This is a fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SUBPOOL	SP	3	Subpool number
KEY	Key	3	Storage key
FIXED	Fix	4	The default page-fix status of the subpool (YES, NO, or DREF)
FPROT	FP	4	The default fetch-protect status of the subpool (YES or NO)
TOTAL	Total	8	Total amount of allocated storage with the specified characteristics (Type/SP/Key)
TOTAL24	Total-24	8	Total 24-bit storage
TOTAL31	Total-31	8	Total 31-bit storage
TOTAL64	Total-64	8	Total 64-bit storage
COUNT	Count	8	Total number of allocated storage segments with the specified characteristics
LARGEST	LargestA	8	Size of the largest segment of allocated storage with the specified storage characteristics
LARGESTF	LargestF	8	Size of the largest segment of free storage with the specified storage characteristics
FRAG	Frag	8	Total number of allocated and free storage segments

## Job Step panel (JS)

The Job Step panel allows the user to view information about the steps for a job.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 54. Columns on the JS Panel

Column name	Title (Displayed)	Width	Description
STEPNAME	STEPNAME	8	Step name (fixed field)
PROCS	ProcStep	8	Procedure step name
PGMNAME	Pgm-Name	8	Program name
RETCODE	Step-CC	10	Step completion code
STEPNUM	StepNum	5	Step number
ABENDRSN	AbendRsn	8	Abend reason
ELAPSED	Elapsed	11	Elapsed time for the step
CPUTIME	CPU-Time	11	Total CPU time used by this step
SRBTIME	SRB-Time	11	Total SRB time used by this step
EXCP	EXCP-Cnt	10	Total EXCP count
CONN	Conn	11	Total device connect time
SERV	Serv	10	Total service units
WORKLOAD	Workload	8	Workload name
PAGE	Page	10	Number of pages paged in/out from auxiliary storage

Table 54. Columns on the JS Panel (continued)

Column name	Title (Displayed)	Width	Description
SWAP	Swap	10	Pages swapped in from auxiliary storage to central
VIO	VIO	10	Number of VIO page-ins and page-outs for this step
SWAPS	Swaps	10	Number of address space swap sequences
REGION	Region	8	REGION for this step
REGIONU	Rgn-Used	8	Amount of private storage used (high-water mark)
MEMLIMIT	MemLimit	8	MEMLIMIT for this step
MEMLIMU	MLim-Used	9	Amount of 64-bit private storage used (high-water mark)
SYSNAME	SysName	8	The system name of the system on which the step ran
BEGINTME	Step-Begin	22	Step Begin Time
ENDTIME	Step-End	22	Step End time
ZIIPTIME	zIIP-Time	9	Total time spent on zIIP
ZIIPCPTM	zICP-Time	9	Eligible zIIP time spent on CP
ZIIPNTIM	zIIP-NTime	10	Normalized zIIP time
HICPUPCT	HiCPU%	6	Largest percentage of CPU time used by any task in this address space, rounded to the nearest integer, as reported by interval records associated with this step
HICPUPGM	HiCPUPgm	8	Program name associated with the HiCPU% value

## Job 0 (J0)

The Job 0 panel allows the user to display information about SYSOUT data sets for a JES3 job 0.

The values for all the columns are obtained from the spool data set.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 55. Columns on the J0 Panel

Column name	Title (Displayed)	Width	Description
NAME	DSPNAME	8	DSP that created the data. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
DSID	DSID	4	Data set ID number
OWNERID	Owner	8	User ID of SYSIN/SYSOUT owner, or default values of ++++++++ or ????????, if user ID not defined to RACF 1.9 and later
OCLASS	C	1	JES3 output class
COPYCNT	CC	2	Data set copy count
PRMODE	PrMode	8	Data set process mode
BURST	Burst	5	Data set burst indicator
FORMS	Forms	8	Output form number
FCBID	FCB	4	Output FCB ID
UCSID	UCS	4	Output UCS ID

Table 55. Columns on the JO Panel (continued)

Column name	Title (Displayed)	Width	Description
WTRID	Wtr	8	External writer name
FLASHID	Flash	5	Output flash ID
FLASHC	FlashC	6	Flash copies
SEGID	SegID	5	Data set segment number
CHARS	Chars	21	Character arrangement table names
CPYMOD	CpyMod	8	Copy modification module name
QUEUE	Queue	5	Queue the data set is on (TCP, BDT, HOLD, WTR)
DESTN	Dest	18	SYSOUT destination
SECLABEL	SecLabel	8	Security label
DSDATE	CrDate-CrTime	19	Data set creation date and time, or, if ***** N/A *****, the creation date and time were not available.
SPIN	Spin	4	Indicates whether this is a spin data set
SELECT	Sel	3	Indicates whether the data set is selectable
RECCNT	Rec-Cnt	7	Data set record count
PAGECNT	Page-Cnt	8	Data set page count. Blank if not page-mode data.
BYTECNT	Byte-Cnt	8	Data set byte count
RECFM	RecFm	5	Record format
DDNAME	DDName	8	DD name
DSNAME	DSName	44	Data set name
STEPN	StepName	8	Job step that created the SYSOUT
PROCS	ProcStep	8	Procedure step that created the SYSOUT

## Lines panel (LI)

The Lines panel allows the user to display information about JES lines and their associated transmitters and receivers.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 56. Columns on the LI Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	DEVICE	12	Device name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	8	Line status
UNIT	Unit	5	Line address or type
NNODE	Node	8	Node that the line is connected to
JNAME	JobName	8	Job name
JOBID	JobID	8	JES2 job ID
JTYPE	no default	4	Type of address space
JNUM	JNum	6	JES2 job number
OWNERID	Owner	8	User ID of owner
RECPRT	Proc-Lines	10	Number of lines processed for the job.



Table 56. Columns on the LI Panel (continued)

Column name	Title (Displayed)	Width	Description
RECCNT	Tot-Lines	10	Number of lines in the job.
TYPE	Type	4	Type of line
LINELIM	Line-Limit	13	Line limit for the line (JES2 only)
PAGELIM	Page-Limit	13	Page limit for the line (JES2 only)
PRTWS	Work-Selection	14	Line work selection criteria (JES2 only)
SESSION	Session	8	Session name (JES2 only)
TOTERRS	Tot-Errs	8	Error count (JES2 only)
AUTODISC	ADisc	5	Line disconnect option
CODE	Code	4	BSC adaptor code
COMPRESS	Comp	4	BSC data compression option
APPLID	AppID	8	Application name for NJE line (JES2 only)
DUPLEX	Duplex	6	BSC line mode
INTERFAC	Intf	4	BSC adapter interface
LINECCHR	LineCChr	8	BSC line control characters configuration (JES2 only)
LOG	Log	3	Message logging option (JES2 only)
REST	Rest	4	Resistance rating of line (JES2 only)
SPEED	Speed	5	Speed of the line
PTRACE	Tr	3	Trace I/O option
TRANSPAR	Transp	6	BSC transparency feature
PSWD	Password	8	Password
DISC	Discon	9	Disconnect status: NO, INTERRUPT, or QUIESCE (only for active lines).
RMTSHR	RmtShr	6	Indicates whether the line is allowed to be dedicated (JES2 only)
JRNUM	JRNum	7	Job receivers associated with the line, either a count or D, for default (JES2 only)
JTNUM	JTNum	7	Job transmitters associated with the line, either a count or D, for default (JES2 only)
SRNUM	SRNum	7	SYSOUT receivers associated with the line, either a count or D, for default (JES2 only)
STNUM	STNum	7	SYSOUT transmitters associated with the line, either a count or D, for default (JES2 only)
SYSNAME	SysName	8	System Name
DSYSID	SysID	5	JES2 member name (JES2 only)
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	z/OS JES2 level
DEVSECLB	DSecLabel	9	Security label of the device (JES2 only)
SOCKETN	SocketN	8	Socket name (JES2 only)
IPADDR	IPAddr	24	IP address (JES2 only)
IPNAME	IPName	32	IP name (JES2 only)
PORT	Port	5	TCP/IP port number (JES2 only)

Table 56. Columns on the LI Panel (continued)

Column name	Title (Displayed)	Width	Description
PORTNAME	PortName	8	TCP/IP port name. Blank if a port number has been set explicitly. (JES2 only)
SECURE	Secure	6	Secure socket (JES2 only)
NSNAME	NSName	8	Network server name (JES2 only)
ANODE	ANode	8	Adjacent node (JES2 only)
LINELIML	Line-Lim-Lo	11	Line limit, minimum (JES2 only)
LINELIMH	Line-Lim-Hi	11	Line limit, maximum (JES2 only)
PAGELIML	Page-Lim-Lo	11	Page limit, minimum (JES2 only)
PAGELIMH	Page-Lim-Hi	11	Page limit, maximum (JES2 only)
CTRACE	CTr	3	Common tracing (JES2 only)
VTRACE	VTr	3	Verbose tracing (JES2 only)
JTRACE	JTr	3	JES tracing (JES2 only)
CONNECT	Connect	7	Connect line automatically (JES2 only)
CTIME	Conn-Int	10	Connection interval in minutes (JES2 only)
RESTART	Restart	8	Restart line automatically (JES2 only)
RTIME	Rest-Int	10	Restart interval, in minutes (JES2 only)
SODISP	SODsp	5	Selection output disposition 1 (JES2 only)
SODISP2	SODsp2	5	Selection output disposition 2 (JES2 only)
SODISP3	SODsp3	5	Selection output disposition 3 (JES2 only)
SODISP4	SODsp4	5	Selection output disposition 4 (JES2 only)

Notes on the table:

1. JNUM is not included in the default field list.

## Link List panel (LNK)

The LNK panel displays the data sets in the link list (lnkfst) for each system in the sysplex. Only data sets in the current lnkfst set are shown.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 57. Columns on the LNK Panel

Column name	Title (Displayed)	Width	Description
DSNAME	DSNAME	13-44 (Varies based on longest name.)	Data set name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number
VOLSER	VolSer	6	Volume serial
BLKSIZE	BlkSize	7	Data set block size
EXTENT	Extent	6	Number of extents
SMS	SMS	3	SMS indicator. YES if the data set is SMS managed. Otherwise, NO.

Table 57. Columns on the LNK Panel (continued)

Column name	Title (Displayed)	Width	Description
APF	APF	3	APF indicator. YES if the data set is APF authorized. Otherwise, NO.
LRECL	LReCL	5	Logical record length
DSORG	DSOrg	5	Data set organization
RECFM	RecFm	5	Record format
CRDATE	CrDate	8	Data set creation date
REFDATE	RefDate	8	Data set last referenced date
SETNAME	SetName	16	Link list set name
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Operating system level

## Link Pack Area panel (LPA)

The LPA panel shows the data sets in the link pack area (LPA) for each system in the sysplex.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 58. Columns on the LPA Panel

Column name	Title (Displayed)	Width	Description
DSNAME	DSNAME	13-44 (Varies based on longest name.)	Data set name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number
VOLSER	VolSer	6	Volume serial
BLKSIZE	BlkSize	7	Data set block size
EXTENT	Extent	6	Number of extents
SMS	SMS	3	SMS indicator. YES if the data set is SMS managed. Otherwise, NO.
APF	APF	3	APF indicator: YES if the data set is APF authorized. Otherwise, NO.
LRECL	LReCL	5	Logical record length
DSORG	DSOrg	5	Data set organization
RECFM	RecFm	5	Record format
CRDATE	CrDate	8	Data set creation date
REFDATE	RefDate	8	Data set last referenced date
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Operating system level

## Multi-Access Spool panel (MAS) and JESPLEX (JP) panel

The Multi-Access Spool (MAS) panel simplifies the display and control of members in a JES2 MAS. The analogous JES3 JESPLEX panel simplifies the display and control of members in a JES3 JESPLEX. They share a single field list.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 59. Columns on the MAS and JP Panel

Column name	Title (Displayed)	Width	Panel	Description
NAME	NAME	4 (JES2) 8 (JES3)	MAS, JP	Member name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	12	MAS, JP	Member status
SYSID	SID	3	MAS	The system ID number
PREVCKPT	PrevCkpt	8	MAS	Number of seconds elapsed since the previous checkpoint (ss.hh format)
CKPTHOLD	Hold	8	MAS	Checkpoint hold in hundredths of seconds
ACTHOLD	ActHold	8	MAS	Actual checkpoint hold in hundredths of seconds
DORMANCY	Dormancy	11	MAS	Checkpoint dormancy (minimum,maximum). Format in hundredths of seconds.
ACTDORM	ActDorm	7	MAS	Actual checkpoint dormancy in hundredths of seconds
SYNCTOL	SyncTol	7	MAS	Checkpoint synchronization tolerance in seconds
SYSMODE	Ind	3	MAS	Independent mode
RSYSID	RSID	4	MAS	Name of member performing a \$ESYS
SYSNAME	SysName	8	MAS, JP	System name of the MVS image on which this JES system is active
VERSION	Version	8	MAS, JP	JES version the system is running
LASTCKPT	Last-Checkpoint	22	MAS	Last date and time checkpoint was taken
COMCHAR	C	1 (JES2) 8 (JES3)	MAS, JP	Command character
JESNAME	JESN	4	MAS, JP	JES subsystem name
SLEVEL	SLevel	6	MAS, JP	JES service level
BOSS	Boss	4	MAS	Indicates if this member is a manager or "boss" of WLM service class queues
GLOBAL	Global	6	JP	JES3 Global member indicator
COMMAND	Command	8	MAS	Command in progress
TYPE	Start-Type	18	MAS, JP	Last start type for the member
DATEE	Start-Date-Time	19	MAS, JP	Date and time the member was started
LASTGCON	LastGCon-Date-Time	18	JP	Last time the global was contacted
PTRACK	PrimTG	6	JP	Primary track group allocation
STRACK	SecTG	6	JP	Secondary track group allocation
WTOLIM	WTOLim	6	JP	WTO message limit
WTOINT	WTOInt	6	JP	WTO message interval

Table 59. Columns on the MAS and JP Panel (continued)

Column name	Title (Displayed)	Width	Panel	Description
PCSALIM	PBufCSA	7	JP	Protected buffer CSA limit
PAUXLIM	PBufAux	7	JP	Protected buffer JES3 auxiliary limit
PFIXED	PBufFixed	9	JP	Fixed protected buffers
USRPAGE	UserPages	9	JP	User pages per open SYSOUT dataset
SELMNAME	SelectModeName	14	JP	Selection mode name
SPARTN	PartName	8	JP	Spool partition name
MSGPRF	MsgPrefix	11	JP	Message prefix
MSGDEST	MsgDest	7	JP	Message destination
CONSTAT	ConnStat	13	JP	Connect status
ATTSTAT	AttStat	11	JP	Attach status

## Network Connections (NC)

The Network Connections panel allows the user to display information about JES networking connections to an adjacent node.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 60. Columns on the NC Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	DEVICE	10	Name of the connection, transmitter or receiver. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	8	Device status
TYPE	Type	4	Connection type (SNA, BSC, TCP)
ANODE	ANode	8	Adjacent node
JNAME	Jobname	8	Job name of job being processed
JOBID	JobID	8	JES job ID of job being processed
JTYPE	JType	8	Type of address space being processed
OWNERID	Owner	8	User ID of job creator
RECPRT	Proc-Lines	10	Number of lines processed for the job
RECCNT	Tot-Lines	10	Number of lines in the job
LINE	Line	5	Number of line to use (JES2 only)
UNIT	Unit	5	Unit associated with line
JRNUM	JRNum	5	Job receiver count
JTNUM	JTNum	5	Job transmitter count
SRNUM	SRNum	5	SYSOUT receiver count
STNUM	STNum	5	SYSOUT transmitter count
CONNECT	Connect	7	Connect automatically (JES2 only)
CTIME	Conn-Int	8	Connection interval (JES2 only)
PTRACE	Tr	3	Tracing (JES2 only)
CTRACE	CTr	3	Common tracing

Table 60. Columns on the NC Panel (continued)

Column name	Title (Displayed)	Width	Description
JTRACE	JTr	3	JES tracing
VTRACE	VTr	3	Verbose tracing
LOGMODE	LogMode	8	Logon mode table entry (JES2 only)
REST	Rest	5	Resistance of the connection (JES2 only)
COMPACT	Compact	8	Compaction table name (JES2 only)
IPADDR	IPAddr	24	IP address (JES2 only)
IPNAME	IPName	32	IP host name
PORT	Port	5	TCP/IP port number
PORTNAME	PortName	16	TCP/IP port name (JES2 only)
SECURE	Secure	6	Secure (TLS) connection
LOGON	Logon	5	Number of the associated LOGON device (JES2 only)
NETSRV	Netsrv	5	Number of the associated NETSRV device (JES2 only)
RELCONN	RelConn	8	Related connection name
SRVNAME	SrvName	10	Name of the associated server device
DSECLABEL	DSecLabel	9	Security label of the adjacent node (JES2 only)
SYSNAME	SysName	8	System name
DSYSID	SysID	5	JES2 member name (JES2 only)
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	z/OS JES version and release
PRTWS	Work-Selection	14	Work selection criteria (JES2, transmitters and receivers)
LINELIM	Line-Limit	13	Line limit for selection (JES2, transmitters and receivers)
PAGELIM	Page-Limit	13	Page limit for selection (JES2, transmitters and receivers)
LINELIML	Line-Lim-Lo	11	Line limit, minimum (JES2 only)
LINELIMH	Line-Lim-Hi	11	Line limit, maximum (JES2 only)
PAGELIML	Page-Lim-Lo	11	Page limit, minimum (JES2 only)
PAGELIMH	Page-Lim-Hi	11	Page limit, maximum (JES2 only)
SODISP	SODsp	5	Selection output disposition (JES2 only)
SODISP2-4	SODsp2-4	6	Selection output disposition 2-4 (JES2 only)

---

## Network Servers (NS)

The Network Servers panel allows the user to display information about JES server-type networking devices on the node.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 61. Columns on the NS Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	DEVICE	10	Name of the network server. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	8	Device status
DSPNAME	DSPName	8	Dynamic support program name (JES3 only)
APPL	Appl	8	Application name (JES2 only)
SOCKET	Socket	8	Socket name (JES2 only)
STACK	Stack	8	Name of the TCP/IP stack
RESTART	Restart	8	Restart the device automatically (JES2 only)
RTIME	Rest-Int	10	Restart interval (minutes) (JES2 only)
PTRACE	Tr	3	Tracing (JES2 only)
CTRACE	CTr	3	Common tracing
VTRACE	VTr	3	Verbose tracing
JTRACE	JTr	3	JES tracing
LOG	Log	3	Log activity (JES2 only)
ASID	ASID	5	ASID of the network server
SRVJOBNM	SrvJobNm	8	Job name of the network server address space
PASSWORD	Password	8	Password (SET or NOTSET) (JES2 only)
IPNAME	IPName	32	Local TCP/IP host name
PORT	Port	5	Local TCP/IP port number
PORTNAME	PortName	16	Local TCP/IP port name (JES2 only)
SECURE	Secure	6	Secure (TLS) socket
SYSNAME	SysName	8	System name
DSYSID	SysID	5	JES2 member name (JES2 only)
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	z/OS JES level
DEVSECLB	DSecLabel	9	Security label of the device (JES2 only)

---

## Nodes panel (NO)

The Nodes panel allows the user to display information about JES nodes.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 62. Columns on the NO Panel

Column name	Title (Displayed)	Width	Description
NUMBER	NUMBER	5	Node number (JES2 only). For JES2, this is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
NODENAME	NodeName	8	Node name. For JES3, this is the fixed field, and is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	21	Node status. By default, this shows status for the first path. Increase the width (up to 43) to show the status for the second path.
AUTH	Authority	17	Authority of the node (JES2 only)
TRANS	Trans	6	What the local node transmits to the specified node (JES2 only)
RECV	Recv	6	What the local node receives from the specified node (JES2 only)
HOLD	Hold	4	Job hold indicator for the local node
PENCRYPT	PEn	3	Password encryption indicator (JES2 only)
ENDNODE	End	3	Eligibility for store-and-forward operations (JES2 only)
RESIST	Rest	4	Resistance rating of the connection (JES2 only)
SENTREST	SentRs	6	Whether the resistance from an adjacent node is used in calculating the resistance of an adjacent connection (JES2 only)
COMPACT	Cp	2	Compaction table number for outbound compaction when communicating with this node (JES2 only)
LINE	Line	4	Line dedicated to the NJE session for with this application (JES2 only)
LNAME	LineName	8	Line dedicated to NJE for this node (JES3 only)
LOGMODE	LogMode	8	Logon mode table entry for this application (JES2 only)
PATHMGR	PMg	3	Indicator of whether NCC records relevant to the path manager should be sent to this node (JES2 only)
PRIVATE	Prv	3	Private indicator for the connection between this node and an adjacent node (JES2 only)
SUBNET	Subnet	8	Name of the subnet that should include this node (JES2 only)
NTRACE	Tr	3	Trace option (JES2 only)
VERIFYP	VerifyP	8	Password received from the node
SENDP	SendP	8	Password sent to the node
LOGON	Logon	5	Number of the local logon DCT (1-999) which should be use when specifying connections to the application. The default value of 0 indicates that the logon DCT defined with the lowest number is to be. (JES2 only)



Table 62. Columns on the NO Panel (continued)

Column name	Title (Displayed)	Width	Description
SYSNAME	SysName	8	System name
DSYSID	SysID	5	JES2 member name (JES2 only)
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	JES version and release
NETSRV	NetSrv	6	Network server number (JES2 only)
DEVSECLB	DSecLabel	9	Security label of the device (JES2 only)
MAXRETR	MaxRetries	6	Number of retries to attempt before ending the BSC NJE line (JES3 only)
PATH	Path	8	Name of the adjacent node in the path (JES3 only)
PTYPE	PType	5	Protocol type (JES3 only)
BDTNAME	BDTName	8	Bulk Data Transfer (BDT) ID (JES3 only)
PARTNAM	PartName	8	Name of the spool partition to which JES3 writes spool data for all jobs from that node (JES3 Only)
MAXLINES	MaxLines	3	Maximum number of lines for the node. (JES3 Only)
DIRECT	Direct	6	Specifies whether the node can be directly attached only
SSIGNON	SSignon	7	Specifies whether secure signon protocol is to be used
JTNUM	JTNum	5	Number of job transmitters associated with the TCP/IP node (JES3 only)
JRNUM	JRNum	5	Number of job receivers associated with the TCP/IP node (JES3 only)
STNUM	STNum	5	Number of SYSOUT transmitters associated with the TCP/IP node (JES3 only)
SRNUM	SRNum	5	Number of SYSOUT receivers associated with the TCP/IP node (JES3 only)
SECURE	Secure	6	Use secure (TLS) socket (JES3 only)
PWCNTL	PwCntl	8	Password encryption control (JES3 only)
XNAMEREQ	XNameReq	8	Specifies whether inbound SYSOUT can be held for processing by an external writer if no external writer name was supplied (JES3 only)
CONNECT	Connect	7	Automatically connect (JES2) or reconnect (JES3)
CTIME	Conn-int	8	Connection interval (minutes)
BUFSIZE	BufSz	5	Buffer size (JES3 only)
STREAM	Strm	4	Number of concurrent streams (JES3 only)
PRTDEF	PrtDef	8	Print class default for networking output received at the home node (JES3 only)
PRTTSO	PrtTSO	8	TSO data set default class for networking output received at the home node (JES3 only)
PRTXWTR	PrtXwtr	8	External writer data set default class for networking output received at the home node (JES3 only)
PUNDEF	PunDef	8	Punch class default for networking output received at the home node (JES3 only)
NETPR	NetPr	5	Number of logical network printers on the home node (JES3 only)

Table 62. Columns on the NO Panel (continued)

Column name	Title (Displayed)	Width	Description
NETPU	NetPu	5	Number of logical network punches on the home node (JES3 only)
CTCNODE	CTC	5	Channel to channel node (JES3 only)

## Output Descriptors panel (OD)

The OD panel allows the user to display JES output descriptors.

In a JES2 environment, columns can be overtyped only if you accessed the OD panel from the O or H panel, or from a JDS panel that was accessed from the O or H panel.

When you overtype a column on the OD panel, the change applies to all data sets for that group.

Table 63. Columns on the OD Panel

Column name	Title (Displayed)	Width	Description	Delay
DDNAME	DDNAME	8	DDname of the data set. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	X
PAGEDEF	PageDef	6	Library member used by PSF to specify print characteristics such as page width	X
FORMDEF	FormDef	6	Library member used by PSF to specify print characteristics such as overlays	X
ODTITLE	Title	60	Report title to be printed on new separator pages	X
ODNAME	Name	60	Name to be printed on separator pages	X
ODBLDG	Building	60	Building location to be printed on separator pages	X
ODDEPT	Department	60	Department to be printed on separator pages	X
ODROOM	Room	60	Room to be printed on separator pages	X
ODADDR	Address	60	Address to be printed on separator pages. There can be 1 to 4 lines, each with a maximum length of 60.	X
OUTBIN	OutBin	5	Output bin	X
COMSETUP	ComSetup	8	Setup options for microfiche printers	X
FORMLEN	FormLen	10	Form length	X
COLORMAP	ColorMap	8	AFP resource for the data set containing color translation information	X
INTRAY	InTray	3	Paper source	X
OVERLAYB	OverlayB	8	Overlay for the back of each sheet	X
OVERLAYF	OverlayF	8	Overlay for the front of each sheet	X
OFFSETXB	OffsetXB	13	Offset in the x direction from the page origin for the back of each page	X
OFFSETXF	OffsetXF	13	Offset in the x direction from the page origin for the front of each page	X

Table 63. Columns on the OD Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
OFFSETYB	OffsetYB	13	Offset in the y direction from the page origin for the back of each page	X
OFFSETYF	OffsetYF	13	Offset in the y direction from the page origin for the front of each page	X
PORTNO	PortNo	6	Number of the TCP/IP port where the FSS connects to the printer	X
ODNOTIFY	Notify	17	Print complete notification message. There can be 1 to 4 user IDs, each with a maximum length of 17.	X
ODUSRLIB	UserLib	44	Libraries containing Advanced Function Printing (AFP) resources to be used by Print Services (PSF) when processing SYSOUT data sets.  There can be 1 to 8 library names, each with a maximum length of 44.	X
RETAINS	RetainS	8	Retain time for successful transmissions	X
RETAINF	RetainF	8	Retain time for unsuccessful attempts	X
RETRYL	RetryL	3	Maximum number of retries	X
RETRYT	RetryT	8	Time between retries	X
PRINTO	PrtOptns	16	Entry in the PrintWay™ options data set	X
PRINTQ	PrtQueue	60	Print queue name. There can be 2 lines for this column, each with a maximum length of 60 characters.	X
IPDEST	IP Destination	60	IP address or TCP/IP name. There can be 2 lines for this column, each with a maximum length of 60 characters.	X
USERDATA	UserData	60	User data. There can be 16 lines, each with a maximum length of 60.	X
AFPPARMS	AFPParms	54	Names a data set that contains the parameters to be used by the AFPPrint Distributor	X
OCOPYCNT	OCopyCnt	10	Copy count specified with COPYCNT. Used by InfoPrint printers.	X

## Output Queue panel (O)

The Output Queue panel allows the user to display information about SYSOUT data sets for jobs, started tasks, and TSO users on any *nonheld* JES output queue.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 64. Columns on the O Panel

Column name	Title (Displayed)	Width	Description	Delay
JNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	
JNUM	JNum <sup>1</sup>	6	JES job number	
JOBID	JobID	8	JES job ID or work ID	

Table 64. Columns on the O Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
OWNERID	Owner	8	User ID of SYSIN/SYSOUT owner, or default values of ++++++++ or ????????, if user ID not defined to RACF	
DPRIO	Prty	4	JES output group priority	
OCLASS	C	1	JES output class	
FORMS	Forms	8	Output form number	
DESTN	Dest	18	JES print destination name	
RECCNT	Tot-Rec	9	Output total record count (lines). Blank for page-mode data.	
RECPRT	Prt-Rec	9	The number of lines printed. Blank for page-mode data. (JES2 only)	
PAGECNT	Tot-Page	9	Output page count. Blank if not for page-mode data.	
PAGEPRT	Prt-Page	9	Output pages printed. Blank if not for page-mode data. (JES2 only)	
DEVID	Device	18	Output device name (only if it is printing)	
STATUS	Status	11	JES job status	
SECLABEL	SecLabel	8	Security label of output group	
DSYSID	SysID	5	System on which the output is printing (only if it is printing) (JES2 only)	
DEST	Rmt	5	JES2 print routing. Remote number if routing is not local. (JES2 only)	
NODE	Node	5	JES2 print node (JES2 only)	
OGNAME	O-Grp-N	8	Output group name (JES2 only)	
OGID	OGID1	5	Output group ID 1 (JES2 only)	
OGID2	OGID2	5	Output group ID 2 (JES2 only)	
JPRIO	JP	2	JES job priority	
FCBID	FCB	4	Output FCB ID	
UCSID	UCS	4	Output UCS ID (print train required)	
WTRID	Wtr	8	Output external writer name	
FLASHID	Flash	5	Output flash ID	
BURST	Burst	5	3800 burst indicator	
PRMODE	PrMode	8	Printer process mode	
OUTDISP	ODisp	5	JES2 output disposition	
DSDATE	CrDate	10	Output creation date. Length can be changed to 19 to produce the date and time. (JES2 only)	
OHREASON	OHR	3	Output hold reason code	
OHRSTXT	Output-Hold-Text	37	Output hold reason text	
OFFDEVS	Offs	4	List of offload devices for a job or output that has been offloaded (JES2 only)	
RETCODE	Max-RC	10	Return code information for the job	
JTYPE	Type	4	Type of address space	
ROOMN	RNum	8	JES2 job room number	X

Table 64. Columns on the O Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
PNAME	Programmer-Name	20	JES programmer name field	X
ACCTN	Acct	4 (JES2) 8 (JES3)	JES account number	X
NOTIFY	Notify	8	TSO user ID from NOTIFY parameter on job card	X
ISYSID	ISys	4 (JES2) 8 (JES3)	JES input system ID	X
TIMER	Rd-Time	8	Time that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
DATER	Rd-Date	8	Date that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
ESYSID	ESys	4 (JES2) 8 (JES3)	JES execution system ID	X
TIMEE	St-Time	8	Time that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
DATEE	St-Date	8	Date that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
TIMEN	End-Time	8	Time that execution ended. In the SDSF task of z/OSMF, this is replaced by the End-DateTime column.	X
DATEN	End-Date	8	Date that execution ended. In the SDSF task of z/OSMF, this is replaced by the End-DateTime column.	X
ICARDS	Cards	5	Number of cards read for job	X
JCLASS	JC	1 or 8	JES input job class. Default width expands to 8 if there are long class names in the MAS.	
MCLASS	MC	2	Message class of job	X
SUBGROUP	SubGroup	8	Submitter group	X
JOBACCT1	JobAcct1 <sup>1</sup>	20	Job accounting field 1	X
JOBACCT2	JobAcct2 <sup>1</sup>	20	Job accounting field 2	X
JOBACCT3	JobAcct3 <sup>1</sup>	20	Job accounting field 3	X
JOBACCT4	JobAcct4 <sup>1</sup>	20	Job accounting field 4	X
JOBACCT5	JobAcct5 <sup>1</sup>	20	Job accounting field 5	X
JOBCORR	JobCorrelator	32	User portion of the job correlator (JES2 only)	
DATETIMER	Rd-DateTime	19	Date and time that the job was read in. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the Rd-Date and Rd-Time columns.	X
DATETIMEE	St-DateTime	19	Date and time that execution began. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the St-Date and St-Time columns.	X

Table 64. Columns on the O Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
DATETIMEN	End-DateTime	19	Date and time that execution ended. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the End-Date and End-Time columns.	X

Notes on the table:

1. This column is not included in the default field list.

## Page panel (PAG)

The PAG panel shows the paging data sets in use for each system in the sysplex.

**Note:** RMF and the RMF Monitor 1 tasks must be active in order to see rows on the SDSF PAG display. When this requirement is not met, messages HSF0030E and HSF0028E are seen during SDSFAUX initialization.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 65. Columns on the PAG Panel

Column name	Title (Displayed)	Width	Description
DSNAME	DSNAME	13-44 (Varies based on longest name.)	Data set name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
TYPE	Type	6	Type of data set
SLOTS	Slots	8	Number of slots defined
USENUM	Used	8	Number of slots used
USEPCT	Use%	4	Percentage of total slots in use
VOLSER	VolSer	6	Volume serial
STATUS	Status	8	Data set status
VIO	VIO	3	VIO indicator. YES if data set eligible for VIO.
TOTERRS	IOError	7	Number of I/O errors
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Operating system level

---

## PARMLIB panel (PARM)

The PARM panel shows the data sets in the PARMLIB concatenation for each system in the sysplex.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 66. Columns on the PARM Panel

Column name	Title (Displayed)	Width	Description
DSNAME	DSNAME	13-44 (Varies based on longest name.)	Data set name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number
VOLSER	VolSer	6	Volume serial
BLKSIZE	BlkSize	7	Data set block size
EXTENT	Extent	6	Number of extents
SMS	SMS	3	SMS indicator. YES if the data set is SMS managed. Otherwise, NO.
LRECL	LRecl	5	Logical record length
DSORG	DSOrg	5	Data set organization
RECFM	RecFm	5	Record format
CRDATE	CrDate	8	Data set creation date
REFDATE	RefDate	8	Data set last referenced date
SYSNAME	SysName	8	System name
SYSLEVEL	SysLevel	25	Operating system level

---

## Printer panel (PR)

The Printer panel allows the user to display information about JES printers printing job, started task, and TSO user output.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 67. Columns on the PR Panel

Column name	Title (Displayed)	Width	Description	Delay
DEVNAME	PRINTER	10 <sup>1</sup>	Printer name. This is the fixed field. It is ignored in an FLD statement or ISFFLD macro.	
STATUS	Status	8	Printer status	
GROUP	Group	9	Device group (JES3 only)	
SFORMS	SForms	8	Printer selection form number	
SFORM2-8	SForm2-8	8	Printer selection form names (JES2 only)	
SCLASS	SClass	15	Printer output selection classes	
JNAME	JobName	8	Job name	X
JNUM	JNum <sup>2</sup>	6	JES job number	
JOBID	JobID	8	JES job ID or work ID	X

Table 67. Columns on the PR Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
OWNERID	Owner	8	User ID of job owner, or default values of ++++++++ or ????????, if user ID not defined to RACF	
RECCNT	Rec-Cnt	7	Number of line-mode records	
RECPRT	Rec-Prt	7	Number of line-mode records printed	
PAGECNT	Page-Cnt	8	Number of output pages	
PAGEPRT	Page-Prt	8	Number of output pages printed	
JPRIO	JP	2	JES job priority	
DPRIO	DP	3	Output data set priority	
OCLASS	C	1	JES output class	
SECLABEL	SecLabel	8	Security label of the output group	
FORMS	Forms	8	Output form number	
FCBID	FCB	4	Output FCB ID	
UCSID	UCS	4	Output UCS ID (print train required)	
WTRID	Writer	8	Output special writer ID or data set ID (JES2 only)	
FLASHID	Flash	5	Output flash ID	
DESTN	Dest	8	JES print destination name (JES2 only)	
BURST	Burst	5	3800 burst indicator	
SEP	Sep	3	Separator page between output groups (JES2 only)	
SEPDS	SepDS	5	Separator page between data sets	
PRMODE	PrMode	8	Printer process mode	
SFCBID	SFCB	5	Printer selection FCB ID	
SUCSID	SUCS	4	Printer selection UCS ID	
SWTRID	SWriter	8	Printer selection writer ID (JES2 only)	
SFLASHID	SFlh	5	3800 Printer selection flash ID	
PRTWS	Work-Selection	40	Printer work selection criteria	
SBURST	SBurst	6	3800 output selection burst mode	
SPRMODE1	SPrMode1	8	Output selection process mode 1	
SPRMODE2	SPrMode2	8	Output selection process mode 2	
SPRMODE3	SPrMode3	8	Output selection process mode 3	
SPRMODE4	SPrMode4	8	Output selection process mode 4	
SDESTN1	SDest1	8	Printer selection destination name 1 (JES2 only)	
SDESTN2	SDest2	8	Printer selection destination name 2 (JES2 only)	
SDESTN3	SDest3	8	Printer selection destination name 3 (JES2 only)	
SDESTN4	SDest4	8	Printer selection destination name 4 (JES2 only)	
SJOBNAME	SJobName	8	Printer selection job name (JES2 only)	



Table 67. Columns on the PR Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
SOWNER	SOwner	8	Printer selection creator ID. Use with the CREATOR work selection criteria. (JES2 only)	
SRANGE	SRange	22	Printer selection job number range (JES2 only)	
SEPMK	M	3	3800 mark forms control	
NPRO	NPro	4	Nonprocess run-out time in seconds (FSS only). This column is not overtypeable when the printer is active.	
MODE	Mode	4	Control mode of printer (FSS only)	
CKPTLINE	CkptLine	8	Number of lines per logical page (JES2 only)	
CKPTREC	CkptRec	7	Number of logical records per checkpoint (JES3 only)	
CKPTPAGE	CkptPage	8	Number of logical pages per checkpoint	
CKPTSEC	CkptSec	7	Default checkpoint interval (3800-FSS) in seconds	
CKPTMODE	CkptMode	8	Checkpoint mode indicator (take checkpoints based on pages or seconds)	
CPYMOD	CpyMod	7	Copy modification module ID for the 3800 printer	
UNIT	Unit	5	Printer unit name	
PSEL	PSel	4	Preselection option (JES2 only)	
OGNAME	O-Grp-N	8	Output group name for the active job on the printer (JES2 only)	
LINELIM	Line-Limit	21	Printer line limit, <i>m-n</i> . An * indicates maximum value. (JES2 only)	
PAGELIM	Page-Limit	21	Printer page limit, <i>m-n</i> . Not shown for remote printers. (JES2 only)	
DEVFCB	DFCB	5	Device default FCB name or RESET	
PSETUP	Seup	6	Printer setup mode	
COPYMARK	CopyMark	8	Copymark indicator. Shown only for non-impact or FSS controlled printers.	
PAUSE	Pau	3	Pause mode. Not shown for remote printers.	
PSPACE	K	1	Printer spacing. Not shown for remote printers. (JES2 only)	
PTRACE	Tr	3	Printer tracing	
SEPCHARS	SepChar	7	Separator character value. Not shown for remote printers. (JES2 only)	
UCSVERFY	UCSV	4	UCS verification option. Not shown for remote printers. (JES2 only)	
DEST	Rmt <sup>2</sup>	5	JES print routing (JES2 only)	
NODE	Node <sup>2</sup>	4	JES print node (JES2 only)	
FSSNAME	FSSName	8	FSS defined for the printer	
FSSPROC	FSSProc	8	Name of the proc used to start the FSS	
FSATRACE	FSATrace	8	Internal rolling trace for an FSS printer (JES2 only)	

Table 67. Columns on the PR Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
SYSNAME	SysName	8	System name	
DSYSID	SysID	5	JES member name (JES2 only)	
JESNAME	JESN	4	JES subsystem name	
JESLEVEL	JESLevel	8	JES level	
DEVSECLB	DSecLabel	9	Security label of the device (JES2 only)	
JTYPE	Type	4	Type of address space	
OGID1	OGID1	5	Output group ID1 for job on printer (JES2 only)	
OGID2	OGID2	5	Output group ID2 for job on printer (JES2 only)	
PTRANS	Trans	8	Data translation	
TRKCELL	TrkCell	7	De-spool the entire track cell (JES2 only)	
NEWPAGE	NewPage	7	Controls how a "skip to channel" is counted (JES2 only)	
HONORTRC	HonorTRC	8	Honor TRC (table reference character) keyword in JCL (JES2 only)	
SVOL	SVol1	6	Spool volumes for work selection (JES2 only)	
SVOL2	SVol2	6	Spool volume 2 for work selection (JES2 only)	
SVOL3	SVol3	6	Spool volume 3 for work selection (JES2 only)	
SVOL4	SVol4	6	Spool volume 4 for work selection (JES2 only)	
CHAR1	Char1	5	Character arrangement table 1	
CHAR2	Char2	5	Character arrangement table 2	
CHAR3	Char3	5	Character arrangement table 3	
CHAR4	Char4	5	Character arrangement table 4	
FSASYSNM	FSASysNm	8	MVS system where FSA is active	
DSPNAME	DSPName	7	Dynamic support program name (JES3 only)	
DEVTYPE	DevType	8	Device type name (JES3 only)	
SDEST1	SRout1 <sup>2</sup>	6	Selection destination 1 (JES2 only)	
SDEST2	SRout2 <sup>2</sup>	6	Selection destination 2 (JES2 only)	
SDEST3	SRout3 <sup>2</sup>	6	Selection destination 3 (JES2 only)	
SDEST4	SRout4 <sup>2</sup>	6	Selection destination 4 (JES2 only)	
SNODE1	SNode1 <sup>2</sup>	6	Selection node (JES2 only)	
SNODE2	SNode2 <sup>2</sup>	6	Selection node 2 (JES2 only)	
SNODE3	SNode3 <sup>2</sup>	6	Selection node 3 (JES2 only)	
SNODE4	SNode4 <sup>2</sup>	6	Selection node 4 (JES2 only)	
LINELIML	Line-Lim-Lo	12	Printer line limit, minimum	
LINELIMH	Line-Lim-Hi	12	Printer line limit, maximum	
PAGELIML	Page-Lim-Lo	12	Printer page limit, minimum	
PAGELIMH	Page-Lim-Hi	12	Printer page limit, maximum	
DGRPY	DGrpY	5	Device cannot process data sets that are destined for any local device (JES3 only)	

Table 67. Columns on the PR Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
DYNAMIC	Dyn	3	Device can be started dynamically (JES3 only)	
OPACTLOG	OpLog	5	Operator command actions will be logged in the output of the modified device using message IAT7066 or IAT7067 (FSS devices, JES3 only)	
CGS	CGS	3	Character generation storage (JES3 only)	
BURSTPAGE	B	1	Burst (JES3 only)	
PDEFAULT	PDefault	8	Defaults that should be applied, if not defined in the job's JCL (JES3 only)	
COPIES	Copies	6	Copy count (JES3 only)	
CLEAR	CB	2	Clear printer processing indicator (JES3 only)	
TRC	TRC	3	Table reference character (JES3 only)	
HFCB	HFCB	4	Use designated FCB until status is changed (JES3 only)	
HCHARS	HChars	6	Use designated CHARs until status is changed (JES3 only)	
HUCS	HUCS	4	Use designated UCS until status is changed (JES3 only)	
HCPYMOD	HCpyMod	7	Use designated Copy Mod until status is changed (JES3 only)	
HFLASH	HFlash	6	Use designated Flash until status is changed (JES3 only)	
HBURST	HBurst	6	Use designated Burst until status is changed (JES3 only)	
HFORMS	HForms	6	Use designated Forms until status is changed (JES3 only)	
ASIS	AsIs	4	Send print data as is (JES2 only)	
CCTL	CCtl	4	Data carriage control stream	
COMPCT	Cmpct	4	Compaction for SNA remote punches	
COMP	Comp	4	Compression	
COMPAC	Compact	8	Compaction table name for SNA remote punches	
FCBLOAD	FCBl	4	JES will load FCB	
LRECL	LRecl	5	Logical record length	
SUSPEND	Sus	3	Suspend/interrupt capability (JES2 only)	
SELECT	Select	8	Send output to device type and subaddress	

Notes on the table follow.

<sup>1</sup> The width of the PRINTER column is 7 if the shortened format of device names has been specified. See Table 33 on page 94.

<sup>2</sup> This column is not included in the default field list.

---

## Proclib panel (PROC)

The Proclib (PROC) panel shows the procedure libraries being used by JES. The PROC panel shows the procedure libraries for the local member only. This panel is available only in SDSF V2R2 and only when running JES2.

You can use the fast path select (S) command with a DDNAME to filter results.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 68. Columns on the PROC Panel

Column name	Title (Displayed)	Width	Description
DDNAME	DDNAME	8	DDName of the data set. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number for data set in list
DSNAME	DSName	44	Data set name
VOLSER	VolSer	6	Volume serial
DEFVOL	DefVol	6	Defined volume serial
STATUS	Status	8	Data set status
TSO	TSO	3	Proclib used for TSO (YES or NO)
STC	STC	3	Proclib used for started tasks (YES or NO)
STATIC	Static	6	Static allocation (YES or NO)
BLKSIZE	BlkSize	7	Block size
EXTENT	Extent	6	Number of data set extents
SMS	SMS	3	SMS indicator (YES or NO). YES if SMS managed.
LRECL	LRecL	5	Logical record length for data set
DSORG	DSOrg	5	Data set organization
RECFM	RecFm	5	Record format
CRDATE	CrDate	8	Data set creation date
REFDATE	RefDate	8	Data set last reference date
SEQMAX	SeqMax	6	Maximum sequence number for data set in list

---

## Processes panel (PS)

The PS panel displays information about z/OS UNIX System Services processes.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 69. Columns on the PS Panel

Column name	Title (Displayed)	Width	Description
JOBNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored on an FLD statement or ISFFLD macro.
JOBID	JobID	8	Job ID of the process
STATUS	Status	32	Status of the process
OWNERID	Owner	8	User ID of owner

Table 69. Columns on the PS Panel (continued)

Column name	Title (Displayed)	Width	Description
STATE	State	5	State of the process or of most recently created thread (corresponds to d omvs display)
CPU	CPU-Time	8	Compute time in hundredths of seconds
PID	PID	10	Process ID
PPID	PPID	10	Parent process ID
ASID	ASID	5	Address space id
ASIDX	ASIDX	5	Address space id in hexadecimal
LATCHPID	LatchWaitPID	12	PID on which this process is waiting
COMMAND	Command	40	Command that created process
SERVER	ServerName	32	Server name
TYPE	Type	4	Server type (only when the process is a server)
ACTFILES	ActFiles	8	Number of active files (only when the process is a server)
MAXFILES	MaxFiles	8	Maximum number of files (only when the process is a server)
TIMEE	St-Time	8	Time process was started
DATEE	St-Date	8	Date process was started
SYSLEVEL	SysLevel	25	Level of the operating system
SYSNAME	SysName	8	System name where process is executing
SECLABEL	SecLabel	8	Security label of the process

## Punch panel (PUN)

The PUN panel allows the user to display information about punches.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 70. Columns on the PUN Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	PUNCH	10	Device name. This is the fixed field. It is ignored on an FLD statement or ISFFLD macro.
STATUS	Status	8	Punch status
GROUP	Group	8	Device group name (JES3 only)
SFORMS	SForms	8	Selection form number
SFORM2	SForm2	8	Selection form number 2 (JES2 only)
SFORM3	SForm3	8	Selection form number 3 (JES2 only)
SFORM4	SForm4	8	Selection form number 4 (JES2 only)
SFORM5	SForm5	8	Selection form number 5 (JES2 only)
SFORM6	SForm6	8	Selection form number 6 (JES2 only)
SFORM7	SForm7	8	Selection form number 7 (JES2 only)
SFORM8	SForm8	8	Selection form number 8 (JES2 only)
JNAME	JobName	8	Active job name

Table 70. Columns on the PUN Panel (continued)

Column name	Title (Displayed)	Width	Description
JOBID	JobID	8	Active job ID
JTYPE	Type	5	Type of active address space
JNUM	JNum <sup>1</sup>	6	Active job number
OWNERID	Owner	8	User ID of owner
SCLASS	SClass	15	Output selection classes
RECCNT	Rec-Cnt	7	Number of line-mode records in the job
RECPRT	Rec-Prt	7	Number of line-mode records printed
PAGECNT	Page-Cnt	8	Output page count
PAGEPRT	Page-Prt	8	Output pages printed
SEP	Sep	3	Separator page between output groups (JES2 only)
SEPDS	SepDS	5	Separator page between data sets
CCTL	CCtl	4	Data carriage control stream
CMPCT	Cmpct	4	Compaction for SNA remote punches
COMP	Comp	4	Compression
COMPAC	Compact	8	Compaction table name for SNA remote punches
FLUSH	Fls	3	Blank card after each data set
SWTRID	SWriter	8	Punch selection writer ID (JES2 only)
PRTWS	Work-Selection	40	Punch work selection criteria
SPRMODE1	SPrMode1	8	Output selection process mode 1
SPRMODE2-4	SPrMode2-4	8	Output selection process modes 2-4
SDESTN1	SDest1	8	Punch selection destination name 1 (JES2 only)
SDESTN2-4	SDest2-4	8	Punch selection destination names 2-4 (JES2 only)
SJOBNAME	SJobName	8	Selection job name (JES2 only)
SOWNER	SOwner	8	Selection creator ID (JES2 only)
SVOL	SVol	6	Selection volume (JES2 only)
SELECT	Select	7	Send Output To (remote punches only)
CKPTLINE	CkptLine	8	Number of lines per logical page (JES2 only)
CKPTPAGE	CkptPage	8	Number of logical pages per checkpoint (JES2 only)
CKPTREC	CkptRec	3	Number of records per checkpoint (JES3 only)
UNIT	Unit	5	Punch unit name
LINELIM	Line-Limit	21	Punch line limit (JES2 only)
SRANGE	SRange	22	Selection job number range (JES2 only)
LRECL	LRecl	5	Logical record length of transmitted data (SNA only)
PSETUP	Setup	6	Setup option (JES2 only)
PAUSE	Pau	3	Pause mode
SUSPEND	Sus	3	Punch-interrupt feature option (BSC connection only, JES2 only)
PTRACE	Tr	3	Punch tracing
SYSNAME	SysName	8	System name
DSYSID	SysID	5	JES2 member name (JES2 only)

Table 70. Columns on the PUN Panel (continued)

Column name	Title (Displayed)	Width	Description
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	z/OS JES level
SECLABEL	Seclabel	8	Security label of the job on the device
DEVSECLB	DSecLabel	9	Security label of the device (JES2 only)
LINELIML	Line-Lim-LoMinimum Lines	11	Punch line limit, minimum
LINELIMH	Line-Lim-HiMaximum Lines	11	Punch line limit, maximum
SVOL2-4	Svol2-4	6	Selection volumes 2-4 (JES2 only)
OGNAME	O-Grp-N	8	Output group name (JES2 only)
OGID1	OGid1	5	Output group ID 1 (JES2 only)
OGID2	OGid2	5	Output group ID 2 (JES2 only)
FORMS	Forms	8	Output forms
PRMODE	Prmode	8	Output process mode
WTRID	Writer	8	Output writer name (JES2 only)
DESTN	Dest	8/18	Output destination (JES2 only)
DPRIO	DP	2	Output priority
JPRIO	JP	2	Job priority
OCLASS	C	1	Output class
DEVTYPE	DevType	8	Device type (JES3 only)
DSPNAME	DSPName	8	Dynamic support program name (JES3 only)
HFORMS	HForms	6	Use designated forms until status is changed (JES3 only)
COPIES	Copies	6	Copy count (JES3 only)
DYNAMIC	Dyn	3	Start device dynamically (JES3 only)
DGRPY	DGrpY	3	Device cannot process data sets that are destined for any local device (JES3 only)
BURSTPAGE	B	3	Punch burst page at end of job (JES3 only)

Notes on the table:

1. This column is not included in the default field list.

## Reader panel (RDR)

The RDR panel allows the user to display information about readers.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 71. Columns on the RDR Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	READER	10	Device name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	8	Reader status

Table 71. Columns on the RDR Panel (continued)

Column name	Title (Displayed)	Width	Description
GROUP	Group	8	Device group name (JES3 only)
JNAME	JobName	8	Job name
JOBID	JobID	8	Active job ID (JES2 only)
JTYPE	Type <sup>1</sup>	5	Type of active address space
JNUM	JNum <sup>1</sup>	6	Active job number (JES2 only)
OWNERID	Owner	8	User ID of owner
RECCNT	Rec-Cnt	10	Number of records in the job (JES2 only)
RECPRT	Rec-Proc	10	Number of records processed
RCLASS	C	1 or 8	Default execution class. Default width expands to 8 if there are long class names in the MAS.
RHOLD	Hold	4	Job held after JCL conversion (JES2 only)
RMCLASS	MC	2	Message class (JES2 only)
RPRTDST	PrtDest	18	Default destination for print output (JES2 only)
RPUNDST	PunDest	18	Default destination for punch output (JES2 only)
RSYSAFF	SAff	5	System affinity (JES2 only)
RAUTH	Authority	13	Authority of the reader (JES2 only)
PRIINC	PI	2	Increment to selection priority (JES2 only)
PRIOLIM	PL	2	Maximum priority level that can be assigned to jobs. Any job's priority that exceeds this level is reduced to it. (JES2 only)
RUNIT	Unit	5	Reader unit name
XEQDEST	XeqDest	18	Default execution node (JES2 only)
RTRACE	Tr	3	Reader tracing (JES2 only)
SYSNAME	SysName	8	System name
DSYSID	SysID	5	JES2 member name (JES2 only)
JESNAME	JESN	4	JES subsystem name
JESLEVEL	JESLevel	8	z/OS JES level
SECLABEL	SecLabel	8	Security label of the job on the reader (JES2 only)
DEVSECLB	DSecLabel	9	Security label of the device (JES2 only)
DEVTYPE	DevType	8	Device type name (JES3 only)
DSPNAME	DSPName	8	Dynamic support program name (JES3 only)
ACCTREQ	AReq	3	Account number required on job card (JES3 only)
PNAMEREQ	PReq	3	Programmer name required on job card (JES3 only)
SWA	SWA	5	SWA ABOVE or BELOW (JES3 only)
BLP	BLP	3	Bypass label processing label setting is respected (JES3 only)
RPRIO	DP	2	Default job priority (JES3 only)
RMLEVEL	ML	2	Default job message level (JES3 only)
RALEVEL	AL	2	Default allocation message level (JES3 only)
RTIME	Time	10	Default time limit (JES3 only)
RREGION	Region	10	Default region size (JES3 only)



Notes on the table:

1. This column is not included in the default field list.

---

## Resource panel (RES)

The RES panel allows users to display information about WLM resources in a scheduling environment, or in the sysplex.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 72. Columns on the RES Panel

Column name	Title (Displayed)	Width	Description
RESOURCE	RESOURCE	16	Resource name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
REQSTATE	ReqState	8	Required state of the resource for the scheduling environment. Displayed only if the panel is accessed with the R action character.
SYS1 to SYS32	Resolved from the actual names of the systems	8	Status of the resource on the system.

**Note:** Omit the column title when coding a field list for the RES panel. For example, you would code `SYS1, ,8` for the first system column. Using statements, you would omit the TITLE keyword, for example:

```
FLDENT COLUMN(SYS1),WIDTH(*)
```

When there are more columns in the field list than are required for the panel, either because of the number of systems that are active or because the scope of the panel has been limited to systems in the MAS, SDSF displays only as many columns as are required.

---

## Resource Monitor (RM) panel

The Resource Monitor panel shows information about JES2 resources. (JES2 only)

In REXX execs and Java programs, reference columns by name rather than by title.

Table 73. Columns on the RM Panel

Column name	Title (Displayed)	Width	Description	Delay
RESNAME	RESOURCE	8	JES2 resource name	
DSYSID	SysID	5	JES2 member name	
STATUS	Status	10	Resource status	X
LIMIT	Limit	6	Limit for the resource	X
USENUM	InUse	6	Number in use	X
USEPCT	InUse%	6	Percentage in use	X
WARNPCT	Warn%	5	Warning threshold (percentage)	X
INTAVG	IntAvg	6	Average amount in use for the interval	X
INTHIGH	IntHigh	7	Highest amount in use for the interval	X
INTLOW	IntLow	6	Lowest amount in use for the interval	X

Table 73. Columns on the RM Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
OVERWARN	OverWarn%	9	Amount in use above the warning threshold (percentage)	X
TIMEE	Time	8	Time that the interval began	X
DATEE	Date	8	Date that the interval began	X
SYSNAME	SysName	8	System name	
JESNAME	JESN	4	JES2 subsystem name	
JESLEVEL	JESLevel	8	z/OS JES2 level	

## Scheduling Environment panel (SE)

The SE panel allows the user to display information about scheduling environments.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 74. Columns on the SE Panel

Column Name	Title (Displayed)	Width	Description
SCHENV	SCHEDULING-ENV	16	Scheduling environment name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
DESCRIPT	Description	32	Description of scheduling environment
SYSTEMS	Systems	60	Systems with the scheduling environment available

## Spool Offload panel (SO)

The Spool Offload panel allows the user to display information about JES2 spool offloaders (JES2 only).

In REXX execs and Java programs, reference columns by name rather than by title.

Table 75. Columns on the SO Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	DEVICE	8	Device name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	9	Device status
TYPE	Type	8	Device type
JNAME	Jobname	8	Active jobname
JOBID	JobID	8	Active JES2 job ID
JTYPE	no default	4	Type of active address space
JNUM	JNum <sup>1</sup>	6	Active JES2 job number
OWNERID	Owner	8	User ID of owner
LINELIM	Line-Limit	21	Selection line limit
PAGELIM	Page-Limit	21	Selection page limit
RECPRT	Proc-Lines	10	Number of lines processed for the job.

Table 75. Columns on the SO Panel (continued)

Column name	Title (Displayed)	Width	Description
RECCNT	Tot-Lines	10	Number of lines in the job.
SCLASS	SClass	15	Selection classes. Multi-character classes and groups shows as periods (.).
SOWNER	SOwner	8	Selection owner
SHOLD	SHold	5	Selection hold value
SJOBNAME	SJobName	8	Selection jobname
SRANGE	SRange	22	Selection job number range
SDESTN1	SDest1	18	Selection destination name
SSAFF	SSAff	5	Selection system affinity
SDISP	SDisp	6	Selection disposition
SVOL	SVol	6	Selection volume
SBURST	SBurst	6	Selection burst value
SFCBID	SFCB	4	Selection FCB
SFLASHID	SFlh	4	Selection flash
SFORMS	SForms	8	Selection forms name
SFORM2	SForm2	8	Selection forms name 2
SFORM3	SForm3	8	Selection forms name 3
SFORM4	SForm4	8	Selection forms name 4
SFORM5	SForm5	8	Selection forms name 5
SFORM6	SForm6	8	Selection forms name 6
SFORM7	SForm7	8	Selection forms name 7
SFORM8	SForm8	8	Selection forms name 8
SPRMODE1	SPrMode	8	Selection process mode
SODISP	SODsp	5	Selection output disposition
SODISP2	SODsp2	5	Selection output disposition 2
SODISP3	SODsp3	5	Selection output disposition 3
SODISP4	SODsp4	5	Selection output disposition 4
SWTRID	SWriter	8	Selection writer name
SUCSID	SUCS	4	Selection UCS
PRTWS	Work-Selection	40	Work selection criteria
NOTIFY	Notify	6	Notification option
ODSNAME	DSName	44	Data set name
SSRVCLS	SSrvClass	9	Selection service class value for the job receiver or job transmitter
SSCHENV	SScheduling-Env	16	Selection scheduling environment value for the job receiver or job transmitter
MBURST	MBurst	6	Modification of the burst value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.

Table 75. Columns on the SO Panel (continued)

Column name	Title (Displayed)	Width	Description
MDEST	MDest	18	Modification of the destination value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MFCB	MFCB	4	Modification of the FCB value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MFLASH	MFlh	4	Modification of the flash value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MFORMS	MForms	8	Modification of the forms value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MHOLD	MHold	5	Modification of the hold value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MSCLASS	MClass	8	Modification of the class value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MODISP	MODsp	5	Modification of the output disposition value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MPRMODE	MPrMode	8	Modification of the process mode value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MSAFF	MSAff	5	Modification of the system affinity value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MUCS	MUCS	4	Modification of the universal character set (UCS) name value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
MWRITER	MWriter	8	Modification of the writer name value, for post-execution jobs and output data sets that are selected for reloading, assigned during the reload process.
LABEL	Label	5	Label
PROTECT	Prot	4	Protect option
RETENT	RtPd	4	Retention
ARCHIVE	Archive	7	Archive option
VALIDAT	Validate	8	Validation option
UNIT	Unit	14	Unit
VOLS	Vols	4	Volume count (1-255) to be used for the offload data set
SYSNAME	SysName	8	System name
DSYSID	SysID	5	JES2 member name

Table 75. Columns on the SO Panel (continued)

Column name	Title (Displayed)	Width	Description
JESNAME	JESN	4	JES2 subsystem name
JESLEVEL	JESLevel	8	JES2 level
DEVSECLB	DSecLabel	9	Security label of the device
CRTIME	CRTIME	7	Indicates whether to restore or reset the original creation time of the output.
LINELIML	Line-Lim-Lo	11	Line limit, minimum
LINELIMH	Line-Lim-Hi	11	Line limit, maximum
PAGELIML	Page-Lim-Lo	11	Page limit, minimum
PAGELIMH	Page-Lim-Hi	11	Page limit, maximum
SCLASS1-8	SClass1-8	8	Selection classes 1-8, including multi-character classes and groups (job transmitters and receivers)

Notes on the table:

1. JNUM is not included in the default field list.

## Spool Volumes panel (SP)

The Spool Volumes panel lets you display and control JES2 spool volumes.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 76. Columns on the SP Panel

Column name	Title (Displayed)	Width	Description
DEVNAME	NAME	6 (JES2) 8 (JES3)	Spool volume name (JES2) or DDNAME (JES3). This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
STATUS	Status	8 (JES2) 12 (JES3)	Spool status (active, starting, halting, draining, inactive) or partition status
TGPCT	TGPct	5	Spool utilization
TGNUM	TGNum	5	Total track groups
TGUSE	TGUse	5	Track groups in use
COMMAND	Command	8	Command being processed (start, format, drain, halt) (JES2 only)
SPSYSAF	SAff	5	System affinity (JES2 only)
EXTENT	Ext	3	Extent number, in hexadecimal
CYLLO	LoCyl	8	Low cylinder
TRKLO	LoTrk	16	Absolute low track number, in hexadecimal
HEADLO	LoHead	8	Low head
CYLHI	HiCyl	8	High cylinder
TRKHI	HiTrk	16	Absolute high track number, in hexadecimal
HEADHI	HiHead	8	High head
TCYL	TrkPerCyl	9	Tracks per cylinder
TREC	RecPerTrk	9	Records per track

Table 76. Columns on the SP Panel (continued)

Column name	Title (Displayed)	Width	Description
TGTRK	TrkPerTG	8	Tracks per track group
TYPE	Type	9	Spool type (PARTITION or EXTENT)
PARTNAME	PartName	8	Partition name (JES3 only)
OVFNAME	OverFNam	8	Overflow partition name (JES3 only)
OVALLOW	OverAllow	9	Indicates if overflow from this partition to another partition is allowed (JES3 only)
OVOCCUR	OverOccur	9	Indicates if overflow from this partition to another partition occurred (JES3 only)
OVINTO	OverInto	3	Indicates if overflow into this partition from another partition is allowed (JES3 only)
PTRACKS	PTracks	8	Total tracks in the partition
PTRACKU	PTrackU	8	Tracks in use in the partition
DTRACKS	DTracks	8	Total tracks in the data set
DTRACKU	DTrackU	8	Tracks in use in the data set
DEFAULT	Default	7	Default partition indicator (JES3 only)
STUNTED	Stunted	7	Extent is stunted (JES2 only)
STT	STT	3	Single track table indicator (JES3 only)
MARGPCT	MargPct	7	Marginal SLIM threshold percentage – shown only on the row for the partition (JES3 only)
MARGEXC	MargExc	7	Marginal threshold exceeded (JES3 only)
MINPCT	MinPct	6	Minimal SLIM threshold percentage (JES3 only)
MINEXC	MinExc	3	Marginal threshold exceeded (JES3 only)
DATASET	DataSetName	44	Data set name
VOLSER	VolSer	6	Actual volume serial upon which this spool extent resides (JES2 only)
SELECT	Sel	3	Indicates if work is selectable on this volume (JES2 only)
RESERVED	Res	3	Indicates whether this volume is reserved (active but not allocatable) (JES2 only)
LGFREE	LgFree	6	Largest number of contiguous free tracks (JES2 only)
HIGHTRK	HiUsed	6	Highest used track on the volume (JES2 only)
COMPPCT	Comp%	5	Percentage complete of the current action against the volume (JES2 only)
PHASE	Phase	12	Migration phase (JES2 only)
MIGSYS	MigSys	6	JES2 member performing the spool migration (JES2 only)
TARGET	Target	8	Volume name in JES2 where this extent is migrating to or has migrated to (JES2 only)
MIGVOL	MigVol	6	
MIGDSN	MigDSName	44	Data set name to which this extent is migrating (JES2 only)

---

## Search panel (SRCH)

The SRCH panel shows all data sets containing the specified member pattern. The resulting table shows all data sets containing that member pattern. You can use the SRCH command from the APF, LNK, LPA, PARM, and PROC panels.

**Note:** SRCH provides a different capability from the SEARCH command. SRCH implements a member search using a data set list, whereas SEARCH searches the SDSF help and tutorial.

The SRCH panel is not available through REXX or implemented in Java. You can use the SYSDSN function in REXX to implement this function, or implement it directly in Java.

Table 77. Columns on the SRCH Panel

Column name	Title (Displayed)	Width	Description
DSNAME	DSNAME	13-44 (Varies based on longest name.)	Data set name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SEQ	Seq	3	Sequence number
VOLSER	VolSer	6	Volume serial
STATUS	Status	16	Data set or member status
DSORG	DSOrg	5	Data set organization
BLKSIZE	BlkSize	7	Data set block size
EXTENT	Extent	6	Number of extents
SMS	SMS	3	SMS indicator: YES if data set is SMS managed. Otherwise, NO.
LRECL	LRecl	5	Logical record length
RECFM	RecFm	5	Record format
CRDATE	CrDate	8	Data set creation date
REFDATE	RefDate	8	Data set last referenced date
SYSNAME	Sysname	8	System name

---

## Status panel (ST)

The Status panel allows the user to display information about jobs, started tasks, and TSO users on the JES queues.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 78. Columns on the ST Panel

Column name	Title (Displayed)	Width	Description	Delay
JNAME	JOBNAME	8	Job name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.	
JTYPE	Type	4	Type of address space	
JNUM	JNum <sup>1</sup>	6	JES job number	
JOBID	JobID	8	JES job ID	

Table 78. Columns on the ST Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
OWNERID	Owner	8	User ID of job owner, or default values of ++++++++ or ????????, if user ID not defined to RACF	
JPRIO	Prty	4	JES job queue priority	
QUEUE	Queue	10	JES queue name for job	
JCLASS	C	8	JES input class	
POS	Pos	5	Position in JES queue	
SYSAFF	SAff	5 (JES2) 8 (JES3)	JES execution system affinity (if any)	
ACTSYS	ASys	4 (JES2) 8 (JES3)	JES active system ID (if job active)	
STATUS	Status	17	Status of job	
PRTDEST	PrtDest	18	JES print destination name	
SECLABEL	SecLabel	8	Security label of job	
TGNUM	TGNum	5	Track groups used by a job	
TGPCT	TGPct	6	Percentage of total track group usage	
ORIGNODE	OrigNode	8	Origin node name	
EXECNODE	ExecNode	8	Execution node name	
DEVID	Device	18	JES device name	
RETCODE	Max-RC	10	Return code information for the job	
SRVCLS	SrvClass	8	Service class	
WLMPOS	WPos	5	Position on the WLM queue	
SCHENV	Scheduling-Env	16	Scheduling environment for the job	
DELAY	Dly	3	Indicator that job processing is delayed	
SSMODE	Mode	4	Subsystem managing the job (JES or WLM)	
ROOMN	RNum	8	JES job room number	X
PNAME	Programmer-Name	20	JES programmer name	X
ACCTN	Acct	4 (JES2) 8 (JES3)	JES account number	X
NOTIFY	Notify	8	TSO user ID from NOTIFY parameter on job card	X
ISYSID	ISys	4 (JES2) 8 (JES3)	JES input system ID	X
TIMER	Rd-Time	8	Time that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
DATER	Rd-Date	8	Date that the job was read in. In the SDSF task of z/OSMF, this is replaced by the Rd-DateTime column.	X
ESYSID	ESys	4 (JES2) 8 (JES3)	JES execution system ID	X
TIMEE	St-Time	8	Time that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X



Table 78. Columns on the ST Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
DATEE	St-Date	8	Date that execution began. In the SDSF task of z/OSMF, this is replaced by the St-DateTime column.	X
TIMEN	End-Time	8	Time that execution ended. In the SDSF task of z/OSMF, this is replaced by the End-DateTime column.	X
DATEN	End-Date	8	Date that execution ended. In the SDSF task of z/OSMF, this is replaced by the End-DateTime column.	X
ICARDS	Cards	5	Number of cards read for job	X
MCLASS	MC	2	MSGCLASS of job	X
TSREC	Tot-Lines	10	Total number of spool records for job	X
OFFDEVS	Offs	4	List of offload devices for a job or output that has been offloaded (JES2 only)	
SPIN	Spin	4	Indicator of whether the job is eligible to be spun	
SUBGROUP	SubGroup	8	Submitter group	X
PHASENAME	PhaseName	20	Name of the phase the job is in	
PHASE	Phase	8	Number of the phase the job is in	
JOBACCT1	JobAcct1 <sup>1</sup>	20	Job accounting field 1	X
JOBACCT2	JobAcct2 <sup>1</sup>	20	Job accounting field 2	X
JOBACCT3	JobAcct3 <sup>1</sup>	20	Job accounting field 3	X
JOBACCT4	JobAcct4 <sup>1</sup>	20	Job accounting field 4	X
JOBACCT5	JobAcct5 <sup>1</sup>	20	Job accounting field 5	X
SUBUSER	SubUser	8	Submitting user ID	X
DELAYRSN	DelayRsn	32	Reason for the job delay (JES2 only). The width can be expanded to 127.	
JOBCORR	JobCorrelator	32	User portion of the job correlator (JES2 only)	
ASID	ASID	5	ASID of the active job	
ASIDX	ASIDX	5	ASID of the active job, in hexadecimal	
SYSNAME	SysName	8	MVS system name where the job is executing	
DATETIMER	Rd-DateTime	19	Date and time that the job was read in. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the Rd-Date and Rd-Time columns.	X
DATETIMEE	St-DateTime	19	Date and time that execution began. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the St-Date and St-Time columns.	X
DATETIMEN	End-DateTime	19	Date and time that execution ended. This column is displayed only with the SDSF task of z/OSMF. It combines the information in the End-Date and End-Time columns.	X
JOBGROUP	JobGroup	8	Name of the job group associated with job (JES2 only)	
JOBGRPID	JobGrpId	8	JES2 job group job ID (JES2 only)	

Table 78. Columns on the ST Panel (continued)

Column name	Title (Displayed)	Width	Description	Delay
JOBSET	JobSet	8	Job set within the job group to which this job belongs (JES2 only)	
JGSTATUS	JGStatus	8	Status of the job within the dependency network (JES2 only)	
FLUSHACT	FlushAct	8	Flush action indicator (JES2 only)	
HOLDUNTIL	HoldUntil	19	HOLDUNTIL date and time (JES2 only)	
STARTBY	StartBy	19	STARTBY date and time (JES2 only)	
WITH	With	19	Name of the job or started task that the job must run with (on the same system) (JES2 only)	

Notes on the table:

1. This column is not included in the default field list.

## System Symbols panel (SYM)

The System Symbols panel (SYM) allows authorized users to display the system dynamic and static symbols defined for each system in the sysplex. System symbols are elements that allow systems to share parmlib definitions while retaining unique values in those definitions. System symbols act like variables in a program; they can take on different values, based on the input to the program.

By default, the SYM panel is sorted by the system and symbol names. You can change the sort order with the **SORT** command.

The value of a static symbol is typically assigned through parmlib. In contrast, the value of a dynamic symbol is assigned by the system at the time the symbol is evaluated. For example, time and date symbols evaluate to the current time and date. The SYM panel shows the values of dynamic symbols at the time the panel is generated as an example of the value format. Jobs that reference a dynamic symbol may contain a different value when the symbol is evaluated.

**Note:** Action characters on the SYM panel generate commands to display the symbols in the syslog. Because dynamic symbols are not supported by operator commands, issuing an action against a dynamic symbol results in the message NOT VALID FOR TYPE.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 79. Columns on the System Symbols

Column name	Title (Displayed)	Width	Description
SYMBOL	SYMBOL	16	Symbol name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
VALUE	Value	44	Symbol value. For dynamic symbols, it is the current value.
TYPE	Type	8	Symbol type (static or dynamic)
SYSLEVEL	SysLevel	25	Operating system level
SYSNAME	SysName	8	System name

## System panel (SYS)

The SYS panel shows information about systems in the sysplex.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 80. Columns on the SYS Panel

Column name	Title (Displayed)	Width	Description
SYSNAME	SYSNAME	8	System name. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.
SYSLEVEL	SysLevel	3	Operating system level
CPUPR	CPU%	4	CPU percent busy for the system
SIO	SIO	8	Start I/O rate EXCPs per second
AUXPCT	Aux%	4	Auxiliary storage percentage used
CSAPCT	CSA%	4	Common storage area percentage used
SQAPCT	SQA%	4	System queue area percentage used
ECSAPCT	ECSA%	5	Extended common area percentage used
ESQAPCT		5	Extended system queue area percentage used
UIC	UIC	5	High unreferenced interval count
SPOOLPCT	Spool%	6	Spool utilization for primary JES
CADSPCT	CADS%	5	Common Access Dataspace percentage used of maximum defined
PAGERATE	PageRate	8	Paging rate
REAL	Real	8	Number of real storage frames online
REALAFC	RealAFC	8	Real storage available frame count
REALAFCB	RealAFCB	8	Real storage available frame count below 16MB line
FIXPCT	Fix%	4	Percentage of real storage frames that are fixed
FIXBPCT	FixB%	5	Percentage of real storage frames that are fixed below the 16MB line
MAXASID	MaxASID	7	Maximum number of address spaces
FREEASID	FreeASID	8	Number of free address spaces
BADASID	BadASID	7	Number of non-reusable address spaces
STCNUM	STC	6	Number of active started tasks
TSUNUM	TSU	6	Number of active TSO users
JOBNUM	Job	6	Number of active batch jobs
WTORNUM	WTOR	4	Number of outstanding WTORs
SYSPLEX	Sysplex	8	Sysplex name
LPAR	LPAR	8	LPAR name
VMUSER	VMUser	8	VM user ID
JESNAME	JES	4	Job entry subsystem name
JESNODE	JESNode	8	JES node name
SMF	SMF	4	SMF system ID
IPLVOL	IPLVol	6	IPL volume serial
IPLUNIT	IPLUnit	7	IPL unit address

Table 80. Columns on the SYS Panel (continued)

Column name	Title (Displayed)	Width	Description
IPLDATE	IPLDate	19	IPL date
IPLTYPE	IPLType	7	IPL type
IPLDAYS	IPLDays	7	Number of days since last IPL
LOADPARM	LoadParm	8	Load parameter
CVTVERID	CVTVERID	16	CVT version ID associated with system
LOADDSN	LoadDSName	44	LOADxx data set name
LOADUNIT	LoadUnit	8	LOADxx unit address
IEASYS	IEASYS	16	IEASYSxx parameters for the system
IEASYM	IEASYM	16	IEASYMxx parameters for the system
GRS	GRS	4	GRS mode
HWNAME	HWName	8	Hardware name
CPC	CPC	30	Central Processor Complex node descriptor
MSU	MSU	8	MSU rating for processor
SYSMSU	SysMSU	8	MSU rating for image
AVGMSU	AvgMSU	8	Four hour rolling MSU for system
CPUNUM	#CPU	4	Number of online CPUs
ZAAPNUM	#ZAAP	5	Number of online zAAP processors
ZIIPNUM	#ZIIP	5	Number of online zIIP processors
OSCONFIG	OSConfig	8	Operating system configuration
EDT	EDT	3	Eligible device table ID
NUCLST	NUCLST	6	NUCLSTxx member
IEANUC	IEANUC	6	IEANUCxx member
IODFDSN	IODFDSName	44	IODF data set name
IODFDATE	IODFDate	19	Date and time IODF last changed
CATDSN		44	Master catalog data set name
CATVOL	CatVol	6	Master catalog volume serial
MLA	MLA	3	Multi-level alias setting for system
CATTYPE	CatType	7	Master catalog type
NETID	NetID	8	VTAM network ID
SSCP	SSCP	17	VTAM SSCP name
STATDATE	StatDate	19	Date and time statistics collected

## System Requests panel (SR)

The SR panel allows the user to display outstanding system requests.

In REXX execs and Java programs, reference columns by name rather than by title.

Table 81. Columns on the SR Panel

Column name	Title (Displayed)	Width	Description
REPLYID	REPLYID	7	Reply ID. This is the fixed field. It is ignored if coded on an FLD statement or ISFFLD macro.

Table 81. Columns on the SR Panel (continued)

Column name	Title (Displayed)	Width	Description
SYSNAME	SysName	8	Originating system name
JNAME	JobName	8	Name of the issuing job
MSGTEXT	Message-Text	127	Message text
JOBID	JobID	8	ID of the issuing job
DATEE	Date	8	Date the message was issued
TIMEE	Time	8	Time the message was issued
CONSOLE	Console	8	Target console
ROUTECD	RouteCd	7	First 28 routing codes
DESC	Desc	4	Descriptor codes
MSGTYPE	Type	6	Message type
QUEUE	Queue	5	Queue the message is on
AUTOREPLY	AutoReply	9	Automatic reply indicator
AUTODELAY	AutoRDelay	10	Message delay time until the automatic reply is done, in seconds
AUTOTIME	AutoReplyTime	19	Date and time when auto reply will be done
AUTOTEXT	AutoReplyText	16	Automatic reply text



---

## Chapter 5. Using SAF for security

Use the Security Authorization Facility (SAF) interface, with an external security manager such as RACF, to provide security for SDSF. SAF is part of the z/OS environment and is always present. SDSF uses the SAF interface to route authorization requests to the external security manager.

The benefits of using SAF for SDSF security are:

- Dynamic change of security profiles
- Single image of security information
- Simple introduction of security philosophy
- Auditability
- Granular protection

Although in a JES2 environment you can also use ISFPARMS to provide SDSF security, some aspects of SDSF security can only be protected with SAF, such as the use of queues by WebSphere MQ. In a JES3 environment, only SAF can be used for SDSF security.

---

### Relationship of SAF and ISFPARMS

You may choose to use SAF to protect some functions, while using ISFPARMS to protect others, in a JES2 environment.

Even if you use SAF for all of SDSF security, you need ISFPARMS to control:

- Global values (ISFPMAC macro or OPTIONS statement)
- Any values for groups that are not related to security (ISFGRP macro or GROUP statement). The relationship between the ISFGRP macros or GROUP statements of ISFPARMS and SAF is shown in Appendix B, “SAF equivalents for ISFPARMS,” on page 591.
- Code page (ISFTR macro or TRTAB statement)

If you want to customize the columns on SDSF panels, you also need ISFFLD macros or FLD statements.

### Using ISFPARMS as a backup to SAF

If you already use ISFPARMS for security, you should retain it as a backup to SAF. In the JES2 environment, ISFPARMS is used to determine authorization when SAF returns an *indeterminate* result (return code 04), that is, when SAF cannot make a security decision. SAF returns an indeterminate result when:

- The resource class is inactive
- The class is active but the profile to protect the resource is not defined. Note that this is not true for classes for which the default return code is 08, such as the JESSPOOL and XFACILIT classes. When a class with a default return code of 08 is active but the appropriate profile is not defined, SAF fails the request rather than returning an indeterminate result. This means that if the class is active, SDSF will never revert to ISFPARMS for the relevant security.

For information specific to RACF, see “RACF authorization checking and ISFPARMS security” on page 219.

For information on converting to SAF security, including a description of conversion samples, see Chapter 8, “Converting ISFPARMS to SAF security,” on page 327.

In a JES3 environment, when SAF returns an indeterminate result, the request fails. For information on controlling the messages issued in this case, see “Customized properties (PROPLIST)” on page 93.

---

## Changing authorization dynamically

SAF security provides a dynamic means of authorizing SDSF users to issue commands and process job output. Once a user starts an SDSF session, SDSF checks user authorization for virtually every interaction with SDSF resources.

SAF authorization dynamically affects the next user interaction. You must end an SDSF session and restart it when changes are made to SAF authorization for destination names and for operator authority by destination.

---

## Auditing access attempts

If you are using RACF as a security product, RACF logs access attempts to protected SDSF resources according to the audit setting in the RACF profile for the resource. Logging is performed for all access attempts except for the following resource names in the SDSF class:

- ISFOPER.DEST.*jesx*
- ISFAUTH.DEST.*destname*
- ISFAUTH.DEST.*destname*.DATASET.*dsname*
- ISFOPER.ANYDEST.*jesx*
- All resource names beginning with ISFATTR.

Logging is not performed for these access attempts because the user is not specifically trying to gain access to those resources.

For RACF auditing information, refer to *z/OS Security Server RACF Auditor's Guide*.

---

## Diagnosing security

SDSF's security trace function helps you understand and diagnose SDSF security (SAF or ISFPARMS). In response to the actions that you take, such as issuing commands or overtyping columns, it issues messages that describe the associated SAF resources or ISFPARMS statements. You control security trace with commands, REXX variable or Java methods.

- With the SET SECTRACE command, you turn security tracing on and specify how the associated messages are handled.
  - SET SECTRACE ON causes the trace messages to be sent to the ULOG.
  - SET SECTRACE WTP causes the messages to be issued as write-to-programmer messages. Use this if security prevents you from accessing SDSF or the user log.
- With the SECTRACE option on the SDSF command, you can turn security tracing on as soon as you access SDSF.
- When SDSF SECTRACE is active, SDSFAUX SECTRACE is also activated. SDSFAUX uses SECTRACE to record the results of security calls for diagnosis.
- With the ISFSECTRACE REXX special variable, you can control security tracing from a REXX exec.



- With ISFRequestSettings methods addISFSecTrace and removeISFSecTrace, you can control security tracing from a Java program.

For more information about the commands, refer to the online help. You could use the SEARCH command, for example, SEARCH SET SECTRACE. For more information about the REXX special variable, refer to Chapter 13, “Using SDSF with the REXX programming language,” on page 391. For more information about Java, refer to Chapter 14, “Using SDSF with the Java programming language,” on page 477.

---

## SAF concepts for SDSF resources

SDSF interacts with SAF to control access to the following resources:

- Membership in SDSF groups
- SDSF panels
- SDSF authorized commands
- Use of the / command to issue MVS and JES commands and receive responses
- Overtypable fields
- Destination names
- Operator authority by destination
- Devices and system resources, such as initiators, printers, lines, nodes and scheduling environments
- Jobs affected by action characters and overtypable fields
- Output groups affected by action characters and overtypable fields
- SYSIN/SYSOUT data sets for browsing and viewing
- MVS and JES commands that are generated by action characters and overtypable fields
- Reverting to ISFPARMS in assembler macro format when the server is not available or when no ISFPARMS have been defined with statements
- Use of the server MODIFY command
- Use of WebSphere MQ queues
- Access to the log stream and the JES logical log

The SDSF resources are grouped into classes, with each resource having a resource name. SDSF translates an asterisk (\*) in resource names to a plus (+).

To accomplish security through SAF, you permit or deny users access to the SDSF resources by use of their classes and resource names. In addition, you can supplement SAF security with the SAF exit points and installation exit routines. Refer to Chapter 9, “Using installation exit routines,” on page 345 for more information.

## Protecting SDSF function

An SDSF function often requires access authority to more than one class and resource. In order to use the function, a user must have proper authority to all of the required resources.

For example, to overwrite a field, a user must have access to the panel, to the overtypable field, to the MVS or JES command that will be generated, and to the object (for example, the job, output group, initiator, or printer) being acted upon.

SDSF users must have authority to the resources at the correct access level (READ, CONTROL, UPDATE, or ALTER).

The classes used by SDSF must be defined to your security product. If you are using RACF you do not need to define the classes because they are already included in the IBM-supplied class descriptor table, ICHRRCDX.

The relationship of SDSF functions, classes and resources is shown in “Summary of SAF resources for SDSF function”. For some resources, only the highest level qualifier is shown. Refer to Appendix C, “SDSF resource names for SAF security,” on page 609 for a table of complete SDSF resource names.

You can use the CONSOLE class to restrict the use of resources in the OPERCMDS and WRITER classes to SDSF users only. The restriction is in effect for the duration of the SDSF session. Use of the CONSOLE class is described in “Using conditional access” on page 221.

### Protecting SDSF function in a sysplex environment

Several of SDSF's panels can show data from all members in the MAS in a JES2 environment. In that environment, security is as follows:

- Access to the display is controlled by the profiles on the local system, that is, the system the user is logged on to.
- Access to the objects displayed on the panel (for example, printers on the PR panel) is controlled by SAF resources that include the name of the JES subsystem for the system the object is on. In this topic, the resources show a variable *jessx* which you replace with the subsystem name.
- Which systems are included on the panel is controlled by the SYSNAME command and the server group of the server the user is connected to.

### Summary of SAF resources for SDSF function

This topic summarizes the SAF resources required to protect SDSF function.

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them

Function	Specific Function	Classes and Resources to Protect	Refer to
Jobs and Output	Display job and output queues	SDSF – DA, H, I, O, and ST authorized commands	“Authorized SDSF commands” on page 249
	Issue action characters	JESSPOOL – Job or output group	“Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260
		OPERCMDS – Generated MVS or JES command	“Action characters” on page 223
Overtime fields		SDSF – JD, JM and JY action characters for job devices, memory and delays	“Action characters” on page 223
		SDSF – Overtimepeable field	“Overtimepeable fields” on page 271
		JESSPOOL – Job or output group	“Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260
Browse output		OPERCMDS – Generated MVS or JES command	“Overtimepeable fields” on page 271
		JESSPOOL – SYSIN/SYSOUT data sets	“Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
<b>Printers</b>	Display printers	SDSF – PR authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	WRITER – Printer	“Printers” on page 311
		OPERCMD5 – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		WRITER – Printer	“Printers” on page 311
		OPERCMD5 – Generated MVS or JES command	“Overtypable fields” on page 271
<b>Initiators</b>	Display initiators	SDSF – INIT authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Initiator	“Initiators” on page 257
		OPERCMD5 – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Initiator	“Initiators” on page 257
		OPERCMD5 – Generated MVS or JES command	“Overtypable fields” on page 271
	Display sysplex data (if JES2 on remote systems is prior to z/OS V1R12)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322
<b>Lines</b>	Display lines	SDSF – LI authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Line	“Lines” on page 265
		OPERCMD5 – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Line	“Lines” on page 265
		OPERCMD5 – Generated MVS or JES command	“Overtypable fields” on page 271
Display sysplex data (if JES2 on remote systems is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322	

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
<b>Nodes</b>	Display nodes	SDSF – NO authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Node	“Nodes” on page 270
		OPERCMDS – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Node	“Nodes” on page 270
OPERCMDS – Generated MVS or JES command		“Overtypable fields” on page 271	
	Display sysplex data (if JES2 on remote systems is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322
<b>Spool Offloaders (JES2 only)</b>	Display spool offloaders	SDSF – SO authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Offloader	“Spool offloaders” on page 317
		OPERCMD5 – Generated MVS or JES2 command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Offloader	“Spool offloaders” on page 317
OPERCMD5 – Generated MVS or JES2 command		“Overtypable fields” on page 271	
	Display sysplex data (if JES2 on remote systems is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322
<b>MAS and JESPLEX Members</b>	Display the MAS or JESPLEX members	SDSF – MAS or JP authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – MAS or JESPLEX members	“MAS and JESPLEX members” on page 266
		OPERCMD5 – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – MAS or JESPLEX members	“Printers” on page 311
OPERCMD5 – Generated MVS or JES command		“Overtypable fields” on page 271	
<b>Network Connections</b>	Display network connections	SDSF – NC authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Network connection	“Network connections” on page 268
		OPERCMD5 – Generated JES command	“Action characters” on page 223

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
<b>Network Servers</b>	Display network servers	SDSF – NS authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Network server	“Network servers” on page 269
		OPERCMDS – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Network server	“Network servers” on page 269
		OPERCMDS – Generated MVS or JES command	“Overtypable fields” on page 271
<b>Punches</b>	Display punches	SDSF – PUN authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Punch	“Punches” on page 313
		OPERCMDS – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Punch	“Punches” on page 313
		OPERCMDS – Generated MVS or JES command	“Overtypable fields” on page 271
	Display sysplex data (if JES2 on remote systems is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMDS, MQCONN	“WebSphere MQ” on page 322
	<b>Readers</b>	Display readers	SDSF – RDR authorized command
Issue action characters		SDSF – Reader	“Readers” on page 314
		OPERCMDS – Generated MVS or JES command	“Action characters” on page 223
Overtypable fields		SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Reader	“Readers” on page 314
		OPERCMDS – Generated MVS or JES command	“Overtypable fields” on page 271
Display sysplex data (if JES2 on remote systems is prior to z/OS V1R13)		MQQUEUE, MQADMIN, MQCMDS, MQCONN	“WebSphere MQ” on page 322

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
Checks	Display checks	SDSF – CK authorized command	“Authorized SDSF commands” on page 249
	Display check history	LOGSTRM – Log stream	“Checks on the CK and CKH panels” on page 252
	Issue action characters	XFACILIT – Check	“Checks on the CK and CKH panels” on page 252
		OPERCMD5 – Generated MVS command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		XFACILIT – Check	“Checks on the CK and CKH panels” on page 252
		OPERCMD5 – Generated MVS command	“Overtypable fields” on page 271
Display sysplex data (if any system is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322	
Enclaves	Display enclaves	SDSF – ENC authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Enclave	“Enclaves” on page 256
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Enclave	“Enclaves” on page 256
	Display sysplex data (if any system is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322
JES2 resources (JES2 only)	Display JES2 resources	SDSF – RM authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Resource	“JES2 resources on the RM panel” on page 258
		OPERCMD5 – Generated MVS or JES2 command	“Action characters” on page 223
	Overtypable fields	SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Resource	“JES2 resources on the RM panel” on page 258
		OPERCMD5 – Generated MVS or JES2 command	“Overtypable fields” on page 271
Display sysplex data (if any system is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMD5, MQCONN	“WebSphere MQ” on page 322	

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
<b>Job Classes</b>	Display job classes	SDSF – JC authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Job class	“Job classes” on page 259
		OPERCMDSDS – Generated MVS or JES command	“Action characters” on page 223
	Overtime fields	SDSF – Overtimepeable field	“Overtimepeable fields” on page 271
		SDSF – Job class	“Job classes” on page 259
		OPERCMDSDS – Generated MVS or JES command	“Overtimepeable fields” on page 271
<b>Job Devices</b>	Display job devices	SDSF – JD action character	“Action characters” on page 223
	Issue action characters	SDSF – Job devices	“Protecting job devices” on page 259
		OPERCMDSDS – Generated MVS or JES command	“Action characters” on page 223
<b>Spool Volumes</b>	Display spool volumes	SDSF – SP authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – Spool volume	“Spool volumes” on page 318
		OPERCMDSDS – Generated MVS or JES command	“Action characters” on page 223
	Overtime fields	SDSF – Overtimepeable field	“Overtimepeable fields” on page 271
		SDSF – Spool volume	“Spool volumes” on page 318
		OPERCMDSDS – Generated MVS or JES command	“Overtimepeable fields” on page 271
<b>WLM Resources</b>	Display WLM resources	SDSF – RES authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – WLM resource	“Resources defined to WLM” on page 315
		OPERCMDSDS – Generated MVS command	“Action characters” on page 223
	Overtime fields	SDSF – Overtimepeable field	“Overtimepeable fields” on page 271
		SDSF – WLM resource	“Resources defined to WLM” on page 315
		OPERCMDSDS – Generated MVS command	“Overtimepeable fields” on page 271
<b>Scheduling Environments</b>	Display scheduling environments	SDSF – SE authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – scheduling environment	“Scheduling environments” on page 315
		OPERCMDSDS – Generated MVS command	“Action characters” on page 223

Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
<b>System Requests</b>	Display system requests	SDSF — SR authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – system request OPERCMDS — Generated MVS command	“System requests” on page 321 “Action characters” on page 223
<b>Enqueues</b>	Display enqueues	SDSF — ENQ authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – enqueue OPERCMDS — Generated MVS command	“System requests” on page 321 “Action characters” on page 223
<b>System symbols</b>	Display system symbols	SDSF — SYM authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF – symbol OPERCMDS — Generated MVS command	“System requests” on page 321 “Action characters” on page 223
<b>z/OS UNIX processes</b>	Display processes	SDSF – PS authorized command	“Authorized SDSF commands” on page 249
	Issue action characters	SDSF –process OPERCMDS – Generated MVS command	“System requests” on page 321 “Action characters” on page 223
	Display sysplex data (if any system is prior to z/OS V1R13)	MQQUEUE, MQADMIN, MQCMDS, MQCONN	“WebSphere MQ” on page 322
<b>Display the system log</b>	Display the LOG panel	SDSF – LOG authorized command	“Authorized SDSF commands” on page 249
	Access the logical log (SYSLOG)	JESSPOOL	“SYSLOG” on page 318
	Access the log stream (OPERLOG)	LOGSTRM	“OPERLOG” on page 271



Table 82. SDSF Functions and the Classes and Resources Required to Protect Them (continued)

Function	Specific Function	Classes and Resources to Protect	Refer to
<b>Destination Operator Authority</b>	Issue action characters	SDSF – Operator authority	“Destination operator authority” on page 254
		SDSF – Jobs or output based on destination name	“Destination operator authority” on page 254
		OPERCMDS – Generated MVS or JES command	“Action characters” on page 223
	Overtypable fields	SDSF – Operator authority	“Destination operator authority” on page 254
		SDSF – Overtypable field	“Overtypable fields” on page 271
		SDSF – Jobs or output based on destination name	“Destination operator authority” on page 254
		OPERCMDS – Generated MVS or JES command	“Overtypable fields” on page 271
	Browse output	SDSF – Operator authority	“Destination operator authority” on page 254
SDSF – Data sets based on job or output group destination		“Destination operator authority” on page 254	
<b>System Commands and responses</b>	Use / command	SDSF – ULOG authorized command	“Authorized SDSF commands” on page 249
		SDSF – / command	
		MVS and JES require authorization to OPERCMD resources for MVS and JES commands issued.	“MVS and JES commands on the command line” on page 268
<b>SDSF Commands</b>	Use DEST command	SDSF – DEST authorized command	“Authorized SDSF commands” on page 249
		SDSF – Destination names	“Destination names” on page 253
	Use authorized SDSF commands	SDSF authorized commands	“Authorized SDSF commands” on page 249
<b>SDSF Server</b>	Specify a server on the SDSF command	SDSF – SERVER parameter on the SDSF command	“SDSF server” on page 316
	Refresh ISFPARMS or change server options, start and stop the server and server communications	OPERCMDS – START, MODIFY, and STOP commands	“SDSF server” on page 316
<b>Class</b>	<b>SDSF Resource</b>	<b>Resource Name</b>	
JESSPOOL	Jobs, output groups, and SYSIN/SYSOUT data sets	<i>nodeid.userid.jobname.jobid</i> <i>nodeid.userid.jobname.jobid.</i> GROUP.ogroupid <i>nodeid.userid.jobname.jobid.</i> Ddsid.dsname	
JESSPOOL	Job step information	<i>nodeid.userid.jobname.jobid.EVENTLOG.SMFSTEP</i> <i>nodeid.userid.jobname.jobid.EVENTLOG.STEPDATA</i>	
JESSPOOL	Access to the JES logical log, to display the SYSLOG	<i>nodeid.+MASTER+.SYSLOG.SYSTEM.</i> sysname	

<b>Class</b>	<b>SDSF Resource</b>	<b>Resource Name</b>
LOGSTRM	Access to the log stream, to display the OPERLOG	SYSPLEX.OPERLOG
	Access to the log stream, to display check history	<i>log-stream-name</i>
MQQUEUE	Queues for sysplex data	<i>ssid.queue-prefix</i> (High-level qualifiers)
MQCMDS	Server definition of queues	<i>ssid.DEFINE</i> (High-level qualifiers)
MQADMIN	Server definition of queues	<i>ssid.QUEUE.queue-prefix</i>
	WebSphere MQ context security	<i>ssid.CONTEXT</i>
MQCONN	WebSphere MQ connection security	<i>ssid.BATCH</i> (High-level qualifiers)
OPERCMDS	Generated MVS and JES commands	Resource name is dependent on command generated
	Server MODIFY command	Resource name is dependent on command parameters

<b>Class</b>	<b>SDSF Resource</b>	<b>Resource Name</b>	
SDSF	Membership in groups	GROUP. <i>groupname.servername</i>	
	Connection to SDSFAUX	ISF.CONNECT. <i>sysname</i>	
	APF data sets	ISFAPF. <i>datasetname</i>	
	DYNX data sets	ISFDYNX. <i>exitname</i>	
	Enqueues	ISFENQ. <i>majorname.sysname</i>	
	LnkLst data sets	ISFLNK. <i>datasetname</i>	
	LPA data sets	ISFLPA. <i>datasetname</i>	
	Parmlib data sets	ISFPARM. <i>datasetname</i>	
	Page data sets	ISFPAG. <i>datasetname</i>	
	PROC data sets	ISFPLIB. <i>proclib-name</i>	
	System symbols	ISFSYM. <i>symbolname.sysname</i>	
	Systems	ISFSYS. <i>sysplexname.systemname</i>	
	SDSF panels and authorized commands	ISFCMD (High-level qualifier)	
	MVS/JES command line commands (/)	ISFOPER.SYSTEM	
	Overtypable fields	ISFATTR (High-level qualifier)	
	Destination names	ISFOPER.ANYDEST. <i>jesx</i> (all destinations) ISFAUTH.DEST. <i>destname</i>	
	Operator authority by destination	ISFOPER.DEST ISFAUTH.DEST (High-level qualifiers)	
	Enclaves	ISFENC. <i>subsys-type.subsys-name</i>	
	Initiators	ISFINIT.I( <i>xx</i> ). <i>jesx</i>	
	Job classes	ISFJOBCL. <i>class.jesx</i>	
	Job devices	ISFJDD. <i>type.sysname</i>	
		JD action character (display job devices)	ISFCMD.ODSP.DEVICE. <i>system</i> ISFJOB.DDNAME. <i>owner.jobname.system</i>
		JM action character (display job memory)	ISFCMD.ODSP.STORAGE. <i>system</i> ISFJOB.STORAGE. <i>owner.jobname.system</i>
		JY action character (display job delays)	ISFDISP.DELAY. <i>owner.jobname</i>
		MAS or JESPLEX members	ISFMEMB. <i>membername.jesx</i>
		Lines	ISFLINE. <i>devicename.jesx</i>
Network connections		ISFAPPL. <i>devicename.jesx</i> ISFLINE. <i>devicename.jesx</i> ISFSOCK. <i>devicename.jesx</i>	
Network servers		ISFNS. <i>devicename.jesx</i>	
Nodes		ISFNODE. <i>nodename.jesx</i>	

<b>Class</b>	<b>SDSF Resource</b>	<b>Resource Name</b>
SDSF (continued)	Spool offloaders (JES2 only)	ISFSO. <i>devicename.jesx</i>
	Readers	ISFRDR. <i>devicename.jesx</i>
	JES resources (JES2 only)	ISFRM. <i>resource.jesx</i>
	Spool volumes	ISFSP. <i>volser.jesx</i>
	Spool partitions	ISFSP. <i>partname.jesx</i>
	WLM resources	ISFRES. <i>resource.system</i>
	Scheduling environments	ISFSE. <i>scheduling-env.system</i>
	z/OS UNIX processes	ISFPROC. <i>owner.jobname</i>
	System requests	ISFSR. <i>type.system.jobname</i>
	Server name on SDSF command	ISFCMD.OPT.SERVER
	Reverting to ISFPARMS in assembler macro format	SERVER.NOPARM
WRITER	Printers and punches	<i>jesx.LOCAL.devicename</i>
		<i>jesx.RJE.devicename</i>
XFACILIT	Checks from IBM Health Checker for z/OS	HZS. <i>sysname.checkowner.checkname.action</i>

---

## Chapter 6. SDSF and RACF

This topic provides general information about RACF security. It also demonstrates how to establish SAF security for SDSF tasks and resources using classes, resource names, and access levels.

For specific information about how to protect SDSF tasks and resources, see Chapter 7, “Protecting SDSF functions,” on page 223.

---

### Security administration

A key feature of RACF is its hierarchical management structure. The RACF security administrator is defined at the top of the hierarchy, with authority to control security for the whole system. The RACF security administrator has the authority to work with RACF profiles and system-wide settings. The RACF auditor produces reports of security-relevant activity based on auditing records generated by RACF.

RACF security administrators generally have system-SPECIAL authority. This allows them to issue any RACF command and change any RACF profile (except for some auditing specific operands).

For complete information about the authorities required to issue RACF commands, and for information on delegating authority and the scope of a RACF group, refer to *z/OS Security Server RACF Security Administrator's Guide*.

For information on the RACF requirements for issuing RACF commands, see the description of the specific command in *z/OS Security Server RACF Command Language Reference*.

---

### Brief summary of RACF commands

Much of the RACF activity dealing with protected SDSF resources involves creating, changing, and deleting *general resource profiles*.

- To create a resource profile, use the RDEFINE command. Generally, once you have created a profile, you then create an access list for the profile using the PERMIT command. For example:

```
RDEFINE class_name profile_name UACC(NONE)
PERMIT profile_name CLASS(class_name) ID(user or group)
ACCESS(access_authority)
```

This document provides examples of how to do this for SDSF-related classes.

- To remove the entry for a user or group from an access list, issue the PERMIT command with the DELETE operand instead of the ACCESS operand.

```
PERMIT profile_name CLASS(class_name) ID(user or group) DELETE
```

- If you want to change a profile, for example, changing UACC from NONE to READ, use the RALTER command:

```
RALTER class_name profile_name UACC(READ)
```

- To delete a resource profile, use the RDELETE command. For example:

```
RDELETE class_name profile_name
```

- You can copy an access list from one profile to another. To do so, specify the FROM operand on the PERMIT command:

```
PERMIT profile_name CLASS(class_name)
      FROM(existing-profile_name) FCLASS(class_name)
```

- You can copy information from one profile to another. To do so, specify the FROM operand on the RDEFINE or RALTER command:

```
RDEFINE class_name profile_name
      FROM(existing-profile_name) FCLASS(class_name)
```

**Note:** Do not plan to do this if you are using resource group names.

- To list the names of profiles in a particular class, use the SEARCH command. The following command lists the profiles in the SDSF class:

```
SEARCH CLASS(SDSF)
```

---

## Delegation of RACF administrative authority

Your installation's security plan should indicate who is responsible for providing security for SDSF.

If you do not have the system-SPECIAL attribute, you need to be given the authority to do the following RACF-related tasks:

- Define and maintain profiles in SDSF-related general resource classes. In general, this authority is granted by assigning a user the CLAUTH (class authority) attribute in the specified classes. For example, the security administrator could issue the following command:

```
ALTUSER your_userid CLAUTH(SDSF)
```

Some of the general resource classes mentioned in this document (such as OPERCMD5 and JESSPOOL) affect the operation of products other than SDSF. If you are not the RACF security administrator, you may need to ask that person to define profiles at your request.

- Add RACF user profiles to the system. In general, this authority is granted by assigning an administrator the CLAUTH (class authority) attribute in the user's profile. For example, the security administrator could issue the following command:

```
ALTUSER your_userid CLAUTH(USER)
```

Whenever you add a user to the system, you must assign that user a default connect group. Assigning that user a default connect group changes the membership of the group (by adding the user as a member of the group).

For more information about RACF general resource profiles, see *z/OS Security Server RACF Security Administrator's Guide*. For information about the resource names used by JES2, see *z/OS JES2 Initialization and Tuning Guide*. For information about the resource names used by JES3, see *z/OS JES3 Initialization and Tuning Guide*.

## SDSF resource group class

The IBM-supplied class descriptor table provides a resource *group* class (GSDSF) and a resource *member* class (SDSF). For a resource group class, each user or group of users permitted access to that resource group is permitted access to all members of the resource group. For each GSDSF class created, a second class representing the members must also be created.

## Creating a resource group profile

Resource group profiles enable you to protect multiple resources with one profile. However, the resources do not have to have similar names.

A resource group profile is a general resource profile with the following special characteristics:

- Its name does not match the resource it protects.
- The ADDMEM operand of the RDEFINE command specifies the resources it protects (not the profile name itself).
- The related member class (not the resource class itself) must be RACLISTed. For example, the SDSF class must be RACLISTed, not the GSDSF class. Use the SETROPTS command with the RACLIST operand for this task.

For more information on RACF group profiles, see *z/OS Security Server RACF Security Administrator's Guide*.

---

## Establishing SAF security with RACF

To accomplish security through SAF with RACF, you:

1. Activate generic processing before defining profiles, using the SETROPTS command.
2. Define profiles to protect the resources in the appropriate classes, using the RDEFINE command. (Classes are already defined for RACF. You must define them for other security products.)  
Begin with generic profiles for broad access to resources and then define generic or discrete profiles that are more restrictive.
3. Permit users to access appropriate profiles in each class with the necessary access levels, using the PERMIT command.
4. Activate the classes, using the SETROPTS command.

You should also review installation exit routines for SAF control points. Refer to Chapter 9, "Using installation exit routines," on page 345 for more information.

## RACF authorization checking and ISFPARMS security

When the class a resource is in is inactive, or the profile to protect the resource is not defined:

- In a JES2 environment, the result varies with the default return code for the class:
  - The SDSF and OPERCMDS classes, as defined by RACF, have a default return code of 04, and return an indeterminate result. Authorization is decided by ISFPARMS or an installation exit.
  - The JESSPOOL and WRITER classes, as defined by RACF, have a default return code of 08. The request fails.
- In a JES3 environment, the request fails.
- For requests processed by the SDSFAUX address space, the request fails unless CONNECT(NOFAILRC4) is specified in ISFPRMxx.

## Considerations for broad access

The examples in this information typically show generic profiles that allow the user broad access to resources. The universal access authority (UACC) function of NONE is used to protect resources for all users on the system. Users of the system

who are not SDSF users may be affected when trying to access those resources. The examples of WRITER class profiles have UACC(READ) so that printers can select work for all users.

If you begin by defining broad generic profiles, you can then define more restrictive generic or discrete profiles. Users permitted to access the broad profiles must also be permitted to access the more restrictive profiles if they are to retain access to all the resources.

---

## Using RACLIST and REFRESH

The SETROPTS RACLIST command copies the base segments of generic and discrete profiles into virtual storage. The profile copies are put in their own data space. RACF uses these profile copies to check the authorization of any user who wants to access a resource protected by them. Using RACLIST for the security classes improves performance.

Once a class is RACLISTed, any changes to the profiles in the class require that the class be RACLIST REFRESHed.

See the discussions of generic profiles and the RACLIST option in *z/OS Security Server RACF Command Language Reference*.

## Using RACLIST and REFRESH with the SDSF class

When running RACF, SDSFAUX requires that the SDSF class be RACLISTed.

By default, SDSFAUX fails all authorization requests that result in return code 04 (indeterminate) from SAF. You can change this by specifying AUXSAF(NOFAILRC4) on the CONNECT statement of ISFPRMxx.

If you have not already done so, you must use the SETROPTS RACLIST command for the SDSF class.

For example, assume that you issue the following command to RACLIST the SDSF class:

```
SETROPTS RACLIST(SDSF)
```

If you then change profiles in the SDSF class, you must issue a RACLIST REFRESH command for those changes to take effect:

```
SETROPTS RACLIST(SDSF) REFRESH
```

See the discussions of generic profiles and the RACLIST option in *z/OS Security Server RACF Command Language Reference*.

## Using RACLIST and REFRESH with the OPERCMDS class

When using RACF, you must use the SETROPTS RACLIST command for the OPERCMDS class. If you then make changes to these OPERCMDS profiles, you must issue a SETROPTS RACLIST REFRESH command for those changes to take effect.

For example, if you issue the following command to permit GROUP1 to resources in the OPERCMDS class:

```
PERMIT jesx.** CLASS(OPERCMDS) ID(GROUP1) ACCESS(CONTROL)
```



you must then use the REFRESH operand for the change to be effective:

```
SETROPTS RACLIST(OPERCMD5) REFRESH
```

See the discussions of generic profiles and the RACLIST option in *z/OS Security Server RACF Command Language Reference*.

---

## Using conditional access

If you use generic profiles (as in the preceding examples) to give the user access to all JES and MVS commands, the profiles not only include protection for generated MVS and JES commands within SDSF, but also for those commands used outside of SDSF.

Because of this, you may want to make the user's access conditional, only in effect when he or she is using SDSF. You can provide this conditional access for the WRITER and OPERCMD5 classes. With RACF, this is done with the clause WHEN(CONSOLE(SDSF)).

To use this conditional access checking, you must have the CONSOLE class active and the SDSF console defined in the CONSOLE class.

For example, you would issue the following RACF commands:

```
SETROPTS CLASSACT(CONSOLE  
RDEFINE CONSOLE SDSF UACC(NONE)
```

Then, to give conditional access (to permit users to issue JES2 commands only while running SDSF):

```
RDEFINE OPERCMD5 JES2.** UACC NONE  
PERMIT JES2.** CLASS(OPERCMD5)ID(userid or groupid) ACCESS(CONTROL)  
WHEN(CONSOLE(SDSF))
```

To permit users unconditionally to issue all JES2 commands:

```
PERMIT JES2.** CLASS(OPERCMD5)ID(userid or groupid) ACCESS(CONTROL)
```

See also the discussions of “Action characters” on page 223, “Overtypable fields” on page 271, “Printers” on page 311, and “Punches” on page 313.

---

## Sample RACF commands

SDSF provides sample RACF commands for SDSF security in member ISFRAC of ISF.SISFEXEC.

---

## Multilevel Security

SDSF supports the multilevel security in z/OS V1R5. For information on implementing multilevel security, including the resources used with SDSF, see *z/OS Introduction and Release Guide*.



---

## Chapter 7. Protecting SDSF functions

This topic describes how to protect each of the SDSF functions, which are presented in alphabetical order. It includes discussions and RACF examples.

---

### Action characters

Most action characters cause an interaction with two resources:

- The object of the action character, such as an initiator, printer, MAS member, job, or data set
- The MVS command that is generated by the action

When these resources are protected, a user must have authority to both resources to use the action characters. For ISPF-only actions such as browse and edit, the user must be permitted to open the data set.

A few action characters that do not cause an interaction with a resource for an object or a system command are protected as separate resources.

Protecting action characters is the same whether they are typed in the NP column or issued from the command line.

### Protecting the objects of action characters

The objects of action characters are such things as initiators in the SDSF class, printers and punches in the WRITER class, and jobs, output groups, and SYSIN/SYSOUT data sets in the JESSPOOL class.

The resource name that protects the object and the access level required varies from panel to panel. For information about protecting the objects of action characters, see

- “Authorized program facility data sets” on page 249
- “Checks on the CK and CKH panels” on page 252
- “Destination operator authority” on page 254
- “Dynamic exit information” on page 256
- “Enqueue information” on page 257
- “Enclaves” on page 256
- “Initiators” on page 257
- “JES2 resources on the RM panel” on page 258
- “Job classes” on page 259
- “Job devices” on page 259
- “Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260
- “Lines” on page 265
- “Link list data sets” on page 266
- “MAS and JESPLEX members” on page 266
- “Network connections” on page 268
- “Network servers” on page 269
- “Nodes” on page 270
- “Page data sets” on page 310

- “PARMLIB data sets” on page 311
- “Printers” on page 311
- “Processes (z/OS UNIX System Services)” on page 312
- “Proclibs” on page 313
- “Punches” on page 313
- “Readers” on page 314
- “Resources defined to WLM” on page 315
- “Scheduling environments” on page 315
- “Spool offloaders” on page 317
- “Spool volumes” on page 318
- “System information” on page 319
- “System Symbol information” on page 319
- “System requests” on page 321

## Protecting the generated MVS and JES commands

Most action characters generate MVS or JES commands. The resource names that protect these commands are in the OPERCMDS class. “Tables of action characters” on page 225 shows all the action characters and their resource names.

### Controlling access authority

Access to the OPERCMDS resources can be controlled by which resources a user is authorized to access and also by which access level is given to the user. For example, an installation may create just one profile to protect all commands in the OPERCMDS class, but control a user's ability to issue commands by granting the user READ, UPDATE, CONTROL, or ALTER authority. Each authority level gives the user access to a different set of commands. Other installations may choose to define several OPERCMDS resources, and authorize users to access individual resources with the appropriate levels of access.

To see how this information relates to the command levels for the action characters and resource names, refer to the CMDLEV parameter in “Group function parameters reference” on page 39 and “Action characters and overtypable fields for each command level” on page 74.

### Permitting access only while using SDSF

Users can be conditionally permitted to access OPERCMDS resources so they are authorized to use MVS and JES commands only while they are using SDSF. See “Using conditional access” on page 221 for more information.

## Protecting action characters as separate resources

The prior implementation of the Job Memory (JM) and Job Device (JD) panel restricted their use to jobs running under JES. Access to the panels was controlled through resources in the JESSPOOL class.

However, as of the SDSFAUX-based version (SDSF V2R2 PTF UI90051), the requirement for the job to be running under JES is removed. Instead, a new ISFJOB resource in the SDSF class is used.

Refer to Table 83 on page 225.

Table 83. SDSF Resources That Protect the JD and JM Action Characters

Action Character	SDSF Resource	Required Access
JD on AS, DA, I, INIT, NS and ST	ISFCMD.ODSP.DEVICE.system	READ
	ISFJOB.DDNAME.owner.jobname.system	READ
JM on AS, DA, I, INIT, NS and ST	ISFCMD.ODSP.STORAGE.system	READ
	ISFJOB.STORAGE.owner.jobname.system	READ

## Setting up generic profiles

You can set up two generic profiles to allow use of all action characters, as shown in Table 84.

Table 84. Generic Profiles for Commands Generated by Actions Characters

Generated Commands	Resource Name	Class	Access
JES Commands	jesx.**	OPERCMD5	CONTROL
MVS Commands	MVS.**	OPERCMD5	CONTROL

To protect resources individually in the OPERCMDS class with more restrictive profiles, you would use the specific resource name for the command generated by the action character. See “Tables of action characters.”

**Note:** In cases where JES issues an MVS command for processing, the user ID running JES must be authorized to access the OPERCMDS profiles protecting MVS commands, or the JES task must be running in a “trusted” state.

## Examples of protecting action characters

- To allow use of all action characters on all panels, define the following profiles:

```
RDEFINE OPERCMDS jesx.** UACC(NONE)
RDEFINE OPERCMDS MVS.** UACC(NONE)
```

Give users CONTROL access with these commands:

```
PERMIT jesx.** CLASS(OPERCMD5) ID(userid or groupid) ACCESS(CONTROL)
PERMIT MVS.** CLASS(OPERCMD5) ID(userid or groupid) ACCESS(CONTROL)
```

- To restrict the use of the C, CD, P, and PP action characters on the Display Active Users panel, define the restrictive profiles:

```
RDEFINE OPERCMDS jesx.CANCEL.** UACC(NONE)
RDEFINE OPERCMDS MVS.CANCEL.TSU.** UACC(NONE)
```

To restrict the canceling of active APPC transaction programs define the profile:

```
RDEFINE OPERCMDS MVS.CANCEL.ATX.** UACC(NONE)
```

Giving UPDATE authority to only these three profiles will limit action character use to C, CD, P and PP on the Display Active Users panel.

## Tables of action characters

SDSF action characters, the MVS and JES commands that they generate, the necessary access authorities, and the OPERCMDS class resource names are shown in Table 85 on page 226. The table shows the command that is issued, and the

associated OPERCMDS resource, for the JES2 environment for each action character; if the action is available in the JES3 environment, the JES3 command and associated OPERCMDS resource are shown beneath the JES2 values.

This information is shown sorted by OPERCMDS resource names in Table 86 on page 242.

Table 85. Action Characters.

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
A	H O	\$TO	jesx.MODIFY.typeOUT	UPDATE
		-	-	-
A	DA I ST	\$A	jesx.MODIFYRELEASE.type	UPDATE
		*F	jesx.MODIFY.JOB	
A	CK	F hcstcid,ACTIVATE	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
A	JG	\$A	jesx.MODIFYRELEASE.GROUP	UPDATE
A	NO	-	-	-
		*F	jesx.MODIFY.NJE	UPDATE
A	SP	-	-	-
		*F Q	jesx.MODIFY.Q	UPDATE
AI	SR	SETAUTOR	MVS.SETAUTOR.AUTOR	READ
		SETAUTOR	MVS.SETAUTOR.AUTOR	READ
B	PR PUN	\$B	jesx.BACKSP.DEV	UPDATE
		-	-	-
Bnumber	PR PUN	\$B	jesx.BACKSP.DEV	UPDATE
		-	-	-
BC	PR PUN	\$B	jesx.BACKSP.DEV	UPDATE
		*R,device,C	jesx.RESTART.DEV.device	
BCnumber	PR PUN	\$B	jesx.BACKSP.DEV	UPDATE
		*R,device,C	jesx.RESTART.DEV.device	UPDATE
BCnumberP	PR PUN	-	-	-
		*R,device,C	jesx.RESTART.DEV.device	UPDATE
BD	PR PUN	\$B	jesx.BACKSP.DEV	UPDATE
		*R,device,G	jesx.RESTART.DEV.device	
BN	PR PUN	-	-	-
		*R,device,N	jesx.RESTART.DEV.device	UPDATE
BNnumber	PR PUN	-	-	-
		*R,device,N	jesx.RESTART.DEV.device	UPDATE
BNnumberP	PR PUN	-	-	-
		*R,device,N	jesx.RESTART.DEV.device	UPDATE

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
C (TSU jobs)	DA I ST	C U=	MVS.CANCEL.type.jobname	UPDATE
		*F J=,C	jesx.MODIFY.JOB	
C (APPC transactions)	DA	C jobname,A=	MVS.CANCEL.type.jobname	UPDATE
C	DA I ST	\$C	jesx.CANCEL.type	UPDATE
		*F J=,C	jesx.MODIFY.JOB	
C	H O	\$C	jesx.CANCEL.typejesx.CANCEL.typeOUT	UPDATE
		\$CO		
		-	-	-
C	PR PUN RDR	\$C	jesx.CANCEL.DEV	UPDATE
		*CANCEL	jesx.CANCEL.DEV.device	
C	H (secondary JES2)	\$O,CANCEL	jesx.RELEASE.typeOUT	UPDATE
		-	-	
C (held data set)	JDS	SSI <sup>1</sup>		
		*F U	jesx.MODIFY.U	UPDATE
C	JG	\$C	jesx.CANCEL.GROUP	UPDATE
C	JP	*S	jesx.START.DEV.main	UPDATE
C	J0	-	-	-
		*F U	jesx.MODIFY.U	UPDATE
C (transmitters, receivers)	LI	\$C	jesx.CANCEL.DEV	UPDATE
		-	-	
C (lines)	LI	-	-	-
		*C	jesx.CANCEL.name jesx.CANCEL.DEV.name	UPDATE
C	NC	-	-	-
		*C	jesx.CANCEL.TCP jesx.CANCEL.devname	UPDATE
C	NS	-	-	-
		*C	jesx.CANCEL.devname	UPDATE
C (transmitters, receivers)	SO	\$C	jesx.CANCEL.DEV	UPDATE
C (processes)	PS	C jobname,A= C U=	MVS.CANCEL.type.jobname	UPDATE
C	SR	K C	MVS.CONTROL.C	READ
CA	DA I ST	\$C,ARMRESTART	jesx.CANCEL.type	UPDATE
		*F J=,C,ARMR	jesx.MODIFY.JOB	

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
CD (TSU jobs)	DA	C U=,DUMP	MVS.CANCEL.type.jobname	UPDATE
		*F J=,C,D	jesx.MODIFY.JOB	
CD (APPC transactions)	DA	C jobname, DUMP,A=	MVS.CANCEL.type.jobname	UPDATE
CD	DA I ST	\$C,D	jesx.CANCEL.type	UPDATE
		*F J=,C,D	jesx.MODIFY.JOB	
CDA	DA I ST	\$C,D,ARMRESTART	jesx.CANCEL.type	UPDATE
		*F J=,C,D,ARMR	jesx.MODIFY.JOB	
CDP	DA I ST	-	-	-
		*F J=,CO,D	jesx.MODIFY.JOB	UPDATE
CG	PR PUN	-	-	-
		*C,device,G	jesx.CANCEL.DEV.device	UPDATE
CJ	PR PUN	-	-	-
		*C,device,J	jesx.CANCEL.DEV.device	UPDATE
CP	PR PUN	-	-	-
		*C,device,P	jesx.CANCEL.DEV.device	UPDATE
CP	JG	\$C	jesx.CANCEL.GROUP	UPDATE
CT	PR PUN	-	-	-
		*C,device,T	jesx.CANCEL.DEV.device	UPDATE
Coptions	RDR	-	-	-
		*C,device,options	jesx.CANCEL.DEV.device	UPDATE
D	DA I ST	\$D	jesx.DISPLAY.type	READ
		*I J=	jesx.MODIFY.JOB	
D	APF	D PROG,APF, DSNAME=	MVS.DISPLAY.PROG.	READ
D	CK	F hcstcid,DISPLAY	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
D	DYNX	D PROG,EXIT,EX=	MVS.DISPLAY.PROG	READ
D	ENQ	D GRS,HEX,RES=	MVS.DISPLAY.GRS	READ
D	JC	\$D	jesx.DISPLAY.JOBCLASS	READ
		*I C=	jesx.DISPLAY.CLASS	READD
Doption	JG	\$D	jesx.DISPLAY.GROUP	READ
D	JP	*I	jesx.DISPLAY.MAIN	READ
D	J0	*I	jesx.DISPLAY.U	READ
D	INIT	\$D	jesx.DISPLAY.INITIATOR	READ
		*I	jesx.DISPLAY.G	



Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
D	LI	\$D	jesx.DISPLAY.L jesx.DISPLAY.LINE	READ
		*I	jesx.DISPLAY.D	
D	LNK	D PROG,LNKLST, NAME=	MVS.DISPLAY.PROG.	READ
D	MAS SO	\$D	jesx.DISPLAY.MEMBER jesx.DISPLAY.DEV	READ
D	NC	\$D	jesx.DISPLAY.APPL jesx.DISPLAY.L jesx.DISPLAY.LINE jesx.DISPLAY.SOCKET	READ
		*I	jesx.DISPLAY.SOCKET	READ
D	NO	\$D	jesx.DISPLAY.NODE	READ
		*I	jesx.DISPLAY.NJE	
D	NS	\$D	jesx.DISPLAY.NETSRV jesx.DISPLAY.LOGON	READ
		*I	jesx.DISPLAY.NETSRV	
D	PAG	D ASM,PAGE=	MVS.DISPLAY.ASM	READ
D	PARM	D PARMLIB	MVS.DISPLAY.PARMLIB	READ
I D	PROC	\$DPROCLIB	jesx.DISPLAY.PROCLIB	READ
D	PR PUN	\$D	jesx.DISPLAY.DEV	READ
		*I	jesx.DISPLAY.D	
D	PS	D	MVS.DISPLAY.OMVS	READ
D	RDR	\$D	jesx.DISPLAY.DEV	READ
		*I		
D	RES	D	MVS.DISPLAY.WLM	READ
D	RM	\$D	jesx.DISPLAY.resource <sup>3</sup>	READ
D	SE	D	MVS.DISPLAY.WLM	READ
D	SP	\$DSPL	jesx.DISPLAY.SPOOL	READ
		*I Q	jesx.DISPLAY.Q	
D	SR	D	MVS.DISPLAY.R	READ
D	SYM	D SYMBOLS,S=	MVS.DISPLAY.SYMBOLS	READ
D	SYS	D IPLINFO	MVS.DISPLAY.IPLINFO	READ
DA	APF	D PROG,APF,ALL	MVS.DISPLAY.PROG	READ
I DA	DYNX	D PROG,EXIT,ALL	MVS.DISPLAY.PROG	READ
DA	JD	D	MVS.DISPLAY.TCPIP	READ
DA	NS	\$D	jesx.DISPLAY.APPL	READ
		-	-	

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
DAA	SYS	D A,ALL	MVS.DISPLAY.JOB	READ
DAI	DYNX	D PROG,EXIT,ALL,IMPLICIT	MVS.DISPLAY.PROG	READ
DAL	JD	D	MVS.DISPLAY.TCPIP	READ
DAL	SYS	D A,L	MVS.DISPLAY.JOB	READ
DALO	SYS	D ALLOC,OPTIONS	MVS.DISPLAY.ALLOC	READ
DB	JD	D	MVS.DISPLAY.TCPIP	READ
DBL	JD	D	MVS.DISPLAY.TCPIP	READ
DC	JD	D	MVS.DISPLAY.XCF	READ
DC	NO	\$D	jesx.DISPLAY.NODE	READ
		-	-	-
DC	PAG	D ASM,COMMON	MVS.DISPLAY.ASM	READ
DC	JC	-	-	-
		*I G,main,C,class	jesx.DISPLAY.G	READ
DC	SYS	D C	MVS.DISPLAY.CONSOLES	READ
DCEE	SYS	D CEE,ALL	MVS.DISPLAY.CEE	READ
DD	DYNX	D PROG,EXIT,EX=,DIAG	MVS.DISPLAY.PROG	READ
DD	PAG	D ASM,PAGEDEL	MVS.DISPLAY.ASM	READ
DD	PROC	\$DPROCLIB,DEBUG	jesx.DISPLAY.PROCLIB	READ
DD	SYS	D D,E	MVS.DISPLAY.DUMP	READ
DE	DA I ST	-	-	-
		*I J=,E	jesx.DISPLAY.JOBE	READ
DE	LI	-	-	-
		*I	jesx.DISPLAY.T	READ
DE	PARM	D PARMLIB,ERRORS	MVS.DISPLAY.PARMLIB	READ
DEM	SYS	D EMCS	MVS.DISPLAY.EMCS	READ
DG	JC	-	-	-
		*I G,main,G,group	jesx.DISPLAY.G	READ
DG	SYS	D GRS,SYSTEM	MVS.DISPLAY.GRS	READ
DI	DYNX	D PROG,EXIT,INSTALLATION	MVS.DISPLAY.PROG	READ
DI	SYS	D IOS,CONFIG	MVS.DISPLAY.IOS	READ
DIQP	SYS	D IQP	MVS.DISPLAY.IQP	READ
DL	CK	F hcstcid,DISPLAY	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
DL	DA	\$D	jesx.DISPLAY.type	READ
		*I A,J=	jesx.DISPLAY.A	
DL	I ST	\$D	jesx.DISPLAY.type	READ

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
DL	INIT	\$D	jesx.DISPLAY.INITIATOR	READ
		*I	jesx.DISPLAY.G	
DL	JP	*I	jesx.DISPLAY.MAINX	READ
DL	LI	\$D	jesx.DISPLAY.L jesx.DISPLAY.LINE	READ
		*I	jesx.DISPLAY.D	
DL	MAS SO	\$D	jesx.DISPLAY.MEMBER jesx.DISPLAY.DEV	READ
DL	NC	\$D	jesx.DISPLAY.LINE	READ
		-	-	-
DL	NS	\$D	jesx.DISPLAY.NETSRV jesx.DISPLAY.LOGON	READ
		*I	jesx.DISPLAY.NETSRV	
DL	NO	\$D	jesx.DISPLAY.NODE	READ
		*I	jesx.DISPLAY.NJE	READ
DL	PAG	D ASM,LOCAL	MVS.DISPLAY.ASM	READ
DL	PR PUN	\$D	jesx.DISPLAY.DEV	READ
		*I	jesx.DISPLAY.D	
DL	RDR	\$D	jesx.DISPLAY.DEV	READ
DL	SP	\$DSPL,L	jesx.DISPLAY.SPOOL	READ
		*I Q	jesx.DISPLAY.Q	
DL	SYM	D SYMBOLS	MVS.DISPLAY.SYMBOLS	READ
DL	SYS	D LLA	MVS.DISPLAY.LLA	READ
DLL	SYS	D LLA	MVS.DISPLAY.LLA	READ
DLO	SYS	D LOGGER	MVS.DISPLAY.LOGGER	READ
DLR	SYS	D LOGREC	MVS.DISPLAY.LOGREC	READ
DM	JP	*START	jesx.START.MONITOR	UPDATE
DM	SYS	D M	MVS.DISPLAY.M	READ
DMA	I ST	-	-	-
		*I S,A,J=	jesx.DISPLAY.S	READ
DMP	SYS	D MPF	MVS.DISPLAY.MPF	READ
DMR	I ST	-	-	-
		*I S,A,J=	jesx.DISPLAY.S	READ
DMSS	I ST	-	-	-
		*I S,SS,J=	jesx.DISPLAY.S	READ

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
DMSV	I ST	-	-	-
		*I S,SV,J=	jesx.DISPLAY.S	READ
DMU	I ST	-	-	-
		*I S,U,J=	jesx.DISPLAY.S	READ
DN	JD	D	MVS.DISPLAY.TCPIP	READ
DN	LNK	D PROG,LNKST, NAMES	MVS.DISPLAY.PROG	READ
DNL	JD	D	MVS.DISPLAY.TCPIP	READ
DNP	DYNX	D PROG,EXIT,NOTPROGRAM	MVS.DISPLAY.PROG	READ
DO	SYS	D OMVS,O	MVS.DISPLAY.OMVS	READ
DP	DYNX	D PROG,EXIT,PROGRAM	MVS.DISPLAY.PROG	READ
DP	JD	D	MVS.DISPLAY.XCF	READ
DP	CK	F hcstcid,DISPLAY	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
DP	NO	\$D,PATH	jesx.DISPLAY.NODE	READ
		-	-	-
DP	PAG	D ASM,PLPA	MVS.DISPLAY.ASM	READ
DP	SYS	D PROD,REG	MVS.DISPLAY.PROD	READ
DP	I ST	\$Dtype	jesx.DISPLAY.type	UPDATE
DPCD	SYS	D PCIE,DD	MVS.DISPLAY.PCIE	READ
DPCI	SYS	D PCIE	MVS.DISPLAY.PCIE	READ
DPO	CK	F hcstcid,DISPLAY	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
DR	JD	D	MVS.DISPLAY.TCPIP	READ
DRD	JD	D	MVS.DISPLAY.TCPIP	READ
DRDL	JD	D	MVS.DISPLAY.TCPIP	READ
DRL	JD	D	MVS.DISPLAY.TCPIP	READ
DS	CK	F hcstcid,DISPLAY	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
DS	JD	D	MVS.DISPLAY.XCF	READ
DS	NS	\$D	jesx.DISPLAY.SOCKET	READ
		-	-	-
DS	PAG	D ASM,SCM	MVS.DISPLAY.ASM	READ
DSF	SYS	D SMF,O	MVS.DISPLAY.SMF	READ
DSL	SYS	D SLIP	MVS.DISPLAY.SLIP	READ
DSM	SYS	D SMS	MVS.DISPLAY.SMS	READ
DSY	SYS	D SYMBOLS	MVS.DISPLAY.SYMBOLS	READ
DT	SYS	D T	MVS.DISPLAY.TIMEDATE	READ
DTO	SYS	D IKJTSO	MVS.DISPLAY.IKJTSO	READ

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDS Resource, JES2	OPERCMDS Required Access
		Command, JES3	OPERCMDS Resource, JES3	
DTR	SYS	D TRACE	MVS.DISPLAY.TRACE	READ
DTS	SYS	D TS,L	MVS.DISPLAY.JOB	READ
DW	SYS	D WLM	MVS.DISPLAY.WLM	READ
DX	SYS	D XCF	MVS.DISPLAY.XCF	READ
E	CK	F <i>hcstcid</i> ,REFRESH	MVS.MODIFY.STC. <i>hcproc.hcstcid</i>	UPDATE
E	DA I ST	\$E	<i>jesx</i> .RESTART.BAT	CONTROL
		*R MAIN,J=	<i>jesx</i> .RESTART.DEV. <i>main</i>	
E (lines)	LI	\$E	<i>jesx</i> .RESTART.LINE	CONTROL
		*R	<i>jesx</i> .RESTART.RJP	UPDATE
E (transmitters, receivers)	LI	\$E	<i>jesx</i> .RESTART.DEV	UPDATE
		-	-	-
E	NC	\$E	<i>jesx</i> .RESTART.DEV	UPDATE
		-	-	-
E (subdevice)	NC	\$E	<i>jesx</i> .RESTART.LINE	CONTROL
		-	-	-
E (connection)	NS	\$E	<i>jesx</i> .RESTART.DEV	UPDATE
		*R	<i>jesx</i> .RESTART.DEV. <i>devname</i>	
E	OD			
E (transmitters)	SO	\$E	<i>jesx</i> .RESTART.DEV	UPDATE
E	MAS	\$E	<i>jesx</i> .RESTART.SYS	CONTROL
		*R	<i>jesx</i> .RESTART.DEV. <i>device</i>	UPDATE
Eoptions	PR PUN	-	-	-
		*R, <i>device,options</i>	<i>jesx</i> .RESTART.DEV. <i>device</i>	UPDATE
EC	DA I ST	\$E,C	<i>jesx</i> .RESTART.BAT	CONTROL
EL	NO	-	-	-
		*F	<i>jesx</i> .MODIFY.NJE	UPDATE
ES	DA I ST	\$E	<i>jesx</i> .RESTART.BAT	CONTROL
		-	-	-
ESH	DA I ST	\$E	<i>jesx</i> .RESTART.BAT	CONTROL
		-	-	-
F	JP	*S	<i>jesx</i> .START.DEV. <i>main</i>	UPDATE
F	PR PUN	\$F	<i>jesx</i> .FORWARD.DEV	UPDATE
		-	-	-

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDS Resource, JES2	OPERCMDS Required Access
		Command, JES3	OPERCMDS Resource, JES3	
Fnumber	PR PUN	\$F	jesx.FORWARD.DEV	UPDATE
		*R,device,R	jesx.RESTART.DEV.device	
FC	PR PUN	\$F	jesx.FORWARD.DEV	UPDATE
		*R,device,R,C	jesx.RESTART.DEV.device	
FCnumber	PR PUN	\$F	jesx.FORWARD.DEV	UPDATE
		*R,device,R,C	jesx.RESTART.DEV.device	
FCnumberP	PR PUN	-	-	-
		*R,device,R,C	jesx.RESTART.DEV.device	UPDATE
FD	PR	\$F	jesx.FORWARD.DEV	UPDATE
		-	-	-
FN	PR PUN	-	-	-
		*R,device,R,N	jesx.RESTART.DEV.device	UPDATE
FNnumber	PR PUN	-	-	-
		*R,device,R,N	jesx.RESTART.DEV.device	UPDATE
FNnumberP	PR PUN	-	-	-
		*R,device,R,N	jesx.RESTART.DEV.device	UPDATE
H	CK	F hcstcid, DEACTIVATE	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
H	DA I ST	\$H	jesx.MODIFYHOLD.type	UPDATE
		*F J=,H	jesx.MODIFY.JOB	
H	O	\$TO	jesx.MODIFY.typeOUT	UPDATE
		-	-	-
H	JDS	SSI <sup>1</sup>	None	-
		*F U,J=	jesx.MODIFY.U	UPDATE
H	JG	\$H	jesx.MODIFYHOLD.GROUP	UPDATE
H	J0	-	-	-
		*F U,J	jesx.MODIFY.U	UPDATE
H	NO	-	-	-
		*F	jesx.MODIFY.NJE	UPDATE
H	SP	-	-	-
		*F Q	jesx.MODIFY.Q	UPDATE
HC	SP	-	-	-
		*F Q	jesx.MODIFY.Q	UPDATE
HP	SP	-	-	-
		*F Q	jesx.MODIFY.Q	UPDATE

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
I	LI	\$TLINE,D=	jesx.MODIFY.LINE	CONTROL
		*C	jesx.CANCEL.device	UPDATE
I	PR PUN	\$I	jesx.INTERRUPT.DEV	UPDATE
		-	-	-
I	ENC I ST			
J	I ST	\$SJ	jesx.START.BAT	UPDATE
		*F J=,RUN	jesx.MODIFY.JOB	
J	SP	\$DJOBQ,SPL=	jesx.DISPLAY.JST	READ
		*I Q	jesx.DISPLAY.Q	
J (members)	MAS	\$J	jesxMON.DISPLAY.MONITOR	READ
JD (members)	MAS	\$J	jesxMON.DISPLAY.DETAIL	READ
JD <sup>4</sup>	AS, DA, I, INIT, NS and ST			
JH (members)	MAS	\$J	jesxMON.DISPLAY.HISTORY	READ
JJ (members)	MAS	\$J	jesxMON.DISPLAY.JES	READ
JM <sup>4</sup>	AS, DA, I, INIT, NS and ST			
JP	I JG ST			
JS	DA H I O ST			
JS (members)	MAS	\$J	jesxMON.DISPLAY.STATUS	READ
JY <sup>4</sup>	DA			
K	DA	C jobname,A=	MVS.CANCEL.type.jobname	UPDATE
		C jobname,A=	MVS.CANCEL.type.jobname	
K	NS	C	MVS.CANCEL.STC.servername	CONTROL
K	PR	F	MVS.MODIFY.STC.fssproc.fssname	UPDATE
			MVS.MODIFY.STC.fssproc.fssname	
K	PS	F	MVS.MODIFY.STC.BPXOINIT.BPXOINIT	UPDATE
KD	DA	C jobname,A=	MVS.CANCEL.type.jobname	UPDATE
		C jobname,A=	MVS.CANCEL.type.jobname	
KD	NS	C	MVS.CANCEL.STC.servername	CONTROL
L	CK			
L	DA I ST	\$L	jesx.DISPLAY.typeOUT	READ
		*I J=	jesx.DISPLAY.JOB	
LB, LH, LT	DA I ST	-	-	-
		*I J=	jesx.DISPLAY.JOB	READ

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
L	H O	\$DO	jesx.DISPLAY.typeOUT	READ
		-	-	-
L	LI	-	-	-
		*FAIL	jesx.FAIL.device	CONTROL
L	NS	-	-	-
		*FAIL	jesx.FAIL.DEVdevname	CONTROL
L	PR RDR	-	-	-
		*FAIL	jesx.FAIL.DEV.device	CONTROL
L	PUN	-	-	-
		*FAIL	jesx.FAIL.dspname	CONTROL
LD	LI	-	-	-
		*FAIL	jesx.FAIL.device	CONTROL
LD	PR RDR	-	-	-
		*FAIL	jesx.FAIL.DEV.device	CONTROL
LD	PUN	-	-	-
		*FAIL	jesx.FAIL.dspname	CONTROL
LL	DA	\$L	jesx.DISPLAY.typeOUT	READ
LL	H O ST	\$DO	jesx.DISPLAY.typeOUT	READ
		-	-	-
M	ENC			
N	DA PR PUN	\$N	jesx.REPEAT.DEV	UPDATE
		-	-	-
O	ST H	\$O	jesx.RELEASE.typeOUT	UPDATE
		\$TO	jesx.MODIFY.typeOUT	
		-	-	-
O (Held data set)	JDS	SSI <sup>1</sup>		
		*F U,J=	jesx.MODIFY.U	UPDATE
O	J0	-	-	-
		*F U,J	jesx.MODIFY.U	UPDATE
OK	H	\$TO	jesx.MODIFY.typeout	UPDATE
		-	-	-
P	CK	F hcstcid,DELETE	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
P (TSU jobs)	DA I ST	C U= \$CT	MVS.CANCEL.type.jobname jesx.CANCEL.type	UPDATE
		F J=,C	jesx.MODIFY.JOB	



Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
P (APPC transactions)	DA	C <i>jobname</i> ,A=	MVS.CANCEL. <i>type.jobname</i>	UPDATE
		C <i>jobname</i> ,A=	MVS.CANCEL. <i>type.jobname</i>	
P	DA I ST	\$C	<i>jesx</i> .CANCEL. <i>type</i>	UPDATE
		*F J=,C	<i>jesx</i> .MODIFY.JOB	
P	H O H O	\$C	<i>jesx</i> .CANCEL. <i>type</i>	UPDATE
		\$CO	<i>jesx</i> .CANCEL. <i>type</i> OUT	
		-	-	-
P (Held data set)	JDS	SSI <sup>1</sup>		
		*F U,J=	<i>jesx</i> .MODIFY.U	UPDATE
P	JG	\$P	<i>jesx</i> .CANCEL.GROUP	UPDATE
P	JP	-	-	-
		*RETURN	<i>jesx</i> .STOP.RETURN	CONTROL
P	J0	-	-	-
		*F U,J=	<i>jesx</i> .MODIFY.U	UPDATE
P	SO MAS	\$P	<i>jesx</i> .STOP.DEV <i>jesx</i> .STOP.SYS	UPDATE CONTROL
		\$P	<i>jesx</i> .STOP.INITIATOR	CONTROL
P	INIT	*F	<i>jesx</i> .MODIFY.G	UPDATE
		\$P	<i>jesx</i> .STOP.LINE	CONTROL
P (lines)	LI	-	-	-
		\$P	<i>jesx</i> .STOP.DEV	UPDATE
P (transmitters, receivers)	LI	-	-	-
		\$P	<i>jesx</i> .STOP.DEV	UPDATE
P	NC	-	-	-
		\$P	<i>jesx</i> .STOP.DEV	UPDATE
P	NS	-	-	-
		\$P	<i>jesx</i> .STOP.DEV	UPDATE
P	PR PUN RDR	-	-	-
		\$P	<i>jesx</i> .STOP.DEV	UPDATE
P (spool volumes)	SP	\$PSPL	<i>jesx</i> .STOP.SPOOL	CONTROL
		*F Q	<i>jesx</i> .MODIFY.Q	UPDATE
PC (spool volumes)	SP	\$PSPL	<i>jesx</i> .STOP.SPOOL	CONTROL
		-	-	-
PP (TSU jobs)	DA I ST	C U=	MVS.CANCEL. <i>type.jobname</i>	UPDATE
		\$C	<i>jesx</i> .CANCEL. <i>type</i>	
PF	CK	F <i>hcstcid</i> ,DELETE	MVS.MODIFY.STC. <i>hcproc.hcstcid</i>	UPDATE
PP (APPC transactions)	DA	C <i>jobname</i> ,A=	MVS.CANCEL. <i>type.jobname</i>	UPDATE

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
PP	DA I ST	\$C	<i>jesx.CANCEL.type</i>	UPDATE
PX	MAS	\$P	<i>jesx.STOP.SYS</i>	CONTROL
	JP	*F	<i>jesx.MODIFY.V</i>	UPDATE
Q	DA H I JDS J0 O ST			-
Q	LI	\$TLINE,D=	<i>jesx.MODIFY.LINE</i>	CONTROL
		-	-	-
R	CK	F <i>hcstcid</i> ,RUN	MVS.MODIFY.STC. <i>hcproc.hcstcid</i>	UPDATE
R <sup>RMF</sup>	DA	RESET	MVS.RESET	UPDATE
		RESET	MVS.RESET	
R	ENC			
R	SR	R	MVS.REPLY	READ
R	SE			
RQ <sup>RMF</sup>	DA	RESET	MVS.RESET	UPDATE
		RESET	MVS.RESET	
RQ	ENC			
S	INIT	\$S	<i>jesx.START.INITIATOR</i>	CONTROL
		*F	<i>jesx.MODIFY.G</i>	UPDATE
S	SO INIT MAS	\$S	<i>jesx.START.DEV</i> <i>jesx.START.SYS</i>	UPDATE CONTROL
S (members)	JP	*S	<i>jesx.START.JSS</i>	UPDATE
S (lines)	LI	\$S	<i>jesx.START.LINE</i>	CONTROL
		*S	<i>jesx.START.DEV.device</i>	
S (transmitters, receivers)	LI	\$S	<i>jesx.START.DEV</i>	UPDATE
		-	-	-
S	NC	\$S	<i>jesx.START.DEV</i>	UPDATE
		-	-	-
S	NS	\$S	<i>jesx.START.DEV</i>	UPDATE
		-	-	-
S	PR PUN RDR	\$S	<i>jesx.START.DEV</i>	UPDATE
		*S <i>device</i>	<i>jesx.START.DEV.device</i>	
S (spool volumes)	SP	\$\$SPL	<i>jesx.START.SPOOL</i>	CONTROL
Soptions	PR PUN RDR	-	-	-
		*S <i>device</i>	<i>jesx.START.DEV.device</i>	UPDATE

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
S, SB, SE	CK CKH DA H I JDS JG JS J0 O OD ST			
SBI, SBO, SEL, SEO	CK			
SJ	DA H I JDS JG JS O OD ST			
SL	LI	-	-	-
		*S	jesx.START.DEV.device	CONTROL
SM	JP	*CALL	jesx.CALL.MONITOR	UPDATE
SN	LI	\$SN	jesx.START.NET	CONTROL
		-	-	-
SN	NO	\$SN	jesx.START.NET	CONTROL
		*S	jesx.START.TCP	UPDATE
		*X	jesx.CALL.NJE	
SN	NC	\$SN	jesx.START.NET	CONTROL
		*S	jesx.START.TCP	UPDATE
		*X	jesx.CALL.NJE	
SNL, SNR	LI	-	-	-
		*S	jesx.START.DEV.device	CONTROL
SR	LI	-	-	-
		*S	jesx.START.DEV.device	CONTROL
SR	SO	\$S	jesx.START.DEV	UPDATE
SRJP	LI	-	-	-
		*S	jesx.START.RJP	UPDATE
ST	SO	\$S	jesx.START.DEV	UPDATE
ST	JC JG SE			
SX	MAS	\$S	jesx.START.SYS	CONTROL
T	PS	F	MVS.MODIFY.STC.BPXOINIT.BPXOINIT	UPDATE
U	CK	Fhcstcid,UPDATE	MVS.MODIFY.STC.hcproc.hcstcid	UPDATE
U	SP	-	-	-
		*F Q	jesx.MODIFY.Q	UPDATE
V	JDS OD			
V	JP LI PR PUN RDR	-	-	-
		*F VARY	jesx.MODIFY.V	UPDATE
VF	JP LI PR PUN RDR	-	-	-
		*F VARY	jesx.MODIFY.V	UPDATE

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
W <sup>RMF</sup>	DA I ST	\$T	jesx.MODIFY.BAT jesx.MODIFY.TSU jesx.MODIFY.STC	UPDATE
		*F J=,SPIN	jesx.MODIFY.JOB	
W	JDS	\$T	jesx.MODIFY.BAT jesx.MODIFY.TSU jesx.MODIFY.STC	UPDATE
		-	-	
X	CK CKH DA H I JDS JG JS J0 O OD ST			
X	NS	-	-	-
		*C	jesx.CALL.TCP	UPDATE
X	PR PUN	-	-	-
		*X,WTR,OUT=	jesx.CALL.dspname	UPDATE
Xoptions	PR PUN	-	-	-
		*X,WTR,OUT=	jesx.CALL.dspname	UPDATE
X	RDR	-	-	-
		*X CR,IN=device	jesx.CALL.CR	UPDATE
Xoptions	RDR	-	-	-
		*X CR,IN=device	jesx.CALL.CR	UPDATE
Y <sup>RMF</sup>	DA	STOP	MVS.STOP.type.jobname MVS.STOP.type.jobname.id	UPDATE
		STOP	MVS.STOP.type.jobname MVS.STOP.type.jobname.id	
Z	DA	FORCE	MVS.FORCE.type.jobname MVS.FORCE.type.jobname.id	CONTROL
		FORCE	MVS.FORCE.type.jobname MVS.FORCE.type.jobname.id	
Z	INIT	\$Z	jesx.HALT.INITIATOR	CONTROL
Z	NS	FORCE	MVS.FORCE.STC.servername	CONTROL
Z	PR PUN RDR	\$Z	jesx.HALT.DEV	UPDATE
		-	-	
Z	SP	\$ZSPL	jesx.HALT.SPOOL	CONTROL
ZM	MAS	\$J	jesxMON.STOP.MONITOR	CONTROL
	JP	*CANCEL	jesx.CANCEL.MONITOR	UPDATE
?	DA H I JG J0 O OD ST			

Table 85. Action Characters (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an action character does not apply in a particular environment, the command and OPERCMDS resource are shown as a hyphen (-).

Action Character	SDSF Panel	Command, JES2	OPERCMDs Resource, JES2	OPERCMDs Required Access
		Command, JES3	OPERCMDs Resource, JES3	
//	all tabular panels			
=	all tabular panels			
+	all tabular panels			
%	all tabular panels except OD			
Any	Sysplex-wide panels <sup>2</sup>	ROUTE	MVS.ROUTE	READ

Notes for Table 85 on page 226:

<sup>1</sup> SDSF uses the subsystem interface (SSI) when you enter a C, H, O, or P action character on the JDS panel. When all data sets are deleted by use of the C and P action characters on the H panel, SDSF issues \$O.

<sup>2</sup> SDSF uses the MVS ROUTE command to route commands to a system in a sysplex other than the one the user is logged on to, for these panels, when they are using SDSF's sysplex support: CK, ENC, INIT, LI, NO, PR, PS, PUN, RDR, RM and SO.

<sup>3</sup> The SAF resource varies with the JES2 resource. See "JES2 resources" on page 248.

<sup>4</sup> Refer to "Protecting action characters as separate resources" on page 224.

<sup>RMF</sup> The DA panel must be using RMF as the source of its data.

In Table 86 on page 242, many action characters have more than one OPERCMDS resource name associated with them. The names vary according to the panel. Choose the OPERCMDS resource name that is related to the panel for which action character access is being given.

Table 86. Action Characters by OPERCMDS Resource Name.

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDs Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
jesx.BACKSP.DEV	UPDATE	Bnumber	\$B	PR PUN
jesx.CALL.CR	UPDATE	X	*X CR	RDR
jesx.CALL.dspname	UPDATE	X	*X	PR PUN
jesx.CALL.MONITOR	UPDATE	SM	*X	JP
jesx.CALL.NJE	UPDATE	SN	*X	NC NO
jesx.CANCEL.DEV	UPDATE	C	\$C	PR PUN LI SO RDR
jesx.CANCEL.DEV.device	UPDATE	C	*CANCEL	LI NC NS PR PUN RDR
jesx.CANCEL.device	UPDATE	C, I	*CANCEL	LI
jesx.CANCEL.type	UPDATE	C C CA CD CDA P P PP	\$C \$CO \$C,ARMRESTART \$C,D \$C,D,ARMRESTART \$C \$CO \$C	DA I O ST H H O DA I ST <sup>1</sup> DA I ST DA I ST DA I H O ST H O DA I ST
jesx.CANCEL.type	UPDATE	P	SSI	H
jesx.CANCEL.type	UPDATE	PP (TSU jobs)	\$C	DA
jesx.CANCEL.GROUP	UPDATE	C CP P	\$C	JG
jesx.CANCEL.MONITOR	UPDATE	ZM	*CANCEL	JP
jesx.CANCEL.TCP	UPDATE	C	*CANCEL	NC
jesx.DISPLAY.resource <sup>4</sup>	READ	D	\$T	RM
jesx.DISPLAY.typeOUT	READ	L, LL	\$DO \$L	H O ST DA I
jesx.DISPLAY.type	READ	D, DL, DP	\$D	ST I DA
jesx.DISPLAY.A	READ	DL	*I	DA
jesx.DISPLAY.APPL	READ	DA	\$D	NC NS
jesx.DISPLAY.CLASS	READ	D	*I	JC
jesx.DISPLAY.D	READ	D, DL	*I	LI
jesx.DISPLAY.D	READ	D, DL	*I	PR PUN
jesx.DISPLAY.DEV	READ	D, DL	\$D	PR PUN SO RDR
jesx.DISPLAY.G	READ	D, DL	*I	INIT
jesx.DISPLAY.G	READ	DC, DG	*I	JC
jesx.DISPLAY.GROUP	READ	D	\$D	JG
jesx.DISPLAY.INITIATOR	READ	D, DL	\$D	INIT
jesx.DISPLAY.JOB	READ	D, DL	\$D	JC
jesx.DISPLAY.JOB	READ	D, L, LB, LH, LT	*I	DA I ST
jesx.DISPLAY.JOBE	READ	DE	*I	DA I ST

Table 86. Action Characters by OPERCMDS Resource Name (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDs Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
jesx.DISPLAY.JST	READ	J	\$D	SP
jesx.DISPLAY.L	READ	D	\$D	LI NC
jesx.DISPLAY.LINE	READ	D	\$D	LI NC
jesx.DISPLAY.LINE	READ	DL	\$D	NC
jesx.DISPLAY.LOGON	READ	D	\$D	NS
jesx.DISPLAY.MAIN	READ	D	*I	JP
jesx.DISPLAY.MAINX	READ	DL	*I	JP
jesx.DISPLAY.MEMBER	READ	D	\$D	MAS
jesx.DISPLAY.NETSRV	READ	D, DL	\$D *I	NS
jesx.DISPLAY.NJE	READ	D, DL	*I	NO
jesx.DISPLAY.NODE	READ	D, DC, DL, DP	\$D	NO
I jesx.DISPLAY.PROCLIB	READ	D	\$DPROCLIB	PROC
I jesx.DISPLAY.PROCLIB	READ	DD	\$DPROCLIB,DEBUG	PROC
jesx.DISPLAY.Q	READ	D, DL, J	*I Q	SP
jesx.DISPLAY.S	READ	DMA, DME, DMR, DMSS, DMSV, DMU	*I	I ST
jesx.DISPLAY.SOCKET	READ	D	\$D *I	NC
jesx.DISPLAY.SOCKET	READ	DS	\$D	NS
jesx.DISPLAY.SPOOL	READ	D, DL	\$D	SP
jesx.DISPLAY.T	READ	DE	*I	LI
jesx.DISPLAY.U	READ	D	*I U J	J0
jesx.FAIL.DEV.device	CONTROL	L	*FAIL	NS
jesx.FAIL.DEV.device	CONTROL	L, LD	*FAIL	PR RDR
jesx.FAIL.device	CONTROL	L, LD	*FAIL	LI
jesx.FAIL.dspname	CONTROL	L, LD	*FAIL	PUN
jesx.FORWARD.DEV	UPDATE	Fnumber	\$F	PR PUN
jesx.HALT.DEV jesx.HALT.INITIATOR jesx.HALT.SPOOL	UPDATE CONTROL CONTROL	Z	\$Z	PR PUN RDR INIT SP
jesx.INTERRUPT.DEV	UPDATE	I	\$I	PR PUN
jesx.MODIFY.G	UPDATE	P, S	*F	INIT
jesx.MODIFY.JOB	UPDATE	A, C, CA, CD, CDA, CDP, H, P, W	*F	DA I ST
jesx.MODIFY.JOB	UPDATE	J	*F	I ST

Table 86. Action Characters by OPERCMDS Resource Name (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDs Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
<i>jesx</i> .MODIFY. <i>type</i>	UPDATE	W	\$T	DA I JDS ST
<i>jesx</i> .MODIFY. <i>type</i> OUT	UPDATE	A H OK	\$TO	O H O H H
<i>jesx</i> .MODIFY.LINE	CONTROL	I Q	\$TLINE \$TLINE	LI
<i>jesx</i> .MODIFY.NJE	UPDATE	A, EL, H	*F	NO
<i>jesx</i> .MODIFY.Q	UPDATE	A, H, HC, HP, P, U	*F Q	SP
<i>jesx</i> .MODIFY.U	UPDATE	C, H, O, P	*F	JDS J0
<i>jesx</i> .MODIFY.V	UPDATE	PX, V, VF V, VF	*F	JP LI PR PUN RDR
<i>jesx</i> .MODIFYHOLD. <i>type</i>	UPDATE	H	\$H	DA I ST
<i>jesx</i> .MODIFYHOLD.GROUP	UPDATE	H	\$H	JG
<i>jesx</i> .MODIFYRELEASE. <i>type</i>	UPDATE	A	\$A	DA I ST
<i>jesx</i> .MODIFYRELEASE.GROUP	UPDATE	A	\$A	JG
<i>jesx</i> MON.DISPLAY.DETAIL	READ	JD	\$J	MAS
<i>jesx</i> MON.DISPLAY.HISTORY	READ	JH	\$J	MAS
<i>jesx</i> MON.DISPLAY.JES	READ	JJ	\$J	MAS
<i>jesx</i> MON.DISPLAY.MONITOR	READ	J	\$J	MAS
<i>jesx</i> MON.DISPLAY.STATUS	READ	JS	\$J	MAS
<i>jesx</i> MON.STOP.MONITOR	CONTROL	ZM	\$J	MAS
<i>jesx</i> .MSEND.CMD	READ	Any	\$M	I ST
<i>jesx</i> .RELEASE. <i>type</i> OUT	UPDATE	C O P	\$O \$O \$O	H <sup>1</sup> ST H <sup>1</sup>
<i>jesx</i> .REPEAT.DEV	UPDATE	N	\$N	PR PUN
<i>jesx</i> .RESTART.BAT	CONTROL	E (all forms)	\$E	DA I ST
<i>jesx</i> .RESTART.DEV <i>jesx</i> .RESTART.LINE <i>jesx</i> .RESTART.SYS	UPDATE CONTROL CONTROL	E, EC E	\$E	PR PUN LI SO LI MAS
<i>jesx</i> .RESTART.DEV	UPDATE	E	\$E	NC NS
<i>jesx</i> .RESTART.DEV. <i>device</i>	UPDATE	E	*R	NS
<i>jesx</i> .RESTART.DEV. <i>device</i>	UPDATE	B, E, F	*R	PR PUN
<i>jesx</i> .RESTART.DEV. <i>main</i>	CONTROL	E	*R	DA I ST
<i>jesx</i> .RESTART.LINE	CONTROL	E	\$E	NC
<i>jesx</i> .RESTART.RJP	UPDATE	E	*R	LI
<i>jesx</i> .START.BAT	UPDATE	J	\$SJ	I ST



Table 86. Action Characters by OPERCMDS Resource Name (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDs Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
<i>jesx</i> .START.DEV	UPDATE	S	\$S	NC NS PR PUN LI SO RDR
<i>jesx</i> .START.DEV	UPDATE	SR, ST	\$S	SO
<i>jesx</i> .START.DEV. <i>device</i>	CONTROL	S	*START	LI
<i>jesx</i> .START.DEV. <i>device</i>	UPDATE	S	*START	PR PUN RDR
<i>jesx</i> .START.DEV. <i>main</i>	UPDATE	C, F	*S	JP
<i>jesx</i> .START.INITIATOR	CONTROL	S	\$S	INIT
<i>jesx</i> .START.JSS	UPDATE	S	*S	JP
<i>jesx</i> .START.LINE	CONTROL	S	\$S	LI
<i>jesx</i> .START.MONITOR	UPDATE	DM	*S	JP
<i>jesx</i> .START.NET	CONTROL	SN	\$S	LI NC NO
<i>jesx</i> .START.SPOOL	CONTROL	SP	\$S	SP
<i>jesx</i> .START.SYS	CONTROL	S	\$S	MAS
<i>jesx</i> .START.TCP	UPDATE	SN	*S	NC
<i>jesx</i> .START.TCP	UPDATE	SN	*S	NO
<i>jesx</i> .STOP.DEV	UPDATE	P	\$P	NC NS PR PUN LI SO RDR
<i>jesx</i> .STOP.INITIATOR	CONTROL	P	\$P	INIT
<i>jesx</i> .STOP.LINE	CONTROL	P	\$P	LI
<i>jesx</i> .STOP.SPOOL	CONTROL	P, PC	\$P	SP
<i>jesx</i> .STOP.SYS	CONTROL	P	\$P	MAS
<i>jesx</i> .STOP.RETURN	CONTROL	P	*RETURN	JP
MVS.CANCEL. <i>type.jobname</i>	UPDATE	C CD K, KD P PP	C U= <i>userid</i> C U=, DUMP C <i>jobname</i> ,A= <i>asid</i> C U= <i>userid</i> C U= <i>userid</i> C <i>jobname</i> ,A= <i>asid</i> <sup>2</sup>	DA
MVS.CANCEL. <i>type.jobname</i>	UPDATE	C	C U= <i>userid</i> C <i>jobname</i> ,A= <i>asid</i>	PS
MVS.CANCEL.STC. <i>servername</i>	CONTROL	K, KD	C	NS
MVS.CONTROL.C	READ	C	K C	SR
I MVS.DISPLAY.ALLOC	READ	DALO	D ALLOC,OPTIONS	SYS
I MVS.DISPLAY.ASM	READ	D	D ASM,PAGE=	PAG
	READ	DC	D ASM,COMMON	PAG
	READ	DD	D ASM,PAGEDEL	PAG
	READ	DL	D ASM,LOCAL	PAG
	READ	DP	D ASM,PLPA	PAG
	READ	DS	D ASM,SCM	PAG

Table 86. Action Characters by OPERCMDS Resource Name (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDS Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
I MVS.DISPLAY.CEE	READ	DCEE	D CEE,ALL	SYS
I MVS.DISPLAY.CONSOLES	READ	DC	D C	SYS
I MVS.DISPLAY.DUMP	READ	DD	D D,E	SYS
I MVS.DISPLAY.EMCS	READ	DEM	D EMCS	SYS
I MVS.DISPLAY.GRS	READ	D	D GRS,HEX,RES=	ENQ
	READ	DG	D GRS,SYSTEM	SYS
I MVS.DISPLAY.IKJTSO	READ	DTO	D IKJTSO	SYS
I MVS.DISPLAY.IOS	READ	DI	D IOS,CONFIG	SYS
I MVS.DISPLAY.IQP	READ	DIQP	D IQP	SYS
I MVS.DISPLAY.JOB	READ	DTS	D TS,L	SYS
	READ	DAA	D A,ALL	SYS
	READ	DAL	D A,L	SYS
I MVS.DISPLAY.LLA	READ	DLL	D LLA	SYS
I MVS.DISPLAY.LOGGER	READ	DLO	D LOGGER	SYS
I MVS.DISPLAY.LOGREC	READ	DLR	D LOGREC	SYS
I MVS.DISPLAY.M	READ	DM	D M	SYS
I MVS.DISPLAY.MPF	READ	DMP	D MPF	SYS
I MVS.DISPLAY.OMVS	READ	D	D	SP
	READ	DO	OMVS,O	SYS
I MVS.DISPLAY.PARMLIB	READ	DE	D PARMLIB,ERRORS	PARM
	READ	D	D PARMLIB	PARM
I MVS.DISPLAY.PCIE	READ	DPCD	D PCIE,DD	SYS
	READ	DPCI	D PCIE	SYS
I MVS.DISPLAY.PROD	READ	DP	D PROD,REG	SYS

Table 86. Action Characters by OPERCMDS Resource Name (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDS Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
I MVS.DISPLAY.PROG	READ	D	D PROG,APF,DSNAME=	APF
	READ	D	D PROG,EXIT,EX=	DYNX
	READ	D	D PROG,LNKLST,NAME=	LNK
	READ	DA	D PROG,APF,ALL	APF
	READ	DA	D PROG,EXIT,ALL	DYNX
	READ	DAI	D PROG,EXIT,ALL,IMPLICIT	DYNX
	READ	DD	D PROG,EXIT,EX=,DIAG	DYNX
	READ	DI	D PROG,EXIT,INSTALLATION	DYNX
	READ	DN	D PROG,LNKST,NAMES	LNK
	READ	DNP	D PROG,EXIT,NOTPROGRAM	DYNX
	READ	DP	D PROG,EXIT,PROGRAM	DYNX
MVS.DISPLAY.R	READ	D	D	SR
I MVS.DISPLAY.SLIP	READ	DSL	D SLIP	SYS
I MVS.DISPLAY.SMF	READ	DSF	D SMF,O	SYS
I MVS.DISPLAY.SMS	READ	DSM	D SMS	SYS
I MVS.DISPLAY.SYMBOLS	READ	DSY	D SYMBOLS	SYS
	READ	DL	D SYMBOLS	SYM
MVS.DISPLAY.TCPIP	READ	D	D	JD
I MVS.DISPLAY.TIMEDATE	READ	DT	D T	SYS
I MVS.DISPLAY.TRACE	READ	DTR	D TRACE	SYS
I MVS.DISPLAY.XCF	READ	D	D	JD
	READ	DX	D XCF	SYM
MVS.FORCE.type.jobname MVS.FORCE.type.jobname.id	CONTROL	Z	FORCE	DA
MVS.FORCE.STC.servoername	CONTROL	Z	FORCE	NS
MVS.MODIFY.STC.fssproc.fssname	UPDATE	K	F	PR
MVS.MODIFY.STC.hcproc.hcstcid	UPDATE	A, D, DL, DP, DPO, DS, E, H, P, PF, R, U	F	CK
MVS.MODIFY.STC.BPXOINIT.BPXOINIT	UPDATE	K, T	F	PS
I MVS.DISPLAY.WLM	READ	D	D	SE RES
	READ	DW	D WLM	SYS
MVS.RESET	UPDATE	R	RESET	DA <sup>RMF</sup>
MVS.RESET	UPDATE	RQ	RESET	DA <sup>RMF</sup>
MVS.REPLY	READ	R	R	SR

Table 86. Action Characters by OPERCMDS Resource Name (continued).

Replace **jesx** with the name of the targeted JES subsystem, for example, JES2.

Replace **type** with BAT (batch jobs), STC (started tasks), or TSU (TSO users). For APPC transactions, replace **type** with STC for transaction SYSOUT on the H and O panels, or ATX for transactions on the DA, I, and ST panels.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the JES/MVS Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

OPERCMDs Resource Name	Required Access	Action Character	JES/MVS Command	SDSF Panel
MVS.ROUTE	READ	Any	ROUTE	DA ENC INIT LI NO MAS PR PS PUN RDR SO <sup>3</sup>
MVS.SETAUTOR.AUTOR	READ	AI	SETAUTOR	SR
MVS.STOP.type.jobname MVS.STOP.type.jobname.id	UPDATE	Y	STOP	DA <sup>RMF</sup>

Notes for Table 86 on page 242:

<sup>1</sup> This occurs only on a secondary JES system.

<sup>2</sup> This form of the CANCEL command is issued against APPC transaction programs.

<sup>3</sup> SDSF uses the MVS ROUTE command to route commands to a system in a sysplex other than the one the user is logged on to, for these panels, when they are showing sysplex-wide data: CK, ENC, INIT, LI, NO, PR, PS, PUN, RDR, RM and SO.

<sup>4</sup> The SAF resource varies with the JES2 resource. See "JES2 resources."

<sup>RMF</sup> The DA panel must be using RMF as the source of its data.

## JES2 resources

The following table shows the SAF resources in the OPERCMDS class for the JES2 resources displayed on the RM panel.

Table 87. OPERCMDS Resources That Protect Issuing Action Characters for JES2 Resources

JES2 Resource	OPERCMDs Resource	Required Access
BERT	jesx.DISPLAY.CKPTSPACE	READ
BSCB	jesx.DISPLAY.TPDEF	READ
BUFX	jesx.DISPLAY.BUFDEF	READ
CKVR	jesx.DISPLAY.CKPTDEF	READ
CMBS	jesx.DISPLAY.CONDEF	READ
CMDS	jesx.DISPLAY.CONDEF	READ
ICES	jesx.DISPLAY.TPDEF	READ
JNUM	jesx.DISPLAY.JOBDEF	READ
JOES	jesx.DISPLAY.OUTDEF	READ
JQES	jesx.DISPLAY.JOBDEF	READ
LBUF	jesx.DISPLAY.BUFDEF	READ
NHBS	jesx.DISPLAY.NJEDEF	READ

Table 87. OPERCMDS Resources That Protect Issuing Action Characters for JES2 Resources (continued)

JES2 Resource	OPERCMDS Resource	Required Access
SMFB	<i>jesx.DISPLAY.SMFDEF</i>	READ
TBUF	Not applicable	
TGS	<i>jesx.DISPLAY.SPOOLDEF</i>	READ
TTAB	<i>jesx.DISPLAY.TRACEDEF</i>	READ
VTMB	<i>jesx.DISPLAY.TPDEF</i>	READ

## Authorized program facility data sets

### Protecting authorized program facility data sets

Protect authorized program facility data sets by defining resource names in the SDSF class. The resources are shown in Table 88.

Table 88. SAF Resources for Authorized Program Facility Data Sets

Action Characters and Overtypes	Resource Name	Class	Access Required
D	<i>ISFAPF.datasetname</i>	SDSF	READ
DA	<i>ISFAPF.datasetname</i>	SDSF	READ

To control access to the APF panel, protect the APF command. This is described in “Authorized SDSF commands.”

### Example of protecting authorized program facility data sets

To protect all authorized program facility data sets and permit a user to control them, define a generic profile as follows:

```
REDEFINE SDSF ISFAPF.** UACC(NONE)
PERMIT ISFAPF.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

## Authorized SDSF commands

The authorized SDSF commands are the SERVER parameter on the SDSF command, and the SDSF commands that can be on the AUTH parameter in ISFPARMS, with the addition of OWNER, which can only be protected through SAF. If no SAF protection exists for the OWNER command, then all users can issue the OWNER command.

Only those SDSF panel commands (such as DA, I, and O) for which the user is authorized are displayed on the SDSF Primary Option Menu.

### Protecting SDSF commands

Protect authorized SDSF commands by defining resource names in the SDSF class.

SDSF authorized commands and their resource names are listed in Table 89 on page 250. All commands are valid in the JES2 environment; only those commands indicated in the table are valid in the JES3 environment.

Some commands (AS, APF, DYNX, ENQ, LNK, LPA, PAG, PARM, PROC, SYM, and SYS) require use of the SDSFAUX address space. Access to SDSFAUX is controlled through access to the ISF.CONNECT.sysname resource. The user must be permitted to this resource in addition to the resources that protect the individual commands.

Table 89. SDSF Class Resource Names and SDSF Commands

Command	SDSF Class Resource Name	Class	Required Access
ABEND	ISFCMD.MAINT.ABEND	SDSF	READ
APF	ISFCMD.ODSP.APF. <i>system</i>	SDSF	READ
	ISF.CONNECT. <i>sysname</i>	SDSF	READ
AS	ISFCMD.ODSP.AS. <i>system</i>	SDSF	READ
	ISF.CONNECT. <i>sysname</i>	SDSF	READ
ACTION	ISFCMD.FILTER.ACTION	SDSF	READ
CK	ISFCMD.ODSP.HCHECKER. <i>system</i>	SDSF	READ
DA	ISFCMD.DSP.ACTIVE. <i>jesx</i>	SDSF	READ
DEST	ISFCMD.FILTER.DEST	SDSF	READ
DYNX	ISFCMD.ODSP.DYNX. <i>system</i>	SDSF	READ
	ISF.CONNECT. <i>sysname</i>	SDSF	READ
ENC	ISFCMD.ODSP.ENCLAVE. <i>system</i>	SDSF	READ
ENQ	ISFCMD.ODSP.ENQUEUE. <i>system</i>	SDSF	READ
	ISF.CONNECT. <i>sysname</i>	SDSF	READ
FINDLIM	ISFCMD.FILTER.FINDLIM	SDSF	READ
H	ISFCMD.DSP.HELD. <i>jesx</i>	SDSF	READ
I	ISFCMD.DSP.INPUT. <i>jesx</i>	SDSF	READ
INIT	ISFCMD.ODSP.INITIATOR. <i>jesx</i>	SDSF	READ
INPUT	ISFCMD.FILTER.INPUT	SDSF	READ
JC	ISFCMD.ODSP.JOBCLASS. <i>jesx</i>	SDSF	READ
JESNAME parameter on SDSF command	ISFCMD.OPT.JESNAME	SDSF	READ
JES3NAME parameter on SDSF command	ISFCMD.OPT.JES3NAME	SDSF	READ
JG (JES2 only)	ISFCMD.DSP.JGROUP. <i>jesx</i>	SDSF	READ
JP and MAS	ISFCMD.ODSP.MAS. <i>jesx</i>	SDSF	READ
J0 (JES3 only)	ISFCMD.ODSP.JOB0. <i>jesx</i>	SDSF	READ
LI	ISFCMD.ODSP.LINE. <i>jesx</i>	SDSF	READ
LNK	ISFCMD.ODSP.LNK. <i>system</i>	SDSF	READ
	ISF.CONNECT. <i>sysname</i>	SDSF	READ
LOG	ISFCMD.ODSP.SYSLOG. <i>jesx</i>	SDSF	READ
LPA	ISFCMD.ODSP.LPA. <i>system</i>	SDSF	READ
	ISF.CONNECT. <i>sysname</i>	SDSF	READ
MAS and JP	ISFCMD.ODSP.MAS. <i>jesx</i>	SDSF	READ
NC	ISFCMD.ODSP.NC. <i>jesx</i>	SDSF	READ
NO	ISFCMD.ODSP.NODE. <i>jesx</i>	SDSF	READ

Table 89. SDSF Class Resource Names and SDSF Commands (continued)

Command	SDSF Class Resource Name	Class	Required Access
NS	ISFCMD.ODSP.NS.jesx	SDSF	READ
O	ISFCMD.DSP.OUTPUT.jesx	SDSF	READ
OWNER	ISFCMD.FILTER.OWNER	SDSF	READ
I PAG	ISFCMD.ODSP.PAGE.system	SDSF	READ
	ISF.CONNECT.sysname	SDSF	READ
I PARM	ISFCMD.ODSP.PARMLIB.system	SDSF	READ
	ISF.CONNECT.sysname	SDSF	READ
PR	ISFCMD.ODSP.PRINTER.jesx	SDSF	READ
PREFIX	ISFCMD.FILTER.PREFIX	SDSF	READ
I PROC (JES2 only)	ISFCMD.ODSP.PROCLIB.jesx	SDSF	READ
	ISF.CONNECT.sysname	SDSF	READ
PS	ISFCMD.ODSP.PROCESS.system	SDSF	READ
PUN	ISFCMD.ODSP.PUNCH.jesx	SDSF	READ
RDR	ISFCMD.ODSP.READER.jesx	SDSF	READ
RES	ISFCMD.ODSP.RESOURCE.system	SDSF	READ
RM (JES2 only)	ISFCMD.ODSP.RESMON.jesx	SDSF	READ
RSYS	ISFCMD.FILTER.RSYS	SDSF	READ
SE	ISFCMD.DSP.SCHENV.system	SDSF	READ
SERVER parameter on SDSF command	ISFCMD.OPT.SERVER	SDSF	READ
SO (JES2 only)	ISFCMD.ODSP.SO.jesx	SDSF	READ
SP	ISFCMD.ODSP.SPOOL.jesx	SDSF	READ
SR	ISFCMD.ODSP.SR.system	SDSF	READ
ST	ISFCMD.DSP.STATUS.jesx	SDSF	READ
I SYM	ISFCMD.DSP.SYMBOL.system	SDSF	READ
	ISF.CONNECT.sysname	SDSF	READ
I SYS	ISFCMD.ODSP.SYSTEM.system	SDSF	READ
	ISF.CONNECT.sysname	SDSF	READ
SYSID	ISFCMD.FILTER.SYSID	SDSF	READ
SYSNAME	ISFCMD.FILTER.SYSNAME	SDSF	READ
TRACE	ISFCMD.MAINT.TRACE	SDSF	READ
ULOG	ISFCMD.ODSP.ULOG.jesx	SDSF	READ

The DEST command is protected like any other SDSF authorized command, but you can also protect the destination names used with the DEST command. What is actually shown on the tabular SDSF panels can be affected by your destination authority, as explained in “Destination names” on page 253.

## Setting up generic profiles

You can set up different levels of generic profiles to allow use of different kinds of SDSF commands:

Generic Profile	Type of Command	Protects
ISFCMD.**	All	All SDSF authorized commands
ISFCMD.MAINT.*	Maintenance commands	ABEND, TRACE
ISFCMD.DSP.*	End user displays	DA, H, I, O, ST, SE, SYM
ISFCMD.ODSP.*	Operator displays	APF, AS, CK, DYNX, ENC, ENQ, INIT, JC, JP, J0, LI, LNK, LOG, LPA, MAS, NC, NO, NS, PAG, PARM, PR, PROC, PS, PUN, RDR, RES, RM, SO, SP, SR, SYS, ULOG
ISFCMD.FILTER.*	Filtering commands	ACTION, DEST, FINDLIM, INPUT, OWNER, PREFIX, RSYS, SYSID, SYSNAME
ISFCMD.OPT.**	Parameters on the SDSF command	SERVER

## Examples of protecting commands

- To protect all commands and grant access to user SHERRYF, issue the following:  

```
RDEFINE SDSF ISFCMD.** UACC(NONE)
PERMIT ISFCMD.** CLASS(SDSF) ID(SHERRYF) ACCESS(READ)
```
- To allow access only to the DA, H, I, O, SE and ST panels, issue the following:  

```
RDEFINE SDSF ISFCMD.DSP.** UACC(NONE)
PERMIT ISFCMD.DSP.** CLASS(SDSF) ID(SHERRYF) ACCESS(READ)
```
- To protect the DA command, issue the following:  

```
RDEFINE SDSF ISFCMD.DSP.ACTIVE.jesx UACC(NONE)
PERMIT ISFCMD.DSP.ACTIVE.jesx CLASS(SDSF) ID(SHERRYF) ACCESS(READ)
```

## Checks on the CK and CKH panels

You can protect the checks from IBM Health Checker for z/OS that are displayed on the CK and CKH panels.

## Protecting checks

Protect checks by defining resource names in the XFACILIT class. The resources are shown in Table 90.

Table 90. Authority Required to Checks for Actions and Overtypes

Action Character or Overtypable Field	Panel	Resource Name	Class	Access
A action character	CK	HZS.sysname.checkowner.checkname.ACTIVATE	XFACILIT	UPDATE
D action character	CK	HZS.sysname.checkowner.checkname.QUERY	XFACILIT	READ
E action character	CK	HZS.sysname.checkowner.checkname.REFRESH	XFACILIT	CONTROL
H action character	CK	HZS.sysname.checkowner.checkname.DEACTIVATE	XFACILIT	UPDATE
P action character	CK	HZS.sysname.checkowner.checkname.DELETE	XFACILIT	CONTROL
R action character	CK	HZS.sysname.checkowner.checkname.RUN	XFACILIT	UPDATE
S and X action characters	CK, CKH	HZS.sysname.checkowner.checkname.MESSAGES	XFACILIT	READ



Table 90. Authority Required to Checks for Actions and Overtypes (continued)

Action Character or Overtypable Field	Panel	Resource Name	Class	Access
U action character and all overtypeable fields	CK	HZS.sysname.checkowner.checkname.UPDATE	XFACILIT	UPDATE

Protect access to the log stream that is used to record check history by defining a resource in the LOGSTRM class.

Table 91. Authority Required to the Log Stream Used for Check History

Action Character or Overtypable Field	Resource Name	Class	Access
L action character on the CK panel	log-stream-name	LOGSTRM	READ

To protect the MVS commands generated by action characters and overtypeable fields on the CK panel, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the CK and CKH panels, protect the CK command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting checks

To protect all checks and permit a user to control the checks, you can define generic profiles as follows:

```
RDEFINE XFACILIT HZS.** UACC(NONE)
PERMIT HZS.** CLASS(XFACILIT) ID(userid or groupid) ACCESS(CONTROL)
```

## Destination names

You can protect destination names that are used on the DEST command and the IDEST parameter of ISFPARMS.

You can also give users operator authority by destination to jobs, output groups, and SYSIN/SYSOUT data sets without explicitly authorizing the users to the JESSPOOL resources. For more information see “Destination operator authority” on page 254.

The DEST command is protected like any other SDSF authorized command; see “Authorized SDSF commands” on page 249.

## Protecting destination names

You use two resources:

- ISFOPER.ANYDEST.jesx
- ISFAUTH.DEST.destname

You must define the ISFOPER.ANYDEST.jesx resource before defining any ISFAUTH.DEST.destname resources. Otherwise, unexpected authorization results may occur.

The resources are described in Table 92 on page 254.

Table 92. Authority Required for Destination Names

Object	Resource Names	Class	Access
Any destination name on the DEST command or IDEST list	ISFOPER.ANYDEST. <i>jesx</i>	SDSF	READ
Specific destination names on the DEST command or IDEST list	ISFAUTH.DEST. <i>destname</i>	SDSF	READ

In the table,

*jesx*

is the name of the JES subsystem. For example, it might be *JES2*, *JESA*, or, to protect all JES2 subsystems, *JES%*.

*destname*

is a destination name in the standard form: ISFAUTH.DEST.Nx.Rx

## Initializing destinations

Each SDSF user should have a set of default destinations. SDSF uses these default destinations to:

- Initialize the SDSF panels
- Respond to a DEST command that is entered with no parameters

When no default destinations are defined, the user's destination filter is set to blanks or the character string ????????, and no jobs appear on the tabular SDSF panels. To establish the default destinations you can:

- Use the IDEST parameter in ISFPARMS. Refer to “Group function parameters reference” on page 39 for more information.
- Give the user access to all destinations with the ISFOPER.ANYDEST.*jesx* resource.
- Give the user access to specific destinations with the ISFAUTH.DEST.*destname* resource.

If you don't define default destinations with the IDEST parameter, give the user authority to issue the DEST command. DEST allows the user to define a default set of destinations. The command only has to be entered once, as SDSF saves the values across sessions.

## Example of protecting destination names

To allow USER1 unlimited use of all destination names, define the following profile and give the user READ authority:

```
RDEFINE SDSF ISFOPER.ANYDEST.jesx UACC(NONE)
PERMIT ISFOPER.ANYDEST.jesx CLASS(SDSF) ID(USER1) ACCESS(READ)
```

Then, to restrict the use of the destination names for USER2, define profiles for a specific destination name and give that user READ authority to only that resource:

```
RDEFINE SDSF ISFAUTH.DEST.RMT1 UACC(NONE)
PERMIT ISFAUTH.DEST.RMT1 CLASS(SDSF) ID(USER2) ACCESS(READ)
```

---

## Destination operator authority

You can give operators access to jobs, output groups, or SYSIN/SYSOUT data sets for a particular destination, without authorizing the operators to those jobs, output groups, or SYSIN/SYSOUT data sets through the JESSPOOL class.

This *destination operator authority* is the equivalent of specifying DEST for CMDAUTH and ADEST for DSPAUTH in ISFPARMS. This is also used for authorizing destinations as described in “Destination names” on page 253.

To provide destination operator authority you:

1. Give the user READ authority to the ISFOPER.DEST.jesx profile in the SDSF class. This identifies a user as a destination operator for the SDSF session.
2. Give the user authorization for the profiles that protect destinations for jobs, output groups, and data sets.

The ability to modify output descriptors (Address, Building and so on) on the JDS and OD panels in a JES3 environment cannot be granted using destination operator authority. You must use the resources in the JESSPOOL class, as described in “Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260.

## Protecting operator authority by destination

The resources are shown in Table 93.

Table 93. Authority Required for Destination Operator Authority

Action Characters and Overtypable Fields	Resource Name	Class	Access
//, =, +, ? or Q action characters on the DA, H, I, JDS, J0, O, OD, and ST panels	No security checking is done.	N/A	N/A
S, X, or V action characters on the H, I, JDS, J0, O, OD, and ST panels	ISFOPER.DEST.jesx ISFAUTH.DEST.destname.DATASET.dsname	SDSF	READ READ
S, X, or V action characters on the DA panel	ISFOPER.DEST.jesx ISFAUTH.DEST..DATASET.dsname	SDSF	READ READ
D or L action characters on the H, I, O, and ST panels	ISFOPER.DEST.jesx ISFAUTH.DEST.destname	SDSF	READ READ
D or L action characters on the DA panel	ISFOPER.DEST.jesx ISFAUTH.DEST.	SDSF	READ READ
All others on the H, I, JDS, J0, O, OD, and ST panels	ISFOPER.DEST.jesx ISFAUTH.DEST.destname	SDSF	READ ALTER
All others on the DA panel	ISFOPER.DEST.jesx ISFAUTH.DEST.	SDSF	READ ALTER

If the user does not have authority to both of the required resources, then the user must have access to the individual job or data set defined in the JESSPOOL class.

If your installation is performing SECLABEL checking, a user must be logged on with the appropriate SECLABEL in order to access the JESSPOOL resources even if the user has operator authorization. For more information about SECLABEL checking, see *z/OS Security Server RACF Security Administrator's Guide* .

The authority level (READ or ALTER) must be the same as the authority for the JESSPOOL resources, as described in “Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260.

### Reverting to ISFPARMS from SAF

In most cases, when SAF cannot make a decision, SDSF reverts to ISFPARMS to determine authorization. However, ISFPARMS corresponding to destination

operator authority (such as CMDAUTH=DEST and DSPAUTH=ADEST in ISFPARMS) will be bypassed when SDSF reverts to ISFPARMS if:

- The user is authorized to access the ISFOPER.DEST.*jesx* resource but is not authorized to access the ISFAUTH.DEST.*destname*, ISFAUTH.DEST..*DATASET.dsname* or ISFAUTH.DEST.*destname*.*DATASET.dsname* resource
- The SDSF resource ISFOPER.DEST.*jesx* is defined, but the user is not authorized to access the resource. If SAF denies operator authority to a user, ISFPARMS does not override that decision.

## Dynamic exit information

### Protecting dynamic exits

Protect dynamic exits by defining resource names in the SDSF class. The resources are shown in Table 94.

Table 94. SAF Resources for Dynamic Exits

Action Characters and Overtypes	Resource Name	Class	Access Required
D	ISFDYNX. <i>exitname</i>	SDSF	READ
DA	ISFDYNX. <i>exitname</i>	SDSF	READ
DAI	ISFDYNX. <i>exitname</i>	SDSF	READ
DD	ISFDYNX. <i>exitname</i>	SDSF	READ
DI	ISFDYNX. <i>exitname</i>	SDSF	READ
DNP	ISFDYNX. <i>exitname</i>	SDSF	READ
DP	ISFDYNX. <i>exitname</i>	SDSF	READ

To control access to the DYNX panel, protect the DYNX command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting dynamic exits

To protect dynamic exits and permit a user to control it, define a generic profile as follows:

```
REDEFINE SDSF ISFDYNX.** UACC(NONE)
PERMIT ISFDYNX.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

## Enclaves

### Protecting enclaves

Protect enclaves by defining resource names in the SDSF class. The resources are shown in Table 95.

Table 95. SAF Resources for Enclaves

Action Characters and Overtypes	Resource Name	Class	Access Required
R and RQ action characters and SrvClass overtype	ISFENC. <i>subsystem-type.subsystem-name</i>	SDSF	ALTER

To control access to the ENC panel, protect the ENC command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting enclaves

To protect all enclaves and permit a user to control them, define a generic profile as follows:

```
RDEFINE SDSF ISFENC.** UACC(NONE)
PERMIT ISFENC.** CLASS(SDSF) ID(userid) ACCESS(ALTER)
```

## Enqueue information

### Protecting Enqueue Information

Protect enqueue information by defining resource names in the SDSF class. The resources are shown in Table 96.

Table 96. SAF Resources for Enqueue Information

Action Characters and Overtypes	Resource Name	Class	Access Required
D	ISFENQ.majorname.sysname	SDSF	READ

To control access to the ENQ panel, protect the ENQ command. This is described in “Authorized SDSF commands” on page 249.

To protect the N action character to display enqueues from the DA panel, protect the ENQ command. This is described in “Authorized SDSF commands” on page 249. The N action is valid only in the interactive environment. It is not supported in REXX, Java, or the z/OSMF. You can obtain this information by invoking the ENQ panel directly and implementing logic to filter by ASID.

### Example of protecting enqueue information

To protect enqueue information and permit a user to control it, define a generic profile as follows:

```
REDEFINE SDSF ISFENQ.** UACC(NONE)
PERMIT ISFENQ.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

## Initiators

You can protect the initiators that are displayed on the INIT panel.

### Protecting initiators

Protect initiators by defining resource names in the SDSF class. The resources are shown in Table 97.

Table 97. Authority Required to Initiator Resource for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D action character	ISFINIT.I(xx).jesx	SDSF	READ
All others except the JD and JM action characters	ISFINIT.I(xx).jesx	SDSF	CONTROL

In the table, *jesx* is the name of the JES subsystem the initiator is on.

To protect the MVS or JES commands generated by action characters or overtypable fields, see “Tables of action characters” on page 225 and “Tables of overtypable fields” on page 274.

No SDSF resource protects the initiator for the JD and JM action characters. Refer to “Protecting action characters as separate resources” on page 224

To control access to the INIT panel, protect the INIT command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting initiators

To protect all initiators and permit a user to control the initiators, define a generic profile as follows:

```
RDEFINE SDSF ISFINIT.** UACC(NONE)
PERMIT ISFINIT.** CLASS(SDSF) ID(userid) ACCESS(CONTROL)
```

---

## JES2 resources on the RM panel

You can protect the JES2 resources that are displayed on the RM panel (JES2 only).

### Protecting JES2 resources

Protect the JES2 resources by defining resource names in the SDSF class. The resources are shown in Table 98.

Table 98. Authority Required to JES2 Resources for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D action characters	ISFRM.resource.jesx	SDSF	READ
All others	ISFRM.resource.jesx	SDSF	CONTROL

The values for *resource* are:

- BERT** block extension reuse table
- BSCB** bisynchronous buffers
- BUFX** extended logical buffers
- CKVR** checkpoint versions
- CMBS** console message buffers
- CMDS**  
console message buffers for command processing
- ICES** SNA interface control elements
- LBUF** logical buffers
- JNUM** job numbers
- JQES** job queue elements
- JOES** job output elements
- NHBS** NJE header/trailer buffers
- SMFB** system management facilities buffers
- TGS** spool space/track groups

**TTAB** trace tables

**VTMB**  
VTAM® buffers

To protect the MVS commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the RM panel, protect the RM command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting JES2 resources

To protect all JES2 resources and permit a user to control them, you can define generic profiles as follows:

```
RDEFINE SDSF ISFRM.** UACC(NONE)
PERMIT ISFRM.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## Job classes

You can protect the job classes that are displayed on the JC panel.

### Protecting job classes

Protect job classes by defining resource names in the SDSF class. The resources are shown in Table 99.

Table 99. Authority Required to Job Class Resource for Actions and Overtypes

Action Character or Overtimeable Field	Resource Name	Class	Access
D and ST action characters	ISFJOBCL.class.jesx	SDSF	READ
Overtypes	ISFJOBCL.class.jesx	SDSF	CONTROL

To protect the MVS or JES commands generated by action characters or overtypeable fields, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To protect the ST action character, protect the ST command. To control access to the JC panel, protect the JC command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting job classes

To protect all job classes and permit a user to control them, define a generic profile as follows:

```
RDEFINE SDSF ISFJOBCL.** UACC(NONE)
PERMIT ISFJOBCL.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## Job devices

You can protect the job devices that are displayed on the Job Device panel.

### Protecting job devices

Protect devices being used by a job by defining resource names in the SDSF class. The resources are shown in Table 100 on page 260.

Table 100. SAF Resources for Job Devices

Action Characters	Resource Name	Class	Access Required
D (all forms)	ISFJDD. <i>type.sysname</i>	SDSF	READ

In the table, *type* is the type of device: DD (DD allocation), IP (TCP/IP connection), or CF (coupling facility connection).

## Example of protecting job devices

To protect all job devices and permit a user to display them, define a generic profile as follows:

```
RDEFINE SDSF ISFJDD.** UACC(NONE)
PERMIT ISFJDD.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

## Jobs, job groups, output groups, and SYSIN/SYSOUT data sets

JES uses the JESSPOOL class to protect SYSIN/SYSOUT data sets and the EVENTLOG, which SDSF uses to display job step information. SDSF extends the use of the JESSPOOL class to protect SDSF job and output group resources as well.

SDSF checks a user's SAF authorization to:

- Job resources on the Display Active Users, Input Queue, and Status panels
- Job groups on the Job Group panel
- Output groups on the Held Output Queue, Job Data Set, Output Queue, and Output Descriptors panels
- SYSIN/SYSOUT data sets on the Job Data Set panel, Job 0 panel, and any other panel used for browsing with the S or V action characters and printing with the X action character
- The JES EVENTLOG data set, used for job step information on the Job Step panel.

Controlling access to the commands that display jobs, job groups and output is described in "Authorized SDSF commands" on page 249.

Protection for each type of resource can be defined separately, so that, for example, a user may be authorized to issue action characters for a job, but not be authorized to browse that job's data sets. Users can always access the JESSPOOL resources they own; they do not need additional authority to work with their own jobs and output.

## Protecting jobs, job groups, output groups, and SYSIN/SYSOUT data sets

### SDSFAUX-based Job Memory and Job Device panels

As of SDSF V2R2 SPE3 (PI60412), the internal implementation of the JD and JM panels is being changed to use SDSFAUX. The original V2R2 implementation restricts the JD and JM actions to jobs running under JES. The new implementation removes this restriction and allows JD and JM to be issued for any active address space.

Because JD can now be issued for any address space, the user must have read access in the SDSF class to **ISFJOB.DDNAME.owner.jobname.system**. Similarly, for JM



the user must have read access in the SDSF class to **ISFJOB.STORAGE.owner.jobname.system**. For both, if the job has no owner, ++++++++ is used. The JESSPOOL resource is no longer checked.

## Original panel implementation

The JESSPOOL resources are described in Table 101.

Table 101. Authority Required to JESSPOOL Resources

Action Character or Overtypable Field	Resource Name	Class	Access
//, =, +, ? or Q action characters on the job and output panels	No security checking is done.		
S or X action characters on the DA, H, I, JS, J0, O, OD, and ST panels, and S, X or V action characters on the JDS panel	<i>nodeid.userid.jobname.jobid.Ddsid.dsname</i>	JESSPOOL	READ
S, SJ or X action characters on the JG panel	<i>nodeid.userid.groupname.groupid</i>	JESSPOOL	READ
SJ action character on the DA, H, I, JDS, JS, O, OD, and ST panels	<i>nodeid.userid.jobname.jobid.JCL</i>	JESSPOOL	READ
SB and SE action characters on the DA, H, I, JDS, J0, O, OD, and ST panels	<i>nodeid.userid.jobname.jobid.JESMSG LG</i> <i>nodeid.userid.jobname.jobid.JESYSMSG</i>	JESSPOOL	READ
SB and SE action characters on the JS panel	<i>nodeid.userid.jobname.jobid.Ddsid.dsname</i>	JESSPOOL	READ
D or L action characters on the DA, I, and ST panels	<i>nodeid.userid.jobname.jobid</i>	JESSPOOL	READ
D or L action characters on the H and O panels (JES2 only)	<i>nodeid.userid.jobname.jobid.GROUP.ogroupid</i>	JESSPOOL	READ
D action character on the JG panel	<i>nodeid.userid.groupname.groupid</i>	JESSPOOL	READ
Overtyping output descriptors on the JDS, J0 (JES3) and OD panels	<i>nodeid.userid.jobname.jobid.Ddsid.dsname</i>	JESSPOOL	ALTER
JS action character on the DA, H, I, O and ST panels	<i>nodeid.userid.jobname.jobid.EVENTLOG.SMFSTEP</i> <i>nodeid.userid.jobname.jobid.EVENTLOG.STEPDATA</i>	JESSPOOL	READ
	Refer to "Job step data" on page 263.		
All others on the DA, I, and ST panels	<i>nodeid.userid.jobname.jobid</i>	JESSPOOL	ALTER
All others on the JDS, J0, and OD panels, and on the H and O panels (JES2 only)	<i>nodeid.userid.jobname.jobid.GROUP.ogroupid</i>	JESSPOOL	ALTER
All others on the JG panel	<i>nodeid.userid.groupname.groupid</i>	JESSPOOL	ALTER

In the table,

*nodeid*

is the NJE node ID of the target JES subsystem.

*userid*  
is the local user ID of the job owner.

*jobname*  
is the name of the job.

*jobid*  
is the JES job ID of the:

- job (for jobs on DA, I, and ST)
- job with which the output group is associated (for output groups on H, O, JDS, and OD)
- job with which the data set is associated (for SYSIN or SYSOUT data sets)

This contains the type of object that the job is (TSU, JOB, or STC), as well as the job number.

*GROUP*  
is the character string GROUP.

*ogroupid*  
is the output group name as specified through the GRPID=keyword on the MVS //OUTPUT statement describing the group.

*Ddsid*  
is the data set ID number that identifies the job data set prefixed by the required letter D.

*dsname*  
is the user-specified or system-assigned data set name.

*groupname*  
is the name of the job group

*groupid*  
is the ID of the job group

If you don't want to make a distinction between types of resources, you can allow users access to everything with the following profile for USER1 on node N1:

```
RDEFINE JESSPOOL N1.USER1.** UACC(NONE)
```

You may also want to allow users to access all JESSPOOL resources by giving them operator authority, as described in "Destination operator authority" on page 254. Operators do not need explicit authorization to access JESSPOOL resources if they are given operator authority.

In addition, you can use the JESSPOOL class to permit users to select other user's jobs, output, and SYSIN/SYSOUT data sets for browsing, viewing and printing, as described in "Permitting other users to view your data" on page 263. Also, the JESSPOOL class can be used to provide function comparable to the notify authority provided by ISFPARMS (by specifying NOTIFY for CMDAUTH and DSPAUTH) as described in "Providing function comparable to NOTIFY authority" on page 263.

Typically, when you define SAF authority for JESSPOOL resources, you will also need to define other authority for action characters and overtypable fields. See Table 85 on page 226 and Table 112 on page 274 for the resources to define them. For most action characters, a user must be authorized for jobs or output groups. However, the S, V, and X action characters require authorization only for SYSIN/SYSOUT data sets. No security checking is made for the object when the ?, JD, JM, JP, JS, JY or Q action character is used.

## Job step data

If SMF data exists for the job, SDSF attempts to use SMF records from the JES EVENTLOG data set that are protected by the *nodeid.userid.jobname.jobid.EVENTLOG.STEPSMF* resource. If access to that resource is denied, or if no SMF data exists for the job, SDSF attempts to use records that are protected by the *nodeid.userid.jobname.jobid.EVENTLOG.STEPDATA* resource. If access to that resource is also denied, access to the JS panel is denied.

## Security label (SECLABEL) checking

If your installation is performing security label (SECLABEL) checking, a user must be logged on with the appropriate SECLABEL to access JESSPOOL resources. For more information about SECLABEL checking, see *z/OS Security Server RACF Security Administrator's Guide*.

## Permitting other users to view your data

Users can permit others to select their jobs, output groups, and SYSIN/SYSOUT data sets using the S (browse), V (view page mode), and X (print) action characters.

When using the S, V, and X action characters, the user is not automatically authorized to access all SYSIN/SYSOUT data sets within a job or output group when the user is authorized to access the job or output group itself. Security checks are made for each data set within the job or output group to verify the user's authority to access each data set, and only those SYSIN/SYSOUT data sets to which the user has at least READ authority are displayed.

To protect all of the user's jobs, output groups, and SYSIN/SYSOUT data in the same way, use the following profile to protect resources for USER1 on node N1:

```
RDEFINE JESSPOOL N1.USER1.** UACC(NONE)
```

To just permit USER2 to browse USER1's output:

1. Define the profile:

```
RDEFINE JESSPOOL N1.USER1.*.*.D*.* UACC(NONE)
```

2. Permit USER2 to read USER1's output:

```
PERMIT N1.USER1.*.*.D*.* CLASS(JESSPOOL) ID(USER2) ACCESS(READ)
```

To provide short-term authorization, a user can overtype the DEST field with another user's user ID. This can be done on either the O or H panels.

## Providing function comparable to NOTIFY authority

By specifying a value of NOTIFY for the DSPAUTH and CMDAUTH parameters in the ISFGRP macros or GROUP statements, you can allow a group member to display output and issue commands, respectively, for any job that has the NOTIFY parameter on its job card set to the member's user or group ID. There is no one-to-one SAF equivalent for this authorization.

However, when using RACF, the security administrator and job owner can give a user comparable authority, under the scope of the GENERICOWNER option of the SETROPTS command, through profiles that use the JESSPOOL class, and for CMDAUTH, the OPERCMDS class.

With RACF, when GENERICOWNER processing is in effect, a security administrator can assign ownership to profiles in a general resource class, so that end users can create and/or manipulate those general resource class profiles they own, while ensuring that the end users cannot interfere with profiles created by another user. (For the impact of GENERICOWNER on the CLAUTH user attribute and on the system as a whole, see *z/OS Security Server RACF Security Administrator's Guide*).

For an example of providing NOTIFY authority, see "Examples of protecting jobs and output groups."

## Examples of protecting jobs and output groups

1. To protect all jobs for user ID USER1 on node N1, issue the following command:

```
RDEFINE JESSPOOL N1.USER1.*.* UACC(NONE)
```

To permit USER2 to access the resource, issue the following command:

```
PERMIT N1.USER1.*.* CLASS(JESSPOOL) ID(USER2) ACCESS(ALTER)
```

2. To protect all output groups for user ID USER1 on node N1, issue the following command:

```
RDEFINE JESSPOOL N1.USER1.*.*.GROUP.* UACC(NONE)
```

Then, to permit USER2 to access this resource, issue the following command:

```
PERMIT N1.USER1.*.*.GROUP.* CLASS(JESSPOOL) ID(USER2) ACCESS(ALTER)
```

The use of the GROUP character string in the fifth qualifier of the profile name distinguishes the output group's profile from other JESSPOOL profiles.

3. To protect all SYSIN/SYSOUT data sets for jobs beginning with DPT on node N1, use the following:

```
RDEFINE JESSPOOL N1.*.DPT*.*.D*.* UACC(NONE)
PERMIT N1.*.DPT*.*.D*.* CLASS(JESSPOOL) ID(USER2) ACCESS(READ)
```

The use of the D character string in the fifth qualifier of the profile name distinguishes the data set's profile from other JESSPOOL profiles.

4. The following example shows how a security administrator can give USER1 at node N1 authority to control access to his own output via the JESSPOOL class. USER1 can then give authority to USER2 to some or all of that output. A generic refresh for USER2 on the JESSPOOL class generic profiles is required for this support to take effect.

The security administrator does the following:

- Activates the GENERICOWNER option:

```
SETROPTS GENERICOWNER
```

- Owns the least specific JESSPOOL profile:

```
RDEFINE JESSPOOL N1.** UACC(NONE) OWNER(SECADM)
RDEFINE JESSPOOL ** UACC(NONE) OWNER(SECADM)
```

- Gives USER1 the ability to create JESSPOOL profiles more specific than N1.USER1.\*\* and to control access to the jobs, output groups, and SYSIN/SYSOUT data sets governed by those profiles:

```
RDEFINE JESSPOOL N1.USER1.** UACC(NONE) OWNER(USER1)
```

The above profile, along with a generic refresh, restricts a user with JESSPOOL class authorization to create and manipulate only a small subset of profiles within the JESSPOOL class (such as N1.USER1.\*\* and any that are more specific).

The security administrator should caution the user not to delete the *nodeid.userid.\*\** profile. If deleted, the user may lose control over any more specific profiles created and the access to them.

- Gives USER1 class authorization to the JESSPOOL class:  
ALTUSER USER1 CLAUTH(JESSPOOL)
- Effects a generic refresh so this support will take effect for newly created profiles, by either:  
Creating an STC (started task) that will automatically refresh a specific general resource class at specified intervals of time, or  
Instructing USER2, after being permitted by USER1, to log off and logon to effect the refresh. (This method will not work when the JESSPOOL class has SETROPTS RACLIST or GENLIST processing activated.)

With GENERICOWNER support in effect, USER1 can create and manipulate JESSPOOL profiles to control another user's access to his output. USER1 does this as follows:

- The profile N1.USER1.\*\* is defined by the security administrator and USER1 has the following output groups on the Held Output Queue panel:

JOBNAME	JOBID	OWNER
JOBA	JOB123	USER1
JOBB	JOB345	USER1
JOBC	JOB678	USER1

- To permit USER2 to browse only JOB123, USER1 issues the following commands:  
RDEFINE JESSPOOL N1.USER1.JOBA.JOB123.\*\*  
PERMIT N1.USER1.JOBA.JOB123.\*\* CLASS(JESSPOOL) ID(USER2) ACCESS(READ)
- To permit USER2 to issue action characters and overtypes against JOB123, USER1 gives USER2 access of ALTER. Also, USER2 must have authority to the OPERCMDS resources for the MVS and JES commands generated, as described in “Action characters” on page 223 and “Overtypable fields” on page 271.
- For USER2's authorization to take effect, a generic refresh is required. This will be automatic if there is an STC in effect, or USER2 can log off and logon when RACLIST or GENLIST processing for the JESSPOOL class is not in effect.

## Lines

You can protect the lines displayed on the LI panel.

### Protecting lines

Protect lines by defining resource names in the SDSF class. The resources are shown in Table 102.

Table 102. Authority Required to Lines Resources for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D action character	ISFLINE.device-name.jesx	SDSF	READ
C action character	ISFLINE.device-name.jesx	SDSF	ALTER
All others	ISFLINE.device-name.jesx	SDSF	CONTROL

In the table,

*device-name*

is the name of the line, transmitter, or receiver.

*jesx*

is the name of the JES subsystem.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypable fields” on page 274.

To control access to the LI panel, protect the LI command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting lines

To protect all lines, issue the following commands:

```
RDEFINE SDSF ISFLINE.** UACC(NONE)
PERMIT ISFLINE.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## Link list data sets

### Protecting link list data sets

Protect link list data sets by defining resource names in the SDSF class. The resources are shown in Table 103.

Table 103. SAF Resources for Link List Data Sets

Action Characters and Overtypes	Resource Name	Class	Access Required
D	ISFLNK. <i>datasetname</i>	SDSF	READ
DN	ISFLNK. <i>datasetname</i>	SDSF	READ

To control access to the LNK panel, protect the LNK command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting link list data sets

To protect all link list data sets and permit a user to control them, define a generic profile as follows:

```
REDEFINE SDSF ISFLNK.** UACC(NONE)
PERMIT ISFLNK.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

---

## MAS and JESPLEX members

You can protect the members of a JES2 MAS, displayed on the MAS panel, and the members of a JES3 JESPLEX, displayed on the JP panel.

### Protecting MAS and JESPLEX members

Protect members of a MAS or JESPLEX by defining resource names in the SDSF class. The resources are shown in Table 104 on page 267.

Table 104. Authority Required to MAS or JESPLEX Members for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D, DL (JP only) and J action characters	ISFMEMB. <i>member-name.jesx</i>	SDSF	READ
E action character (MAS only)	ISFMEMB. <i>member-name.jesx</i>	SDSF	ALTER
P action character (MAS only)	ISFMEMB. <i>member-name.jesx</i>	SDSF	ALTER
All others	ISFMEMB. <i>member-name.jesx</i>	SDSF	CONTROL

where *member-name* is a member name in a JES2 environment and main name in a JES3 environment.

Commands sent to target systems are routed using the MVS ROUTE command. This occurs when the generated command is for a system other than the one to which the user is logged on to.

To protect the MVS or JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the MAS and JP panels, protect the MAS and JP commands. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting MAS members

To protect all MAS members and permit a user to control the members, you can define generic profiles as follows:

```
RDEFINE SDSF ISFMEMB.** UACC(NONE)
PERMIT ISFMEMB.** CLASS(SDSF) ID(userid or groupid) ACCESS(ALTER)
```

## Membership in groups

You can control membership in groups defined by ISFPARMS using SAF. This is an alternative to using ISFPARMS to control membership in the groups.

## Controlling membership in groups

Define a resource in the SDSF class. The resource is shown in Table 105.

Table 105. Authority Required for membership in an ISFPARMS group

Function	Resource Name	Class	Access
Membership in group	GROUP. <i>group-name.server-name</i>	SDSF	READ

If the SDSF client is not connected to the SDSF server, *server-name* is blank

For more information, see “Using SAF to control group membership” on page 35.

## Example of protecting membership in a group in ISFPARMS

To authorize membership in a group in ISFPARMS, issue the following commands:

```
RDEFINE SDSF GROUP.group-name.server-name UACC(NONE)
PERMIT GROUP.group-name.server-name CLASS(SDSF) ID(userid or groupid)
ACCESS(READ)
```

---

## MVS and JES commands on the command line

You can control a user's authority to use the SDSF slash (/) command to issue MVS or JES commands from SDSF. SAF checks the user's authority to use the slash command, but does not check the MVS or JES command or the object of the command. MVS and JES command authorization to the OPERCMDS class is done by MVS and JES only after SDSF authorizes use of the slash command.

You should control use of the slash command as you would a console with master authority.

The character for the slash command can be changed from the default, /, to some other character with a custom property in ISFPARMS. For more information, refer to "Customized properties (PROPLIST)" on page 93.

For more information on the console used by SDSF to issue the command, see "Issuing MVS and JES commands" on page 358. For more information on protecting the console, see *z/OS MVS Planning: Operations*.

### Protecting the slash command

Protect the slash command by defining a resource name in the SDSF class. The resource is shown in Table 106.

Table 106. Authority Required for the Slash Command

Command	Resource Name	Class	Access
Slash (/)	ISFOPER.SYSTEM	SDSF	READ

**Note:** The WHEN(CONSOLE(SDSF)) clause for conditional access checking does not apply to commands issued from the command line.

The character for the slash command can be changed from the default, /, to some other character with a custom property in ISFPARMS. For more information, refer to "Customized properties (PROPLIST)" on page 93.

For more information on the console used by SDSF to issue the command, see "Issuing MVS and JES commands" on page 358. For more information on protecting the console, see *z/OS MVS Planning: Operations*.

### Slash command and User Log

The slash command can return a response to the user terminal and write a response to the User Log (ULOG). To have the response sent back to the user's terminal, the user needs authorization to the ULOG command and to the extended console. See "User log (ULOG)" on page 321 for information.

### Example of protecting the slash command

To authorize use of the slash command, issue the following commands:

```
RDEFINE SDSF ISFOPER.SYSTEM UACC(NONE)
PERMIT ISFOPER.SYSTEM CLASS(SDSF) ID(userid or groupid) ACCESS(READ)
```

---

## Network connections

You can protect the network connections displayed on the NC panel.



## Protecting network connections

Protect network connections by defining resource names in the SDSF class. The resources are shown in Table 107.

Table 107. Authority Required to Network Connection Resources for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D action character	ISFAPPL. <i>device-name.jesx</i> (APPLs)	SDSF	READ
	ISFSOCK. <i>device-name.jesx</i> (sockets)		
	ISFLINE. <i>device-name.jesx</i> (lines, transmitters or receivers)		
All others	ISFAPPL. <i>device-name.jesx</i> ISFSOCK. <i>device-name.jesx</i> ISFLINE. <i>device-name.jesx</i>	SDSF	CONTROL

In the table,

*device-name*

is the name of the device.

*jesx*

is the name of the JES subsystem.

To protect the JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the NC panel, protect the NC command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting network connections

To protect all network connections, issue the following commands:

```
RDEFINE SDSF ISFNC.** UACC(NONE)
PERMIT ISFAPPL.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
PERMIT ISFSOCK.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
PERMIT ISFLIINE.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

## Network servers

You can protect the network servers displayed on the NS panel.

## Protecting network servers

Protect network servers by defining resource names in the SDSF class. The resources are shown in Table 108.

Table 108. Authority Required to Network Servers Resources for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D action character	ISFNS. <i>device-name.jesx</i>	SDSF	READ
All others except the JD and JM action characters	ISFNS. <i>device-name.jesx</i>	SDSF	CONTROL

In the table,

*device-name*  
is the name of the device.

*jesx*  
is the name of the JES subsystem.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

No SDSF resource protects the network server for the JD and JM action characters. Refer to “Protecting action characters as separate resources” on page 224

To control access to the NS panel, protect the NS command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting network servers

To protect all network servers, issue the following commands:

```
RDEFINE SDSF ISFNS.** UACC(NONE)
PERMIT ISFNS.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## Nodes

You can protect the nodes displayed on the NO panel.

### Protecting nodes

Protect nodes by defining resource names in the SDSF class. The resources are shown in Table 109.

Table 109. Authority Required to Nodes Resources for Actions and Overtypes

Action Character or Overtypable Field	Resource Name	Class	Access
D action character	ISFNODE. <i>node-name.jesx</i>	SDSF	READ
All others	ISFNODE. <i>node-name.jesx</i>	SDSF	CONTROL

In the table,

*node-name*  
is the name of the node.

*jesx*  
is the name of the JES subsystem.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the NO panel, protect the NO command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting nodes

To protect all nodes, issue the following commands:

```
RDEFINE SDSF ISFNODE.** UACC(NONE)
PERMIT ISFNODE.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## OPERLOG

The OPERLOG is a merged, sysplex-wide system message log. It is provided by a log stream, which is a collection of log data used by the MVS System Logger.

You protect the OPERLOG panel by controlling:

- Access to the LOG command, which displays the log panel. This is explained in “Authorized SDSF commands” on page 249.
- Authorization to the log stream used for OPERLOG. The system logger, rather than SDSF, issues a SAF call to ensure the authorization.

Parameters of the LOG command allow users to choose the SYSLOG rather than the OPERLOG. For information on protecting the SYSLOG, see “SYSLOG” on page 318.

### Protecting the log stream

Protect the log stream user for OPERLOG by defining a resource name in the LOGSTRM class. The resource is shown in Table 110.

Table 110. Authority Required for Accessing the Log Stream

Function	Resource Name	Class	Access
Access to the log stream	SYSPLEX.OPERLOG	LOGSTRM	READ

---

## Overtypeable fields

Use of an overtypeable field causes an interaction with three resources, all of which must be protected:

- The overtypeable field
- The object of the overtypeable field, such as an initiator, printer, MAS member, or job
- The MVS or JES command generated by overtyping the field

Protecting overtypeable fields is the same whether they are overtyped in the table or from the command line.

### Protecting the overtypeable field

The resource names for the overtypeable fields are in the SDSF class or GSDSF class and have a high level qualifier of ISFATTR. A user must have UPDATE authority to the ISFATTR resource to overtype a field. The fields and their resource names are shown in “Tables of overtypeable fields” on page 274.

If the user is not authorized to overtype the field, the field is displayed on the panel but is not overtypeable. (The ISFFLD macros or the FLD statements of ISFPARMS can be used to control whether a field is displayed.)

### Protecting the objects of overtypeable fields

The objects of the overtypeable fields are such things as jobs, output groups, initiators, MAS members, nodes, printers, and so on. For information about protecting the objects see:

- “Checks on the CK and CKH panels” on page 252
- “Destination operator authority” on page 254
- “Enclaves” on page 256

- “Initiators” on page 257
- “JES2 resources on the RM panel” on page 258
- “Job classes” on page 259
- “Jobs, job groups, output groups, and SYSIN/SYSOUT data sets” on page 260
- “Lines” on page 265
- “MAS and JESPLEX members” on page 266
- “Network connections” on page 268
- “Network servers” on page 269
- “Nodes” on page 270
- “Printers” on page 311
- “Processes (z/OS UNIX System Services)” on page 312
- “Proclibs” on page 313
- “Punches” on page 313
- “Readers” on page 314
- “Resources defined to WLM” on page 315
- “Scheduling environments” on page 315
- “Spool offloaders” on page 317
- “Spool volumes” on page 318
- “System requests” on page 321

## Protecting the generated MVS and JES commands

Overtyping fields generates MVS and JES commands. The resource names that protect these commands are in the OPERCMDS class and are shown in “Tables of overtypable fields” on page 274. The tables also contain the access levels required.

### Permitting access only while using SDSF

Users can be conditionally permitted to access OPERCMDS resources so they are authorized to use MVS and JES commands only while they are using SDSF. See “Using conditional access” on page 221 for more information.

## Generic profiles

You can set up a generic profile in the SDSF class to allow access to all overtypable fields. To protect resources individually in the SDSF class with more restrictive profiles, use the specific resource name associated with the overtypable field. Table 112 on page 274 contains these resource names.

Generic profiles in the SDSF class that protect different types of overtypable fields are shown in Table 111. For the generic profiles in the OPERCMDS class, use Table 114 on page 295.

*Table 111. Generic Profiles for Overtypable Fields*

Generic Profile	Protects
ISFATTR.**	All
ISFATTR.JOB.**	DA, I, ST (jobs)
ISFATTR.JOBGROUPS.**	JG
ISFATTR.OUTPUT.**	JDS (job data sets), J0 (JES3 job 0), H and O (output groups)
ISFATTR.OUTDESC.**	JDS (job data sets), J0 (JES3 job 0), OD (output descriptors)
ISFATTR.CHECK.**	CK (checks)

Table 111. Generic Profiles for Overtypable Fields (continued)

Generic Profile	Protects
ISFATTR.ENCLAVE.**	ENC (enclaves)
ISFATTR.JOBCL.**	JC (job classes)
ISFATTR.LINE.**	LI (lines), NC (network connections)
ISFATTR.LOGON.**	NS (network servers)
ISFATTR.MEMBER.**	MAS (members of the MAS), JP (members of the JESPLEX)
ISFATTR.MODIFY.**	SO (spool offloaders)
ISFATTR.NETOPTS.**	NC, NS
ISFATTR.NODE.**	NO (nodes), NC
ISFATTR.OFFLOAD.**	SO (spool offloaders)
ISFATTR.PROPTS.**	LI, NC, NS, PR (printers), PUN (punches)
ISFATTR.RDR.**	RDR (readers)
ISFATTR.RESMON.**	RM (JES2 resources)
ISFATTR.RESOURCE.**	RES (WLM resources)
ISFATTR.SELECT.**	INIT, LI, NC, NS, PR, PUN, SO (selection criteria for devices)
ISFATTR.SPOOL.**	SP (spool volumes)

## Examples of protecting overtypable fields

In the following examples, *jesx* is the name of the JES2 or JES3 subsystem. For example, it might be *JES2*, *JESA*, or to protect all JES2 subsystems, *JES%*.

1. To protect all overtypable fields, the objects of the overtypable fields, and the commands they generate, define the following profiles:

```
RDEFINE SDSF ISFAPPL.** UACC(NONE)
RDEFINE SDSF ISFATTR.** UACC(NONE)
RDEFINE SDSF ISFDISP.** UACC(NONE)
RDEFINE SDSF ISFINIT.** UACC(NONE)
RDEFINE SDSF ISFENC.** UACC(NONE)
RDEFINE SDSF ISFJDD.** UACC(NONE)
RDEFINE SDSF ISFJOBCL.** UACC(NONE)
RDEFINE SDSF ISFLINE.** UACC(NONE)
RDEFINE SDSF ISFNS.** UACC(NONE)
RDEFINE SDSF ISFNODE.** UACC(NONE)
RDEFINE SDSF ISFMEMB.** UACC(NONE)
RDEFINE SDSF ISFRDR.** UACC(NONE)
RDEFINE SDSF ISFRM.** UACC(NONE)
RDEFINE SDSF ISFRES.** UACC(NONE)
RDEFINE SDSF ISFSO.** UACC(NONE)
RDEFINE SDSF ISFSOCK.** UACC(NONE)
RDEFINE SDSF ISFSP.** UACC(NONE)
RDEFINE WRITER jesx** UACC(NONE)
RDEFINE JESSPOOL ** UACC(NONE)
RDEFINE OPERCMDS jesx.CALL.** UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.** UACC(NONE)
RDEFINE OPERCMDS jesx.RESTART.** UACC(NONE)
RDEFINE OPERCMDS jesx.ROUTE.** UACC(NONE)
RDEFINE OPERCMDS jesx.START.** UACC(NONE)
RDEFINE OPERCMDS MVS.DISPLAY.** UACC(NONE)
```

- ```
RDEFINE OPERCMDS MVS.MODIFY.** UACC(NONE)
RDEFINE OPERCMDS MVS.RESET UACC(NONE)
RDEFINE XFACILIT HZS.** UACC(NONE)
```
- To restrict the use of the overtypable fields for all output groups on the Held Output Queue and Output Queue panels, define the more restrictive profiles:

```
RDEFINE SDSF ISFATTR.OUTPUT.** UACC(NONE)
RDEFINE JESSPOOL *.*.*.GROUP.* UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.BATOUT UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.STCOUT UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.TSUOUT UACC(NONE)
```
  - To further restrict the use to only the DEST field on the Held Output Queue and Output Queue panels, define the more restrictive profiles:

```
RDEFINE SDSF ISFATTR.OUTPUT.DEST UACC(NONE)
RDEFINE JESSPOOL *.*.*.GROUP.* UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.BATOUT UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.STCOUT UACC(NONE)
RDEFINE OPERCMDS jesx.MODIFY.TSUOUT UACC(NONE)
```

## Tables of overtypable fields

The following tables describe the SDSF classes and resource names for each overtypable field and the panels on which they are valid. The table shows the command that is issued, and the associated OPERCMDS resource, for the JES2 environment for each overtypable field; if the field is overtypable in the JES3 environment, the JES3 command and associated OPERCMDS resource are shown beneath the JES2 values.

For an alphabetical list by field name, see Table 112.

For an alphabetical list by OPERCMDS resource name, see Table 114 on page 295.

Appendix C, “SDSF resource names for SAF security,” on page 609 contains a table of all overtypable fields.

Table 112. Overtypable Fields.

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2      | Required Access |
|-------------------|------------|------------------------------------------------|---------------|------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3      |                 |
| System            | RES        | ISFATTR.RESOURCE. <i>system</i>                | F             | MVS.MODIFY.WLM               | UPDATE          |
| ACCT              | JC         | ISFATTR.JOBCL.ACCT                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| ACTIVE            | JC         | ISFATTR.JOBCL.ACTIVE                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| ADDRESS           | JDS OD     | ISFATTR.OUTDESC.ADDRESS                        | SSI           |                              |                 |
|                   |            |                                                | SSI           |                              |                 |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3                                                                |                 |
| ADISC             | LI         | ISFATTR.LINE.AUTODISC                          | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| AFPPARMS          | JDS OD     | ISFATTR.OUTDESC.AFPPARMS                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| ALLOC             | INIT       | ISFATTR.INIT.ALLOC                             | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.G                                                                  | UPDATE          |
| ANODE             | NC         | ISFATTR.NETOPTS.NODE                           | \$T           | <i>jesx</i> .MODIFY.APPL<br><i>jesx</i> .MODIFY.SOCKET<br><i>jesx</i> .MODIFY.LINE     | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| APPL              | NS         | ISFATTR.NETOPTS.APPL                           | \$T           | <i>jesx</i> .MODIFY.LOGON                                                              | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| APPLID            | LI         | ISFATTR.LINE.APPLID                            | \$S           | <i>jesx</i> .START.NET                                                                 | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| ARCHIVE           | SO         | ISFATTR.OFFLOAD.ARCHIVE                        | \$T           | <i>jesx</i> .MODIFY.OFFLOAD                                                            | CONTROL         |
| ASIS              | PR         | ISFATTR.PROPTS.ASIS                            | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| AUTH              | JC         | ISFATTR.JOBCL.AUTH                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| AUTHORITY         | RDR        | ISFATTR.RDR.AUTHORITY                          | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| AUTHORITY         | NO         | ISFATTR.NODE.AUTHORITY                         | \$T           | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| B                 | PR PUN     | ISFATTR.PROPTS.BPAGE                           | -             | -                                                                                      | -               |
|                   |            |                                                | See note 3.   |                                                                                        |                 |
| BARRIER           | INIT       | ISFATTR.INIT.BARRIER                           | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.G                                                                  | UPDATE          |
| BLP               | JC         | ISFATTR.JOBCL.BLP                              | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| BUILDING          | JDS OD     | ISFATTR.OUTDESC.BLDG                           | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| BURST             | H O        | ISFATTR.OUTPUT.BURST                           | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
| BURST             | JDS J0     | ISFATTR.OUTPUT.BURST                           | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2     | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|-------------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3     | OPERCMDS Resource, JES3                                                                |                 |
| C                 | H O        | ISFATTR.OUTPUT.CLASS                           | \$TO <sup>1</sup> | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
| C                 | JDS J0     | ISFATTR.OUTPUT.CLASS                           | SSI <sup>1</sup>  |                                                                                        |                 |
|                   |            |                                                | *F                | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| C                 | I ST       | ISFATTR.JOB.CLASS                              | \$T               | <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU          | UPDATE          |
|                   |            |                                                | *F J              | <i>jesx</i> .MODIFY.JOB                                                                | UPDATE          |
| C                 | RDR        | ISFATTR.RDR.CLASS                              | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                 | -                                                                                      | -               |
| CC                | JDS J0     | ISFATTR.OUTPUT.COPYCNT                         | SSI               |                                                                                        |                 |
|                   |            |                                                | *F                | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| CATEGORY          | CK         | ISFATTR.CHECK.CATEGORY                         | F                 | MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i>                                               | UPDATE          |
| CB                | PR         | ISFATTR.PROPTS.CB                              | -                 | -                                                                                      | -               |
|                   |            |                                                | *S, *X            | See note 3.                                                                            |                 |
| CCTL              | PR PUN     | ISFATTR.PROPTS.CCTL                            | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                 | -                                                                                      | -               |
| CHARS             | JDS J0     | ISFATTR.OUTPUT.CHARS                           | -                 | -                                                                                      | -               |
|                   |            |                                                | *F                | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| CHAR1-4           | PR         | ISFATTR.PROPTS.CHAR                            | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
| CHAR1             |            |                                                | See note 3.       |                                                                                        |                 |
| CKPTHOLD          | MAS        | ISFATTR.MEMBER.CKPTHOLD                        | \$T               | <i>jesx</i> .MODIFY.MASDEF                                                             | CONTROL         |
| CKPTLINE          | PR         | ISFATTR.PROPTS.CKPTLINE                        | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                 | -                                                                                      | -               |
| CKPTLINE          | PUN        | ISFATTR.PROPTS.CKPTLINE                        | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                 | -                                                                                      | -               |
| CKPTMODE          | PR         | ISFATTR.PROPTS.CKPTMODE                        | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                 | -                                                                                      | -               |
| CKPTPAGE          | PR         | ISFATTR.PROPTS.CKPTPAGE                        | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | See note 3.       |                                                                                        |                 |
| CKPTPAGE          | PUN        | ISFATTR.PROPTS.CKPTPAGE                        | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                 | -                                                                                      | -               |
| CKPTSEC           | PR         | ISFATTR.PROPTS.CKPTSEC                         | \$T               | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | See note 3.       |                                                                                        |                 |



Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2                                                            | Required Access |
|-------------------|------------|------------------------------------------------|---------------|------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3                                                            |                 |
| CLASSES           | INIT       | ISFATTR.SELECT.JOBCLASS                        | \$T           | <i>jesx</i> .MODIFY.INITIATOR                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| CLASS1-8          | INIT       | ISFATTR.SELECT.JOBCLASS                        | \$T           | <i>jesx</i> .MODIFY.INITIATOR                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| CMPCT             | PR PUN     | ISFATTR.PROPTS.CMPCT                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                            | UPDATE          |
|                   |            |                                                | -             | -                                                                                  | -               |
| CODE              | LI         | ISFATTR.LINE.CODE                              | \$T           | <i>jesx</i> .MODIFY.LINE                                                           | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| COLORMAP          | JDS OD     | ISFATTR.OUTDESC.<br>COLORMAP                   | SSI           |                                                                                    |                 |
|                   |            |                                                | SSI           |                                                                                    |                 |
| COMMAND           | JC         | ISFATTR.JOBCL.COMMAND                          | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                       | CONTROL         |
| COMP              | LI         | ISFATTR.LINE.COMPRESS                          | \$T           | <i>jesx</i> .MODIFY.LINE                                                           | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| COMP              | PR PUN     | ISFATTR.PROPTS.<br>COMPRESS                    | \$T           | <i>jesx</i> .MODIFY.DEV                                                            | UPDATE          |
|                   |            |                                                | -             | -                                                                                  | -               |
| COMPACT           | NC         | ISFATTR.NODE.COMPACT                           | \$T           | <i>jesx</i> .MODIFY.APPL                                                           | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| COMPACT           | PR PUN     | ISFATTR.PROPTS.COMPACT                         | \$T           | <i>jesx</i> .MODIFY.DEV                                                            | UPDATE          |
|                   |            |                                                | -             | -                                                                                  | -               |
| COMSETUP          | JDS OD     | ISFATTR.OUTDESC.COMSETUP                       | SSI           |                                                                                    |                 |
|                   |            |                                                | SSI           |                                                                                    |                 |
| CONNECT           | LI         | ISFATTR.NETOPTS.CONNECT                        | \$T           | <i>jesx</i> .MODIFY.LINE                                                           | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| CONNECT           | NC         | ISFATTR.NETOPTS.CONNECT                        | \$T           | <i>jesx</i> .MODIFY.APPL<br><i>jesx</i> .MODIFY.SOCKET<br><i>jesx</i> .MODIFY.LINE | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| CONNECT           | NO         | ISFATTR.NETOPTS.CONNECT                        | \$T           | <i>jesx</i> .MODIFY.NODE                                                           | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| CONN-INT          | LI         | ISFATTR.NETOPTS.CTIME                          | \$T           | <i>jesx</i> .MODIFY.LINE                                                           | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |
| CONN-INT          | NC         | ISFATTR.NETOPTS.CTIME                          | \$T           | <i>jesx</i> .MODIFY.APPL<br><i>jesx</i> .MODIFY.SOCKET<br><i>jesx</i> .MODIFY.LINE | CONTROL         |
|                   |            |                                                | -             | -                                                                                  | -               |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2      | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|--------------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3      | OPERCMDS Resource, JES3                                                                |                 |
| CONN-INT          | NO         | ISFATTR.NETOPTS.CTIME                          | \$T                | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -                  | -                                                                                      | -               |
| COPIES            | PR PUN     | ISFATTR.PROPTS.COPIES                          | -                  | -                                                                                      | -               |
|                   |            |                                                | See note 3.        |                                                                                        |                 |
| COPYMARK          | PR         | ISFATTR.PROPTS.COPYMARK                        | \$T                | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | See note 3.        |                                                                                        |                 |
| CP                | NO         | ISFATTR.NODE.COMPACT                           | \$T                | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -                  | -                                                                                      | -               |
| CPR               | JC         | ISFATTR.JOBCL.CONDPURG                         | \$T                | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| CPY               | JC         | ISFATTR.JOBCL.COPY                             | \$T                | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| CPYMOD            | JDS        | ISFATTR.OUTPUT.CPYMOD                          | -                  | -                                                                                      | -               |
|                   |            |                                                | *F                 | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| CPYMOD            | J0 PR      | ISFATTR.PROPTS.CPYMOD                          | \$T                | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | *S                 | <i>jesx</i> .START.DEV. <i>device</i>                                                  |                 |
| CRTIME            | SO         | ISFATTR.OFFLOAD.CRTIME                         | \$T                | <i>jesx</i> .MODIFY.OFFLOAD                                                            | CONTROL         |
| CTR               | LI         | ISFATTR.PROPTS.CTRACE                          | \$T                | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | -                  | -                                                                                      | -               |
| CTR               | NC         | ISFATTR.PROPTS.CTRACE                          | \$T                | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | *F                 | <i>jesx</i> .MODIFY.SOCKET                                                             | UPDATE          |
| CTR               | NS         | ISFATTR.PROPTS.CTRACE                          | \$T                | <i>jesx</i> .MODIFY.NETSRV                                                             | CONTROL         |
|                   |            |                                                | *F                 | <i>jesx</i> .MODIFY.NETSERV                                                            |                 |
| DEBUG             | CK         | ISFATTR.CHECK.DEBUG                            | F                  | MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i>                                               | UPDATE          |
| DEFCOUNT          | INIT       | ISFATTR.INIT.DEFCNT                            | -                  | -                                                                                      | -               |
|                   |            |                                                | *F                 | <i>jesx</i> .MODIFY.G                                                                  | UPDATE          |
| DEPARTMENT        | JDS OD     | ISFATTR.OUTDESC.DEPT                           | SSI                |                                                                                        |                 |
|                   |            |                                                | SSI                |                                                                                        |                 |
| DEST              | H O        | ISFATTR.OUTPUT.DEST                            | \$TOF <sup>1</sup> | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -                  | -                                                                                      | -               |
| DEST              | JDS J0     | ISFATTR.OUTPUT.DEST                            | SSI <sup>1</sup>   |                                                                                        |                 |
|                   |            |                                                | *F                 | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field     | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2                                                                   | Required Access |
|-----------------------|------------|------------------------------------------------|---------------|-------------------------------------------------------------------------------------------|-----------------|
|                       |            |                                                | Command, JES3 | OPERCMDs Resource, JES3                                                                   |                 |
| DEST (secondary JES2) | H          | ISFATTR.OUTPUT.DEST                            | \$O           | <i>jesx</i> .RELEASE.BATOUT<br><i>jesx</i> .RELEASE.STCOUT<br><i>jesx</i> .RELEASE.TSUOUT | UPDATE          |
|                       |            |                                                | -             | -                                                                                         | -               |
| DFCB                  | PR         | ISFATTR.PROPTS.DEVFCB                          | \$T           | <i>jesx</i> .MODIFY.DEV                                                                   | UPDATE          |
|                       |            |                                                | -             | -                                                                                         | -               |
| DGRPY                 | PR PUN     | ISFATTR.PROPTS.DGRPY                           | -             | -                                                                                         | -               |
|                       |            |                                                | *F            | <i>jesx</i> .MODIFY.W                                                                     | UPDATE          |
| DIRECT                | NO         | SFATTR.NODE,DIRECT                             | \$T           | <i>jesx</i> .MODIFY.NODE                                                                  | CONTROL         |
|                       |            |                                                | -             | -                                                                                         | -               |
| DORMANCY              | MAS        | ISFATTR.MEMBER.DORMANCY                        | \$T           | <i>jesx</i> .MODIFY.MASDEF                                                                | CONTROL         |
| DSENQSHR              | JC         | ISFATTR.JOBCL.DSENQSHR                         | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                              | CONTROL         |
|                       |            |                                                | -             | -                                                                                         | -               |
| DSNAME                | SO         | ISFATTR.OFFLOAD.DATASET                        | \$T           | <i>jesx</i> .MODIFY.OFFLOAD                                                               | CONTROL         |
| DUPLEX                | LI         | ISFATTR.LINE.DUPLEX                            | \$T           | <i>jesx</i> .MODIFY.LINE                                                                  | CONTROL         |
|                       |            |                                                | -             | -                                                                                         | -               |
| DYN                   | PR PUN     | ISFATTR.PROPTS.DYN                             | -             | -                                                                                         | -               |
|                       |            |                                                | *F            | <i>jesx</i> .MODIFY.W                                                                     | UPDATE          |
| EINTERVAL             | CK         | ISFATTR.CHECK.EINTERVAL                        | F             | MVS.MODIFY.STC.<br><i>hproc</i> . <i>hcstcid</i>                                          | UPDATE          |
| END                   | NO         | ISFATTR.NODE.ENDNODE                           | \$T           | <i>jesx</i> .MODIFY.NODE                                                                  | CONTROL         |
|                       |            |                                                | -             | -                                                                                         | -               |
| EXECNODE              | I ST       | ISFATTR.JOB.EXECNODE                           | \$R           | <i>jesx</i> .ROUTE.JOBOUT                                                                 | UPDATE          |
|                       |            |                                                | -             | -                                                                                         | -               |
| FCB                   | H O        | ISFATTR.OUTPUT.FCB                             | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT    | UPDATE          |
|                       |            |                                                | -             | -                                                                                         | -               |
| FCB                   | JDS J0     | ISFATTR.OUTPUT.FCB                             | -             | -                                                                                         | -               |
|                       |            |                                                | *F U          | <i>jesx</i> .MODIFY.U                                                                     | UPDATE          |
| FCBL                  | PR         | ISFATTR.PROPTS.FCBL                            | \$T           | <i>jesx</i> .MODIFY.DEV                                                                   | UPDATE          |
|                       |            |                                                | -             | -                                                                                         | -               |
| FLASH                 | H O        | ISFATTR.OUTPUT.FLASH                           | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT    | UPDATE          |
|                       |            |                                                | -             | -                                                                                         | -               |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                                                |                 |
| FLASH             | JDS J0     | ISFATTR.OUTPUT.FLASH                           | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| FLS               | PUN        | ISFATTR.PROPTS.FLUSH                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| FORMDEF           | JDS OD     | ISFATTR.OUTDESC.FORMDEF                        | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| FORMLEN           | JDS OD     | ISFATTR.OUTDESC.FORMLEN                        | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| FORMS             | H O        | ISFATTR.OUTPUT.FORMS                           | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| FORMS             | JDS J0     | ISFATTR.OUTPUT.FORMS                           | SSI           |                                                                                        |                 |
|                   |            |                                                | *F U          | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| FSATRACE          | PR         | ISFATTR.PROPTS.FSATRACE                        | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| FSSNAME           | PR         | ISFATTR.PROPTS.FSSNAME                         | F             | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| GROUP             | INIT       | ISFATTR.INIT.GROUP                             | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.C                                                                  | UPDATE          |
| GROUP             | JC         | ISFATTR.JOBCL.GROUP                            | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| HOLD              | JC         | ISFATTR.JOBCL.HOLD                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| HOLD              | RDR        | ISFATTR.RDR.HOLD                               | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| HONORTRC          | PR         | ISFATTR.PROPTS.HONORTRC                        | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| INTERVAL          | CK         | ISFATTR.CHECK.INTERVAL                         | F             | MVS.MODIFY.STC.<br><i>hcproc</i> . <i>hcstcid</i>                                      | UPDATE          |
| INTF              | LI         | ISFATTR.LINE.INTERFACE                         | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| INTRAY            | OD         | ISFATTR.OUTDESC.INTRAY                         | SSI           |                                                                                        |                 |
| IP DESTINATION    | OD         | ISFATTR.OUTDESC.IPDEST                         | SSI           |                                                                                        |                 |
| IPNAME            | NC         | ISFATTR.NETOPTS.IPNAME                         | \$T           | <i>jesx</i> .MODIFY.SOCKET                                                             | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.SOCKET                                                             | UPDATE          |

Table 112. Overtypeable Fields (continued).

The variable **jesx** should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtyping Extension pop-up, all of the fields in the set are protected by the same resource.

Replace **hproc** and **hccsid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3                |                 |
| IPNAME            | NS         | ISFATTR.NETOPTS.IPNAME                         | \$T           | jesx.MODIFY.SOCKET                     | CONTROL         |
|                   |            |                                                | *F            | jesx.MODIFY.NETSERV                    | UPDATE          |
| ITY               | JDS        | ISFATTR.OUTDESC.INTRAY                         | SSI           |                                        |                 |
|                   |            |                                                | SSI           |                                        |                 |
| JCLIM             | JC         | ISFATTR.JOBCL.JCLIM                            | \$T           | jesx.MODIFY.JOBCLASS                   | CONTROL         |
| JESLOG            | JC         | ISFATTR.JOBCL.JESLOG                           | \$T           | jesx.MODIFY.JOBCLASS                   | CONTROL         |
|                   |            |                                                | *F            | jesx.MODIFY.C                          | UPDATE          |
| JOBRC             | JC         | ISFATTR.JOBCL.JOBRC                            | \$T           | jesx.MODIFY.JOBCLASS                   | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |
| JRNL              | JC         | ISFATTR.JOBCL.JOURNAL                          | \$T           | jesx.MODIFY.JOBCLASS                   | CONTROL         |
| JRNUM             | LI         | ISFATTR.LINE.JRNUM                             | \$T           | jesx.MODIFY.LINE                       | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |
| JRNUM             | NO         | ISFATTR.NODE.JRNUM                             | -             | -                                      | -               |
|                   |            |                                                | *F            | jesx.MODIFY.NJE                        | UPDATE          |
| JTNUM             | LI         | ISFATTR.LINE.JTNUM                             | \$T           | jesx.MODIFY.LINE                       | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |
| JTNUM             | NO         | ISFATTR.NODE.JTNUM                             | -             | -                                      | -               |
|                   |            |                                                | *F            | jesx.MODIFY.NJE                        | UPDATE          |
| JTR               | LI         | ISFATTR.PROPTS.JTRACE                          | \$T           | jesx.MODIFY.LINE                       | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |
| JTR               | NC         | ISFATTR.PROPTS.JTRACE                          | \$T           | jesx.MODIFY.LINE                       | CONTROL         |
|                   |            |                                                | *F            | jesx.MODIFY.SOCKET                     | UPDATE          |
| JTR               | NS         | ISFATTR.PROPTS.JTRACE                          | \$T           | jesx.MODIFY.NETSRV                     | CONTROL         |
|                   |            |                                                | *F            | jesx.MODIFY.NETSERV                    | UPDATE          |
| K                 | PR         | ISFATTR.PROPTS.SPACE                           | \$T           | jesx.MODIFY.DEV                        | UPDATE          |
|                   |            |                                                | -             | -                                      | -               |
| LABEL             | SO         | ISFATTR.OFFLOAD.LABEL                          | \$T           | jesx.MODIFY.OFFLOAD                    | CONTROL         |
| LIMIT             | RM         | ISFATTR.RESMON.LIMIT                           | \$T           | jesx.MODIFY.resource <sup>2</sup>      | CONTROL         |
| LINE              | NC         | ISFATTR.NODE.LINE                              | \$T           | jesx.MODIFY.APPL<br>jesx.MODIFY.SOCKET | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |
| LINE              | NO         | ISFATTR.NODE.LINE                              | \$T           | jesx.MODIFY.NODE                       | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |
| LINECCHR          | LI         | ISFATTR.LINE.LINECCHR                          | \$T           | jesx.MODIFY.LINE                       | CONTROL         |
|                   |            |                                                | -             | -                                      | -               |

Table 112. Overtypeable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtyping Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hccproc* and *hccstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2      | Required Access |
|-------------------|------------|------------------------------------------------|---------------|------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3      |                 |
| LINE-LIMIT        | LI NC      | ISFATTR.SELECT.LIM                             | \$T           | <i>jesx</i> .MODIFY.L        | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LINE-LIMIT        | PR         | ISFATTR.SELECT.LIM                             | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| LINE-LIMIT        | PUN        | ISFATTR.SELECT.LIM                             | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| LINE-LIMIT        | SO         | ISFATTR.SELECT.LIM                             | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| LINE-LIM-HI       | PR PUN     | ISFATTR.SELECT.LIM                             | -             | -                            | -               |
|                   |            |                                                | See note 3.   |                              |                 |
| LINE-LIM-LOW      | PR PUN     | ISFATTR.SELECT.LIM                             | -             | -                            | -               |
|                   |            |                                                | See note 3.   |                              |                 |
| LOG               | LI         | ISFATTR.LINE.LOG                               | \$T           | <i>jesx</i> .MODIFY.LINE     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LOG               | JC         | ISFATTR.JOBCL.JLOG                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.C        | UPDATE          |
| LOG               | NS         | ISFATTR.NETOPTS.LOG                            | \$T           | <i>jesx</i> .MODIFY.LOGON    | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LOGMODE           | NC         | ISFATTR.NODE.LOGMODE                           | \$T           | <i>jesx</i> .MODIFY.APPL     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LOGMODE           | NO         | ISFATTR.NODE.LOGMODE                           | \$T           | <i>jesx</i> .MODIFY.NODE     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LOGON             | NC         | ISFATTR.NETOPTS.LOGON                          | \$T           | <i>jesx</i> .MODIFY.APPL     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LOGON             | NO         | ISFATTR.NODE.LOGON                             | \$T           | <i>jesx</i> .MODIFY.NODE     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| LRECL             | PUN        | ISFATTR.PROPTS.LRECL                           | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| M                 | PR         | ISFATTR.PROPTS.MARK                            | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| MAX-TIME          | JC         | ISFATTR.JOBCL.TIME                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| MAXRETRIES        | NO         | ISFATTR.NODE.MAXRETR                           | -             | -                            | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE      | UPDATE          |
| MBURST            | SO         | ISFATTR.MODIFY.BURST                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2      | Required Access |
|-------------------|------------|------------------------------------------------|---------------|------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3      |                 |
| MC                | RDR        | ISFATTR.RDR.MCLASS                             | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| MC                | JC         | ISFATTR.JOBCL.MSGCLASS                         | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| MCLASS            | SO         | ISFATTR.MODIFY.CLASS                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MDEST             | SO         | ISFATTR.MODIFY.DEST                            | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MFCB              | SO         | ISFATTR.MODIFY.FCB                             | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MFLH              | SO         | ISFATTR.MODIFY.FLASH                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MFORMS            | SO         | ISFATTR.MODIFY.FORMS                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
|                   |            |                                                | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MHOLD             | SO         | ISFATTR.MODIFY.HOLD                            | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MINPCT            | SP         | ISFATTR.SPOOL.MINPCT                           | -             | -                            | -               |
|                   |            |                                                | *F Q          | <i>jesx</i> .MODIFY.Q        | UPDATE          |
| MODE              | INIT       | ISFATTR.INIT.MODE                              | -             | -                            | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.G        | UPDATE          |
| MODE              | JC         | ISFATTR.JOBCL.MODE                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| MODE              | PR         | ISFATTR.PRPOPTS.MODE                           | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.F        |                 |
| MODSP             | SO         | ISFATTR.MODIFY.ODISP                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MPRMODE           | SO         | ISFATTR.MODIFY.PRMODE                          | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MSAFF             | SO         | ISFATTR.MODIFY.SYSAFF                          | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MSGLV             | JC         | ISFATTR.JOBCL.MSGLEVEL                         | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| MUCS              | SO         | ISFATTR.MODIFY.UCS                             | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| MWRITER           | SO         | ISFATTR.MODIFY.WRITER                          | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| NAME              | JDS OD     | ISFATTR.OUTDESC.NAME                           | SSI           |                              |                 |
|                   |            |                                                | SSI           |                              |                 |
| NETSRV            | NC         | ISFATTR.NETOPTS.NETSRV                         | \$T           | <i>jesx</i> .MODIFY.SOCKET   | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| NETSRV            | NO         | ISFATTR.NODE.NETSRV                            | \$T           | <i>jesx</i> .MODIFY.NODE     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| NEWPAGE           | PR         | ISFATTR.PROPTS.NEWPAGE                         | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| NHOLD             | NO         | ISFATTR.NODE.NETHOLD                           | -             | -                            | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE      | UPDATE          |
| NODE              | LI         | ISFATTR.LINE.NODE                              | \$SN          | <i>jesx</i> .START.NET       | CONTROL         |
|                   |            |                                                | *X            | <i>jesx</i> .CALL.NJE        | UPDATE          |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                                                |                 |
| NODENAME          | NO         | ISFATTR.NODE.NODENAME                          | \$T           | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| NOTIFY            | JDS OD     | ISFATTR.OUTDESC.NOTIFY                         | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| NOTIFY            | SO         | ISFATTR.OFFLOAD.NOTIFY                         | \$T           | <i>jesx</i> .MODIFY.OFF                                                                | CONTROL         |
| NPRO              | PR         | ISFATTR.PROPTS.NPRO                            | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | See note 3.   |                                                                                        |                 |
| OCOPYCNT          | JDS OD     | SFATTR.OUTDESC.OCOPYCNT                        | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| ODISP             | JC         | ISFATTR.JOBCL.ODISP                            | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| ODISP             | H JDS O    | ISFATTR.OUTPUT.ODISP                           | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| OFFSETXB          | JDS OD     | ISFATTR.OUTDESC.OFFSETXB                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OFFSETXF          | JDS OD     | ISFATTR.OUTDESC.OFFSETXF                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OFFSETYB          | JDS OD     | ISFATTR.OUTDESC.OFFSETYB                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OFFSETYF          | JDS OD     | ISFATTR.OUTDESC.OFFSETYF                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OPLOG             | PR         | ISFATTR.PROPTS.OPACTLOG                        | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.W                                                                  | UPDATE          |
| OUT               | JC         | ISFATTR.JOBCL.OUTPUT                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| OUTBIN            | OD         | ISFATTR.OUTDESC.OUTBIN                         | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OUTBN             | JDS        | ISFATTR.OUTDESC.OUTBIN                         | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OVERFNAM          | SP         | ISFATTR.SPOOL.OVFNAME                          | -             | -                                                                                      | -               |
|                   |            |                                                | *F Q          | <i>jesx</i> .MODIFY.Q                                                                  | UPDATE          |
| OVERLAYB          | JDS OD     | ISFATTR.OUTDESC.OVERLAYB                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| OVERLAYF          | JDS OD     | ISFATTR.OUTDESC.OVERLAYF                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |



Table 112. Overtypable Fields (continued).

The variable **jesx** should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace **hproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2          | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3          |                 |
| PAGEDEF           | JDS OD     | ISFATTR.OUTDESC.PAGEDEF                        | SSI           |                                  |                 |
|                   |            |                                                | SSI           |                                  |                 |
| PAGE-LIMIT        | LI NC      | ISFATTR.SELECT.PLIM                            | \$T           | jesx.MODIFY.L                    | CONTROL         |
|                   |            |                                                | -             | -                                | -               |
| PAGE-LIMIT        | PR         | ISFATTR.SELECT.PLIM                            | \$T           | jesx.MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                | -               |
| PAGE-LIMIT        | SO         | ISFATTR.SELECT.PLIM                            | \$T           | jesx.MODIFY.OFF                  | CONTROL         |
| PAGE-LIM-HI       | PR         | ISFATTR.SELECT.PLIM                            | -             | -                                | -               |
|                   |            |                                                | See note 3.   |                                  |                 |
| PAGE-LIM-LOW      | PR         | ISFATTR.SELECT.PLIM                            | -             | -                                | -               |
|                   |            |                                                | See note 3.   |                                  |                 |
| PARAMETERS        | CK         | ISFATTR.CHECK.PARM                             | F             | MVS.MODIFY.STC.<br>hproc.hcstcid | UPDATE          |
| PARTNAME          | JC         | ISFATTR.JOBCL.PARTNAME                         | -             | -                                | -               |
|                   |            |                                                | *F            | jesx.MODIFY.C                    | UPDATE          |
| PARTNAME          | JP         | ISFATTR.SPOOL.SPARTN                           | -             | -                                | -               |
|                   |            |                                                | *F            | jesx.MODIFY.G                    | UPDATE          |
| PARTNAME          | NO         | ISFATTR.NODE.PARTNAM                           | -             | -                                | -               |
|                   |            |                                                | *F            | jesx.MODIFY.NJE                  | UPDATE          |
| PARTNAME          | SP         | ISFATTR.SPOOL.PARTNAME                         | -             | -                                | -               |
|                   |            |                                                | *F Q          | jesx.MODIFY.Q                    | UPDATE          |
| PASSWORD          | LI         | ISFATTR.LINE.PASSWORD                          | \$T           | jesx.MODIFY.LINE                 | CONTROL         |
|                   |            |                                                | -             | -                                | -               |
| PASSWORD          | NS         | ISFATTR.LOGON.PASSWORD                         | \$T           | jesx.MODIFY.LOGON                | CONTROL         |
|                   |            |                                                | -             | -                                | -               |
| PATH              | NO         | ISFATTR.NODE.PATH                              | -             | -                                | -               |
|                   |            |                                                | *F            | jesx.MODIFY.NJE                  | UPDATE          |
| PAU               | PR PUN     | ISFATTR.PROPTS.PAUSE                           | \$T           | jesx.MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                | -               |
| PDEFAULT          | PR         | ISFATTR.PROPTS.PDEFAULT                        | -             | -                                | -               |
|                   |            |                                                | *F            | jesx.MODIFY.F                    | CONTROL         |
| PEN               | NO         | ISFATTR.NODE.PENCRYPT                          | \$T           | jesx.MODIFY.NODE                 | CONTROL         |
|                   |            |                                                | -             | -                                | -               |
| PGN               | DA         | ISFATTR.JOB.PGN                                | RESET         | MVS.RESET                        | UPDATE          |
| PGN               | JC         | ISFATTR.JOBCL.PGN                              | \$T           | jesx.MODIFY.JOBCLASS             | CONTROL         |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2          | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|------------------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3          | OPERCMDS Resource, JES3                                                                |                 |
| PGNM              | JC         | ISFATTR.JOBCL.PGMRNAME                         | \$T                    | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| PI                | RDR        | ISFATTR.RDR.PRIOINC                            | \$T                    | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                      | -                                                                                      | -               |
| PL                | RDR        | ISFATTR.RDR.PRIOLIM                            | \$T                    | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                      | -                                                                                      | -               |
| PL                | JC         | ISFATTR.JOBCL.PROCLIB                          | \$T                    | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| PMG               | NO         | ISFATTR.NODE.PATHMGR                           | \$T                    | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -                      | -                                                                                      | -               |
| PORT              | JDS        | ISFATTR.OUTDESC.PORTNO                         | SSI                    |                                                                                        |                 |
|                   |            |                                                | SSI                    |                                                                                        |                 |
| PORT              | NC         | ISFATTR.NETOPTS.PORT                           | \$T                    | <i>jesx</i> .MODIFY.SOCKET                                                             | CONTROL         |
|                   |            |                                                | *F                     | <i>jesx</i> .MODIFY.SOCKET                                                             | UPDATE          |
| PORT              | NS         | ISFATTR.NETOPTS.PORT                           | \$T                    | <i>jesx</i> .MODIFY.SOCKET                                                             | CONTROL         |
|                   |            |                                                | *F                     | <i>jesx</i> .MODIFY.NETSERV                                                            | UPDATE          |
| PORTNO            | OD         | ISFATTR.OUTDESC.PORTNO                         | SSI                    |                                                                                        |                 |
|                   |            |                                                | SSI                    |                                                                                        |                 |
| PRMODE            | JDS J0     | ISFATTR.OUTPUT.PRMODE                          | -                      | -                                                                                      | -               |
|                   |            |                                                | *F U                   | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| PRMODE            | H O        | ISFATTR.OUTPUT.PRMODE                          | \$TO                   | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -                      | -                                                                                      | -               |
| PRMODE            | JDS        | ISFATTR.OUTPUT.PRMODE                          | -                      | -                                                                                      | -               |
|                   |            |                                                | *F                     | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| PROMORT           | JC         | ISFATTR.JOBCL.PROMORATE                        | \$TJOBCLASS,<br>PROMO= | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| PROT              | SO         | ISFATTR.OFFLOAD.PROTECT                        | \$T                    | <i>jesx</i> .MODIFY.OFFLOAD                                                            | CONTROL         |
| PRTDEF            | NO         | ISFATTR.NODE.PRTDEF                            | -                      | -                                                                                      | -               |
|                   |            |                                                | *F                     | <i>jesx</i> .MODIFY.NJE                                                                | UPDATE          |
| PRTDEST           | I ST       | ISFATTR.JOB.PRTDEST                            | \$R                    | <i>jesx</i> .ROUTE.JOBOUT                                                              | UPDATE          |
| PRTDEST           | RDR        | ISFATTR.RDR.PRTDEST                            | \$T                    | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -                      | -                                                                                      | -               |
| PRTOPTNS          | OD         | ISFATTR.OUTDESC.PRINTO                         | SSI                    |                                                                                        |                 |
|                   |            |                                                | SSI                    |                                                                                        |                 |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                                                |                 |
| PRTQUEUE          | OD         | ISFATTR.OUTDESC.PRINTQ                         | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| PRTTSO            | NO         | ISFATTR.NODE.PRTTSO                            | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                                | UPDATE          |
| PRTXWTR           | NO         | ISFATTR.NODE.PRTXWTR                           | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                                | UPDATE          |
| PRTY              | I ST       | ISFATTR.JOB.PRTY                               | \$T           | <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU          | UPDATE          |
|                   |            |                                                | *F J,P        | <i>jesx</i> .MODIFY.JOBP                                                               | UPDATE          |
| PRTY              | H O        | ISFATTR.OUTPUT.PRTY                            | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| PRV               | NO         | ISFATTR.NODE.PRIVATE                           | \$T           | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
| PSEL              | PR         | ISFATTR.PROPTS.PRESELECT                       | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| PTYPE             | NO         | ISFATTR.NODE.PTYPE                             | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                                | UPDATE          |
| PUNDEF            | NO         | ISFATTR.NODE.PUNDEF                            | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                                | UPDATE          |
| PUNDEST           | RDR        | ISFATTR.RDR.PUNDEST                            | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| PWCNTL            | NO         | SFATTR.NODE.PWCNTL                             | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                                | UPDATE          |
| QHLD              | JC         | ISFATTR.JOBCL.QHELD                            | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| QUIESCE           | DA         | ISFATTR.JOB.QUIESCE                            | RESET         | MVS.RESET                                                                              | UPDATE          |
| RECV              | NO         | ISFATTR.NODE.RECEIVE                           | \$T           | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| REGION            | JC         | ISFATTR.JOBCL.REGION                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| RES               | SP         | ISFATTR.SPOOL.RESERVED                         | \$T           | <i>jesx</i> .MODIFY.SPOOL                                                              | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| REST              | LI         | ISFATTR.LINE.REST                              | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                                       | Required Access |
|-------------------|------------|------------------------------------------------|---------------|-------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                                       |                 |
| REST              | NC         | ISFATTR.LINE.REST                              | \$T           | <i>jesx</i> .MODIFY.APPL<br><i>jesx</i> .MODIFY.SOCKET                        | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| REST              | NO         | ISFATTR.NODE.REST                              | \$T           | <i>jesx</i> .MODIFY.NODE                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| RESTART           | LI         | ISFATTR.PROPTS.RESTART                         | \$T           | <i>jesx</i> .MODIFY.LINE                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| RESTART           | NS         | ISFATTR.PROPTS.RESTART                         | \$T           | <i>jesx</i> .MODIFY.LOGON<br><i>jesx</i> .MODIFY.NETSRV                       | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| REST-INT          | LI         | ISFATTR.PROPTS.RTIME                           | \$T           | <i>jesx</i> .MODIFY.LINE                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| REST-INT          | NS         | ISFATTR.PROPTS.RTIME                           | \$T           | <i>jesx</i> .MODIFY.LOGON<br><i>jesx</i> .MODIFY.NETSRV                       | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| RETAINF           | OD         | ISFATTR.OUTDESC.RETAINF                        | SSI           |                                                                               |                 |
|                   |            |                                                | SSI           |                                                                               |                 |
| RETAINS           | OD         | ISFATTR.OUTDESC.RETAINS                        | SSI           |                                                                               |                 |
|                   |            |                                                | SSI           |                                                                               |                 |
| RETRYL            | OD         | ISFATTR.OUTDESC.RETRYL                         | SSI           |                                                                               |                 |
|                   |            |                                                | SSI           |                                                                               |                 |
| RETRYT            | OD         | ISFATTR.OUTDESC.RETRYT                         | SSI           |                                                                               |                 |
|                   |            |                                                | SSI           |                                                                               |                 |
| RST               | JC         | ISFATTR.JOBCL.RESTART                          | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                  | CONTROL         |
| RTPD              | SO         | ISFATTR.OFFLOAD.RETENT                         | \$T           | <i>jesx</i> .MODIFY.OFFLOAD                                                   | CONTROL         |
| ROOM              | JDS OD     | ISFATTR.OUTDESC.ROOM                           | SSI           |                                                                               |                 |
|                   |            |                                                | SSI           |                                                                               |                 |
| SAFF              | I ST       | ISFATTR.JOB.SYSAFF                             | \$T           | <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU | UPDATE          |
|                   |            |                                                |               |                                                                               |                 |
| SAFF              | JG         | ISFATTR.JOBGROUP.SYSAFF                        | \$T           | <i>jesx</i> .MODIFY.GROUP                                                     | UPDATE          |
| SAFF              | SP         | ISFATTR.SPOOL.SYSAFF                           | \$T           | <i>jesx</i> .MODIFY.SPOOL                                                     | CONTROL         |
| SAFF1             | RDR        | ISFATTR.RDR.SYSAFF                             | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | -             | -                                                                             | -               |
| SBURST            | PR         | ISFATTR.SELECT.BURST                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | *S, *X        | See note 3.                                                                   |                 |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2      | Required Access |
|-------------------|------------|------------------------------------------------|---------------|------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3      |                 |
| SBURST            | SO         | ISFATTR.SELECT.BURST                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| SCHEDULING-ENV    | JC         | ISFATTR.JOBCL.SCHENV                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| SCHEDULING-ENV    | I ST       | ISFATTR.JOB.SCHENV                             | \$T           | <i>jesx</i> .MODIFY.BAT      | UPDATE          |
| SCHEDULING-ENV    | JG         | ISFATTR.JOBGROUP.SCHENV                        | \$T           | <i>jesx</i> .MODIFY.GROUP    | UPDATE          |
| SCLASS            | PR PUN     | ISFATTR.SELECT.CLASS                           | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | See note 3.   |                              |                 |
| SCLASS            | SO         | ISFATTR.SELECT.CLASS                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| SCLASS1-8         | SO         | ISFATTR.SELECT.CLASS                           | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| SCN               | JC         | ISFATTR.JOBCL.SCAN                             | \$T           | <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         |
| SDEPTH            | JC         | ISFATTR.JOBCL.SDEPTH                           | -             | -                            | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.C        | UPDATE          |
| SDEST1            | PR         | ISFATTR.SELECT.DEST                            | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| SDEST1            | PUN        | ISFATTR.SELECT.DEST                            | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| SDEST1            | SO         | ISFATTR.SELECT.DEST                            | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| SDISP             | SO         | ISFATTR.SELECT.DISP                            | \$T           | <i>jesx</i> .MODIFY.OFF      | CONTROL         |
| SECURE            | NO         | ISFATTR.NETOPTS.SECURE                         | -             | -                            | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE      | UPDATE          |
| SECURE            | NS         | ISFATTR.NETOPTS.SECURE                         | \$T           | <i>jesx</i> .MODIFY.SOCKET   | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| SECURE            | NC         | ISFATTR.NETOPTS.SECURE                         | \$T           | <i>jesx</i> .MODIFY.SOCKET   | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| SELECT            | PR PUN     | ISFATTR.PROPTS.SELECT                          | \$T           | <i>jesx</i> .MODIFY.DEV      | UPDATE          |
|                   |            |                                                | -             | -                            | -               |
| SELECTMODE NAME   | JP         | ISFATTR.MEMBER.SELMNAME                        | -             | -                            | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.G        | UPDATE          |
| SENDP             | NO         | ISFATTR.NODE.SENDP                             | \$T           | <i>jesx</i> .MODIFY.NODE     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |
| SENTRS            | NO         | ISFATTR.NODE.SENTREST                          | \$T           | <i>jesx</i> .MODIFY.NODE     | CONTROL         |
|                   |            |                                                | -             | -                            | -               |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                  | Required Access |
|-------------------|------------|------------------------------------------------|---------------|------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                  |                 |
| SEP               | PR         | ISFATTR.PROPTS.SEP                             | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                        | -               |
| SEP               | PUN        | ISFATTR.PROPTS.SEP                             | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                        | -               |
| SEPCHAR           | PR         | ISFATTR.PROPTS.SEPCHARS                        | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                        | -               |
| SEPDS             | PR PUN RDR | ISFATTR.PROPTS.SEPDS                           | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | See note 3.   |                                          |                 |
| SETUP             | PR PUN     | ISFATTR.PROPTS.SETUP                           | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.W                    |                 |
| SETUP             | PUN        | ISFATTR.PROPTS.SETUP                           | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                        | -               |
| SEVERITY          | CK         | ISFATTR.CHECK.SEVERITY                         | F             | MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          |
| SFCB              | PR         | ISFATTR.SELECT.FCB                             | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | See note 3.   |                                          |                 |
| SFCB              | SO         | ISFATTR.SELECT.FCB                             | \$T           | <i>jesx</i> .MODIFY.OFF                  | CONTROL         |
| SFLH              | SO         | ISFATTR.SELECT.FLASH                           | \$T           | <i>jesx</i> .MODIFY.OFF                  | CONTROL         |
| SFLH              | PR         | ISFATTR.SELECT.FLASH                           | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | *R, *S        | See note 3.                              |                 |
| SFORMS            | PR PUN     | ISFATTR.SELECT.FORMS                           | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | See note 3.   |                                          |                 |
| SFORMS            | SO         | ISFATTR.SELECT.FORMS                           | \$T           | <i>jesx</i> .MODIFY.OFF                  | CONTROL         |
| SHOLD             | SO         | ISFATTR.SELECT.HOLD                            | \$T           | <i>jesx</i> .MODIFY.OFF                  | CONTROL         |
| SJOBNAME          | PR PUN     | ISFATTR.SELECT.JOBNAME                         | \$T           | <i>jesx</i> .MODIFY.DEV                  | UPDATE          |
|                   |            |                                                | -             | -                                        | -               |
| SJOBNAME          | SO         | ISFATTR.SELECT.JOBNAME                         | \$T           | <i>jesx</i> .MODIFY.OFF                  | CONTROL         |
| SOCKET            | NS         | ISFATTR.NETOPTS.SOCKET                         | \$T           | <i>jesx</i> .MODIFY.NETSRV               | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NETSERV              | UPDATE          |
| SODSP             | LI         | ISFATTR.SELECT.OUTDISP                         | \$T           | <i>jesx</i> .MODIFY.L                    | CONTROL         |
|                   |            |                                                | -             | -                                        | -               |
| SODSP             | NC         | ISFATTR.SELECT.ODISP                           | \$T           | <i>jesx</i> .MODIFY.L                    | CONTROL         |
|                   |            |                                                | -             | -                                        | -               |
| SODSP             | SO         | ISFATTR.SELECT.ODISP                           | \$T           | <i>jesx</i> .MODIFY.OFF                  | CONTROL         |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                                       | Required Access |
|-------------------|------------|------------------------------------------------|---------------|-------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                                       |                 |
| SOWNER            | PR         | ISFATTR.SELECT.OWNER                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | -             | -                                                                             | -               |
| SOWNER            | PUN        | ISFATTR.SELECT.OWNER                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | -             | -                                                                             | -               |
| SOWNER            | SO         | ISFATTR.SELECT.OWNER                           | \$T           | <i>jesx</i> .MODIFY.OFF                                                       | CONTROL         |
| SPEED             | LI         | ISFATTR.LINE.SPEED                             | \$T           | <i>jesx</i> .MODIFY.LINE                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| SPRMODE1          | SO         | ISFATTR.SELECT.PRMODE                          | \$T           | <i>jesx</i> .MODIFY.OFF                                                       | CONTROL         |
| SPRMODE1          | PR PUN RDR | ISFATTR.SELECT.PRMODE                          | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | See note 3.   |                                                                               |                 |
| SRANGE            | PR         | ISFATTR.SELECT.RANGE                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | -             | -                                                                             | -               |
| SRANGE            | PUN        | ISFATTR.SELECT.RANGE                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                       | UPDATE          |
|                   |            |                                                | -             | -                                                                             | -               |
| SRANGE            | SO         | ISFATTR.SELECT.RANGE                           | \$T           | <i>jesx</i> .MODIFY.OFF                                                       | CONTROL         |
| SRNUM             | LI         | ISFATTR.LINE.SRNUM                             | \$T           | <i>jesx</i> .MODIFY.LINE                                                      | CONTROL         |
|                   |            |                                                | -             | -                                                                             | -               |
| SRNUM             | NO         | ISFATTR.NODE.SRNUM                             | -             | -                                                                             | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                       | UPDATE          |
| SRVCLASS          | DA         | ISFATTR.JOB.SRVCLASS                           | RESET         | MVS.RESET                                                                     | UPDATE          |
| SRVCLASS          | I ST       | ISFATTR.JOB.SRVCLS                             | \$T           | <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU | CONTROL         |
|                   |            |                                                | *F J          | <i>jesx</i> .MODIFY.JOB                                                       | UPDATE          |
| SRVCLASS          | ENC        | ISFATTR.ENCLAVE.SRVCLASS                       |               |                                                                               |                 |
| SRVNAME           | NC         | ISFATTR.NETOPTS.NETSRV                         | -             | -                                                                             | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.SOCKET                                                    | UPDATE          |
| SSAFF             | SO         | ISFATTR.SELECT.SSAFF                           | \$T           | <i>jesx</i> .MODIFY.OFF                                                       | CONTROL         |
| SSCHEDULING-ENV   | SO         | ISFATTR.SELECT.SCHENV                          | \$T           | <i>jesx</i> .MODIFY.OFF                                                       | CONTROL         |
| SSRVCLASS         | SO         | ISFATTR.SELECT.SRVCLS                          | \$T           | <i>jesx</i> .MODIFY.OFF                                                       | CONTROL         |
| SSIGNON           | NO         | ISFATTR.NODE.SSIGNON                           | \$T           | <i>jesx</i> .MODIFY.NODE                                                      | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NJE                                                       | UPDATE          |
| STACK             | NS         | ISFATTR.NETOPTS.STACK                          | \$T           | <i>jesx</i> .MODIFY.NETSRV                                                    | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NETSERV                                                   |                 |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                 | Required Access |
|-------------------|------------|------------------------------------------------|---------------|---------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                 |                 |
| STNUM             | LI         | ISFATTR.LINE.STNUM                             | \$T           | <i>jesx</i> .MODIFY.LINE                                | CONTROL         |
|                   |            |                                                | -             | -                                                       | -               |
| SUBNET            | NO         | ISFATTR.NODE.SUBNET                            | \$T           | <i>jesx</i> .MODIFY.NODE                                | CONTROL         |
|                   |            |                                                | -             | -                                                       | -               |
| SUCS              | PR         | ISFATTR.SELECT.UCS                             | \$T           | <i>jesx</i> .MODIFY.DEV                                 | UPDATE          |
|                   |            |                                                | See note 3.   |                                                         |                 |
| SUCS              | SO         | ISFATTR.SELECT.UCS                             | \$T           | <i>jesx</i> .MODIFY.OFF                                 | CONTROL         |
| SUS               | PUN        | ISFATTR.PROPTS.SUSPEND                         | \$T           | <i>jesx</i> .MODIFY.DEV                                 | UPDATE          |
|                   |            |                                                | -             | -                                                       | -               |
| SVOL              | SO         | ISFATTR.SELECT.VOL                             | \$T           | <i>jesx</i> .MODIFY.OFF                                 | CONTROL         |
| SVOL              | PR PUN     | ISFATTR.SELECT.VOL                             | \$T           | <i>jesx</i> .MODIFY.DEV                                 | UPDATE          |
|                   |            |                                                | -             | -                                                       | -               |
| SWA               | JC         | ISFATTR.JOBCL.SWA                              | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                            | CONTROL         |
| SWRITER           | PR PUN     | ISFATTR.SELECT.WRITER                          | \$T           | <i>jesx</i> .MODIFY.DEV                                 | UPDATE          |
|                   |            |                                                | -             | -                                                       | -               |
| SWRITER           | SO         | ISFATTR.SELECT.WRITER                          | \$T           | <i>jesx</i> .MODIFY.OFF                                 | CONTROL         |
| SYNCTOL           | MAS        | ISFATTR.MEMBER.SYNCTOL                         | \$T           | <i>jesx</i> .MODIFY.MASDEF                              | CONTROL         |
| SYSSYM            | JC         | ISFATTR.JOBCL.SYSSYM                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                            | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.C                                   | UPDATE          |
| TDEPTH            | JC         | ISFATTR.JOBCL.TDEPTH                           | -             | -                                                       | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.C                                   | UPDATE          |
| TITLE             | JDS OD     | ISFATTR.OUTDESC.TITLE                          | SSI           |                                                         |                 |
|                   |            |                                                | SSI           |                                                         |                 |
| TP6               | JC         | ISFATTR.JOBCL.TYPE6                            | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                            | CONTROL         |
| TP26              | JC         | ISFATTR.JOBCL.TYPE26                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                            | CONTROL         |
| TR                | LI NC      | ISFATTR.PROPTS.TRACE                           | \$T           | <i>jesx</i> .MODIFY.LINE                                | CONTROL         |
|                   |            |                                                | -             | -                                                       | -               |
| TR                | NO         | ISFATTR.NODE.TRACE                             | \$T           | <i>jesx</i> .MODIFY.NODE                                | CONTROL         |
|                   |            |                                                | -             | -                                                       | -               |
| TR                | NS         | ISFATTR.PROPTS.TRACE                           | \$T           | <i>jesx</i> .MODIFY.LOGON<br><i>jesx</i> .MODIFY.NETSRV | CONTROL         |
|                   |            |                                                | -             | -                                                       | -               |
| TR                | PR PUN     | ISFATTR.PROPTS.TRACE                           | \$T           | <i>jesx</i> .MODIFY.DEV                                 | UPDATE          |
|                   |            |                                                | -             | -                                                       | -               |



Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypeable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDs Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDs Resource, JES3                                                                |                 |
| TR                | RDR        | ISFATTR.RDR.TRACE                              | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| TRANS             | PR         | ISFATTR.PROPTS.TRANS                           | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.F                                                                  |                 |
| TRANS             | NO         | ISFATTR.NODE.TRANSMIT                          | \$T           | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| TRANSP            | LI         | ISFATTR.LINE.TRANSPARENCY                      | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| TRKCELL           | PR         | ISFATTR.PROPTS.TRKCELL                         | PR            | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| UCS               | H O        | ISFATTR.OUTPUT.UCS                             | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| UCS               | JDS J0     | ISFATTR.OUTPUT.UCS                             | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.U                                                                  | UPDATE          |
| UCSV              | PR         | ISFATTR.PROPTS.UCSVERIFY                       | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| UJP               | JC         | ISFATTR.JOBCL.IEFUJP                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| UNALLOC           | INIT       | ISFATTR.INIT.UNALLOC                           | -             | -                                                                                      | -               |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.G                                                                  | UPDATE          |
| UNIT              | LI         | ISFATTR.PROPTS.UNIT                            | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| UNIT              | PR PUN     | ISFATTR.PROPTS.UNIT                            | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| UNIT              | SO         | ISFATTR.PROPTS.UNIT                            | \$T           | <i>jesx</i> .MODIFY.OFFLOAD                                                            | CONTROL         |
| UNIT              | RDR        | ISFATTR.RDR.UNIT                               | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| USERDATA          | OD         | ISFATTR.OUTDESC.USERDATA                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| USERDATA1         | JDS        | ISFATTR.OUTDESC.USERDATA                       | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| USERDATE          | CK         | ISFATTR.CHECK.USERDATE                         | F             | MVS.MODIFY.STC.<br><i>hproc.hcstcid</i>                                                | UPDATE          |

Table 112. Overtypable Fields (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

When a set of related fields can be overtyped with the Overtypable Extension pop-up, all of the fields in the set are protected by the same resource.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

When an overtypable field does not apply in a particular JES environment, the command and OPERCMDS resource are shown as a hyphen (-).

| Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) | Command, JES2 | OPERCMDS Resource, JES2                                                                | Required Access |
|-------------------|------------|------------------------------------------------|---------------|----------------------------------------------------------------------------------------|-----------------|
|                   |            |                                                | Command, JES3 | OPERCMDS Resource, JES3                                                                |                 |
| USERLIB           | JDS        | ISFATTR.OUTDESC.USERLIB                        | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| USO               | JC         | ISFATTR.JOBCL.IEFUSO                           | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| VALIDATE          | SO         | ISFATTR.OFFLOAD.VALIDATE                       | \$T           | <i>jesx</i> .MODIFY.OFFLOAD                                                            | CONTROL         |
| VERBOSE           | CK         | ISFATTR.CHECK.VERBOSE                          | F             | MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i>                                               | UPDATE          |
| VERIFYP           | NO         | ISFATTR.NODE.VERIFYP                           | \$T           | <i>jesx</i> .MODIFY.NODE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| VOLS              | SO         | ISFATTR.OFFLOAD.VOLS                           | \$T           | <i>jesx</i> .MODIFY.OFFLOAD                                                            | CONTROL         |
| VTR               | LI         | ISFATTR.PROPTS.VTRACE                          | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| VTR               | NC         | ISFATTR.PROPTS.VTRACE                          | \$T           | <i>jesx</i> .MODIFY.LINE                                                               | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.SOCKET                                                             | UPDATE          |
| VTR               | NS         | ISFATTR.PROPTS.VTRACE                          | \$T           | <i>jesx</i> .MODIFY.NETSRV                                                             | CONTROL         |
|                   |            |                                                | *F            | <i>jesx</i> .MODIFY.NETSERV                                                            | UPDATE          |
| WARN%             | RM         | ISFATTR.RESMON.WARNPCT                         | \$T           | <i>jesx</i> .MODIFY. <i>resource</i> <sup>2</sup>                                      | CONTROL         |
| WORK-SELECTION    | LI NC      | ISFATTR.PROPTS.WS                              | \$T           | <i>jesx</i> .MODIFY.L                                                                  | CONTROL         |
|                   |            |                                                | -             | -                                                                                      | -               |
| WORK-SELECTION    | PR         | ISFATTR.PROPTS.WS                              | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | *R            | <i>jesx</i> .RESTART.DEV. <i>device</i>                                                |                 |
| WORK-SELECTION    | PUN        | ISFATTR.PROPTS.WS                              | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | See note 3.   |                                                                                        |                 |
| WORK-SELECTION    | SO         | ISFATTR.PROPTS.WS                              | \$T           | <i>jesx</i> .MODIFY.OFF                                                                | CONTROL         |
| WTOTYPE           | CK         | ISFATTR.CHECK.WTOTYPE                          | F             | MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i>                                               | UPDATE          |
| WTR               | H O        | ISFATTR.OUTPUT.WRITER                          | \$TO          | <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |
| WTR               | JDS J0     | ISFATTR.OUTPUT.WRITER                          | SSI           |                                                                                        |                 |
|                   |            |                                                | SSI           |                                                                                        |                 |
| XBM               | JC         | ISFATTR.JOBCL.XBM                              | \$T           | <i>jesx</i> .MODIFY.JOBCLASS                                                           | CONTROL         |
| XEQDEST           | RDR        | ISFATTR.RDR.XEQDEST                            | \$T           | <i>jesx</i> .MODIFY.DEV                                                                | UPDATE          |
|                   |            |                                                | -             | -                                                                                      | -               |

Notes for Table 112 on page 274:

<sup>1</sup> SDSF uses the subsystem interface (SSI) when you overtyping the C (JES output class) or DEST (JES print destination name) on the JDS panel. You can change the class or destination without releasing the output. In order to release output when the JESSPOOL class is enabled, the user must have ALTER authority to the JESSPOOL resource. This authority is implied for the JESSPOOL resources created by the user.

<sup>2</sup> The SAF resource varies with the JES2 resource. Refer to “JES2 resources” on page 309.

<sup>3</sup> In a JES3 environment, you must also type an action character when overtyping the field. The command issued and OPERCMDS resource depend on the action character that is used with the overtype. Refer to Table 113.

Table 113. Actions with Overtypes on the PR and PUN Panels in a JES3 Environment

| Action Character | Command  | OPERCMDs Resource              | Required Access |
|------------------|----------|--------------------------------|-----------------|
| B, E, F          | *RESTART | <i>jesx.RESTART.DEV.device</i> | UPDATE          |
| S                | *START   | <i>jesx.START.DEV.device</i>   | UPDATE          |
| X                | *CALL    | <i>jesx.CALL.dsname</i>        | UPDATE          |

Table 114. Overtypable Fields Sorted by OPERCMDS Resource Name.

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name | Required Access | MVS/JES Command  | Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|------------------------|-----------------|------------------|-------------------|------------|------------------------------------------------|
|                        |                 | SSI              | ADDRESS           | JDS OD     | ISFATTR.OUTDESC.ADDRESS                        |
|                        |                 | SSI              | AFPPARMS          | JDS OD     | ISFATTR.OUTDESC.AFPPARMS                       |
|                        |                 | SSI              | BUILDING          | JDS OD     | ISFATTR.OUTDESC.BLDG                           |
|                        |                 | SSI <sup>1</sup> | C                 | JDS J0     | ISFATTR.OUTPUT.CLASS                           |
|                        |                 | SSI              | CC                | JDS J0     | ISFATTR.OUTPUT.COPYCNT                         |
|                        |                 | SSI              | COLORMAP          | JDS OD     | ISFATTR.OUTDESC.COLORMAP                       |
|                        |                 | SSI              | COMSETUP          | JDS OD     | ISFATTR.OUTDESC.COMSETUP                       |
|                        |                 | SSI              | DEPARTMENT        | JDS OD     | ISFATTR.OUTDESC.DEPT                           |
|                        |                 | SSI <sup>1</sup> | DEST              | JDS J0     | ISFATTR.OUTPUT.DEST                            |
|                        |                 | SSI              | FORMDEF           | JDS OD     | ISFATTR.OUTDESC.FORMDEF                        |
|                        |                 | SSI              | FORMLEN           | JDS OD     | ISFATTR.OUTDESC.FORMLLEN                       |
|                        |                 | SSI              | FORMS             | JDS J0     | ISFATTR.OUTPUT.FORMS                           |
|                        |                 | SSI              | INTRAY            | JDS OD     | ISFATTR.OUTDESC.INTRAY                         |
|                        |                 | SSI              | IP DESTINATION    | OD         | ISFATTR.OUTDESC.IPDEST                         |
|                        |                 | SSI              | NAME              | JDS OD     | ISFATTR.OUTDESC.NAME                           |
|                        |                 | SSI              | OCOPYCNT          | JDS OD     | ISFATTR.OUTDESC.OCOPYCNT                       |
|                        |                 | SSI              | OFFSETXB          | JDS OD     | ISFATTR.OUTDESC.OFFSETXB                       |

Table 114. Overtypable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name   | Required Access | MVS/JES Command | Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|--------------------------|-----------------|-----------------|-------------------|------------|------------------------------------------------|
|                          |                 | SSI             | OFFSETXF          | JDS OD     | ISFATTR.OUTDESC.OFFSETXF                       |
|                          |                 | SSI             | OFFSETYB          | JDS OD     | ISFATTR.OUTDESC.OFFSETYB                       |
|                          |                 | SSI             | OFFSETYF          | JDS OD     | ISFATTR.OUTDESC.OFFSETYF                       |
|                          |                 | SSI             | NOTIFY            | JDS OD     | ISFATTR.OUTDESC.NOTIFY                         |
|                          |                 | SSI             | OUTBN             | JDS        | ISFATTR.OUTDESC.OUTBIN                         |
|                          |                 | SSI             | OUTBIN            | OD         | ISFATTR.OUTDESC.OUTBIN                         |
|                          |                 | SSI             | OVERLAYB          | JDS OD     | ISFATTR.OUTDESC.OVERLAYB                       |
|                          |                 | SSI             | OVERLAYF          | JDS OD     | ISFATTR.OUTDESC.OVERLAYF                       |
|                          |                 | SSI             | PAGEDEF           | JDS OD     | ISFATTR.OUTDESC.PAGEDEF                        |
|                          |                 | SSI             | PORT              | JDS        | ISFATTR.OUTDESC.PORTNO                         |
|                          |                 | SSI             | PORTNO            | OD         | ISFATTR.OUTDESC.PORTNO                         |
|                          |                 | SSI             | PRMODE            | JDS J0     | ISFATTR.OUTPUT.PRMODE                          |
|                          |                 | SSI             | PRTOPTNS          | OD         | ISFATTR.OUTDESC.PRINTO                         |
|                          |                 | SSI             | PRTQUEUE          | OD         | ISFATTR.OUTDESC.PRINTQ                         |
|                          |                 | SSI             | RETAINF           | OD         | ISFATTR.OUTDESC.RETAINF                        |
|                          |                 | SSI             | RETAINS           | OD         | ISFATTR.OUTDESC.RETAINS                        |
|                          |                 | SSI             | RETRYL            | OD         | ISFATTR.OUTDESC.RETRYL                         |
|                          |                 | SSI             | RETRYT            | OD         | ISFATTR.OUTDESC.RETRYT                         |
|                          |                 | SSI             | ROOM              | JDS OD     | ISFATTR.OUTDESC.ROOM                           |
|                          |                 | SSI             | TITLE             | JDS OD     | ISFATTR.OUTDESC.TITLE                          |
|                          |                 | SSI             | UCS               | JDS J0     | ISFATTR.OUTPUT.UCS                             |
|                          |                 | SSI             | USERDATA          | OD         | ISFATTR.OUTDESC.USERDATA                       |
|                          |                 | SSI             | USERDATA1         | JDS        | ISFATTR.OUTDESC.USERDATA                       |
|                          |                 | SSI             | USERLIB           | JDS OD     | ISFATTR.OUTDESC.USERLIB                        |
|                          |                 |                 | SRVCLASS          | ENC        | ISFATTR.ENCLAVE.SRVCLASS                       |
|                          |                 | SSI             | WTR               | JDS J0     | ISFATTR.OUTPUT.WRITER                          |
| <i>jesx.CALL.dspname</i> | UPDATE          | *X. See note 3. | B                 | PUN        | ISFATTR.PROPTS.BPAGE                           |
| <i>jesx.CALL.dspname</i> | UPDATE          | *X. See note 3. | CB                | PR         | ISFATTR.PROPTS.CB                              |
| <i>jesx.CALL.dspname</i> | UPDATE          | *X. See note 3. | CHAR1             | PR         | ISFATTR.PROPTS.CHAR                            |
| <i>jesx.CALL.dspname</i> | UPDATE          | *X. See note 3. | CKPTPAGE          | PR         | ISFATTR.PROPTS.CKPTPAGE                        |
| <i>jesx.CALL.dspname</i> | UPDATE          | *X. See note 3. | CKPTSEC           | PR         | ISFATTR.PROPTS.CKPTSEC                         |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable **jesx** should be replaced by the name of the targeted JES subsystem.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name            | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-----------------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | COPIES             | PR         | ISFATTR.PROPTS.COPIES                          |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | COPYMARK           | PR         | ISFATTR.PROPTS.COPYMARK                        |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | LINE-LIM-HI        | PR PUN     | ISFATTR.SELECT.LIM                             |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | LINE-LIM-LO        | PR PUN     | ISFATTR.SELECT.LIM                             |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | NPRO               | PR         | ISFATTR.PROPTS.NPRO                            |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | PAGE-LIM-HI        | PR         | ISFATTR.SELECT.PLIM                            |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | PAGE-LIM-LO        | PR         | ISFATTR.SELECT.PLIM                            |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SBURST             | PR         | ISFATTR.SELECT.BURST                           |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SCLASS             | PR PUN     | ISFATTR.SELECT.CLASS                           |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SEPDS              | PUN        | ISFATTR.PROPTS.SEPDS                           |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SFCB               | PR         | ISFATTR.SELECT.FCB                             |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SFORMS             | PR PUN     | ISFATTR.SELECT.FORMS                           |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SPRMODE1           | PR PUN     | ISFATTR.SELECT.PRMODE                          |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | SUCS               | PR         | ISFATTR.SELECT.UCS                             |
| jesx.CALL.dspname                 | UPDATE          | *X. See note 3. | WORK-SELECTION     | PUN        | ISFATTR.PROPTS.WS                              |
| jesx.CALL.NJE                     | UPDATE          | *X              | NODE               | LI NO      | ISFATTR.LINE.NODE                              |
| jesx.MODIFY.resource <sup>2</sup> | CONTROL         | \$T             | LIMIT              | RM         | ISFATTR.RESMON.LIMIT                           |
| jesx.MODIFY.resource <sup>2</sup> | CONTROL         | \$T             | WARN%              | RM         | ISFATTR.RESMON.WARNPCT                         |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | ANODE              | NC         | ISFATTR.NETOPTS.NODE                           |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | COMPACT            | NC         | ISFATTR.NODE.COMPACT                           |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | CONNECT            | NC         | ISFATTR.NETOPTS.CONNECT                        |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | CONN-INT           | NC         | ISFATTR.NETOPTS.CTIME                          |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | LINE               | NC         | ISFATTR.NODE.LINE                              |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | LOGMODE            | NC         | ISFATTR.NODE.LOGMODE                           |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | LOGON              | NC         | ISFATTR.NETOPTS.LOGON                          |
| jesx.MODIFY.APPL                  | CONTROL         | \$T             | REST               | NC         | ISFATTR.LINE.REST                              |
| jesx.MODIFY.BAT                   | UPDATE          | \$T             | SCHEDULING-ENV     | I ST       | ISFATTR.JOB.SCHENV                             |

Table 114. Overtypable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name                                                                 | Required Access | MVS/JES Command       | Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|----------------------------------------------------------------------------------------|-----------------|-----------------------|-------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU          | UPDATE          | \$T                   | SAFF              | I ST       | ISFATTR.JOB.SYSAFF                             |
| <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU          | UPDATE          | \$T                   | C                 | I ST       | ISFATTR.JOB.CLASS                              |
| <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU          | UPDATE          | \$T                   | PRTY              | I ST       | ISFATTR.JOB.PRTY                               |
| <i>jesx</i> .MODIFY.BAT<br><i>jesx</i> .MODIFY.STC<br><i>jesx</i> .MODIFY.TSU          | CONTROL         | \$T                   | SRVCLASS          | I ST       | ISFATTR.JOB.SRVCLS                             |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | BURST             | H O        | ISFATTR.OUTPUT.BURST                           |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO SSI <sup>1</sup> | C                 | H O        | ISFATTR.OUTPUT.CLASS                           |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO SSI <sup>1</sup> | DEST              | H O        | ISFATTR.OUTPUT.DEST                            |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | FCB               | H O        | ISFATTR.OUTPUT.FCB                             |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | FLASH             | H O        | ISFATTR.OUTPUT.FLASH                           |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | FORMS             | H O        | ISFATTR.OUTPUT.FORMS                           |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | ODISP             | H O        | ISFATTR.OUTPUT.ODISP                           |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | PRMODE            | H O        | ISFATTR.OUTPUT.PRMODE                          |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | PRTY              | H O        | ISFATTR.OUTPUT.PRTY                            |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | UCS               | H O        | ISFATTR.OUTPUT.UCS                             |
| <i>jesx</i> .MODIFY.BATOUT<br><i>jesx</i> .MODIFY.STCOUT<br><i>jesx</i> .MODIFY.TSUOUT | UPDATE          | \$TO                  | WTR               | H O        | ISFATTR.OUTPUT.WRITER                          |
| <i>jesx</i> .MODIFY.C                                                                  | UPDATE          | *F                    | JESLOG            | JC         | ISFATTR.JOBCL.JESLOG                           |
| <i>jesx</i> .MODIFY.C                                                                  | UPDATE          | *F                    | LOG               | JC         | ISFATTR.JOBCL.JLOG                             |
| <i>jesx</i> .MODIFY.C                                                                  | UPDATE          | *F                    | PARTNAME          | JC         | ISFATTR.JOBCL.PARTNAME                         |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name  | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.C   | UPDATE          | *F              | SDEPTH             | JC         | ISFATTR.JOBCL.SDEPTH                           |
| <i>jesx</i> .MODIFY.C   | UPDATE          | *F              | SYSSYM             | JC         | ISFATTR.JOBCL.SYSSYM                           |
| <i>jesx</i> .MODIFY.C   | UPDATE          | *F              | TDEPTH             | JC         | ISFATTR.JOBCL.TDEPTH                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | ASIS               | PR         | ISFATTR.PROPTS.ASIS                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CCTL               | PR PUN     | ISFATTR.PROPTS.CCTL                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CHAR1-4            | PR         | ISFATTR.PROPTS.CHAR                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CMPCT              | PR PUN     | ISFATTR.PROPTS.CMPCT                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | COMP               | PR PUN     | ISFATTR.PROPTS.COMPRESS                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | COMPACT            | PR PUN     | ISFATTR.PROPTS.COMPACT                         |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CKPTLINE           | PR PUN     | ISFATTR.PROPTS.CKPTLINE                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CKPTMODE           | PR         | ISFATTR.PROPTS.CKPTMODE                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CKPTPAGE           | PR PUN     | ISFATTR.PROPTS.CKPTPAGE                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CKPTSEC            | PR         | ISFATTR.PROPTS.CKPTSEC                         |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | COPYMARK           | PR         | ISFATTR.PROPTS.COPYMARK                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | CPYMOD             | PR         | ISFATTR.PROPTS.COPYMOD                         |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | DFCB               | PR         | ISFATTR.PROPTS.DEVFCB                          |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | FCBL               | PR         | ISFATTR.PROPTS.FCBLDLOAD                       |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | FSSNAME            | PR         | ISFATTR.PROPTS.FSSNAME                         |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | HONORTRC           | PR         | ISFATTR.PROPTS.HONORTRC                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | K                  | PR         | ISFATTR.PROPTS.SPACE                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | LINE-LIMIT         | PR PUN     | ISFATTR.SELECT.LIM                             |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | LRECL              | PR PUN     | ISFATTR.PROPTS.LRECL                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | M                  | PR         | ISFATTR.PROPTS.MARK                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | MODE               | PR         | ISFATTR.PROPTS.MODE                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | NEWPAGE            | PR         | ISFATTR.PROPTS.NEWPAGE                         |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | NPRO               | PR         | ISFATTR.PROPTS.NPRO                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | PAGE-LIMIT         | PR         | ISFATTR.SELECT.PLM                             |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | PAU                | PR PUN     | ISFATTR.PROPTS.PAUSE                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | PSEL               | PR         | ISFATTR.PROPTS.PRESELCT                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SBURST             | PR SO      | ISFATTR.SELECT.BURST                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SCLASS             | PR PUN     | ISFATTR.SELECT.CLASS                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SDEST1             | PR PUN     | ISFATTR.SELECT.DEST                            |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SELECT             | PR PUN     | ISFATTR.PROPTS.SELECT                          |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SEP                | PR PUN     | ISFATTR.PROPTS.SEP                             |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SEPCHAR            | PR         | ISFATTR.PROPTS.SEPCHARS                        |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SEPDS              | PR PUN     | ISFATTR.PROPTS.SEPDS                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SETUP              | PR PUN     | ISFATTR.PROPTS.SETUP                           |
| <i>jesx</i> .MODIFY.DEV | UPDATE          | \$T             | SFCB               | PR         | ISFATTR.SELECT.FCB                             |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SFLH               | PR         | ISFATTR.SELECT.FLASH                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SFORMS             | PR PUN     | ISFATTR.SELECT.FORMS                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SJOBNAME           | PR PUN     | ISFATTR.SELECT.JOBNAME                         |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SOWNER             | PR PUN     | ISFATTR.SELECT.OWNER                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SPRMODE1           | PR PUN     | ISFATTR.SELECT.PRMODE                          |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SRANGE             | PR PUN     | ISFATTR.SELECT.RANGE                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SUCS               | PR         | ISFATTR.SELECT.UCS                             |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SUS                | PR PUN     | ISFATTR.SELECT.SUSPEND                         |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SVOL1              | PR         | ISFATTR.SELECT.VOL                             |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SWRITER            | PR PUN     | ISFATTR.SELECT.WRITER                          |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | TR                 | PR PUN     | ISFATTR.PROPTS.TRACE                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | TRANS              | PR         | ISFATTR.PROPTS.TRANS                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | TRKCELL            | PR         | ISFATTR.PROPTS.TRKCELL                         |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | UCSV               | PR         | ISFATTR.PROPTS.UCSVERIFY                       |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | UNIT               | PR PUN     | ISFATTR.PROPTS.UNIT                            |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | WORK-SELECTION     | PR PUN     | ISFATTR.PROPTS.WS                              |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | FLS                | PUN        | ISFATTR.PROPTS.FLUSH                           |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | LINE-LIMIT         | PUN        | ISFATTR.SELECT.LIM                             |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SVOL               | PUN        | ISFATTR.SELECT.VOL                             |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | AUTHORITY          | RDR        | ISFATTR.RDR.AUTHORITY                          |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | C                  | RDR        | ISFATTR.RDR.CLASS                              |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | HOLD               | RDR        | ISFATTR.RDR.HOLD                               |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | MC                 | RDR        | ISFATTR.RDR.RMCLASS                            |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | PI                 | RDR        | ISFATTR.RDR.PRIOINC                            |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | PL                 | RDR        | ISFATTR.RDR.PRIOLIM                            |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | PRTDEST            | RDR        | ISFATTR.RDR.PRTDEST                            |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | PUNDEST            | RDR        | ISFATTR.RDR.PUNDEST                            |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | SAFF               | RDR        | ISFATTR.RDR.SYSAFF                             |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | TR                 | RDR        | ISFATTR.RDR.TRACE                              |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | UNIT               | RDR        | ISFATTR.RDR.UNIT                               |
| jesx.MODIFY.DEV        | UPDATE          | \$T             | XEQDEST            | RDR        | ISFATTR.RDR.XEQDEST                            |
| jesx.MODIFY.F          | UPDATE          | *F              | MODE               | PR         | ISFATTR.PROPTS.MODE                            |
| jesx.MODIFY.F          | CONTROL         | *F              | PDEFAULT           | PR         | ISFATTR.PROPTS.PDEFAULT                        |
| jesx.MODIFY.F          | UPDATE          | *F              | SETUP              | PR         | ISFATTR.PROPTS.SETUP                           |
| jesx.MODIFY.F          | UPDATE          | *F              | TRANS              | PR         | ISFATTR.PROPTS.TRANS                           |
| jesx.MODIFY.G          | UPDATE          | *F              | ALLOC              | INIT       | ISFATTR.INIT.ALLOC                             |
| jesx.MODIFY.G          | UPDATE          | *F              | BARRIER            | INIT       | ISFATTR.INIT.BARRIER                           |
| jesx.MODIFY.G          | UPDATE          | *F              | DEFCOUNT           | INIT       | ISFATTR.INIT.DEFCOUNT                          |



Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name        | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-------------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.C         | UPDATE          | *F              | GROUP              | INIT       | ISFATTR.INIT.GROUP                             |
| <i>jesx</i> .MODIFY.G         | UPDATE          | *F              | MODE               | INIT       | ISFATTR.INIT.MODE                              |
| <i>jesx</i> .MODIFY.G         | UPDATE          | *F              | UNALLOC            | INIT       | ISFATTR.INIT.UNALLOC                           |
| <i>jesx</i> .MODIFY.G         | UPDATE          | *F              | SELECTMODE NAME    | JP         | ISFATTR.MEMBER.SELMNAME                        |
| <i>jesx</i> .MODIFY.G         | UPDATE          | *F              | PARTNAME           | JP         | ISFATTR.MEMBER.SPARTN                          |
| <i>jesx</i> .MODIFY.GROUP     | UPDATE          | \$T             | SAFF               | JG         | ISFATTR.JOBGROUP.SYSAFF                        |
| <i>jesx</i> .MODIFY.GROUP     | UPDATE          | \$T             | SCHEDULING-ENV     | JG         | ISFATTR.JOBGROUP.SCHENV                        |
| <i>jesx</i> .MODIFY.INITIATOR | CONTROL         | \$T             | CLASSES            | INIT       | ISFATTR.SELECT.JOBCLASS                        |
| <i>jesx</i> .MODIFY.INITIATOR | CONTROL         | \$T             | CLASS1-8           | INIT       | ISFATTR.SELECT.JOBCLASS                        |
| <i>jesx</i> .MODIFY.JOB       | UPDATE          | *F              | C                  | I ST       | ISFATTR.JOB.CLASS                              |
| <i>jesx</i> .MODIFY.JOB       | UPDATE          | *F              | SRVLCASS           | I ST       | ISFATTR.JOB.SRVCLS                             |
| <i>jesx</i> .MODIFY.JOB       | UPDATE          | *F              | C                  | I ST       | ISFATTR.JOB.CLASS                              |
| <i>jesx</i> .MODIFY.JOBP      | UPDATE          | *F              | PRTY               | I ST       | ISFATTR.JOB.PRTY                               |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | ACCT               | JC         | ISFATTR.JOBCL.ACCT                             |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | ACTIVE             | JC         | ISFATTR.JOBCL.ACTIVE                           |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | AUTH               | JC         | ISFATTR.JOBCL.AUTH                             |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | BLP                | JC         | ISFATTR.JOBCL.BLP                              |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | COMMAND            | JC         | ISFATTR.JOBCL.COMMAND                          |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | CPR                | JC         | ISFATTR.JOBCL.CONDPURG                         |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | CPY                | JC         | ISFATTR.JOBCL.COPY                             |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | DSENQSHR           | JC         | ISFATTR.JOBCL.DSENQSHR                         |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | GROUP              | JC         | ISFATTR.JOBCL.GROUP                            |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | HOLD               | JC         | ISFATTR.JOBCL.HOLD                             |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | JCLIM              | JC         | ISFATTR.JOBCL.JCLIM                            |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | JESLOG             | JC         | ISFATTR.JOBCL.JESLOG                           |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | JOBRC              | JC         | ISFATTR.JOBCL.JOBRC                            |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | JRNL               | JC         | ISFATTR.JOBCL.JOURNAL                          |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | LOG                | JC         | ISFATTR.JOBCL.LOG                              |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | MAX-TIME           | JC         | ISFATTR.JOBCL.TIME                             |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | MC                 | JC         | ISFATTR.JOBCL.MSGCLASS                         |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | MODE               | JC         | ISFATTR.JOBCL.MODE                             |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | MSGLV              | JC         | ISFATTR.JOBCL.MSGLEVEL                         |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | ODISP              | JC         | ISFATTR.JOBCL.ODISP                            |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | OUT                | JC         | ISFATTR.JOBCL.OUTPUT                           |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | PGN                | JC         | ISFATTR.JOBCL.PGN                              |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | PGNM               | JC         | ISFATTR.JOBCL.PGMRNAME                         |
| <i>jesx</i> .MODIFY.JOBCLASS  | CONTROL         | \$T             | PROMORT            | JC         | ISFATTR.JOBCL.PROMORATE                        |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name       | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|------------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | QHLD               | JC         | ISFATTR.JOBCL.QHELD                            |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | REGION             | JC         | ISFATTR.JOBCL.REGION                           |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | RST                | JC         | ISFATTR.JOBCL.RESTART                          |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | SCHEDULING-ENV     | JC         | ISFATTR.JOBCL.SCHENV                           |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | SCN                | JC         | ISFATTR.JOBCL.SCAN                             |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | SWA                | JC         | ISFATTR.JOBCL.SWA                              |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | SYSSYM             | JC         | ISFATTR.JOBCL.SYSSYM                           |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | TP6                | JC         | ISFATTR.JOBCL.TYPE6                            |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | TP26               | JC         | ISFATTR.JOBCL.TYPE26                           |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | UJP                | JC         | ISFATTR.JOBCL.IEFUJP                           |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | USO                | JC         | ISFATTR.JOBCL.IEFUSO                           |
| <i>jesx</i> .MODIFY.JOBCLASS | CONTROL         | \$T             | XBM                | JC         | ISFATTR.JOBCL.XBM                              |
| <i>jesx</i> .MODIFY.L        | CONTROL         | \$T             | LINE-LIMIT         | LI NC      | ISFATTR.SELECT.LIM                             |
| <i>jesx</i> .MODIFY.L        | CONTROL         | \$T             | PAGE-LIMIT         | LI NC      | ISFATTR.SELECT.PLIM                            |
| <i>jesx</i> .MODIFY.L        | CONTROL         | \$T             | SODSP              | LI NC      | ISFATTR.SELECT.OUTDISP                         |
| <i>jesx</i> .MODIFY.L        | CONTROL         | \$T             | WORK-SELECTION     | LI NC      | ISFATTR.PROPTS.WS                              |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | ADISC              | LI         | ISFATTR.LINE.AUTODISC                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | ANODE              | NC         | ISFATTR.NETOPTS.NODE                           |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | CONNECT            | NC         | ISFATTR.NETOPTS.CONNECT                        |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | CONN-INT           | NC         | ISFATTR.NETOPTS.CTIME                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | CODE               | LI         | ISFATTR.LINE.CODE                              |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | COMP               | LI         | ISFATTR.LINE.COMPRESS                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | CONNECT            | LI         | ISFATTR.NETOPTS.CONNECT                        |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | CONN-INT           | LI         | ISFATTR.NETOPTS.CTIME                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | CTR                | LI NC      | ISFATTR.PROPTS.CTRACE                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | DUPLEX             | LI         | ISFATTR.LINE.DUPLEX                            |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | INTF               | LI         | ISFATTR.LINE.INTERFACE                         |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | JRNUM              | LI         | ISFATTR.LINE.JRNUM                             |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | JTNUM              | LI         | ISFATTR.LINE.JTNUM                             |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | JTR                | LI NC      | ISFATTR.PROPTS.JTRACE                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | LINECCHR           | LI         | ISFATTR.LINE.LINECCHR                          |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | LOG                | LI         | ISFATTR.LINE.LOG                               |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | REST               | LI         | ISFATTR.LINE.REST                              |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | RESTART            | LI         | ISFATTR.PROPTS.RESTART                         |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | REST-INT           | LI         | ISFATTR.PROPTS.RTIME                           |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | SPEED              | LI         | ISFATTR.LINE.SPEED                             |
| <i>jesx</i> .MODIFY.LINE     | CONTROL         | \$T             | SRNUM              | LI         | ISFATTR.LINE.SRNUM                             |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name      | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-----------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.LINE    | CONTROL         | \$T             | STNUM              | LI         | ISFATTR.LINE.STNUM                             |
| <i>jesx</i> .MODIFY.LINE    | CONTROL         | \$T             | TR                 | LI NC      | ISFATTR.PROPTS.TRACE                           |
| <i>jesx</i> .MODIFY.LINE    | CONTROL         | \$T             | TRANSP             | LI         | ISFATTR.LINE.<br>TRANSPARENCY                  |
| <i>jesx</i> .MODIFY.LINE    | CONTROL         | \$T             | UNIT               | LI         | ISFATTR.PROPTS.UNIT                            |
| <i>jesx</i> .MODIFY.LINE    | CONTROL         | \$T             | VTR                | LI NC      | ISFATTR.PROPTS.VTRACE                          |
| <i>jesx</i> .MODIFY.LOGON   | CONTROL         | \$T             | APPL               | NS         | ISFATTR.NETOPTS.APPL                           |
| <i>jesx</i> .MODIFY.LOGON   | CONTROL         | \$T             | LOG                | NS         | ISFATTR.NETOPTS.LOG                            |
| <i>jesx</i> .MODIFY.LOGON   | CONTROL         | \$T             | PASSWORD           | NS         | ISFATTR.LOGON.PASSWORD                         |
| <i>jesx</i> .MODIFY.LOGON   | CONTROL         | \$T             | RESTART            | NS         | ISFATTR.PROPTS.RESTART                         |
| <i>jesx</i> .MODIFY.LOGON   | CONTROL         | \$T             | RESTART-INT        | NS         | ISFATTR.PROPTS.RTIME                           |
| <i>jesx</i> .MODIFY.LOGON   | CONTROL         | \$T             | TR                 | NS         | ISFATTR.PROPTS.TRACE                           |
| <i>jesx</i> .MODIFY.MASDEF  | CONTROL         | \$T             | CKPTHOLD           | MAS        | ISFATTR.MEMBER.CKPTHOLD                        |
| <i>jesx</i> .MODIFY.MASDEF  | CONTROL         | \$T             | DORMANCY           | MAS        | ISFATTR.MEMBER.DORMANCY                        |
| <i>jesx</i> .MODIFY.MASDEF  | CONTROL         | \$T             | SYNCTOL            | MAS        | ISFATTR.MEMBER.SYNCTOL                         |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | CTR                | NS         | ISFATTR.PROPTS.CTRACE                          |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | JTR                | NS         | ISFATTR.PROPTS.JTRACE                          |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | RESTART            | NS         | ISFATTR.PROPTS.RESTART                         |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | RESTART-INT        | NS         | ISFATTR.PROPTS.RTIME                           |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | SOCKET             | NS         | ISFATTR.NETOPTS.SOCKET                         |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | STACK              | NS         | ISFATTR.NETOPTS.STACK                          |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | TR                 | NS         | ISFATTR.PROPTS.TRACE                           |
| <i>jesx</i> .MODIFY.NETSRV  | CONTROL         | \$T             | VTR                | NS         | ISFATTR.PROPTS.VTRACE                          |
| <i>jesx</i> .MODIFY.NETSERV | CONTROL         | *F              | CTR                | NS         | ISFATTR.PROPTS.CTRACE                          |
| <i>jesx</i> .MODIFY.NETSERV | UPDATE          | *F              | IPNAME             | NS         | ISFATTR.NETOPTS.HOSTNAME                       |
| <i>jesx</i> .MODIFY.NETSERV | UPDATE          | *F              | JTR                | NS         | ISFATTR.PROPTS.JTRACE                          |
| <i>jesx</i> .MODIFY.NETSERV | UPDATE          | *F              | PORT               | NS         | ISFATTR.NETOPTS.PORT                           |
| <i>jesx</i> .MODIFY.NETSERV | UPDATE          | *F              | SOCKET             | NS         | ISFATTR.NETOPTS.SOCKET                         |
| <i>jesx</i> .MODIFY.NETSERV | UPDATE          | *F              | STACK              | NS         | ISFATTR.NETOPTS.STACK                          |
| <i>jesx</i> .MODIFY.NETSERV | UPDATE          | *F              | TR                 | NS         | ISFATTR.PROPTS.VTRACE                          |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | HOLD               | NO         | ISFATTR.NODE.HOLD                              |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | JRNUM              | NO         | ISFATTR.NODE.JRNUM                             |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | JTNUM              | NO         | ISFATTR.NODE.JTNUM                             |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | NHOLD              | NO         | ISFATTR.NODE.NETHOLD                           |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | MAXRETRIES         | NO         | ISFATTR.NODE.MAXRETR                           |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | PARTNAME           | NO         | ISFATTR.NODE.PARTNAM                           |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | PATH               | NO         | ISFATTR.NODE.PATH                              |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | PRTDEF             | NO         | ISFATTR.NODE.PRTDEF                            |
| <i>jesx</i> .MODIFY.NJE     | UPDATE          | *F              | PRTTSO             | NO         | ISFATTR.NODE.PRTTSO                            |

Table 114. Overtypable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDS Resource Name   | Required Access | MVS/JES Command | Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|--------------------------|-----------------|-----------------|-------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | PRTXWTR           | NO         | ISFATTR.NODE.PRTXWTR                           |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | PTYPE             | NO         | ISFATTR.NODE.PTYPE                             |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | PUNDEF            | NO         | ISFATTR.NODE.PUNDEF                            |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | PWCNTL            | NO         | ISFATTR.NODE.PWCNTL                            |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | SECURE            | NO         | ISFATTR.NODE.SECURE                            |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | SRNUM             | NO         | ISFATTR.NODE.SRNUM                             |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | SSIGNON           | NO         | ISFATTR.NODE.SSIGNON                           |
| <i>jesx</i> .MODIFY.NJE  | UPDATE          | *F              | STNUM             | NO         | ISFATTR.NODE.STNUM                             |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | AUTHORITY         | NO         | ISFATTR.NODE.AUTHORITY                         |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | CONNECT           | NO         | ISFATTR.NETOPTS.CONNECT                        |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | CONN-INT          | NO         | ISFATTR.NETOPTS.CTIME                          |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | CP                | NO         | ISFATTR.NODE.COMPACT                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | DIRECT            | NO         | ISFATTR.NODE.DIRECT                            |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | END               | NO         | ISFATTR.NODE.ENDNODE                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | HOLD              | NO         | ISFATTR.NODE.HOLD                              |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | LINE              | NO         | ISFATTR.NODE.LINE                              |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | LOGMODE           | NO         | ISFATTR.NODE.LOGMODE                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | NODENAME          | NO         | ISFATTR.NODE.LOGON                             |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | NETSRV            | NO         | ISFATTR.NODE.NETSRV                            |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | PEN               | NO         | ISFATTR.NODE.PENCRYPT                          |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | PMG               | NO         | ISFATTR.NODE.PATHMGR                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | PRV               | NO         | ISFATTR.NODE.PRIVATE                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | RCV               | NO         | ISFATTR.NODE.RECEIVE                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | REST              | NO         | ISFATTR.NODE.REST                              |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | SENDP             | NO         | ISFATTR.NODE.SENDP                             |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | SENTRS            | NO         | ISFATTR.NODE.SENTREST                          |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | SSIGNON           | NO         | ISFATTR.NODE.SSIGNON                           |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | SUBNET            | NO         | ISFATTR.NODE.SUBNET                            |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | TR                | NO         | ISFATTR.NODE.TRACE                             |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | TRANS             | NO         | ISFATTR.NODE.TRANSMIT                          |
| <i>jesx</i> .MODIFY.NODE | CONTROL         | \$T             | VERIFYP           | NO         | ISFATTR.NODE.VERIFYP                           |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | LINE-LIMIT        | SO         | ISFATTR.SELECT.LIM                             |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | MBURST            | SO         | ISFATTR.MODIFY.BURST                           |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | MCLASS            | SO         | ISFATTR.MODIFY.CLASS                           |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | MDEST             | SO         | ISFATTR.MODIFY.DEST                            |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | MFCB              | SO         | ISFATTR.MODIFY.FCB                             |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | MFLH              | SO         | ISFATTR.MODIFY.FLASH                           |
| <i>jesx</i> .MODIFY.OFF  | CONTROL         | \$T             | MFORMS            | SO         | ISFATTR.MODIFY.FORMS                           |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name      | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-----------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | MHOLD              | SO         | ISFATTR.MODIFY.HOLD                            |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | MODSP              | SO         | ISFATTR.MODIFY.ODISP                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | MPRMODE            | SO         | ISFATTR.MODIFY.PRMODE                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | MSAFF              | SO         | ISFATTR.MODIFY.SYSAFF                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | MUCS               | SO         | ISFATTR.MODIFY.UCS                             |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | MWRITER            | SO         | ISFATTR.MODIFY.WRITER                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | NOTIFY             | SO         | ISFATTR.OFFLOAD.NOTIFY                         |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | PAGE-LIMIT         | SO         | ISFATTR.SELECT.PLIM                            |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SBURST             | SO         | ISFATTR.SELECT.BURST                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SCLASS             | SO         | ISFATTR.SELECT.CLASS                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SCLASS1-8          | SO         | ISFATTR.SELECT.CLASS                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SDEST1             | SO         | ISFATTR.SELECT.DEST                            |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SDISP              | SO         | ISFATTR.SELECT.DISP                            |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SRANGE             | SO         | ISFATTR.SELECT.RANGE                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SFCB               | SO         | ISFATTR.SELECT.FCB                             |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SFLH               | SO         | ISFATTR.SELECT.FLASH                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SFORMS             | SO         | ISFATTR.SELECT.FORMS                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SHOLD              | SO         | ISFATTR.SELECT.HOLD                            |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SJOBNAME           | SO         | ISFATTR.SELECT.JOBNAME                         |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SODSP              | SO         | ISFATTR.SELECT.ODISP                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SOWNER             | SO         | ISFATTR.SELECT.OWNER                           |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SPRMODE1           | SO         | ISFATTR.SELECT.PRMODE                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SSAFF              | SO         | ISFATTR.SELECT.SYSAFF                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SSCHEDULING-ENV    | SO         | ISFATTR.SELECT.SCHENV                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SSRVCLASS          | SO         | ISFATTR.SELECT.SRVCLS                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SUCS               | SO         | ISFATTR.SELECT.UCS                             |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SVOL               | SO         | ISFATTR.SELECT.VOL                             |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | SWRITER            | SO         | ISFATTR.SELECT.WRITER                          |
| <i>jesx</i> .MODIFY.OFF     | CONTROL         | \$T             | WORK-SELECTION     | SO         | ISFATTR.PROPTS.WS                              |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | ARCHIVE            | SO         | ISFATTR.OFFLOAD.ARCHIVE                        |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | CRTIME             | SO         | ISFATTR.OFFLOAD.CRTIME                         |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | DSNAME             | SO         | ISFATTR.OFFLOAD.DATASET                        |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | LABEL              | SO         | ISFATTR.OFFLOAD.LABEL                          |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | PROT               | SO         | ISFATTR.OFFLOAD.PROTECT                        |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | RTPD               | SO         | ISFATTR.OFFLOAD.RETENT                         |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | UNIT               | SO         | ISFATTR.PROPTS.UNIT                            |
| <i>jesx</i> .MODIFY.OFFLOAD | CONTROL         | \$T             | VALIDATE           | SO         | ISFATTR.OFFLOAD.VALIDATE                       |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name                  | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-----------------------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx</i> .MODIFY.Q                   | UPDATE          | *F              | MINPCT             | SP         | ISFATTR.SPOOL.MINPCT                           |
| <i>jesx</i> .MODIFY.Q                   | UPDATE          | *F              | OVERFNAM           | SP         | ISFATTR.SPOOL.OVFNAME                          |
| <i>jesx</i> .MODIFY.Q                   | UPDATE          | *F              | PARTNAME           | SP         | ISFATTR.SPOOL.PARTNAME                         |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | ANODE              | NC         | ISFATTR.NETOPTS.NODE                           |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | CONNECT            | NC         | ISFATTR.NETOPTS.CONNECT                        |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | CONN-INT           | NC         | ISFATTR.NETOPTS.CTIME                          |
| <i>jesx</i> .MODIFY.SOCKET              | UPDATE          | *F              | CTR                | NC         | ISFATTR.PROPTS.CTRACE                          |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | IPNAME             | NS         | ISFATTR.NETOPTS.IPNAME                         |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | IPNAME             | NC         | ISFATTR.NETOPTS.IPNAME                         |
| <i>jesx</i> .MODIFY.SOCKET              | UPDATE          | *F              | IPNAME             | NC         | ISFATTR.NETOPTS.IPNAME                         |
| <i>jesx</i> .MODIFY.SOCKET              | UPDATE          | *F              | JTR                | NC         | ISFATTR.PROPTS.JTRACE                          |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | LINE               | NC         | ISFATTR.NODE.LINE                              |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | NETSRV             | NC         | ISFATTR.NETOPTS.NETSRV                         |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | PORT               | NC NS      | ISFATTR.NETOPTS.PORT                           |
| <i>jesx</i> .MODIFY.SOCKET              | UPDATE          | *F              | PORT               | NC         | ISFATTR.NETOPTS.PORT                           |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | \$T             | REST               | NC         | ISFATTR.LINE.REST                              |
| <i>jesx</i> .MODIFY.SOCKET              | CONTROL         | *F              | SRVNAME            | NC         | ISFATTR.NETOPTS.NETSRV                         |
| <i>jesx</i> .MODIFY.SOCKET              | UPDATE          | *F              | VTR                | NC         | ISFATTR.PROPTS.VTRACE                          |
| <i>jesx</i> .MODIFY.SPOOL               | CONTROL         | \$T             | RES                | SP         | ISFATTR.SPOOL.SYSAFF                           |
| <i>jesx</i> .MODIFY.SPOOL               | CONTROL         | \$T             | SAFF               | SP         | ISFATTR.SPOOL.RESERVED                         |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | BURST              | JDS        | ISFATTR.OUTPUT.BURST                           |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | C                  | JDS        | ISFATTR.OUTPUT.CLASS                           |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | CC                 | JDS        | ISFATTR.OUTPUT.COPYCNT                         |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | CHARS              | JDS        | ISFATTR.OUTPUT.CHARS                           |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | CPYMOD             | JDS        | ISFATTR.OUTPUT.COPYMOD                         |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | CPYMOD             | J0         | ISFATTR.PRTOPTS.COPYMOD                        |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | DEST               | JDS        | ISFATTR.OUTPUT.DEST                            |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | FCB                | JDS        | ISFATTR.OUTPUT.FCB                             |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | FLASH              | JDS        | ISFATTR.OUTPUT.FLASH                           |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | FORMS              | JDS        | ISFATTR.OUTPUT.FORMS                           |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | PRMODE             | JDS        | ISFATTR.OUTPUT.PRMODE                          |
| <i>jesx</i> .MODIFY.U                   | UPDATE          | *F              | UCS                | JDS        | ISFATTR.OUTPUT.UCS                             |
| <i>jesx</i> .MODIFY.W                   | UPDATE          | *F              | DGRPY              | PR PUN     | ISFATTR.PROPTS.DGRPY                           |
| <i>jesx</i> .MODIFY.W                   | UPDATE          | *F              | DYN                | PR PUN     | ISFATTR.PROPTS.DYN                             |
| <i>jesx</i> .MODIFY.W                   | UPDATE          | *F              | OPLOG              | PR         | ISFATTR.PROPTS.OPACTLOG                        |
| <i>jesx</i> .RESTART.DEV. <i>device</i> | UPDATE          | *R. See note 3. | B                  | PUN        | ISFATTR.PROPTS.BPAGE                           |
| <i>jesx</i> .RESTART.DEV. <i>device</i> | UPDATE          | *R. See note 3. | CHAR1              | PR         | ISFATTR.PROPTS.CHAR                            |

Table 114. Overtypable Fields Sorted by OPERCMDS Resource Name (continued).

The variable **jesx** should be replaced by the name of the targeted JES subsystem.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name  | Required Access | MVS/JES Command | Overtypable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|-------------------------|-----------------|-----------------|-------------------|------------|------------------------------------------------|
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | CKPTPAGE          | PR         | ISFATTR.PROPTS.CKPTPAGE                        |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | CKPTSEC           | PR         | ISFATTR.PROPTS.CKPTSEC                         |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | COPIES            | PR PUN     | ISFATTR.PROPTS.COPIES                          |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | COPYMARK          | PR         | ISFATTR.PROPTS.COPYMARK                        |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | LINE-LIM-HI       | PR PUN     | ISFATTR.SELECT.LIM                             |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | LINE-LIM-LO       | PR PUN     | ISFATTR.SELECT.LIM                             |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | NPRO              | PR         | ISFATTR.PROPTS.NPRO                            |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | PAGE-LIM-HI       | PR         | ISFATTR.SELECT.PLIM                            |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | PAGE-LIM-LO       | PR         | ISFATTR.SELECT.PLIM                            |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SCLASS            | PR PUN     | ISFATTR.SELECT.CLASS                           |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SEPDS             | PR PUN     | ISFATTR.PROPTS.SEPDS                           |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SFCB              | PR         | ISFATTR.SELECT.FCB                             |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SFLH              | PR         | ISFATTR.SELECT.FLASH                           |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SFORMS            | PR PUN     | ISFATTR.SELECT.FORMS                           |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SPRMODE1          | PR         | ISFATTR.SELECT.PRMODE                          |
| jesx.RESTART.DEV.device | UPDATE          | *R. See note 3. | SUCS              | PR         | ISFATTR.SELECT.UCS                             |
| jesx.RESTART.DEV.device | UPDATE          | *R              | WORK-SELECTION    | PR PUN     | ISFATTR.PROPTS.WS                              |
| jesx.ROUTE.JOBOUT       | UPDATE          | \$R             | EXECNODE          | I ST       | ISFATTR.JOB.EXECNODE                           |
| jesx.ROUTE.JOBOUT       | UPDATE          | \$R             | PRTDEST           | I ST       | ISFATTR.JOB.PRTDEST                            |
| jesx.START.DEV.device   | UPDATE          | *S              | B                 | PR PUN     | ISFATTR.PROPTS.BPAGE                           |
| jesx.START.DEV.device   | UPDATE          | *S. See note 3. | CHAR1             | PR         | ISFATTR.PROPTS.CHAR                            |
| jesx.START.DEV.device   | UPDATE          | *S. See note 3. | CB                | PR         | ISFATTR.PROPTS.CB                              |
| jesx.START.DEV.device   | UPDATE          | *S. See note 3. | CKPTPAGE          | PR         | ISFATTR.PROPTS.CKPTPAGE                        |
| jesx.START.DEV.device   | UPDATE          | *S. See note 3. | CKPTSEC           | PR         | ISFATTR.PROPTS.CKPTSEC                         |

Table 114. Overtimeable Fields Sorted by OPERCMDS Resource Name (continued).

The variable **jesx** should be replaced by the name of the targeted JES subsystem.

Replace **hcproc** and **hcstcid** with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDS Resource Name                   | Required Access | MVS/JES Command | Overtimeable Field | SDSF Panel | SDSF Resource Name (UPDATE Authority Required) |
|------------------------------------------|-----------------|-----------------|--------------------|------------|------------------------------------------------|
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | COPIES             | PR PUN     | ISFATTR.PROPTS.COPIES                          |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | COPYMARK           | PR         | ISFATTR.PROPTS.COPYMARK                        |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S              | CPYMOD             | PR         | ISFATTR.PROPTS.COPYMOD                         |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | LINE-LIM-HI        | PR PUN     | ISFATTR.SELECT.LIM                             |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | LINE-LIM-LO        | PR PUN     | ISFATTR.SELECT.LIM                             |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | NPRO               | PR         | ISFATTR.PROPTS.NPRO                            |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | PAGE-LIM-HI        | PR PUN     | ISFATTR.SELECT.PLIM                            |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | PAGE-LIM-LO        | PR PUN     | ISFATTR.SELECT.PLIM                            |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SBURST             | PR         | ISFATTR.SELECT.BURST                           |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SCLASS             | PR PUN     | ISFATTR.SELECT.CLASS                           |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SEPDS              | PUN        | ISFATTR.PROPTS.SEPDS                           |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SFCB               | PR         | ISFATTR.SELECT.FCB                             |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SFLH               | PR         | ISFATTR.SELECT.FLASH                           |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SFORMS             | PR PUN     | ISFATTR.SELECT.FORMS                           |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SPRMODE1           | PR PUN     | ISFATTR.SELECT.PRMODE                          |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | SUCS               | PR         | ISFATTR.SELECT.UCS                             |
| <i>jesx.START.DEV.device</i>             | UPDATE          | *S. See note 3. | WORK-SELECTION     | PUN        | ISFATTR.PROPTS.WS                              |
| <i>jesx.START.NET</i>                    | CONTROL         | \$S             | APPLID             | LI         | ISFATTR.LINE.APPLID                            |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | CATEGORY           | CK         | ISFATTR.CHECK.CATEGORY                         |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | DEBUG              | CK         | ISFATTR.CHECK.DEBUG                            |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | EINTERVAL          | CK         | ISFATTR.CHECK.EINTERVAL                        |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | INTERVAL           | CK         | ISFATTR.CHECK.INTERVAL                         |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | PARAMETERS         | CK         | ISFATTR.CHECK.PARM                             |



Table 114. Overtypable Fields Sorted by OPERCMDS Resource Name (continued).

The variable *jesx* should be replaced by the name of the targeted JES subsystem.

Replace *hcproc* and *hcstcid* with the IBM Health Checker for z/OS procedure name and started task ID.

Resources apply to the JES indicated by the command in the MVS/JES Command column: the \$ command character indicates a JES2 command and the \* command character indicates a JES3 command.

| OPERCMDs Resource Name                   | Required Access | MVS/JES Command | Overtypable Field                                                   | SDSF Panel              | SDSF Resource Name (UPDATE Authority Required) |
|------------------------------------------|-----------------|-----------------|---------------------------------------------------------------------|-------------------------|------------------------------------------------|
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | SEVERITY                                                            | CK                      | ISFATTR.CHECK.SEVERITY                         |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | USERDATE                                                            | CK                      | ISFATTR.CHECK.USERDATE                         |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | VERBOSE                                                             | CK                      | ISFATTR.CHECK.VERBOSE                          |
| MVS.MODIFY.STC.<br><i>hcproc.hcstcid</i> | UPDATE          | MODIFY          | WTOTYPE                                                             | CK                      | ISFATTR.CHECK.WTOTYPE                          |
| MVS.MODIFY.WLM                           | UPDATE          | MODIFY          | System                                                              | RES                     | ISFATTR.RESOURCE. <i>system</i>                |
| MVS.RESET                                | UPDATE          | RESET           | PGN                                                                 | DA                      | ISFATTR.JOB.PGN                                |
| MVS.RESET                                | UPDATE          | RESET           | QUIESCE                                                             | DA                      | ISFATTR.JOB.QUIESCE                            |
| MVS.RESET                                | UPDATE          | RESET           | SRVCLASS                                                            | DA                      | ISFATTR.JOB.SRVCLASS                           |
| MVS.ROUTE                                | READ            | RO              | Any, when the system is other than the one the user is logged on to | DA<br>INIT<br>MAS<br>PR |                                                |

Notes on Table 114 on page 295:

1. SDSF uses the subsystem interface (SSI) when you overtype the C (JES output class) or DEST (JES print destination name) on the JDS panel. You can change the class or destination without releasing the output. In order to release output when the JESSPOOL class is enabled, the user must have ALTER authority to the JESSPOOL resource. This authority is implied for the JESSPOOL resources created by the user.
2. The SAF resource varies with the JES2 resource. See "JES2 resources."
3. In a JES3 environment, the command issued and OPERCMDS resource depend on the action character that is used with the overtype. See Table 113 on page 295.

### Access authority

Multiple OPERCMDS class resources are often provided for the same overtypable field, but they are for different panels. You choose the OPERCMDS resource that you need according to the panels you are protecting. In the table, *jesx* should be replaced by the name of the targeted JES subsystem.

To see how this information relates to the command levels for the action characters and resource names, see the CMDLEV parameter in "Group function parameters reference" on page 39. See also "Action characters and overtypable fields for each command level" on page 74.

### JES2 resources

The following table shows the SAF resources in the OPERCMDS class for the JES2 resources displayed on the RM panel.

Table 115. OPERCMDS Resources That Protect Overtyping JES2 Resources

| JES2 Resource | OPERCMD5 Resource             | Required Access |
|---------------|-------------------------------|-----------------|
| BERT          | <i>jesx</i> .MODIFY.CKPTSPACE | CONTROL         |
| BSCB          | <i>jesx</i> .MODIFY.TPDEF     | CONTROL         |
| BUFX          | <i>jesx</i> .MODIFY.BUFDEF    | CONTROL         |
| CKVR          | <i>jesx</i> .MODIFY.CKPTDEF   | CONTROL         |
| CMBS          | <i>jesx</i> .MODIFY.CONDEF    | CONTROL         |
| CMDS          | <i>jesx</i> .MODIFY.CONDEF    | CONTROL         |
| ICES          | <i>jesx</i> .MODIFY.TPDEF     | CONTROL         |
| JNUM          | <i>jesx</i> .MODIFY.JOBDEF    | CONTROL         |
| JOES          | <i>jesx</i> .MODIFY.OUTDEF    | CONTROL         |
| JQES          | <i>jesx</i> .MODIFY.JOBDEF    | CONTROL         |
| LBUF          | <i>jesx</i> .MODIFY.BUFDEF    | CONTROL         |
| NHBS          | <i>jesx</i> .MODIFY.NJEDEF    | CONTROL         |
| SMFB          | <i>jesx</i> .MODIFY.SMFDEF    | CONTROL         |
| TBUF          | Not applicable                |                 |
| TGS           | <i>jesx</i> .MODIFY.SPOOLDEF  | CONTROL         |
| TTAB          | <i>jesx</i> .MODIFY.TRACEDEF  | CONTROL         |
| VTMB          | <i>jesx</i> .MODIFY.TPDEF     | CONTROL         |

## Page data sets

### Protecting page data sets

Protect page data sets by defining resource names in the SDSF class. The resources are shown in Table 116.

Table 116. SAF Resources for Page Data Sets

| Action Characters and Overtypes | Resource Name              | Class | Access Required |
|---------------------------------|----------------------------|-------|-----------------|
| D                               | ISFPAG. <i>datasetname</i> | SDSF  | READ            |
| DC                              | ISFPAG. <i>datasetname</i> | SDSF  | READ            |
| DD                              | ISFPAG. <i>datasetname</i> | SDSF  | READ            |
| DL                              | ISFPAG. <i>datasetname</i> | SDSF  | READ            |
| DP                              | ISFPAG. <i>datasetname</i> | SDSF  | READ            |
| DS                              | ISFPAG. <i>datasetname</i> | SDSF  | READ            |

To control access to the PAG panel, protect the PAG command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting page data sets

To protect all page data sets and permit a user to control them, define a generic profile as follows:

```
REDEFINE SDSF ISFPAG.** UACC(NONE)
PERMIT ISFPAG.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

---

## PARMLIB data sets

### Protecting PARM data sets

Protect PARM data sets by defining resource names in the SDSF class. The resources are shown in Table 117.

Table 117. SAF Resources for PARM Data Sets

| Action Characters and Overtypes | Resource Name               | Class | Access Required |
|---------------------------------|-----------------------------|-------|-----------------|
| D                               | ISFPARM. <i>datasetname</i> | SDSF  | READ            |
| DE                              | ISFPARM. <i>datasetname</i> | SDSF  | READ            |

To control access to the PARM panel, protect the PARM command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting PARM data sets

To protect all PARM data sets and permit a user to control them, define a generic profile as follows:

```
REDEFINE SDSF ISFPARM.** UACC(NONE)
PERMIT ISFPARM.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

---

## Printers

You can protect the printers displayed on the PR panel.

Authority to access the job on the printer is not checked.

### Protecting printers

Protect printers by defining resource names in the WRITER class. The resources are shown in Table 118.

Table 118. Authority Required to Printer Resources for Actions and Overtypes

| Action Character or Overtypable Field | Resource Name                                    | Class  | Access  |
|---------------------------------------|--------------------------------------------------|--------|---------|
| D action character                    | <i>jesx.LOCAL.device-name</i> for local printers | WRITER | READ    |
|                                       | <i>jesx.RJE.device-name</i> for remote printers  |        |         |
| C action character                    | <i>jesx.LOCAL.device-name</i> for local printers | WRITER | ALTER   |
|                                       | <i>jesx.RJE.device-name</i> for remote printers  |        |         |
| K action character, FSSName overtype  | <i>jesx.LOCAL.device-name</i>                    | WRITER | CONTROL |
|                                       | <i>jesx.RJE.device-name</i>                      |        |         |
| All others                            | <i>jesx.LOCAL.device-name</i> for local printers | WRITER | CONTROL |
|                                       | <i>jesx.RJE.device-name</i> for remote printers  |        |         |

In the table,

*jesx*

is the name of the JES subsystem the printer is on.

*device-name*  
is the name of the printer.

To protect the MVS and JES commands generated by action characters or overtypes, see “Tables of action characters” on page 225 and “Tables of overtypable fields” on page 274.

To control access to the PR panel, protect the PR command. This is described in “Authorized SDSF commands” on page 249.

## Permitting access only while using SDSF

Users can be conditionally permitted to access the WRITER class resources so that they only can access printers through SDSF. See “Using conditional access” on page 221 for more information.

## Examples of protecting printers

In the following examples, *jesx* is the name of the JES subsystem. For example, it might be *JES2*, *JESA*, or to protect all JES subsystems, *JES%*.

1. To protect all printers and punches, issue the following commands:  
RDEFINE WRITER *jesx.\*\** UACC(READ)  
PERMIT *jesx.\*\** CLASS(WRITER) ID(*userid* or *groupid*) ACCESS(ALTER)
2. To restrict printers to only be used through SDSF, issue the following command:

```
PERMIT jesx.** CLASS(WRITER) ID(userid or groupid) ACCESS(ALTER)
WHEN(CONSOLE(SDSF))
```

You must have the CONSOLE class active, the SDSF console defined in the console class, and the user authorized to use the SDSF console through the CONSOLE class, as follows:

```
SETROPTS CLASSACT(CONSOLE)
RDEFINE CONSOLE SDSF UACC(NONE)
PERMIT SDSF CLASS(CONSOLE) ID(userid or groupid) ACCESS(READ)
```

---

## Processes (z/OS UNIX System Services)

You can protect the z/OS UNIX System Services (z/OS UNIX) processes displayed on the PS panel.

## Protecting processes

Protect processes by defining resource names in the SDSF class. The resources are shown in Table 126 on page 317.

Table 119. Authority Required to z/OS UNIX Processes for Actions and Overtypes

| Action Character or Overtypable Field | Resource Name                 | Class | Access |
|---------------------------------------|-------------------------------|-------|--------|
| D action character                    | ISFPROC. <i>owner.jobname</i> | SDSF  | READ   |
| All others                            | ISFPROC. <i>owner.jobname</i> | SDSF  | ALTER  |

In the table,

*owner*  
is the owner of the z/OS UNIX process.

*jobname*

is the jobname of the z/OS UNIX process.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225.

To control access to the PS panel, protect the PS command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting processes

To protect all processes issue the following commands:

```
RDEFINE SDSF ISFPROC.** UACC(NONE)
PERMIT ISFPROC.** CLASS(SDSF) ID(userid or groupid)
ACCESS(ALTER)
```

---

## Proclibs

### Protecting proclibs

Protect Proclibs by defining resource names in the SDSF class. The resources are shown in Table 120.

Table 120. SAF Resources for Proclibs

| Action Characters and Overtypes | Resource Name                | Class | Access Required |
|---------------------------------|------------------------------|-------|-----------------|
| D                               | ISFPLIB. <i>proclib-name</i> | SDSF  | READ            |
| DD                              | ISFPLIB. <i>proclib-name</i> | SDSF  | READ            |

To control access to the PROC panel, protect the PROC command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting proclibs

To protect Proclibs and permit a user to control it, define a generic profile as follows:

```
REDEFINE SDSF ISFPLIB.** UACC(NONE)
PERMIT ISFPLIB.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

---

## Punches

You can protect the punches displayed on the PUN panel.

### Protecting punches

Protect punches by defining resource names in the WRITER class. The resources are shown in Table 121.

Table 121. Authority Required to Punch Resources for Actions and Overtypes

| Action Character or Overtypable Field | Resource Name                                                                                     | Class  | Access |
|---------------------------------------|---------------------------------------------------------------------------------------------------|--------|--------|
| D action character                    | <i>jesx.LOCAL.device-name</i> for local punches<br><i>jesx.RJE.device-name</i> for remote punches | WRITER | READ   |

Table 121. Authority Required to Punch Resources for Actions and Overtypes (continued)

| Action Character or Overtypable Field | Resource Name                                   | Class  | Access  |
|---------------------------------------|-------------------------------------------------|--------|---------|
| C action character                    | <i>jesx.LOCAL.device-name</i> for local punches | WRITER | ALTER   |
|                                       | <i>jesx.RJE.device-name</i> for remote punches  |        |         |
| All others                            | <i>jesx.LOCAL.device-name</i> for local punches | WRITER | CONTROL |
|                                       | <i>jesx.RJE.device-name</i> for remote punches  |        |         |

In the table,

*jesx*

is the name of the JES subsystem.

*device-name*

is the name of the punch.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the PUN panel, protect the PUN command. This is described in “Authorized SDSF commands” on page 249.

## Permitting access only while using SDSF

Users can be conditionally permitted to access the WRITER class resources so that they only can access punches through SDSF. With RACF, the user can be permitted to access the WRITER profiles using the clause WHEN(CONSOLE(SDSF)) with the PERMIT command. See “Using conditional access” on page 221 for more information.

## Example of protecting punches

To protect all punches and printers issue the following commands:

```
RDEFINE WRITER jesx.** UACC(READ)
PERMIT jesx.** CLASS(WRITER) ID(userid or groupid) ACCESS(ALTER)
```

## Readers

You can protect the readers displayed on the RDR panel.

## Protecting readers

Protect readers by defining resource names in the SDSF class. The resources are shown in Table 122.

Table 122. Authority Required to Reader Resources for Actions and Overtypes

| Action Character or Overtypable Field | Resource Name                  | Class | Access  |
|---------------------------------------|--------------------------------|-------|---------|
| D action character                    | <i>ISFRDR.device-name.jesx</i> | SDSF  | READ    |
| C action character                    | <i>ISFRDR.device-name.jesx</i> | SDSF  | ALTER   |
| All others                            | <i>ISFRDR.device-name.jesx</i> | SDSF  | CONTROL |

In the table,

*jsex*  
is the name of the JES subsystem.

*device-name*  
is the name of the reader.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypable fields” on page 274.

To control access to the RDR panel, protect the RDR command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting readers

To protect all readers issue the following commands:

```
RDEFINE SDSF ISFRDR.** UACC(NONE)
PERMIT ISFRDR.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## Resources defined to WLM

You can protect the WLM resources that are displayed on the RES panel.

### Protecting WLM resources

Protect WLM resources by defining SAF resource names in the SDSF class. The SAF resources are shown in Table 123.

Table 123. Authority Required to SAF Resources for WLM Resources

| Action Character or Overtypable Field | Resource Name                  | Class | Access |
|---------------------------------------|--------------------------------|-------|--------|
| D action character                    | ISFRES. <i>resource.system</i> | SDSF  | READ   |
| Overtypable system                    | ISFRES. <i>resource.system</i> | SDSF  | ALTER  |

To protect the MVS commands generated by action characters or overtypable fields, see “Tables of action characters” on page 225 and “Tables of overtypable fields” on page 274.

To control access to the RES panel, protect the RES command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting resources

To protect all resources and permit a user to control them, define a generic profile as follows:

```
RDEFINE SDSF ISFRES.** UACC(NONE)
PERMIT ISFRES.** CLASS(SDSF) ID(userid or groupid) ACCESS(ALTER)
```

---

## Scheduling environments

You can protect the WLM scheduling environments that are displayed on the SE panel.

### Protecting scheduling environments

Protect scheduling environments by defining resource names in the SDSF class. The resources are shown in Table 124 on page 316.

Table 124. Authority Required to Scheduling Environment Resource for Actions

| Action Character or Overtypeable Field | Resource Name          | Class | Access |
|----------------------------------------|------------------------|-------|--------|
| D, R and ST action characters          | ISFSE.sched-env.system | SDSF  | READ   |

To protect the MVS command generated by the D action character, see “Tables of action characters” on page 225.

To protect the R and ST action characters, protect the RES and ST commands. To control access to the SE panel, protect the SE command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting scheduling environments

To protect all scheduling environments and permit a user to control them, define a generic profile as follows:

```
RDEFINE SDSF ISFSE.** UACC(NONE)
PERMIT ISFSE.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

## SDSF server

The SDSF server is used to process ISFPARMS statements and to provide sysplex data on the sysplex-wide device panels (PR, INIT, PUN, RDR and so on). For more information, refer to Chapter 3, “Using the SDSF server,” on page 109.

You can protect these aspects of the SDSF server:

- Use of the SERVER parameter on the SDSF command, which specifies a server name that overrides the default server name defined in ISFPARMS.
- Reverting from ISFPARMS in statement format to ISFPARMS in assembler macro format, when the server is not available or no ISFPARMS statements are defined.
- Use of the server operator commands.

If you are using the server with WebSphere MQ to provide sysplex data, you must also protect server access to WebSphere MQ queues. Refer to “WebSphere MQ” on page 322 for more information.

## Protecting the SDSF server

The resources related to server processing of ISFPARMS are shown in Table 125.

Table 125. Authority Required to Server Functions

| Function                                        | Resource Name                  | Class    | Access  |
|-------------------------------------------------|--------------------------------|----------|---------|
| Use of the SERVER parameter on the SDSF command | ISFCMD.OPT.SERVER              | SDSF     | READ    |
| Reverting to ISFPARMS in assembler macro format | SERVER.NOPARM                  | SDSF     | READ    |
| MODIFY server, DISPLAY server command           | server-name.MODIFY.DISPLAY     | OPERCMDS | READ    |
| All other server MODIFY commands                | server-name.MODIFY.modify-parm | OPERCMDS | CONTROL |

In the table,



*server-name*

is the name of the SDSF server specified either by the ISFPMAC macro or SDSF command.

*modify-parm*

is one of these parameters of the MODIFY command: DEBUG, DISPLAY, FOLDMSG, LOGCLASS, LOGTYPE, REFRESH, START, STOP, TRACE, TRCLASS. The MODIFY command is described in Chapter 3, “Using the SDSF server,” on page 109.

The server START and STOP commands are protected by MVS. The resources are MVS.START.STC.*server-name* and MVS.STOP.STC.*server-name*, respectively. Both are in the OPERCMDS class and require UPDATE authority.

## Examples of protecting the SDSF server

1. To allow SDSF to revert from the ISFPARMS defined with statements to the ISFPARMS defined with assembler macros, issue the following commands:  
RDEFINE SDSF SERVER.NOPARM UACC(NONE)  
PERMIT SERVER.NOPARM CLASS(SDSF) ID(*userid or groupid*) ACCESS(READ)
2. To protect use of all MODIFY command parameters for server SDSF, issue the following commands:  
RDEFINE OPERCMDS SDSF.MODIFY.\*\* UACC(NONE)  
PERMIT SDSF.MODIFY.\*\* CLASS(OPERCMDS) ID(*userid*) ACCESS(CONTROL)

---

## Spool offloaders

You can protect the offloaders displayed on the SO panel (JES2 only).

### Protecting spool offloaders

Protect spool offloaders by defining resource names in the SDSF class. The resources are shown in Table 126.

Table 126. Authority Required to Offloader Resources for Actions and Overtypes

| Action Character or Overtypable Field | Resource Name                  | Class | Access  |
|---------------------------------------|--------------------------------|-------|---------|
| D action character                    | ISFSO. <i>device-name.jesx</i> | SDSF  | READ    |
| C action character                    | ISFSO. <i>device-name.jesx</i> | SDSF  | ALTER   |
| All others                            | ISFSO. <i>device-name.jesx</i> | SDSF  | CONTROL |

In the table,

*device-name*

is the name of the offloader, transmitter, or receiver.

*jesx*

is the name of the JES2 subsystem.

To protect the MVS and JES2 commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the SO panel, protect the SO command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting spool offloaders

To protect all offloaders issue the following commands:

```
RDEFINE SDSF ISFSO.** UACC(NONE)
PERMIT ISFSO.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## Spool volumes

You can protect the spool volumes displayed on the SP panel.

### Protecting spool volumes

Protect spool volumes by defining resource names in the SDSF class. The resources are shown in Table 126 on page 317.

Table 127. Authority Required to Spool Volume Resources for Actions and Overtypes

| Action Character or Overtypable Field | Resource Name (JES2)     | Class | Access  |
|---------------------------------------|--------------------------|-------|---------|
|                                       | Resource Name (JES3)     |       |         |
| D, DL and J action character          | ISFSP.volser.jesx        | SDSF  | READ    |
|                                       | ISFSP.ddname.jesx        |       |         |
|                                       | ISFSP.partitionname.jesx |       |         |
| All others                            | ISFSP.volser.jesx        | SDSF  | CONTROL |
|                                       | ISFSP.ddname.jesx        |       |         |
|                                       | ISFSP.partitionname.jesx |       |         |

In the table,

*volser*

is the volume serial of the spool volume.

*ddname*

is the ddname.

*partitionname*

is the name of the partition.

*jesx*

is the name of the JES subsystem.

To protect the MVS and JES commands generated, see “Tables of action characters” on page 225 and “Tables of overtypeable fields” on page 274.

To control access to the SP panel, protect the SP command. This is described in “Authorized SDSF commands” on page 249.

## Example of protecting spool volumes

To protect all spool volumes issue the following commands:

```
RDEFINE SDSF ISFSP.** UACC(NONE)
PERMIT ISFSP.** CLASS(SDSF) ID(userid or groupid) ACCESS(CONTROL)
```

---

## SYSLOG

You can control access to the SYSLOG that is displayed on the LOG panel by controlling:

- Access to the LOG command, which displays the LOG panel. This is explained in “Authorized SDSF commands” on page 249.

- Access to the JES logical log. JES, rather than SDSF, issues the SAF call to check user authorization.

Parameters of the LOG command allow users to choose the sysplex-wide OPERLOG rather than the single-system SYSLOG. For information on protecting the OPERLOG, see “OPERLOG” on page 271.

## Protecting the logical log

Protect the logical log by defining a resource name in the JESSPOOL class. The resource is shown in Table 128.

Table 128. Authority Required for Accessing the Logical Log

| Function                      | Resource Name                                         | Class    | Access |
|-------------------------------|-------------------------------------------------------|----------|--------|
| Access to the JES logical log | <i>nodeid</i> .+MASTER+.SYSLOG.SYSTEM. <i>sysname</i> | JESSPOOL | READ   |

As an alternative to defining the JESSPOOL profiles, you can define the custom property Security.Syslog.UseSAFRecvr in ISFPARMS to force the SAF call to always succeed even when the profile is not defined. This may be useful as you migrate to using the new logical log. For more information, see “Customized properties (PROPLIST)” on page 93.

## System Symbol information

### Protecting system symbol information

Protect system symbol information by defining resource names in the SDSF class. The resources are shown in Table 129.

Table 129. SAF Resources for System Symbol Information

| Action Characters and Overtypes | Resource Name                     | Class | Access Required |
|---------------------------------|-----------------------------------|-------|-----------------|
| D                               | ISFSYM. <i>symbolname.sysname</i> | SDSF  | READ            |

To control access to the SYM panel, protect the SYM command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting system symbol information

To protect all system symbol information and permit a user to control it, define a generic profile as follows:

```
REDEFINE SDSF ISFSYM.** UACC(NONE)
PERMIT ISFSYM.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

## System information

### Protecting system information

Protect system information by defining resource names in the SDSF class. The resources are shown in Table 130 on page 320.

Table 130. SAF Resources for System Information

| Action Characters and Overtypes | Resource Name                 | Class | Access Required |
|---------------------------------|-------------------------------|-------|-----------------|
| D                               | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DAA                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DAL                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| I DALO                          | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| I DC                            | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DCEE                            | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DD                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| I DEM                           | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DG                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DI                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| I DIQP                          | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DLL                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DLO                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DLR                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DM                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DMP                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DO                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DP                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| I DPCD                          | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| I DPCI                          | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DSF                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DSL                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DSM                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DSY                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DT                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DTO                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DTR                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DTS                             | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DW                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |
| DX                              | ISFSYS.sysplexname.systemname | SDSF  | READ            |

To control access to the SYS panel, protect the SYS command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting system information

To protect system information and permit a user to control it, define a generic profile as follows:

```
REDEFINE SDSF ISFSYS.** UACC(NONE)
PERMIT ISFSYS.** CLASS(SDSF) ID(userid) ACCESS(READ)
```

---

## System requests

You can protect the system requests displayed on the SR panel.

### Protecting system requests

Protect system requests by defining resource names in the SDSF class. The resources are shown in Table 125 on page 316.

Table 131. Authority Required to System Request Resource for Action Characters

| Action Character | Resource Name               | Class | Access |
|------------------|-----------------------------|-------|--------|
| D                | ISFSR.type.system.jobname   | SDSF  | READ   |
| C                | ISFSR.ACTION.system.jobname | SDSF  | READ   |
| AI, R            | ISFSR.REPLY.system.jobname  | SDSF  | READ   |

In the table,

*type*

is the message type, either ACTION or REPLY.

*system*

is the name of the originating system.

*jobname*

is the name of the issuing job.

To protect the MVS commands generated, see “Tables of action characters” on page 225.

To control access to the SR panel, protect the SR command. This is described in “Authorized SDSF commands” on page 249.

### Example of protecting system requests

To protect all system requests issue the following commands:

```
RDEFINE SDSF ISFSR.** UACC(NONE)
PERMIT ISFSR.** CLASS(SDSF) ID(userid or groupid) ACCESS(READ)
```

---

## User log (ULOG)

Users can browse the ULOG to see all system commands and responses issued during their user session, including commands generated by SDSF. If the installation activates message suppression attributes, all command responses may not be returned.

SDSF uses MVS console services to acquire an extended console for the user; all commands issued use that console identifier.

### Protecting the ULOG

You protect the ULOG by:

- Controlling access to the ULOG command, which displays the ULOG panel. This is described in “Authorized SDSF commands” on page 249.
- Controlling access to the extended console that SDSF acquires. The extended console is protected by a resource in the OPERCMDS class, shown in Table 132 on page 322.

Table 132. Resource that Protects the Extended Console

| Function         | Resource Name                    | Class    |
|------------------|----------------------------------|----------|
| Extended console | MVS.MCSOPER. <i>console-name</i> | OPERCMD5 |

This resource is checked by SDSF. If no resource has been defined or if the OPERCMD5 class is not active, SDSF allows activation of the extended console.

The console name used by SDSF defaults to the user ID. When SDSF needs to activate a console and the default console name is already in use, SDSF attempts to use a modified console name, which consists of the default name plus a single-character suffix. Users can change the console name with the SET CONSOLE command.

SDSF supplies an OPERPARM with master level authority when activating the console. Since SDSF supplies the OPERPARM, the user's OPERPARM segment (defined through RACF) is ignored.

When SDSF is using an extended console and commands are issued through the / (slash) command, some subsystems (such as NetView\* and CICS\*) require the console name to be defined to the subsystem.

For more information on the console used by SDSF, see "Issuing MVS and JES commands" on page 358. For more information on protecting the extended console, see *z/OS MVS Planning: Operations*.

## Examples of protecting ULOG

1. To activate the OPERCMD5 class and define a resource for the extended console, use the following RACF commands:

```
RDEFINE OPERCMD5 MVS.MCSOPER.console-name
PERMIT MVS.MCSOPER.console-name ID(userid) ACCESS(READ)
```

2. To refresh the OPERCMD5 class, issue the following:

```
SETROPTS RACLIST(OPERCMD5) REFRESH
```

---

## WebSphere MQ

You can protect the WebSphere MQ queues and commands used by SDSF to provide sysplex support for SDSF panels. WebSphere MQ is used only with z/OS V1R12 or lower systems, or if you have specifically requested it. For more information, refer to "Servers with server groups and WebSphere MQ" on page 113.

The following discussion assumes that you have already defined SAF security for WebSphere MQ, including **context** and **connection** security, as described in *WebSphere MQ for z/OS System Setup Guide*. If you have not defined WebSphere MQ security, do that before implementing the security described here. For an overview of SDSF's use of WebSphere MQ, see "Server communications with WebSphere MQ" on page 118.

Providing security for SDSF's use of WebSphere MQ consists of:

- Protecting the queues used by SDSF
- Allowing the SDSF server to define queues
- Defining connection and context security

**Note:** Examine the resources and sample commands in this section carefully before implementing them. Some of them affect the function of WebSphere MQ beyond SDSF's use of it.

## Protecting the queues

Protect the queues used by SDSF by defining resources in the MQQUEUE class.

The client request queue, actually an alias for the server request queue, is defined by SDSF so that users' reading of the queue, although allowed by SAF, is prohibited by WebSphere MQ. The SAF profiles, then, should prevent access by the user to the server request queue, and allow access to the client request queue. The server must have access to both queues.

The resources are shown in Table 133.

Table 133. Authority Required for the WebSphere MQ Queues

| Queue                                                                                                     | Resource Name                                    | Class   | Required Access |                   |
|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------|-----------------|-------------------|
|                                                                                                           |                                                  |         | Server          | Client            |
| Server request queue                                                                                      | <i>ssid.prefix.SERVER.server.system.REQUESTQ</i> | MQQUEUE | ALTER           | None              |
| Client request queue, used to send work to the server, and to send work from the server to remote servers | <i>ssid.prefix.CLIENT.server.system.REQUESTQ</i> | MQQUEUE | ALTER           | UPDATE (Put only) |
| ReplyTo queue, used by the client to receive server responses                                             | <i>ssid.prefix.USER.userid.*</i>                 | MQQUEUE | UPDATE          | UPDATE            |
| Model queue, used to create dynamic queues                                                                | <i>ssid.prefix.MODEL.**</i>                      | MQQUEUE | UPDATE          | UPDATE            |

In the table,

*ssid*

is the WebSphere MQ subsystem ID. This is the queue manager name specified on the COMM statement of ISFPARMS.

*prefix*

is a string that identifies the queue name. It is defined by the QPREFIX parameter of the COMM statement in ISFPARMS.

The *ssid.prefix.MODEL.\*\** resource affects function outside of SDSF.

## Allowing the server to communicate with remote servers

The transmission queue is used to send messages to remote SDSF servers. The SDSF server needs access to this queue.

This resource affects function outside of SDSF.

Table 134. Authority Required for Communication with Remote Servers

| Function                                                         | Resource Name           | Class   | Required Access |        |
|------------------------------------------------------------------|-------------------------|---------|-----------------|--------|
|                                                                  |                         |         | Server          | Client |
| Transmission queue, used to send messages to remote SDSF servers | <i>ssid</i> .XMIT.QUEUE | MQQUEUE | UPDATE          | None   |

In the table, *ssid* is the WebSphere MQ subsystem ID. This is the queue manager name specified on the COMM statement of ISFPARMS.

## Allowing the server to define queues

The resources that protect the ability of the SDSF server to define queues are shown in Table 135. In addition to the SDSF server, you may want the operator ID used by WebSphere MQ for commands entered from the console to have access to these resources. This ID is CSQOPR by default.

These resources affect function outside of SDSF.

Table 135. Authority Required for Server Definition of Queues

| Function                                                        | Resource Name                                  | Class   | Required Access |        |
|-----------------------------------------------------------------|------------------------------------------------|---------|-----------------|--------|
|                                                                 |                                                |         | Server          | Client |
| Define queues                                                   | <i>ssid</i> .DEFINE.QMODEL                     | MQCMDS  | ALTER           | None   |
| Define a queue alias                                            | <i>ssid</i> .DEFINE.QALIAS                     | MQCMDS  | ALTER           | None   |
| Define queues                                                   | <i>ssid</i> .QUEUE. <i>prefix</i> .MODEL.QUEUE | MQADMIN | ALTER           | None   |
| Model queue, used to create the temporary server RreplyTo queue | <i>ssid</i> .SYSTEM.COMMAND.REPLY.MODEL        | MQQUEUE | ALTER           | None   |
| Command input queue, used to submit DEFINE commands             | <i>ssid</i> .SYSTEM.COMMAND.INPUT              | MQQUEUE | ALTER           | None   |

In the table,

*ssid*

is the WebSphere MQ subsystem ID. This is the queue manager name specified on the COMM statement of ISFPARMS.

*prefix*

is a string that identifies the queue name. It is defined by the QPREFIX parameter of the COMM statement in ISFPARMS.

If you don't want the SDSF server to issue WebSphere MQ DEFINE commands to define queues, you can specify QDEFINE(NO) on the COMM statement in ISFPARMS. However, you will need to define some queues manually. See "COMM statement" on page 30 for more information.

## Defining connection security for SDSF

Connection security may be used to control which users can connect to WebSphere MQ. When connection security is enabled, both the SDSF server and the SDSF client must have access to the local queue manager. These both use the batch/TSO adapter.



This resource affects function outside of SDSF.

Table 136. Authority Required for Connection Security

| Function            | Resource Name      | Class  | Required Access |        |
|---------------------|--------------------|--------|-----------------|--------|
|                     |                    |        | Server          | Client |
| Connection security | <i>ssid</i> .BATCH | MQCONN | READ            | READ   |

In the table, *ssid* is the WebSphere MQ subsystem ID. This is the queue manager name specified on the COMM statement of ISFPARMS.

## Defining context security for SDSF

Context security is used to protect setting of the identity context fields in the message header. The server needs this authority; clients should not have this authority. WebSphere MQ itself also needs to be given this authority.

This resource affects function outside of SDSF.

Table 137. Authority Required for Context Security

| Function         | Resource Name        | Class   | Required Access |        |
|------------------|----------------------|---------|-----------------|--------|
|                  |                      |         | Server          | Client |
| Context security | <i>ssid</i> .CONTEXT | MQADMIN | UPDATE          | None   |

In the table, *ssid* is the WebSphere MQ subsystem ID. This is the queue manager name specified on the COMM statement of ISFPARMS.

## Assigning user IDs

All security is dependent on the user ID of the task attempting access to the profile, as follows:

- For the SDSF server, the user ID is assigned through the started task table or STARTED class
- For TSO users, the user ID is the TSO logon user ID
- For batch jobs, the user ID is the user ID the batch job is running under.

## Example

The following example uses RACF commands to define security for SDSF's use of WebSphere MQ. In this example, the following values are used:

| Item                                                                          | Value      |
|-------------------------------------------------------------------------------|------------|
| Server ID                                                                     | SDSF       |
| WebSphere MQ subsystem ID (queue manager name)                                | MQS1, MQS2 |
| WebSphere MQ user ID                                                          | MQS        |
| Queue prefix                                                                  | ISF        |
| Operator user ID (used by WebSphere MQ for commands entered from the console) | CSQOPR     |
| Client user ID (RACF group)                                                   | ISFSPROG   |

1. Assign the user ID SDSF to the server:

```
SETR CLASSACT(STARTED)
RDEFINE STARTED SDSF*. * STDATA(USER(SDSF))
```

2. Allow the server access to its own queues, and allow WebSphere MQ access to those queues:

```
RDEFINE MQQUEUE MQS*.ISF.SERVER.** UACC(NONE)
PE MQS*.ISF.SERVER.** ID(SDSF) ACC(ALTER) CL(MQQUEUE)
PE MQS*.ISF.SERVER.** ID(MQS) ACC(ALTER) CL(MQQUEUE)
RDEFINE MQQUEUE MQS*.ISF.CLIENT.** UACC(NONE)
PE MQS*.ISF.CLIENT.** ID(SDSF) ACC(ALTER) CL(MQQUEUE)
```

3. Allow the user, ISFSPROG, access to the client request queue:

```
PE MQS*.ISF.CLIENT.** ID(ISFSPROG) ACC(UPDATE) CL(MQQUEUE)
```

**Note:** You can eliminate this PERMIT command by specifying a UACC of UPDATE in the RDEFINE for the resource, that is,

```
RDEFINE MQQUEUE MQS*.ISF.CLIENT.** UACC(UPDATE)
```

4. Allow the server access to the user ReplyTo queue:

```
RDEFINE MQQUEUE MQS*.ISF.USER.** UACC(NONE)
PE MQS*.ISF.USER.** ID(SDSF) ACC(UPDATE) CL(MQQUEUE)
```

5. Allow the user access to the ReplyTo queue using the global access table:

```
RDEFINE GLOBAL MQQUEUE
RALTER GLOBAL MQQUEUE ADDMEM(MQS*.ISF.USER.&RACUID.**/UPDATE)
SETR GLOBAL(MQQUEUE)
```

6. Allow the server and user access to the model queue:

```
RDEFINE MQQUEUE MQS*.ISF.MODEL.** UACC(NONE)
PE MQS*.ISF.MODEL.** ID(SDSF) ACC(UPDATE) CL(MQQUEUE)
PE MQS*.ISF.MODEL.** ID(ISFSPROG) ACC(UPDATE) CL(MQQUEUE)
```

**Note:** You can eliminate the PERMIT commands by specifying a UACC of UPDATE in the RDEFINE for the resource, that is,

```
RDEFINE MQQUEUE MQS*.ISF.MODEL.** UACC(UPDATE)
```

7. Allow the server access to the transmission queue:

```
RDEF MQQUEUE MQS*.XMIT.QUEUE UACC(NONE)
PE MQS*.XMIT.QUEUE CL(MQQUEUE) ID(SDSF) ACC(UPDATE)
```

8. Allow the server to define queues:

```
RDEFINE MQCMDS MQS*.DEFINE.QMODEL UACC(NONE)
PE MQS*.DEFINE.QMODEL ID(SDSF) ACC(ALTER) CL(MQCMDS)
PE MQS*.DEFINE.QMODEL ID(CSQOPR) ACC(ALTER) CL(MQCMDS)
RDEFINE MQCMDS MQS*.DEFINE.QALIAS UACC(NONE)
PE MQS*.DEFINE.QALIAS ID(SDSF) ACC(ALTER) CL(MQCMDS)
PE MQS*.DEFINE.QALIAS ID(CSQOPR) ACC(ALTER) CL(MQCMDS)
RDEFINE MQADMIN MQS*.QUEUE.ISF.** UACC(NONE)
PERMIT MQS*.QUEUE.ISF.** ID(SDSF) ACC(ALTER) CL(MQADMIN)
RDEFINE MQQUEUE MQS*.SYSTEM.** UACC(NONE)
PE MQQUEUE MQS*.SYSTEM.** ID(SDSF) ACC(ALTER) CL(MQQUEUE)
```

9. Define connection security for the server and user:

```
RDEFINE MQCONN MQS*.BATCH UACC(NONE)
PE MQS*.BATCH ID(SDSF) ACC(READ) CL(MQCONN)
PE MQS*.BATCH ID(ISFSPROG) ACC(READ) CL(MQCONN)
```

**Note:** You can eliminate the PERMIT commands by specifying a UACC of READ in the RDEFINE for the resource, that is,

```
RDEFINE MQCONN MQS*.BATCH UACC(READ)
```

10. Enable context security:

```
RDEFINE MQADMIN MQS*.CONTEXT UACC(NONE)
PE MQS*.CONTEXT ID(SDSF) ACC(UPDATE) CL(MQADMIN)
PE MQS*.CONTEXT ID(MQS) ACC(ALTER) CL(MQADMIN)
```

---

## Chapter 8. Converting ISFPARMS to SAF security

This topic discusses converting from ISFPARMS to SAF for security. It includes discussions and RACF examples.

When setting up RACF security, you will be using the RACF resources described in this topic. You will also need some of ISFPARMS, as described in Chapter 2, “Using ISFPARMS for customization and security,” on page 15. For tables showing SAF equivalents for the parameters of ISFGRP and GROUP, see Appendix B, “SAF equivalents for ISFPARMS,” on page 591.

---

### Getting started

A good first goal is a one-to-one conversion from ISFPARMS security to SAF security. This may cause you to create more profiles than are needed, so you will want to analyze the profiles and combine them where practical.

Your first task is to analyze your current security system to determine the kind of protection and authorization you need. In addition to making your SDSF security system easier to maintain, this analysis may result in improvements in the general security and auditability of your installation

The conversion of SDSF security to SAF may require the cooperation of different groups in your organization. Some security administrators work as system programmers and are knowledgeable of the ISFPARMS security implementation. Other security administrators are independent of the system programmers and have no knowledge of the SDSF product and its functions. So, depending on your organization, the system programmer and security administrator may need to work together in the conversion effort.

---

### SDSF environment

The following questions may help you analyze your current SDSF security:

- Who is using SDSF, and how?  
You may find that SDSF is only used by system programmers, or that operators are using SDSF to facilitate their jobs, or that SDSF is used by everyone authorized to submit jobs on the system.
- What sort of authorizations are permitted through ISFPARMS?  
You may find that some users only have access to the LOG panel, or that there are groups of users able to manipulate each others jobs, or that users other than operators are authorized to issue operator commands through SDSF.
- Is there a conflict between security and productivity?
- Are there any security exposures, for example, operators logged on unattended terminals or in an unprotected environment?
- How will SDSF be used in the future?

---

### Migration considerations

When migrating to SAF, you should be aware of the following:

**OWNER Command.** There is no protection for the OWNER command using ISFPARMS. This command can only be protected using SAF. If the command is not protected using SAF, then all users can use the OWNER command to further restrict the jobs that appear on their displays.

The OWNER keyword on the ISFGRP macro or GROUP statement can be used to limit the jobs that appear on the displays.

**Destinations.** When a user has no IDEST list in ISFPARMS, that user must have READ authority to the SDSF class resource ISFOPER.ANYDEST.*jesx*. Otherwise, no jobs will appear on the queues and the user's DEST value, when queried, will be displayed as either blanks or the character string ????????, depending on the JES release.

When an IDEST list is provided for a user, the user must have READ authorization to each SDSF class resource (ISFAUTH.DEST.*destname*) protecting the destination names in the IDEST list.

When DEST and IDEST lists are specified in ISFPARMS and SAF security is used for destination names, refer to “Destination names” on page 253 for information on how to protect destination names.

**NOTIFY.** There is no one-to-one RACF equivalent for setting CMDAUTH or DSPAUTH to NOTIFY in ISFPARMS. To obtain similar functions, a user must have access to the appropriate person's output by way of the JESSPOOL resource. For a RACF example of how to give this authority, see “Providing function comparable to NOTIFY authority” on page 263.

**CMDLEV.** Although you can migrate command protection from ISFPARMS CMDLEV protection to RACF OPERCMDS protection in a one-to-one fashion, it is not necessarily advisable to keep the hierarchy restriction of CMDLEV when using RACF. RACF provides a more flexible means of authorizing users to access various commands. Decide which commands your users need and then authorize the proper users or groups of users to access the appropriate OPERCMDS resources.

When using RACF security for command-level authorization, for every CMDLEV parameter you wish to authorize with RACF, you must permit the user to access all corresponding MVS and JES command resources in the OPERCMDS class at that command level and all command levels prior to it.

To review the various command levels for the action characters and resource names, see the CMDLEV parameter in “Group function parameters reference” on page 39 and “Action characters and overtypable fields for each command level” on page 74.

---

## Examples of RACF security for SDSF groups

This section explains SAF security for three SDSF groups that are common to most installations:

- Group 1— System programmers
- Group 2—Operators
- Group 3—End users

For each group, there are two sample GROUP statements shown, one for ISFPARMS security, and another for SAF security. These samples do not show the ISFPARMS macros not related to security, such as ISFPMAC and ISFTR.

The sample for each group has a table of SAF resources you can use as a guide to establish security for that group. The tables show profiles that provide security equivalent to that provided by the AUTH, CMDAUTH, CMDLEV, and DSPAUTH parameters of the GROUP statements shown. To provide authority comparable to the NOTIFY function, see “Providing function comparable to NOTIFY authority” on page 263.

For specific profile information, see Chapter 7, “Protecting SDSF functions,” on page 223. Appendix C, “SDSF resource names for SAF security,” on page 609 contains a list of all resource names.

## Providing group authority

All users can access the JESSPOOL resources they own. Users do not need access authority to work with their own jobs and output.

You can provide authority to the SDSF resources by group by going from broad access (for example, RACF generic profiles) to limited access (RACF discrete profiles).

The profiles shown in the table for the system programmers group are very broad, generic profiles that will protect all resources. The system programmers group can be given unlimited authority to these profiles. The profiles shown in the operator table are restrictive and can limit the operator's authority. The profiles shown in the end user table are even more restrictive.

System programmers will need access to all profiles for each group in order to retain access to all resources. Likewise, the operators, in addition to having access to their own profiles, will also need access to all profiles defined for end users.

## Group 1 — system programmers

Members of the ISFPARMS system programmers group have unlimited authority. They have access to all SDSF resources and can perform all SDSF tasks.

Table 138 on page 330 shows two sample GROUP statements, one that can be used without SAF and another that can be used with SAF profiles to provide Group 1 authority:

Table 138. Sample GROUP statements, Group 1

| Without SAF                                                                                                                                                                                                                                                                                                                                                                                                                  | With SAF                                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GROUP NAME(ISFSPROG),<br>TSOAUTH(JCL,OPER,ACCT),<br>AUTH(ALL),<br>CMDAUTH(ALL),<br>CMDLEV(7),<br>DSPAUTH(ALL),<br>DFIELD2(DAFLD2),<br>GPLEN(2),<br>ACTION(ALL),<br>ACTIONBAR(YES),<br>APPC(ON),<br>OWNER(NONE),<br>CONFIRM(ON),<br>CURSOR(ON),<br>DATE(MMDDYYYY),<br>DATESEP(/),<br>LOG(OPERACT),<br>ISYS(NONE),<br>DADFLT(IN,OUT,TRANS,STC,TSU,JOB),<br>VALTAB(TRTAB),<br>UPCTAB(TRTAB2),<br>LANG(ENGLISH),<br>DISPLAY(OFF) | GROUP NAME(ISFSPROG),<br>DFIELD2(DAFLD2),<br>ACTION(ALL),<br>ACTIONBAR(YES),<br>APPC(ON),<br>CONFIRM(ON),<br>CURSOR(ON),<br>DATE(MMDDYYYY),<br>DATESEP(/),<br>LOG(OPERACT),<br>DADFLT(IN,OUT,TRANS,STC,TSU,JOB),<br>VALTAB(TRTAB),<br>UPCTAB(TRTAB2),<br>LANG(ENGLISH),<br>DISPLAY(OFF) |

To control membership in the group, which is done with TSOAUTH in the “Without SAF” case, use the profile shown in Table 139.

Table 139. Profile for Membership in Group 1 — System Programmers

| Function   | Class | Resource Profile           | Access |
|------------|-------|----------------------------|--------|
| Membership | SDSF  | GROUP.ISFSPROG.server-name | READ   |

For guidance on providing security equivalent to that provided by the AUTH, CMDAUTH, CMDLEV, and DSPAUTH parameters, see the generic profiles shown in Table 140 on page 331.

You can use one generic profile to protect all resources in a particular class. The ISF\*.\*\* profile also provides destination operator authority to the JESSPOOL resources and protects the OWNER command, which cannot be protected in an ISFGRP macro. The OPERCMDS profiles shown protect all JES and MVS commands, even those that are not issued from within an SDSF session.

Users in ISFPARMS Group 1 must have access to those SAF resources defined for ISFPARMS Group 1, Group 2, and Group 3.

Table 140. Profiles for Function of Group 1 — System Programmers

| Function                                                          | Class    | Resource Profile                      | Access  |
|-------------------------------------------------------------------|----------|---------------------------------------|---------|
| SDSF commands                                                     | SDSF     | ISF*.**                               | ALTER   |
| Command line commands (/)                                         |          |                                       |         |
| JD, JM and JY action characters                                   |          |                                       |         |
| Job classes                                                       |          |                                       |         |
| Job devices                                                       |          |                                       |         |
| WLM resources                                                     |          |                                       |         |
| Scheduling environments                                           |          |                                       |         |
| Initiators                                                        |          |                                       |         |
| Lines                                                             |          |                                       |         |
| Network connections                                               |          |                                       |         |
| Network servers                                                   |          |                                       |         |
| Nodes                                                             |          |                                       |         |
| Offloaders (JES2 only)                                            |          |                                       |         |
| Operator authority to JESSPOOL                                    |          |                                       |         |
| Overtypable fields                                                |          |                                       |         |
| MAS or Jesplex members                                            |          |                                       |         |
| Readers                                                           |          |                                       |         |
| System requests on SR                                             |          |                                       |         |
| Spool volumes                                                     |          |                                       |         |
| z/OS UNIX processes                                               |          |                                       |         |
| Enclaves                                                          |          |                                       |         |
| JES2 resources (JES2 only)                                        |          |                                       |         |
| Destination names                                                 |          |                                       |         |
| APF panel                                                         |          |                                       |         |
| DYNX panel                                                        |          |                                       |         |
| ENQ panel                                                         |          |                                       |         |
| LNK panel                                                         |          |                                       |         |
| LPA panel                                                         |          |                                       |         |
| PARM panel                                                        |          |                                       |         |
| PAG panel                                                         |          |                                       |         |
| PROC panel                                                        |          |                                       |         |
| SYM panel                                                         |          |                                       |         |
| SYS panel                                                         |          |                                       |         |
| Action characters, extended console, and server<br>MODIFY command | OPERCMD5 | jes .**<br>MVS.**<br>server.MODIFY.** | CONTROL |
| Printers and punches (local and remote)                           | WRITER   | jes .**                               | ALTER   |
| IBM Health Checker for z/OS checks                                | XFACILIT | HZS.**                                | CONTROL |
| Log stream used to record check history                           | LOGSTRM  | log-stream-name                       | READ    |
| MVS system logger                                                 | LOGSTRM  | SYSplex.OPERLOG                       | READ    |

## Group 2 — operators

Members of the ISFPARMS operators group have the same authority as Group 1, except for some restrictions.

Group 2 members cannot issue the TRACE, INPUT, and ABEND commands or look at everyone's output

Table 141 on page 332 shows two sample GROUP statements, one that can be used without SAF to provide Group 2 authority, and another that can be used with SAF profiles to provide Group 2 authority:

Table 141. Sample GROUP statements, Group 2

| Without SAF                                                                                                                                                                                                                                                                                                                                                                                                           | With SAF                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GROUP NAME(ISFOPER),<br>TSOAUTH(JCL,OPER),<br>AUTH(ALLOPER),<br>CMDAUTH(ALL),<br>CMDLEV(7),<br>DSPAUTH(USERID,NOTIFY,AMSG),<br>GPLEN(2),<br>ACTION(ALL),<br>ACTIONBAR(YES),<br>APPC(ON),<br>OWNER(NONE),<br>CONFIRM(ON),<br>CURSOR(ON),<br>DATE(MMDDYYYY),<br>DATESEP(/),<br>LOG(OPERACT),<br>ISYS(NONE),<br>DADFLT(IN,OUT,TRANS,STC,TSU,JOB),<br>VALTAB(TRTAB),<br>UPCTAB(TRTAB2),<br>LANG(ENGLISH),<br>DISPLAY(OFF) | GROUP NAME(ISFOPER),<br>ACTION(ALL),<br>ACTIONBAR(YES),<br>APPC(ON),<br>CONFIRM(ON),<br>CURSOR(ON),<br>DATE(MMDDYYYY),<br>DATESEP(/),<br>LOG(OPERACT),<br>DADFLT(IN,OUT,TRANS,STC,TSU,JOB),<br>VALTAB(TRTAB),<br>UPCTAB(TRTAB2),<br>LANG(ENGLISH),<br>DISPLAY(OFF) |

To control membership in the group, which is done with TSOAUTH in the “Without SAF” case, use the profile shown in Table 142.

Table 142. Profiles for Membership in Group 2 — Operators

| Function   | Class | Resource Profile                  | Access |
|------------|-------|-----------------------------------|--------|
| Membership | SDSF  | GROUP.ISFOPER. <i>server-name</i> | READ   |

For guidance on providing security equivalent to that provided by the AUTH, CMDAUTH, CMDLEV, and DSPAUTH parameters shown in the first sample, see the generic profiles shown in Table 143.

The SAF profile ISFCMD.FILTER.OWNER protects the OWNER command, which cannot be protected with ISFPARMS. Refer also to the notes below the table.

Users in Group 2 must have access to those SAF resources defined for ISFPARMS Group 2 and Group 3.

Table 143. Profiles for Function of Group 2 — Operators

| Function                  | Class | Resource Profile                                                                                                                                                                                                                                 | Access |
|---------------------------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| SDSF commands             | SDSF  | ISFCMD.DSP.**<br>ISFCMD.ODSP.**<br>ISFCMD.FILTER.ACTION<br>ISFCMD.FILTER.DEST<br>ISFCMD.FILTER.FINDLIM<br>ISFCMD.FILTER.PREFIX<br>ISFCMD.FILTER.SYSID<br>ISFCMD.FILTER.SYSNAME<br>ISFCMD.FILTER.OWNER<br>ISFCMD.FILTER.RSYS<br><br>(See note 1.) | READ   |
| Command line commands (/) | SDSF  | ISFOPER.SYSTEM                                                                                                                                                                                                                                   | READ   |



Table 143. Profiles for Function of Group 2 — Operators (continued)

| Function                                                                       | Class    | Resource Profile                                            | Access  |
|--------------------------------------------------------------------------------|----------|-------------------------------------------------------------|---------|
| All MVS and JES commands generated by action characters and overtypable fields | OPERCMDS | <i>jesx.**</i><br><i>MVS.**</i><br><br>(See note 2.)        | CONTROL |
| Destinations                                                                   | SDSF     | ISFOPER.ANYDEST. <i>jesx</i>                                | READ    |
| Overtypable fields                                                             | SDSF     | ISFATTR.**                                                  | UPDATE  |
| Job classes                                                                    | SDSF     | ISFJOBCL.**                                                 | CONTROL |
| Job devices                                                                    | SDSF     | ISFJDD. <i>type.sysname</i>                                 | READ    |
| JD, JM and JY action characters                                                | SDSF     | ISFDISP.**                                                  | READ    |
| Initiators                                                                     | SDSF     | ISFINIT.**                                                  | CONTROL |
| Lines                                                                          | SDSF     | ISFLINE.**                                                  | CONTROL |
| Network connections                                                            | SDSF     | ISFAPPL.**<br>ISFLINE.**<br>ISFSOCK.**                      | CONTROL |
| Network servers                                                                | SDSF     | ISFNS.**                                                    | CONTROL |
| Nodes                                                                          | SDSF     | ISFNODE.**                                                  | CONTROL |
| Offloaders (JES2 only)                                                         | SDSF     | ISFSO.**                                                    | CONTROL |
| MAS or Jesplex members                                                         | SDSF     | ISFMEMB.**                                                  | ALTER   |
| Readers                                                                        | SDSF     | ISFRDR.**                                                   | CONTROL |
| Printers and punches (local and remote)                                        | WRITER   | <i>jesx.**</i>                                              | ALTER   |
| WLM resources                                                                  | SDSF     | ISFRES.**                                                   | CONTROL |
| Scheduling environments                                                        | SDSF     | ISFSE.**                                                    | READ    |
| System requests                                                                | SDSF     | ISFSR.**                                                    | READ    |
| z/OS UNIX processes                                                            | SDSF     | ISFPROC.**                                                  | ALTER   |
| Enclaves                                                                       | SDSF     | ISFENC.**                                                   | ALTER   |
| APF panel                                                                      | SDSF     | ISFAPF.**                                                   | READ    |
| DYNX panel                                                                     | SDSF     | ISFDYNX.**                                                  | READ    |
| LNK panel                                                                      | SDSF     | ISFLNK.**                                                   | READ    |
| LPA panel                                                                      | SDSF     | ISFLPA.**                                                   | READ    |
| PAG panel                                                                      | SDSF     | ISFPAG.**                                                   | READ    |
| PARM panel                                                                     | SDSF     | ISFPARM.**                                                  | READ    |
| PROC panel                                                                     | SDSF     | ISFPLIB.**                                                  | READ    |
| SYS panel                                                                      | SDSF     | ISFSYS.**                                                   | READ    |
| ENQ panel                                                                      | SDSF     | ISFENQ.**                                                   | READ    |
| SYM panel                                                                      | SDSF     | ISFSYM.**                                                   | READ    |
| JES2 resources (JES2 only)                                                     | SDSF     | ISFRM.**                                                    | CONTROL |
| DSPAUTH=AMSG                                                                   | SDSF     | ISFAUTH.DEST.**.DATASET. <i>dsname</i><br><br>(See note 3.) | READ    |
| Checks                                                                         | XFACILIT | HZS.**                                                      | CONTROL |
| Log stream used to record check history                                        | LOGSTRM  | <i>log-stream-name</i>                                      | READ    |

Table 143. Profiles for Function of Group 2 — Operators (continued)

| Function                                                             | Class   | Resource Profile                  | Access |
|----------------------------------------------------------------------|---------|-----------------------------------|--------|
| Action characters and overtypeable fields for jobs and output groups | SDSF    | ISFAUTH.DEST.*<br>ISFAUTH.DEST.** | ALTER  |
| MVS system logger                                                    | LOGSTRM | SYSPLEX.OPERLOG                   | READ   |

**Note:**

- As an alternative to the profiles listed, you can define these profiles  
ISFCMD.\*\*  
ISFCMD.MAINT.\*\*  
ISFCMD.FILTER.INPUT  
but not give Group 2 users access to ISFCMD.MAINT.\*\* and ISFCMD.FILTER.INPUT so that they will not be authorized to use the TRACE, INPUT, and ABEND commands that these profiles protect. This is the approach taken in “Summary of profiles for group 1, group 2, and group 3” on page 337
- These profiles protect all JES and MVS commands, even those that are not issued from within SDSF; some are outside the scope of SDSF.
- You must define profiles for each system message data set. See the appropriate JES initialization and tuning guide for a list of message data set names. You can use the destination operator interface for global access to JESSPOOL resources. See “Destination operator authority” on page 254 for more information.

### Group 3 — end users

Members of the ISFPARMS end users group can display some SDSF panels, issue a subset of action characters, and overtype some fields. They are also, by default, authorized to work with their own jobs and output.

Group 3 is more restrictive than Group 2. Group 3 members cannot:

- Display the device or system resource panels
- Issue the ACTION, DEST, FINDLIM, PREFIX, SYSID or RSYS commands
- Issue action characters or overtype fields that affect devices or system resources
- Display other people's jobs (that is, jobs with names that are different from their user ID)

Table 144 on page 335 shows two sample GROUP statements, one that can be used without SAF to provide Group 3 authority, and another that can be used with SAF profiles to provide Group 3 authority:

Table 144. Sample GROUP statements, Group 3

| Without SAF                                                                                                                                                                                                                                                                                                                                                                                      | With SAF                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GROUP NAME(ISFUSER),<br>TSOAUTH(JCL),<br>AUTH(ALLUSER),<br>CMDAUTH(USERID,NOTIFY),<br>CMDLEV(2),<br>AUPDT(10),<br>DSPAUTH(USERID,NOTIFY),<br>PREFIX(USERID),<br>ACTION(11,12,USER),<br>ACTIONBAR(YES),<br>APPC(ON),<br>CONFIRM(ON),<br>CURSOR(ON),<br>DATE(MMDDYYYY),<br>DATESEP(/),<br>DADFLT(IN,OUT,TRANS,STC,TSU,JOB),<br>VALTAB(TRTAB),<br>UPCTAB(TRTAB2),<br>LANG(ENGLISH),<br>DISPLAY(OFF) | GROUP NAME(ISFUSER),<br>AUPDT(10),<br>PREFIX(USERID),<br>ACTION(11,12,USER),<br>ACTIONBAR(YES),<br>APPC(ON),<br>CONFIRM(ON),<br>CURSOR(ON),<br>DATE(MMDDYYYY),<br>DATESEP(/),<br>DADFLT(IN,OUT,TRANS,STC,TSU,JOB),<br>VALTAB(TRTAB),<br>UPCTAB(TRTAB2),<br>LANG(ENGLISH),<br>DISPLAY(OFF) |

To control membership in the group, which is done with TSOAUTH in the “Without SAF” case, use the profile shown in Table 145.

Table 145. Profile for Membership in Group 3 — End Users

| Function   | Class | Resource Profile          | Access |
|------------|-------|---------------------------|--------|
| Membership | SDSF  | GROUP.ISFUSER.server-name | READ   |

Use the generic profiles shown in Table 146 as a guide to providing security equivalent to the AUTH, CMDAUTH, CMDLEV, and DSPAUTH parameters shown in the first sample.

Users are authorized to access their own jobs even if they are not permitted to access any JESSPOOL resources.

Users in Group 3 must have access to only those SAF resources defined for ISFPARMS Group 3.

Table 146. Profiles for Function of Group 3 — End Users

| Function      | JES  | Class | Resource Profile | Access |
|---------------|------|-------|------------------|--------|
| SDSF commands | Both | SDSF  | ISFCMD.DSP.**    | READ   |

Table 146. Profiles for Function of Group 3 — End Users (continued)

| Function                          | JES      | Class                                | Resource Profile              | Access |
|-----------------------------------|----------|--------------------------------------|-------------------------------|--------|
| Action characters for<br>CMDLEV=2 | JES2     | OPERCMDS                             | <i>jesx.DISPLAY.BAT</i>       | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.TSU</i>       | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.STC</i>       | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.INITIATOR</i> | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.DEV</i>       | READ   |
|                                   |          |                                      | <i>jesx.MSEND.CMD</i>         | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.BATOUT</i>    | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.TSUOUT</i>    | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.STCOUT</i>    | READ   |
|                                   |          |                                      | <i>jesx.DISPLAY.GROUP</i>     | READ   |
|                                   |          |                                      | <i>MVS.DISPLAY.WLM</i>        | UPDATE |
|                                   |          |                                      | <i>jesx.MODIFY.BATOUT</i>     | UPDATE |
|                                   |          |                                      | <i>jesx.MODIFY.TSUOUT</i>     | UPDATE |
|                                   |          |                                      | <i>jesx.MODIFY.STCOUT</i>     | UPDATE |
|                                   |          |                                      | <i>jesx.MODIFYHOLD.GROUP</i>  | UPDATE |
|                                   |          |                                      | <i>MVS.CANCEL.ATX.*</i>       | UPDATE |
|                                   |          |                                      | <i>MVS.CANCEL.TSU.*</i>       | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.BAT</i>        | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.TSU</i>        | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.STC</i>        | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.BATOUT</i>     | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.TSUOUT</i>     | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.STCOUT</i>     | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.GROUP</i>      | UPDATE |
|                                   |          |                                      | <i>jesx.CANCEL.DEV</i>        | UPDATE |
|                                   |          |                                      | <i>jesx.RELEASE.BATOUT</i>    | UPDATE |
|                                   |          |                                      | <i>jesx.RELEASE.STCOUT</i>    | UPDATE |
|                                   |          |                                      | <i>jesx.RELEASE.TSUOUT</i>    | UPDATE |
|                                   |          |                                      | <i>jesx.RESTART.DEV</i>       | UPDATE |
|                                   |          |                                      | <i>jesx.RESTART.BAT</i>       | UPDATE |
|                                   |          |                                      | <i>jesx.MODIFYHOLD.BAT</i>    | UPDATE |
|                                   |          |                                      | <i>jesx.MODIFYHOLD.STC</i>    | READ   |
|                                   |          |                                      | <i>jesx.MODIFYHOLD.TSU</i>    | READ   |
| <i>jesx.ROUTE.JOBOUT</i>          |          |                                      |                               |        |
| <i>MVS.DISPLAY.TCPIP</i>          |          |                                      |                               |        |
| <i>MVS.DISPLAY.XCF</i>            |          |                                      |                               |        |
| JES3 (see<br>note)                | OPERCMDS | <i>jesx.CALL.DISPLAY</i>             | UPDATE                        |        |
|                                   |          | <i>jesx.DISPLAY.A</i>                | READ                          |        |
|                                   |          | <i>jesx.DISPLAY.S</i>                | READ                          |        |
|                                   |          | <i>jesx.DISPLAY.JOB</i>              | READ                          |        |
|                                   |          | <i>jesx.DISPLAY.JOBE</i>             | READ                          |        |
|                                   |          | <i>jesx.MODIFY.JOB</i>               | UPDATE                        |        |
|                                   |          | <i>jesx.MODIFY.U</i>                 | UPDATE                        |        |
|                                   |          | <i>jesx.RESTART.DEV.main</i>         | CONTROL                       |        |
|                                   |          | <i>MVS.CANCEL.ATX.*</i>              | UPDATE                        |        |
|                                   |          | <i>MVS.CANCEL.TSU.*</i>              | UPDATE                        |        |
|                                   |          | <i>MVS.DISPLAY.TCPIP</i>             | READ                          |        |
|                                   |          | <i>MVS.DISPLAY.XCF</i>               | READ                          |        |
| Both                              | SDSF     | <i>ISFDISP.DELAY.owner.jobname</i>   | READ                          |        |
|                                   |          | <i>ISFDISP.DEVICES.owner.jobname</i> | READ                          |        |
|                                   |          | <i>ISFDISP.STORAGE.owner.jobname</i> | READ                          |        |
|                                   |          | <i>ISFJDD.CF.sysname</i>             | READ                          |        |
|                                   |          | <i>ISFJDD.DD.sysname</i>             | READ                          |        |
|                                   |          | <i>ISFJDD.IP.sysname</i>             | READ                          |        |

Table 146. Profiles for Function of Group 3 — End Users (continued)

| Function                           | JES                   | Class  | Resource Profile             | Access   |
|------------------------------------|-----------------------|--------|------------------------------|----------|
| Overtypable fields for<br>CMDLEV=2 | JES2                  | SDSF   | ISFATTR.JOB.PRTDEST          | UPDATE   |
|                                    |                       |        | ISFATTR.OUTDESC.*            | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.BURST         | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.CLASS         | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.DEST          | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.FCB           | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.FLASH         | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.FORMS         | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.PRMODE        | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.UCS           | UPDATE   |
|                                    | ISFATTR.OUTPUT.WRITER | UPDATE |                              |          |
|                                    | JES3                  | SDSF   | ISFATTR.JOB.PRTDEST          | UPDATE   |
|                                    |                       |        | ISFATTR.OUTDESC.*            | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.BURST         | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.CHARS         | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.CLASS         | UIUPDATE |
|                                    |                       |        | ISFATTR.OUTPUT.COPYCNT       | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.COPYMOD       | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.DEST          | UPDATE   |
|                                    |                       |        | ISFATTR.OUTPUT.FCB           | UPDATE   |
| ISFATTR.OUTPUT.FLASH               |                       |        | UPDATE                       |          |
| ISFATTR.OUTPUT.FORMS               | UPDATE                |        |                              |          |
| ISFATTR.OUTPUT.PRMODE              | UPDATE                |        |                              |          |
| ISFATTR.OUTPUT.UCS                 | UPDATE                |        |                              |          |
| ISFATTR.OUTPUT.WRITER              | UPDATE                |        |                              |          |
| MVS.DISPLAY.TCPIP                  | READ                  |        |                              |          |
| MVS.DISPLAY.XCF                    | READ                  |        |                              |          |
| Destinations                       | Both                  | SDSF   | ISFOPER.ANYDEST, <i>jesx</i> | READ     |

**Note:** Because the JES3 environment requires that you use SAF for security, SDSF does not document command levels for those action characters. The OPERCMDS resources shown here for JES3 protect action characters that provide function similar to the action characters that are available with CMDLEV=2 in a JES2 environment.

## Summary of profiles for group 1, group 2, and group 3

Table 147 shows the resources for the previous three groups: system programmers, operators, and end users.

Table 147. Profiles for Groups 1, 2, and 3

| Resource Name       | Class    | Access Level | Group | JES  |
|---------------------|----------|--------------|-------|------|
| **                  | JESSPOOL |              |       | Both |
| ISF*.**             | SDSF     | ALTER        | 1     | Both |
| ISFCMD.FILTER.INPUT | SDSF     | READ         | 1     | Both |
| ISFCMD.MAINT.**     | SDSF     | READ         | 1     | Both |
| <i>jesx</i> .**     | OPERCMDS | CONTROL      | 1,2   | Both |
| MVS.**              | OPERCMDS | CONTROL      | 1,2   | Both |
| <i>jesx</i> .**     | WRITER   | ALTER        | 1,2   | Both |
| ISFAUTH.DEST.*      | SDSF     | ALTER        | 1,2   | Both |
| ISFAUTH.DEST.*.*    | SDSF     | ALTER        | 1,2   | Both |
| HZS.**              | XFACILIT | CONTROL      | 1,2   | Both |
| ISFAPPL.**          | SDSF     | CONTROL      | 1,2   | Both |

Table 147. Profiles for Groups 1, 2, and 3 (continued)

| Resource Name                          | Class    | Access Level | Group | JES  |
|----------------------------------------|----------|--------------|-------|------|
| ISFAPF.**                              | SDSF     | READ         | 1,2   | Both |
| ISFDYNX.**                             | SDSF     | READ         | 1,2   | Both |
| ISFENC.**                              | SDSF     | ALTER        | 1,2   | Both |
| ISFENQ.**                              | SDSF     | READ         | 1,2   | Both |
| ISFINIT.**                             | SDSF     | CONTROL      | 1,2   | Both |
| ISFJOBCL.**                            | SDSF     | CONTROL      | 1,2   | JES2 |
| ISFLINE.**                             | SDSF     | CONTROL      | 1,2   | Both |
| ISFNS.**                               | SDSF     | CONTROL      | 1,2   | Both |
| ISFNODE.**                             | SDSF     | CONTROL      | 1,2   | Both |
| ISFSO.**                               | SDSF     | CONTROL      | 1,2   | JES2 |
| ISFLNK.**                              | SDSF     | READ         | 1,2   | Both |
| ISFLPA.**                              | SDSF     | READ         | 1,2   | Both |
| ISFMEMB.**                             | SDSF     | ALTER        | 1,2   | Both |
| ISFPAG.**                              | SDSF     | READ         | 1,2   | Both |
| ISFPARM.**                             | SDSF     | READ         | 1,2   | Both |
| ISFPLIB.**                             | SDSF     | READ         | 1,2   | JES2 |
| ISFPROC.**                             | SDSF     | ALTER        | 1,2   | Both |
| ISFRES.**                              | SDSF     | CONTROL      | 1,2   | Both |
| ISFRM.**                               | SDSF     | CONTROL      | 1,2   | JES2 |
| ISFSE.**                               | SDSF     | READ         | 1,2,3 | Both |
| ISFSOCK.**                             | SDSF     | CONTROL      | 1,2   | Both |
| ISFSP.**                               | SDSF     | CONTROL      | 1,2   | Both |
| ISFSR.**                               | SDSF     | READ         | 1,2   | Both |
| ISFSYM.**                              | SDSF     | READ         | 1,2   | Both |
| ISFSYS.**                              | SDSF     | READ         | 1,2   | Both |
| ISFAUTH.DEST.**.DATASET. <i>dsname</i> | SDSF     | READ         | 1,2   | Both |
| ISFCMD.**                              | SDSF     | READ         | 1,2   | Both |
| ISFOPER.DEST. <i>jesx</i>              | SDSF     | READ         | 1,2   | Both |
| ISFOPER.SYSTEM                         | SDSF     | READ         | 1,2   | Both |
| ISFATTR.**                             | SDSF     | UPDATE       | 1,2   | Both |
| <i>log-stream-name</i>                 | LOGSTRM  | READ         | 1,2   | Both |
| SYSPLEX.OPERLOG                        | LOGSTRM  | READ         | 1,2   | Both |
| ISFDISP.**                             | SDSF     | READ         | 1,2,3 | Both |
| ISFJDD.**                              | SDSF     | READ         | 1,2,3 | Both |
| <i>jesx</i> .DISPLAY.BAT               | OPERCMDS | READ         | 1,2,3 | JES2 |
| <i>jesx</i> .DISPLAY.TSU               | OPERCMDS | READ         | 1,2,3 | JES2 |
| <i>jesx</i> .DISPLAY.STC               | OPERCMDS | READ         | 1,2,3 | JES2 |
| <i>jesx</i> .MSEND.CMD                 | OPERCMDS | READ         | 1,2,3 | Both |
| <i>jesx</i> .DISPLAY.BATOUT            | OPERCMDS | READ         | 1,2,3 | JES2 |
| <i>jesx</i> .DISPLAY.TSUOUT            | OPERCMDS | READ         | 1,2,3 | JES2 |

Table 147. Profiles for Groups 1, 2, and 3 (continued)

| Resource Name                | Class    | Access Level | Group | JES  |
|------------------------------|----------|--------------|-------|------|
| <i>jesx</i> .DISPLAY.STCOUT  | OPERCMDS | READ         | 1,2,3 | JES2 |
| <i>jesx</i> .MODIFY.BATOUT   | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .MODIFY.TSUOUT   | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .MODIFY.STCOUT   | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| MVS.CANCEL.ATX.*             | OPERCMDS | UPDATE       | 1,2,3 | Both |
| MVS.CANCEL.TSU.*             | OPERCMDS | UPDATE       | 1,2,3 | Both |
| MVS.DISPLAY.TCPIP            | OPERCMDS | READ         | 1,2,3 | Both |
| MVS.DISPLAY.XCF              | OPERCMDS | READ         | 1,2,3 | Both |
| MVS.MODIFY.WLM               | OPERCMDS | UPDATE       | 1,2   | Both |
| <i>jesx</i> .CANCEL.BAT      | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .CANCEL.TSU      | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .CANCEL.STC      | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .RELEASE.BATOUT  | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .RELEASE.STCOUT  | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .RELEASE.TSUOUT  | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .RESTART.DEV     | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .RESTART.BAT     | OPERCMDS | CONTROL      | 1,2,3 | JES2 |
| <i>jesx</i> .MODIFYHOLD.BAT  | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .MODIFYHOLD.STC  | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .MODIFYHOLD.TSU  | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| <i>jesx</i> .ROUTE.JOBOUT    | OPERCMDS | UPDATE       | 1,2,3 | JES2 |
| ISFCMD.DSP.**                | SDSF     | READ         | 1,2,3 | Both |
| ISFOPER.ANYDEST. <i>jesx</i> | SDSF     | READ         | 1,2,3 | Both |
| ISFATTR.JOB.PRTDEST          | SDSF     | UPDATE       | 1,2,3 | JES2 |
| ISFATTR.OUTDESC.*            | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.BURST         | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.CHARS         | SDSF     | UPDATE       | 1,2,3 | JES3 |
| ISFATTR.OUTPUT.CLASS         | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.COPYCNT       | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.COPYMOD       | SDSF     | UPDATE       | 1,2,3 | JES3 |
| ISFATTR.OUTPUT.DEST          | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.FCB           | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.FLASH         | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.FORMS         | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.ODISP         | SDSF     | UPDATE       | 1,2,3 | JES2 |
| ISFATTR.OUTPUT.PRMODE        | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.UCS           | SDSF     | UPDATE       | 1,2,3 | Both |
| ISFATTR.OUTPUT.WRITER        | SDSF     | UPDATE       | 1,2,3 | Both |

## Using the Security Conversion Assist

To help you convert from ISFPARMS to RACF for SDSF security, SDSF provides the Security Conversion Assist. This generates sample RACF commands for most of the ISFGRP/GROUP parameters of your ISFPARMS. For a complete list of supported ISFGRP/GROUP parameters, see “Supported ISFGRP/GROUP parameters” on page 343.

The Security Conversion Assist is intended to give you a headstart on the conversion to RACF security. It does not provide a complete, automated conversion. Use the generated RACF commands as a sample to help you understand RACF security, or review, modify and issue them to provide RACF security.

The Security Conversion Assist requires RACF on the system on which you run it. You must have TSO authority of JCL, ACCT and OPER.

### Steps in using the Security Conversion Assist

#### About this task

Invoke the Security Conversion Assist by issuing the ISFACR command from any ISPF command line. The syntax of the command is as follows:

```
ISFACR—TRACE=rexx-trace-option
```

The ISFACR command displays a menu of steps that you select in sequence. The steps are:

1. **Define a profile.** This step lets you specify such things as the ISFPARMS and RACF commands data sets, the CLIST library, and RACF group names.
2. **Convert ISFPARMS to profile descriptions.** This step analyzes the ISFPARMS source file and:
  - a. If ISFPARMS is in statement format, creates a copy of it that is in assembler macro format in data set *userid.PARMLSDSF*.
  - b. Produces an intermediate output file for profile descriptions. The file is named in your profile. The profile descriptions contain, in plain text, the RACF profiles that are produced by Security Conversion Assist. To be sure the required profile descriptions are present, check the file that is created against the tables in Appendix C, “SDSF resource names for SAF security,” on page 609. Profile descriptions are explained in detail in “Profile descriptions” on page 341.

This step also checks the RACF database for the presence of the user IDs that are found in name tables (ISFNTBL/NTBL) in the ISFPARMS.

A pop-up lets you run this step in the foreground or in batch.

3. **Review profile descriptions.** This step allows you to study and modify the profile descriptions, to make sure that the proper RACF profiles are created in a subsequent step. Some profile descriptions may be marked with the word CHANGE; you may correct these in this step or wait and correct the generated RACF commands. Refer to “Profile descriptions” on page 341 for more information.
4. **Convert profile descriptions to RACF commands.** This step translates the profile descriptions into RACF commands and writes them to the data set



specified in your profile. For each command that is in the process of being created, the procedure checks if the profile is already in the RACF database. If so, no command is generated.

The Security Conversion Assist allows you to select a specific class for which RACF commands are to be generated. Specifying ALL causes commands for all classes to be generated.

A pop-up lets you run this conversion in the foreground or in batch.

5. **Review RACF commands.** Use this step to review the generated commands. See “RACF commands” on page 342 for a discussion of what to look for.

You may want to simply use the generated commands as a sample to help you understand RACF security. Or, after carefully reviewing and modifying the commands, you may want to issue them to provide RACF security.

If you run the Security Conversion Assist multiple times with the same prefix for generated group names, it creates commands to delete groups defined with the previous run. You specify the prefix in the profile, which is option 1 of the menu.

## Required data sets

To use the Security Conversion Assist, you will need the following data sets:

*Table 148. Data Sets Required by the Security Conversion Assist*

| Data Set                                                                                                         | Characteristics                             |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------|
| For an assembler macro version of the source ISFPARMS, if they are in statement format; <i>userid.PARMI.SDSF</i> | Sequential, record length at least 80       |
| For profile descriptions, by default <i>userid.IN.SDSF</i>                                                       | Sequential, record length at least 80       |
| For generated RACF commands, by default <i>userid.SDSFRACF.CLIST</i>                                             | Sequential file, record length at least 133 |

## Profile descriptions

The generated profile descriptions are in order by class, as follows: JESSPOOL, OPERCMDS, SDSF, WRITER, GSDSF, GROUP, GLOBAL, and RACFVARS. To help you identify what the profile description corresponds to, each profile description includes descriptive text on the third line. For example, a profile description for an SDSF command would show SDSF\_COMMANDS on the third line.

The parts of a profile description are shown in Table 149.

*Table 149. Profile Description Example*

| Statement               | Description                                                  |
|-------------------------|--------------------------------------------------------------|
| Class= SDSF             | Class name                                                   |
| ISFCMD.ODSP.SYSLOG.JES2 | Profile name                                                 |
| SDSF_COMMANDS           | Descriptive text                                             |
| ISF                     | Owner                                                        |
| NONE                    | UACC                                                         |
| NOWARNING               | WARNING NOWARNING                                            |
| ALL                     | AUDIT                                                        |
| MEMBERS                 | Heading for members                                          |
| ---                     | Entry for group class or for general resource grouping class |
| ACCESS LIST             | Heading for access list                                      |
| * READ                  | Entry in access list with access level                       |
| CONDITIONAL ACCESS LIST | Heading for conditional access list                          |

Note that the headings for members, access list, and conditional access list are shown even when there are no entries.

The access list information for some profile descriptions will have the word CHANGE instead of a user ID or group ID. You can update this access list information with the correct user ID or group ID here, or wait and make the changes in the RACF commands that are generated from the profile descriptions. Figure 12 shows an example of a profile description that needs to be changed. You would replace the word CHANGE on the next-to-last line with a user or group ID.

```
Class= JESSPOOL
*.*MASTER+.*.*.*.SYSLOG
SYSLOG
MAQ
READ
NOWARNING
ALL
MEMBERS
ACCESS LIST
CHANGE ALTER
CONDITIONAL ACCESS LIST
```

Figure 12. Example of a Profile Description to Change

The profile descriptions that may require a change to the access list information are shown in Table 150.

Table 150. Profile Descriptions That May Require a Change to the Access List

| Class    | Profile                                                                                                        |
|----------|----------------------------------------------------------------------------------------------------------------|
| JESSPOOL | *.*MASTER+.*.*.*.SYSLOG<br>*.*MASTER+.SYSLOG.*<br>*.*.*.*.JESTRACE<br>*.*.JESNEWS.*.D*.JESNEWS<br>*.*.SYSLOG.* |
| OPERCMD5 | *.UPDATE.JESNEWS<br>JES2.*<br>JES3.*<br>MVS.*<br>MVS.START.STC.*                                               |
| GLOBAL   | Class= GLOBAL<br>JESSPOOL                                                                                      |
| RACFVARS | Class= RACFVARS<br>&RACLNDE                                                                                    |

## RACF commands

When reviewing the generated RACF commands, you should look for:

- Any access list entries that are marked with the word CHANGE. These must be updated. For example, the CHANGE in the following PERMIT command needs to be changed to a user ID or group name.

```
PERMIT *.*MASTER+.*.*.*.SYSLOG CLASS(JESSPOOL) ID(CHANGE) ACCESS(ALTER)
```

- Commands that are commented out. All destructive commands, such as RDELETE, REMOVE and CLASSACT, are commented out. To issue them, you need to remove the comment.

- Any commands that have an inappropriate scope. For example, you may want to change an \* to a node ID to reduce the scope.
- Impact of use of the Generic Owner facility. It is assumed that you will use the Generic Owner facility. This facility has a great impact on the ownership of RACF profiles, in particular, the JESSPOOL profiles. If you use this facility it will be impossible to create a more specific profile with a different owner. Remove the associated RACF command when you do not plan to use Generic Owner.
- Make sure that the RACF classes are defined GENERIC; if not, none of the profiles will work. When one of the classes is not defined GENERIC, first make sure that there is no profile left in that class, then define the class to be generic. Subsequently run appropriate commands to get back the profiles that were previously defined in that RACF class.
- The &RACUID entry in the GLOBAL profile. You must change the ampersand (&) to a double ampersand (i.e. &&RACUID). &RACUID will be treated as a variable. Therefore, before processing the commands, you must change the & to an &&.

### Supported ISFGRP/GROUP parameters

The following GROUP statement or ISFGRP macro parameters are supported by the Security Conversion Assist:

Table 151. GROUP/ISFGRP Parameters Supported

| Parameter | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TSOAUTH   | <p>The authorities must be defined in RACF TSOAUTH class profiles instead of in SYS1.UADS. This parameter is only partially converted to RACF. It will be used for the ISFPARMS file that stays in your system after the conversion. A RACF group entry will be generated that uses the name specified for the group in ISFPARMS (either with the value for the GROUP NAME keyword or the label on the ISFGRP macro); if no name was specified, the conversion assist generates a name using the prefix defined in the conversion assist profile followed by a T and a sequence number.</p> <p>When a TSOAUTH profile is defined with UACC(READ), the results of the conversion assist are ambiguous. The profile description will contain an * as an ID entry in a group definition.</p> <p>When the profile description is converted to RACF commands, the * is converted into RACF commands that change the UACC for the profile involved.</p> |
| AUTH      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| CMDAUTH   | <p>Only values of ALL and GROUP are supported. For ALL, profiles in the SDSF class are generated. For GROUP, profiles in the JESSPOOL class are generated.</p> <p>When ALL is used and XCMD is also defined for this group, a direct translation to RACF profiles is not possible because of the way SDSF checks profiles. Once the authority to give all commands is recognized, no further checks are done by SDSF.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| CMDLEV    | The levels are used to generate corresponding RACF profiles in the GSDFS class.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DSPAUTH   | <p>Only values of ALL and GROUP are supported. For ALL, profiles in the SDSF class are generated. For GROUP, profiles in the JESSPOOL class are generated.</p> <p>When ALL is used and XDSP is also defined for this group, a direct translation to RACF profiles is not possible because of the way SDSF checks on profiles. Once the authority to display all output is recognized, no further checks are done by SDSF.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| GPREF     | The Security Conversion Assist looks for this parameter when GROUP is specified in the CMDAUTH and DSPAUTH parameter. The appropriate RACF profiles in the JESSPOOL class are generated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ICMD      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| IDSP      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

Table 151. GROUP/ISFGRP Parameters Supported (continued)

| Parameter | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IUID      | The Security Conversion Assist searches the ISFPARMS source file to find all the group names defined in the ISFNTBL macros. Because it is likely that these group names already exist in your RACF database as RACF GROUP names, group names are defined that consist of the prefix specified in your profile followed by a sequence number. The IUID value is copied into the corresponding RACF profile in the Descriptive text field. This is an important field when it comes to do cross checking later. |
| XCMD      | When authorization is given using the ISFOPER... and ISFAUTH... profiles in the SDSF class, you may find that XCMD is not converted correctly.                                                                                                                                                                                                                                                                                                                                                                |
| XDSP      | When authorization is given using the ISFOPER... and ISFAUTH... profiles in the SDSF class, you may find that XDSP is not converted correctly.                                                                                                                                                                                                                                                                                                                                                                |
| XDSPD     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**Usage notes:**

- The RACF profile for the OWNER command, ISFCMD.FILTER.OWNER, is defined as UACC(READ), because authority to the OWNER command is not controlled by ISFPARMS.
- The RACF profiles produced do not conform to the Enhanced Generics Standard.
- On a qualifier with 'nodeid', the Security Conversion Assist uses an '\*' instead.
- The Security Conversion Assist does not convert destination security (e.g. IDEST lists) and does not handle output groups.

## Diagnosing security

You can use the security trace function to understand and diagnose SDSF security provided by either ISFPARMS or SAF. The security trace function provides simple messages that are included in the ULOG or issued as write-to-programmer messages. For more information, refer to “Diagnosing security” on page 18.

---

## Chapter 9. Using installation exit routines

---

### Programming Interface Information

---

This topic describes how to use an installation exit routine to customize your security authorization strategy.

**Note:** SDSF's support for installation exits can change. With each new release of SDSF, you should review your exit routines to ensure that they still function correctly, and make changes as necessary. For the most common uses, SDSF's installation exits have been superseded by custom properties in ISFPARMS, which are significantly easier to define and maintain. For more information, see "Customized properties (PROPLIST)" on page 93.

---

### Installation exit routines

You can write installation exit routines for the set of installation exit points provided by SDSF. These routines can supplement the authorization you established with ISFPARMS and the SAF security interface. Your installation exit routines supply customized authorization processing for your installation and return to SDSF their authorization decisions.

The PROPLIST and PROPERTY statements in ISFPARMS provide an alternative to some of the customization available through the exit routines. For more information, see "Customized properties (PROPLIST)" on page 93.

### Using the ISFUSER module

You add your installation exit routines to the ISFUSER module supplied by SDSF in member ISFUSER of the ISF.SISFSRC data set. As supplied, module ISFUSER performs no authorization functions and is always present, whether you add installation exit routines or not.

Instructions for the use of module ISFUSER are contained in the module, which indicates where you should add the code to be used for each exit point. The module also has information about the function codes and registers used in the exit point interface. Note that the pre-SAF exit will be the first exit point.

ISFUSER is called and must return in 31-bit mode. To install the ISFUSER module after adding installation exit routines, perform SMP RECEIVE and APPLY.

### ISFUPRM macro

The installation exit routine can use parameters supplied in the ISFUPRM macro, which maps the user parameter area. A pointer to the user parameter area is passed to ISFUSER upon entry. The user parameter area contains such information as:

- User ID, logon procedure name, and terminal name
- User authority based on ISFGRP macro or GROUP specifications
- Prefix and group prefix information defined in ISFGRP macros or GROUP statements
- Pointers to include and exclude lists defined in ISFGRP macros or GROUP statements

- Pointers to the primary and alternate field lists defined in ISFFLD macros or FLD statements
- Pointers to destination name tables and user selected node/remote names defined in ISFNTBL macros or NTBL statements
- Trace table information
- Job information

---

## Installation exit points

The installation exit points within SDSF link to the ISFUSER module at entry point ISFUSER. SDSF provides the following exit points for installation routines to customize authorization:

| Exit Point               | Use to Control                                   |
|--------------------------|--------------------------------------------------|
| Initialization           | Who can use SDSF                                 |
| Command Authority        | Which commands users can issue                   |
| SYSOUT Display Authority | For which jobs users can display output          |
| SDSF termination         | Termination processing                           |
| Pre-SAF                  | How the SAF authorization decision is to be made |
| Post-SAF                 | Accept or ignore result of SAF authorization     |
| SAF indeterminate        | Action for SAF indeterminate responses           |
| Table build              | What is displayed on tabular panels              |

These exit points are described in detail in the remainder of this topic. The descriptions include input, output (if any), and return codes.

## SAF considerations for exit points

For information about the SAF resources used for SDSF security, see Chapter 7, “Protecting SDSF functions,” on page 223.

The Command Authority and SYSOUT Display Authority exits are not taken when SAF makes an authorization decision. Because the JES3 environment requires SAF security, these exits do not apply in the JES3 environment. Instead, use the pre-SAF exit.

The SYSOUT Display Authority exit routine is not invoked for a user who has authority to access the SDSF class resource ISFOPER.DEST.jesx (users who have destination operator authority).

If the installation wants to maintain the functions of these installation exit routines while using SAF for security decisions, then the exit routine code should be moved to one of the other exit points available with SDSF.

Use the SDSF exits for SAF calls made by SDSF. SAF calls may be made by other components; for example, JES2 makes a SAF call for a resource in the JESSPOOL class when you browse a data set. You cannot affect SAF calls made by other components with the SDSF exits.

## Initialization exit point

This exit is taken during SDSF initialization after all of the authorization parameters from ISFPARMS and the ISPF profile have been moved into the user parameter area. The initialization exit routine can control authorization to use SDSF.

The initialization exit routine also controls use of the table build exits and the source of information for the Display Active Users panel.

The initialization exit point may not be the first exit called by SDSF. In particular, security related exits such as pre-SAF and post-SAF are called prior to the initialization exit point.

If you want table build exits taken, your initialization exit routine must set exit flags for each tabular panel. When you set an exit flag to B'1', the table build exit is taken. See "Table build exit point" on page 353 for more information.

In addition, your initialization exit can set the following to B'1' to perform other functions:

| Field             | Description                                                                                                                                                                                                                                                                                  |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UPRSFLAG.UPRNORMF | Derive information for the DA panel directly from MVS control blocks rather than from RMF                                                                                                                                                                                                    |
| UPRSFLAG.UPRNORMS | Disable use of sysplex DA                                                                                                                                                                                                                                                                    |
| UPRSFLAG.UPRSNOCS | Allows an EMCS console to be shared if it is already active. See UPRSFLG5.UPRS5CSX for controlling sharing of the EMCS console across address spaces.                                                                                                                                        |
| UPRCKLIM          | Sets the default maximum number of instances for each health check that will be read from the logstream for the CKH panel. Users can override this with the SET CKLIM command.                                                                                                               |
| UPRCMDLM          | Sets the number of system commands entered with the / command that SDSF stores. When the number is exceeded, the oldest command is removed from the list. The default is 1,000. System commands are stored only when using SDSF under ISPF.                                                  |
| UPROFLG1.UPRO1DYZ | Specifies that the columns related to a zAAP are shown on the DA panel only if a zAAP is defined in the set of systems being shown, and the columns related to a zIIP are shown on the DA panel only if a zIIP is defined in the set of systems being shown.                                 |
| UPROFLG1.UPRO1GHO | Append a generic pattern-matching character to the job specified with the H command, unless the prefix already ends with a generic character or is already the maximum length (8 characters). For example, if the user enters H GREER, this setting would result in a prefix of H GREER*.    |
| UPROFLG1.UPRO1GPF | Append a generic pattern-matching character to the prefix specified with the PREFIX command, unless the prefix already ends with a generic character or is already the maximum length (8 characters). For example, if the user enters PREFIX JONES, this would result in a prefix of JONES*. |

| Field             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UPROFLG1.UPRO1GST | Append a generic pattern-matching character to the job specified with the ST command, unless the prefix already ends with a generic character or is already the maximum length (8 characters). For example, if the user enters ST GREER, this setting would result in a prefix of ST GREER*.                                                                                                                                                                                         |
| UPROFLG1.UPRO1LNF | Specifies the SAF logging option to use when a job's data sets are browsed from an SDSF panel, with the exceptions of the JDS and OD panels. If the value is TRUE, the SAF logging setting is LOG=NOFAIL (rather than the default, LOG=ASIS).                                                                                                                                                                                                                                        |
| UPROFLG1.UPRO1SFW | Controls issuing a warning message when a SAF no-decision is converted to a failure                                                                                                                                                                                                                                                                                                                                                                                                  |
| UPROFLG2.UPRO2DNL | Affects normalization of the CPU% column on the DA panel. If the value is TRUE, the CPU% column is normalized using the LPAR value for CPU busy for the system. If the value is FALSE, the CPU% column is normalized with the MVS value for CPU busy for the system. The LPAR value takes into account several states related to PR/SM. The LPAR value requires RMF. If the LPAR value is not available, SDSF uses the MVS value to normalize the CPU% column. FALSE is the default. |
| UPROFLG2.UPRO2DU8 | Controls how device names are formatted on the PUN panel. If the value is TRUE, the device names are shown in a shortened format. Otherwise, the name is shown with dots between subtypes.                                                                                                                                                                                                                                                                                           |
| UPROFLG2.UPRO2DR8 | Controls how device names are formatted on the RDR panel. If the value is TRUE, the device names are shown in a shortened format. Otherwise, the name is shown with dots between subtypes.                                                                                                                                                                                                                                                                                           |
| UPROFLG2.UPRO2NMD | Disables modification of the console name when console activation fails due to the console being in use. A value of TRUE disables the function and a value of FALSE enables it. FALSE is the default.                                                                                                                                                                                                                                                                                |
| UPROFLG2.UPRO2NPS | Disables point-and-shoot fields such as column titles.                                                                                                                                                                                                                                                                                                                                                                                                                               |
| UPROFLG3.UPRO3JPC | Controls the scope of the CK panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UPROFLG3.UPRO3JPD | Controls the scope of the DA panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UPROFLG3.UPRO3JPE | Controls the scope of the ENC panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| UPROFLG3.UPRO3JPP | Controls the scope of the PS panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| UPROFLG3.UPRO3NOD | Controls whether duplicate SYSOUT data sets are included when you browse or print a job.                                                                                                                                                                                                                                                                                                                                                                                             |
| UPRSFLG3.UPRS3MEM | Restricts user access to jobs that have run or will run on another member in a MAS configuration                                                                                                                                                                                                                                                                                                                                                                                     |
| UPRSFLG3.UPRS3NOF | Bypasses all filtering for DA, H, I, O and ST, including include and exclude lists set in ISFPARMS                                                                                                                                                                                                                                                                                                                                                                                   |
| UPRSFLG3.UPRS3SWP | Specifies that, when browsing job data sets, SDSF should not gather data from in-core buffers if the job is swapped out. This is ignored for systems other than the one you are logged onto.                                                                                                                                                                                                                                                                                         |
| UPROFLG4.UPRO4CDP | Controls whether the size of the System Command Extension pop-up varies with the screen size of the emulator session.                                                                                                                                                                                                                                                                                                                                                                |



| Field             | Description                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UPROFLG4.UPRO4JSM | Controls scope of the SYM panel.                                                                                                                                                                                                                                                                                                                                                              |
| UPRSFLG4.UPRS4NCM | Disables use of communications between servers in a server group                                                                                                                                                                                                                                                                                                                              |
| UPRSFLG5.UPRS5CSX | Allows sharing of an EMCS console if it is in use but was activated in a different address space than the user. Console sharing means that commands will be issued using that console, and any responses will be directed to the ULOG for the task that has activated the console. The option to allowing sharing is effective only when console sharing is permitted. See UPRSFLAG.UPRSNOCS. |
| UPRSFLG5.UPRS5DSI | Specifies that the system SIO rate is included on the title line of the DA panel, but the system zAAP use is not.                                                                                                                                                                                                                                                                             |
| UPROFLG5.UPRO5JEN | Controls scope of the ENQ panel.                                                                                                                                                                                                                                                                                                                                                              |
| UPROFLG6.UPRO6NJM | Disables use of SDSFAUX for Job Memory (JM) panel.                                                                                                                                                                                                                                                                                                                                            |
| UPROFLG6.UPRO6NJD | Disables use of SDSFAUX for Job Device (JD) panel.                                                                                                                                                                                                                                                                                                                                            |
| UPRSFLG6.UPRS6JS3 | ON if SDSF is running under JES3. <sup>1</sup>                                                                                                                                                                                                                                                                                                                                                |
| UPRS6FSY          | Controls the use of system symbols with filtering.                                                                                                                                                                                                                                                                                                                                            |
| UPRSSNME          | Contains the JES subsystem name for the JES that SDSF is running under. <sup>1</sup>                                                                                                                                                                                                                                                                                                          |
| UPXCONSF          | Names the list of suffixes to use when modifying the console name when the console activation fails due to the console being in use. The default is \$#@12345.                                                                                                                                                                                                                                |

**Note:**

1. SDSF invokes other exit points prior to the initialization exit point (such as the pre-SAF and post-SAF calls). Fields listed for the initialization exit point are not available for exit points that are invoked earlier.

**Input**

- Function code (X'00') in register 0
- Address of user parameters (ISFUPRM) in register 1

**Return codes**

00 Allows the user to use SDSF.

**Nonzero**

The user is not authorized to use SDSF. Message ISF024I is issued.

## Command authority exit point

This exit is taken only when the SAF indeterminate exit routine or the pre-SAF exit routine sets the return code to X'04'. It is not taken when SAF makes an authorization decision. Because the JES3 environment requires SAF security, this exit does not apply in the JES3 environment. Instead, use the pre-SAF exit.

This exit is taken prior to SDSF issuing a command on behalf of the user. The command to be issued could be in response to a field being overtyped on a tabular panel, an action character being entered, or a command entered with the / command.

**Input**

- Function code (X'04') in register 0
- Address of user parameters (ISFUPRM) in register 1

- Authorization attribute in field UPRARETC, as follows:
  - X'10'— User is not authorized to the job.
  - X'14'— User is not authorized to the command.
  - X'24'— User is not authorized to the printer.
  - X'28'— User is not authorized to the initiator.
  - X'2C'— User is not authorized to the system.
  - X'30'— User is not authorized to the type.
  - X'34'— User is not authorized to the device.
  - X'38'— User is not authorized to the node.
  - X'3C'— User is not authorized to the scheduling environment.
  - X'40'— User is not authorized to the WLM resource.
  - X'44'— User is not authorized to the job class.
  - X'48'— User is not authorized to the spool volume.
  - X'4C'— User is not authorized to the enclave.
  - X'50'— User is not authorized to the process.
  - X'54'— User is not authorized to the JES2 resource.
  - X'58'— User is not authorized to the IBM Health Checker for z/OS check.
  - X'60'— User is not authorized to LPA resource.
  - X'64'— User not authorized to LNK resource .
  - X'68'— User is not authorized to APF resource.
  - X'6c'— User is not authorized to parmlib resource.
  - X'70'— User is not authorized to page resource.
  - X'74'— User is not authorized to system resource.
  - X'78'— User is not authorized to SRCH resource.
  - X'7c'— User is not authorized to SYM resource.
  - X'80'— User is not authorized to ENQ resource.

## Output

Authorization attribute in field UPRARETC, as described above. If this field is nonzero on entry to the exit routine, the exit routine must zero this field and set the return code to X'00' to allow the command to be issued.

## Return codes

**00** Allows the command to be issued.

### Nonzero

The user is not authorized to issue the command.

## SYSOUT display authority exit point

This exit is taken only when the SAF indeterminate exit routine or the pre-SAF exit routine sets the return code to X'04'. It is not taken when SAF makes an authorization decision. Because the JES3 environment requires SAF security, this exit does not apply in the JES3 environment. Instead, use the pre-SAF exit.

This exit is taken prior to SDSF displaying a SYSOUT data set. It is taken as a result of an S, V, or X action character being used.

If the display of SYSOUT data sets with DSIDs less than 101 is restricted by AMDEST, AMMSG, or GRPMSG values in the DSPAUTH parameter of an ISFGRP macro or GROUP statement, a return code of zero in field UPRARETC overrides this restriction but does not authorize the user to display SYSOUT with DSIDs of 101 or greater.

## Input

- Function code (X'08') in register 0
- Address of user parameters (ISFUPRM) in register 1
- Authorization attribute in field UPRARETC, as follows:

X'00'— User is authorized to display the data set.  
X'10'— User is not authorized to the job.

## Output

If this field is nonzero on entry to the exit routine, the exit routine must zero this field and set the return code to X'00' to allow the user to display the data.

## Return codes

**00** Allows the data to be displayed.

### Nonzero

The user is not authorized to see the data.

## SDSF termination exit point

This exit is taken during SDSF termination prior to any data sets being closed or storage being freed.

## Input

- Function code (X'0C') in register 0
- Address of user parameters (ISFUPRM) in register 1

## Return codes

No return codes are expected from this exit.

## Pre-SAF exit point

This exit is taken prior to the call to SAF and prior to the initialization exit. It allows the installation to control how the authorization decision is to be made. It is taken only for SAF calls done by SDSF. In addition to the SAF calls done by SDSF, SAF calls may be made by other components.

## Input

- Function code (X'10') in register 0
- Address of user parameters (ISFUPRM) in register 1
- SAF class name being checked is in field UPRCLASS
- Resource name area is pointed to by UPRRSCN. The first halfword is the length of the resource name which is followed by the resource name.
- Authorization required for the resource is in field UPRATTR. The values are:
  - X'02'— READ
  - X'04'— UPDATE
  - X'08'— CONTROL
  - X'80'— ALTER

## Return codes

- 00** Use SAF to make the authorization decision. This is the default return code.
- 04** Bypass the SAF call and fall back to ISFPARMS for the authorization decision. The command authority and SYSOUT display authority exits will be invoked.
- 08** Bypass the SAF call and fail the request. The user is not authorized to the resource.
- Other** Same as return code 08, but IBM recommends that the return code be explicitly set to 08 to indicate that the request is to be failed.

## Post-SAF exit point

The post-SAF exit point is taken after SDSF has invoked SAF to allow the installation to control how the authorization decision is to be made. The installation can use the exit to perform additional authorization checking or auditing, accept or ignore the SAF decision, or indicate that ISFPARMS is to be used for authorization.

If the exit indicates that the decision is to be ignored or failed, SAF logging of the request will already have been done.

The exit is taken only for SAF calls done by SDSF. In addition to the SAF calls done by SDSF, SAF calls may be made by other components.

### Input

- Function code (X'1C') in register 0.

Address of user parameters (ISFUPRM) in general register 1.

- UPRSAFRC contains the original SAF return code.
- UPRSAFPL contains the address of the RACROUTE parameter list used for the SAF call.
- UPRCLASS contains the SAF class name that was checked.
- UPRRSCN contains the address of the resource name area. The resource name area consists of a halfword length containing the length of the resource name, followed by the resource name.
- UPRATTR contains the authorization attribute required for the resource, as follows:
  - X'02'Read
  - X'04'Update
  - X'08'Control
  - X'80'Alter

### Return codes

- 00** Accept the SAF decision and process according to the original SAF return code. If the original SAF return code was 04, the SDSF SAF indeterminate exit will be called.
- 04** Ignore the SAF decision and process as if SAF set a return code of 04. The SDSF SAF indeterminate exit will be called.
- 08** Ignore the SAF decision. The user is not authorized to the resource.
- 12** Ignore the SAF decision. The user is authorized to the resource.
- Other** Same as return code 08, but IBM recommends that 08 be explicitly set to indicate that the SAF return code is to be ignored.

## SAF indeterminate exit point

This exit is taken when SAF cannot make an authorization decision and returns an indeterminate response. This can occur when the requested class is not active or when no profile is defined.

SDSF does not take this exit when security checking is being performed for operator destination access to a resource. This is because further SAF checking will be performed against the JESSPOOL resource itself, even if SAF could not

determine if the user had operator destination access to the resource. This exit is not suppressed when the SAF call is made to the actual JESSPOOL resource.

### Input

- Function code (X'14') in register 0.
- Address of user parameters (ISFUPRM) in register 1.
- Class name is in field UPRCLASS.
- Resource name area is pointed to by UPRRSCN. The first halfword is the length of the resource name which is followed by the resource name.
- Authorization required for the resource is in field UPRATTR. The values are:
  - X'02'— READ
  - X'04'— UPDATE
  - X'08'— CONTROL
  - X'80'— ALTER

### Return codes

- 00 User is allowed to access the resource.
- 04 Use ISFPARMS to determine authorization and allow access when ISFPARMS has no corresponding protection scheme. The SAF call is bypassed. This is the default return code if the user does not change the installation exit routine.

**Note:** This does not apply to the SERVER option on the SDSF command, which is protected by the ISFCMD.OPT.SERVER resource, as described in “SDSF server” on page 316.

- 08 User is not allowed to access the resource.

## Table build exit point

The table build exit point is used during the table display build to determine if a row should be displayed. It is taken for every row to be included in a tabular panel. It allows the installation to suppress a row from being displayed on a tabular panel. The DEST, OWNER and PREFIX filters are applied before the user exit, but filters set by the FILTER command are applied after the exit.

The table build exit is taken only if enabled through an initialization exit routine. For each tabular display, a flag, defined in bytes UPRUXFLG, UPRXFLG2, UPRXFLG3, UPRXFLG4, UPRXFLG5, and UPRXFLG6 specifies whether the table build exit is to be taken. The initialization exit routine must turn on the corresponding flag for each table row exit that is to be used.

When the table row exit is taken, a display-dependent work area, which describes the row to be displayed, is passed to the table build exit routine.

### Input

- Function code (X'18') in register 0.
- Address of user parameters (ISFUPRM) in register 1.
- Address of a display-dependent work area that describes the row to be displayed in field UPRUXWA@. The work area is mapped by the UXTEBPRM DSECT (which is expanded as part of the ISFUPRM macro).

### Return codes

- 00 Row is displayed. This is the default return code.

**Nonzero**

Row is not displayed.

\_\_\_\_\_ **End of Programming Interface Information** \_\_\_\_\_

---

## Chapter 10. Installation and configuration considerations

This topic discusses special considerations for JES and WebSphere MQ.

---

### JES3 considerations

SDSF may be invoked on either a local or global processor.

SDSF retrieves information about the JES being processed, including the JES3 global system name, during initialization. As a result, if a JES3 DSI is done to move the global system, SDSF users must re-access SDSF so that initialization can take place.

ISFPARMS must be in the statement format (parmlib member ISFPRMxx) rather than the assembler macro format. ISFPRMxx is processed by the SDSF server, which must be started. If the SDSF server is not started, SDSF uses the default assembler macro ISFPARMS shipped with SDSF, regardless of any other modified ISFPARMS you might have.

SDSF security must be provided by SAF rather than ISFPARMS.

For more information, refer to the red paper, *Using SDSF in a JES3 Environment*, REDP-4531-00.

For new SDSF function to be available, both the processor from which SDSF is invoked and the JES3 global processor must have SDSF at the level that provides the new function.

### Getting started running SDSF in the JES3 environment

The following tasks are associated with running SDSF in a JES3 environment.

| Task                                                                                                                                                                                                                        | Reference Information                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Prepare ISFPRMxx. If you are beginning with an ISFPARMS in assembler macro format, convert it to statement format.                                                                                                          | "ISFPARMS in the JES3 environment"<br>"Converting ISFPARMS assembler macros to statements" on page 17 |
| Start the SDSF server.                                                                                                                                                                                                      | Chapter 3, "Using the SDSF server," on page 109                                                       |
| Implement SAF security.                                                                                                                                                                                                     | "SAF in the JES3 environment" on page 356                                                             |
| If you have SDSF user exits, review and revise them as necessary for the JES3 environment. If you have implemented the command authority or SYSOUT display authority user exits, reimplement them in the pre-SAF user exit. | "Installation exit points" on page 346                                                                |

### ISFPARMS in the JES3 environment

The statements in parmlib member ISFPRMxx are largely the same for JES2 and JES3 environments. If you have a mixed JES2 and JES3 environment, you can use a single ISFPRMxx parmlib member. When processing ISFPRMxx, SDSF ignores statements and keywords that do not apply to the current JES type, such as:

- Any keywords that define security. Security must be provided only through SAF.

- The SERVERGROUP, SERVER and COMM statements, which are used for sysplex support of the device panels and browsing SYSLOG. The related TIMEOUT parameter of the OPTIONS statement is also ignored.
- Statements and keywords that define field lists for panels that are not supported in the JES3 environment.

A JES3NAME parameter of the OPTIONS statement allows you to specify the JES3 that is to be processed. The syntax is as follows:

|                           |
|---------------------------|
| JES3NAME (*)   (JES-name) |
|---------------------------|

Indicates the name of the JES3 subsystem. The name can be 1 to 4 characters. The default is \*, which requests the JES system the user is currently running under.

The details of the differences for the JES3 environment are included in the descriptions of the ISFPARMS statements in Chapter 2, “Using ISFPARMS for customization and security,” on page 15.

To assist you in defining SAF security, code a new custom property in ISFPARMS. Setting the property Security.SAFNoDec.WarnMsg to TRUE causes an SDSF message to be issued whenever a SAF no-decision result (return code 04) is converted to a failure. The message includes the class name, resource name and access level being checked. Once you have defined the SAF security, set the value to FALSE. See “Customized properties (PROPLIST)” on page 93 for more information.

You can also use the SET SECTRACE command, or the SECTRACE parameter on the SDSF command, to view the results of all SAF calls in the ULOG.

### SAF in the JES3 environment

In a JES3 environment, SAF is required for SDSF security. When a request is made to access a resource, and the profile that protects the resource is not defined, or the associated class is not active, SDSF fails the request. So, you must define all of the profiles, and activate all of the classes, that are used for SDSF security. The ISFPARMS custom property, Security.SAFNoDec.WarnMsg, can be helpful in identifying missing classes and profiles. See “Customized properties (PROPLIST)” on page 93 for more information.

If you already have SDSF security defined using SAF in a JES2 environment, evaluate and update the SAF security for the JES3 environment as follows:

- Add profiles for the new resources in the OPERCMDMS class that protect action characters and overtypable columns in the JES3 environment. For more information, see “New resources in the JES3 environment” on page 357.
- Ensure that you are using SAF for all aspects of security, rather than a mix of SAF and ISFPARMS. For example:
  - Every user must belong to a group in ISFPARMS, and in the JES3 environment, group membership must be controlled through SAF, rather than with GROUP statements in ISFPARMS. Use the GROUP.group-name.server-name profile in the SDSF class. See “Using SAF to control group membership” on page 35 for more information.
  - The SDSF class must be activated. In addition to group membership, resources in the SDSF class control access to other things that you might previously have controlled with ISFPARMS, such as access to SDSF panels and overtypeable fields.



If you have not previously implemented SAF security, but have implemented security using ISFPARMS in a JES2 environment, you could begin by converting ISFPARMS to SAF, then making updates for the JES3 environment. See Chapter 8, “Converting ISFPARMS to SAF security,” on page 327 for more information.

If you have not previously implemented SDSF security, you might begin with the SDSF class. Resources in the SDSF class control membership in groups in ISFPARMS, access to SDSF panels, objects that are displayed on those panels, and overtypable fields. See Chapter 5, “Using SAF for security,” on page 203 for an introduction to SAF security for SDSF.

**New resources in the JES3 environment:** The SAF resources that protect the action characters and overtypable columns in the JES3 environment vary slightly from the resources used in the JES2 environment. In addition, there are new action characters and overtypable columns in the JES3 environment. The SAF resources for the JES3 environment are described along with the SAF resources for the JES2 environment, in Chapter 7, “Protecting SDSF functions,” on page 223. In addition, the information that describes enhancements in each release includes a discussion of the SAF resources for any new JES3 support for that release. See Chapter 1, “Exploiting new functions,” on page 1.

---

## JES2 considerations

### DESTDEF considerations

The JES2 DESTDEF initialization statement controls how destination names are displayed and controlled. The values of DESTDEF control how SDSF processes destinations.

If DESTDEF SHOWUSER=WITHLOCAL is coded, then destinations of the form *local-node.userid*, which are otherwise displayed as *userid*, are displayed as *LOCAL.userid*.

If you changed the field list definitions for the PR display and you coded a default width for the destination column in the ISFFLD macro or FLD statement (that is a width of 'D'), then the length of the column will be 18 rather than 8 to accommodate the longer destination name that will be displayed.

### SDSF with a secondary JES2 subsystem

SDSF can process data from a secondary JES2 subsystem. This allows you to use SDSF for JES subsystems that you may be testing.

All SDSF functions are available when processing a secondary JES, with the following restrictions:

- The LOG command displays all SYSLOG data sets on spool. Since MVS allocates the SYSLOG data sets using the primary JES, there may be no SYSLOG data sets on the secondary spool. This may lead to no data being shown when the LOG display is accessed. However, if OPERLOG is active, the LOG command will display the log data from the OPERLOG regardless of the JES being processed.
- The C, O, and P action characters, and the C and DEST overtypes will not be available on the Job Data Set (JDS) display.

---

## SDSF considerations

SDSF does not support more than a single instance of SDSF executing under the same task control block (TCB).

---

## Issuing MVS and JES commands

SDSF uses a console when issuing MVS or JES commands that were entered with a / command. The console used varies.

System commands are stored in the ISPF profile for use the next time that you access SDSF. To increase the number of commands that are stored, you can allocate an ISPF table data set.

### Console for issuing MVS and JES commands

SDSF uses a console when issuing MVS or JES commands that were entered with a / command. The console used varies.

- If the user session log (for display on the ULOG panel) is active, SDSF uses an extended console. See “Issuing MVS and JES commands” for more information.
- If the user log is not active, SDSF uses a console ID of 0.

System programmers can control the console used by SDSF with parameters in ISFPARMS. EMCSREQ specifies whether an EMCS console must be used. EMCSAUTH specifies whether SDSF activates the EMCS console with MASTER or SYS,IO,CONS authority.

Users can request that SDSF use a console ID of 0 with the i parameter on the / command (i/command). For this to be accepted, a console ID of 0 must be allowed by the setting for EMCSREQ in ISFPARMS.

Installations should control use of the / command as they would a console with master authority. The user session log (ULOG) can be protected with the AUTH parameter in ISFPARMS or with SAF. For more information, see “Group function parameters reference” on page 39 or “User log (ULOG)” on page 321. For information on protecting consoles, see *z/OS MVS Planning: Operations*.

### Extended console name

The name of the extended console used by SDSF defaults to the user ID. Users can change it with the SET CONSOLE command.

When SDSF needs to activate an extended console and the default console name is in use (for example, when you invoke SDSF from a REXX exec while also using SDSF interactively) SDSF attempts to activate a new console with a different name, which is derived by modifying the default console name. To modify the name, SDSF appends a single-character suffix. SDSF can try up to 32 different characters until a unique console name is obtained. The original console name must be fewer than 8 characters.

You can control console name modification with:

- The SET CONMOD (ON|OFF) command, which turns console name modification on and off.

- In ISFPARMS, the custom property Console.EMCS.ConModChars, which specifies the characters to be used as the suffix. By default, the characters are \$#@12345.
- In ISFPARMS, the custom property Console.EMCS.NoConMod, which turns console name modification off.
- In a REXX exec, with the ISFCONMOD special variable.
- In a Java program, with ISFRequestSettings.

If console name modification is off and the default extended console name is in use, SDSF attempts to share the console. For example, if you use ISPF split screen and access SDSF in multiple logical screens, SDSF shares the console activated in the first logical screen with subsequent logical screens. As a result, ULOG in the first logical screen contains system messages for all of the logical screens. SDSF shares the console only when the console is activated in the same address space. If the console cannot be shared, activation of the console fails.

## Storing MVS and JES commands

System commands, along with any comments and groups, are stored on exiting SDSF, so that they can be displayed and reissued in the next SDSF session. By default, they are stored in the ISPF profile. Up to 50 commands can be stored this way.

When an ISPF table data set is allocated for that purpose, SDSF can store up to 2,000 commands, depending on an option for your installation. The default is 1,000.

The 20 most recent commands are displayed in the list on the System Command Extension pop-up. The complete list is displayed with the Details function key (PF6).

The ISPF table data set must exist before using SDSF, and have these properties:

**Type** PDS or PDSE

**RECFM**

FB

**LRECL**

80

**Size** A good starting point is 100 blocks using a block size of 29720. The size that is required depends on the length of the commands, comments and group names, as well as the block size of the data set. The maximum size of each command entry is approximately 500 bytes. SDSF also adds header information.

If the data set runs out of space, a system abend occurs, and commands created during that session are lost. To avoid the abend, allocate the space generously and use secondary extents.

**Note:** The maximum size of a command entry may change in the future.

Once the table data set is created, it must be allocated to DDNAME ISFTABL prior to accessing SDSF. For example, if the data set is ibmuser.sdsf.tabl, you could use this command:

```
alloc fi(isftabl) da('ibmuser.sdsf.tabl') shr reus
```

Like the ISPF profile, the ISFTABL data set should be unique for each user. IBM does not recommend sharing the ISFTABL data set across users.

For more information about the option to control the number of commands that are stored, refer to the description of the Command.SLASH.CommandLimit custom property in “Customized properties (PROPLIST)” on page 93.

## **Recovering from the system abend**

### **About this task**

If the table data set runs out of space, a system abend occurs, and commands entered during that session are lost.

You then need to perform the following.

### **Procedure**

1. Exit SDSF
2. Free the table data set
3. Re-access ISPF
4. Allocate a data set with a larger size
5. Copy the contents of the original data set to the new data set, so that you don't lose any previously stored commands
6. Allocate the new data set to DDNAME ISFTABL.

---

## **RMF considerations**

The following require that RMF Monitor I be started:

- The DA panel, in a JES3 environment
- A sysplex-wide DA panel, in a JES2 environment

By default, Monitor I is started when you start RMF.

In addition, modules in the SISFLOAD data set must be made accessible to the RMF started task on each system in the sysplex.

If ISF.SISFLOAD is installed in the link list or link pack area, no action is necessary. RMF will be able to load the SDSF modules it needs from the LNKLIST or LPA.

If you are running SDSF in a TSO STEPLIB, you will need to add a steplib to the RMF started task procedure. Add the following statement to your RMF procedure JCL for each system in the sysplex:

```
//STEPLIB DD DSN=ISF.SISFLOAD,DISP=SHR
```

RMF Monitor I is also needed to obtain the LPAR and zAAP views of CPU utilization displayed on the title line of the DA panel, and the values for the SzAAP% and SzIIP% columns on the DA panel.

The following requires that RMF Monitor III be started:

- The Job Delay panel (accessed with the JY action character).

RMF Monitor III can be started with an operator command similar to the following, once the RMF control session has been started:

```
F RMF,S III
```

For more information, refer to the topic about starting a specific monitor in *z/OS RMF User's Guide*.

RMF protects the services that SDSF uses to gather data with resources in the FACILITY class. You can use a generic-style profile, ERBSDS.\*, or these discrete SAF profiles:

- ERBSDS.MON2DATA (DA panel)
- ERBSDS.MON3DATA and ERBSDS.MON3EXIT.ISFRMFXY (Job Delay panel)

If either the discrete or generic profile exists, SDSF users must have READ access to it to access the RMF data. However, the profiles are optional. If neither the discrete nor generic profile exists, then SDSF users can access the data. For details, see *z/OS RMF User's Guide*.

---

## WebSphere MQ considerations

With a sysplex that includes one or more systems at the z/OS V1R12 level or lower, you can use WebSphere MQ along with the SDSF server to provide sysplex-wide data on SDSF panels.

WebSphere MQ must be up and operational on all systems that are to participate, with communication between queue managers configured using channels, as described in *WebSphere MQ Intercommunication*.

For more information, refer to “Using the server for sysplex data” on page 112.

## z/OS libraries

SDSF's sysplex support requires the following:

- The WebSphere MQ load libraries, including SCSQLOAD, must be accessible to both the SDSF server and the SDSF client. This can be done by adding the libraries to the Inklst, or with a steplib.
- If you use a steplib, all libraries in the steplib concatenation must be APF-authorized, including SCSQLOAD.

## WebSphere MQ configuration

A minimal amount of WebSphere MQ configuration is required for SDSF.

- Review the values in the WebSphere MQ system parameter module, CSQZPARM. In particular, you may need to increase the number of background and foreground connections, which are defined with the IDBACK and IDFORE parameters. The SDSF server establishes several connections with WebSphere MQ: at least 11 and at most approximately 31. Your IDBACK value should reflect this usage. Similarly, the SDSF client establishes a connection with WebSphere MQ for each SDSF logical session. Multiple SDSF sessions can be started using ISPF's split screen. Your IDFORE value may need to be adjusted to accommodate this. See *WebSphere MQ for z/OS System Setup Guide* for more information.

*Table 152. Summary of Possible WebSphere MQ System Parameters Changes*

| Parameter | WebSphere MQ Default | Possible Changes for SDSF                                             |
|-----------|----------------------|-----------------------------------------------------------------------|
| IDBACK    | 20                   | Change to reflect SDSF server connections with WebSphere MQ, up to 31 |

Table 152. Summary of Possible WebSphere MQ System Parameters Changes (continued)

| Parameter | WebSphere MQ Default | Possible Changes for SDSF                                                                               |
|-----------|----------------------|---------------------------------------------------------------------------------------------------------|
| IDFORE    | 100                  | Change to reflect the maximum number of SDSF client logical sessions that are connected to WebSphere MQ |

- To separate the SDSF message usage from your existing applications, you may want to define a separate queue manager to be used by SDSF. You control which queue manager SDSF uses by coding its name on the COMM statement associated with the server definition in ISFPARMS. See “SERVER statement” on page 29.
- Review your WebSphere MQ page sets. Storage estimates are described in “Storage estimates.”
- If your installation has a large number of devices, you may need MQSeries® APAR PQ33000 installed on your system. This APAR provides support for very large MQSeries messages.

## Storage estimates

The following are estimates of the number of SDSF messages and their sizes, for use in defining the page sets for your WebSphere MQ queue manager.

The number of messages is proportional to the number of users, the number of requests for data (caused, for example, by a user pressing Enter), and the number of servers in the server group.

The size of the messages varies with the data being requested. In general, a request is approximately 300 bytes. A response consists of a 300-byte header followed by the response data. The response varies with the panel and the number of rows returned. SDSF compresses the response data, so the actual data sent through WebSphere MQ may be less than the maximum. The effectiveness of compression relates directly to the contents of the data being returned.

Table 153. Message Size Estimates

| Message Type | Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Request      | 300 bytes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Response     | Check: 1600 bytes for each IBM Health Checker for z/OS check returned; 100 bytes for each line of check output<br>Enclave: 400 bytes for each enclave returned, and 800 bytes for each enclave detail returned (I action character)<br>Initiator: 300 bytes for each initiator returned<br>JES2 resource: 230 bytes for each resource returned<br>Line: 500 bytes for each line returned<br>Node: 350 bytes for each node returned<br>Printer: 1K bytes for each printer returned<br>Process: 500 bytes for each process returned<br>Punch: 800 bytes for each punch returned<br>Reader: 500 bytes for each reader returned<br>Spool offload: 1K bytes for each offloader returned |

## Queues

You do not define any queues for SDSF's use of WebSphere MQ; they are defined for you. The queues SDSF uses are:

- A model queue, which is used in creating other queues. The SDSF server defines this if it is not already defined.
- Temporary, dynamic queues used to communicate between the SDSF server and the user. WebSphere MQ creates these request queues with the use of the model queue.

For more information, see “Queues used by SDSF” on page 118. The DEFINE commands used to define the queues are logged in the server log. See “Logging” on page 111 for details.

### Protecting the queues

You use SAF to protect access to the WebSphere MQ queues used by SDSF. For details, see “WebSphere MQ” on page 322.

### Communication between queue managers in a non-clustered environment

This section applies only if you are **not** using WebSphere MQ clustering. If you are using clustering, you should not use the queue manager alias technique described in this section.

SDSF recommends the use of clustering with the WebSphere MQ queue managers. Clustering is a configuration technique that provides these benefits in SDSF:

- Significant reduction in the WebSphere MQ definitions required to link queue managers together
- Improved awareness of the status of SDSF servers in the server group.

If you do not use WebSphere MQ clustering, the addition of queues used by SDSF may require you to perform some WebSphere MQ configuration so that the queue managers for those queues can communicate. Communication between queue managers is described in *WebSphere MQ Intercommunication*, SC33–1872. Refer to that document when configuring your WebSphere MQ environment. This section provides a brief introduction.

When a queue manager needs to put messages on a queue managed by a different queue manager, it locates the target queue by the queue name and the queue manager name. For example, SDSF's server request queue is accessed by all SDSF servers in the server group. To locate that queue, an WebSphere MQ queue manager would need the:

- Queue name, *queue-prefix.CLIENT.server.system.REQUESTQ*
- Queue manager name, which is specified on the COMM statement in ISFPARMS.

In a non-clustered environment, there are several ways to define the remote queues and queue managers to the local queue managers. SDSF is designed to simplify this task by allowing you to use the queue manager alias technique. A queue manager alias relates a queue manager name to a transmission queue. (The transmission queue is a special kind of queue on which messages are stored until they can be transmitted to the remote queue manager. WebSphere MQ uses a channel and a transmission queue on the remote system to ensure that message gets routed properly.) The queue manager alias is convenient because only a single definition is needed to route all requests to all queues managed by a remote queue

manager. If you don't use a queue manager alias, you need a remote queue definition for each remote *queue*. This results in many more definitions.

**Example:**

This example shows the form of the queue manager alias that is useful with SDSF.

You have two queue managers, MQS1 and MQS2. You have the following queue manager alias definitions:

- For MQS1:

```
DEFINE QREMOTE ('MQS2') RNAME('') RQMNAME('MQS2') XMITQ('MQS1.TO.MQS2.XMITQ')
```

This definition causes all messages targeted for queue manager MQS2 to be put on the transmission queue MQS1.TO.MQS2.XMITQ.

- For MQS2:

```
DEFINE QREMOTE ('MQS1') RNAME('') RQMNAME('MQS1') XMITQ('MQS2.TO.MQS1.XMITQ')
```

This definition causes all messages targeted for queue manager MQS1 to be put on the transmission queue MQS2.TO.MQS1.XMITQ.

See *WebSphere MQ Intercommunication* for more information.

---

## ISPF considerations

z/OS provides sample ISPF primary option menus with SDSF and other elements and features already added under option 13.14, as described in the program directory. If you want to add SDSF to your own customized ISPF menu, you should add text to the body for the SDSF menu option, for example:

```
S SDSF          System Display and Search Facility
```

and update the ZSEL statement in the PROC section to invoke SDSF with the ISFISP entry point, as shown in the following except. The lines added for SDSF are shown in **bold**.

```
.  
. .  
7,'PGM(ISPYXDR) PARM(&ZTAPPLID) SCRNAME(DTEST) NOCHECK'  
8,'PANEL(ISRLPRIM) SCRNAME(LMF)'  
9,'PANEL(ISRDIIS) ADDPOP'  
10,'PGM(ISRSCLM) SCRNAME(SCLM) NOCHECK'  
11,'PGM(ISRUDA) PARM(ISRWORK) SCRNAME(WORK)'  
S,'PANEL(ISFSDOP2) NEWAPPL(ISF) SCRNAME(SDSF)'  
X,EXIT  
SP,'PGM(ISPSAM) PARM(PNS)'  
' ' ' ' '  
*, '?' )  
IF (&ZCMD = 'S')  
&ZSEL = 'PGM(ISFISP) NOCHECK NEWAPPL(ISF) SCRNAME(SDSF)'  
IF (&ZCMD = 'S.')  
&ZSEL = 'PGM(ISFISP) NOCHECK NEWAPPL(ISF) SCRNAME(SDSF)'
```

**Note:** The IF statements are required. Failure to include this logic may result in an incorrect number of rows being displayed on split screens, a failure to process additional options specified on the S command, or message ISF922E. The IF statements must be added after the ZSEL statement.

If you want to be able to invoke SDSF as a command from within ISPF, you can add SDSF to the ISPF command table. For example, you could add this entry:



```

Verb   T  Action
SDSF   0  SELECT PGM(ISFISP) NEWAPPL(ISF) SCRNAME(SDSF)

```

## ISFISP entry point

When you invoke SDSF as an ISPF dialog using the ISFISP entry point, you can specify parameters to specify an initial panel and other values. The syntax of the ISPEXEC service is as follows:

```

▶▶—ISPEXEC SELECT—PGM(ISFISP)—PARMS—(—| initial panel |—————▶
|
|  ┌SERVER—(—server-name—)┐  ┌JESNAME—(—jes-name—)┐
|  └────────────────────────┘  └────────────────────────┘
|
|  ┌JES3NAME—(—jes3-name—)┐—————▶
|  └────────────────────────┘

```

### Initial panel:

```

|
|  ┌panel—| Filters |—————|
|  └──────────────────┘
|  ┌NP—(—action-character—)┐
|  └────────────────────────┘

```

### Filters:

```

|
|  ┌FILTER—(—filters—)┐  ┌FILTERMODE—(—mode—)┐
|  └──────────────────┘  └──────────────────┘

```

#### *panel*

Is the command to access a panel, for example, DA or ST.

#### *server-name*

Is the name of the local SDSF server.

#### *jes-name*

Is the name of the JES2 subsystem to process.

#### *jes3-name*

Is the name of the JES3 subsystem to process.

#### *filters*

Is the set of filters for the panel, up to 25. This is valid only when ISPF is invoked from a web client.

A filter consists of a column title, operand and value. The operand can be EQ (equal), NE (not equal), LT (less than), LE (less than or equal to), GT (greater than) or GE (greater than or equal to). To specify multiple filters for a single column, use the same column title with the second and subsequent filters.

Filter criteria remain in effect until you add new filters or turn filtering off. Filter criteria are saved in the ISPF profile when SDSF ends.

#### *mode*

Is the relationship between filters:

#### **AND**

The row must match all filters.

#### **OR**

The row must match any filter.

This is valid only when ISPF is invoked from a web client.

*action-character*

Is an action character to be applied to the tabular panel. If building the panel or applying the filters results in more than one row, or if the panel is not a tabular panel, the action character is ignored. This is valid only when ISPF is invoked from a web client.

## Specifying that SDSF should process JES2

By default, SDSF determines whether to process JES2 or JES3. You can specify that SDSF should not do that determination and process JES2 by invoking it with an alternate command: use ISFISP2 rather than ISFISP in the PROC section of an ISPF panel, and SDSF2 rather than SDSF in an ISPF command table.

---

## z/OSMF considerations

IBM® z/OS Management Facility (z/OSMF) provides a framework for managing various aspects of a z/OS system through a web browser interface. By streamlining some traditional tasks and automating others, z/OSMF can help to simplify some areas of z/OS system management.

The SDSF task of z/OSMF lets you see key summary information about your sysplex in graphical form, work with jobs and checks for IBM z/OS Health Checker, and issue system commands. It includes function that is analogous to these functions of z/OS SDSF:

- DA, H, I, O, ST, Job Data Set and Output Data Set (browse) panels, for jobs and job output
- CK and Health Check History panels, for health checks
- APF, LNK, LPA, PAG, PARM, and SYS panels
- ULOG panel, for command and message responses issued during the current session
- Editing JCL
- Action characters for controlling jobs and checks
- Overtypable fields, for modifying the attributes of jobs and checks
- Slash (/) command, for issuing system commands
- PREFIX, DEST, OWNER, SYSNAME, FILTER and SORT commands, for filtering and sorting tabular data
- ARRANGE command, for customizing the order and widths of columns

To select the SDSF task, expand the Jobs and Resources category in the navigation area and select **SDSF**.

## Requirements

The SDSF task requires:

- z/OSMF APAR PM98630 and SDSF APAR PM86303. The SDSF APAR is functional only when the z/OSMF APAR is also installed.
- A TSO logon proc and related settings, which you specify with the **SDSF Settings** task in the z/OSMF Settings category. The TSO logon proc is used to launch a TSO address space that is created on behalf of the user. For details on the settings, refer to “Defining required settings for the SDSF task” on page 367.
- For remote systems to be displayed on the overview page of the SDSF task, SDSF communications must be active (through either WebSphere MQ or XCF)

with a minimum level of z/OS SDSF V2R1. For more information, refer to “Using the server for sysplex data” on page 112.

## Adding the SDSF task to z/OSMF

To add the SDSF task to z/OSMF, you import a properties file through the Import Manager task of z/OSMF, which is in the z/OSMF Administration category. This process is described in the z/OSMF online help.

The properties file for SDSF is /usr/lpp/sdsf/zosmf/sdsf.properties. Specify this file name in the Import dialog.

The import is generally a one-time process. The SDSF plug-in only needs to be imported the first time you are installing SDSF or after you have deleted the plug-in and want to restore it.

## Defining required settings for the SDSF task

Before selecting the SDSF task the first time, you must define some settings. To do this, expand the z/OSMF Settings category, then select **SDSF Settings**. Supply a value for each required field. The settings are saved across sessions.

For TSO logon proc, you can specify any logon proc for which the user is authorized that is suitable for SDSF, as long as it contains either a //SYSEXEC or //SYSPROC that references data set //SISFEXEC.

You do not need to create a new logon procedure for exclusive use of the z/OSMF SDSF task.

**Example:** The following is a sample logon proc that can be used by the SDSF task, with the minimum allocations. You may need to adjust the data set name for your installation.

```
//SDSF EXEC PGM=IKJEFT01,DYNAMNBR=500  
//SYSEXEC DD DISP=SHR,DSN=ISF.SISFEXEC
```

The SDSF task does not use ISPF, so ISPF allocations are not required. If you use a logon proc that includes ISPF allocations, ensure that the allocations can be shared between the launched TSO address space and a standard TSO login. In particular, ensure that any ISPF profile allocation will allow both the launched TSO address space and the standard login to proceed.

If your logon proc invokes an initial command (using the PARM= keyword on the EXEC statement), the command must return to the TSO READY prompt. When the logon completes, SDSF waits for the TSO READY prompt before proceeding.

If the logon fails when launching the SDSF task, click the TSO Messages link to view TSO messages that were issued during logon. Common errors preventing a successful launch include a JCL error in the logon proc, an invalid account number, and a missing ISF.SISFEXEC data set in the //SYSEXEC concatenation.

## Reviewing z/OS Unix System Services settings

SDSF uses the z/OS Unix System Services interprocess communications (IPC) message queue for communications between SDSF and z/OSMF. The maximum message size is controlled by the size of the queue defined by the IPCMSGQBYTES option of PARMLIB member BPXPRMxx.

Message sizes used by SDSF vary based on the request type and amount of data returned in the response. You should review the setting of IPCMSGQBYTES on your system (using the D OMVS,O operator command) to ensure it is large enough for the messages sent by SDSF.

For details, refer to the topic about BPXPRMxx in *z/OS MVS Initialization and Tuning Reference*.

## Protecting SDSF function in z/OSMF

The function provided by the SDSF task in z/OSMF is protected just as z/OS SDSF is protected, with the same SAF resources and ISFPARMS parameters. To control which group in ISFPARMS a user is assigned to, you can use either:

- SAF.  
To determine group membership, SDSF checks the SAF resource `GROUP.group-name.server-name` in the SDSF class. This is explained in detail in “Using SAF to control group membership” on page 35.
- The TSOAUTH parameter of the ISFGRP statement in ISFPARMS.  
For more information, refer to “Group membership” on page 34.

Using SAF is the recommended approach, as it is more dynamic and allows you to assign users to the same group regardless of the environment from which they invoke SDSF.

To hide SDSF functions that you are not authorized to, you can use Authorization preferences in the SDSF Settings task.

Using the SDSF task in z/OSMF has these new requirements:

- You must have access to resources in the ZMFAPLA class.

*Table 154. Resources in the ZMFAPLA Class*

| z/OSMF Task   | Resource                                  | Access Required | Class   |
|---------------|-------------------------------------------|-----------------|---------|
| SDSF          | <i>saf-prefix</i> .ZOSMF.IBMSDSF.JOBS     | READ            | ZMFAPLA |
| SDSF Settings | <i>saf-prefix</i> .ZOSMF.IBMSDSF.SETTINGS | READ            | ZMFAPLA |

You configure *saf-prefix* in z/OSMF. The default is IZUDFLT.

- Your user ID must be connected to the IZUUSER group.

Access to views in z/OSMF is protected in the same way as the corresponding panel command in z/OS SDSF. For a description of protecting SDSF commands with SAF, refer to “Authorized SDSF commands” on page 249. For a description of protecting SDSF commands with the AUTH parameter of ISFPARMS, refer to “Group function parameters reference” on page 39.

*Table 155. z/OSMF Views and Corresponding z/OS SDSF Commands*

| View              | SDSF Command              |
|-------------------|---------------------------|
| Active Jobs       | DA                        |
| All Jobs          | ST                        |
| Input Queue       | I                         |
| Output Queue      | O                         |
| Held Output Queue | H                         |
| Job Data Sets     | None (? action character) |

Table 155. z/OSMF Views and Corresponding z/OS SDSF Commands (continued)

| View                 | SDSF Command              |
|----------------------|---------------------------|
| Health Checks        | CK                        |
| Health Check History | None (L action character) |
| APF Data Sets        | APF                       |
| LNK Data Sets        | LNK                       |
| LPA Data Sets        | LPA                       |
| PAG Data Sets        | PG                        |
| PARM Data Sets       | PARM                      |
| System Information   | SYS                       |

The Overview tab requires access to these SDSF functions:

- The DA and SP panels for the System Activity graph
- The CK panel for the Health Check graph
- The slash (/) command, for the System command line.

Modifying values in tables or on property sheets in z/OSMF is protected in the same way as overtyping fields in z/OS SDSF. The columns have the same titles in z/OSMF as in z/OS SDSF. For more information about protecting overtyping fields with SAF, refer to “Overtypable fields” on page 271. With ISFPARMS, overtyping fields is protected with the CMDLEV parameter. Refer to “Action characters and overtypeable fields for each command level” on page 74 for more information.

Actions on tables in z/OSMF are protected in the same way as the corresponding action characters in z/OS SDSF. The tables that follow show the actions for each of the tables in the SDSF task, and the corresponding action character for z/OS SDSF. For a complete discussion of protecting action characters with SAF, refer to “Action characters” on page 223. With ISFPARMS, action characters are protected with the CMDLEV parameter. Refer to “Action characters and overtypeable fields for each command level” on page 74 for more information.

Table 156. Actions on the Active Jobs Table

| Action on the Active Jobs Table                                                 | Action Character on the DA Panel |
|---------------------------------------------------------------------------------|----------------------------------|
| Browse All Job Data Sets                                                        | S                                |
| Cancel Job                                                                      | C                                |
| Cancel Job and Print Available Data Sets (JES3 only)                            | CP                               |
| Cancel Job and Produce a Dump                                                   | CD                               |
| Cancel Job and Purge Output                                                     | P                                |
| Cancel Job and Restart Automatically                                            | CA                               |
| Cancel Job, Restart, and Hold Prior to Execution (JES2 only)                    | EC                               |
| Cancel Job, Restart Automatically, and Produce a Dump                           | CDA                              |
| Cancel Job, Take a Dump and Keep Job Output                                     | CDP                              |
| Cancel Protected Job and Purge Output (JES2 only)                               | PP                               |
| Display DDNAMES of All Spool Data Sets that Contain Data (JES3 only)            | DSD                              |
| Display DDNAMES of Data Sets in Spool Hold Status that Contain Data (JES3 only) | DSH                              |
| Display Extended Information (JES3 only)                                        | DX                               |

Table 156. Actions on the Active Jobs Table (continued)

| Action on the Active Jobs Table                                    | Action Character on the DA Panel |
|--------------------------------------------------------------------|----------------------------------|
| Display Information Short Form                                     | D                                |
| Display Information Long Form                                      | DL                               |
| Display Job Data Sets                                              | ?                                |
| Display Line, Page and Record Counts (JES3 only)                   | DE                               |
| Display List of Mains Authorized for Job (JES3 only)               | DM                               |
| Display Output Long Form (JES2 only)                               | LL                               |
| Display Output Short Form (JES2 only)                              | L                                |
| Display Output Status (JES3 only)                                  | L                                |
| Display Output Status Include Output On the Held Queue (JES3 only) | LH                               |
| Display Output Status Include SNA/NJE Output (JES3 only)           | LB                               |
| Display Output Status Include TCP/IP Job Output (JES3 only)        | LT                               |
| Display Spool Partition Name (JES3 only)                           | DSP                              |
| Edit JCL                                                           | SJ                               |
| Hold Job                                                           | H                                |
| Main Device Scheduling Allocate Queue (JES3 only)                  | DMA                              |
| Main Device Scheduling Error Queue (JES3 only)                     | DME                              |
| Main Device Scheduling Restart Queue (JES3 only)                   | DMR                              |
| Main Device Scheduling System Select Queue (JES3 only)             | DMSS                             |
| Main Device Scheduling System Verify Queue (JES3 only)             | DMSV                             |
| Main Device Scheduling Unavailable Volumes (JES3 only)             | DMU                              |
| Release Job                                                        | A                                |
| Restart Job                                                        | E                                |
| Restart Job After Current Step Completes                           | ES                               |
| Restart and Hold Job After Current Step Completes (JES2 only)      | ESH                              |
| Run Job                                                            | J                                |
| Spin Job                                                           | W                                |

Table 157. Actions on the All Jobs Table

| Action on the All Jobs Table                                 | Action Character on the ST Panel |
|--------------------------------------------------------------|----------------------------------|
| Browse All Job Data Sets                                     | S                                |
| Cancel Job                                                   | C                                |
| Cancel Job and Print Available Data Sets (JES3 only)         | CP                               |
| Cancel Job and Produce a Dump                                | CD                               |
| Cancel Job and Purge Output                                  | P                                |
| Cancel Job and Restart Automatically                         | CA                               |
| Cancel Job, Restart, and Hold Prior to Execution (JES2 only) | EC                               |
| Cancel Job, Restart Automatically, and Produce a Dump        | CDA                              |
| Cancel Job, Take a Dump and Keep Job Output (JES3 only)      | CDP                              |
| Cancel Protected Job and Purge Output (JES2 only)            | PP                               |

Table 157. Actions on the All Jobs Table (continued)

| Action on the All Jobs Table                                                    | Action Character on the ST Panel |
|---------------------------------------------------------------------------------|----------------------------------|
| Display DDNAMES of All Spool Data Sets that Contain Data (JES3 only)            | DSD                              |
| Display DDNAMES of Data Sets in Spool Hold Status that Contain Data (JES3 only) | DSH                              |
| Display Information Short Form                                                  | D                                |
| Display Extended Information (JES3 only)                                        | DX                               |
| Display Information Long Form (JES2 only)                                       | DL                               |
| Display Job Data Sets                                                           | ?                                |
| Display Line, Page and Record Counts (JES3 only)                                | DE                               |
| Display List of Mains Authorized for Job (JES3 only)                            | DM                               |
| Display Output Short Form (JES2 only)                                           | L                                |
| Display Output Long Form (JES2 only)                                            | LL                               |
| Display Output Status (JES3 only)                                               | L                                |
| Display Output Status Include Output On the Held Queue (JES3 only)              | LH                               |
| Display Output Status Include SNA/NJE Output (JES3 only)                        | LB                               |
| Display Output Status Include TCP/IP Job Output (JES3 only)                     | LT                               |
| Display Spool Partition Name (JES3 only)                                        | DSP                              |
| Edit JCL                                                                        | SJ                               |
| Hold Job                                                                        | H                                |
| Main Device Scheduling Allocate Queue (JES3 only)                               | DMA                              |
| Main Device Scheduling Error Queue (JES3 only)                                  | DME                              |
| Main Device Scheduling Restart Queue (JES3 only)                                | DMR                              |
| Main Device Scheduling System Select Queue (JES3 only)                          | DMSS                             |
| Main Device Scheduling System Verify Queue (JES3 only)                          | DMSV                             |
| Main Device Scheduling Unavailable Volumes (JES3 only)                          | DMU                              |
| Release Job                                                                     | A                                |
| Restart Job                                                                     | E                                |
| Restart Job After Current Step Completes (JES2 only)                            | ES                               |
| Restart and Hold Job After Current Step Completes (JES2 only)                   | ESH                              |
| Run Job                                                                         | J                                |
| Spin Job                                                                        | W                                |

Table 158. Actions on the Input Queue Table

| Action on the Input Queue Table                              | Action Character on the I Panel |
|--------------------------------------------------------------|---------------------------------|
| Browse All Job Data Sets                                     | S                               |
| Cancel Job                                                   | C                               |
| Cancel Job and Restart Automatically                         | CA                              |
| Cancel Job and Print Available Data Sets (JES3 only)         | CP                              |
| Cancel Job and Produce a Dump                                | CD                              |
| Cancel Job and Purge Output                                  | P                               |
| Cancel Job, Restart, and Hold Prior to Execution (JES2 only) | EC                              |

Table 158. Actions on the Input Queue Table (continued)

| Action on the Input Queue Table                                                 | Action Character on the I Panel |
|---------------------------------------------------------------------------------|---------------------------------|
| Cancel Job, Restart Automatically, and Produce a Dump                           | CDA                             |
| Cancel Job, Take a Dump and Keep Job Output (JES3 only)                         | CDP                             |
| Cancel Protected Job and Purge Output                                           | PP                              |
| Display DDNAMES of All Spool Data Sets that Contain Data (JES3 only)            | DSD                             |
| Display DDNAMES of Data Sets in Spool Hold Status that Contain Data (JES3 only) | DSH                             |
| Display Extended Information (JES3 only)                                        | DX                              |
| Display Information Short Form                                                  | D                               |
| Display Information Long Form                                                   | DL                              |
| Display Job Data Sets                                                           | ?                               |
| Display Line, Page and Record Counts (JES3 only)                                | DE                              |
| Display List of Mains Authorized for Job (JES3 only)                            | DM                              |
| Display Output Short Form                                                       | L                               |
| Display Output Long Form                                                        | LL                              |
| Display Output Status Include Output On the Held Queue (JES3 only)              | LH                              |
| Display Output Status Include SNA/NJE Output (JES3 only)                        | LB                              |
| Display Output Status Include TCP/IP Job Output (JES3 only)                     | LT                              |
| Display Spool Partition Name (JES3 only)                                        | DSP                             |
| Edit JCL                                                                        | SJ                              |
| Hold Job                                                                        | H                               |
| Main Device Scheduling Allocate Queue (JES3 only)                               | DMA                             |
| Main Device Scheduling Error Queue (JES3 only)                                  | DME                             |
| Main Device Scheduling Restart Queue (JES3 only)                                | DMR                             |
| Main Device Scheduling System Select Queue (JES3 only)                          | DMSS                            |
| Main Device Scheduling System Verify Queue (JES3 only)                          | DMSV                            |
| Main Device Scheduling Unavailable Volumes (JES3 only)                          | DMU                             |
| Release Job                                                                     | A                               |
| Restart Job                                                                     | E                               |
| Restart Job After Current Step Completes (JES2 only)                            | ES                              |
| Restart and Hold Job After Current Step Completes (JES2 only)                   | ESH                             |
| Run Job                                                                         | J                               |
| Spin Job                                                                        | W                               |

Table 159. Actions on the Output Queue Table

| Action on the Output Queue Table             | Action Character on the O Panel |
|----------------------------------------------|---------------------------------|
| Browse All Job Data Sets                     | S                               |
| Display Job Data Sets                        | ?                               |
| Display Output Status Short Form (JES2 only) | L                               |
| Display Output Status Long Form (JES2 only)  | LL                              |
| Edit JCL                                     | SJ                              |



Table 159. Actions on the Output Queue Table (continued)

| Action on the Output Queue Table | Action Character on the O Panel |
|----------------------------------|---------------------------------|
| Hold Output (JES2 only)          | H                               |
| Purge Output (JES2 only)         | C                               |
| Release Output (JES2 only)       | A                               |

Table 160. Actions on the Held Output Queue Table

| Action on the Held Output Queue Table         | Action Character on the H Panel |
|-----------------------------------------------|---------------------------------|
| Browse All Job Data Sets                      | S                               |
| Display Job Data Sets                         | ?                               |
| Display Output Status Short Form (JES2 only)  | L                               |
| Display Output Status Long Form (JES2 only)   | LL                              |
| Edit JCL                                      | SJ                              |
| Hold Output (JES2 only)                       | H                               |
| Purge Output (JES2 only)                      | PO                              |
| Release Output (JES2 only)                    | A                               |
| Release Output to Print and Purge (JES2 only) | O                               |
| Release Output to Print and Keep (JES2 only)  | OK                              |

Table 161. Actions on the Job Data Set Table

| Action on the Job Data Set Table | Action Character on the JDS Panel |
|----------------------------------|-----------------------------------|
| Browse All Data Sets             | S                                 |
| Display Information (JES3 only)  | D                                 |
| Edit JCL                         | SJ                                |
| Hold Output                      | H                                 |
| Purge Output                     | C                                 |
| Release Output                   | O                                 |

Table 162. Actions on the Health Check Table

| Action on the Health Check Table | Action Character on the CK Panel |
|----------------------------------|----------------------------------|
| Activate                         | A                                |
| Browse                           | S                                |
| Deactivate                       | H                                |
| Delete                           | P                                |
| Delete Force                     | PF                               |
| Display Diagnostics              | DD                               |
| Display History                  | L                                |
| Display Information Short Form   | D                                |
| Display Information Long Form    | DL                               |

Table 162. Actions on the Health Check Table (continued)

| Action on the Health Check Table | Action Character on the CK Panel |
|----------------------------------|----------------------------------|
| Display Outdated Policies        | DPO                              |
| Display Policies                 | DP                               |
| Display Status                   | DS                               |
| Refresh                          | E                                |
| Remove Categories                | U                                |
| Run                              | R                                |

Table 163. Actions on the Health Check History Table

| Action on the Health Check History Table | Action Character on the Health Check History Panel |
|------------------------------------------|----------------------------------------------------|
| Browse                                   | S                                                  |

Table 164. Actions on the System Table

| Action on the System Table           | Action Character on the SYS Panel |
|--------------------------------------|-----------------------------------|
| Display IPL information              | D                                 |
| Display all address spaces           | DAA                               |
| Display address space list           | DAL                               |
| Display allocated list               | DALO                              |
| Display consoles                     | DC                                |
| Display language environment options | DCEE                              |
| Display dump information             | DD                                |
| Display EMCS                         | DEM                               |
| Display GRS information              | DG                                |
| Display IOS information              | DI                                |
| Display IQP information              | DIQP                              |
| Display LLA information              | DLL                               |
| Display system logger information    | DLO                               |
| Display LOGREC information           | DLR                               |
| Display configuration information    | DM                                |
| Display MPF information              | DMP                               |
| Display OMVS options                 | DO                                |
| Display product registration         | DP                                |
| Display PCIE dev info                | DPCD                              |
| Display PCIE product info            | DPCI                              |
| Display SMF status                   | DSF                               |
| Display SLIP information             | DSL                               |
| Display SMS information              | DSM                               |
| Display system symbols               | DSY                               |

Table 164. Actions on the System Table (continued)

| Action on the System Table      | Action Character on the SYS Panel |
|---------------------------------|-----------------------------------|
| Display time                    | DT                                |
| Display TSO options             | DTO                               |
| Display trace                   | DTR                               |
| Display TSO address spaces      | DTS                               |
| Display WLM information         | DW                                |
| Display XCF sysplex information | DX                                |

Table 165. Actions on the APF Table

| Action on the APF Table | Action Character on the APF Panel |
|-------------------------|-----------------------------------|
| Display                 | D                                 |
| Display all             | DA                                |

Table 166. Actions on the PAG Table

| Action on the PAG Table         | Action Character on the PAG Panel |
|---------------------------------|-----------------------------------|
| Display page data set           | D                                 |
| Display common page data        | DC                                |
| Display page delete information | DD                                |
| Display local page data sets    | DL                                |
| Display PLPA data sets          | DP                                |
| Display storage class memory    | DS                                |

Table 167. Actions on the LNK Table

| Action on the LNK Table | Action Character on the LNK Panel |
|-------------------------|-----------------------------------|
| Display link data set   | D                                 |
| Display link names      | DN                                |

Table 168. Actions on the PARM Table

| Action on the PARM Table    | Action Character on the PARM Panel |
|-----------------------------|------------------------------------|
| Display parm data set       | D                                  |
| Display errors in parm data | DE                                 |

## Diagnosing problems in z/OSMF

**TSO messages:** In addition to z/OSMF messages that are displayed in a message window, TSO messages may be issued in response to starting a session or other interactions. To display these messages, click **TSO Messages**.

**Log files in z/OSMF:** The directory of the z/OSMF log file is configurable, as described in *IBM z/OS Management Facility Configuration Guide*.

**Determining the level of the SDSF plug-in:** From the z/OSMF Welcome panel, click the About link. Find the IBM SDSF plug-in in the list. The associated information contains the SDSF FMID and the service level of the plug-in.

## **Removing the SDSF task from z/OSMF**

To remove the SDSF and SDSF Settings tasks from z/OSMF, use the Import Manager task to import properties file `/usr/lpp/sdsf/zosmf/sdsfDelete.properties`.

## **Using the SDSF classic interface**

SDSF function is available through the z/OSMF ISPF task. To use the ISPF task, select ISPF in the z/OS Classic Interfaces category.

You can link to SDSF function that is available through the z/OSMF ISPF task from other function in z/OSMF. To do that, register the SDSF function as an event handler for z/OSMF events. For more information, refer to *Linking z/OSMF tasks and external applications* in *IBM z/OS Management Facility Configuration Guide*.

## Chapter 11. Introduction to SDSF application services

Table 169 summarizes the interfaces that allow you to access SDSF function.

Table 169. Summary of SDSF Interfaces

| Interface | Description                                                                                                                               | Refer to                                                                 |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Batch     | Program name SDSF provides basic support for SDSF commands and action characters. Program name ISFAFD adds support for overtyping fields. | Chapter 12, "Using SDSF in batch," on page 383                           |
| REXX      | Allows you to exploit the power and simplicity of REXX. Full support for SDSF function.                                                   | Chapter 13, "Using SDSF with the REXX programming language," on page 391 |
| Java      | Allows you to create Java applications that exploit SDSF function. Full support for SDSF function.                                        | Chapter 14, "Using SDSF with the Java programming language," on page 477 |

This topic provides a quick introduction to SDSF function and terminology for people who are not already experienced users of SDSF but want to exploit SDSF's batch, REXX or Java interfaces. It does not provide complete information for using SDSF function. For that, you must refer to the SDSF online help, which you can access with these commands:

Table 170. Commands for Getting Help on Using SDSF

| Command  | Description                                                               |
|----------|---------------------------------------------------------------------------|
| HELP     | Context-sensitive help. Includes menus, a table of contents and an index. |
| TUTOR    | Interactive tutorial on basic SDSF function.                              |
| REXXHELP | Help that is specific to using SDSF with REXX.                            |
| COLSHELP | List of the columns on SDSF panels. You can filter and sort the list.     |
| SEARCH   | Search SDSF's help and tutorial.                                          |

## SDSF panels

When you use SDSF interactively, SDSF displays data on panels. There are panels for active jobs, output groups, printers, initiators and so on. Most SDSF panels are tabular, that is, they display data in rows and columns.

Figure 13 on page 378 uses a sample tabular panel to show the layout of an SDSF panel.

```

Display Filter View Print Options Search Help 1
-----
SDSF SAMPLE SYS1 2 3 LINE 1-22 (31)
COMMAND INPUT ==> 4 SCROLL ==> PAGE
PREFIX=* DEST=(ALL) OWNER=SHERRYF FILTERS=2 5
7 NP JOBNAME 6 ProcStep JobID Owner C Pos DP PGN Real Paging
CATALOG CATALOG IEFPROC NS FF 3228 0.00
TAPEPOL PROC01 M02XF83L TSU19596 TAPEPOL OT FF 69 0 0.00
TANDA E52TOOL1 M02SA06L TSU18751 TANDA OT FF 63 1488 0.00
KSHEL PROC01 M02PV317 TSU07739 KSHEL OT FF 60 0 0.00

```

Figure 13. A Sample SDSF Tabular Panel

| See      | Name                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>Action bar</b>                    | The action bar permits you to select a pull-down menu to accomplish various SDSF tasks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>2</b> | <b>Title line</b>                    | The title line shows the panel name as well as other information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>3</b> | <b>Message area</b>                  | Short error and confirmation messages appear here.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>4</b> | <b>Command line</b>                  | The command line lets you enter SDSF, MVS, or JES commands.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>5</b> | <b>Message and information lines</b> | Longer messages appear below the command line. The information lines display responses when you issue some SDSF commands. The example shows the response to SET DISPLAY, which displays settings for filters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>6</b> | <b>Data area</b>                     | <p>The data area contains the system data. On tabular panels, the data is in columns and rows. Each row represents a single job, TSO user, data set, device or system resource, depending on the panel.</p> <p>The column titles may be customized by the system programmer. For that reason, when using the programming interfaces, you refer to columns by their internal <i>names</i> rather than by their titles. The names cannot be modified.</p> <p>When customizing the columns, system programmers can define a primary list of columns, which is shown when the panel is first displayed, and an alternate list, which you display with the ? command. Typically, the alternate list contains all of the columns in the primary list plus some additional columns. The additional columns may require additional work by SDSF to retrieve the data. These columns are referred to as <i>delayed</i> or <i>delayed-access</i>.</p> <p>The first column is the <i>fixed field</i>; when you scroll right or left, it remains in the same position. In the sample panel, the JOBNAME field is fixed.</p> <p>The REXX and Java interfaces allow you to control which columns are included when you access a panel. Typically, you want to include only those columns that are required.</p> |
| <b>6</b> | <b>NP column</b>                     | Input field for brief commands, known as action characters.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

When you use SDSF interactively, the panels you are authorized to are listed on the SDSF Primary Option Menu. (A few panels that you access from other panels are not shown.)

## SDSF commands

You use SDSF commands to access SDSF panels, filter and sort the data on SDSF panels, issue system commands and set various options. For a list of SDSF commands, see “SDSF commands reference” on page 434.

The details of command syntax are in the online help. For quick access to command syntax, you can use this SEARCH command from the SDSF command line:

```
SEARCH 'FORMAT: command-name'
```

where *command-name* is the command name, for example, DA or PREFIX.

- REXX: For panel commands, see “Issuing commands with ISFEXEC” on page 395. For other commands, use special variables. See “Using special variables to invoke SDSF function” on page 428.

- Java: For panel commands, create an instance of a runner for the desired panel. For filter commands, use request settings. See “Using runners and request settings” on page 482.

---

## Taking action against an object

You take action against or display more information about an object, such as a job or a device, with action characters. Action characters are short commands, usually one or two characters. When using SDSF interactively, you type action characters in the NP column.

To display valid action characters with a description, use the SET ACTION command. To display just a list of action characters, use SET ACTION SHORT. This example shows the results of SET ACTION SHORT:

```

SDSF INPUT QUEUE DISPLAY ALL CLASSES                LINES 1-5 (5)
COMMAND INPUT ==>                                SCROLL ==> HALF
ACTION=//,=,+ ,?,A,C,CA,CD,CDA,D,E,H,L,P,PP,Q,S,SB,SE,SJ,X,XC,
ACTION=XD,XDC,XF,XFC,XS,XSC
  NP  JOBNAME  JOBID  OWNER  PRTY C  POS  PRTDEST  RMT  NODE
   ISF2CMDS  JOB08765  DLR      7  H   16  LOCAL      1
   ISF2ALL   JOB08871  DLR      7  H    3  LOCAL      1
   ISF2FILT  JOB08883  DLR      7  H   14  LOCAL      1

```

You can also issue action characters against rows on a tabular panel from the command line. The syntax for action characters from the command line is:

*rows*action-character

where *rows* can be one or more row numbers or ranges of row numbers. Display row numbers with the SET ROWNUM ON command.

A few action characters access a secondary panel. For example, you use the ? action character on a job-related panel to display the Job Data Set panel, which lets you work with individual data sets.

- REXX: Use ISFACT. See “Issuing action characters and modifying columns with ISFACT” on page 404.
- Java: Use methods. See “Actions and overtypes” on page 481.

---

## Changing values in columns

You can change the values in some columns by typing over them. SDSF refers to this as *overtyping*.

You can also overwrite the values in columns from the command line. The syntax is:

*rows* column-title=value

where *rows* can be one or more row numbers or ranges of row numbers. Display row numbers with the SET ROWNUM ON command.

Some overtypeable columns are part of a set of values. For example, there are eight SFORMS values for printers. When using SDSF interactively, you work with a set of related values by typing a + alone in the column. So, to overwrite multiple SFORMS, you type a + in the SFORMS column to display a pop-up on which you can modify all eight values.

- REXX: Use ISFACT. See “Issuing action characters and modifying columns with ISFACT” on page 404.
- Java: Use the requestPropertyChange method. See “Actions and overtypes” on page 481.

## Filtering and sorting panel information

You can limit the data on your SDSF panels by using SDSF commands.

Table 171 provides a high-level introduction. For important details, including syntax, refer to the online help. For quick access to information about a command, use this SEARCH command from the SDSF command line:

```
SEARCH 'FORMAT: command-name'
```

Table 171. Summary of Commands for Filtering

| Command | Use                                                                                                                                                | Panels                                                 |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|
| DEST    | Filter data by destination. You set a single value that filters all of the affected panels.                                                        | H, I, J0, O, PR, PUN, ST                               |
| FILTER  | Filter data on any column or combination of columns. You can set a unique filter for each panel. For more information, refer to “Complex filters.” | Tabular, OPERLOG                                       |
| OWNER   | Filter data by owning user ID (primarily). You set a single value that filters all of the affected panels.                                         | DA, H, I, J0, O, PS, ST                                |
| PREFIX  | Filter data by job name (primarily). You set a single value that filters all of the affected panels.                                               | DA, H, I, O, PS, ST                                    |
| SELECT  | Fast path to display a specific object without changing other saved filters                                                                        | Tabular panels                                         |
| SYSNAME | Limit rows to include selected systems in a sysplex. You set a single value that filters all of the affected panels.                               | CK, DA, ENC, INIT, LI, NO, PR, PS, PUN, RDR, RM and SO |

Filtering the data can reduce storage and improve performance. For best results, use the PREFIX, OWNER, DEST or SYSNAME commands, or parameters on the panel commands. Use the FILTER command, which SDSF processes after the data is gathered, if you cannot accomplish the desired filtering using the other commands.

You can sort panels on up to two columns, in ascending or descending order, with the SORT command.

## Complex filters

You can use the Filter function to define up to 25 filters with boolean operators. The filter criteria are column, operator and value, and can include pattern matching. For example, to see jobs with a job name that begins with JERRY, you could use FILTER JOBNAME EQ JERRY\*.

When entering multiple filters, you can specify AND or OR to define the relationship between filters.

When using SDSF interactively under ISPF, type FILTER ? to display the Filter pop-up, then type values on the pop-up or select from lists of valid values.

To turn off filtering use FILTER OFF.



To display the number of filters in effect, use SET DISPLAY.

- REXX: Use special variables. See “Using special variables to invoke SDSF function” on page 428.
- Java: Use request settings. See “Using runners and request settings” on page 482.

---

## Issuing MVS or JES commands

You can issue any MVS and JES command from the SDSF command line. Type a slash (/) followed by the command, for example, /d r,1. When using SDSF interactively, you can specify a longer command by typing / by itself to display the pop-up, and then typing the command on the pop-up.

The messages issued in response are displayed on the information lines of the panel. The complete set of responses is in the user session log (ULOG). You can set a delay interval, which is the maximum amount of time SDSF will wait for messages, with this command: SET DELAY *seconds*. The default is 1 second. A delay of 0 specifies that messages issued in response to / commands should not be displayed on the message lines.

- REXX: Use ISFSLASH. See “Issuing system commands with ISFSLASH” on page 425.
- Java: Use the runner ISFRunner. See “Using runners and request settings” on page 482.

---

## Browsing job output and checks

You browse job output, and checks for IBM Health Checker for z/OS, by using the S action character. The resulting panel includes the JES job log, JCL for the job, and job-related messages. To browse just the JCL for the job, use the SJ action character.

- REXX: Use a combination of action characters, with ISFACT, and special REXX variables. See “Browsing output” on page 411.
- Java: Allocate the spool data sets for a job with the browseAllocate method, then read them using standard utilities.

---

## Printing from SDSF Panels

You print the output of jobs, and checks for IBM Health Checker for z/OS, with the X action character.

You can print to SYSOUT, a data set, or a print file (specified with a *ddname*), with different forms of the X action character. For example, to print to a data set, you would use XD.

- REXX: Use a combination of the X action character, with ISFACT, and special REXX variables. See “Printing output” on page 416.
- Java: Use a combination of print methods and associated print settings.



---

## Chapter 12. Using SDSF in batch

Using batch processing, you can issue often-repeated SDSF commands by creating a list of the commands as control statements. In the list, you specify the SDSF panel you wish to use and the operation you wish to perform on it.

Note that you can also invoke SDSF function using the REXX programming language, which provides more power and flexibility. See Chapter 13, “Using SDSF with the REXX programming language,” on page 391 for more information.

---

### Invoking SDSF in batch

Invoke SDSF on an EXEC statement with one of two program names:

- SDSF, which supports commands and action characters.
- ISFAFD, which supports commands, action characters, and overtyping of fields on tabular and other panels, such as the print panels.

Follow the EXEC statement with an ISFIN DD for batch input, and an ISFOUT DD for the batch output.

For example, a batch job to invoke program name ISFAFD might use these statements:

```
//      EXEC PGM=ISFAFD
//ISFOUT DD SYSOUT=*
//ISFIN  DD *
```

The DCB attributes for ISFIN are RECFM=FB, LRECL=80, and the BLKSIZE is any multiple of 80. The DCB attribute for ISFOUT is RECFM=FBA. The LRECL is the screen width + 1, and the BLKSIZE is any multiple of the LRECL.

To change screen width and depth of the batch output, use PARM='++xxxx,yyy', following the program name, where xxx is the depth of the screen (number of lines) and yyy is the width (number of characters). For example, to set the depth to 32 and the width to 1000, use:

```
//      EXEC PGM=SDSF,PARM='++32,1000'
//ISFOUT DD SYSOUT=*
//ISFIN  DD *
```

If you do not use the PARM statement, the width defaults to 132 and the depth to 60. The maximum for width and depth is 9999.

You can change the name of the SDSF server when invoking SDSF in batch. In the following example, the server name is SDSFT.

```
// EXEC PGM=SDSF,PARM='SERVER(SDSFT)'
```

If you add the server name when invoking SDSF in batch, you cannot combine it with changes to the dimensions of the screen.

A return code of 0016 when SDSF is invoked in batch indicates that the user could not be placed in any of the groups defined with ISFPARMS. See for a description of ISFPARMS.

## Specifying that SDSF should process JES2

When you invoke SDSF with either program name SDSF or ISFAFD, SDSF determines whether to process JES2 or JES3. You can request that SDSF not do that determination and process JES2. For this purpose, use the alternate program name SDSF2 or ISFAFD2.

---

## Using program name SDSF

### SDSF panels and commands

To access a panel and display its contents, use the panel command and ++ALL. For example, to select the H panel and display its contents, use:

```
H
++ALL
```

When ++ALL is specified, anything else on the card is ignored.

To move around on the panel, you can use scroll commands (RIGHT, LEFT, UP, DOWN, TOP, BOTTOM).

Use any SDSF command as you would enter it on the command line, following the syntax described in the online help. The maximum length of a command is 42 characters: only the first 42 characters of each record in ISFIN will be processed. Note that you cannot use commands that require ISPF, such as commands that display pop-ups.

### Action characters

To use an action character, code ++*action-character* in your batch job.

To prevent a confirmation pop-up from being displayed for destructive action characters, use the SET CONFIRM OFF command.

You must do a successful FIND prior to issuing an action character. This protects you from issuing an action character against the wrong row.

To allow for an unsuccessful FIND, you should follow each action character with a RESET command, which clears pending action characters. For example, to find job jobxyz on the O panel, browse it with the S action character and issue a RESET in case the job is not found, you would use:

```
O
FIND 'jobxyz'
++S
RESET
```

---

## Using program name ISFAFD

When you invoke SDSF with program name ISFAFD, it works the same as when you invoke it with program name SDSF, with these differences:

- Action characters do not require a successful FIND
- Overtypes and PF keys are supported
- The contents of a panel are not updated until you explicitly refresh the panel. You do this with the AFD REFRESH command.

- Attribute bytes (used to define characteristics of fields such as color and conditioning for input) are present on the SDSF panels. These attribute bytes are translated out when you invoke SDSF with program name SDSF.

## Commands

With program name ISFAFD, you can use the SDSF commands as you would with program name SDSF. You can also use the AFD command, which is described on page “AFD command.”

### AFD command

Use the AFD command when running SDSF in batch mode with program name ISFAFD.

The syntax of the command is shown below.

```

▶▶ AFD LOCATE [BLK—block-id]
               [TOD—time-of-day]
▶▶ AFD LOGSTAMP [ON]
                [OFF]
▶▶ AFD QUERY DS
▶▶ AFD QUERY CODEPAGE
▶▶ AFD QUERY COLUMNS
▶▶ AFD REFRESH
▶▶ AFD WTOR [ON]
            [OFF]
▶▶ AFD NP [LONG]
          [SHORT]
▶▶ AFD .END [DELETE]

```

### LOGSTAMP

controls the addition of a log stamp prefix for each record in the OPERLOG or SYSLOG when printing the log with SDSF's PRINT function. The logstamp is added only when printing to a ddname (for example, PRINT FILE).

LOGSTAMP ON causes the log stamp prefix to be added; LOGSTAMP OFF causes the log stamp prefix to not be added. The log stamp of the OPERLOG is a 32-byte prefix. The log stamp varies with the type of log being processed, that is, OPERLOG or SYSLOG.

The log stamp is described in Table 172.

Table 172. Contents of the Log Stamp

| Word | SYSLOG                                     | OPERLOG                                                                                |
|------|--------------------------------------------|----------------------------------------------------------------------------------------|
| 1-2  | STCKE for record                           | Local TOD value returned by IXGBRWSE                                                   |
| 3-4  | Job key and data set key                   | Block ID returned by IXGBRWSE                                                          |
| 5    | Relative record number within data set     | Relative record number within block                                                    |
| 6    | 1. Byte 1: level<br>2. Bytes 2–4: reserved | 1. Byte 1: level<br>2. Bytes 2–4: reserved                                             |
| 7    | Reserved                                   | 1. Byte 1: Control<br>2. Byte 2: Color<br>3. Byte 3: Highlight<br>4. Byte 4: Intensity |
| 8    | Reserved                                   | Reserved                                                                               |

**LOCATE BLK** *block-id*

scrolls the OPERLOG to the first record in the log block identified by *block-id*. *block-id* is 16 hexadecimal digits.

**LOCATE TOD** *time-of-day*

scrolls the OPERLOG to the first record for the time of day identified by *time-of-day*. *time-of-day* is 16 hexadecimal digits.

**QUERY DS**

displays information about the current data set or log on the message line. The information includes record count, record length, and carriage control. For SYSLOG and OPERLOG, the information also includes the length of the logstamp. (The record count is not displayed for the SYSLOG or OPERLOG panel. In cases where the record length is not available to SDSF, SDSF uses the maximum record length for the job plus 1, or if that is unknown, the screen width plus 1.) This command is valid only on browse panels.

**QUERY CODEPAGE**

displays the code page that is in use on the message line. If the installation has defined its own code page in ISFPARMS, rather than naming one in the ISFTR macro or TRTAB statement, the code page value is displayed as N/A.

**QUERY COLUMNS**

displays information about the columns on the current tabular panel, using the message lines. The format is as follows:

- Overtypeable columns: 'title'=(O,length)
- Overtypeable columns with related columns: 'title'=(O,length, number-of-values)
- Non-overtypeable columns: 'title'=(N)

**REFRESH**

requests that SDSF refresh the current display.

**WTOR**

controls the display of WTORs at the bottom of the Log panel. WTOR ON turns on the display of WTORs on the Log panel. SDSF shows those WTORs defined for the user by the ACTION command or the ACTION parameter of ISFPARMS. WTOR OFF turns off the display of WTORs on the Log panel.

**NP** controls the width of the NP column.

NP LONG sets the NP column on all tabular panels to the extended width, which is 10 characters on the PR display and the PUN display, and 5 characters on all other displays.

NP SHORT sets the NP column to the standard width.

**.END**

assigns a label, .END, to the current top line of the SYSLOG or OPERLOG. .END overrides the ending line value when printing the SYSLOG or OPERLOG with the PRINT command.

Use the DELETE keyword to delete a previously assigned label.

**Note:** You can also temporarily extend the NP column on a single tabular panel by typing a + in the NP column. Then, to reset the NP column, use the RESET command.

**Examples:**

- AFD WTOR OFF

This command turns off the display of WTORS at the bottom of the Log panel.

- AFD QUERY DS

Entered when the current panel is the SYSLOG, this command displays information about the SYSLOG on the message line, for example:

```
AFD QUERY DS LRECL=130,LSLEN=32,CCTL=NONE
```

- AFD LOCATE BLK 1A45B3218C32D862

This command scrolls the OPERLOG panel to the first record for the log block with an ID of X'1A45B3218C32D862'.

- AFD NP LONG

This command sets the width of the NP column on all SDSF tabular displays to the extended width.

- AFD QUERY CODEPAGE

This command displays the code page in use on the message line, for example:

```
AFD QUERY CODEPAGE=CP00037
```

- AFD .END

This command assigns the label .END to the current top line of the SYSLOG or OPERLOG. To use this label with PRINT, you could then:

1. Scroll the log so that the current top line is the line with which you want to begin printing.
2. Issue PRINT \* 99999999

SDSF would then print from the current top line to the line that was previously marked with .END.

## PF keys

With program name ISFAFD, you can use selected PF keys by coding ++AFD PFxx, where xx is the 2-digit PF key number. For example, to perform a repeat-find, you would code:

```
++AFD PF05
```

The PF keys you can use are:

**PF03** End the current panel

PF05 Repeat the previous FIND

## Action characters

The syntax for action characters is the same as for program name SDSF: see “Action characters” on page 384. However, because a successful FIND is not required, the action character will always be issued against the top row on the panel. To avoid issuing action characters against the wrong row, you might want to first set filters to be sure that only the appropriate row or rows is displayed.

The block action character (//) is not valid with program name ISFAFD.

## Overtypable fields

You can overwrite columns on tabular panels and on other SDSF panels, such as panels for printing.

### Overtyping columns on tabular panels

You can overwrite columns on any tabular panel except OD. The syntax for overtyping columns on tabular panels is the column title followed by = and the new value, all within <>. Enclose the column title and value in single quotation marks.

For example, on the O display, to change the forms for job JFROSTA to STD, change the destination to KGNVMC.JFROST, and refresh the screen, you would use:

```
O
FIND 'JFROSTA'
++<'FORM'='STD'><'DEST'='KGNVMC.JFROST'>
AFD REFRESH
```

You can abbreviate column titles to the shortest title that is unique for the display. If you want the overtypes to be continued on the next card, use a trailing comma.

Where it is valid when using SDSF interactively, you can combine an action character and overtypes; the action character must precede the overtypes. For example, on the H display, to release job SMOSES with the O action character, change the class to A, and refresh the screen, you would use:

```
H
FIND 'SMOSES'
++O<'C'='A'>AFD REFRESH
```

Although you cannot overwrite output descriptors on the OD panel, you can overwrite most of them on the JDS panel. The JDS panel supports only the first value for output descriptors with multiple values (such as ADDRESS and NOTIFY). To modify the other values for these fields, overwrite the first value with a +, then specify the values on the Overtyping Extension pop-up. To erase an output descriptor on the JDS panel, type a comma (,) in the field.

### Overtyping fields on other panels

You can overwrite fields on any other panels that do not require ISPF, such as the print panels, the system command extension pop-up, and the Overtyping Extension pop-up.

The syntax for providing values on other types of SDSF panels is similar to the syntax for overtyping fields on tabular panels, except that no column name is used, only =*value*, within <>. The values are positional; in other words, the first value supplied goes into the first field on the panel, the second value supplied



goes into the second field on the panel, and so on. On panels with a command line (for example, the print panels), the command line is not counted as an input field.

Use `++AFD END` or `++AFD PF03` to end processing of the panel.

For example, on the Open Print panel, to specify H as the class and 3 as the number of copies (the first and second fields) you would use:

```
PRINT S
++<='H'><='3'>
++AFD PF03
```

To skip a field on the panel, specify `< >` with no enclosed text. For example, on the Open Print panel, to specify H as the class and STD as the forms (the first and third fields), you would use:

```
PRINT S
++<='H'>< ><='STD'>
++AFD PF03
```

To blank a field, specify `<= ' '>` (a blank enclosed in single quotation marks).

When entering a data set name on the Open Print Data Set panel, enclose it in three sets of single quotes to indicate that it is a fully qualified name. Enclose the data set name in one set of single quotes if you want the TSO prefix to be added.

## Notes on using program name ISFAFD

- You can use a trailing comma as a continuation character, so that you can continue overtypes across several cards. The continuation character is required when overtypes that must be processed together (for example, values on a print panel) are specified on multiple cards. To enter a data set name, member name, and disposition on the Open Print Data Set panel, you could use:

```
PRINT D
++<='droyek.sdsfdata.december'>,
<='report'>,
<='old'>
++AFD PF03
```

- You can include blank lines, or comments, enclosed in `/* */` on separate lines; they will be ignored when the input is processed.
- To avoid an error message (AFD `CURS0Rrow,column`) set SET CURSOR to OFF, so that the cursor always returns to the command line.

---

## Security and SDSF in batch

To protect use of SDSF in batch you control which group of users a user is assigned to. You do this either through SAF or ISFPARMS. SAF is recommended because it is dynamic and because it allows you to assign users to the same group regardless of the environment from which they invoke SDSF (interactive, batch, REXX or Java).

### Using SAF

To use SAF for determining group membership, you assign a name to the group. SDSF then checks the SAF resource `GROUP.group-name.server-name`. This is explained in detail in “Using SAF to control group membership” on page 35.

## Using ISFPARMS

You can use parameters in the ISFGRP macro or GROUP statement to determine group membership. These allow you to control membership based on user ID, logon procedure, terminal name, or TSO authority.

When an SDSF batch session is started, it establishes the following values for these criteria:

### User ID

Set to the user ID from the ACEE (accessor environment element), provided it contains a valid user ID **OR** Set to the job name minus the last character.

### Logon proc name

Set to BATCH for program name SDSF, and AFD for program name ISFAFD.

### Terminal name

Set to BATCH for program name SDSF, and the LU name for program name ISFAFD.

### TSOAUTH for ISFGRP

Set to JCL authority.

So, for example, to restrict a group from running SDSF in batch, you could code an XLPROC keyword on ISFGRP to exclude the logon procedure name BATCH. Similarly, you could code an ILPROC keyword to assign batch jobs to a specific ISFGRP.

Figure 14 contains sample ISFPARMS statements to assign SDSF batch jobs to the group ISFBATCH.

```
          ISFPMAC
ISFSPROG ISFGRP TSOAUTH=(JCL,OPER,ACCT),...
ISFOPER  ISFGRP TSOAUTH=(JCL,OPER),...
ISFUSER  ISFGRP TSOAUTH=(JCL),...,XLPROC=BATCH
ISFBATCH ISFGRP TSOAUTH=(JCL),...,ILPROC=BATCH
BATCH    ISFNTBL BATCH,1
```

*Figure 14. Sample ISFPARMS to Restrict Batch*

## Chapter 13. Using SDSF with the REXX programming language

### Programming Interface Information

This topic describes how to access SDSF data and function with the REXX programming language, and how to protect the use of SDSF through REXX.

Using SDSF with REXX provides a simpler and more powerful alternative to using SDSF in batch, which is described in Chapter 12, “Using SDSF in batch,” on page 383.

Table 173 outlines how to access SDSF function with REXX.

Table 173. Using SDSF with REXX

| To:                                                                | Use:                                      | For more information:                                                     |
|--------------------------------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------|
| Add and delete the SDSF host command environment                   | ISFCALLS()                                | “Adding the SDSF host command environment with ISFCALLS” on page 394      |
| Issue SDSF commands to access tabular panels and other information | ISFEXEC                                   | “Issuing commands with ISFEXEC” on page 395                               |
| Issue action characters and overtype columns                       | ISFACT                                    | “Issuing action characters and modifying columns with ISFACT” on page 404 |
| Browse output                                                      | ISFBROWSE or ISFACT and special variables | “Browsing output” on page 411                                             |
| Print output                                                       | ISFACT and special variables              | “Printing output” on page 416                                             |
| Browse the SYSLOG and OPERLOG                                      | ISFLOG                                    | “Browsing the system log with ISFLOG” on page 420                         |
| Issue system commands                                              | ISFSLASH                                  | “Issuing system commands with ISFSLASH” on page 425                       |
| Issue SDSF commands for filtering and options, and check messages  | Special REXX variables                    | “Using special variables to invoke SDSF function” on page 428             |
| Drop specified special variables                                   | ISFRESET()                                | “Dropping special variables with ISFRESET” on page 431                    |
| Query the environment                                              | ISFQUERY()                                | “Invoking a REXX exec with an action character” on page 432               |
| Invoke an exec with an action character                            | % action character                        | “Invoking a REXX exec with an action character” on page 432               |
| Generate a REXX exec for the current panel                         | RGEN command                              | “Generating an exec” on page 393                                          |

For examples of REXX execs, refer to “Examples of REXX execs” on page 450.

You must be authorized to use SDSF with REXX and you must be authorized to the SDSF functions that you invoke from REXX. In some cases, invoking an SDSF function from REXX when you are not authorized to the function will cause the exec to fail and the invocation of SDSF to end.

System programmers should be sure to define ISFPARMS group membership so that SDSF users have the proper authorization when invoking SDSF with REXX. For more information, see “Security and REXX” on page 475

---

## Other sources of information

In addition to this information, you may want to refer to these other sources for information about using REXX with SDSF:

- REXXHELP. Type this command (or REXXH for short) on any command line when using SDSF under ISPF. In addition to examples and usage information, the online help for REXX also includes links to descriptions of commands, action characters and overtypable columns and column values, which is not included in this information.

To search SDSF's help, including the help for REXX, use the SEARCH command. You can type SEARCH followed by up to four words on the SDSF command line when using SDSF under ISPF.

If you are not already familiar with SDSF, you should begin with the SDSF help. To display a brief, interactive tutorial, use the TUTOR command.

- ISPF models that you can download from the Internet. In addition to the same examples as are included in this information, the models help with the syntax of REXX commands such as ISFEXEC and ISFACT. See the SDSF page at <http://www.ibm.com/systems/z/os/zos/features/sdsf/>.
- Implementing REXX Support in SDSF, SG24-7419-00. This Redbook includes more complete and sophisticated examples than those in this information. The following is a brief table of contents:
  - Chapter 1. Issuing a system command
  - Chapter 2. Copying SYSOUT to a PDS
  - Chapter 3. Bulk job update processor
  - Chapter 4. SDSF support for the COBOL language
  - Chapter 5. Searching for a message in SYSLOG
  - Chapter 6. Viewing SYSLOG
  - Chapter 7. Reviewing execution of a job
  - Chapter 8. Remote control from other systems
  - Chapter 9. JOB schedule and control
  - Chapter 10. SDSF data in graphics
  - Chapter 11. Extended uses
  - Appendix A. REXX variables for SDSF host commands
  - Appendix B. Additional material

---

## Programming practices

Be aware that many of the things you work with in a REXX exec, such as the list of columns on an SDSF panel, the contents of the title line of a panel, and the contents of responses to SDSF commands such as WHO, may change over time. You should design your REXX execs to minimize the impact of those changes. For example, rather than making assumptions about the contents of a panel, you can query special REXX variables that SDSF provides.

Following these guidelines for variable names will reduce the potential for conflicts between REXX variables you create and special and column variables used by SDSF:

- Do not use variable names that begin with ISF or SDSF. SDSF reserves those prefixes for the names of special REXX variables.

- Use the PREFIX option of the ISFEXEC and ISFACT commands to force unique variable names. See the description of options in "Issuing panel commands with ISFEXEC" on page 396 for more information.
- Isolate SDSF environment calls to a REXX procedure to limit the scope of the variable names.
- When referencing a panel command that contains embedded blanks or special characters (such as on ISFEXEC and ISFACT), enclose the command in single quotes. When referencing the PARM panel on ISFACT, enclose the panel name in single quotes so that it is not interpreted as the PARM keyword of ISFACT.

Remember that SDSF may add special variables and columns with a new release or service, so that even if you do not currently have a conflict with variable names, one could occur in the future. To reduce your risk, always specify the columns to be returned using the ISFCOLS special variable.

---

## Generating an exec

### Before you begin

You must be using SDSF under ISPF.

### About this task

You can use the RGEN command to generate a REXX exec that reflects the current context. The exec includes the statements you need to add the SDSF host command environment and to access the current panel, as well as special variables for things like filtering. The exec may also include suggested logic for additional function. The generated exec is displayed using ISPF Edit.

### Procedure

You might use RGEN as follows:

1. Display the tabular panel (DA, ST, PR, JDS and so on) or log panel (SYSLOG, OPERLOG, ULOG) that you want to work with.
2. Issue the RGEN command from the command line. SDSF generates the appropriate exec and displays it using ISPF Edit. The display includes special temporary lines that are visible in ISPF Edit but are not actually included in the exec. To remove those lines, use the RESET command.
3. Copy the exec to a data set using the CREATE command. Copying the exec before you begin making any updates ensures that none of your changes are lost.
4. Modify the exec to suit your needs.

---

## Exec basics

### Procedure

In a very simple REXX exec, you might do the following:

1. Add the SDSF host command environment.
 

```
rc=isfcalls('ON')
```
2. Access a panel with "ISFEXEC *panel-command*". This creates stem variables for each row and column on that panel. To access the Status panel, you could use:
 

```
Address SDSF "ISFEXEC ST"
```

- Find the job you want to work with by examining the JNAME stem variables created for the JOBNAME column. (You refer to columns not by their titles, but by the same names that you would use in defining a field list in ISFPARMS. See Chapter 4, “Columns on the SDSF panels,” on page 135.)

```
do ix=1 to JNAME.0 /* Loop for all rows returned */
  if pos("RJONES",JNAME.ix) = 1 then
```

- Take an action or modify a value for the job with "ISFACT operands". operands is made up of:

- The panel command that you used previously with ISFEXEC
- A TOKEN.number variable that was created by the ISFEXEC command and identifies the row that represents the job
- Parameters that define the action or modification. In this example, you supply the P action character in the NP column to cancel the job.

```
Address SDSF "ISFACT ST TOKEN('TOKEN.ix') PARM(NP P)"
```

- Delete the host command environment (after closing the do loop).

```
end
rc=isfcalls('OFF')
```

## What to do next

Of course, in an actual exec, you would have more complex logic and error checking. This would require the use of special REXX variables to do things like examine messages issued, filter rows on the panel, and define the columns to include. For more examples, see “Examples of REXX execs” on page 450.

---

## Adding the SDSF host command environment with ISFCALLS

Using SDSF with REXX requires that you add a host command environment prior to any other SDSF host environment commands. The host command environment is what allows you to use Address SDSF on the ISFEXEC and ISFACT commands. You add the host command environment with the ISFCALLS() function.

You should delete the host command environment, again using ISFCALLS, prior to the termination of the exec.

The syntax of the ISFCALLS() function is:

```
rc=ISFCALLS('ON' | 'OFF', 'SSTYPE=JES2')
```

**ON** adds the SDSF host command environment

**OFF**

deletes the SDSF host command environment

**SSTYPE=JES2**

requests that SDSF process JES2 rather than determining whether to process JES2 or JES3.

## Result codes

The ISFCALLS() function sets the following result codes:

**00** Function completed successfully

**01** Host command environment query failed, environment not added

- 02 Host command environment add failed
- 03 Host command environment delete failed
- 04 Options syntax error, or options not defined

---

## Issuing commands with ISFEXEC

You issue commands with the ISFEXEC host command as follows:

```

▶▶Address SDSF"—"ISFEXEC—sdsf-command—"—————▶
                        |—————|
                        |(—options—)|

```

### *sdsf-command*

is a supported SDSF command, including any parameters. If the command contains special characters or blanks, enclose it in single quotation marks. The supported commands are:

- The commands that access SDSF tabular panels (for example, DA and ST). For more information, see “Issuing panel commands with ISFEXEC” on page 396.
- The WHO and QUERY commands. For more information, see “Issuing WHO and QUERY commands with ISFEXEC” on page 404.
- The slash (/) command, which allows you to enter system commands. Although this is supported, the recommended method for issuing system commands is with ISFSLASH. For more information, see “Issuing system commands with ISFSLASH” on page 425 or “Issuing system commands with ISFEXEC” on page 404.

Commands entered with the ISFEXEC command generally have a maximum length, including any parameters, of 42 characters (the same as the command input area when using SDSF interactively). Slash (/) commands entered with the ISFEXEC command can have operands up to 126 characters long.

Note that for function associated with other SDSF commands, such as filtering and setting options, you use special variables rather than ISFEXEC. See “Using special variables to invoke SDSF function” on page 428.

For a complete list of the SDSF commands, see “SDSF commands reference” on page 434. For the syntax of the commands, see the online help.

### *options*

is an optional list of options for the command. The closing parenthesis is optional. The options that you use depend on the type of the command you issue, and are explained in the topics that follow. The following option is of general use as you develop a REXX exec:

#### **VERBOSE**

adds diagnostic messages to the ISFMSG2 stem variable. The messages describe each row variable created by SDSF.

## Examples of using ISFEXEC

The following examples illustrate how to issue a command with ISFEXEC. For more complete examples, see “Examples of REXX execs” on page 450.

1. Issue the DA command and create variables for the DA panel, both the primary and alternate field lists, except delayed-access columns.
  - Address SDSF "ISFEXEC DA"
  - This creates variables for each column.

- Address SDSF "ISFEXEC DA (COMPACT)"  
This creates the SDSFROW stem variable for the data.
- 2. Issue the CK command with the ALL parameter and create variables for the CK panel.  
Address SDSF "ISFEXEC CK ALL"
- 3. Issue the ST command and create variables for the alternate field list.  
Address SDSF "ISFEXEC ST (ALTERNATE)"  
Note: Delayed-access columns are not included. These require the DELAYED option.
- 4. Issue the ST command and create variables for the alternate field list, including delayed-access columns.  
Address SDSF "ISFEXEC ST (ALTERNATE DELAYED)"
- 5. Issue the O command, with filters for class A and forms 1234.  
Address SDSF "ISFEXEC OA 1234"
- 6. Issue the WHO command.  
Address SDSF "ISFEXEC WHO"

## Return codes for ISFEXEC

After the ISFEXEC host environment command completes, a return code is set in the REXX variable RC. The values are:

- 00** The request completed successfully.
- 04** The request completed successfully but not all functions were performed.
- 08** An incorrect or invalid parameter was specified for an option or command.
- 12** A syntax error occurred in parsing a host environment command.
- 16** The user is not authorized to invoke SDSF.
- 20** A request failed due to an environmental error.
- 24** Insufficient storage was available to complete a request.

Note that a return code of 0 indicates that SDSF successfully processed the ISFEXEC command. It does not indicate that specific functions were authorized or that commands were executed. Check the ISFMSG and ISFMSG2 variables to determine if a request completed. See "Messages" for more information.

## Messages

Messages issued in response to a command or special variable are available in these special variables:

### ISFMSG

contains the SDSF short message

### ISFMSG2

is a stem variable that contains SDSF numbered messages. ISFMSG2.0 contains the number of stem variables that follow.

## Issuing panel commands with ISFEXEC

You can issue the commands that access SDSF tabular panels with ISFEXEC. Tabular panels display data in rows and columns.

For information on non-tabular panels, see:



- “Browsing the system log with ISFLOG” on page 420
- The discussion of the ISFULOG special variable in “Issuing system commands with ISFSLASH” on page 425.

### Controlling the columns included on panels

By default, tabular panels accessed with REXX include the columns in both the primary and alternate field lists defined in ISFPARMS, except any "delayed-access" columns. You can control the columns that are included on SDSF panels as described in Table 174. Limiting the columns that are included limits the columns for which SDSF creates REXX variables. Limiting the columns to just those that are required can make the exec process more quickly.

Table 174. Controlling the Columns on SDSF Panels

| To Specify:                             | Use:               | Default:     | For More Information:                                         |
|-----------------------------------------|--------------------|--------------|---------------------------------------------------------------|
| Primary, alternate or merged field list | Options on ISFEXEC | Merged       | “Options for panel commands”                                  |
| Delayed-access columns                  | Option on ISFEXEC  | Not included | “Options for panel commands”                                  |
| List of columns by column name          | ISFCOLS variable   |              | “Special variables for panels and panel commands” on page 401 |

### Options for panel commands

You can use the following options with panel commands on ISFEXEC. Combine the options if necessary. For example, you could specify both ALTERNATE and DELAYED to include delayed-access columns that are in the alternate field list. Note that by default, the primary and alternate field lists are both included. That is, if you specify both PRIMARY and ALTERNATE, or neither PRIMARY nor ALTERNATE, the primary and alternate field lists are merged.

#### ALTERNATE

requests the alternate field list. For a discussion of primary and alternate field lists, see “Variable field lists (FLD or ISFFLD)” on page 86.

#### COMPACT

specifies that column data for each row be returned in the SDSFROW stem variable, rather than in a separate stem variable for each column. This can dramatically reduce the number of variables, and therefore the amount of storage, required to satisfy a request for a panel. For more information, refer to “Panel data returned” on page 398.

#### DELAYED

specifies that delayed-access columns be included. Delayed-access columns require I/O to retrieve the data. If you do not include this option, delayed-access columns are omitted. Omitting delayed-access columns may improve performance. For information on which columns are delayed-access, see

- Chapter 4, “Columns on the SDSF panels,” on page 135
- The COLSHELP command in SDSF

#### NOMODIFY

specifies that row tokens for use in modifying rows should not be returned. Use this to improve performance if you will not be modifying any values.

#### PRIMARY

requests the primary field list.

If you specify both PRIMARY and ALTERNATE, or neither PRIMARY nor ALTERNATE, the primary and alternate field lists are merged. For a discussion of primary and alternate field lists, see “Variable field lists (FLD or ISFFLD)” on page 86.

**PREFIX** *value*

specifies a prefix, *value*, to be added to the beginning of:

- Column name variables
- Token variables
- Variables with names that begin with SDSF, such as SDSFROW.

The prefix is not added to the beginning of other special variable names.

Use PREFIX when you want to ensure that variable names do not conflict, for example, when accessing a secondary panel with an action character from another panel. The default is no prefix. The prefix can be up to 24 characters long, and should not begin with ISF.

**VERBOSE**

adds diagnostic messages to the ISFMSG2 stem variable. The messages describe each row variable created by SDSF.

**Panel data returned**

SDSF panel data is the same in the REXX environment as in the interactive environment, with a few exceptions. For details, refer to “Data formats - differences between REXX and interactive SDSF” on page 401.

The panel data is returned as follows:

- The contents of the title line are returned in the ISFTLINE special variable. The title line includes the name of the panel and, in some cases, additional information. For a description of the contents of the title line for an SDSF panel, see the help for fields for the panel.
- Column names and column titles are returned in the related special variables ISFCOLS and ISFTITLES. Refer to “Special variables for panels and panel commands” on page 401 for more information.
- Column data is returned:
  - In stem variables for each column. This is the default.
  - In the SDSFROW stem variable, if you specified the COMPACT option.

**Column data: stem variables for each column**

By default, column data is returned in stem variables in this format: *column-name.row-number*, where:

*column-name*

is the name of the column. The first column returned is always the fixed field. The column name is different than the column title that is displayed when using SDSF interactively. It is the same name that is used in the FLD statements in ISFPARMS. For more information:

- Refer to Chapter 4, “Columns on the SDSF panels,” on page 135 for a list of column names and titles
- When running SDSF under ISPF, issue the COLSHELP command. COLSHELP provides column names, titles, descriptions and information about values.
- SDSF online help, for column titles, plus information about values for overtypable and other columns.

If you specify a prefix with the PREFIX option, the column-name variable begins with the prefix. For an example, see “List job data sets” on page 454.

*row-number*

is the row number.

The value for stem variable number 0 is a count of the number of variables returned. This count is the same for all columns. It is also in special variable ISFROWS.

For overtypable columns with related values, a sub-stem is added to the row number to indicate the number of the related value, as follows:

*column-name.row-number.value-number*

So, for example, the SFORMS column in the PR panel has values SFORMS.1.0 (which contains a count of the values) and SFORMS.1.1 through SFORMS.1.8. The value in SFORMS.1.2 is displayed in column SFORM2.

The following example shows data returned in the stem variables for each column.

```
JNAME.0=45
JOBID.0=45
OWNERID.0=45
.
.
remaining 0 variables
.
.
JNAME.1=BURDINE3
JOBID.1=JOB04922
OWNERID.1=BURDINE
.
.
remaining variables
.
.
```

This example shows data for a column with related values, the SFORMS column on the Printer panel.

```
SFORMS.1=STD
SFORMS.1.1=STD (This the same value as is in SFORMS.1)
SFORMS.1.2=NAR
SFORMS.1.3=REC
.
.
```

### **Column data: SDSFROW stem variable**

If you specify the COMPACT option, SDSF returns the panel data in the SDSFROW stem variable, rather than in stem variables for each column.

Use the SDSFROW stem variable with these special variables:

#### **ISFCOLS**

Lists the columns that were processed, in this format: *column-name column-name...*

#### **SDSFCOLSTART**

Lists the starting position of each of the columns returned in ISFCOLS, in this format: *column-start column-start...*

## SDSFCOLLEN

Lists the length of each of the columns returned in ISFCOLS, in this format: *column-length column-length...*

## SDSFCOLCOUNT

Is the number of values associated with the column

For example, the first word in the ISFCOLS variable contains the name of the first column. The first word in the SDSFCOLSTART variable contains the start of that column data in the SDSFROW variable, and the first word in the SDSFCOLLEN variable contains the length of that column data in the SDSFROW variable.

The following example shows the data returned in the SDSFROW stem variable:

```
sdsfrow.0=45
sdsfrow.1=BURDINE3 JOB04922 BURDINE          15 EXECUTION
SY1
      SY1                                LOCAL
1      0.03 LOCAL      LOCAL
      0                                NO JES NO EXECUTING
14 JOB
      39 0027      SY1
      .
      .
remaining variables
      .
```

The following example shows the data returned in the ISFCOLS, SDSFCOLSTART and SDSFCOLCOUNT variables:

```
isfcols=JNAME JOBID OWNERID JPRIQ QUEUE JCLASS POS SYSAFF ACTSYS STATUS PRDEST
SECLABEL TGNUM TGPCT ORIGNODE EXECNODE DEVID OFFDEVS RETCODE SRVCLS WLMPOS SCH
ENV DELAY SSMODE SPIN PHASENAME PHASE JTYPE DELAYRSN JOBCORR ASID ASIDX SYSNAME
sdsfcolstart=1 10 19 28 39 50 59 70 231 240 271 290 299 310 322 331 340 359 375
386 395 406 423 427 432 437 458 469 474 603 636 647 658
sdsfcollen=8 8 8 10 10 8 10 5 8 30 18 8 10 11 8 8 18 15 10 8 10 16 3 4 4 20 10
4 128 32 10 10 8
sdsfcolcount=1 1 1 1 1 1 1 32 1
```

The special variables that begin with SDSF, such as SDSFROW, SDSFCOLSTART and SDSFCOLCOUNT, are all affected by the PREFIX option.

For an example of using these special variables, refer to “Access an SDSF panel” on page 451.

## Identifying each row

Tokens to identify each row are returned in the TOKEN stem variable. For example, variable TOKEN.2 contains a string that identifies row two on the panel being processed.

If you specify a prefix with the PREFIX option, the name of the stem variable containing tokens begins with the prefix. For example, if the prefix is JDS\_, the name of the stem variable is JDS\_TOKEN.

Use the token as input to the ISFACT command when taking an action or modifying a value for that row. See “Issuing action characters and modifying columns with ISFACT” on page 404 for more information.

**Data formats - differences between REXX and interactive SDSF:** SDSF panel data is the same in the REXX environment as in the interactive environment, with a few exceptions.

- Numbers:
  - Do not include commas.
  - Are never scaled, as they are not restricted by column widths. They never include scaling characters such as T or M. However, some values are formatted with units. For example, values in the MemLimit column on the DA panel are formatted with MB, PB and so on.
  - Are formatted as three asterisks in cases of invalid or overflow data that would be displayed as all asterisks when SDSF is used interactively.
- Dates and times:
  - If formatted by SDSF, are in *yyyy.ddd* format (dates) and either *hh:mm:ss* or *hh:mm:ss.th* format (times). To convert them to a different format, you can use the REXX `date()` function.
  - Are formatted as N/A in cases of invalid dates that would be displayed as N/A embedded in asterisks when SDSF is used interactively.

### Special variables for panels and panel commands

There are a number of special variables that are useful when working with panels and panel commands. Where the variable corresponds to an SDSF command that you would use when using SDSF interactively, the parameters for the variable are the same as for the command, with the exception that the ? parameter is not supported in REXX. Substitute the variable for the command, for example:

Command: PREFIX NEIL\*  
Variable: isfprefix="neil\*"

For more information on special REXX variables, see “Using special variables to invoke SDSF function” on page 428 and “Special variables reference” on page 440. For the syntax of SDSF commands, see the online help.

For panels that you access with an action character from another panel (referred to as secondary panels), you use different special variables than the ones described in this topic. Refer to “Special variables for secondary panels” on page 409.

For some variables with names that begin with ISF, there are corresponding variables with names that begin with SDSF. These perform the same function, but are affected by the PREFIX option, so that their names include the prefix that you specify. In addition, if one or more secondary panels exists, these variables apply to the last secondary panel, rather than the panel that was accessed with a command. In the list that follows, these variable names are shown after the names that begin with ISF.

Use these special variables when working with panels and panel commands:

#### ISFACTIONS

specifies whether the action characters for the current panel should be returned in the ISFRESP stem variable. The values in the ISFRESP variable are in this format: ACTION=*action*, where *action* is the action character or the action character and a description, depending on the option specified on ISFACTIONS. See the SET ACTION command in the online help for the valid options. See “List action characters” on page 468 for an example.

### **ISFAPPC**

specifies whether transaction data should be included on the panel. See the APPC command in the online help. (JES2 only)

### **ISFCOLS / SDSFCOLS (input) and SDSFOCOLS (output)**

**Input:** Specifies the set of columns for which SDSF should create variables, in this format:

*'column-name column-name...'*

The column names are different than the column titles that are displayed when using SDSF interactively. They are the names used in the FLD statements in ISFPARMS. For a list of column names, see Chapter 4, "Columns on the SDSF panels," on page 135, or, when running SDSF under ISPF, issue the COLSHELP command.

Each column name you specify must exist in the current field list. Any name specified in the ISFCOLS variable that is not in the current field list will be ignored. The order of the columns is not significant. See "Controlling the columns included on panels" on page 397 for more information.

The fixed field (the first column on each SDSF panel when using SDSF interactively) is optional, since it will always be included regardless of the setting of ISFCOLS.

If the ISFCOLS variable is not defined, SDSF creates variables for each column in the field list that is not delayed-access, including the fixed field.

**Output:** Lists the columns that were processed, in this format:

*column-name column-name...*

The names are separated by a blank. The fixed field is always listed first.

When working with a secondary panel (a panel accessed with an action character) use the ISFCOLS2 variable. See "Special variables for secondary panels" on page 409 for more information.

### **ISFCOLUMNGROUPS / SDSFCOLUMNGROUPS**

contains a list of column grouping information for the columns listed in the ISFCOLS variable. The group values are a way of categorizing SDSF columns. The values are: NONE, ACCT (accounting), ACTIVITY, ADVANCED, GENERAL, INPUT, JES2, JES3, OUTPUT (printer), OUTPUT (punch), PERF (performance), PRINTING, RUNTIME, SECURITY, SCHED (scheduling), SELECT, STATUS and STATWLM (workload management status).

### **ISFDCOLS / SDSFDCOLS**

contains a list of the delayed-access columns that were returned and for which SDSF should create variables, in this format:

*column-name column-name...*

When working with a secondary panel (a panel accessed with an action character) use the ISFDCOLS2 variable. See "Special variables for secondary panels" on page 409 for more information.

Unlike ISFCOLS, ISFDCOLS is an output-only variable.

### **ISFDISPLAY**

contains the filtering and sorting criteria, for example,

PREFIX=\* DEST=(ALL) OWNER=\* SYSNAME=SYS1

See the SET DISPLAY command in the online help.

**ISFDISPLAYMODE**

sets the format of the ISFDISPLAY special variable. See the SET DISPLAY command in the online help. The OFF parameter is not valid in REXX.

**ISFRCOLS / SDSFRCOLS**

contains the list of columns that have related values. For information on modifying related values, see “Modifying related fields” on page 406.

**ISFROWS**

contains the number of rows created for a tabular panel. (This is also found in the zero stem of the column variables, for example, JNAME.0.)

**ISFSORT / SDSFSORT**

specifies the sort criteria (up to 10 columns, with ascending or descending order). Use column names rather than column titles. Assigning the value to null (isfsort=“) sorts the panel using the fixed field (the first column). See the SORT command in the online help for the syntax.

**ISFTIMEOUT**

specifies the response timeout value for sysplex requests. See the SET TIMEOUT command in the online help.

**ISFTITLES / SDSFTITLES**

contains the column titles for the columns on the panel. The titles are listed in the same order as the column names in the ISFCOLS variable. The titles are enclosed in single quotation marks and separated by blanks.

When working with a secondary panel, accessed with an action character, use the ISFTITLES2 variable. See “Special variables for secondary panels” on page 409 for more information.

**ISFTLINE**

contains the title line from the tabular panel being processed.

**ISFUCOLS / SDSFUCOLS**

contains the list of modifiable columns for the panel. All modifiable columns are included, regardless of whether the user is authorized to modify them.

When working with a secondary panel, accessed with an action character, use the ISFUCOLS2 variable. See “Special variables for secondary panels” on page 409 for more information.

**ROWACTIVE**

is a stem variable that indicates whether the object (for example, the job or the printer) is active. The value is either Y (active) or N (inactive). ROWACTIVE.0 contains a count of the number of stem variables that follow.

**SDSFROW**

contains the panel data, when you specified the COMPACT option. For details, refer to “Panel data returned” on page 398.

**SDSFCOLSTART**

contains the start of the column, for use with SDSFROW. For details, refer to “Panel data returned” on page 398.

**SDSFCOLLEN**

contains the length of the data for the column, for use with SDSFROW. For details, refer to “Panel data returned” on page 398.

**SDSFCOLCOUNT**

contains the number of values associated with the column





stem variable contains one or more row tokens previously set by ISFEXEC or ISFACT in the returned TOKEN. stem variable and must correspond to the panel accessed with *command*. The tokens must not be folded to upper case or enclosed in single quotation marks. For more information on tokens, see “Using tokens” on page 406. The variable *stem-name* should:

- End with a period, to allow the commands to be put into compound variables
- Not begin with the characters ISF
- Be no longer than 128 characters

The 0 variable in the stem must contain a count of the number of variables in the stem.

#### *token-list*

is one or more tokens that identifies the row to be acted upon, in the format '*token1*', '*token2*', ..., '*tokenN*'. Each token was previously set by ISFEXEC or ISFACT in the returned TOKEN. stem variable and must correspond to the panel accessed with *command*. Enclose the token in single quotation marks that are not removed by REXX.

For more information, see “Using tokens” on page 406.

#### *parms*

is the list of parameters that specifies the action characters and modifications, in the form:

*column1 value1 column2 value2 ... columnN valueN*

where

#### **column1, column2, columnN**

are either:

- NP, when issuing an action character
- column names, when modifying values. The column names are different than the titles that are displayed when using SDSF interactively. They are the same names that you use on FLD statements in ISFPARMS. For a list of column names, see Chapter 4, “Columns on the SDSF panels,” on page 135, or, when running SDSF under ISPF, issue the COLSHELP command.

The column must be in the current field list for the panel; use column-related options on the ISFACT command, such as ALTERNATE, if necessary. For more information, see “Controlling the columns included on panels” on page 397.

If you name a column multiple times, SDSF processes only the last one.

#### **value1, value2, valueN**

are either:

- an action character, when the column is NP. The SDSF action characters are described in the online help. Most of the action characters are supported with REXX. Table 179 on page 439 shows the exceptions. The action characters for browsing and printing output have special restrictions and requirements. See “Browsing output” on page 411 and “Printing output” on page 416.
- a value, when modifying a value in a column other than NP. If the value contains special characters, you must enclose it in quotation marks. Lowercase characters are folded to upper case, even if they are enclosed in quotation marks.

The fields that can be modified, or overtyped, are described in the help for each panel.

For information on modifying sets of related fields, see “Modifying related fields.”

The resulting command cannot exceed the maximum allowed by z/OS.

*options*

is an optional list of options. See “Options for action characters and overtypeable fields” on page 407 for more information.

## Modifying related fields

When working with sets of related fields, such as the four selection destinations on the Printer panel, add a plus (+) before the column name to indicate that the value is in addition to any other values for the same column. Use this syntax for each value. When using SDSF interactively, you work with related fields through the overtype extension pop-up, which you access by typing the + character in the overtypeable column.

For example, PARM(SDESTN1 D1 +SDESTN1 D2 +SDESTN1 D3) indicates that the SDESTN1 column is to be modified with the values D1,D2,D3.

SDSF accepts a + sign for the first column in the set of columns, for example, PARM(+SDESTN1 D1 +SDESTN1 D2). This is equivalent to PARM(SDESTN1 D1 +SDESTN1 D2). However, subsequently specifying the first column in the set without a + sign resets the values. For example, PARM(SDESTN1 D1 +SDESTN1 D2 SDESTN1 D11) would result in the column being modified with the single value D11. This is because SDSF processes the last occurrence of the column name. Since the last occurrence does not have the + sign, it is interpreted as a complete replacement.

If the same column is specified more than once, the last occurrence is used for the action except when the + sign is used with the column name.

Special variables ISFRCOLS and ISFRCOL2 contain lists of columns with related fields for the current panel and a secondary panel, respectively.

## Using tokens

A token consists of a variable-length string that may contain special characters. You must not modify it.

A token cannot be shared by different users. The user who references a token with a host command must be the same user who created it.

When a token references a secondary panel (such as JDS), all subsequent tokens must also refer to the secondary panel using the same row from the primary panel.

Tokens represent jobs at the time that they are generated and are intended to be used soon after they are generated, rather than saved for later use. If the row to be acted upon no longer exists when the host command is issued, SDSF considers the row token invalid. You should not change the associated panel, for example, by changing filtering.

The format of tokens may change incompatibly with service or new releases of SDSF.

## Examples of using ISFACT

The following examples illustrate how to issue an action character and modify a column, after having first issued the appropriate panel command with ISFEXEC. For more complete examples, see “Examples of REXX execs” on page 450.

1. Issue the P action character for row 4 on the H panel.  
Address SDSF "ISFACT H TOKEN('"TOKEN.4"') PARM(NP P)"
2. Issue the P action character for rows 1 and 2 on the H panel.  
Address SDSF "ISFACT ST TOKEN('"TOKEN.1"', '"TOKEN.2"') PARM(NP P)"
3. Issue the P action character for the row the number of which is represented by variable *ix* on the H panel.  
Address SDSF "ISFACT H TOKEN('"TOKEN.ix"') PARM(NP P)"
4. Modify the priority of multiple jobs.  
Address SDSF "ISFACT ST TOKEN((TOKEN.)) PARM(JPRIO 10)"  
For this type of usage, you would use command parameters or special variables to limit the panel to just those jobs you want to modify. For a complete example, see “Modify a value for a set of jobs” on page 456.
5. Issue the P action character for rows that are identified by tokens in the stem variable JSTEM.  
Address SDSF "ISFACT ST TOKEN((JSTEM.)) PARM(NP P)"  
For this type of usage, you would use logic to set the values in the stem variable JSTEM. to the tokens, in stem variable TOKEN., for those jobs you want to modify. For a complete example, see “Modify a value for a set of jobs” on page 456.
6. For row 2 on the O panel, modify the class to A and the forms to 1234.  
Address SDSF "ISFACT O TOKEN('"TOKEN.2"') PARM(OCCLASS A FORMS 1234)"
7. Allocate all data sets in the job represented by row 5 on the ST panel.  
Address SDSF "ISFACT ST TOKEN('"TOKEN.5"') PARM(NP SA)"

## Return codes for ISFACT

After the ISFACT host environment command completes, a return code is set in the REXX variable RC. The values are:

- 00** The request completed successfully.
- 04** The request completed successfully but not all functions were performed.
- 08** An incorrect or invalid parameter was specified for an option or command.
- 12** A syntax error occurred in parsing a host environment command.
- 16** The user is not authorized to invoke SDSF.
- 20** A request failed due to an environmental error.
- 24** Insufficient storage was available to complete a request.

Note that a return code of 0 indicates that SDSF successfully processed the ISFACT command. It does not indicate that specific functions were authorized or that commands were executed. Check the ISFMSG and ISFMSG2 variables to determine if a request completed. See “Messages” on page 396 for more information.

## Options for action characters and overtypable fields

You can use the following options with ISFACT. Options related to field lists and columns apply to panels that you access with action characters, such as JDS.

**ALTERNATE**

requests the alternate field list. For a discussion of primary and alternate field lists, see “Variable field lists (FLD or ISFFLD)” on page 86.

**ALTERNATE2**

requests the alternate field list for the secondary panel

**COMPACT**

specifies that column data for each row be returned in the SDSFROW stem variable, rather than in a separate stem variable for each column. For more information, refer to “Panel data returned” on page 398.

Note that when working with a panel that you accessed with an action character, you use special variables ISFCOLS2 and ISFTITLES2 rather than ISFCOLS and ISFTITLES. For more information, refer to “Special variables for secondary panels” on page 409.

**DELAYED**

specifies that delayed-access columns be included. Delayed-access columns require I/O to retrieve the data. If you do not include this option, delayed-access columns are omitted. Omitting delayed-access columns may improve performance. For information on which columns are delayed-access, see

- Chapter 4, “Columns on the SDSF panels,” on page 135
- The COLSHELP command in SDSF

**DELAYED2**

specifies that delayed-access columns be included on the secondary panel

**NOMODIFY2**

specifies that row tokens for use in modifying rows should not be returned on the secondary panel. Use this to improve performance if you will not be modifying any values.

**PRIMARY**

requests the primary field list.

If you specify both PRIMARY and ALTERNATE, or neither PRIMARY nor ALTERNATE, the primary and alternate field lists are merged. For a discussion of primary and alternate field lists, see “Variable field lists (FLD or ISFFLD)” on page 86.

**PRIMARY2**

requests the primary field list for a secondary panel.

If you specify both PRIMARY2 and ALTERNATE2, or neither PRIMARY2 nor ALTERNATE2, the primary and alternate field lists are merged, and all the column variables for the panel are available.

**PREFIX *value***

specifies a prefix, *value*, to be added to the beginning of:

- Column name variables
- Token variables
- Variables with names that begin with SDSF, such as SDSFROW.

The prefix is not added to the beginning of other special variable names.

Use PREFIX when you want to ensure that variable names do not conflict, for example, when accessing a secondary panel with an action character from another panel. The default is no prefix. The prefix can be up to 24 characters long, and should not begin with ISF.

**VERBOSE**

adds diagnostic messages to the ISFMSG2 stem variable. The messages describe each row variable created by SDSF.

**WAIT**

specifies that SDSF should wait the full delay interval before retrieving responses to a comand. This option is strongly recommended to ensure the responses are accessible in the ISFULOG special variable. The delay interval is specified with the ISFDELAY variable.

## Special variables for secondary panels

Secondary panels are accessed with action characters from other panels. For example, when you use the ? action character from the Status panel to access the Job Data Set (JDS) panel, JDS is a secondary panel. For secondary panels, ISFACT returns column and row data in the same way that ISFEXEC does. See “Panel data returned” on page 398 for more information.

Many of the special variables for panels that you access with commands have corresponding special variables for secondary panels. The names of the special variables for secondary panels end with a 2. For example, ISFCOLS applies to primary panels, and ISFCOLS2 applies to secondary panels. In addition, there is another set of variables with names beginning with SDSF that perform the same function, but are affected by the PREFIX option, so that their names include the prefix that you specify. When there is a secondary panel or a sequence of secondary panels (for example, JDS accessed from JS accessed from ST) the SDSFxxxx and ISFxxxx2 variables apply to the last panel (JDS, in the example).

In the following list of special variables, the variable name that begin with ISF is followed by the name that begins with SDSF, when one exists.

**ISFACTIONS**

specifies whether the action characters for the current panel should be returned in the ISFRESP stem variable. The values in the ISFRESP variable are in this format: ACTION=*action*, where *action* is the action character or the action character and a description, depending on the option specified on ISFACTIONS. See the SET ACTION command for the valid options. See “List action characters” on page 468 for an example.

**ISFAPPC**

specifies whether transaction data should be included on the panel. See the APPC command.

**ISFCOLS2 / SDSFICOLS (input) and SDSFOCOLS (output)**

**Input:** Specifies the set of columns on the secondary panel for which SDSF should create variables, in this format:

*'column-name column-name...'*

The column names are different than the column titles that are displayed when using SDSF interactively. They are the names used in the FLD statements in ISFPARMS. For a list of column names, see Chapter 4, “Columns on the SDSF panels,” on page 135, or, when running SDSF under ISPF, issue the COLSHELP command.

Each column name you specify must exist in the current field list. Any name specified in the ISFCOLS2 variable that is not in the current field list will be ignored.

The fixed field (the first column on each SDSF panel when using SDSF interactively) is optional, since it will always be included regardless of the setting of ISFCOLS2.

If the ISFCOLS2 variable is not defined, SDSF creates variables for each column on the secondary panel that is in the field list and is not delayed-access, including the fixed field.

**Output:** Lists the columns on the secondary panel that were processed, in this format:

*column-name column-name...*

The names are separated by a blank. The fixed field is always listed first.

Note: the column names do not include the prefix.

#### **ISFDCOLS2 / SDSFDCOLS**

contains the list of delayed-access columns for the secondary panel, in this format:

*column-name column-name...*

#### **ISFDISPLAY**

contains the filtering and sorting criteria, for example,

PREFIX=\* DEST=(ALL) OWNER=\* SYSNAME=SYS1

See the SET DISPLAY command.

#### **ISFDISPLAYMODE**

sets the format of the ISFDISPLAY special variable. See the SET DISPLAY command in the online help. The OFF parameter is not valid in REXX.

#### **ISFFILTER2 / SDSFFILTER**

specifies filter criteria to be applied to the returned variables. Use column names rather than column titles. See the FILTER command in the online help.

#### **ISFRCOLS2 / SDSFRCOLS**

contains the list of related fields (such as Address-Line1 through 4) for the secondary panel, in this format:

*column-name column-name...*

#### **ISFROWS2**

contains the number of rows created for the secondary panel. (This is also found in the column variables, for example, DDNAME.0.)

#### **ISFSORT2 / SDSFSORT**

specifies the sort criteria (up to 10 columns, with ascending or descending order). Use column names rather than column titles. Assigning the value to null sorts the panel using the fixed field (the first column). See the SORT command for other syntax.

#### **ISFTIMEOUT**

specifies the response timeout value for sysplex requests. See the SET TIMEOUT command. (JES2 only)

#### **ISFTITLES2 / SDSFTITLES**

contains the column titles for the secondary panel. The titles are listed in the same order as the column names in the ISFCOLS2 variable. Each title is enclosed in single quotation marks and separated by a blank.

#### **ISFTLINE**

contains the title line from the tabular panel being processed

### ISFUCOLS2 / SDSFUCOLS

contains the list of modifiable columns for the secondary panel. All modifiable columns are included, regardless of whether the user is authorized to modify them.

### ISFULOG

is a stem variable that contains the command echo and responses for system commands generated by action characters, including SAF authorization messages (if supported by the external security manager). Use the WAIT option on the ISFACT command to ensure that the command responses are available in the ISFULOG stem variable.

For more information on special REXX variables, see “Using special variables to invoke SDSF function” on page 428 and “Special variables reference” on page 440.

---

## Browsing output

To browse the output of jobs and checks, you use a combination of host commands, action characters and special REXX variables. For details, refer to the appropriate topic:

- “Browsing output with ISFBROWSE.” You can use this approach to browse the output of jobs and checks. The output data is returned in the ISFLINE stem variable.
- “Browsing jobs with an external utility” on page 414. You can use this approach to browse job output. You allocate the output data sets with special REXX-only action characters, then browse the data sets using EXECIO or a similar utility.
- “Browsing checks with the S action character” on page 415. You can use this approach to browse the output of checks. The output data is returned in the ISFLINE stem variable.

## Browsing output with ISFBROWSE

You can browse the output of jobs and checks using the ISFBROWSE host command, as follows:

```
▶▶—Address SDSF—"—ISFBROWSE—sdsf-command—TOKEN—(—token—)—┌──────────────────┐"—▶▶  
└──────────┘ (—options—)
```

### *sdsf-command*

is the command for the panel. It must be the same SDSF command, including any parameters, that was previously entered with the ISFEXEC command.

### *token*

is a token that identifies the row to be acted upon. The token was previously set by ISFEXEC or ISFACT and must correspond to the panel accessed with *sdsf-command*. Enclose the token in single quotation marks that are not removed by REXX.

For more information, see “Using tokens” on page 406.

### *options*

is an optional list of options. The closing parenthesis is optional.

### **JCL**

Browse just the JCL (jobs only)

### **NOCLOSE**

Leave the data set open for subsequent requests, to avoid the overhead of

closing, unallocating, re-allocating, and re-opening the data set. To undo the allocations, use ISFBROWSE without NOCLOSE and set special variable ISFSTARTLINETOKEN.

#### **VERBOSE**

Add diagnostic messages to stem variable isfmsg2. The messages describe each variable created by SDSF. This can be useful for troubleshooting as you develop REXX execs.

### **Examples of using ISFBROWSE**

The following examples show ISFBROWSE commands you would use after having first issued the appropriate panel command with ISFEXEC. For more complete examples, see “Examples of REXX execs” on page 450.

1. Browse the output for a check on the CK panel. The number of the row is represented by ix.

```
Address SDSF "ISFBROWSE CK TOKEN('TOKEN.ix')"
```

2. Browse just the JCL for a job on the ST panel. The number of the row is represented by x.

```
Address SDSF "ISFBROWSE ST TOKEN('TOKEN.x') (JCL)"
```

3. Browse the output for a job on the DA panel. Leave the data sets open for subsequent browse requests. The number of the row is represented by ix.

```
Address SDSF "ISFBROWSE DA TOKEN('TOKEN.ix') (NOCLOSE)"
```

### **Special variables for use with the ISFBROWSE command**

There are a number of special variables that you can use with the ISFBROWSE command. For information on special REXX variables, see “Using special variables to invoke SDSF function” on page 428 and “Special variables reference” on page 440.

Several of the special variables provide function that corresponds to scrolling through the data, including repositioning to the next or previous data set. For example, you might specify a number of lines that you want to retrieve with each browse request, using ISFLINELIM, then use logic and other special variables to advance through the data, as shown below:

```
isflinelim = 500
do until isfnextlinetoken=''
  Address SDSF "ISFBROWSE ST "TOKEN('token.x')""
  /*****/
  /* Loop through the lines */
  /*****/
  do ix=1 to isfline.0
    say isfline.ix
  end
  isfstartlinetoken = isfnextlinetoken
end
```

Use these special variables with the ISFBROWSE command:

#### **ISFDUPDS**

controls whether duplicate SYSOUT data sets are included. Values are ON and OFF.

#### **ISFFIRSTLINESID**

is the data set identifier of the data set associated with the first line that was returned.

#### **ISFFIRSTLINERECNO**

is the record number within the data set of the first line that was returned.



**ISFFIRSTLINETOKEN**

is a token corresponding to the first line of the data that was returned.

**ISFINPUT**

controls whether SYSIN data sets are included. Values are ON and OFF.

**ISFLASTLINESID**

is the data set identifier of the data set associated with the last line that was returned.

**ISFLASTLINERECNO**

is the record number within the data set of the last line that was returned.

**ISFNEXTLINETOKEN**

is a token corresponding to the next unread line of the data that was returned. It is null when an end-of-file condition is encountered.

**ISFLINE**

contains the data that is returned. It is a stem variable. ISFLINE.0 contains the number of variables.

**ISFLINELIM**

limits the number of ISFLINE stem variables that may be created. The valid values are 0-99999999. A value of zero indicates no limit.

**ISFSTARTLINETOKEN**

specifies the starting line for the data to be returned. Assign a value by setting the variable to either the ISFFIRSTLINETOKEN or ISFNEXTLINETOKEN special variable.

Use these special variables with the ISFBROWSE command for find and scroll functions:

**ISFFIND**

contains a string to be found, up to 255 characters. The find operation is not sensitive to case. Use this with a value of FINDNEXT or FINDPREV in the ISFSCROLLTYPE special variable.

**ISFFINDENDCOL**

specifies the column by which the string specified with the ISFFIND special variable must end. It must be less than ISFFINDSTARTCOL.

**ISFFINDLIM**

specifies the maximum number of lines to search for the string specified with the ISFFIND special variable. Valid values are 1000 through 9999999.

**ISFFINDSTARTCOL**

specifies the column in which the string specified with the ISFFIND special variable must start.

**ISFSCROLL**

is used to reposition the first line of data that is returned.

- For repositioning a number of lines, specify an integer to be used as an offset from the value in the ISFSTARTLINETOKEN special variable. Then, specify a value of UP or DOWN for the ISFSCROLLTYPE special variable. If ISFSTARTLINETOKEN is not specified, the offset is applied to the top of the data set.
- For repositioning to another data set, specify a number to be used as the number of data sets and specify a value of NEXT or PREV for the ISFSCROLLTYPE special variable. The data returned begins with the first

line of the data set. ISFSCROLL defaults to 1 and can be omitted when you specify ISFSCROLLTYPE with NEXT or PREV.

#### **ISFSCROLLTYPE**

is used to reposition the first line of data that is returned. Specify one of these values:

##### **UP or DOWN**

is used with the value in the ISFSCROLL special variable to reposition a number of lines. DOWN is the default.

##### **NEXT or PREV**

is used with the value in the ISFSCROLL special variable to reposition a number of data sets.

**TOP** specifies that the first record returned is the first record of the data. This is the default.

**BOT** requests the bottom, or most recent, data. The last line returned is the last line of data. The first line returned is a function of the value of the ISFLINELIM special variable. For example, if you use BOT with a value of 100 for ISFLINELIM, the last 100 lines of data are returned.

##### **FINDNEXT**

is used with the value in the ISFFIND special variable to reposition to the next line that contains that string. If the ISFSTARTLINETOKEN special variable is not specified, the search begins with the top line.

##### **FINDPREV**

is used with the value in the ISFFIND special variable to reposition to the previous line that contains that string. If the ISFSTARTLINETOKEN special variable is not specified, the search begins with the top line, wraps to the bottom and then searches from there.

### **Return codes for ISFBROWSE**

After the ISFBROWSE host environment command completes, a return code is set in the REXX variable RC. The values are:

- 00** The request completed successfully.
- 04** The request completed successfully but not all functions were performed.
- 08** An incorrect or invalid parameter was specified for an option or command.
- 12** A syntax error occurred in parsing a host environment command.
- 16** The user is not authorized to invoke SDSF.
- 20** A request failed due to an environmental error.
- 24** Insufficient storage was available to complete a request.

Note that a return code of 0 indicates that SDSF successfully processed the ISFBROWSE command. It does not indicate that specific functions were authorized or that commands were executed. Check the ISFMSG and ISFMSG2 variables to determine if a request completed. See "Messages" on page 396 for more information.

## **Browsing jobs with an external utility**

To browse job output from the DA, H, I, JDS, O and ST panels using EXECIO or similar utility, you first allocate the output data sets with special REXX-only action characters. The action characters are:

**SA** Allocate all data sets associated with the item. On the DA, I or ST panels, this will be all data sets in the job. On the O and H panels, it will be all data sets in the output group. On the JDS panel, it will be a single data set.

**SJA**

Allocate the JCL data set

The following special variables describe the results of the allocation that you use with EXECIO or a similar utility:

**ISFDDNAME**

is a stem variable that contains the system-generated DDNAME returned by allocation that is referenced on EXECIO or other utility. It is not the application specified DDNAME that is contained in the DDNAME.x stem variable returned by ISFACT. ISFDDNAME.0 contains a count of the number of variables that follow.

**ISFDSNAME**

is a stem variable that contains the application-specified data set name that has been allocated by SDSF. The variables have a one-to-one correspondence with the variables in ISFDDNAME. Thus, the REXX caller can associate the data set being processed with the system generated DDNAME that has been allocated. ISFDSNAME.0 contains a count of the number of variables that follow.

**ISFLRECL**

is a stem variable that contains the logical record length for the allocated data set and corresponds to the DDNAME listed in ISFDDNAME. ISFLRECL.0 contains a count of the number of variables that follow.

**ISFRECFM**

is a stem variable that contains the record format for the allocated data set and corresponds to the DDNAME listed in ISFDDNAME. ISFRECFM.0 contains a count of the number of variables that follow.

You can also use these special variables:

**ISFDUPDS**

controls whether duplicate SYSOUT data sets are included.

**ISFINPUT**

controls whether SYSIN data sets are included.

### Usage notes

- SDSF allocates SYSOUT data sets using the FREE=CLOSE attribute. This causes the system to free the allocation when the data set is closed by the application. If an application causes a data set to be allocated but does not open it, it should free the allocation explicitly. Failure to free the data sets may result in the allocation limit being reached and further allocations being rejected.
- The REXX caller should also ensure that the DYNAMNBR JCL keyword is set to a high enough limit to accommodate all of the expected allocations done by the exec.
- You can use the FINIS option of EXECIO to close the data set when EXECIO completes.

## Browsing checks with the S action character

To browse check output from the CK or CKH panel, you can use the S action character on the ISFACT command, along with the following special variable:

## ISFLINE

is a stem variable that contains lines of data in response to a browse request. ISFLINE.0 contains the number of stem variables that follow.

## Examples of browsing output

See “Browse job output with EXECIO” on page 457 and “Browse check output from the CK panel” on page 464.

---

## Printing output

To print the output of jobs and checks through REXX, you use a combination of the X action character, with ISFACT, and special REXX variables. The PRINT command is not supported in the REXX environment.

The forms of the X action character are:

### X and XC

Print all data sets using default settings; XC closes the print file after printing.

### XS and XSC

Print all data sets to SYSOUT using attributes specified in special variables; XSC closes the print file after printing.

The special variables define the attributes of the SYSOUT print file. They correspond to the fields on the Open Print pop-up. The special variables are:

Table 175. Special REXX Variables for Printing to SYSOUT

| Variable         | Purpose                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISFPRTCCASA      | How SDSF handles carriage control for printing:<br><b>ON</b> Always insert ASA carriage control characters<br><b>OFF</b> Handle carriage control based on the record format of the data set being printed: <ul style="list-style-type: none"><li>• If the record format includes A, then the print function uses ASA (ANSI) carriage control.</li><li>• If the record format includes M, then the print function uses machine carriage control.</li><li>• Otherwise, SDSF removes carriage control characters if they are present in the source.</li></ul> |
| ISFPRTCLASS      | SYSOUT class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ISFPRTCOPIES     | Copies class                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| ISFPRTDEST       | Destination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| ISFPRTFCB        | FCB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| ISFPRTFORMDEF    | FORMDEF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ISFPRTFORMS      | Forms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ISFPRTLRECL      | Logical record length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| ISFPRTOUTDESNAME | Output descriptor name to be used when creating the file                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| ISFPRTPAGEDEF    | PAGEDEF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| ISFPRTPRTMODE    | Process mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

Table 175. Special REXX Variables for Printing to SYSOUT (continued)

| Variable         | Purpose                                              |
|------------------|------------------------------------------------------|
| ISFPRTRECFM      | Record format                                        |
| ISFPRTSOURCEATTS | Whether to use attributes of the source for printing |
| ISFPRTUCS        | UCS                                                  |
| ISFPRTWRITER     | Writer name                                          |

#### **XD and XDC**

Print all data sets to a data set using attributes specified in special variables; XDC closes the print file after printing.

The special variables name attributes of the data set. They correspond to the fields on the Open Print Data Set pop-up.

Table 176. Special REXX Variables for Printing to a Data Set

| Variable       | Purpose                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Default                                                                                                    |
|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| ISFPRTCCASA    | How SDSF handles carriage control for printing. For details, refer to the description of ISFPRTCCASA in Table 175 on page 416.                                                                                                                                                                                                                                                                                                                              |                                                                                                            |
| ISFPRTBLKSIZE  | Block size for new data sets                                                                                                                                                                                                                                                                                                                                                                                                                                | 003120                                                                                                     |
| ISFPRTDATACLAS | Data class for new data sets                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                            |
| ISFPRTDIRBLKS  | Number of directory blocks for new data sets                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                            |
| ISFPRTDISP     | Allocation disposition for data sets                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                            |
| ISFPRTDSNAME   | Data set name. If the name is not enclosed in quotation mark, the name begins with the current user ID.                                                                                                                                                                                                                                                                                                                                                     |                                                                                                            |
| ISFPRTDSNTYPE  | Data set name type:<br><b>LIBRARY or LIB</b> allocates a partitioned data set extended (PDSE)<br><b>PDS</b> allocates a partitioned data set<br><b>LARGE</b> allocates a large format data set<br><b>EXTREQ</b> indicates that an extended sequential data set is required<br><b>EXTPREF</b> indicates that an extended sequential data set is preferred<br><b>BASIC</b> indicates that neither an extended nor a large format data set is to be allocated. | A partitioned or sequential data set is allocated based on the data set characteristics that are provided. |
| ISFPRTTEXTATTR | Extended attributes option:<br><b>NO</b> The data set cannot have extended attributes and reside in EAS<br><b>OPT</b> The data set can have extended attributes and reside in EAS.                                                                                                                                                                                                                                                                          | Based on the data type                                                                                     |
| ISFPRTLRECL    | LRECL for new data sets                                                                                                                                                                                                                                                                                                                                                                                                                                     | 0000240                                                                                                    |
| ISFPRTMEMBER   | Member name                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                            |

Table 176. Special REXX Variables for Printing to a Data Set (continued)

| Variable        | Purpose                                      | Default  |
|-----------------|----------------------------------------------|----------|
| ISFPRTMGMTCLAS  | Management class for new data sets           |          |
| ISFPRTPRIMARY   | Primary space allocation for new data sets   | 00000500 |
| ISFPRTRECFM     | Record format                                | VBA      |
| ISFPRTSECONDARY | Secondary space allocation for new data sets | 00000500 |
| ISFPRTSPACETYPE | Space units for allocating for new data sets | BLKS     |
| ISFPRTSTORCLAS  | Storage class for new data sets              |          |
| ISFPRTUNIT      | Unit for new data sets                       |          |
| ISFPRTVOLSER    | Volume serial for new data sets              |          |

### XF and XFC

Print all data sets to a file (DDNAME) using attributes specified in special variables; XFC closes the print file after printing. The special variables name attributes of the file.

Table 177. Special Variables for Printing to a File

| Variable     | Purpose |
|--------------|---------|
| ISFPRTDDNAME | DDNAME  |

In the event of an error, such as the data being invalid or missing, SDSF issues a message that is available in the ISFMSG2 stem variable. In addition, the ISFMSG variable may contain a short error message.

Note that the print data set is always closed after the request regardless of whether the X action character includes the C option. This is because all SDSF requests are independent; the print data set is closed when SDSF terminates.

## Examples of printing

See "Print to SYSOUT" on page 467.

### Getting all of the values for a single row

You can request all of the column values for a specific row using the ISFGET host environment command, as follows:

```
▶▶—Address SDSF—"—ISFGET—command—| Token | _____"_____▶▶
                    |_____|
                    |(options)—|
```

#### Token:

```
|—TOKEN—('"—token—"' )—|_____|
```

#### *command*

is the command for the panel. It must be the same SDSF command, including any parameters, that was previously entered with the ISFEXEC command.

#### *token*

identifies the row to be acted upon. The token was previously set by ISFEXEC

or ISFACT for the panel accessed with *command*. Enclose the token in single quotation marks. For more information on tokens, see “Using tokens” on page 406.

*option*

is an optional list of options for the command. The closing parenthesis is optional. The options that you use depend on the type of the command you issue, and are explained in the topics that follow.

## Return codes for ISFGET

After the ISFGET host environment command completes, a return code is set in the REXX variable RC. The values are:

- 00** The request completed successfully.
- 04** The request completed successfully but not all functions were performed.
- 08** An incorrect or invalid parameter was specified for an option or command.
- 12** A syntax error occurred parsing a host environment command.
- 16** The user is not authorized to invoke SDSF.
- 20** A request failed due to an environmental error.
- 24** Insufficient storage was available to complete a request.

Note that a return code of 0 indicates that SDSF successfully processed the ISFGET command. It does not indicate that specific functions were authorized or that commands were executed. Check the ISFMSG and ISFMSG2 variables to determine if a request completed. See “Messages” on page 396 for more information.

## Data returned for ISFGET

When you use an action character to access a secondary panel, such as JDS, ISFGET returns column and row data in the same way that ISFEXEC does. See “Panel data returned” on page 398 for more information.

## Options for getting all of the values for a row

You can use the following options with ISFGET:

### **ALTERNATE**

requests the alternate field list for the panel

### **ALTERNATE2**

requests the alternate field list for the secondary panel

### **COMPACT**

specifies that column data for each row be returned in the SDSFROW stem variable, rather than in a separate stem variable for each column. This can dramatically reduce the number of variables, and therefore the amount of storage, required to satisfy a request for a panel. For more information, refer to “Panel data returned” on page 398.

### **DELAYED**

specifies that delayed-access columns be included on the panel

### **DELAYED2**

specifies that delayed-access columns be included on the secondary panel

**NOMODIFY2**

specifies that row tokens for use in modifying rows should not be returned on the secondary panel. Use this to improve performance if you will not be modifying any values.

**PRIMARY**

requests the primary field list.

If you specify both PRIMARY and ALTERNATE, or neither PRIMARY nor ALTERNATE, the primary and alternate field lists are merged, and all the column variables for the panel are available.

**PRIMARY2**

requests the primary field list for a secondary panel.

If you specify both PRIMARY2 and ALTERNATE2, or neither PRIMARY2 nor ALTERNATE2, the primary and alternate field lists are merged, and all the column variables for the panel are available.

**PREFIX *value***

specifies a prefix for column name and TOKEN variables that are created; use this to ensure that variable names do not conflict. The prefix can be up to 24 characters long, and should not begin with ISF.

**VERBOSE**

adds diagnostic messages to the ISFMSG2 stem variable. The messages describe each row variable created by SDSF.

## Special variables with ISFGET

For information on special REXX variables, see "Using special variables to invoke SDSF function" on page 428 and "Special variables reference" on page 440.

## Browsing the system log with ISFLOG

You browse both the single-system SYSLOG and the sysplex-wide OPERLOG using the ISFLOG host environment command.

When used with the SYSLOG, the ISFLOG command processes the JES logical log.

The syntax of the ISFLOG command is as follows:

**SYSLOG**

```

▶▶—Address SDSF—"—ISFLOG—ALLOC—TYPE—(—SYSLOG—)—(—option—)—"
      |READ|      |
      |OPERLOG|
  
```

**OPERLOG**

```

▶▶—Address SDSF—"—ISFLOG—READ—TYPE—(—OPERLOG—)—(—option—)—"
      |
      |
  
```

**ALLOC**

indicates that the logical SYSLOG is to be allocated for use with a utility such as EXECIO. The allocation is done with the FREE=CLOSE option so that the file is automatically de-allocated when closed.

Use ALLOC with these special stem variables:



- ISFDDNAME contains the ddname that is returned
- ISFSDSNAME contains the data set name that is returned

#### **READ**

indicates that the system log is to be read. The records are returned in the ISFLINE stem variable. ISFLINE.0 contains the number of variables.

By default, SDSF retrieves the records for the current day. You can customize the results with these special variables:

- ISFLINELIM sets a limit on the number of variables created.
- ISFLOGSTARTTIME, ISFLOGSTARTDATE, ISFLOGSTOPTIME and ISFLOGSTOPDATE define the date and time range for the records. Use them to ensure that your date and time range is reasonable, so that an excessive number of variables is not created.

When these special variables are used, SDSF positions the SYSLOG as near as possible to the requested record. However, due to the precision used for time stamps and the time the record is actually written to SYSLOG, it is possible that this may be several lines away from the desired record.

- Variables that allow you to simulate scrolling through the data. These include ISFSCROLL, ISFSCROLLYPE, ISFNEXTLINETOKEN and ISFSTARTLINETOKEN.

For details on the special variables, refer to “Special variables for use with the ISFLOG command” on page 422.

#### **TYPE(SYSLOG | OPERLOG)**

is optional and names the type of system log to be used:

##### **SYSLOG**

specifies the single-system SYSLOG. Use the special variable ISFSYSID to indicate the member to be processed.

##### **OPERLOG**

specifies the sysplex-wide OPERLOG.

##### *option*

is optional. See “Options for the ISFLOG command” on page 422.

Use the special variable ISFSYSID to indicate the member to be processed.

## **Examples of using ISFLOG**

The following examples illustrate how to use the ISFLOG command.

1. Allocate the logical SYSLOG for use with EXECIO.  
Address SDSF "ISFLOG ALLOC TYPE(SYSLOG)"
2. Read the logical SYSLOG into the ISFLINE special variable.  
Address SDSF "ISFLOG READ TYPE(SYSLOG)"
3. Read the OPERLOG into the ISFLINE special variable.  
Address SDSF "ISFLOG READ TYPE(OPERLOG)"
4. Read the logical SYSLOG into the ISFLINE special variable and the WTORS into the ISFWTOR special variable.  
Address SDSF "ISFLOG READ TYPE(SYSLOG) (WTOR)"

See also “Work with the last 24 hours of SYSLOG” on page 469 and “Work with the current day of the system log” on page 469.

## Options for the ISFLOG command

### VERBOSE

adds diagnostic messages to the ISFMSG2 stem variable. The messages describe each row variable created by SDSF.

### WTOR

causes any WTORs to be returned in the ISFWTOR. stem variable.

## Special variables for use with the ISFLOG command

There are a number of special variables that you can use with the ISFLOG command. For information on special REXX variables, see "Using special variables to invoke SDSF function" on page 428 and "Special variables reference" on page 440.

Several of the special variables provide function that corresponds to scrolling through the data. For example, you might specify a number of lines that you want to retrieve with each browse request, using ISFLINELIM, then use logic and other special variables to advance through the data, as shown below:

```
isflinelim = 500
do until isfnextlinetoken=''
  Address SDSF "ISFLOG READ TYPE(SYSLOG)"
  /*****/
  /* Loop through the lines */
  /*****/
  do ix=1 to isfline.0
    say isfline.ix
  end
  isfstartlinetoken = isfnextlinetoken
end
```

Use these special variables with the ISFLOG command:

### ISFCOLOR

is a stem variable containing a single-character abbreviation for the color for each line. The possible values come from first letter of these colors: Red, Green, Blue, White, Yellow, Turquoise, Pink. OPERLOG only.

### ISFDATE

specifies the date format, including the separator character, for special variables that take a date as input. It accepts any format valid with the SET DATE command. See the SET DATE command in the online help for the valid formats.

### ISFDESCODE

is a stem variable containing the descriptor codes for each line. When there are multiple descriptor codes, they are turned in a list, separated by blanks. OPERLOG only.

### ISFFIRSTLINEDATE

is the date associated with the first line that was returned.

### ISFFIRSTLINEDSID

is the data set identifier of the data set associated with the first line that was returned. SYSLOG only.

### ISFFIRSTLINEJOBID

is the job ID associated with the first line that was returned. SYSLOG only.

**ISFFIRSTLINERECNO**

is the record number within the data set of the first line that was returned. SYSLOG only.

**ISFFIRSTLINETIME**

is the time associated with the first line that was returned.

**ISFFIRSTLINETOKEN**

is a token corresponding to the first line of the data that was returned.

**ISFHIGHLIGHT**

is a stem variable containing a single-character abbreviation for the highlighting for each line. The possible values come from the first letter of these highlight values: Blink, Reverse, Underline and None. OPERLOG only.

**ISFINTENSITY**

is a stem variable containing a single-character abbreviation for the intensity for each line. The possible values come from the first letter of these intensities: High and Low. OPERLOG only.

**ISFLASTLINE DATE**

is the date associated with the last line that was returned.

**ISFLASTLINE SID**

is the data set identifier of the data set associated with the last line that was returned. SYSLOG only.

**ISFLASTLINE JOBID**

is the job ID associated with the last line that was returned. SYSLOG only.

**ISFLASTLINERECNO**

is the record number within the data set of the last line that was returned. SYSLOG only.

**ISFLASTLINETIME**

is the time associated with the last line that was returned.

**ISFLINE**

contains the data that is returned. It is a stem variable. ISFLINE.0 contains the number of variables.

**ISFLINELIM**

limits the number of ISFLINE stem variables that may be created. The valid values are 0-99999999. A value of zero indicates no limit.

**ISFLOGSTARTDATE**

specifies the starting date for records returned by the ISFLOG command, in the current date format (see the ISFDATE special variable) or *yyyy.ddd*. Leading zeros are not required. It must be less than the ending date. The default is the current day.

**ISFLOGSTARTTIME**

specifies the starting time for records returned by the ISFLOG command, in *hh:mm:ss.th* format. Only *hh:mm* is required. Leading zeros are not required. This is the local time corresponding to the first record to be returned. It must be less than the ending time. The default is 00:00:00.00.

**ISFLOGSTOPDATE**

specifies the ending date for records returned by the ISFLOG command, in the current date format (see the ISFDATE special variable) or *yyyy.ddd*. Leading zeros are not required. The default is the current day.

**ISFLOGSTOPTIME**

specifies the ending time for records returned by the ISFLOG command, in *hh:mm:ss.th* format. Only *hh:mm* is required. Leading zeros are not required. This is the local time corresponding to the last record to be returned. The default is 23:59:59.99.

**ISFNEXTLINETOKEN**

is a token corresponding to the next unread line of the data that was returned. It is null when an end-of-file condition is encountered.

**ISFSTARTLINETOKEN**

specifies the starting line for the data to be returned. Assign a value by setting the variable to either the ISFFIRSTLINETOKEN or ISFNEXTLINETOKEN special variable.

**ISFSYSID**

with the SYSLOG, names the member to be processed by the ISFLOG command. See the SYSID command in the online help.

**ISFWTOR**

is a stem variable that contains the WTORS, if requested with the WTOR option. ISFWTOR.0 contains the number of variables.

Use these special variables with the ISFLOG command for find and scroll functions:

**ISFFIND**

contains a string to be found, up to 255 characters. The find operation is not sensitive to case. Use this with a value of FINDNEXT or FINDPREV in the ISFSCROLLTYPE special variable.

**ISFFINDENDCOL**

specifies the column by which the string specified with the ISFFIND special variable must end. It must be less than ISFFINDSTARTCOL.

**ISFFINDLIM**

specifies the maximum number of lines to search for the string specified with the ISFFIND special variable. Valid values are 1000 through 9999999.

**ISFFINDSTARTCOL**

specifies the column in which the string specified with the ISFFIND special variable must start.

**ISFSCROLL**

is used to reposition the first line of data that is returned. Specify an integer to be used as an offset from the value in the ISFSTARTLINETOKEN special variable. Then, specify a value of UP or DOWN for the ISFSCROLLTYPE special variable. If ISFSTARTLINETOKEN is not specified, the offset is applied to the top of the data set.

**ISFSCROLLTYPE**

is used to reposition the first line of data that is returned. Specify one of these values:

**UP or DOWN**

is used with the value in the ISFSCROLL special variable. DOWN is the default.

**TOP** specifies that the first record returned is the first record of the data. This is the default.

**BOT** requests the bottom, or most recent, data. The last line returned is the

last line of data. The first line returned is a function of the value of the ISFLINELIM special variable. For example, if you use BOT with a value of 100 for ISFLINELIM, the last 100 lines of data are returned.

#### FINDNEXT

is used with the value in the ISFFIND special variable to reposition to the next line that contains that string. If the ISFSTARTLINETOKEN special variable is not specified, the search begins with the top line.

#### FINDPREV

is used with the value in the ISFFIND special variable to reposition to the previous line that contains that string. If the ISFSTARTLINETOKEN special variable is not specified, the search begins with the top line, wraps to the bottom and then searches from there.

## Return codes for ISFLOG

After the ISFLOG host environment command completes, a return code is set in the REXX variable RC. The values are:

- 00 The request completed successfully.
- 04 The request completed successfully but not all functions were performed.
- 08 An incorrect or invalid parameter was specified for an option or command.
- 12 A syntax error occurred parsing a host environment command.
- 16 The user is not authorized to invoke SDSF.
- 20 A request failed due to an environmental error.
- 24 Insufficient storage was available to complete a request.

Note that a return code of 0 indicates that SDSF successfully processed the ISFLOG command. It does not indicate that specific functions were authorized or that commands were executed. Check the ISFMSG and ISFMSG2 variables to determine if a request completed. See "Messages" on page 396 for more information.

---

## Issuing system commands with ISFSLASH

You issue system commands using the ISFSLASH host environment command as follows:

```
►►—Address SDSF—"—ISFSLASH—┌(—stem—)┐┌(—options—)┐"—————►►
```

#### *stem*

is the name of a stem variable containing the list of system commands to be issued. The 0 variable of the stem must contain a count of the variables in the stem. The variable *stem* should:

- End in a period, to allow the commands to be put into compound variables
- Be enclosed in parentheses, to indicate that it is a stem variable
- Be 1 to 128 characters long
- Not start with the characters ISF

#### *list*

is a list of one or more system commands to be issued, separated by a blank or a comma.

Enclose a command in single quotation marks, whether you are issuing it directly through ISFSLASH or using a stem variable, if the command:

- Contains special characters or embedded blanks
- Requires mixed case. Although SDSF preserves the case of the command text, Consoles folds the text to uppercase in issuing the command, unless it is enclosed in single quotation marks.

The W and I prefix parameters of the slash (/) command are not supported. Use the WAIT and INTERNAL options instead. See “Options for slash (/) commands” for more information.

The system commands can be up to 126 characters in length (the maximum length allowed by Consoles).

## Examples of using ISFSLASH

The following examples illustrate how to issue a command with ISFSLASH.

1. Issue a single command. Wait the full delay interval (specified with variable ISFDELAY) for responses, rather than returning when the first response is received.

```
Address SDSF ISFSLASH "$da (WAIT)"
```

2. Issue a single command using a stem variable.

```
cmd.0=1  
cmd.1='d r,l'  
Address SDSF ISFSLASH "(cmd.)"
```

3. Issue multiple commands. Because the commands contain blanks, enclose them in single quotation marks.

```
Address SDSF ISFSLASH "$da , 'd a,l' 'd t'"
```

4. Issue multiple commands using a stem variable. SDSF will wait the full delay interval for the response.

```
mycmd.0=2  
mycmd.1='$DA'  
mycmd.2='d t'  
Address SDSF ISFSLASH "(mycmd.) (WAIT)"
```

See also “Issue system commands using ISFSLASH” on page 468.

## Options for slash (/) commands

### INTERNAL

specifies that console ID 0 (INTERNAL) should be used to issue the command

### WAIT

specifies that SDSF should wait the full delay interval before retrieving responses. This option is strongly recommended to ensure the responses are accessible in the ISFULOG special variable. The delay interval is specified with the ISFDELAY variable.

## Special variables for slash (/) commands

Use special variables to set options such as the delay limit and the console name. Where the variable is associated with an SDSF command, the parameters for the variable are the same as for the command, with the exception that the ? parameter is not supported in REXX. Substitute the variable for the command, for example:

```
Command: SET DELAY 5
```

```
Variable: isfdelay="5"
```

For the syntax of commands, see the online help. For information on special REXX variables, see “Using special variables to invoke SDSF function” on page 428 and “Special variables reference” on page 440.

#### **ISFCMDLIM**

limits the number of commands that may be issued through ISFSLASH. The limit is a value from 0-99999999 where 0 means no limit. The default is 0. If the number of stem variables exceeds the limit, all commands up to and including the limit are issued.

#### **ISFCONMOD**

controls console name modification. By default it is on, which means that, when SDSF needs to activate an extended console and the default console name is already in use, SDSF attempts to activate a new console with a modified name. For more information, refer to the SET CONMOD command in the online help and “Issuing MVS and JES commands” on page 358.

If you run a REXX exec while using SDSF interactively, you should not disable console modification, to avoid an activation failure caused by the required console already being in use.

#### **ISFCONS**

specifies a name for the extended console for the user session log (ISFULOG stem variable). Refer to the SET CONSOLE command in the online help for more information.

If you run a REXX exec while using SDSF interactively and you have disabled console modification, you should specify a unique console name with ISFCONS, to avoid an activation failure caused by the required console already being in use.

#### **ISFDELAY**

specifies the response delay limit for system commands. Refer to the SET DELAY command in the online help for more information.

#### **ISFULOG**

is a stem variable that contains the MVS system command echo and any responses generated during the session, including SAF authorization messages (if supported by the external security manager). ISFULOG.0 contains a count of the number of stem variables that follow.

For more information, see “Issuing commands with ISFEXEC” on page 395.

## **Return codes for ISFSLASH**

After the ISFSLASH host environment command completes, a return code is set in the REXX variable RC. The values are:

- 00** The request completed successfully.
- 04** The request completed successfully but not all functions were performed.
- 08** An incorrect or invalid parameter was specified for an option or command.
- 12** A syntax error occurred in parsing a host environment command.
- 16** The user is not authorized to invoke SDSF.
- 20** A request failed due to an environmental error.
- 24** Insufficient storage was available to complete a request.

Note that a return code of 0 indicates that SDSF successfully processed the ISFEXEC command. It does not indicate that specific functions were authorized or that commands were executed. Check the ISFMSG and ISFMSG2 variables to determine if a request completed. See “Messages” on page 396 for more information.

---

## Using special variables to invoke SDSF function

Much of the function that SDSF commands provide when you use SDSF interactively is supported in the REXX environment by special REXX variables.

The special variables use the following format:

► *variable-name* = '*parameters*' ◄

The parameters for the variable are the same as for the associated command, with the exception that the ? parameter is not supported in REXX. The values of special variables are not saved across sessions (or invocations) in the REXX environment. The special variable names that begin with SDSF are affected by the PREFIX option of ISFEXEC or ISFACT, but no others are affected.

Special variable names are not case-sensitive.

Values specified with special variables do not have the 42-character (or, in the case of slash commands, 126-character) limit that commands entered with ISFEXEC have.

Where the variable is associated with an SDSF command, the parameters for the variable are the same as for the command, with the exception that the ? parameter is not supported in REXX. Substitute the variable for the command, for example:

Command: PREFIX RJONES\*  
Variable: isfprefix="RJONES\*"

For the syntax of commands, see the online help. For a complete list of special REXX variables, see “Special variables reference” on page 440.

To drop SDSF special variables (that is, unassign the variables and restore them to their original undefined state) use the ISFRESET() function. The option to use with ISFRESET corresponds to the variable type (Input, InOut or Output), indicated in the table. The variables for printing are all type Input. For more information, see “Dropping special variables with ISFRESET” on page 431.

The variables are grouped here by command type:

- “SDSF command”
- “Filter commands” on page 429
- “Options commands” on page 430
- “Trace commands” on page 431

### SDSF command

Use the following special variables for function that is equivalent to the parameters on the SDSF command.



**ISFSERVER**

names the SDSF server. See the SERVER parameter in “Global initialization parameters (OPTIONS or ISFPMAC)” on page 22.

**ISFJESNAME**

names the JES2 subsystem to process. See the JESNAME parameter in “Global initialization parameters (OPTIONS or ISFPMAC)” on page 22.

**ISFJES3NAME**

names the JES3 subsystem to process. See the JES3NAME parameter in “Global initialization parameters (OPTIONS or ISFPMAC)” on page 22.

## Filter commands

Use the following special variables for function that is equivalent to the filter commands.

For some variables with names that begin with ISF, there are corresponding variables with names that begin with SDSF. These perform the same function, but are affected by the PREFIX option, so that their names include the prefix that you specify. In addition, if one or more secondary panels exists, these variables apply to the last secondary panel, rather than the panel that was accessed with a command. In the list that follows, these variable names are shown after the names that begin with ISF.

**ISFDEST**

specifies up to four destinations to be used for filtering. Each destination can be up to the maximum acceptable length for a destination. See the DEST command in the online help for syntax, but note these differences:

- The length of the value specified with ISFDEST can exceed the 42-character limit of the DEST command
- When specifying multiple destinations with ISFDEST, separate the destinations with a blank. Do not use the + operand used with the command.

**ISFFILTER / SDSFFILTER**

specifies filter criteria to be applied to the returned variables. Use the column names rather than the column titles. See the FILTER command in the online help. Use ISFFILTERMODE to specify the AND or OR relationship between filters.

**ISFFILTERMODE / SDSFFILTERMODE**

specifies a relationship between filters, both within a column and between columns. The relationship can be either AND or OR.

**ISFINPUT**

controls whether SYSIN data sets are returned. See the INPUT command in the online help.

**ISFOWNER**

specifies the owner to be used to limit the returned variables. See the OWNER command in the online help.

**ISFPREFIX**

specifies the job name to be used to limit the returned variables. See the PREFIX command in the online help.

**ISFSYSNAME**

specifies the system to be used to limit sysplex requests. See the SYSNAME command in the online help.

## Options commands

Use the following special variables for function that is equivalent to the options commands, such as the SET commands.

### ISFACTIONS

specifies whether the action characters for the current panel should be returned in the ISFRESP stem variable. The values in the ISFRESP variable are in this format: ACTION=*action*, where *action* is the action character or the action character and a description, depending on the option specified on ISFACTIONS. See the SET ACTION command in the online help for the valid options. See “List action characters” on page 468 for an example.

### ISFCKLIM

specifies the limit for the number of instances of a check to be shown on the CKH panel.

### ISFCOMMOD

controls console name modification. By default it is on, which means that, when SDSF needs to activate an extended console and the default console name is already in use, SDSF attempts to activate a new console with a modified name. For more information, refer to the SET CONMOD command in the online help and “Issuing MVS and JES commands” on page 358.

If you run a REXX exec while using SDSF interactively, you should not disable console modification, to avoid an activation failure caused by the required console already being in use.

### ISFCONS

specifies a name for the extended console for the user session log (ISFULOG stem variable). Refer to the SET CONSOLE command in the online help for more information.

If you run a REXX exec while using SDSF interactively and you have disabled console modification, you should specify a unique console name with ISFCONS, to avoid an activation failure caused by the required console already being in use.

### ISFDATE

specifies the date format, including the separator character, for special variables used with the ISFLOG command that take a date as input. See the SET DATE command in the online help for the valid formats.

### ISFDELAY

specifies the timeout for command responses. See the SET DELAY command in the online help.

### ISFDISPLAY

contains the filtering and sorting criteria, for example,

```
PREFIX=* DEST=(ALL) OWNER=* SYSNAME=
```

See the SET DISPLAY command in the online help.

### ISFDISPLAYMODE

sets the format of the ISFDISPLAY special variable. See the SET DISPLAY command in the online help. The OFF parameter is not valid in REXX.

### ISFDUPDS

controls whether duplicate SYSOUT data sets are included.

**ISFINPUT**

controls whether SYSIN data sets are returned. See the INPUT command in the online help.

**ISFSCHARS**

specifies generic and placeholder characters used for pattern matching. See the SET SCHARS command in the online help.

**ISFTIMEOUT**

specifies the timeout interval for sysplex data. See the SET TIMEOUT command in the online help.

## Trace commands

Use the following special variables for function that is equivalent to the SET SECTRACE command.

**ISFSECTRACE**

specifies an option to be used when enabling SDSF security trace

**ISFMSG2**

contains security trace messages, if you specified ISFSECTRACE ON

**ISFULOG**

contains security trace messages, if you specified ISFSECTRACE WTP

For more information, refer to "Diagnosing security" on page 18.

Use the following special variables for function that is equivalent to the TRACE command.

**ISFTRACE**

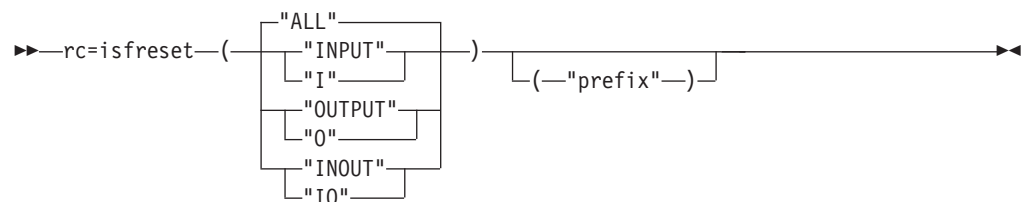
specifies a trace option to be used when enabling SDSF trace

**ISFTRMASK**

specifies a trace mask to be used when enabling SDSF trace

## Dropping special variables with ISFRESET

You drop special variables using the ISFRESET() function. This unassigns the variables and restores them to their original undefined state. The syntax of ISFRESET is as follows:

**ALL**

all special variables. ALL is the default.

**INPUT or I**

all input special variables.

**OUTPUT or O**

all output special variables.

**INOUT or IO**

all input/output special variables.

**prefix**

is the prefix for the special variables that are to be dropped. Only special variables with that prefix for the specified type are dropped.

ISFRESET does not require access to SDSF and so no authorization is required to use it. ISFRESET is not dependent on ISFCALLS and can be issued at any point in the exec. However, it is most useful when issued prior to an Address SDSF command.

For a complete list of special variables, refer to “Special variables reference” on page 440.

**Result codes for ISFRESET**

After the ISFRESET completes, a result code is set in the REXX variable RC. The values are:

- 0 The request completed successfully.
- 1 Environment error (for example, REXX is not running).
- 2 Syntax error occurred, for example, invalid parameter.

---

**Invoking a REXX exec with an action character**

Use the % action character to invoke a REXX exec from a tabular panel. The syntax is:

*%(exec-name user-arguments)*

Under ISPF, % by itself, or with a trailing +, displays a pop-up on which you can type the exec name and arguments. The pop-up preserves the case of the arguments. You can expand the NP column with +*n*, where *n* is 4-20.

% is not valid on the OD panel or from the command line.

The exec must be in a data set that is allocated to DDNAME SYSEXEC or SYSPROC.

When creating an exec to be run with the % action character, you use the same statements and special variables as you do for an exec that runs outside of SDSF. However, there are some key differences. For example, an exec to used with the % action character doesn't need an ISFEXEC statement to access the current panel, and it obtains the row token as an argument, rather than in the TOKEN. stem variable.

Execs generated by the RGEN command are intended to be run outside of SDSF, and not with the % action character.

**Arguments**

All execs invoked with the % action character are passed fixed arguments:

1. Current panel name (such as ST or DA)
2. Primary panel name (needed if the current panel is a secondary panel, accessed with an action character)
3. Token of the row for which you issued the % action character

4. Command that accessed the primary panel, including parameters as character hex because the argument may contain embedded blanks. Use the REXX built-in function `x2c` to restore to the original value.
5. Open left parenthesis

The panel names for primary panels are the command names (for example ST or DA). For panels that can be accessed only with action characters, the names are the same as those used with COLSHELP:

**CKH** Check History  
**JD** Job Device  
**JDP** Job Dependency  
**JDS** Job Data Set  
**JM** Job Memory  
**JS** Job Step  
**JY** Job Delay

You pass additional arguments to the exec by typing them following the exec name, for example:

```
NP          JOBNAME JobID
%myexec x y SRB21FLI JOB17391
```

This invokes exec myexec against the row, with user arguments `x` and `y`, passed as a string. The exec must parse the string to obtain `x` and `y`.

## Querying the environment

You can use `isfquery` to query the environment and return the associated REXX special variables. The syntax is `isfquery("option")`, where *option* is:

**none** Test if the environment allows special variables to be provided. Code this is `rc=isfquery()`, with no value in the parentheses. `rc=0` indicates the environment allows special variables to be provided.

**ALL** All special variables

**INIT** Special variables for SDSF settings, such as filters: ISFDEST, ISFJESNAME, ISFOWNER, ISFPREFIX, ISFSERVER

*variable,variable,...*

List of special variables. Enclose each in quotation marks, for example, "ISFPREFIX", "ISFOWNER"

**WHO** Special variables corresponding to the WHO command:

**ISFGLOBAL**  
JES3 global

**ISFGLOBALREL**  
Global level

**ISFGRPINDEX**  
Group index

**ISFGRPNAME**  
Group name

**ISFISPFREL**  
ISPF level

**ISFJESNAME**  
JES name

**ISFJESREL**  
JES level

**ISFJESTYPE**  
JES type

**ISFJES3NAME**  
JES3 name

**ISFMEMBER**  
JES member

**ISFMVSREL**  
MVS level

**ISFPROCNAME**  
Logon procedure

**ISFREL**  
SDSF level

**ISFRMFREL**  
RMF/DA

**ISFSECLABEL**  
Security label

**ISFSERVER**  
SDSF server name

**ISFSYSPLEX**  
Sysplex name

**ISFSYSTEM**  
System name

**ISFTERMINAL**  
Terminal ID

**ISFUSERID**  
User ID

For a complete example, refer to “Invoking an exec with the % action character” on page 473.

---

## SDSF with REXX reference

This topic describes the REXX support for SDSF function.

### SDSF commands reference

The SDSF commands and their use in REXX are described in Table 178 on page 435. For the syntax of the commands, see the online help. For quick access to command syntax, use this SEARCH command from the SDSF command line:

```
SEARCH 'FORMAT: command-name'
```

where *command-name* is the command name, for example, DA or PREFIX.

Table 178. SDSF Commands and REXX

| Command | Purpose                                          | Use on ISFEXEC | Use on ISFACT | REXX Variable               | Notes                                                                                                                                                                                 |
|---------|--------------------------------------------------|----------------|---------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| /       | Issue MVS command                                | Yes            | No            |                             | The preferred method is to use ISFLASH.                                                                                                                                               |
| ?       | Switch between primary and alternate field lists | No             | No            |                             | Not supported in REXX. See the PRIMARY, ALTERNATE and DELAYED options of the ISFEXEC command and the PRIMARY2, ALTERNATE2 and DELAYED2 options of the ISFACT command.                 |
| ?       | Display output data set information from browse  | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |
| ABEND   | Force SDSF abend                                 | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |
| ACTION  | Control WTORS displayed on the SYSLOG            | No             | No            |                             |                                                                                                                                                                                       |
| AFD     | Invoke SDSF with program ISFAFD                  | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |
| I APF   | Display the APF panel                            | Yes            | Yes           |                             |                                                                                                                                                                                       |
| APPC    | Control the display of transaction data          | No             | No            | ISFAPPC                     |                                                                                                                                                                                       |
| ARRANGE | Control the order of panel columns               | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |
| I AS    | Display the AS panel                             | Yes            | Yes           |                             |                                                                                                                                                                                       |
| BOOK    | Invoke BookManager®                              | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |
| BOTTOM  | Scroll to the bottom                             | No             | No            | ISFSCROLL,<br>ISFSCROLLTYPE | Supported for browse only                                                                                                                                                             |
| CK      | Display the CK panel                             | Yes            | Yes           |                             |                                                                                                                                                                                       |
| COLS    | Display the scale line                           | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |
| DA      | Display the DA panel                             | Yes            | Yes           |                             |                                                                                                                                                                                       |
| DEST    | Specify destinations for filtering               | No             | No            | ISFDEST                     | The length of the value can exceed the 42-character limit of the DEST command. When specifying multiple destinations (up to 4), separate them with a blank. Do not use the + operand. |
| DOWN    | Scroll down                                      | No             | No            | ISFSCROLL,<br>ISFSCROLLTYPE | Supported only for browsing with ISFBROWSE and ISFLOG.                                                                                                                                |
| I DYNX  | Display the DYNX panel                           | Yes            | Yes           |                             |                                                                                                                                                                                       |
| ENC     | Display the ENC panel                            | Yes            | Yes           |                             |                                                                                                                                                                                       |
| I ENQ   | Display the ENQ panel                            | Yes            | Yes           |                             |                                                                                                                                                                                       |
| END     | Return to the previous panel                     | No             | No            |                             | Not supported in REXX                                                                                                                                                                 |

Table 178. SDSF Commands and REXX (continued)

| Command | Purpose                                                                  | Use on ISFEXEC | Use on ISFACT | REXX Variable                                                                | Notes                                                                                                              |
|---------|--------------------------------------------------------------------------|----------------|---------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| FILTER  | Filter data                                                              | No             | No            | ISFFILTER,<br>ISFFILTER2,<br>ISFFILTERMODE,<br>SDSFFILTER,<br>SDSFFILTERMODE | There is no limit to the number of filters you can set with ISFFILTER or ISFFILTER2. Supported for tabular panels. |
| FIND    | Find a string                                                            | No             | No            | ISFFIND                                                                      | Supported only for browsing with ISFBROWSE and ISFLOG                                                              |
| FINDLIM | Set the number of lines to search                                        | No             | No            | ISFFINDLIM                                                                   | Supported only for browsing with ISFBROWSE and ISFLOG                                                              |
| H       | Display the H panel                                                      | Yes            | Yes           |                                                                              |                                                                                                                    |
| I       | Display the I panel                                                      | Yes            | Yes           |                                                                              |                                                                                                                    |
| INIT    | Display the INIT panel                                                   | Yes            | Yes           |                                                                              |                                                                                                                    |
| INPUT   | Control inclusion of input data sets in browse                           | No             | No            | ISFINPUT                                                                     |                                                                                                                    |
| JC      | Display the JC panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |
| JG      | Display the JG panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |
| JP      | Display the JP panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |
| J0      | Display the J0 panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |
| LEFT    | Scroll left                                                              | No             | No            |                                                                              | Not supported in REXX                                                                                              |
| LI      | Display the LINES panel                                                  | Yes            | Yes           |                                                                              |                                                                                                                    |
| LNK     | Display the LNK panel                                                    | Yes            | Yes           |                                                                              |                                                                                                                    |
| LPA     | Display the LPA panel                                                    | Yes            | Yes           |                                                                              |                                                                                                                    |
| LOCATE  | Locate a line or column                                                  | No             | No            |                                                                              | Not supported in REXX                                                                                              |
| LOG     | Display the SYSLOG and Operlog                                           | No             | No            |                                                                              | Use the ISFLOG command                                                                                             |
| LOGLIM  | Limit the Operlog                                                        | No             | No            |                                                                              |                                                                                                                    |
| MAS     | Display the MAS panel                                                    | Yes            | Yes           |                                                                              |                                                                                                                    |
| NC      | Display the NC panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |
| NEXT    | Skip to the next data set                                                | No             | No            | ISFSCROLL,<br>ISFSCROLLTYPE                                                  | Use with ISFBROWSE                                                                                                 |
| NO      | Display the NODES panel                                                  | Yes            | Yes           |                                                                              |                                                                                                                    |
| NS      | Display the NS panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |
| O       | Display the O panel                                                      | Yes            | Yes           |                                                                              |                                                                                                                    |
| OWNER   | Limit the jobs by owner                                                  | No             | No            | ISFOWNER                                                                     |                                                                                                                    |
| PAG     | Display the PAG panel                                                    | Yes            | Yes           |                                                                              |                                                                                                                    |
| PARM    | Display the PARM panel. Enclose PARM in single quotes when using ISFACT. | Yes            | Yes           |                                                                              |                                                                                                                    |
| PANELID | Display panel ID                                                         | No             | No            |                                                                              | Not supported in REXX                                                                                              |
| PR      | Display the PR panel                                                     | Yes            | Yes           |                                                                              |                                                                                                                    |



Table 178. SDSF Commands and REXX (continued)

| Command      | Purpose                                                                           | Use on ISFEXEC | Use on ISFACT | REXX Variable               | Notes                                               |
|--------------|-----------------------------------------------------------------------------------|----------------|---------------|-----------------------------|-----------------------------------------------------|
| PREFIX       | Filter jobs by name                                                               | No             | No            | ISFPREFIX                   |                                                     |
| PREV         | Skip to the previous data set                                                     | No             | No            | ISFSCROLL,<br>ISFSCROLLTYPE | Use with ISFBROWSE                                  |
| PRINT        | Print data or the screen                                                          | No             | No            |                             | Not supported in REXX                               |
| I PROC       | Display the PROC panel                                                            | Yes            | Yes           |                             |                                                     |
| PS           | Display the PS panel                                                              | Yes            | Yes           |                             |                                                     |
| PUN          | Display the PUN panel                                                             | Yes            | Yes           |                             |                                                     |
| QUERY        | List SDSF data                                                                    | Yes            | No            |                             | Responses returned in ISFRESP stem                  |
| RDR          | Display the RDR panel                                                             | Yes            | Yes           |                             |                                                     |
| RES          | Display the RES panel                                                             | Yes            | Yes           |                             |                                                     |
| RESET        | Clear pending actions                                                             | No             | No            |                             | Not supported in REXX                               |
| RIGHT        | Scroll right                                                                      | No             | No            |                             | Not supported in REXX                               |
| RM           | Display the RM panel                                                              | Yes            | Yes           |                             |                                                     |
| RSYS         | Limit WTORs on SYSLOG by system                                                   | No             | No            |                             |                                                     |
| SE           | Display the SE panel                                                              | Yes            | Yes           |                             |                                                     |
| SELECT       | Display selected rows                                                             | No             | No            |                             | Not supported in REXX                               |
| SET ACTION   | Display action characters                                                         | No             | No            | ISFACTIONS                  |                                                     |
| SET BROWSE   | Set default browse action character                                               | No             | No            |                             | Not supported in REXX                               |
| SET CKLIM    | Set limit for instances on the CKH panel                                          | No             | No            | ISFCKLIM                    |                                                     |
| SET CMODE    | Set mode for sysplex communications                                               | No             | No            | ISFCMODE                    |                                                     |
| SET CONFIRM  | Set confirmation of destructive actions                                           | No             | No            |                             | Not supported in REXX                               |
| SET CONMOD   | Set the modification of the extended console name                                 | No             | No            | ISFCONMOD                   |                                                     |
| SET CONSOLE  | Specify extended console                                                          | No             | No            | ISFCONS                     |                                                     |
| SET CSORT    | Control cursor-sensitive sort                                                     | No             | No            |                             | Not supported in REXX                               |
| SET CURSOR   | Set cursor placement                                                              | No             | No            |                             | Not supported in REXX                               |
| SET DATE     | Set date format                                                                   | No             | No            | ISFDATE                     |                                                     |
| SET DELAY    | Set timeout value                                                                 | No             | No            | ISFDELAY                    |                                                     |
| SET DISPLAY  | Set display of values                                                             | No             | No            | ISFDISPLAY                  |                                                     |
| SET DUPDS    | Set display of duplicate SYSOUT data sets when browsing or printing job data sets | No             | No            | ISFDUPDS                    | Duplicate SYSOUT data sets are displayed by default |
| SET LANGUAGE | Set language for help                                                             | No             | No            |                             | Not supported in REXX                               |

Table 178. SDSF Commands and REXX (continued)

| Command      | Purpose                                            | Use on ISFEXEC | Use on ISFACT | REXX Variable               | Notes                                                                                                                      |
|--------------|----------------------------------------------------|----------------|---------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------|
| SET LOG      | Set default Log panel                              | No             | No            |                             | Not supported in REXX                                                                                                      |
| SET PRTCCASA | Set how SDSF handles carriage control for printing | No             | No            | ISFPRTCCASA                 |                                                                                                                            |
| SET SCHARS   | Set wildcard characters                            | No             | No            | ISFSCHARS                   |                                                                                                                            |
| SET SCREEN   | Set colors                                         | No             | No            |                             | Not supported in REXX                                                                                                      |
| SET SHELF    | Set default bookshelf                              | No             | No            |                             | Not supported in REXX                                                                                                      |
| SET TIMEOUT  | Set timeout for SYSPLEX function                   | No             | No            | ISFTIMEOUT                  |                                                                                                                            |
| SNAPSHOT     | Saves table data                                   | No             | No            |                             | Not supported in REXX                                                                                                      |
| SO           | Display the SO panel                               | Yes            | Yes           |                             |                                                                                                                            |
| SORT         | Sort a tabular panel                               | No             | No            | ISFSORT, ISFSORT2, SDSFSORT |                                                                                                                            |
| SP           | Display the SP panel                               | Yes            | Yes           |                             |                                                                                                                            |
| SR           | Display the SR panel                               | Yes            | Yes           |                             |                                                                                                                            |
| ST           | Display the ST panel                               | Yes            | Yes           |                             |                                                                                                                            |
| I SYM        | Display the SYM panel                              | Yes            | Yes           |                             |                                                                                                                            |
| I SYS        | Display the SYS panel                              | Yes            | Yes           |                             |                                                                                                                            |
| SYSID        | Assign a SYSID for SYSLOG                          | No             | No            | ISFSYSID                    |                                                                                                                            |
| SYSNAME      | Limit data by system                               | No             | No            | ISFSYSNAME                  |                                                                                                                            |
| TOP          | Scroll to the top                                  | No             | No            | ISFSCROLL, ISFSCROLLTYPE    | Supported for browse only                                                                                                  |
| TRACE        | Enable SDSF tracing                                | No             | No            | ISFTRACE<br>ISFTRMASK       |                                                                                                                            |
| TUTOR        | Invoke the SDSF tutorial                           | No             | No            |                             | Not supported in REXX                                                                                                      |
| ULOG         | Display the ULOG panel                             | No             | No            | ISFULOG stem variable       | Use the WAIT option on the ISFACT command to ensure that the command responses are available in the ISFULOG stem variable. |
| UP           | Scroll up                                          | No             | No            | ISFSCROLL, ISFSCROLLTYPE    | Supported only for browsing with ISFBROWSE and ISFLOG                                                                      |
| WHO          | List environmental data                            | Yes            | No            |                             | Responses returned in ISFRESP stem variables                                                                               |

## Action character reference

The action characters that are available when you use SDSF interactively are available when you use SDSF with REXX. The exceptions are described in Table 179 on page 439. For information about the available action characters, see the online help.

Table 179. Action Characters Not Supported with REXX

| Panel                                       | Not supported                        | Comments                                                                                                                                               |
|---------------------------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| APF                                         | //, =, +                             |                                                                                                                                                        |
| AS                                          | //, =, +                             |                                                                                                                                                        |
| CK (checks for IBM Health Checker for z/OS) | //, =, +, SB, SBI, SBO, SE, SEI, SEI | Results for S (browse) are returned in the ISFLINE stem variable. For more information, see "Browsing checks with the S action character" on page 415. |
| CKH (history of a check)                    | //, =, +                             | Results for S (browse) are returned in the ISFLINE stem variable. For more information, see "Browsing checks with the S action character" on page 415. |
| DA (active jobs)                            | //, =, +, N, Q, S, SB, SE, SJ        | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411.  |
| DYNX                                        | //, =, +                             |                                                                                                                                                        |
| ENC (WLM enclaves)                          | //, =, +, I                          |                                                                                                                                                        |
| ENQ                                         | //, =, +                             |                                                                                                                                                        |
| H (held output queue)                       | //, =, +, Q, S, SB, SE, SJ           | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411.  |
| I (input queue)                             | //, =, +, I, Q, S, SB, SE, SJ        | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411.  |
| INIT (initiators)                           | //, =, +                             |                                                                                                                                                        |
| JC (job classes)                            | //, =, +                             |                                                                                                                                                        |
| JD (job devices)                            | //, =, +                             |                                                                                                                                                        |
| JDS (job data sets)                         | //, =, +, Q, S, SB, SE, SJ           | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411.  |
| JG (job group)                              | //, =, +, S, SB, SE, SJ              | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411.  |
| LNK                                         | //, =, +                             |                                                                                                                                                        |
| LPA                                         | //, =, +                             |                                                                                                                                                        |
| JM (job memory)                             | //, =, +                             |                                                                                                                                                        |
| JP (members in the JESPLEX)                 | //, =, +                             |                                                                                                                                                        |
| JS (job steps)                              | //, =, +, S, SB, SE, SJ              |                                                                                                                                                        |

Table 179. Action Characters Not Supported with REXX (continued)

| Panel                            | Not supported                 | Comments                                                                                                                                              |
|----------------------------------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| JY (job delays)                  | //, =, +                      |                                                                                                                                                       |
| J0 (JES3 job 0)                  | //, =, +, S, SB, SE           | Use the ISFBROWSE command.                                                                                                                            |
| LI (lines)                       | //, =, +                      |                                                                                                                                                       |
| MAS (members in the MAS)         | //, =, +                      |                                                                                                                                                       |
| NC (network connections)         | //, =, +                      |                                                                                                                                                       |
| NO (nodes)                       | //, =, +                      |                                                                                                                                                       |
| NS (network servers)             | //, =, +                      |                                                                                                                                                       |
| O (output Queue)                 | //, =, +, Q, S, SB, SE, SJ    | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411. |
| I PAG                            | //, =, +                      |                                                                                                                                                       |
| I PARM                           | //, =, +                      |                                                                                                                                                       |
| PR (printers)                    | //, =, +                      |                                                                                                                                                       |
| I PROC                           | //, =, +                      |                                                                                                                                                       |
| PS (z/OS Unix processes)         | //, =, +                      |                                                                                                                                                       |
| PUN (punches)                    | //, =, +                      |                                                                                                                                                       |
| RDR (readers)                    | //, =, +                      |                                                                                                                                                       |
| RES (WLM Resources)              | //, =, +                      |                                                                                                                                                       |
| RM (JES2 resources)              | //, =, +                      |                                                                                                                                                       |
| SE (WLM scheduling environments) | //, =, +                      |                                                                                                                                                       |
| SO (spool offloaders)            | //, =, +                      |                                                                                                                                                       |
| SP (spool volumes)               | //, =, +                      |                                                                                                                                                       |
| SR (system requests)             | //, =, +, R with no command   |                                                                                                                                                       |
| ST (status of all jobs)          | //, =, +, Q, I, S, SB, SE, SJ | For browse, use SA (browse allocate) and SJA (browse allocate JCL) or the ISFBROWSE command. For more information, see "Browsing output" on page 411. |
| I SYM                            | //, =, +                      |                                                                                                                                                       |
| I SYS                            | //, =, +                      |                                                                                                                                                       |

## Special variables reference

Table 180 shows the special REXX variables, with the exception of the variables for printing, which are shown in "Printing output" on page 416.

Table 180. Special REXX Variables

| Variable   | Type  | Associated Command | Description                                                 | Comments                                                                                |
|------------|-------|--------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| ISFACTIONS | Input | SET ACTION         | Controls the display of action characters for current panel | Action characters and optional descriptions are returned in the ISFRESP stem variables. |

Table 180. Special REXX Variables (continued)

| Variable         | Type   | Associated Command | Description                                                                                                                                                                                  | Comments                                                                                                                                                                                                       |
|------------------|--------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISFAPPC          | Input  | APPC               | Controls the display of APPC transactions                                                                                                                                                    |                                                                                                                                                                                                                |
| ISFCMDLIM        | Input  | Slash (/)          | Limits the number of commands that may be issued through ISFSLASH                                                                                                                            |                                                                                                                                                                                                                |
| ISFCKLIM         | Input  | SET CKLIM          | Sets the maximum number of instances of a check to display on the CKH panel                                                                                                                  |                                                                                                                                                                                                                |
| ISFCMODE         | Input  | SET CMODE          | Sets the mode for sysplex communication                                                                                                                                                      |                                                                                                                                                                                                                |
| ISFCOLOR         | Output |                    | Stem variable containing the color of each line. The possible values are the first letters of the colors Red, Green, Blue, White, Yellow, Turquoise, Pink.                                   | OPERLOG only                                                                                                                                                                                                   |
| ISFCOLS          | InOut  |                    | Input: sets the list of columns to be returned<br>Output: contains list of columns that are returned                                                                                         | Limits the columns (and so the variables) that are created                                                                                                                                                     |
| ISFCOLS2         | InOut  |                    | Input: sets the list of columns to be returned for a secondary panel<br>Output: contains the list of columns that are returned for a secondary panel                                         | Limits the columns (and so the variables) that are created                                                                                                                                                     |
| ISFCOLUMNNGROUPS | Output |                    | Lists column grouping information for the columns listed in the ISFCOLS variable.                                                                                                            |                                                                                                                                                                                                                |
| ISFCONMOD        | Input  | SET CONMOD         | Controls the automatic modification of the extended console name when SDSF needs to activate a console (for issuing system commands and for the ULOG) and the default console name is in use |                                                                                                                                                                                                                |
| ISFCONS          | Input  | SET CONSOLE        | Sets the console name                                                                                                                                                                        | If you have disabled console modification, you should change the console name when running a REXX exec while running SDSF interactively, to avoid an activation failure because the console is already in use. |
| ISFDATE          | Input  | SET DATE           | Sets the date format for input on special variables                                                                                                                                          | Does not affect the date format for returned stem variables                                                                                                                                                    |

Table 180. Special REXX Variables (continued)

| Variable       | Type         | Associated Command | Description                                                                                                                                                                                                                                                                                                                                | Comments                                                                                              |
|----------------|--------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| ISFDCOLS       | Output       |                    | Contains the list of delayed access columns for the panel                                                                                                                                                                                                                                                                                  |                                                                                                       |
| ISFDCOLS2      | Output       |                    | Contains the list of delayed access columns for the secondary panel                                                                                                                                                                                                                                                                        |                                                                                                       |
| ISFDDNAME      | Output, Stem |                    | Stem variable that contains the system-generated DDNAME of an allocated SYSOUT data set. ISFDDNAME.0 contains a count of the number of variables that follow.                                                                                                                                                                              | Set in response to a browse allocation action character, such as SA and SJA                           |
| ISFDELAY       | Input        | SET DELAY          | Sets the response delay limit for system commands                                                                                                                                                                                                                                                                                          |                                                                                                       |
| ISFDESCODE     |              |                    | Stem variable containing the descriptor codes for each line. When there are multiple descriptor codes, they are returned in a list, separated by blanks.                                                                                                                                                                                   | OPERLOG only                                                                                          |
| ISFDEST        | Input        | DEST               | Sets the destinations to be used for filtering                                                                                                                                                                                                                                                                                             | Allows up to four destinations, with each being up to the maximum acceptable length for a destination |
| ISFDIAG        | Output       |                    | Intended for use by IBM service personnel                                                                                                                                                                                                                                                                                                  | See "Diagnosing errors in a REXX exec" on page 476.                                                   |
| ISFDISPLAY     | Output       |                    | Contains the SET DISPLAY response for tabular panels                                                                                                                                                                                                                                                                                       |                                                                                                       |
| ISFDISPLAYMODE | Input        | SET DISPLAY        | Sets the format of the ISFDISPLAY special variable                                                                                                                                                                                                                                                                                         | The value OFF is not valid with REXX.                                                                 |
| ISFDSNAME      | Output, Stem |                    | Stem variable that contains the application-specified data set name (that is, the data set name as shown on the Job Data Set panel). Corresponds to the DDNAME listed in ISFDDNAME. The variables have a one-to-one correspondence with the ISFDDNAME stem variables. ISFDSNAME.0 contains a count of the number of variables that follow. | Set in response to a browse allocation action character, such as SA and SJA                           |
| ISFDUPDS       | Input        | SET DUPDS          | Controls whether duplicate SYSOUT data sets are included when browsing or printing                                                                                                                                                                                                                                                         |                                                                                                       |
| ISFFILTER      | Input        | FILTER             | Sets filter criteria                                                                                                                                                                                                                                                                                                                       | Use column names rather than column titles. Supported with tabular panels.                            |

Table 180. Special REXX Variables (continued)

| Variable          | Type   | Associated Command | Description                                                                                                                              | Comments                                                                                 |
|-------------------|--------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| ISFFILTER2        | Input  | FILTER             | Sets filter criteria for a secondary panel                                                                                               | Use column names rather than column titles.                                              |
| ISFFILTERMODE     | Input  | FILTER             | Sets the relationship between filters                                                                                                    |                                                                                          |
| ISFFILTERMODE2    | Input  | FILTER             | Sets the relationship between filters for a secondary panel                                                                              |                                                                                          |
| ISFFIND           | Input  | FIND               | String to be found (up to 255 characters).                                                                                               | Use when browsing with ISFBROWSE or ISFLOG.                                              |
| ISFFINDENDCOL     | Input  | FIND               | Column in which the string specified with ISFFIND must end.                                                                              | Use when browsing with ISFBROWSE or ISFLOG.                                              |
| ISFFINDLIM        | Input  | FINDLIM            | Maximum number of lines to search for the string specified with ISFFIND. 1000 to 9999999.                                                | Use when browsing with ISFBROWSE or ISFLOG.                                              |
| ISFFINDSTARTCOL   | Input  | FIND               | Column in which the string specified with ISFFIND must start.                                                                            | Use when browsing with ISFBROWSE or ISFLOG.                                              |
| ISFFIRSTLINEDATE  | Output |                    | Date associated with the first line that was returned.                                                                                   | Use when browsing the log.                                                               |
| ISFFIRSTLINEDSID  | Output |                    | Data set identifier of the data set associated with the first line that was returned.                                                    | Use when browsing. Not valid with OPERLOG.                                               |
| ISFFIRSTLINEJOBID | Output |                    | Job ID associated with the first line that was returned.                                                                                 | Use when browsing the SYSLOG.                                                            |
| ISFFIRSTLINERECNO | Output |                    | Record number within the data set of the first line that was returned.                                                                   | Use when browsing. Not valid with OPERLOG.                                               |
| ISFFIRSTLINETIME  | Output |                    | Time associated with the first line that was returned.                                                                                   | Use when browsing the log.                                                               |
| ISFFIRSTLINETOKEN | Output |                    | Token corresponding to the first line of the data that was returned.                                                                     | Use when browsing with ISFBROWSE or ISFLOG.                                              |
| ISFHIGHLIGHT      | Output |                    | Stem variable containing the highlighting of each line. The possible values are the first letters of Blink, Reverse, Underline and None. | OPERLOG only                                                                             |
| ISFINPUT          | Input  | INPUT              | Controls which data sets will be returned                                                                                                |                                                                                          |
| ISFINTENSITY      | Output |                    | Stem variable containing the intensity of each line. The possible values are the first letters of High and Low.                          | OPERLOG only                                                                             |
| ISFJESNAME        | Input  |                    | Sets the JES subsystem to be processed                                                                                                   | Equivalent to the value specified on the JESNAME option of the SDSF command (JES2 only). |

Table 180. Special REXX Variables (continued)

| Variable          | Type         | Associated Command | Description                                                                                                                                                                                                   | Comments                                                                                  |
|-------------------|--------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| ISFJES3NAME       | Input        |                    | Sets the JES subsystem to be processed                                                                                                                                                                        | Equivalent to the value specified on the JES3NAME option of the SDSF command (JES3 only). |
| ISFLASTLINE DATE  | Output       |                    | Date associated with the last line that was returned.                                                                                                                                                         | Use when browsing the log.                                                                |
| ISFLASTLINE DSID  | Output       |                    | Data set identifier of the data set associated with the last line that was returned.                                                                                                                          | Use when browsing. Not valid with OPERLOG.                                                |
| ISFLASTLINE JOBID | Output       |                    | Job ID associated with the last line that was returned.                                                                                                                                                       | Use when browsing the SYSLOG.                                                             |
| ISFLASTLINE RECNO | Output       |                    | Record number within the data set of the last line that was returned.                                                                                                                                         | Use when browsing. Not valid with OPERLOG.                                                |
| ISFLASTLINE TIME  | Output       |                    | Time associated with the last line that was returned.                                                                                                                                                         | Use when browsing the log.                                                                |
| ISFLINE           | Output, Stem |                    | Stem variable that contains the result of a browse request. ISFLINE.0 contains a count of the number of variables that follow.                                                                                | Use when browsing the log or a check.                                                     |
| ISFLINELIM        | Input        |                    | Limits the number of ISFLINE stem variables that may be created. The valid range is 0-99999999. A value of zero indicates no limit.                                                                           | If the variable is not defined or null, there is no limit.                                |
| ISFLOGSTART TIME  | Input        |                    | Specifies the starting time for records returned by the ISFLOG command, in <i>hh:mm:ss.th</i> format. Only <i>hh:mm</i> is required. This is the local time corresponding to the first record to be returned. | If the variable is not defined or the value is null, the starting time is 00:00:00.00.    |
| ISFLOGSTART DATE  | Input        |                    | Specifies the starting date for records returned by the ISFLOG command, in the current date format or either of these formats: <i>yyyy.ddd</i> or <i>yy.ddd</i> .                                             | The default is the current day.                                                           |
| ISFLOGSTOP TIME   | Input        |                    | Specifies the ending time for records returned by the ISFLOG command, in <i>hh:mm:ss.th</i> format. Only <i>hh:mm</i> is required. This is the local time corresponding to the last record to be returned.    | If the variable is not defined or the value is null, the ending time is 23:59:59.99.      |



Table 180. Special REXX Variables (continued)

| Variable         | Type         | Associated Command | Description                                                                                                                                                                                                                            | Comments                                                                                     |
|------------------|--------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| ISFLOGSTOPDATE   | Input        |                    | Specifies the ending date for records returned by the ISFLOG command, in the current date format or either of these formats: <i>yyyy.ddd</i> or <i>yy.ddd</i> .                                                                        | The default is the current day.                                                              |
| ISFLRECL         | Output, Stem |                    | Stem variable that contains the logical record length for the allocated data set and corresponds to the DDNAME listed in ISFDNAME. ISFLRECL.0 contains a count of the number of variables that follow.                                 |                                                                                              |
| ISFMSG           | Output       |                    | Contains the SDSF short message, if any, set on the completion of each request                                                                                                                                                         | Check at the completion of each request.                                                     |
| ISFMSG2          | Output, Stem |                    | Stem variable that is set to any numbered messages that may have been issued in response to the request. ISFMSG2.0 contains the count of message variables that follow.<br><br>The message variables contain the oldest message first. | Check at the completion of each request.                                                     |
| ISFNEXTLINETOKEN | Output       |                    | Token corresponding to the next unread line of the data. It is null when an end-of-file condition is encountered.                                                                                                                      | Use when browsing with ISFBROWSE or ISFLOG.                                                  |
| ISFOWNER         | Input        | OWNER              | Sets the owner to be used for filtering                                                                                                                                                                                                | Use the default SDSF generic characters unless you change them with the ISFSCHARS variable.  |
| ISFPREFIX        | Input        | PREFIX             | Sets the job name prefix to be used for filtering                                                                                                                                                                                      | Uses the default SDSF generic characters unless you change them with the ISFSCHARS variable. |
| ISFPRTBLKSIZE    | Input        |                    | Block size for new data sets                                                                                                                                                                                                           | Use with XD and XDC action characters.                                                       |
| ISFPRTCCASA      | Input        | SET PRTCCASA       | Sets how SDSF handles carriage control for printing                                                                                                                                                                                    | Use with ISFPRTRECFM.                                                                        |
| ISFPRTCLASS      | Input        |                    | SYSOUT class                                                                                                                                                                                                                           | Use with X, XC, XS and XSC action characters.                                                |
| ISFPRTCOPIES     | Input        |                    | Copies class                                                                                                                                                                                                                           | Use with X, XC, XS and XSC action characters.                                                |
| ISFPRTDATACLAS   | Input        |                    | Data class for new data sets                                                                                                                                                                                                           | Use with XD and XDC action characters.                                                       |

Table 180. Special REXX Variables (continued)

| Variable         | Type  | Associated Command | Description                                                                                             | Comments                                        |
|------------------|-------|--------------------|---------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| ISFPRTDDNAME     | Input |                    | DDNAME                                                                                                  | Use with XF and XFC action characters.          |
| ISFPRTDEST       | Input |                    | Destination                                                                                             | Use with X, XC, XS and XSC action characters.   |
| ISFPRTDIRBLKS    | Input |                    | Number of directory blocks for new data sets                                                            | Use with XD and XDC action characters.          |
| ISFPRTDISP       | Input |                    | Allocation disposition for data sets                                                                    | Use with XD and XDC action characters.          |
| ISFPRTDSNAME     | Input |                    | Data set name. If the name is not enclosed in quotation mark, the name begins with the current user ID. | Use with XD and XDC action characters.          |
| ISFPRTFCB        | Input |                    | FCB                                                                                                     | Use with X, XC, XS and XSC action characters.   |
| ISFPRTFORMDEF    | Input |                    | FORMDEF                                                                                                 | Use with X, XC, XS and XSC action characters.   |
| ISFPRTFORMS      | Input |                    | Forms                                                                                                   | Use with X, XC, XS and XSC action characters.   |
| ISFPRTLRECL      | Input |                    | Logical record length                                                                                   | Use with XD, XDC, XS and XSC action characters. |
| ISFPRTMEMBER     | Input |                    | Member name                                                                                             | Use with XD and XDC action characters.          |
| ISFPRTMGMTCLAS   | Input |                    | Management class for new data sets                                                                      | Use with XD and XDC action characters.          |
| ISFPRTOUTDESNAME | Input |                    | Output descriptor name to be used when creating the file                                                | Use with X, XC, XS and XSC action characters.   |
| ISFPRTPAGEDEF    | Input |                    | PAGEDEF                                                                                                 | Use with X, XC, XS and XSC action characters.   |
| ISFPRTPRIMARY    | Input |                    | Primary space allocation for new data sets                                                              | Use with XD and XDC action characters.          |
| ISFPRTPRTMODE    | Input |                    | Process mode                                                                                            | Use with X, XC, XS and XSC action characters.   |
| ISFPRTRECFM      | Input |                    | Record format                                                                                           | Use with XD, XDC, XS and XSC action characters. |
| ISFPRTSECONDARY  | Input |                    | Secondary space allocation for new data sets                                                            | Use with XD and XDC action characters.          |
| ISFPRTSOURCEATTS | Input |                    | Whether to use attributes of the source for printing                                                    | Use with the XS and XSC action characters.      |
| ISFPRTSPACETYPE  | Input |                    | Space units for allocating for new data sets                                                            | Use with XD and XDC action characters.          |
| ISFPRTSTORCLAS   | Input |                    | Storage class for new data sets                                                                         | Use with XD and XDC action characters.          |
| ISFPRTUCS        | Input |                    | UCS                                                                                                     | Use with X, XC, XS and XSC action characters.   |
| ISFPRTUNIT       | Input |                    | Unit for new data sets                                                                                  | Use with XD and XDC action characters.          |

Table 180. Special REXX Variables (continued)

| Variable      | Type         | Associated Command | Description                                                                                                                                                                                     | Comments                                                                                                    |
|---------------|--------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| ISFPRTVOLSER  | Input        |                    | Volume serial for new data sets                                                                                                                                                                 | Use with XD and XDC action characters.                                                                      |
| ISFPRTWRITER  | Input        |                    | Writer name                                                                                                                                                                                     | Use with the XS and XSC action characters.                                                                  |
| ISFRCOLS      | Output       |                    | Contains a list of columns with related fields                                                                                                                                                  | Related fields are sets of related columns, such as SFORMS and SFORM2-8 on the Printer panel.               |
| ISFRCOLS2     | Output       |                    | Contains a list of columns with related fields for a secondary panel                                                                                                                            |                                                                                                             |
| ISFRECFM      | Output, Stem |                    | Stem variable that contains the record format for the allocated data set and corresponds to the DDNAME listed in ISFDDNAME. ISFRECFM.0 contains a count of the number of variables that follow. |                                                                                                             |
| ISFRESP       | Output, Stem |                    | Stem variable that contains responses from commands. ISFRESP.0 contains the count of the response variables that follow.                                                                        | Commands such as WHO use the ISFRESP stem variables to provide the command response.                        |
| ISFROWS       | Output       |                    | Contains the number of rows created by a request for a tabular panel                                                                                                                            | Equivalent to the zero stem for each of the column variables                                                |
| ISFROWS2      | Output       |                    | Contains the number of rows created by a request for a secondary panel                                                                                                                          | Equivalent to the zero stem for each of the column variables                                                |
| ISFSCHARS     | Input        | SET SCHARS         | Sets the generic and placeholder characters to be used in pattern matching                                                                                                                      |                                                                                                             |
| ISFSCROLL     | Input        | Scrolling commands | Repositions the first line of data that is returned                                                                                                                                             | Use when browsing with ISFBROWSE or ISFLOG.                                                                 |
| ISFSCROLLTYPE | Input        | Scrolling commands | Repositions the first line of data that is returned                                                                                                                                             | Use with ISFSCROLL.                                                                                         |
| ISFSECTRACE   | Input        | SET SECTRACE       | Controls tracing of SDSF security                                                                                                                                                               | Use with ISFMSG2 or ISFULOG.                                                                                |
| ISFSERVER     | Input        |                    | Sets the SDSF server to be used when initializing SDSF                                                                                                                                          | Corresponds to the SERVER option on the SDSF command                                                        |
| ISFSORT       | Input        | SORT               | Sets the sort criteria                                                                                                                                                                          | Use the column names instead of the column titles. To sort using the fixed field, assign the value to null. |
| ISFSORT2      | Input        | SORT               | Sets the sort criteria for a secondary panel                                                                                                                                                    | Use the column names instead of the column titles. To sort using the fixed field, assign the value to null. |

Table 180. Special REXX Variables (continued)

| Variable          | Type   | Associated Command | Description                                                                                        | Comments                                                                                                                                                                                                                                                                                                          |
|-------------------|--------|--------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISFSTARTLINETOKEN | Input  |                    | Starting line for the data to be returned.                                                         | Specify this value by setting the variable to either ISFFIRSTLINETOKEN or ISFNEXTLINETOKEN.                                                                                                                                                                                                                       |
| ISFSYSID          | Input  | SYSID              | Specifies the member to be processed by the ISFLOG command                                         |                                                                                                                                                                                                                                                                                                                   |
| ISFSYSNAME        | Input  | SYSNAME            | Sets the system name to be used for filtering sysplex requests                                     | Use the default SDSF generic characters unless you have changed them with the ISFSCHARS variable.                                                                                                                                                                                                                 |
| ISFTIMEOUT        | Input  | SET TIMEOUT        | Sets the response timeout value for sysplex requests                                               | JES2 only                                                                                                                                                                                                                                                                                                         |
| ISFTITLES         | Output |                    | Contains the column titles associated with the variables that are returned                         | The titles are listed in the same order as the column names in the ISFCOLS variable. Titles are enclosed by single quotation marks and separated by blanks.                                                                                                                                                       |
| ISFTITLES2        | Output |                    | Contains the column titles associated with the variables that are returned for the secondary panel | The titles are listed in the same order as the column names in the ISFCOLS2 variable. Titles are enclosed by single quotation marks and separated by blanks.                                                                                                                                                      |
| ISFTLINE          | Output |                    | Contains the title line from the tabular panel                                                     | The title line frequently contains dynamic data related to the panel being accessed. The format of the data may vary and is subject to change at any time.                                                                                                                                                        |
| ISFTRACE          | Input  | TRACE              | Sets the trace option to be used when enabling SDSF trace                                          | This variable is intended to be used for the trace option since two trace commands are necessary to enable tracing. However, any operand acceptable to the trace command will be accepted for this variable.                                                                                                      |
| ISFTRMASK         | Input  | TRACE              | Sets the trace mask to be used when enabling SDSF trace                                            | This variable is intended to be used for a trace mask since two trace commands are necessary to enable tracing: one to enable trace and the other for the mask. However, any non-blank operand acceptable to the trace command will be accepted for this variable. This variable is ignored if the value is null. |

Table 180. Special REXX Variables (continued)

| Variable         | Type         | Associated Command | Description                                                                                                                                                                                                                | Comments                                                                                                                                                                                                         |
|------------------|--------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ISFUCOLS         | Output       |                    | Contains the list of modifiable columns for the panel                                                                                                                                                                      | Contains the columns defined as modifiable, but you may not necessarily be authorized to modify them. Authorization is not determined until you attempt to modify a column.                                      |
| ISFUCOLS2        | Output       |                    | Contains the list of modifiable columns for the secondary panel                                                                                                                                                            | Contains the columns defined as modifiable, but you may not necessarily be authorized to modify them. Authorization is not determined until you attempt to modify a column.                                      |
| ISFULOG          | Output, Stem |                    | Stem variable that contains the MVS system command echo and any responses generated during the session, including SAF authorization messages. The ISFULOG.0 stem variable contains a count of the variables that follow.   | The ISFULOG stem variables are formatted in the same manner as the ULOG panel.<br><br>Use the WAIT option on the ISFACT command to ensure that the command responses are available in the ISFULOG stem variable. |
| ROWACTIVE        | Output, Stem |                    | Stem variable that indicates whether the object (for example, the job or the printer) is active. The value is either Y (active) or N (inactive). ROWACTIVE.0 contains a count of the number of stem variables that follow. |                                                                                                                                                                                                                  |
| SDSFCOLLEN       | Output       |                    | Contains the lengths of column data in SDSFROW                                                                                                                                                                             |                                                                                                                                                                                                                  |
| SDSFCOLCOUNT     | Output       |                    | Contains the number of values associated with the column                                                                                                                                                                   |                                                                                                                                                                                                                  |
| SDSFCOLSTART     | Output       |                    | Contains the starting positions of column data in SDSFROW                                                                                                                                                                  |                                                                                                                                                                                                                  |
| SDSFCOLUMNGROUPS | Output       |                    | Lists column grouping information for the columns                                                                                                                                                                          | Like ISFCOLUMNGROUPS, but affected by the PREFIX option and applies to the last secondary panel, if any                                                                                                          |
| SDSFDCOLS        | Output       |                    | Contains the list of delayed columns for the panel                                                                                                                                                                         | Like ISFDCOLS, but affected by the PREFIX option, and applies to the last secondary panel, if any                                                                                                                |
| SDSFFILTER       | Input        |                    | Sets filter criteria                                                                                                                                                                                                       | Like ISFFILTER, but affected by the PREFIX option, and applies to the last secondary panel, if any                                                                                                               |

Table 180. Special REXX Variables (continued)

| Variable       | Type         | Associated Command | Description                                                                                 | Comments                                                                                               |
|----------------|--------------|--------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| SDSFFILTERMODE | Input        |                    | Sets the relationship between filters                                                       | Like ISFFILTERMODE, but affected by the PREFIX option, and applies to the last secondary panel, if any |
| SDSFICOLS      | Input        |                    | Sets the list of columns to be returned                                                     | Like ISFCOLS, but affected by the PREFIX option, and applies to the last secondary panel, if any       |
| SDSFOCOLS      | Output       |                    | Contains list of columns that are returned                                                  | Like ISFCOLS, but affected by the PREFIX option, and applies to the last secondary panel, if any       |
| SDSFRCOLS      | Output       |                    | Contains the list of columns with related fields for the panel                              | Like ISFRCOLS, but affected by the PREFIX option, and applies to the last secondary panel, if any      |
| SDSFROW        | Output, Stem |                    | Stem variable that contains the data when you use the COMPACT option when accessing a panel |                                                                                                        |
| SDSFSORT       | Input        |                    | Sets the sort criteria                                                                      | Like ISFSORT, but affected by the PREFIX option, and applies to the last secondary panel, if any       |
| SDSFTITLES     | Output       |                    | Contains the column titles associated with the variables that are returned                  | Like ISFTITLES, but affected by the PREFIX option, and applies to the last secondary panel, if any     |
| SDSFUCOLS      | Output       |                    | Contains the list of modifiable columns for the panel                                       | Like ISFUCOLS, but affected by the PREFIX option, and applies to the last secondary panel, if any      |

## Examples of REXX execs

**Note:** Use the RGEN X command to display a list of examples that you can select and open in ISPF Edit.

The examples in this topic contain just the SDSF-specific portions of the execs.

For information about other examples, see “Other sources of information” on page 392.

## Access an SDSF panel

1. Access the ST panel, creating variables for each column, then list the column variables.

```
/* REXX */
rc=isfcalls('ON')
  /* Access the ST panel */
Address SDSF "ISFEXEC ST"
if rc<>0 then
  Exit rc
  /* Get fixed field name from first word */
  /* of isfcols special variable */
fixedField = word(isfcols,1)
Say "Number of rows returned:" isfrows
  /* Process all rows */
do ix=1 to isfrows
  Say "Now processing job:" value(fixedField"."ix)
  /* List all columns for row */
  do jx=1 to words(isfcols)
    col = word(isfcols,jx)
    Say " Column" col"."ix "has the value:" value(col"."ix)
  end
end
rc=isfcalls('OFF')
```

2. Use the ISFCOLS special variable to limit the columns to Job Name and Owner, then access the ST panel. Add the following statement to the exec in example 1, prior to the ISFEXEC command.

```
ISFCOLS = 'JNAME OWNERID'
```

3. Access the ST panel using the COMPACT option, creating the SDSFROW stem variable for panel data, then list the column data.

```
/* REXX */
rc = isfcalls("ON")
Address SDSF 'ISFEXEC ST ( COMPACT PREFIX ST_'
Do ix=1 to st_sdsfrow.0
  Say '***** ROW' ix '*****'
  Do jx=1 to words(st_sdsfocols) /* For each column */
    w1 = word(st_sdsfocols,jx) /* Get the column name */
    w2 = word(st_sdsfocolstart,jx) /* Get the corresponding data start index */
    w3 = word(st_sdsfocolen,jx) /* Get the corresponding data length */
    w4 = word(st_sdsfocolcount,jx) /* Get the number of related fields */
    /* Use substr function to parse the value from sdsfrow variable for row */
    Do kx=1 to w4
      Say w1 '=' substr(st_sdsfrow.ix,w2,w3)
      w2=w2+w3 /* Add the column length to get the next related value */
    End
  End
End
rc = isfcalls("OFF")
```

## Cancel a job

Cancel all jobs with a certain job name using the P action character. First, access the ST panel to create the row variables for each job and the associated tokens. Loop through the rows, checking the job name for each in the JNAME variables. When the desired job name is found, use the ISFACT command to issue the P action character.

```
/* REXX */
rc=isfcalls('ON')
    /* Set the jobname prefix and owner */
isfprefix="*"
isfowner="*"
    /* Access the ST panel. A TOKEN variable is */
    /* created for each row which is subsequently */
    /* needed to perform actions */
Address SDSF "ISFEXEC ST"
lrc=rc
call msgrtn /* List any error messages */
if lrc<>0 then
    exit 20
    /* Find all jobs starting with RJONES and cancel them */
numrows=isfrows
do ix=1 to numrows /* Loop for all rows returned */
    if pos("RJONES",JNAME.ix) = 1 then /* If this is desired row */
        do
            /* Issue the P action character for the job */
            /* identified by the token variable. Note */
            /* the token must be enclosed in single quotes */
            Address SDSF "ISFACT ST TOKEN('TOKEN.ix') PARM(NP P)"
            lrc=rc
            call msgrtn
            if lrc<>0 then
                exit 20
        end
    end
end
rc=isfcalls('OFF')
Exit
    /* Subroutine to list error messages */
msgrtn: procedure expose isfmsg isfmsg2.
    /* The isfmsg variable contains a short message */
    if isfmsg<>"" then
        Say "isfmsg is:" isfmsg
        /* The isfmsg2 stem contains additional descriptive */
        /* error messages */
        do ix=1 to isfmsg2.0
            Say "isfmsg2."ix "is:" isfmsg2.ix
        end
    end
return
```



## Cancel a set of jobs

After setting the special variables `isfprefix` and `isfowner` to limit the jobs returned, use `ISFEXEC` to access the ST panel. Then use `ISFACT` to issue the P action character for all of the jobs returned.

```
/* REXX */
rc=isfcalls('ON')
  /* Set the jobname prefix and owner */
isfprefix="ctest"
isfowner="weber"
  /* Access the ST panel. A TOKEN variable is */
  /* created for each row which is subsequently */
  /* needed to perform actions */
Address SDSF "ISFEXEC ST"
lrc=rc
call msgrtn /* List any error messages */
if lrc<>0 then
  exit 20
/* The tokens have already been assigned to the TOKEN stem */
/* by ISFEXEC. TOKEN.0 has the count of tokens. All rows */
/* returned by ISFEXEC will be canceled with the single */
/* invocation of ISFACT. */
Address SDSF "ISFACT ST TOKEN((TOKEN.)) PARM(NP P)"
lrc=rc
call msgrtn
if lrc<>0 then
  exit 20
rc=isfcalls('OFF')
Exit
  /* Subroutine to list error messages */
msgrtn: procedure expose isfmsg isfmsg2.
  /* The isfmsg variable contains a short message */
  if isfmsg<>"" then
    Say "isfmsg is:" isfmsg
    /* The isfmsg2 stem contains additional descriptive */
    /* error messages */
  do ix=1 to isfmsg2.0
    Say "isfmsg2."ix "is:" isfmsg2.ix
  end
  return
```

## List job data sets

Access the O panel to create the row variables and the associated tokens. Loop through the rows, checking the job name (JNAME) variables. When the desired job name is found, use the ISFACT command to issue the ? action character. Then, loop through the rows to list the data sets.

```
/* REXX */
rc=isfcalls('ON')
  /* Access the ST panel. A TOKEN variable is */
  /* created for each row which is subsequently */
  /* needed to perform actions */
Address SDSF "ISFEXEC ST"
lrc=rc
call msgtrn /* List any error messages */
if lrc<>0 then
  exit 20
  /* Find a job starting with RJONES and list data sets */
numrows=isfrows
do ix=1 to numrows /* Loop for all rows returned */
  if pos("RJONES",JNAME.ix) = 1 then /* If this is desired row */
  do
    /* Issue the ? action character for the job */
    /* identified by the token variable. Note */
    /* the token must be enclosed in single quotes */
    /* Use the prefix option to ensure unique */
    /* variables are created, beginning with JDS_ */
    Address SDSF "ISFACT ST TOKEN('TOKEN.ix')_PARM(NP ?)",
    ("prefix JDS_
    lrc=rc
    call msgtrn
    if lrc<>0 then
      exit 20
    do jx=1 to JDS_DDNAME.0 /* loop for all rows returned */
      say "DDNAME is " JDS_DDNAME.jx
    end
    lrc=rc
    call msgtrn
    if lrc<>0 then
      exit 20
    end
  end
  rc=isfcalls('OFF')
Exit
  /* Subroutine to list error messages */
msgtrn: procedure expose isfmsg isfmsg2.
  /* The isfmsg variable contains a short message */
if isfmsg<>"" then
  Say "isfmsg is:" isfmsg
  /* The isfmsg2 stem contains additional descriptive */
  /* error messages */
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return
```

## Modify values in columns

### Modify a value

Using ISFEXEC, access the O panel. Then, for jobs with a particular owner (RJONES), use ISFACT to change the class to A and forms to 1234.

```
/* REXX */
rc=isfcalls('ON')
/* Access the O display */
Address SDSF "ISFEXEC 0"
lrc=rc
call msg rtn
if lrc<>0 then
  exit 20
/* Find all jobs owned by RJONES */
do ix=1 to OWNERID.0
  if OWNERID.ix = "RJONES" then /* If this is desired row */
    do
      /* Issue the action against the row identified by */
      /* the token. The PARM contains the column name */
      /* to be modified and the data to use. */
      Address SDSF "ISFACT 0 TOKEN('"TOKEN.ix"')",
        "PARM(OCLASS A FORMS 1234)"
      lrc=rc
      call msg rtn
      if lrc<>0 then
        exit 20
    end
  end
end
rc=isfcalls('OFF')
exit
/* Subroutine to list error messages */
msg rtn: procedure expose isfmsg isfmsg2.
/* The isfmsg variable contains a short message */
/*****/
if isfmsg<>" then
  Say "isfmsg is:" isfmsg
  /* The isfmsg2 stem contains additional descriptive */
  /* error messages */
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return
```

### Modify a set of values

When a column has a set of related values, you use a +column syntax on the ISFACT statement to show that you are supplying multiple values. This example shows the ISFACT statement to supply multiple values for SDESTN1 on the PR column. You could use it with an exec like the one in the first example. Note that if you queried the contents of the columns, SDESTN1 would contain only the first value. The second value would be in SDESTN2.

```
Address "SDSF ISFACT PR TOKEN('"TOKEN.ix"')",
  "PARM(SDESTN1 D1 +SDESTN1 D2)"
```

## Modify a value for a set of jobs

After setting the special variables `isfprefix` and `isfowner` to limit the jobs returned, use `ISFEXEC` to access the `ST` panel. Then use `ISFACT` to change the priority of those jobs to 10.

```
/* REXX */
rc=isfcalls("on")
isfprefix="**"
isfowner="ken"
Address SDSF "ISFEXEC ST"
if rc=0 then
  do
    /* The tokens have already been assigned to the TOKEN stem */
    /* by ISFEXEC. TOKEN.0 has the count of tokens. All rows */
    /* returned by ISFEXEC will be changed with the single */
    /* invocation of ISFACT. */
    Address SDSF "ISFACT ST TOKEN((token.)) PARM(JPRIO 10)"
    /* List messages returned by ISFACT */
    do ix=1 to isfmsg2.0
      Say isfmsg2.ix
    end
    /* List returned command responses */
    do ix=1 to isfulog.0
      Say isfulog.ix
    end
  end
end
rc=isfcalls("off")
```

## Browse job output with EXECIO

Using ISFEXEC, access the ST panel to create the row variables for jobs. Then, for each job with a name that matches a desired string (RJONES1), use ISFACT to issue the SA action character. SA allocates the job data sets and sets the ISFDDNAME special variable to the DDNAME for each data set that has been allocated. Use the ISFDDNAME variable as input on the EXECIO command and list the contents of the data sets.

```
/* REXX */
rc=isfcalls('ON')
  /* Access the ST display */
Address SDSF "ISFEXEC ST"
lrc=rc
call msgtrn
if lrc<>0 then
  exit 20
  /* Loop for all RJONES jobs */
do ix=1 to JNAME.0
  if JNAME.ix = "RJONES" then
    do
      /* Issue the SA action against the row to */
      /* allocate all data sets in the job.    */
      Address SDSF "ISFACT ST TOKEN('TOKEN.ix') PARM(NP SA)"
      lrc=rc
      call msgtrn
      if lrc<>0 then
        exit 20
      /* The data set name for each allocated data */
      /* set is contained in the isfdsname stem. The */
      /* ddname returned by allocation is contained */
      /* in the isfddname stem.                    */
      Say "Number of data sets allocated:" value(isfdsname".0")
      /* Read the records from each data set and list them */
      do jx=1 to isfddname.0
        Say "Now reading" isfdsname.jx
        "EXECIO * DISKR" isfddname.jx "(STEM line. FINIS"
        Say " Lines read:" line.0
        do kx = 1 to line.0
          Say " line."kx "is:" line.kx
        end
      end
    end
  end
end
rc=isfcalls('OFF')
exit
  /* Subroutine to list error messages */
msgtrn: procedure expose isfmsg isfmsg2.
  /* The isfmsg variable contains a short message */
if isfmsg<>"" then
  Say "isfmsg is:" isfmsg
  /* The isfmsg2 stem contains additional descriptive */
  /* error messages                                     */
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return
```

## Browse job output with ISFBROWSE (basic)

Using ISFEXEC, access the ST panel to create the row variables for jobs. Then, for each job with a name that matches a desired string (RJONES), use the ISFBROWSE command to display the output for that job.

```
/* REXX */

rc=isfcalls("on")

      /*****/
      /* Access the ST display */
      /*****/
Address SDSF "ISFEXEC ST"
lrc=rc
call msgrtn
if lrc<>0 then
  exit 20
      /*****/
      /* Loop for all RJONES jobs */
      /*****/
do ix=1 to JNAME.0
  if JNAME.ix = "RJONES" then
    do
      Address SDSF "ISFBROWSE ST TOKEN('token.ix')"
      call msgrtn
      if rc>4 then
        exit 20
          /*****/
          /* Loop through the lines */
          /*****/
        do jx=1 to isfline.0
          say isfline.jx
        end
      end
    end
  end

rc=isfcalls("off")

exit

      /*****/
      /* Subroutine to list error messages */
      /*****/
msgtrn: procedure expose isfmsg isfmsg2.
      /*****/
      /* The isfmsg variable contains a short message */
      /*****/
if isfmsg<>" then
  Say "isfmsg is:" isfmsg
      /*****/
      /* The isfmsg2 stem contains additional descriptive */
      /* error messages */
      /*****/
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end

return
```

## Browse job output with ISFBROWSE

From the ST panel, for each job with the name RJONES, use the ISFBROWSE command to display the output. Use the isflinelim variable to limit the number of REXX variables returned by SDSF. Set the isfstartlinetoken variable to the returned value isfnextlinetoken, to allow the browse to continue with the next line in the display.

```
/* REXX */
rc=isfcalls("on")
  /*****/
  /* Access the ST display */
  /*****/
Address SDSF "ISFEXEC ST"
lrc=rc
call msgtrn
if lrc<>0 then
  exit 20
  /*****/
  /* Loop for all RJONES jobs */
  /*****/
do ix=1 to JNAME.0
  if JNAME.ix = "RJONES" then
    do
      isflinelim = 500
      do until isfnextlinetoken=' '
        Address SDSF "ISFBROWSE ST TOKEN('token.ix')"
        if rc>4 then
          do
            call msgtrn
            exit 20
          end
          /*****/
          /* Loop through the lines */
          /*****/
          do jx=1 to isflinelim.0
            say isflinelim.jx
          end
          /*****/
          /* Set start for next browse */
          /*****/
          isfstartlinetoken = isfnextlinetoken
        end
      end
    end
  rc=isfcalls("off")
  exit
  /*****/
  /* Subroutine to list error messages */
  /*****/
msgtrn: procedure expose isfmsg isfmsg2.
  /*****/
  /* The isfmsg variable contains a short message */
  /*****/
  if isfmsg<>" " then
    Say "isfmsg is:" isfmsg
    /*****/
    /* The isfmsg2 stem contains additional messages */
    /*****/
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return
```

## Browse a single data set with EXECIO

Using ISFEXEC, access the ST panel to create the row variables for jobs. Then, find an active job named RJONES. Use ISFACT to issue the ? action character and list the job's data sets, adding the prefix option to ensure that you create unique variables. Find the message log data set, allocate it, and read it using EXECIO.



```

/* REXX */
rc=isfcalls('ON')
  /* Access the ST display */
Address SDSF "ISFEXEC ST"
lrc=rc
call msg rtn
if lrc<>0 then
  exit 20
  /* Loop for all running RJONES jobs */
do ix=1 to JNAME.0
  if JNAME.ix = "RJONES" & ,
    QUEUE.ix = "EXECUTION" & ,
    ACTSYS.ix <> "" then
    do
      /* Issue the ? (JDS) action against the */
      /* row to list the data sets in the job. */
      Address SDSF "ISFACT ST TOKEN('TOKEN.ix') PARM(NP ?)" ,
        "( prefix jds_"
      lrc=rc
      call msg rtn
      if lrc<>0 then
        exit 20
      /* Find the JESMSGGLG data set and allocate it */
      /* using the SA action character */
      do jx=1 to jds_DDNAME.0
        if jds_DDNAME.jx = "JESMSGGLG" then
          do
            Address SDSF "ISFACT ST TOKEN('jds_TOKEN.jx')" ,
              "PARM(NP SA)"
            lrc=rc
            call msg rtn
            if lrc<>0 then
              exit 20
            /* Read the records from the data set and list them. */
            /* The ddname for each allocated data set will be in */
            /* the isfddname stem. Since the SA action was done */
            /* from JDS, only one data set will be allocated. */
            do kx=1 to isfddname.0
              Say "Now reading" isfddname.kx
              "EXECIO * DISKR" isfddname.kx "(STEM line. FINIS"
              Say " Lines read:" line.0
              do lx = 1 to line.0
                Say " line."lx "is:" line.lx
              end
            end
          end
        end
      end
    end
  end
end
rc=isfcalls('OFF')
exit
  /* Subroutine to list error messages */
msg rtn: procedure expose isfmsg isfmsg2.
  /* The isfmsg variable contains a short message */
if isfmsg<>"" then
  Say "isfmsg is:" isfmsg
  /* The isfmsg2 stem contains additional descriptive */
  /* error messages */
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return

```

## Browse a single data set with ISFBROWSE

Using ISFEXEC, access the ST panel to create the row variables for jobs. Then, find an active job named RJONES. Use ISFACT to issue the ? action character and list the job's data sets, adding the prefix option to ensure that you create unique variables. Find the message log data set, and read it using ISFBROWSE.

```
/* REXX */

rc=isfcalls('ON')

      /*****/
      /* Access the ST display */
      /*****/
Address SDSF "ISFEXEC ST"
lrc=rc
call msg rtn
if lrc<>0 then
  exit 20

      /*****/
      /* Loop for all running RJONES jobs */
      /*****/
do ix=1 to JNAME.0

  if JNAME.ix = "RJONES" & ,
    QUEUE.ix = "EXECUTION" & ,
    ACTSYS.ix <> "" then
  do
    /*****/
    /* Issue the ? (JDS) action against the */
    /* row to list the data sets in the job. */
    /*****/
    Address SDSF "ISFACT ST TOKEN('TOKEN.ix') PARM(NP ?)" ,
      "( prefix jds_"
    lrc=rc
    call msg rtn
    if lrc<>0 then
      exit 20

    /*****/
    /* Find the JESMSGLG data set and read it */
    /* using ISFBROWSE. Use isflinelim to limit */
    /* the number of REXX variables returned. */
    /*****/
    isflinelim=500
    do jx=1 to jds_DDNAME.0

      if jds_DDNAME.jx = "JESMSGLG" then
        do
          /*****/
          /* Read the records from the data set. */
          /*****/
          total_lines = 0
          do until isfnxtlinetoken=''

            Address SDSF "ISFBROWSE ST TOKEN('jds_TOKEN.jx')"

            do kx=1 to isflinelim
              Say "Line" total_lines+kx "is:" isflinelim.kx
            end

            total_lines = total_lines + isflinelim.0
            /*****/
            /* Set start for next browse */
            /*****/
            isfstartlinetoken = isfnxtlinetoken
```

```

                end
                Say " Lines read:" total_lines
            end
        end
    end
end

rc=isfcalls('OFF')

exit

/*****
/* Subroutine to list error messages */
*****/
msgtrn: procedure expose isfmsg isfmsg2.

/*****
/* The isfmsg variable contains a short message */
*****/
if isfmsg<>" then
    Say "isfmsg is:" isfmsg

/*****
/* The isfmsg2 stem contains additional descriptive */
/* error messages */
*****/
do ix=1 to isfmsg2.0
    Say "isfmsg2."ix "is:" isfmsg2.ix
end

return

```

## Browse check output from the CK panel

Using ISFEXEC, access the CK panel with the E parameter, which requests only exception checks. For the RACF\_GRS\_RNL check on SY1, which found an exception, use ISFACT to issue the S action to browse the check. Browsing a check causes the ISFLINE special variable stem variables to be created. List the contents of ISFLINE.

```
/* REXX */
rc=isfcalls('ON')
  /* Access the CK panel and filter by exceptions */
Address SDSF "ISFEXEC CK E"
lrc=rc
call msgtrn
if lrc<>0 then
  exit 20
found=0
  /* Find the RACF_GRS_RNL check that is running on SY1 */
do ix=1 to NAME.0 while found=0
  if NAME.ix = "RACF_GRS_RNL" & SYSNAME.ix = "SY1" then
    do
      found=1
      /* Issue the S action against the check. This will */
      /* return the check output in the isflines stem. */
      Address SDSF "ISFACT CK TOKEN('TOKEN.ix') PARM(NP S)"
      lrc=rc
      call msgtrn
      if lrc<>0 then
        exit 20
      /* List each line of check output */
      do jx=1 to isflines.0
        Say "Check line" jx":" isflines.jx
      end
    end
  end
end
if found=0 then
  say "Check not found"
  rc=isfcalls('OFF')
exit
  /* Subroutine to list error messages */
msgtrn: procedure expose isfmsg isfmsg2.
  /* The isfmsg variable contains a short message */
if isfmsg<>" then
  Say "isfmsg is:" isfmsg
  /* The isfmsg2 stem contains additional descriptive */
  /* error messages */
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return
```

## Browse check output from the CK panel using ISFBROWSE

Using ISFEXEC, access the CK panel with E parameter, which requests only exception checks. For the RACF\_GRS\_RNL check on SY1, use ISFBROWSE to browse the check. Browsing a check causes the ISFLINE special variable stem variables to be created. List the contents of ISFLINE.

```

/* REXX */
rc=isfcalls('ON')
  /*****/
  /* Access the CK panel and filter by exceptions */
  /*****/
Address SDSF "ISFEXEC CK E"
lrc=rc
call msgrtn
if lrc<>0 then
  exit 20
found=0
  /*****/
  /* Find the RACF_GRS_RNL check that is running on SY1 */
  /*****/
do ix=1 to NAME.0 while found=0
  if NAME.ix = "RACF_GRS_RNL" & SYSNAME.ix = "SY1" then
    do
      found=1
      /*****/
      /* Issue ISFBROWSE against the check. This will */
      /* return the check output in the isfline stem. */
      /*****/
      Address SDSF "ISFBROWSE CK TOKEN('TOKEN.ix')"
      lrc=rc
      call msgrtn
      if lrc<>0 then
        exit 20
      /*****/
      /* List each line of check output */
      /*****/
      do jx=1 to isfline.0
        Say "Check line" jx:" isfline.jx
      end
    end
  end
end
if found=0 then
  say "Check not found"
rc=isfcalls('OFF')
exit
  /*****/
  /* Subroutine to list error messages */
  /*****/
msgrtn: procedure expose isfmsg isfmsg2.
  /*****/
  /* The isfmsg variable contains a short message */
  /*****/
  if isfmsg<>"" then
    Say "isfmsg is:" isfmsg
    /*****/
    /* The isfmsg2 stem contains additional descriptive */
    /* error messages */
    /*****/
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return

```

## Browse check output from the CKH panel

Use ISFEXEC to access the CK panel, then, for a check with owner IBMSDSF, use ISFACT to display the history. From the history, for any instance with a non-zero result (an exception), use ISFACT to browse the check output.

```
/* REXX */
isfcklim = 999 /* set the limit of checks returned to 999 */
rc=isfcalls("on")
Address SDSF "ISFEXEC CK"
do ix=1 to name.0 /* Loop for all checks */
  if pos("IBMSDSF",owner.ix) > 0 then /* If desired check */
  do
    Address SDSF "ISFACT CK PARM(NP L) TOKEN('token.ix') (PREFIX",
      " CK_)"
    do jx=1 to ck_name.0
      if ck_result.jx <> 0 then
      do
        Address SDSF "ISFACT CK PARM(NP S) TOKEN('ck_token.jx')",
          "(PREFIX CKH_)"
        say "Now processing check" ck_name.jx " Run " ck_count.jx
        do mx = 1 to isfline.0
          say isfline.mx
        end /* done with history text */
      end
    end
  end
end
rc=isfcalls("off")
```

## Print to SYSOUT

Using ISFEXEC, access the ST panel. Then, prior to printing, set SYSOUT-related special variables to control the attributes of the output SYSOUT file (class, copies, dest, and forms). Using ISFACT, issue the XSC action character against the desired row (row 1) to print all data sets represented by that row. XSC prints to SYSOUT and closes the print file after printing.

```
/* REXX */
rc=isfcalls('ON')
  /* Access the ST panel */
Address SDSF "ISFEXEC ST"
lrc=rc
call msg rtn
if lrc<>0 then
  exit 20
  /* Assign the special variables that correspond to */
  /* the attributes of the print file. Unassigned */
  /* variables will use defaults. */
isfprtc class="U"
isfprtc copies="2"
isfprtc dest="ken"
isfprtc formdef="ffff"
isfprtc forms="8888"
isfprtc pagedef="pppp"
isfprtc prmode="pmode"
  /* Issue an XSC action against the row to be printed */
do ix=1 to JNAME.0
  if JNAME.ix = "RJONES" then
    do
      Address SDSF "ISFACT ST TOKEN('TOKEN.ix') PARM(NP XSC)"
      lrc=rc
      call msg rtn
      if lrc<>0 then
        exit 20
    end
  end
end
exit
  /* Subroutine to list error messages */
msg rtn: procedure expose isfmsg isfmsg2.
  /* The isfmsg variable contains a short message */
if isfmsg<>"" then
  Say "isfmsg is:" isfmsg
  /* The isfmsg2 stem contains additional descriptive */
  /* error messages */
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end
return
```

## List action characters

Set the ISFACTIONS special variable to ON, which causes the action characters to be returned in the ISFRESP variables. Then access the ST panel, and list the valid action characters for that panel.

```
/* REXX */
rc=isfcalls('ON')
  /* Set isfactions special variable to */
  /* the equivalent of SET ACTION ON */
isfactions="ON"
  /* Invoke the ST panel */
Address SDSF "ISFEXEC ST"
if rc<>0 then
  Exit rc
  /* List each of the valid action characters */
  /* for the panel. */
Say "Actions valid on the panel are:"
do ix=1 to isfresp.0
  Say " " isfresp.ix
end
rc=isfcalls('OFF')
```

## Issue system commands using ISFSLASH

```
/* REXX */
rc=isfcalls('ON')
mycmd.0=3
mycmd.1="$DSPL"
mycmd.2="$D JOBQ,JM=S*"
mycmd.3="$D I"
Address SDSF ISFSLASH ("mycmd.") (WAIT)
/* List any error messages */
Say "isfmsg is:" isfmsg
Say "isfmsg2.0 is:" isfmsg2.0
if datatype(isfmsg2.0) = "NUM" then
  do ix=1 to isfmsg2.0
    Say "isfmsg2."ix "is:" isfmsg2.ix
  end
rc=isfcalls('OFF')
```



## Work with the last 24 hours of SYSLOG

Use special variables and the REXX DATE and TIME functions to specify the member to process, the date format, date range, and the limit for the number of records in the stem variable ISFLINE. Then use the ISFLOG command to read the SYSLOG to ISFLINE.

```
/* REXX */
rc=isfcalls('ON')
isfsysid="sy2" /* Member to process */
isfdate="mmdyyy" /* Date format for special variables */
currday=date("C")
currday=currday-1 /* yesterday */
isflogstartdate=date("U",currday,"C") /* yesterday in mm/dd/yy */
isflogstarttime=time("N") /* current time */
isflogstopdate=date("U") /* current date in mm/dd/yy */
isflogstoptime=time("N") /* current time */
isflinelim=10000
Address SDSF "ISFLOG READ TYPE(SYSLOG)"
do ix=1 to isfmsg2.0
  say isfmsg2.ix
end
do ix=1 to isflinelim /* Process the returned variables */
  say isflinelim.ix
end
rc=isfcalls('OFF')
```

## Work with the current day of the system log

Use the ISFLOG command to read the system log for the current day to the ISFLINE stem variable. This example is for the SYSLOG. To work with the OPERLOG, you would specify TYPE(OPERLOG) with the ISFLOG command.

```
/* REXX */
rc=isfcalls('ON')
isflinelim=100000
Address SDSF "ISFLOG READ TYPE(SYSLOG)"
do ix=1 to isfmsg2.0
  say isfmsg2.ix
end
do ix=1 to isflinelim /* Process the returned variables */
  say isflinelim.ix
end
rc=isfcalls('OFF')
```

## Find a message in the system log

Use the ISFLOG command to read the system log. Use the ISFFIND and ISFSCROLLTYPE special variables to find message \$HASP100.

```
/* REXX */

rc=isfcalls('ON')
isfsysid="sy1" /* Member to process */
isfdate="mmdyyy" /* Date format for special variables */
currday=date("C")
currday=currday-2 /* yesterday */
isflogstartdate=date("U",currday,"C") /* yesterday in mm/dd/yy */
isflogstarttime=time("N") /* current time */
isflogstopdate=date("U") /* current date in mm/dd/yy */
isflogstoptime=time("N") /* current time */

isffind = '$HASP100'
isffindlim = 999999
isfscrolltype = 'FINDNEXT'
isflinelim = 1

do until isfnextlinetoken=''
  Address SDSF "ISFLOG READ TYPE(SYSLOG)"

  lrc=rc
  if lrc>4 then
    do
      call msg rtn
      exit 20
    end
  do ix=1 to isfline.0 /* Process the returned variables */
    say isfline.ix
  end

  /*****
  /* Continue reading SYSLOG where we left off */
  *****/
  isfstartlinetoken = isfnextlinetoken
end
rc=isfcalls("off")

exit

/*****
/* Subroutine to list error messages */
*****/
msg rtn: procedure expose isfmsg isfmsg2.

/*****
/* The isfmsg variable contains a short message */
*****/
if isfmsg <> "" then
  Say "isfmsg is:" isfmsg

/*****
/* The isfmsg2 stem contains additional descriptive */
/* error messages */
*****/
do ix=1 to isfmsg2.0
  Say "isfmsg2."ix "is:" isfmsg2.ix
end

return
```

## Work with the last 24 hours of OPERLOG

This example shows reading the last 24 hours of OPERLOG. Use special variables and the REXX DATE and TIME functions to specify the member to process, the date format, date range, and the limit for the number of records in the stem variable ISFLINE. Then use the ISFLOG command to read the SYSLOG to ISFLINE. Print a subset of messages which were either highlighted, have descriptor code 12, or colored in red when they were issued.

```
/* REXX */

rc=isfcalls('ON')

isfsysid="sy2"           /* Member to process */
isfdate="mddyyy /"      /* Date format for special variables */
currday=date("C")
currday=currday-1      /* yesterday */
isflogstartdate=date("U",currday,"C") /* yesterday in mm/dd/yy */
isflogstarttime=time("N") /* current time */
isflogstopdate=date("U") /* current date in mm/dd/yy */
isflogstoptime=time("N") /* current time */
isflinelim=1000

do until isfnextlinetoken=''
  Address SDSF "ISFLOG READ TYPE(OPERLOG)"
  do ix=1 to isfmsg2.0
    say isfmsg2.ix
  end
  do ix=1 to isfline.0 /* Process the returned variables */
    descodematch = 0
    do jx=1 to words(isfdesccode.ix)
      if word(isfdesccode.ix,jx)='12' then descodematch=1
    end

    if isfhighlight.ix = 'h' |, /* if highlighted */
       isfcolor.ix = 'r' |, /* if red */
       descodematch = 1 then
      say isfline.ix

  end
  /*****
  /* Continue reading OPERLOG where we left off */
  /*****/
  isfstartlinetoken = isfnextlinetoken
end
rc=isfcalls("off")
```

## Issue the WHO command

Issue the WHO command and echo back the response.

```
/* REXX */
rc=isfcalls('ON')
/* Issue the WHO command */
Address SDSF "ISFEXEC WHO"
/* The responses are returned in the isfresp stem */
do ix=1 to isfresp.0
  Say "isfresp."ix "is:" isfresp.ix
end
rc=isfcalls('OFF')
exit
```

## Invoking an exec with the % action character

This example shows an exec that can be invoked with the % action character.

```
/* REXX */
Parse Arg pSDSFParms "(" pUserParms
Parse var pSDSFParms pCurrentPanel pPrimaryPanel pRowToken pPrimaryCmd .
Say "Current panel is:" pCurrentPanel
Say "Primary panel is:" pPrimaryPanel
primaryCmd=x2c(pPrimaryCmd) /* Restore original command and parms */
Say "Primary command is:" primaryCmd
Say "User arguments are:" pUserParms

trace o

/*-----*/
/* Check for debug mode */
/*-----*/
verbose=""
do ix=1 to words(pUserParms)
  if translate(word(pUserParms,ix))="DEBUG" then
    verbose="verbose"
end

/*-----*/
/* Determine if exec invoked under SDSF */
/*-----*/
rc=isfquery()
if rc<&lt;sym;&gt;sym;0 then
  do
    Say "*** SDSF environment does not exist, exec ending."
    Exit 20
  end

rc=isfcalls('ON')

/*-----*/
/* Initialize SDSF special variables */
/*-----*/
rc=isfquery("INIT")
Say "isfprefix was set to:" isfprefix
Say "isfowner  was set to:" isfowner
Say "isfdest   was set to:" isfdest

/*-----*/
/* Retrieve the column values for the row being processed */
/*-----*/
Address SDSF "ISFGET" pPrimaryPanel "TOKEN('pRowToken')",
              (" verbose ")
lrc=rc

call msg rtn "ISFGET"
if lrc<&lt;sym;&gt;sym;0 then
  Exit 20

/*-----*/
/* List all column values for the row */
/*-----*/
if pCurrentPanel<&lt;sym;&gt;sym;pPrimaryPanel then /* If on secondary */
  numRows=isfrows2
else
  numRows=isfrows

call cols rtn numRows . sdsfcols

rc=isfcalls('OFF')
```

Exit 0

```

/*****
*
* NAME =
*   msgrtn
*
* FUNCTION =
*   List all messages in the isfmsg and isfmsg2. variables
*
* INPUT =
*   req - Request being processed
*
* EXPOSED VARIABLES =
*   isfmsg - Short message
*   isfmsg2. - Numbered messages
*
* OUTPUT =
*   Messages written to terminal
*
*****/
msgrtn: Procedure expose isfmsg isfmsg2.
Arg req

/*-----*/
/* Process numbered messages */
/*-----*/
Say "*** Numbered messages associated with" req "follow ..."
do ix=1 to isfmsg2.0
  Say isfmsg2.ix
end

if isfmsg&ltsym;&gtsym;" then /* If short message present */
do
  Say "*** Short message associated with the request is:" isfmsg
end

return

/*****
*
* NAME =
*   colsrtn
*
* FUNCTION =
*   List all rows and their column values
*
* INPUT =
*   numrows - number of rows to process
*   pfx      - column variable prefix or "." if none
*   ocols   - word delimited column names to process
*
* EXPOSED VARIABLES =
*   None
*
* OUTPUT =
*   Responses written to terminal
*
*****/
colsrtn:
Arg numrows pfx ocols
Say "Number of rows to process: " numrows

do rowix=1 to numrows /* Loop for all rows */
  Say "Now processing row" rowix "..."

```

```

do colix=1 to words(ocol) /* Loop for all columns */

  if pfx="." then /* If no prefix */
    pfx=""

  varname=pfx||word(ocol,colix)||'.'||rowix

  Say " Column" varname '=' value(varname)
end /* For all columns */
end /* For all rows */
return

```

---

## System REXX and SDSF

If you invoke SDSF's REXX using System REXX, you need to be aware of the following:

- You must set up the ISFJESNAME variable to identify the JES2 subsystem, or the ISFJES3NAME variable to identify the JES3 subsystem.
- You must be authorized to invoke SDSF functions from REXX, as described in "Security and REXX."

For more information on System REXX (SYSREXX), see *z/OS MVS System Commands*.

---

## Security and REXX

Using SDSF function from a REXX exec is protected just as using SDSF interactively is protected, with the same SAF resources and ISFPARMS parameters. Where special REXX variables correspond to SDSF commands, the authorization for those special variables is the same as for the associated command. In some cases, using a special variable when you are not authorized to the associated command will cause the exec to fail and the invocation of SDSF to end.

### Determining which group in ISFPARMS a user is assigned to

To control which group in ISFPARMS a user is assigned to, you can use either SAF or ISFPARMS. Using SAF is the recommended approach, as it is more dynamic and allows you to assign users to the same group regardless of the environment from which they invoke SDSF (interactive, batch, REXX or Java).

The WHO command displays the group to which you are assigned.

#### Using SAF

To determine group membership, SDSF checks the SAF resource `GROUP.group-name.server-name` in the SDSF class. This is explained in detail in "Using SAF to control group membership" on page 35.

#### Using ISFPARMS

You can use parameters in the GROUP statement or ISFGRP macro to determine group membership. These allow you to control membership based on user ID, logon procedure, terminal name, or TSO authority. See "Group membership" on page 34 for more information.

When you use SDSF's REXX support, special values are assigned as follows:

**Logon proc name**  
Set to REXX.

**TSO authority**

Set to JCL authority.

**Terminal name**

Derived from SAF or TSO based on the current environment.

---

## Diagnosing errors in a REXX exec

To diagnose errors in a REXX exec:

- Examine the contents of the special variables that contain the SDSF messages, ISFMSG and ISFMSG2. ISFMSG2 is a stem variable.
- If the SDSF messages do not provide enough information to resolve the errors, try adding the VERBOSE option to the ISFEXEC and ISFACT host commands, then examining the contents of the ISFMSG2 stem variable. VERBOSE causes diagnostic messages to be added to the ISFMSG2 stem variable. The messages describe each row variable created by SDSF.
- For problems related to security, use the ISFSECTRACE special variable along with the contents of the ISFMSG2 or ISFULOG variables. For more information, refer to “Diagnosing security” on page 204.
- For problems associated with authorization to system commands, see the contents of the ISFULOG special variable, which includes SAF authorization messages. Note that SAF authorization messages will not be preceded by the system command. That is because SDSF checks the SAF resource for the command in advance and does not issue the command if the user is not authorized to it.
- If you need to call IBM for service, prepare documentation by printing the contents of these special variables:
  - ISFMSG and ISFMSG2
  - ISFDIAG. This variable is intended for use by IBM service personnel. It contains internal reason codes associated with a request.

If IBM requests that you run a trace, include the following special variables in your exec prior to the ISFEXEC or ISFACT commands:

```
isftrace="ON"  
isftrmask="ALL"
```

You must be authorized to the TRACE command to use these variables.

If jobs that you expect to see are missing from a panel, or you are not authorized to function that you expect to be authorized to, the problem may be with the group in ISFPARMS that you are being assigned to. To see if you are being assigned to a different group when you use SDSF REXX than when you use SDSF interactively, issue the WHO command from a REXX exec and from the command line, and compare the values for group index. If you believe you are being assigned to the wrong group, contact your security administrator. Security and SDSF REXX is described in “Security and REXX” on page 475.

\_\_\_\_\_ **End of Programming Interface Information** \_\_\_\_\_



---

## Chapter 14. Using SDSF with the Java programming language

### Programming Interface Information

This topic provides an overview of accessing SDSF function with the Java programming language, and describes how to protect the use of SDSF through Java.

Using SDSF with Java allows you to create Java applications that exploit SDSF function. It provides a more powerful alternative to using SDSF in batch, which is described in Chapter 12, “Using SDSF in batch,” on page 383, and complements SDSF's support for REXX, which is described in Chapter 13, “Using SDSF with the REXX programming language,” on page 391.

You must be authorized to use SDSF from Java and you must be authorized to the SDSF functions that you invoke from Java.

System programmers should define ISFPARMS group membership to ensure that SDSF users have the proper authorization when invoking SDSF with Java. For more information, see “Security and Java” on page 487.

---

### Where to look for information

The principal source of information for using Java with SDSF is the Javadoc supplied with SDSF. To use the Javadoc:

1. Download the isfjcallDoc.jar file, in binary, to an empty directory on your workstation. By default, this file is installed into /usr/include/java\_classes/isfjcallDoc.jar.
2. If you have the Java SDK installed, use this command:  

```
jar -xf isfjcallDoc.jar
```

Otherwise, use another utility to unzip the file.

3. Navigate to the index.html file and open it with a Web browser. Once the index.html file is displayed, links allow you to navigate to specific classes or topics, such as:

**Overview**

Display an overview to using SDSF with Java

**Package**

Display a list of classes

**Tree** Display a hierarchical view of classes

**Index** Display an index to the Javadoc

See the following for further information.

- Using SDSF, including descriptions of panels, action characters, overtypable columns and commands: refer to SDSF's online help. For a brief introduction, see Chapter 11, “Introduction to SDSF application services,” on page 377.
- Columns on SDSF panels: to display a list of columns and other column attributes, use the COLSHELP command. The columns are also described in Chapter 4, “Columns on the SDSF panels,” on page 135.

---

## Simplifying systems management with SDSF Java

With the SDSF Java API, you can access SDSF panel data and function through a Java program.

**Accessing panels and panel data:** Each of the panels that you work with when using SDSF interactively (DA, O, PR and so on) has an associated Java interface that describes the returned data and the available methods. Panel data is represented by lists, with each element in a list corresponding to a row on the panel. You access column data within a list element by referencing column values by column name.

**Processing system log and issuing commands:** You can retrieve records from the system log (SYSLOG) and the sysplex-wide log (OPERLOG), and search for specific messages or events. You can also issue free-form system commands and receive their responses in a manner similar to using the SDSF slash (/) command.

**Retrieving job output:** You can retrieve records from the output data sets for a job and search for specific messages or return codes.

**Taking action:** You use methods to perform functions similar to action characters and overtypable fields, for example, to cancel a job or change the print destination for job output.

**Filtering data:** For best performance, you should limit the data that a request returns to the minimum that is required. You do this with request settings, which allow you to specify things like:

- Filters of various kinds. The same filters that are available when you use SDSF interactively are available with request settings. They include filters by job name, owner and destination, like the PREFIX, OWNER and DEST commands, or any column, like the FILTER command.
- The list of columns to process. Specify columns by column name.
- Whether to include columns with delayed access. Because gathering the data for these columns can take a significant amount of time, they are not included unless you request them explicitly.

**Viewing results:** You can access messages and return codes that describe the completion of a request through a results object. SDSF messages and system messages, if any, issued in response to commands are contained in lists, with each element corresponding to a message. Return codes from SDSF functions are available both in the results object and as return codes on most methods.

**Controlling access:** Standard SDSF authorization checking occurs for all requests and for attempts to modify the row represented by a returned object.

---

## Enabling your application to use SDSF Java

Your application must make the SDSF Java classes and libraries accessible to it. To do this, add the SDSF JAR file to the CLASSPATH and modify your application LIBPATH. The syntax for doing this varies based on how your application is invoked.

**CLASSPATH:** The SDSF JAR file (**isfjcall.jar**) must be included on the CLASSPATH. The CLASSPATH can be included on the Java command (using the -cp keyword) that invokes your application, or through the CLASSPATH

environment variable. For example, to invoke an application from the z/OS Unix System Services (z/OS Unix) shell, you might have the following statement:

```
export CLASSPATH=/usr/include/java_classes/isfjcall.jar:$CLASSPATH
```

**LIBPATH:** The LIBPATH references a path containing the SDSF native library. There is one library for 31-bit Java and one for 64-bit Java. You must point to the appropriate library based on the version of Java you are running.

This example assumes SDSF has been installed in the default directories and 31-bit Java is being used:

```
export LIBPATH=/usr/lib/java_runtime:$LIBPATH
```

If you are using 64-bit Java, the LIBPATH would be similar to the following:

```
export LIBPATH=/usr/lib/java_runtime64:$LIBPATH
```

Note that the LIBPATH references a path and not a specific file, whereas the CLASSPATH references a specific JAR file.

**JAVA LEVEL:** SDSF requires any of the following Java levels or higher:

- IBM 31-bit SDK for z/OS, Java Technology Edition, V7
- IBM 64-bit SDK for z/OS, Java Technology Edition, V7

To access Java, update your PATH environment variable to point to the level of Java you need (either 31-bit or 64-bit). Assuming Java has been installed in the default path, you would use a command similar to the following for 31-bit Java:

```
export PATH=/usr/lpp/java/J7.0/bin:$PATH
```

If you are using 64-bit Java, the PATH would be similar to the following:

```
export PATH=/usr/lpp/java/J7.0_64/bin:$PATH
```

---

## Installation verification

You can use the ISFAbout class to verify that SDSF Java has been configured correctly. It produces a report that includes the service levels of the SDSF Java classes and other information about the runtime environment. A successful run of ISFAbout shows that your classpath and libpath are acceptable to SDSF and that SDSF can be used to retrieve data.

To run ISFAbout, use a command similar to the following:

```
java -cp classpath -jar /usr/include/java_classes/isfjcall.jar
```

Alternatively, you can invoke ISFAbout with this command:

```
java -cp classpath com.ibm.zos.sdsf.core.ISFAbout
```

ISFAbout is controlled through arguments. By default, a report is written to stdout. You can use arguments to write the report to a file. The arguments are as follows:

**-f: filename**

Names a path to which the report will be written. If this is not specified, the report is written to stdout.

**-append**

Indicates that the report will be appended to the file. If this is not specified, the file is replaced.

**-m:modnames**

Names a list of SDSF module names, separated by commas, for which module level information is desired. These names will be provided by IBM service personnel when diagnosing problems.

**-help or -?**

Requests the usage text to be displayed.

For example, to write a report describing the SDSF Java environment to a file called /tmp/about.txt (replacing it), you could use a command similar to the following:

```
java -cp classpath -jar /usr/include/java_classes/isfjcall.jar -f:/tmp/about.txt
```

## Writing a Java application

A basic SDSF Java application might do the following:

1. Create a runner that corresponds to the panel you want to work with. A runner is a Java class that provides access to SDSF and contains a results object describing completion of the request. Runners are described in “Using runners and request settings” on page 482.
2. Create request settings and associate it with the runner to limit the results that are returned. (This is optional but recommended.) Request settings are described in “Using runners and request settings” on page 482.
3. Invoke SDSF to create a list of objects and check the results object for SDSF completion messages.
4. Process the returned object list and obtain column values for each row.
5. Invoke methods on a row object to retrieve additional information or modify the object.

You should always test the return codes from SDSF functions. These are available in the results object and as return codes on most methods. SDSF and system messages describing the completion of a request are also contained in the results object.

### Example

The code snippet below requests job-related data from the Status (ST) panel. The settings object is used to restrict the returned data to a subset of jobs with the indicated job name prefix (in this case, all job names) and owner (IBMUSER).

```
// Create optional settings object
ISFRequestSettings settings = new ISFRequestSettings();
settings.addISFPrefix("**"); // Set job name prefix
settings.addISFOwner("ibmuser"); // Set job owner

// Get a runner used to access SDSF ST panel
ISFStatusRunner runner = new ISFStatusRunner(settings);

List<ISFStatus> statObjList = null;

try {
    statObjList = runner.exec();
} catch (ISFException e) {
    // Process exception here
} finally {
    // Print SDSF messages related to request
    results.printMessageList(System.err);
}

} // List job properties
```

```

if (statObjList != null) {
    for (ISFStatus statObj : statObjList) {
        System.out.println(statObjList.toVerboseString());
    }
}

```

---

## Working with objects

SDSF creates objects which represent rows on the panel being requested. The column values for the row are contained in the object. To limit the size of the object, it is good practice to use the `addISFCols` setting to request only the columns that are needed.

SDSF action characters are implemented through methods driven on the object. Overtyping columns is implemented through the `requestPropertyChange` method which allows one or more column values to be changed at the same time.

### Obtaining column values

Request column values by column name using the `getValue` method. The value can be returned as a formatted string or as a byte array for processing by the application.

Column names are different than the column titles that are displayed when you use SDSF interactively. Use the SDSF `COLSHELP` command to list the column names recognized by the `getValue` method. Column names are not case sensitive.

Some classes include convenience methods for obtaining common values such as job name. The fixed field (the first column on a panel when you use SDSF interactively) can also be obtained using the `getFixedField` method.

The following code snippet shows how to obtain column values using a previously created `ISFStatus statObj` object.

```

// Get job name and owner
String jobname = statObj.getValue("jname");
String owner = statObj.getValue("ownerid");

// Get fixed field (jobname)
String fixedField = statObj.getFixedField();

```

### Actions and overtypes

The available methods for an object are defined by the interface for the object. The method names are similar to the descriptions for action characters that you can display with the `SET ACTION LONG` command when using SDSF interactively.

The following snippet shows how to cancel a job and list the command responses on the console.

```

// Cancel job without a dump
statObj.cancel();

// List the command responses
results.printResponseList(System.out);

```

You can change column values, in a manner similar to overtyping a column, with the `requestPropertyChange` method. This method takes an array of column names to change and a corresponding array of values with the new value for each column. The following code snippet shows how to change the class of a job to class A.

```

// Build column name array
String propName = { "jclass" };

// Build column value array
String propValue = { "a" };

// Change the job class
statObj.requestPropertyChange(propName, propValue);

// Print response list
results.printResponseList(System.out);

```

See “Samples” on page 484 for more examples of working with objects.

## Browsing data

To browse job output from the job-related panels (DA, H and so on) you can:

- Use an external utility. With this approach, you first allocate the output data sets with the `browseAllocate` method.
- Use SDSF's `browse`. With this approach, you use the `browse` or `browseJCL` methods.

You can also browse the output of a check on the CK panel, or the system log on the SYSLOG or OPERLOG panels.

SDSF provides a variety of samples for browsing and searching data. Refer to “Samples” on page 484.

---

## Using runners and request settings

A runner is a Java class that provides access to SDSF in a means similar to using SDSF commands to access panels. To access SDSF, you create an instance of a runner for the desired panel and then use methods in the runner class to obtain the requested data. For functions that are not panel-related, such as issuing system commands, you use a special runner.

You can optionally provide request settings that are associated with the runner. You create an instance of the `ISFRequestRunner` class and add the desired settings to it. The settings correspond to SDSF settings such as job name prefix, job owner, and destination name filters. In addition, you can provide sort criteria for the returned data, as well as more complex filtering using all the capabilities of the SDSF `FILTER` command.

The request settings object contains all possible SDSF settings, although not all of them apply to the request being processed. SDSF ignores settings that are not appropriate for the function being performed, so you do not need to remove them.

The runner provides a constructor that is used to associate the request settings with the runner. However, you can always associate a settings object after the runner is created. Note that the settings take effect the next time SDSF is invoked. You can also remove settings after the runner is created, in which case SDSF uses the default settings when processing the request.

You can use the same runner for the duration of your application and modify the request settings between each request. Note that when invoking methods on previously obtained objects (for example, invoking the `cancel` method on a job) SDSF uses the request settings to verify that the object still exists. As a result, use

caution when changing the request settings after a row object has been obtained since the new settings may prevent SDSF from re-deriving the object.

After a request has been processed, the runner contains a reference to the ISFRequestResults object that describes the completion of the request. This object contains SDSF messages, system responses or return codes that were generated by SDSF. You should check the return codes to ensure your request has been processed successfully.

## Determining which runner to use

You select the runner based on what rows, columns or other SDSF capabilities your application needs. For example, if you need information about active jobs, you would use the ISFActiveRunner because it provides access to the SDSF DA panel.

Similarly, if you need to enter MVS system commands, you would use the ISFRunner class because it enables use of the SDSF slash command.

The relationship between the SDSF panel commands and the runners is shown in the table below Table 181. Use this chart to determine the runner to create based on the data that is required.

Table 181. SDSF Commands and Runners

| Panel or Command | Runner                     | Description                              |
|------------------|----------------------------|------------------------------------------|
| APF              | ISFApfRunner               | APF data sets                            |
| I AS             | ISFAsmRunner               | Address space memory                     |
| CK               | ISFHealthCheckRunner       | Checks for IBM Health Checker for z/OS   |
| DA               | ISFActiveRunner            | Active jobs                              |
| I DYNX           | ISFDynxRunner              | Dynamic exits                            |
| ENC              | ISFEnclaveRunner           | WLM enclaves                             |
| I ENQ            | ISFEnqueueRunner           | Enqueues                                 |
| H                | ISFHeldOutputRunner        | Output groups for jobs on held queues    |
| I                | ISFInputRunner             | Jobs on the input queue or executing     |
| INIT             | ISFInitiatorRunner         | JES and WLM initiators                   |
| JC               | ISFJobClassRunner          | JES job classes                          |
| JG               | ISFJobGroupRunner          | JES job groups                           |
| J0               | ISFJob0Runner              | JES3 Job 0                               |
| LI               | ISFLineRunner              | JES lines                                |
| LNK              | ISFLnkLstRunner            | Link list data sets                      |
| LPA              | ISFLpaRunner               | Link pack area data sets                 |
| MAS / JP         | ISFJESplexRunner           | Members of a JES2 MAS or JES3 JESPLEX    |
| NC               | ISFNetworkConnectionRunner | JES network connections                  |
| NO               | ISFNodeRunner              | JES nodes                                |
| NS               | ISFNetworkServerRunner     | JES network servers                      |
| O                | ISFOutputRunner            | Output groups for jobs on nonheld queues |
| PAG              | ISFPageRunner              | Page data sets                           |
| PARM             | ISFParmlibRunner           | PARMLIB data sets                        |

Table 181. SDSF Commands and Runners (continued)

| Panel or Command | Runner                         | Description                        |
|------------------|--------------------------------|------------------------------------|
| PR               | ISFPrinterRunner               | JES printers                       |
| I PROC           | ISFProclibRunner               | Proclib data sets                  |
| PS               | ISFProcessRunner               | z/OS Unix processes                |
| PUN              | ISFPunchRunner                 | JES punches                        |
| QUERY            | ISFRunner                      | QUERY command                      |
| RDR              | ISFReaderRunner                | JES readers                        |
| RES              | ISFWLMResourceRunner           | WLM resources                      |
| RM               | ISFResourceMonitorRunner       | JES resources                      |
| SE               | ISFSchedulingEnvironmentRunner | WLM scheduling environments        |
| SO               | ISFSpoolOffloadRuner           | JES spool offloaders               |
| SP               | ISFSpoolRunner                 | JES spool volumes                  |
| SR               | ISFSystemRequestRunner         | z/OS system requests               |
| ST               | ISFStatusRunner                | Jobs on any queue                  |
| SYS              | ISFSystemRunner                | System information                 |
| I SYM            | ISFSystemSymbolRunner          | System symbols                     |
| WHO              | ISFRunner                      | WHO command (user and environment) |
| /                | ISFRunner                      | Slash command (system commands)    |

## Samples

SDSF provides several sample classes to show how to use SDSF Java. The samples are installed by default under the `/usr/lpp/sdsf/java/samples` path. The available samples are:

| Sample                           | Class Name                 | Description                                                     |
|----------------------------------|----------------------------|-----------------------------------------------------------------|
| Get list of jobs                 | ISFGetJobsSample           | Access the ST panel and display the properties of selected jobs |
| Get job step information         | ISFGetJobStepsSample       | Get job step information for selected jobs                      |
| Change job priority              | ISFChangeJobPrioritySample | Change the priority of jobs                                     |
| Browse a check                   | ISFBrowseHealthCheckSample | Browse a check for IBM Health Checker for z/OS                  |
| Browse a job data set            | ISFBrowseJobDataSetSample  | Browse a selected job data set                                  |
| Browse job output                | ISFBrowseStatusJobSample   | Browse a job's output                                           |
|                                  | ISFBrowseSample            | Allocate the spool data sets for a job and browse them          |
| Browse and search the system log | ISFSearchSyslogSample      | Read the last day of SYSLOG and search for one or more strings  |
|                                  | ISFSearchSyslogSample2     | Browse and search the SYSLOG, specifying the lines              |
|                                  | ISFSearchOperlogSample     | Browse the OPERLOG                                              |
| Browse                           | ISFLineResultsSample       | Browse, use methods in ISFLineResults                           |



| Sample                                        | Class Name            | Description                                                |
|-----------------------------------------------|-----------------------|------------------------------------------------------------|
| Issue MVS commands                            | ISFSlashCommandSample | Issue one or more system commands                          |
| Issue WHO command                             | ISFWhoCommandSample   | Issue the SDSF WHO command to obtain user attributes       |
| List exception health checks and their output | ISFHealthCheckSample  | Find all exception health checks and list the check output |

## Running the samples

Invoke samples using the main method. See the class descriptions in the Javadoc for any arguments that are needed. Compiled versions of the classes are available in the SDSF JAR file (**isfjcall.jar**) so you invoke the samples by adding the JAR file to your classpath.

## Troubleshooting

Check the list below for help if you encounter a problem using the SDSF Java API.

| Problem                                           | Solution                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Not all columns returned for an object</b>     | Some columns are classified as "delayed" access, which means the data can be expensive to gather. These columns are not returned unless the <b>delayed</b> option is added to the request settings. Use the SDSF COLSHELP command to determine which columns are delayed.                                                                                    |
| <b>Objects not returned</b>                       | Be sure the request settings reflect the correct prefix and owner for a job. SDSF uses these settings when determining which objects to return.                                                                                                                                                                                                              |
| <b>Object not found or row token invalid</b>      | When you invoke a method on an object, such as cancel, the object must be valid. A job may be invalid, for example, if it has been purged and thus cannot be found. Examine the SDSF messages to determine why the request failed.                                                                                                                           |
| <b>Too many objects returned</b>                  | It is possible to generate requests that return an excessive number of objects. This may result in failures related to insufficient storage, or performance problems. Be sure to refine the request settings to return the fewest number of objects needed to satisfy a request. You should also limit the number of column values returned for each object. |
| <b>Object no longer valid</b>                     | A returned object contains a row token that SDSF uses to find the object on subsequent requests. The format of the token may vary across SDSF releases or maintenance levels. Therefore, it is expected that the object will be used on the same level of SDSF that gathered it.                                                                             |
| <b>Request failed with a non-zero return code</b> | Be sure to examine the SDSF messages that describe any errors found by SDSF. To do this, use the <code>getRunner().getRequestResults().getMessageList()</code> method.                                                                                                                                                                                       |

| <b>Problem</b>                                        | <b>Solution</b>                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SDSF Java classes not found</b>                    | The SDSF Java classes are packaged in a JAR file that by default is installed in /usr/include/java_classes/isfjcall.jar. Be sure this JAR file is in your application CLASSPATH.                                                                                                                                                                                                    |
| <b>Unsatisfied link error</b>                         | The SDSF Java classes require that the SDSF DLL is included in your application LIBPATH. There are two versions of the DLL, based on whether you are running the 31-bit or 64-bit version of Java. By default, the DLLs are installed in /usr/lib/java_runtime (for 31-bit Java), and /usr/lib/java_runtime64 (for 64-bit Java).                                                    |
| <b>Unable to modify an object property</b>            | You may not be authorized to modify the property. Even though you may be able to overtype the column interactively, the modify fails using SDSF Java. Verify that you are in the expected SDSF group. Use the who method of ISFRunner. Note that unless you are using SAF for security, your authority level may be different when using SDSF Java than when running interactively. |
| <b>Method return code 16 (not authorized to SDSF)</b> | Verify your authorization to use SDSF. Message ISF024I may have been issued to the system console.                                                                                                                                                                                                                                                                                  |

## Tracing

If you need to report a problem to IBM, the SDSF Java classes can produce trace records using the facilities of the java.util.logging package. To enable tracing you must modify your logging.properties file or point to your own copy of the file when invoking your SDSF Java application.

If you are using file-based logging, you can add the following statement to your logging.properties file to enable SDSF Java tracing:

```
com.ibm.zos.sdsf.level = ALL
```

You can reference your modified logging.properties file using the following system property when invoking your application:

```
-Djava.util.logging.config.file=logging.properties
```

In addition, IBM service personnel may request that an SDSF trace be obtained. This causes the SDSF host code to create trace records that can be used to diagnose problems. You can enable trace by using the addISFTrace method in the ISFRequestSettings class or by using the following system property when invoking your application:

```
-Dcom.ibm.zos.sdsf.core.ISFRequestSettings.sdsfTrace=true
```

SDSF trace records are recorded to a SYSOUT file associated with the process that is running your application. The ddname for the sysout file is named ISFTRACE.

---

## Security and Java

Using SDSF function from a Java program is protected just as using SDSF interactively, or from a REXX exec, is protected, with the same SAF resources and ISFPARMS parameters. For example, when a Java method corresponds to an SDSF action character, the authorization for that method is the same as for the action character. See “Protecting runners” and “Protecting methods” for more information.

### Determining which group in ISFPARMS a user is assigned to

To control which group in ISFPARMS a user is assigned to, you can use either SAF or ISFPARMS. Using SAF is the recommended approach, as it is more dynamic and allows you to assign users to the same group regardless of the environment from which they invoke SDSF (interactive, batch, REXX or Java).

The WHO command displays the group to which you are assigned.

#### Using SAF

To determine group membership, SDSF checks the SAF resource `GROUP.group-name.server-name` in the SDSF class. This is explained in detail in “Using SAF to control group membership” on page 35.

#### Using ISFPARMS

You can use parameters in the GROUP statement or ISFGRP macro to determine group membership. These allow you to control membership based on user ID, logon procedure, terminal name, or TSO authority. See “Group membership” on page 34 for more information.

When you use SDSF's Java support, this special value is assigned:

#### Logon proc name

Set to EXTERNAL.

### Protecting runners

You protect the runners in the same way that you protect the associated SDSF commands. For a discussion of how the runners relate to SDSF commands, see Table 181 on page 483. For information on protecting the runners if you are using SAF for security, see “Authorized SDSF commands” on page 249. If you are using ISFPARMS for security, see AUTH parameter.

### Protecting methods

You protect the Java methods in the same way that you protect the corresponding action characters and overtypeable fields. The relationship of methods in each class to action characters is described in the topics that follow. For information about the SAF resources that you use to protect action characters, see “Action characters” on page 223. For information about the SAF resources that you use to protect overtyping fields with the requestPropertyChange method, see “Overtimeable fields” on page 271. If you are using ISFPARMS for security, see “Action characters and overtypeable fields for each command level” on page 74.

#### ISFApf (APF panel)

Table 182. ISFApf Methods for Action Characters

| Method  | Action Character | Description                           |
|---------|------------------|---------------------------------------|
| display | D                | Display the data sets in the APF list |

Table 182. ISFAPF Methods for Action Characters (continued)

| Method     | Action Character | Description                           |
|------------|------------------|---------------------------------------|
| displayAll | DA               | Display the data sets in the APF list |

### ISFActive (DA panel)

Table 183. ISFActive Methods for Action Characters

| Method                | Action Character | Description                                                                                                            |
|-----------------------|------------------|------------------------------------------------------------------------------------------------------------------------|
| browse                | S                | Browse                                                                                                                 |
| browseAllocate        | SA               | Allocate spool data sets                                                                                               |
| browseJCL             | SJ               | Browse JCL                                                                                                             |
| cancel                | C, CA, CD, CDA   | Cancel a job without a dump                                                                                            |
| cancelPrint           | CP, CDP          | Cancel a job and delete all held data sets (JES3 only)                                                                 |
| display               | D, DL            | Display job information in the log                                                                                     |
| displayDDNames        | DSD              | Display job information in the log with DD names of all spool data sets that contain data (JES3 only)                  |
| displayEstimates      | DE               | Display job information in the log with line, page, record, and card counts (JES3 only)                                |
| displayExtended       | DX               | Display job information in the log with extended information (JES3 only)                                               |
| displaySpoolHold      | DSH              | Display job information in the log with DD names of spool data sets in spool hold status that contain data (JES3 only) |
| displaySpoolPartition | DSP              | Display job information in the log with the spool partition name (JES3 only)                                           |
| getJobDataSets        | ?                | Obtain job data set information for the job                                                                            |
| getJobDelay           | JY               | Obtain delay information for the job                                                                                   |
| getJobDevice          | JD               | Obtain device information for the job                                                                                  |
| getJobMemory          | JM               | Obtain memory information for the job                                                                                  |
| getJobSteps           | JS               | Obtain step information for the job                                                                                    |
| hold                  | H                | Hold a job                                                                                                             |
| list                  | L, LL            | List the output status of the job in the log                                                                           |
| listBDT               | LB               | List q=bdt output status of the job in the log (JES3 only)                                                             |
| listHold              | LH               | List q=hold output status of the job in the log (JES3 only)                                                            |
| listTCP               | LT               | List q=tcp output status of the job in the log (JES3 only)                                                             |
| print                 | XS, XSC          | Print a job to SYSOUT                                                                                                  |
| printDataset          | XD, XDC          | Print a job to a data set                                                                                              |
| printFile             | XF, XFC          | Print a job to a file                                                                                                  |
| purge                 | P, PP            | Purge a job                                                                                                            |
| quiesce               | RQ               | Quiesce a job                                                                                                          |
| release               | A                | Release a job                                                                                                          |
| restart               | E, EC            | Restart a job                                                                                                          |

Table 183. ISFActive Methods for Action Characters (continued)

| Method          | Action Character | Description                                                     |
|-----------------|------------------|-----------------------------------------------------------------|
| restartStep     | ES               | Restart a job after the current step completes (JES2 only)      |
| restartStepHold | ESH              | Restart and hold the job the current step completes (JES2 only) |
| resume          | R                | Resume a job                                                    |
| spin            | W                | Spin a job                                                      |
| sysCancel       | K, KD            | Cancel a job using the system CANCEL command                    |
| sysForce        | Z                | Cancel a job using the system FORCE command                     |
| sysStop         | Y                | Stop a job using the system STOP command (RMF environment only) |

### ISFDynx (DYNX panel)

Table 184. ISFDynx Methods for Action Characters

| Method              | Action Character | Description                                      |
|---------------------|------------------|--------------------------------------------------|
| display             | D                | Display a dynamic exit                           |
| displayAll          | DA               | Display all dynamic exits                        |
| displayAllImp       | DAI              | Display all implicitly defined exits             |
| displayDiag         | DD               | Display dynamic exit with diagnostic information |
| displayInstallation | DI               | Display exits defined with type installation     |
| displayNotProgram   | DNP              | Display exits not defined with type program      |
| displayProgram      | DP               | Display exits defined with type program          |

### ISFEnclave (ENC panel)

Table 185. ISFEnclave Methods for Action Characters

| Method  | Action Character | Description        |
|---------|------------------|--------------------|
| quiesce | RQ               | Quiesce an enclave |
| resume  | R                | Resume an enclave  |

### ISFENQ (ENQ panel)

Table 186. ISFENQ Methods for Action Characters

| Method  | Action Character | Description                 |
|---------|------------------|-----------------------------|
| display | D                | Display enqueue information |

### ISFHealthCheck (CK panel)

Table 187. ISFHealthCheck Methods for Action Characters

| Method     | Action Character | Description                     |
|------------|------------------|---------------------------------|
| activate   | A                | Activate a check                |
| browse     | S                | Browse the check message buffer |
| deactivate | H                | Deactivate a check              |
| delete     | P, PF            | Delete a check                  |

Table 187. ISFHealthCheck Methods for Action Characters (continued)

| Method           | Action Character | Description                       |
|------------------|------------------|-----------------------------------|
| display          | D, DL            | Display a check                   |
| displayDiag      | DD               | Display a check with diagnostics  |
| displayPolicies  | DP, DPO          | Display check policies            |
| displayStatus    | DS               | Display check status              |
| list             | L                | List history                      |
| print            | XS, XSC          | Print a check to SYSOUT           |
| printDataset     | XD, XDC          | Print a check to a data set       |
| printFile        | XF, XFC          | Print a check to a file           |
| refresh          | E                | Refresh a check                   |
| removeCategories | U                | Remove all categories for a check |
| run              | R                | Run a check                       |

### ISFHealthCheckArchive (CKH panel)

Table 188. ISFHealthCheckArchive Methods for Action Characters

| Method       | Action Character | Description                   |
|--------------|------------------|-------------------------------|
| browse       | S                | Browse a check message buffer |
| print        | XS, XSC          | Print a check to SYSOUT       |
| printDataset | XD, XDC          | Print a check to a data set   |
| printFile    | XF, XFC          | Print a check to a file       |

### ISFHeldOutput (H panel)

Table 189. ISFHeldOutput Methods for Action Characters

| Method         | Action Character | Description                                 |
|----------------|------------------|---------------------------------------------|
| browse         | S                | Browse                                      |
| browseAllocate | SA               | Allocate spool data sets                    |
| browseJCL      | SJ               | Browse JCL                                  |
| cancel         | C                | Cancel an output group                      |
| getJobDataSets | ?                | Obtain job data set information for the job |
| getJobSteps    | JS               | Obtain step information for the job         |
| hold           | H                | Hold an output group                        |
| list           | L, LL            | List an output group to the log             |
| outputRelease  | O, OK            | Output release an output group              |
| print          | XS, XSC          | Print to SYSOUT                             |
| printDataset   | XD, XDC          | Print to a data set                         |
| printFile      | XF, XFC          | Print to a file                             |
| purge          | P                | Purge output                                |
| release        | A                | Release an output group                     |

## ISFInitiator (INIT panel)

Table 190. ISFInitiator Methods for Action Characters

| Method       | Action Character | Description                              |
|--------------|------------------|------------------------------------------|
| display      | D, DL            | Display initiator information in the log |
| getJobDevice | JD               | Obtain device information for the job    |
| getJobMemory | JM               | Obtain memory information for the job    |
| halt         | Z                | Halt an initiator                        |
| start        | S                | Start an initiator                       |
| stop         | P                | Stop an initiator                        |

## ISFInput (I panel)

Table 191. ISFInput Methods for Action Characters

| Method                | Action Characters | Description                                                                              |
|-----------------------|-------------------|------------------------------------------------------------------------------------------|
| browse                | S                 | Browse                                                                                   |
| browseAllocate        | SA                | Allocate spool data sets                                                                 |
| browseJCL             | SJ                | Browse JCL                                                                               |
| cancel                | C, CA, CD, CDA    | Cancel a job                                                                             |
| cancelPrint           | CP, CDP           | Cancel a job with print (JES3 only)                                                      |
| display               | D, DL             | Display job properties in the log                                                        |
| displayDDNames        | DSD               | Display DD names of spool data sets (JES3 only)                                          |
| displayEstimates      | DE                | Display estimated lines, pages and records for a job (JES3 only)                         |
| displayExtended       | DX                | Display extended information for a job, such as scheduling environment and service class |
| displayMains          | DM                | Display a list of mains on which the job is eligible to run                              |
| displayMDSAlloc       | DMA               | Display the MDS allocation queue (JES3 only)                                             |
| displayMDSError       | DME               | Display the MDS error queue (JES3 only)                                                  |
| displayMDSRestart     | DMR               | Display the MDS restart queue (JES3 only)                                                |
| displayMDSSysSel      | DMSS              | Display the MDS system select queue (JES3 only)                                          |
| displayMDSSysVer      | DMSV              | Display the MDS system verify queue (JES3 only)                                          |
| displaySpoolHold      | DSH               | Display DD names of spool data sets in spool hold status (JES3 only)                     |
| displaySpoolPartition | DSP               | Display the spool partition assigned for a job (JES3 only)                               |
| displayUnavailVol     | DMU               | Display unavailable volumes (JES3 only)                                                  |
| getJobDataSets        | ?                 | Obtain job data set information for the job                                              |
| getJobDevice          | JD                | Obtain device information for the job                                                    |

Table 191. ISFInput Methods for Action Characters (continued)

| Method          | Action Characters | Description                                                           |
|-----------------|-------------------|-----------------------------------------------------------------------|
| getJobMemory    | JM                | Obtain memory information for the job                                 |
| getJobSteps     | JS                | Obtain step information for the job                                   |
| hold            | H                 | Hold a job                                                            |
| list            | L, LL             | List a job                                                            |
| listBDT         | LB                | List output on the BDT queue (JES3 only)                              |
| listHold        | LH                | List output on the hold queue (JES3 only)                             |
| listTCP         | LT                | List output on the TCP queue (JES3 only)                              |
| print           | XS, XSC           | Print a job to SYSOUT                                                 |
| printDataset    | XD, XDC           | Print a job to a data set                                             |
| printFile       | XF, XFC           | Print a job to a file                                                 |
| purge           | P, PP             | Purge a job                                                           |
| release         | A                 | Release a job                                                         |
| restart         | E, EC             | Restart a job                                                         |
| restartStep     | ES                | Restart a job after current step completes (JES2 only)                |
| restartStepHold | ESH               | Restart and hold the job after the current step completes (JES2 only) |
| spin            | W                 | Spin job and message logs                                             |
| start           | J                 | Start a job                                                           |

### ISFJESplex (MAS and JP panels)

Table 192. ISFJESplex Methods for Action Characters

| Method          | Action Character | Description                                               |
|-----------------|------------------|-----------------------------------------------------------|
| display         | D, DL            | Display a member in the log                               |
| flush           | F                | Flush jobs currently running on the main (JES3 only)      |
| monitor         | J                | Displays the current status of JES2 monitor subtasks      |
| monitorDetails  | JD               | Display JES monitor details in the log (JES2 only)        |
| monitorHistory  | JH               | Display JES2 resource history in the log                  |
| monitorStart    | SM               | Start the JES monitor (JES3 only)                         |
| monitorState    | JJ               | Display the JES2 state in the log                         |
| monitorStatus   | JS               | Display the current JES status in the log                 |
| monitorStop     | ZM               | Stop the JES monitor                                      |
| reset           | ER               | Reset a member (JES2 only)                                |
| restart         | E                | Restart a member (JES2 only)                              |
| start           | S                | Start a member                                            |
| startScheduling | SX               | Start scheduling jobs for the member                      |
| stop            | P                | Stop a member                                             |
| stopAbend       | PA               | Stop a member by abending it (JES2 only)                  |
| stopQuick       | PQ               | Stop a member, ignoring cross system activity (JES2 only) |



Table 192. ISFJESplex Methods for Action Characters (continued)

| Method         | Action Character | Description                                                |
|----------------|------------------|------------------------------------------------------------|
| stopScheduling | PX               | Stop scheduling jobs for the member (JES2 only)            |
| stopTerminate  | PT               | Stop the member, ignoring active programs (JES2 only)      |
| varyOffline    | VF               | Vary a member offline and stop scheduling jobs (JES3 only) |
| varyOnline     | V                | Vary a member online and start scheduling jobs (JES3 only) |

### ISFJobClass (JC panel)

Table 193. ISFJobClass Methods for Action Characters

| Method       | Action Character | Description                                              |
|--------------|------------------|----------------------------------------------------------|
| display      | D                | Display a job class in the log                           |
| displayClass | DC               | Display the status of a job class in the log (JES3 only) |
| displayGroup | DG               | Display the status of a group in the log (JES3 only)     |

### ISFJobDataSet (JDS panel)

Table 194. ISFJobDataSet Methods for Action Characters

| Method         | Action Character | Description                    |
|----------------|------------------|--------------------------------|
| browse         | S                | Browse                         |
| browseAllocate | SA               | Allocate spool data sets       |
| browseJCL      | SJ               | Browse JCL                     |
| cancel         | C                | Cancel a data set              |
| hold           | H                | Hold a data set                |
| print          | XS, XSC          | Print a data set to SYSOUT     |
| printDataset   | XD, XDC          | Print a data set to a data set |
| printFile      | XF, XFC          | Print a data set to a file     |
| purge          | P                | Purge a data set               |
| release        | O                | Release a data set             |
| spin           | W                | Spin a data set                |

### ISFJobDevice (JD panel)

Table 195. ISFJobDevice Methods for Action Characters

| Method                  | Action Character | Description                                              |
|-------------------------|------------------|----------------------------------------------------------|
| displayAll              | DA               | Display all connection information in the log            |
| displayAll              | DAL              | Display all connection information in the log, long form |
| displayByteInfo         | DB               | Display byte count information in the log                |
| displayByteInfo         | DBL              | Display byte count information in the log, long form     |
| displayCouplingFacility | DC               | Display coupling facility information in the log         |
| displayConnection       | DN               | Display connection in the log                            |
| displayConnection       | DNL              | Display connection, long form in the log                 |
| displayPolicy           | DP               | Display XCF policy in the log                            |

Table 195. ISFJobDevice Methods for Action Characters (continued)

| Method             | Action Character | Description                                                 |
|--------------------|------------------|-------------------------------------------------------------|
| displayRoute       | DR               | Display routing information in the log                      |
| displayRoute       | DRD              | Display routing information, detailed in the log            |
| displayRoute       | DRL              | Display routing information in the log, long form           |
| displayRoute       | DRDL             | Display routing information in the log, detailed, long form |
| displayCFStructure | DS               | Display CF structure information in the log                 |

### ISFJobGroup (JG panel)

Table 196. ISFJobGroup Methods for Action Characters

| Method                      | Action Character | Description                                       |
|-----------------------------|------------------|---------------------------------------------------|
| browse                      | S                | Browse                                            |
| browseAllocate              | SA               | Allocate spool data sets                          |
| browseJCL                   | SJ               | Browses JCL for a job                             |
| cancel                      | C                | Cancel a job group                                |
| cancel(purgeOptions)        | CP               | Cancel and purge a job group                      |
| display                     | D                | Display information in the log                    |
| displayInError              | DE               | Display jobs that encountered an error in the log |
| displayJobGroupDependencies | DP               | Display job group dependencies in the log         |
| displayJobGroupNetwork      | DN               | Display the job group network in the log          |
| displayJobs                 | DJ               | Display jobs in a group in the log                |
| getJobDataSets              | ?                | Obtain job data set information for the job       |
| hold                        | H                | Hold a job group                                  |
| print                       | XS, XSC          | Print to SYSOUT                                   |
| printDataset                | XD, XDC          | Print to a data set                               |
| printFile                   | XF, XFC          | Print to a file                                   |
| purge                       | P                | Purge a job group                                 |
| release                     | O                | Release a job group                               |

### ISFJobStep (JS panel)

Table 197. ISFJobStep Methods for Action Characters

| Method         | Action Character | Description                                 |
|----------------|------------------|---------------------------------------------|
| browse         | S                | Browse                                      |
| browseAllocate | SA               | Allocate spool data sets                    |
| browseJCL      | SJ               | Browse JCL                                  |
| getJobDataSets | ?                | Obtain job data set information for the job |
| print          | XS, XSC          | Print a data set to SYSOUT                  |
| printDataset   | XD, XDC          | Print a data set to a data set              |
| printFile      | XF, XFC          | Print a data set to a file                  |

## ISFJob0 (J0 panel)

Table 198. ISFJob0 Methods for Action Characters

| Method         | Action Character | Description                                 |
|----------------|------------------|---------------------------------------------|
| browseAllocate | SA               | Allocate pool data sets                     |
| cancel         | C                | Cancel a data set                           |
| display        | D                | Display a data set                          |
| getJobDataSets | ?                | Obtain job data set information for the job |
| hold           | H                | Hold a data set                             |
| print          | XS, XSC          | Print a data set to SYSOUT                  |
| printDataset   | XD, XDC          | Print a data set to a data set              |
| printFile      | XF, XFC          | Print a data set to a file                  |
| purge          | P                | Purge a data set                            |
| release        | O                | Release a data set                          |

## ISFLine (LI panel)

Table 199. ISFLine Methods for Action Characters

| Method          | Action Character        | Description                                        |
|-----------------|-------------------------|----------------------------------------------------|
| cancel          | C                       | Cancel a transmitter or receiver                   |
| display         | D (all forms)           | Display a line, transmitter or receiver in the log |
| fail            | L (all forms)           | Fail a line (JES3 only)                            |
| interrupt       | I                       | Interrupt a line                                   |
| quiesce         | Q                       | Quiesce a line                                     |
| restart         | E                       | Restart a line, transmitter or receiver            |
| start           | S (all forms except SN) | Start a line, transmitter or receiver              |
| startNetworking | SN                      | Start communication on a line (JES2 only)          |
| stop            | P                       | Stop a line, transmitter or receiver               |
| vary            | V (all forms)           | Vary a line online or offline (JES3 only)          |

## ISFLnkLst (LNK panel)

Table 200. ISFLnkLst Methods for Action Characters

| Method       | Action Character | Description                              |
|--------------|------------------|------------------------------------------|
| display      | D                | Display the data sets in the LnkLst      |
| displayNames | DN               | Display the data set names in the LnkLst |

## ISFNetworkConnection (NC panel)

Table 201. ISFNetworkConnection Methods for Action Characters

| Method          | Action Character | Description                                 |
|-----------------|------------------|---------------------------------------------|
| display         | D (all forms)    | Display a network connection in the log     |
| restart         | E                | Restart a device (JES2 only)                |
| start           | S                | Start a transmitter or receiver (JES2 only) |
| startNetworking | SN               | Start network communication                 |

Table 201. ISFNetworkConnection Methods for Action Characters (continued)

| Method | Action Character | Description                                |
|--------|------------------|--------------------------------------------|
| stop   | P                | Stop a transmitter or receiver (JES2 only) |

### ISFNetworkServer (NS panel)

Table 202. ISFNetworkServer Methods for Action Characters

| Method        | Action Character | Description                             |
|---------------|------------------|-----------------------------------------|
| callTCP       | X                | Call the network server DSP (JES3 only) |
| cancel        | C                | Cancel a network server (JES3 only)     |
| display       | D and DL         | Display a network server in the log     |
| displayAppl   | DA               | Display a application (JES2 only)       |
| displaySocket | DS               | Display a socket (JES2 only)            |
| fail          | L and LD         | Fail a device (JES3 only)               |
| getJobDevice  | JD               | Obtain device information for the job   |
| getJobMemory  | JM               | Obtain memory information for the job   |
| restart       | E                | Restart a device                        |
| start         | S                | Start a device (JES2 only)              |
| stop          | P                | Stop a device (JES2 only)               |
| sysCancel     | K and KD         | Cancel a network server address space   |
| sysForce      | Z                | Force a network server address space    |
| sysStop       | Y                | Stop the network server address space   |

### ISFNode (NO panel)

Table 203. ISFNode Methods for Action Characters

| Method             | Action Character | Description                                                       |
|--------------------|------------------|-------------------------------------------------------------------|
| display            | D                | Display information about a node in the log                       |
| displayConnections | DC               | Display information about node connections in the log (JES2 only) |
| displayPaths       | DP               | Display information about paths in the log (JES2 only)            |
| startNetworking    | SN               | Start node communication on a line (JES2 only)                    |

### ISFOutput (O panel)

Table 204. ISFOutput Methods for Action Characters

| Method         | Action Character | Description                                 |
|----------------|------------------|---------------------------------------------|
| browse         | S                | Browse                                      |
| browseAllocate | SA               | Allocate spool data sets                    |
| browseJCL      | SJ               | Browse JCL                                  |
| cancel         | C                | Cancel an output group                      |
| getJobDataSets | ?                | Obtain job data set information for the job |

Table 204. ISFOutput Methods for Action Characters (continued)

| Method       | Action Character | Description                         |
|--------------|------------------|-------------------------------------|
| getJobSteps  | JS               | Obtain step information for the job |
| hold         | H                | Hold an output group                |
| list         | L, LL            | List an output group to the log     |
| print        | XS, XSC          | Print an output group to SYSOUT     |
| printDataset | XD, XDC          | Print an output group to a data set |
| printFile    | XF, XFC          | Print an output group to a file     |
| purge        | P                | Purge output                        |
| release      | A                | Release an output group             |

### ISFPage (PAG panel)

Table 205. ISFPage Methods for Action Characters

| Method         | Action Character | Description                   |
|----------------|------------------|-------------------------------|
| display        | D                | Display the page data sets    |
| displayCommon  | DC               | Display common page data sets |
| displayPageDel | DD               | Display page deletes          |
| displayLocal   | DL               | Display local page data sets  |
| displayPLPA    | DP               | Display PLPA page data sets   |
| displaySCM     | DS               | Display storage class memory  |

### ISFParmlib (PARM panel)

Table 206. ISFParmlib Methods for Action Characters

| Method        | Action Character | Description                   |
|---------------|------------------|-------------------------------|
| display       | D                | Display the parmlib data sets |
| displayErrors | DE               | Display errors                |

### ISFPrinter (PR panel)

Table 207. ISFPrinter Methods for Action Characters

| Method       | Action Character | Description                                      |
|--------------|------------------|--------------------------------------------------|
| backSpace    | B (all forms)    | Backspace a printer                              |
| call         | X                | Call a writer (JES3 only)                        |
| cancel       | C (all forms)    | Cancel a job on the printer or writer            |
| display      | D, DL            | Display information about the printer in the log |
| fail         | L, LD            | Fail a writer (JES3 only)                        |
| forceFSS     | K                | Force termination of the FSS                     |
| forwardSpace | F (all forms)    | Forward space a printer                          |
| halt         | Z                | Halt a printer                                   |
| interrupt    | I                | Interrupt a printer                              |
| repeat       | N                | Repeat a printer                                 |

Table 207. ISFPrinter Methods for Action Characters (continued)

| Method  | Action Character | Description                 |
|---------|------------------|-----------------------------|
| restart | E                | Restart a printer or writer |
| start   | S                | Start a printer or writer   |
| stop    | P                | Stop a printer              |
| vary    | V, VF            | Vary a writer (JES3 only)   |

### ISFProcess (PS panel)

Table 208. ISFProcess Methods for Action Characters

| Method       | Action Character | Description                  |
|--------------|------------------|------------------------------|
| cancel       | C                | Cancel a process             |
| (display) () | D                | Display a process in the log |
| kill         | K                | Kill a process               |
| terminate    | T                | Terminate a process          |

### ISFProclib (PROC panel)

Table 209. ISFProclib Methods for Action Characters

| Method       | Action Character | Description                   |
|--------------|------------------|-------------------------------|
| display      | D                | Display proclib               |
| displayDebug | DD               | Display proclib in debug mode |

### ISFPunch (PUN panel)

Table 210. ISFPunch Methods for Action Characters

| Method       | Action Character | Description                                    |
|--------------|------------------|------------------------------------------------|
| backSpace    | B (all forms)    | Backspace a punch                              |
| call         | X (all forms)    | Call a punch (JES3 only)                       |
| cancel       | C (all forms)    | Cancel a job on the punch                      |
| display      | D, DL            | Display information about the punch in the log |
| fail         | L (all forms)    | Fail the punch (JES3 only)                     |
| forwardSpace | F (all forms)    | Forward space a punch                          |
| halt         | Z                | Halt a punch (JES2 only)                       |
| interrupt    | I                | Interrupt a punch (JES2 only)                  |
| repeat       | N                | Repeat a punch (JES2 only)                     |
| restart      | E (all forms)    | Restart a punch                                |
| start        | S (all forms)    | Start a punch                                  |
| stop         | P                | Stop a punch (JES2 only)                       |
| vary         | V (all forms)    | Vary a punch online or offline (JES3 only)     |

## ISFReader (RDR panel)

Table 211. ISFReader Methods for Action Characters

| Method  | Action Character | Description                                     |
|---------|------------------|-------------------------------------------------|
| call    | X (all forms)    | Invoke a reader (JES3 only)                     |
| cancel  | C (all forms?)   | Cancel a job on the reader                      |
| display | D, DL            | Display information about the reader in the log |
| fail    | L (all forms)    | Fail a reader (JES3 only)                       |
| halt    | Z                | Halt a reader (JES2 only)                       |
| start   | S (all forms)    | Start a reader                                  |
| stop    | P                | Stop a reader (JES2 only)                       |
| vary    | V (all forms)    | Vary a reader online or offline (JES3 only)     |

## ISFRequestSettings

Some methods in the ISFRequestSettings class correspond to SDSF commands that require authorization. For more information, see “Authorized SDSF commands” on page 249 (SAF) or AUTH parameter (ISFPARMS).

Table 212. ISFRequestSettings Methods for Commands that Require Authorization

| Method         | Command                            | Description                                     |
|----------------|------------------------------------|-------------------------------------------------|
| addISFDest     | DEST                               | Filter by destination                           |
| addISFJESName  | JESNAME parameter on SDSF command  | Set the JES2 subsystem name to be processed     |
| addISFJES3Name | JES3NAME parameter on SDSF command | Set the JES3 subsystem name to be processed     |
| addISFOwner    | OWNER                              | Filter by job owner                             |
| addISFPrefix   | PREFIX                             | Filter by job name                              |
| addISFServer   | SERVER parameter on SDSF command   | Set the SDSF server name to be used             |
| addISFSysId    | SYSID                              | Set the system ID used to select the system log |
| addISFSysName  | SYSNAME                            | Set the system name pattern to process          |
| addISFTrace    | TRACE                              | Set the SDSF trace mask option                  |

## ISFResourceMonitor (RM panel)

Table 213. ISFResourceMonitor Methods for Action Characters

| Method  | Action Character | Description                                       |
|---------|------------------|---------------------------------------------------|
| display | D                | Display information about the resource in the log |

## ISFSchedulingEnvironment (SE panel)

Table 214. ISFSchedulingEnvironment Methods for Action Characters

| Method  | Action Character | Description                                                     |
|---------|------------------|-----------------------------------------------------------------|
| display | D                | Display information about the scheduling environment in the log |

## ISFSpool (SP panel)

Table 215. ISFSpool Methods for Action Characters

| Method     | Action Character | Description                                                                                      |
|------------|------------------|--------------------------------------------------------------------------------------------------|
| display    | D, DL            | Display a spool volume or partition                                                              |
| halt       | Z                | Halt a spool volume, deallocating it after active work completes its current phase of processing |
| hold       | H                | Hold a spool data set and hold further scheduling for jobs with data on the data set (JES3 only) |
| holdCancel | HC               | Hold a spool data set and cancel all jobs using the data set (JES3 only)                         |
| holdStop   | HP               | Hold a spool data set and hold further scheduling for jobs with data on the data set             |
| jobqueue   | J                | Display information about all jobs using the spool volume in the log                             |
| purge      | P, PC            | Drain a spool volume                                                                             |
| release    | A                | Release a spool data set and all jobs that have data on spool for scheduling (JES3 only)         |
| start      | S                | Start a spool volume, adding or reactivating it to the spool configuration                       |
| use        | U                | Resume allocating space on the spool data set (JES3 only)                                        |

## ISFSpoolOffload (SO panel)

Table 216. ISFSpoolOffload Methods for Action Characters

| Method        | Action Character | Description                                              |
|---------------|------------------|----------------------------------------------------------|
| cancel        | C                | Cancel a transmitter or receiver                         |
| display       | D                | Display an offloader, transmitter or receiver in the log |
| restart       | E                | Restart a transmitter                                    |
| start         | S                | Start a transmitter or receiver                          |
| startReceive  | SR               | Start an offloader to receive jobs or SYSOUT             |
| startTransmit | ST               | Start an offloader to transmit jobs or SYSOUT            |
| stop          | P                | Drain an offloader, transmitter or receiver in the log   |

## ISFStatus (ST panel)

Table 217. ISFStatus Methods for Action Characters

| Method         | Action Characters | Description                                     |
|----------------|-------------------|-------------------------------------------------|
| browse         | S                 | Browse                                          |
| browseAllocate | SA                | Allocate spool data sets                        |
| browseJCL      | SJ                | Browse JCL                                      |
| cancel         | C, CA, CD, CDA    | Cancel a job                                    |
| cancelPrint    | CP, CDP           | Cancel a job with print (JES3 only)             |
| display        | D, DL             | Display job properties in the log               |
| displayDDNames | DSD               | Display DD names of spool data sets (JES3 only) |



Table 217. ISFStatus Methods for Action Characters (continued)

| Method                | Action Characters | Description                                                                              |
|-----------------------|-------------------|------------------------------------------------------------------------------------------|
| displayEstimates      | DE                | Display estimated lines, pages and records for a job (JES3 only)                         |
| displayExtended       | DX                | Display extended information for a job, such as scheduling environment and service class |
| displayMains          | DM                | Display a list of mains on which the job is eligible to run                              |
| displayMDSAlloc       | DMA               | Display the MDS allocation queue (JES3 only)                                             |
| displayMDSError       | DME               | Display the MDS error queue (JES3 only)                                                  |
| displayMDSRestart     | DMR               | Display the MDS restart queue (JES3 only)                                                |
| displayMDSSysSel      | DMSS              | Display the MDS system select queue (JES3 only)                                          |
| displayMDSSysVer      | DMSV              | Display the MDS system verify queue (JES3 only)                                          |
| displaySpoolHold      | DSH               | Display DD names of spool data sets in spool hold status (JES3 only)                     |
| displaySpoolPartition | DSP               | Display spool partition assigned for the job (JES3 only)                                 |
| displayUnavailVol     | DMU               | Display unavailable volumes (JES3 only)                                                  |
| getJobDataSets        | ?                 | Obtain job data set information for the job                                              |
| getJobDevice          | JD                | Obtain device information for the job                                                    |
| getJobMemory          | JM                | Obtain memory information for the job                                                    |
| getJobSteps           | JS                | Obtain step information for the job                                                      |
| hold                  | H                 | Hold a job                                                                               |
| list                  | L, LL             | List a job                                                                               |
| listBDT               | LB                | List output on the BDT queue (JES3 only)                                                 |
| listHold              | LH                | List output on the hold queue (JES3 only)                                                |
| listTCP               | LT                | List output on the TCP queue (JES3 only)                                                 |
| outputRelease         | O                 | Release held output for printing                                                         |
| print                 | XS, XSC           | Print a job to SYSOUT                                                                    |
| printDataset          | XD, XDC           | Print a job to a data set                                                                |
| printFile             | XE, XFC           | Print a job to a file                                                                    |
| purge                 | P, PP             | Purge a job                                                                              |
| purgeOutput           | PO                | Purge output for a job (JES2 only)                                                       |
| release               | A                 | Release a job                                                                            |
| restart               | E, EC             | Restart a job                                                                            |
| restartStep           | ES                | Restart a job after current step completes (JES2 only)                                   |
| restartStepHold       | ESH               | Restart and hold the job the current step completes (JES2 only)                          |
| spin                  | W                 | Spin job and message logs                                                                |
| start                 | J                 | Start a job                                                                              |

## ISFSystem (SYS panel)

Table 218. ISFSystem Methods for Action Characters

| Method           | Action Character | Description                          |
|------------------|------------------|--------------------------------------|
| display          | D                | Display IPL information              |
| displayAll       | DAA              | Display all address spaces           |
| displayAlloc     | DALO             | Display allocation options           |
| displayConsoles  | DC               | Display consoles                     |
| displayList      | DAL              | Display address space list           |
| displayLE        | DCEE             | Display language environment options |
| displayDumps     | DD               | Display dump information             |
| displayEMCS      | DEM              | Display EMCS consoles                |
| displayGRS       | DG               | Display GRS information              |
| displayIOS       | DI               | Display IOS information              |
| displayIQP       | DIQP             | Display IQP options                  |
| displayLLA       | DLL              | Display LLA information              |
| displayLogger    | DLO              | Display system logger information    |
| displayConfig    | DM               | Display configuration information    |
| displayLogrec    | DLR              | Display LOGREC information           |
| displayMPF       | DMP              | Display MPF information              |
| displayOMVS      | DO               | Display OMVS options                 |
| displayPCIEDev   | DPCD             | Display PCIE device information      |
| displayPCIE      | DPCI             | Display PCIE options                 |
| displayProd      | DP               | Display product registration         |
| displaySMF       | DSF              | Display SMF information              |
| displaySlip      | DSL              | Display Slip information             |
| displaySMS       | DSM              | Display SMS information              |
| displaySymbols   | DSY              | Display symbol information           |
| displayTime      | DT               | Display time information             |
| displayTrace     | DTR              | Display trace information            |
| displayTSOptions | DTO              | Display TSO options                  |
| displayTSUsers   | DTS              | Display TSO address spaces           |
| displayWLM       | DW               | Display WLM information              |
| displaySysplex   | DX               | Display sysplex information          |

## ISFSystemSymbol (SYM panel)

Table 219. ISFSystemSymbol Methods for Action Characters

| Method  | Action Character | Description                |
|---------|------------------|----------------------------|
| display | D                | Display symbol information |

## ISFSystemRequest (SR panel)

Table 220. ISFSystemRequest Methods for Action Characters

| Method          | Action Character | Description                  |
|-----------------|------------------|------------------------------|
| autoReplyIgnore | AI               | Ignore auto reply text       |
| display         | D                | Display a message in the log |
| remove          | C                | Remove an action message     |
| reply           | R                | Reply to a message           |

## ISFWLMResource (RES panel)

Table 221. ISFWLMResource Methods for Action Characters

| Method  | Action Character | Description                                       |
|---------|------------------|---------------------------------------------------|
| display | D                | Display information about the resource in the log |

End of Programming Interface Information



---

## Chapter 15. SDSF messages and codes

This topic explains the messages and abend codes that SDSF issues to the terminal or console.

---

### Displaying message help

There is a help panel for each SDSF message. To display the help for a message you can:

- Use the SEARCH command, for example SEARCH ISF024I. Use the SEARCH command when running SDSF under ISPF. Type it on an SDSF command line, not on the command line of a help panel.
- Select the option for message help from a help menu. Most SDSF help menus include an option for message help.

You can also search online documents, using:

- LookAt, for messages with message numbers. LookAt is on the Web at <http://www.ibm.com/systems/z/os/zos/bkserv/lookat/>.
- The BOOK command. When the cursor is in the SDSF message area, BOOK uses the message text as a search string. See the online help for more information.

---

### User authorization

You might see a message that you are not authorized to perform a certain task. If you should be authorized, do the following:

1. Issue the WHO command. This displays your user ID, TSO logon procedure name, terminal ID, group index, and group name of the authorization group you have been assigned to based on ISFGRP macros or GROUP statements in ISFPARMS. (The index indicates the group by a count of groups. For example, an index of 3 indicates the group defined by the third GROUP statement in ISFPARMS.)
2. Check or ask the system programmer to check your authorization group against the ISFGRP, ISFNTBL, and ISFFLD macros in ISFPARMS. The macros are described in Chapter 2, “Using ISFPARMS for customization and security,” on page 15.
3. If the programmer has used the System Authorization Facility (SAF) for security authorization and has activated the resource class to perform the required checking, SDSF ignores ISFPARMS information.
4. If SAF rejects the security check, do the following:
  - a. Issue the TSO command PROFILE WTPMSG.
  - b. Try the SDSF request that failed.
  - c. Note the text of the ICH408I message that appears. This message identifies the profile (by name and class) that caused the authorization failure. Report the complete text of this message when asking for authorization.

---

### SDSF messages

This section explains the SDSF messages. The messages are in alphabetic order.

## ACTIVE MODIFY INVALID • ALLOC ERROR return-code error-code information-code

Write-to-operator messages appear at the bottom of the log panels. For information on those messages, see “Messages with ISF message numbers” on page 539.

Messages issued in response to SDSF's checks for IBM Health Checker for z/OS are described in “Messages for IBM Health Checker for z/OS” on page 577.

The entry for each message includes a brief description of the meaning of the message and a suggested response.

---

### ACTIVE MODIFY INVALID

**Explanation:** An attempt to issue an action character or to modify a field for an active job, user, started task, printer or node was made. However, the action character or field modification is invalid for the active job, user, started task, or printer or node.

**User response:** Remove the action character or modification from the panel by restoring or blanking the field, or enter the RESET command.

---

### AFD CURSOR row,column

**Explanation:** A job that invokes SDSF with program name ISFAFD has encountered an error in working with an SDSF panel. The cursor is positioned at *row,column*, where *row* is the number of rows from the top of the display, and *column* is the number of characters from the left of the panel. The possible values for *row* and *column* are 1-9999.

---

### AFD ERROR error-number

**Explanation:** An error has been encountered in a job that invokes SDSF with program name ISFAFD.

**User response:** Use the error number to resolve the error. The error numbers are:

- 001 A comment has not been closed. Comments should be enclosed in /\* \*/, for example: /\* This is a comment \*/
- 002 An action character or overtype has been entered on a non-tabular panel, such as a print panel. Action characters and overtypes are valid only on tabular panels.
- 003 A record has exceeded the maximum length of 9999 bytes. Trailing commas are treated as a continuation character.
- 004 There is an error in the input syntax. Correct the syntax.
- 005 Input could not be processed because there are no rows on the panel. This may be because all rows have been blanked out by filters such as FILTER, PREFIX, DEST, and OWNER.
- 006 An attempt was made to enter an action character, but the NP column is not conditioned for input. The NP column is not conditioned for input on the OD panel. On

other tabular panels, the problem may be that there are no rows because all rows have been filtered out by filters such as FILTER, PREFIX, DEST, and OWNER.

- 007 The specified column could not be found. Either it is not a valid column for the panel, or the column name is an abbreviation that does not uniquely identify a column on the panel. If the column name is an abbreviation, specify the full column name.
- 008 An attempt has been made to overtype a column that is not overtypeable. If the column is a valid overtypeable column for the panel, it may be that the user is not authorized for that column either through ISFPARMS or SAF.
- 009 Brackets with no column or value, that is <>, were entered on a tabular panel. This syntax is valid only on non-tabular panels such as the print panels.
- 010 An overtype with no column name, that is <=value> was entered on a tabular panel. This syntax is valid only on non-tabular panels such as the print panels.
- 011 An attempt has been made to overtype the fixed field. The fixed field is not overtypeable.
- 012 The input could not be processed because there were no rows on the screen. This may be because all rows have been filtered out by filters such as FILTER, PREFIX, DEST, and OWNER.
- 013 There is an error in the input syntax. Correct the syntax..

---

### ALLOC ERROR return-code error-code information-code

**Explanation:** Dynamic allocation of the print file failed. SDSF was unable to allocate or create a print file in response to a PRINT command, to a print action character (X), or to the processing of an open print data set panel.

An accompanying message that describes the error can also appear.

For information on dynamic allocation error codes, see the appropriate manual concerning system macros and facilities, or job management.

**User response:** Use the codes in the message text to determine the source of the error.

---

**ALLOCATION ERROR - error-code**

**Explanation:** An error has occurred during the dynamic allocation of a SYSOUT data set.

**User response:** For information on dynamic allocation error codes, see the appropriate manual concerning system macros and facilities, or job management.

---

**APPL NOT AVAILABLE**

**Explanation:** An action or overtype requires a SNA application to be associated with the object. However, no SNA application is associated with the object

**User response:** Remove the action character or modification from the panel by restoring or blanking the field, or type the RESET command.

---

**ARR CRITERIA DISCARDED**

**Explanation:** SDSF detected that the arrange criteria that had been saved from a previous session is invalid. The arrange criteria were deleted from your ISPF profile.

**User response:** Use the Arrange pop-up or the ARRANGE command to rearrange columns.

---

**ARRANGE CRITERIA OBSOLETE**

**Explanation:** One or more of the columns saved from a previous arrange command has been removed from the ISFPARMS definition for this panel. A column might have been removed because of security changes, release migration, or customization of the field lists.

**User response:** Look at the INVALID COLUMN message displayed in the message line to see the number of obsolete columns.

---

**ARRANGE PENDING**

**Explanation:** You selected a column or block of columns but did not enter the destination for it.

**User response:** Scroll the list to the desired column and mark the destination by typing a or b next to it.

---

**AUTHORIZED DEST REQUIRED**

**Explanation:** During SDSF initialization or DEST command processing, SDSF did not find any authorized destination names. You are not authorized to access all destinations, therefore, a valid destination list, specified by IDEST in ISFPARMS, is required. This message also appears in response to a destination query command (DEST ?) if no destination names are authorized.

**User response:** Enter the DEST command specifying one or more authorized destinations. Notify the SDSF or security administrator regarding the ISF005I messages issued during session initialization.

---

**AUTHORIZED DESTINATION REQUIRED. PRESS THE HELP KEY FOR MORE INFORMATION**

**Explanation:** This message corresponds to the current AUTHORIZED DEST REQUIRED message, and is issued when you display the Destination pop-up.

**User response:** Press PF1 for complete information, and contact the system programmer.

---

**\*\*\* AUTO UPDATE - number SECONDS \*\*\***

**Explanation:** SDSF is running in automatic update mode. The interval between updates is given in seconds. (See the online help for more information on automatic update mode.)

**User response:** None.

---

**BLOCK COMMAND INCOMPLETE**

**Explanation:** You entered a block command but did not close it (the beginning of a block has been marked with //, but the end has not been marked with //). SDSF does not process pending actions until you close the block.

**User response:** Close the open block, or use the RESET command to cancel all pending actions.

---

**BLOCK COMMAND INVALID**

**Explanation:** You entered data both on the first and last rows of the block you want to repeat. Only the first or last row of the block can contain data.

**User response:** Blank out the changes on either the first or last row of the block, or use the RESET command to cancel all pending actions.

---

**BLOCK INPUT REQUIRED**

**Explanation:** You entered a block command but did not specify the action character or overtyping. The first row of the block is made current to allow you to enter the action character or overtyping to be repeated throughout the block.

**User response:** Specify the action character or overtyping on either on the first or last row of the block or use the RESET command to cancel all pending actions.

## BLOCK IS INCOMPLETE • CHECKPOINT READ ERROR

---

### BLOCK IS INCOMPLETE

**Explanation:** You marked the beginning of a block with //, but the end has not been marked with //.

**User response:** Mark the end of the block with //.

---

### BOOKMANAGER IS REQUIRED

**Explanation:** The command or pull-down choice requires BookManager READ/MVS.

**User response:** Blank out the command or pull-down choice.

---

### BOOKMGR SELECT RC=return-code

**Explanation:** The BOOK command has been issued but SDSF was unable to invoke BookManager. The message text contains the decimal return code from the ISPF select service used to invoke the BOOKMGR command.

**User response:** Ensure that BookManager is installed and available to your SDSF session, and then retry the BOOK command.

---

### \*BOTTOM OF DATA REACHED\*

**Explanation:** A FIND command reached the bottom of the data without finding the requested character string.

**User response:** Use the Repeat-Find PF key, or enter an F on the command line, to resume the search at the top of the data.

---

### BRIF ERROR RC=return-code

**Explanation:** An unexpected error occurred during invocation of the ISPF browse service. The message contains the decimal *return-code* from ISPF. SDSF terminates the browse request.

**User response:** Refer to *z/OS V2R2 ISPF Services Guide*.

---

### BROWSE NOT AVAILABLE

**Explanation:** The SB action character was entered to browse a data set using ISPF, but either SDSF is not running under ISPF or the ISPF level is insufficient. Instead, SDSF does the browse.

**User response:** Reenter the SB action character when running under the required level of ISPF.

---

### CANNOT MOVE FIXED FIELD

**Explanation:** You have attempted to move the fixed field with the ARRANGE command. ARRANGE can be used to move columns after the fixed field, but the fixed field itself cannot be moved.

**User response:** None

---

### number CHARS 'string'

**Explanation:** In response to a FIND ALL command on the ODS panel or the logs, a number of occurrences of a character string have been found. If SDSF finds more than 999,999 occurrences, *number* is displayed as 999999+. The cursor is positioned on the character string.

**User response:** None.

---

### CHARS 'string' FOUND

**Explanation:** In response to a FIND command, a character string has been found. The cursor is positioned on the character string.

**User response:** None.

---

### number CHARS 'string' FOUND

**Explanation:** In response to a FIND ALL command a number of occurrences of a character string has been found. If SDSF finds more than 9,999 occurrences, *number* is displayed as 9999+. The cursor is positioned on the character string.

**User response:** None.

---

### CHECK NO LONGER VALID

**Explanation:** An attempt was made to browse a check. However, the instance of the check has changed since the CK panel was displayed, probably because the check has run.

**User response:** Press Enter to refresh the CK panel, then browse the check again.

---

### CHECKPOINT OUT OF DATE

**Explanation:** A checkpoint version has been obtained, but the data might not be current. This can indicate that JES2 is down or not responding. The panel is built using the old data.

**User response:** Retry the request. If the problem persists, contact your system programmer to determine the cause of the out-of-date data.

---

### CHECKPOINT READ ERROR

**Explanation:** An error occurred when SDSF attempted to read from the checkpoint data set in order to determine a user's authority to issue a command.

**User response:** Retry the command. If the problem persists, contact the system programmer.



---

**CHOICE NOT AVAILABLE ON THIS PANEL**

**Explanation:** The pull-down choice is not available on the current SDSF panel.

**User response:** Use the HELP PF key for information on the pull-down choice.

---

**CKPT OBT ERR return-code-reason-code**

**Explanation:** An error has occurred obtaining a checkpoint version. In the message text, *return-code* is the hexadecimal SSI return code from SSOBRETN and *reason-code* is the hexadecimal reason code from field SSJIRETN. The version is not obtained.

**User response:** Contact your system programmer to determine the reason for the failure. The return and reason codes are documented in macro IAZSSJI.

---

**CKPT REL ERR return-code-reason-code**

**Explanation:** An error has occurred releasing a checkpoint version. In the message text, *return-code* is the hexadecimal SSI return code from SSOBRETN and *reason-code* is the hexadecimal reason code from file SSJIRETN. The version is not released.

**User response:** Contact your system programmer to determine the reason for the failure. The return and reason codes are documented in macro IAZSSJI.

---

**CLEAR COMPLETE**

**Explanation:** A request to clear commands from the list of saved system commands has been completed. The commands have been removed from the list.

**User response:** None required.

---

**CMD NOT ISSUED – NO CONS**

**Explanation:** The function that was attempted requires an EMCS console to issue a system command, and an EMCS console was not available. The command was not issued.

**User response:** None required.

---

**count CMDS NOT ISSUED**

**Explanation:** A block of action characters was discarded at the request of the user. *count* is the number of action characters that were discarded. No commands were issued.

**User response:** None.

---

---

**COLUMN NOT FOUND**

**Explanation:** You specified a column that does not exist for the panel. The cursor is positioned under the column name.

**User response:** Correct the column name and reenter the command.

---

**COLUMN NOT UNIQUE**

**Explanation:** The column name matches more than one column on the current panel. The cursor is positioned under the column name.

**User response:** Reenter the column name.

---

**COLUMN TRUNCATED**

**Explanation:** The column width specified with the Arrange function for one or more columns is shorter than the title for the column. The column will be truncated to the specified width.

**User response:** None required.

---

**COMM NO LONGER AVAIL**

**Explanation:** The user is no longer communicating with the local SDSF server. SDSF will show only data for the system the user is logged on to.

**User response:** The system may have issued a previous message describing the error. To restore communications, correct any errors and reaccess SDSF.

---

**COMMAND ISSUED**

**Explanation:** SDSF has issued the requested MVS or JES system command.

**User response:** None.

---

**COMMAND NOT APPLICABLE**

**Explanation:** The command does not apply to the current panel and so is not allowed. It may be valid only on tabular panels.

**User response:** Access a panel to which the command applies and try the command again. For more information, see "Where used" in the online help for the command.

---

**COMMAND NOT AUTHORIZED**

**Explanation:** You entered an SDSF command that you are not authorized to issue. Refer to "User authorization" on page 505 for more information.

**User response:** Delete the command.

---

## COMMAND NOT ISSUED • DATA NOT AVAIL *system-name*

---

### COMMAND NOT ISSUED

**Explanation:** An action character was discarded at the request of the user. No command was issued.

**User response:** None.

---

### COMMAND NOT VALID

**Explanation:** The command is not valid on the command line of the pop-up.

**User response:** Correct or erase the command.

---

### COMMAND SAVED

**Explanation:** The list of commands was updated with the command. The command was not issued. If there is already an entry in the list with the same command text and group, only the comment is updated. If there is not already an entry in the list with the same command text and group, a new entry is added to the list.

**User response:** None required.

---

### COMMAND TRUNCATED

**Explanation:** You have overtyped more fields than can be processed in a single JES request. All fields up to the JES limit are processed.

**User response:** Refresh the SDSF displays and overwrite the fields that were not updated.

---

### command-count COMMANDS ISSUED

**Explanation:** A block command has successfully executed and *command-count* commands have been issued.

**User response:** None.

---

### CONS ACT ERR *returncode-reasoncode*

**Explanation:** An attempt to activate an extended console has failed. The message text contains the hexadecimal return code and reason code from the MCSOPER macro. Message ISF032I is also written to the ULOG display.

**User response:** Use the return code and reason code to determine the cause of the error. Issue the ULOG command to activate the console.

---

### CONS ACT ERR – IN USE

**Explanation:** An attempt to activate an extended console has failed because the console name is in use. The MCSOPER macro return code is 4 and reason code is 0.

**User response:** None required. Use the SET CONSOLE command to specify a different console.

---

### CONS DEACT ERR *returncode-reasoncode*

**Explanation:** An attempt to deactivate an extended console has failed. The message text contains the hexadecimal return code and reason code from the MCSOPER macro.

**User response:** Use the return code and reason code to determine the cause of the error.

---

### CONSOLE *console-name* SHARED

**Explanation:** An attempt has been made to activate an extended console but the console is in use. SDSF shares the console by issuing commands using its console ID. However, responses are not returned to the SDSF session issuing the commands.

If the console is in use by another SDSF session (such as through split screen), any command responses caused by the shared session is returned to that session.

Message ISF031I is written to the ULOG display.

**User response:** None

---

### CONVERSION COMPLETE

**Explanation:** SDSF parameters in ISFPARMS have been assembled through the conversion utility and converted to ISFPARMS in statement format.

**User response:** You can edit the statements from the pop-up. To activate the ISFPARMS, or check their syntax, use the MODIFY command.

---

### DATA ACCESS ERROR

**Explanation:** An error has occurred retrieving data to build an SDSF panel. Communications with the server may have been lost, or an error may have occurred accessing a job. Additional messages may have been issued to describe the error.

**User response:** See accompanying messages, if any, for more information about the problem. Retry the request.

---

### DATA NOT AVAIL *system-name*

**Explanation:** A sysplex request for data has been processed, but the data from *system-name* cannot be gathered. The plus (+) character is shown if more than one system is not responding.

**User response:** None if the system is at the z/OS V1R12 or lower level. Otherwise, ensure the SDSF server is started and configured to process XCF requests. Verify that the SDSFAUX address space is started on all systems for which data is to be gathered.

---

**DATA NOT SAVED**

**Explanation:** A user entered the SE action character to edit a data set using ISPF, and either entered the SAVE command or made changes to the data during the ISPF session. The changes were not saved upon exit since permanent changes cannot be made.

**User response:** None.

---

**DATA SET ALLOCATED**

**Explanation:** In response to a browse action, a data set has been allocated.

**User response:** None.

---

**DATA SET DISPLAYED**

**Explanation:** SDSF is displaying the requested SYSOUT data set on the Output Data Set panel.

**User response:** None.

---

**\*\*\* DATA SET NOT CATALOGED DSNAME=  
data-set-name**

**Explanation:** The required data set is not cataloged. This message accompanies the message ALLOC ERRORreturn-code error-code information-code, or LOCATE ERRORreturn-code, and explains why allocation of the print file failed.

**User response:** None.

---

**DATA SET NOT ELIGIBLE**

**Explanation:** The data set is not eligible for the operation. The data set is not changed. This condition can occur if the output group is in operator or system hold or is currently being processed by the SSI.

**User response:** Ensure that the output group is not in operator or system hold.

---

**DATA SET NOT FOUND**

**Explanation:** A data set entered on an SDSF panel could not be located.

**User response:** Either allocate the data set or change the name of the data set on the SDSF panel.

---

**\*\*\*\*\* DATA SET NOT ON VOLUME DSNAME=  
data-set-name**

**Explanation:** The required data set is not on the specified volume. This message accompanies the message ALLOC ERRORreturn-code error-code information-code, or OBTAIN ERRORreturn-code, and explains why allocation of the print file failed.

**User response:** None.

---

**\*\*\* DATA SET OPEN DSNAME = data-set-name**

**Explanation:** The data set *data-set-name* is open. This message accompanies the message ALLOC ERRORreturn-code error-code information-code, and explains why dynamic allocation of the print file failed.

**User response:** None.

---

**\*\*\* DATA SET UNAVAILABLE DSNAME=  
data-set-name**

**Explanation:** The required data set is unavailable. This message accompanies the message ALLOC ERRORreturn-code error-code information-code, and explains why dynamic allocation of the print file failed.

**User response:** None.

---

**DATA TRUNCATED FOR EDIT**

**Explanation:** A request has been made to edit a data set using the SE action character, but the job contains a data set that exceeds the maximum record length supported by edit. The edit request is processed, but the data is truncated to the 255 character maximum.

**User response:** Use the S or SB action characters to display the entire record.

---

**DEALLOCATION ERROR - error-code**

**Explanation:** An error has occurred during the dynamic deallocation of a SYSOUT data set.

**User response:** For information on dynamic allocation error codes, see the appropriate manual concerning system macros and utilities or job management.

---

**DEST ALREADY EXISTS**

**Explanation:** The DEST command was issued to add a destination that already exists in the current destination list.

**User response:** Use DEST ? or SET DISPLAY to display the current destinations and correct the command.

---

**DEST NOT FOUND**

**Explanation:** The DEST command was issued to delete a destination that is not in the current destination list. The destination not in the list has the cursor positioned under it.

**User response:** Use DEST ? or SET DISPLAY to display the current destinations and correct the command.

---

## DETAIL NOT AVAIL • ERROR PROCESSING LINE line-number: text-of-line

---

### DETAIL NOT AVAIL

**Explanation:** A request to retrieve the enclave detail information has failed because the information is not available. The enclave may no longer be valid.

**User response:** None required.

---

### DISPLAY RESET

**Explanation:** The logical screen size changed, causing SDSF to rebuild the display. SDSF ignored and cleared any action characters or commands you had entered but had not yet executed.

**User response:** None.

---

### DSORG NOT PS OR PO

**Explanation:** In a PRINT ODSN command, the specified data set was not sequential, (DSORG=PS) or partitioned (DSORG=PO).

**User response:** Reissue the PRINT ODSN command specifying an acceptable data set name. When the data set is allocated, a data set organization of sequential or partitioned must be specified.

---

### EDIF ERROR RC=return-code

**Explanation:** An unexpected error occurred during invocation of the ISPF edit service. The message contains the decimal *return-code* from ISPF. SDSF terminates the edit request.

**User response:** Refer to *z/OS V2R2 ISPF Services Guide*.

---

### EDIT NOT AVAILABLE

**Explanation:** The SE action character was entered to edit a data set using ISPF, but SDSF is not running under ISPF. Instead, SDSF does a browse.

**User response:** Reenter the SE action character when SDSF is running under the required level of ISPF.

---

### ENC IMPLICITLY QUIESCED

**Explanation:** An attempt was made to quiesce an enclave that is already implicitly quiesced because one or more address spaces associated with it is quiesced.

**User response:** None required.

---

### END OF DATA ON MENU

**Explanation:** SDSF could not read a requested help panel from the SDSF help panel data set.

**User response:** The system programmer should check any changes that have been made to the SDSF help panel data set. If the problem cannot be found, the system programmer might want to replace the installed SDSF help panel data set with the original help panel

data set on the SDSF distribution tape.

---

### %exec-name ENDED

| **Explanation:** A REXX exec invoked with the % action character ended without returning a return code.

| **User response:** None required.

---

### ENGLISH HELP NOT AVAILABLE

**Explanation:** You selected the English language but the English help panels are not available.

**User response:** Erase the selection or see your system programmer about the installation.

---

### ENTER REQUIRED FIELD

**Explanation:** Data is missing for a required field. The cursor is positioned at the field in error.

**User response:** Enter the requested data.

---

### ERROR IN ASSEMBLING PARAMETERS. RETURN CODE return-code

**Explanation:** SDSF parameters being assembled through the conversion utility caused assembly errors.

**User response:** Use the return code from the assembler to help identify the problem. The conversion utility pop-up lets you edit the ISFPARMS source data set (PF4) or browse the assembler listing (PF5).

---

### ERROR PROCESSING DATA

**Explanation:** SDSF could not successfully process the spool control blocks of one of the jobs on the panel.

**User response:** The user or system programmer could use one of the filter commands to identify which job is causing the problem.

For example, the user's panel shows these jobs: ABLEJOB ABLEBJOB ANDJOB BJOB BBBJOB CJOB

The user issues PREFIX A\*, and the panel shows these jobs: ABLEJOB ABLEBJOB ANDJOB

The error message still appears on the panel, so the problem is with one of the three jobs shown. The user then issues a second PREFIX command, PREFIX ABLE\*. The panel then shows: ABLEJOB ABLEBJOB

The error message no longer appears on the panel. The user knows that the problem is not with ABLEJOB or ABLEBJOB; the problem must be with ANDJOB.

---

### ERROR PROCESSING LINE line-number: text-of-line

**Explanation:** The conversion exec has encountered an error in the indicated line.

**User response:** Follow your local procedure for reporting a problem to IBM

---

#### EXEC NAME REQUIRED

**Explanation:** The % action character was issued without an exec name and SDSF is not running under ISPF.

**User response:** Supply the name of the REXX exec and any arguments after the % action character, for example, %abc arg1 arg2

Alternatively, access SDSF from ISPF. Then, you can type the % action character by itself to display a pop-up on which you can supply the exec name and any arguments.

---

#### service FAILED WITH RC=return-code REASON=ispf-message-text

**Explanation:** An ISPF or TSO service, *service*, failed with the indicated return code, and text of an ISPF message if it is available.

**User response:** Use the return code and the message text, if any, to understand and resolve the problem. If the problem persists, follow your local procedure for reporting a problem to IBM

---

#### FIELD INVALID

**Explanation:** Invalid information was typed in a field.

**User response:** Correct what was typed in the field or type RESET on the command line.

---

#### FIELD NOT NUMERIC

**Explanation:** A numeric field was overtyped with non-numeric data, or there are blanks in the numeric field. The cursor is positioned at the field in error.

**User response:** Enter the field using numeric data. Within a tabular panel, use the RESET command to clear any overtyped data.

---

#### FILE SIZE NOT AVAILABLE

**Explanation:** A request has been made to view a data set, but the file size (in bytes) is not available from JES. The file size is required by SDSF to allocate the temporary file used by GDDM

---

#### FILTER CRIT DISCARDED

**Explanation:** SDSF detected that the filter criteria that had been saved from a previous session are invalid. The filter criteria were deleted from your ISPF profile.

**User response:** Use the Filter pop-up or FILTER command to define filters.

---

#### FILTER CRITERIA OBSOLETE

**Explanation:** One or more of the columns saved from a previous session has been removed from the ISFPARMS definition for this panel. A column might have been removed because of security changes, release migration, customization of the field lists in ISFPARMS, or other customization of function such as symbol support. The obsolete filter criteria are deleted.

SDSF filtered the columns using the remaining columns. Look at the INVALID COLUMN message displayed in the message line to see the number of obsolete columns.

**User response:** No action is required.

---

#### FILTER NOT FOUND

**Explanation:** An attempt was made to delete a filter that does not exist.

**User response:** No action is required. If the command to delete the filter was entered incorrectly, correct the command.

---

#### FILTER VALUE TRUNCATED

**Explanation:** A filter value entered with a previous command exceeds the 25-character length of the value field on the Filter pop-up. The value is truncated to fit the field.

**User response:** None required. To change the value, type the changes on the pop-up.

---

#### FILTERING IS ON|OFF

**Explanation:** In response to a query of the filters, the current state of filtering is displayed.

**User response:** If a filter is displayed on the command line, pressing Enter issues the command and makes the filter active.

---

#### GDDM ERROR severity-msgnumber

**Explanation:** An error occurred during execution of a GDDM service. *severity* is the severity code, in decimal, of the message; *msgnumber* is the GDDM message number in decimal.

The request to view a data set is ended. Other explanatory messages might have been issued by GDDM.

**User response:** Correct the error described by the GDDM message text and retry the view request.

## GDDM LEVEL ERR *gddm-level* • INPUT FILE ALLOC FAILED

---

### GDDM LEVEL ERR *gddm-level*

**Explanation:** The view function was requested, but the installed level of GDDM cannot be used by SDSF. *gddm-level* is the level of GDDM currently being accessed by SDSF. SDSF requires GDDM Version 2 Release 2 or a later release.

**User response:** The system programmer should ensure that the correct level of GDDM is available to the SDSF session either through a STEPLIB or the system LINKLST.

---

### GDDM NOT AVAILABLE

**Explanation:** SDSF was unable to load the GDDM interface module, ADMASPT, in response to a view request to compose a page-mode data set. The view function is not available because GDDM services cannot be used.

**User response:** The system programmer should ensure the GDDM load modules are available to the SDSF session either through a STEPLIB or the system LINKLST.

---

### GET ERROR RC=*return-code*

**Explanation:** The GET request for the spool data for a job failed. The job's SYSOUT is not displayed. This may occur if the job was purged or if the SYSOUT data was selected from the Display Active Users (DA) panel and the job was swapped out.

**User response:** Try displaying the SYSOUT later. If the job was active and swapped out, the SYSOUT will be accessible. If the job was purged, the SYSOUT will not be found. For a description of the return codes, refer to *z/OS DFSMS Macro Instructions for Data Sets*.

---

### GROUP NAME NOT VALID

**Explanation:** The name provided for a command group is not valid. A group name must consist of alphanumeric characters or these special characters: @ # \$ . : - It must begin with an alphabetic character and cannot begin with *isf* or *ibm*. Those names are reserved for use by IBM. It cannot contain embedded blanks.

**User response:** Type a valid name. For a list of groups, press the Prompt key (PF4) with the cursor in the field.

---

### HC NOT ACTIVE *sysname* | *count* SYSTEMS

**Explanation:** Checks could not be displayed because *z/OS* is not running. If a single system reports that *z/OS* is not running, the system name, *sysname*, is displayed. If more than one system reports that *z/OS* is not running, the number of systems, *count*, is shown.

**User response:** For information on starting *z/OS*, the

system programmer should refer to *IBM Health Checker for z/OS User's Guide*.

---

### HELP MENU ERROR= *member-name*

**Explanation:** SDSF could not find the requested help panel.

**User response:** The system programmer should check any changes that have been made to the SDSF help panel data set. If the problem cannot be found, the system programmer might want to replace the installed SDSF help panel data set with the original help panel data set supplied by IBM

---

### HEX STRING INVALID

**Explanation:** The FIND command with a hexadecimal string has been issued on a panel other than the logs or ODS panels.

**User response:** Correct the command and reissue it.

---

### INACTIVE MODIFY INVALID

**Explanation:** An attempt to issue an action character or to modify a field for an inactive job, user, started task, printer or node was made. However, the action character or field modification is invalid for the inactive job, user, started task, or printer or node.

**User response:** Remove the action character or modification from the panel by restoring or blanking the field, or enter the RESET command.

---

### INCONSISTENT PARAMETERS

**Explanation:** The FIND command has been issued with parameters that conflict.

**User response:** Correct the command and reissue it.

---

### \*\*\* INCORRECT UNIT NAME SUPPLIED

**Explanation:** The dynamic allocation of a tape drive failed with a X'021C' return code. This return code specifies that an incorrect unit name has been supplied. The valid units that are supported are: 3480, 3400-3, 3400-5, 3400-6, and 3400-9.

**User response:** Specify a cataloged data set name that is on a supported tape unit.

---

### INPUT FILE ALLOC FAILED

**Explanation:** An error occurred trying to allocate the input file to be composed. Additional messages describing the reason for the allocation failure is issued by the system. The file cannot be viewed using GDDM

---

**INPUT INVALID WITH BLOCK**

**Explanation:** An action character or overtype was entered within an open block. Data to be repeated can only be entered on the first or last row of the block. The display is positioned to the row containing the data within the block.

**User response:** Blank out the data on the row or enter the RESET command to cancel all pending actions.

---

**INPUT INVALID WITHIN BLOCK**

**Explanation:** You entered one or more characters within a block on the pop-up.

**User response:** Erase the character.

---

**INT CONSOLE NOT ALLOWED**

**Explanation:** An attempt was made to issue a system command using console ID 0 (INTERNAL), but an EMCS console is required by values specified in ISFPARMS.

**User response:** Reissue the command using an EMCS console. If you are issuing a command using *i/*, remove the *i*.

---

**INVALID CALL TYPE**

**Explanation:** During initialization, SDSF found an error processing ISFPARMS. The error is in the ISFNTBL macro or NTBL statement named in the IDEST parameter of the ISFGRP macro or GROUP statement for the user.

**User response:** The system programmer should check the ISFNTBL macro or NTBL statement named in the IDEST parameter of the ISFGRP macro or GROUP statement that was used to place the user in a user group.

The system programmer might also want to put the installation-defined names last in the ISFNTBL macro or NTBL statement, as the installation-defined names can be the most likely to cause an error. When SDSF encounters an error in the destination names during initialization, it continues initialization with the destination names that were successfully processed before the error.

---

**INVALID CLASS class ENTERED**

**Explanation:** An invalid class was entered with the ST, I, or O command. The class is ignored. Valid class names are:

**ST command:**

A-Z, 0-9, +, !, \$, \*, ), -, ?, #, @. = and /

**I command:**

A-Z, 0-9, !, \$, \*, #, and @

**JC command:**

A-Z, 0-9, \$ and #

**O command:**

A-Z, 0-9, and @

**User response:** Retry the command with a valid class.

---

**INVALID CLASS NAME**

**Explanation:** This field was updated with an invalid class name. Valid class names consist of the characters A-Z and 0-9.

**User response:** Type either a valid class name or a blank in the field, or type RESET in the command line.

---

**INVALID COLUMN: column-info**

**Explanation:** Column criteria for this panel were saved from a previous SDSF session, but one or more of the columns have been removed from this panel. SDSF ignores the criteria and deletes it from your SDSF profile. *column-info* is either a number of columns, or, for SORT, a list of columns. This message is issued as explanatory information with the ARRANGE, FILTER, or SORT CRITERIA OBSOLETE message.

**User response:** No action is required. You can establish new arrange, filter, or sort criteria.

---

**INVALID COMMAND**

**Explanation:** A command or action character was entered that is not recognized by SDSF, was entered in an unsupported environment, or was entered on a panel or row for which it is invalid. The command or action character might have been entered with an invalid parameter.

**User response:** Correct the command or action character and retry the request. See the SDSF publications or online help for a list of valid SDSF commands and action characters. For system commands, see the appropriate MVS and JES manuals. For the AFD command, see Chapter 12, "Using SDSF in batch," on page 383.

---

**INVALID DESTINATION NAME**

**Explanation:** The specified destination name is invalid for this system. If the destination name is an installation-defined destination name, this message might be issued because JES is not active. When JES is not active, the installation-defined destination names are not available to SDSF.

**User response:** Enter a valid destination name.

## INVALID DSN - LENGTH • INVALID UPDATE VALUE

---

### INVALID DSN - LENGTH

**Explanation:** A data set name has been entered that is longer than 44 characters.

**User response:** Correct the data set name being entered.

---

### INVALID DSN - QUOTES

**Explanation:** A data set name has been entered with unmatched quotes.

**User response:** Correct the data set name being entered.

---

### INVALID HEX STRING

**Explanation:** Invalid hexadecimal data has been entered either by overtyping a field or with a FIND command. The invalid data contains non-hexadecimal characters or has an uneven number of digits.

**User response:** Correct the hexadecimal string.

---

### INVALID LEFT BOUNDARY

**Explanation:** The value entered for the starting column with a FIND command is greater than the logical record size or is greater than the length of the field.

**User response:** Correct the FIND command and reissue it.

---

### INVALID RETURN CODE

**Explanation:** An invalid return code has been received after a call to an internal SDSF subroutine. The table being displayed might be incomplete.

**User response:** Retry the command, and if the problem persists, contact IBM

---

### INVALID SAVED DEST

**Explanation:** A saved destination name from a previous SDSF session is no longer valid. This could occur if an enhanced destination name was retrieved from an SDSF session that was running on a system prior to MVS/ESA SP-JES2 4.2.0. Use DEST ? or SET DISPLAY ON to view the current destination list.

**User response:** None. SDSF is initialized using any remaining saved values.

---

### INVALID SCROLL AMOUNT

**Explanation:** The amount specified in the SCROLL field of the panel, or in a scroll command, is invalid.

**User response:** Enter one of the following valid scroll amounts:

**Page** to scroll one panel.

**Half** to scroll half of one panel.

**number** to scroll a specific number of lines or columns. *number* can be up to four digits.

**Max** to scroll to the end of the data.

**Csr** to scroll to the position of the cursor.

**Data** to scroll one line or column less than one page. This is valid only under ISPF.

If the message is accompanied by an audible alarm, it was issued by ISPF. Pressing the PF key assigned to HELP signals ISPF to display the valid scroll entries on line 3 of the display.

---

### INVALID SELECTION

**Explanation:** The input is not valid for this panel.

**User response:** Enter a valid command or menu option.

---

### INVALID SYNTAX

**Explanation:** The command entered on the command line has too many parameters, has unmatched quotes, or is an invalid range.

**User response:** Use the appropriate manual or online help to find the syntax of the command.

---

### INVALID UNIT

**Explanation:** Either an invalid device number was entered on the PR, PUN, RDR or LI panel, or both a volume serial and a generic unit have been specified on the open print data set panel.

For the PR or PUN panel, the unit device number must consist of all hexadecimal digits. Leading zeros are required.

For the LI panel, the unit device number must be either all hexadecimal digits or SNA. Leading zeros are required.

The device number can be preceded with a slash (/).

For the open print data set panel, only one of the fields (volume serial or unit) can be specified.

**User response:** Enter a valid device number or specify only one of the print panel fields.

---

### INVALID UPDATE VALUE

**Explanation:** The user has entered an invalid update value for an overtypeable field. Invalid values include: a semicolon, a comma when not enclosed in parentheses, or a left parenthesis if it is the first update character in a field that does not allow multiple values to be entered.



**User response:** Enter a valid name.

---

#### INVALID VALUE

**Explanation:** A value has been entered that is unrecognized or not allowed on the current panel.

**User response:** Change the input to an allowable value.

---

#### IRXEXEC RC=return-code

**Explanation:** An error occurred after invocation of the IRXEXEC interface in response to a % action character. The message contains the return code from IRXEXEC.

**User response:** Examine the return code and associated system messages, if any. For more information on the return codes from IRXEXEC, refer to *z/OS TSO/E REXX Reference*.

---

#### ISFTRACE DD MISSING

**Explanation:** A TRACE command has been entered, but the ISFTRACE file is not allocated. The TRACE command is not processed.

**User response:** Allocate the ISFTRACE file and reissue the TRACE command.

---

#### ISPF REQUIRED

**Explanation:** The command was issued when SDSF was not operating under ISPF. Some commands are valid only when SDSF was accessed through ISPF.

**User response:** Access SDSF through ISPF and reissue the command.

---

#### JAPANESE HELP NOT AVAILABLE

**Explanation:** The Japanese Help/Tutorial feature is not installed.

**User response:** See your system programmer.

---

#### JCT NOT AVAILABLE

**Explanation:** Either the object has no job control table (JCT) or an error occurred trying to process the JCT for the object.

**User response:** Delete the command or type RESET on the command line.

---

#### jesx NOT ACTIVE

**Explanation:** The JES subsystem *jesx* is not active and one of the following has happened:

- You attempted to enter a command, select a pull-down choice, or process a pop-up that requires JES.

- SDSF attempted to obtain a checkpoint version. The checkpoint is not obtained.

**User response:** Exit SDSF and retry the request when *jesx* is active.

---

#### JES REQUIRED

**Explanation:** You issued a command, selected a pull-down choice or attempted to process a pop-up that requires JES. JES is not currently active.

**User response:** Contact the system programmer. When JES is active again, exit SDSF and reaccess it to make all SDSF functions available.

---

#### JES REQUIRED FOR MAS

**Explanation:** The RES panel was accessed with the default parameter of MAS, either with the command or pull-down choice, but SDSF cannot determine which members are in the MAS. SDSF requires JES2 to determine the members in the MAS, and JES2 is unavailable. As a result, the panel shows all systems in the sysplex.

**User response:** None required.

---

#### JES 1.7 REQUIRED

**Explanation:** The function that was attempted requires z/OS V1R7 JES2. For action characters and overtypeable columns, both the user's system and the object's system must be at z/OS V1R7 JES2.

**User response:** Delete the action character or overtype.

---

#### JES2 ENVIRONMENT ONLY

**Explanation:** A command or option was entered that requires SDSF to be processing a JES2 subsystem, but SDSF is processing a JES3 subsystem. The command is rejected.

**User response:** None required.

---

#### JES3 ENVIRONMENT ONLY

**Explanation:** A command or option was entered that requires SDSF to be processing a JES3 subsystem, but SDSF is processing a JES2 subsystem. The command is rejected.

**User response:** None required.

---

#### JES2 REQUIRED FOR MAS

**Explanation:** A command included the MAS option when SDSF was processing a JES3 subsystem. The MAS option requires the JES2 environment. The option is internally converted to ALL.

**User response:** None required.

## JOB IS PROTECTED • LOGIC ERROR 3

---

### JOB IS PROTECTED

**Explanation:** The P action character has been used against a protected job. The job has not been canceled.

**User response:** Use the PP action character to cancel a protected job.

---

### JOB NO LONGER VALID

**Explanation:** A command that was issued for a job failed, which may be because:

- The job has been purged
- The output group is no longer available. This could be because the characteristics have changed.
- The job is no longer active in the address space.

**User response:** If the output group is no longer available but the data sets still exist, re-access the panel again and try again.

---

### JPN HELP NOT AVAILABLE

**Explanation:** The Japanese Help/Tutorial feature is not installed.

**User response:** See your system programmer.

---

### number LINES PRINTED

**Explanation:** In response to a PRINT command or print action character (X), *number* lines have been printed. When you enter multiple X action characters, *number* is the lines in the last printed data set.

**User response:** None.

---

### LINE NOT AVAILABLE

**Explanation:** An action or overwrite requires a line device to be associated with the object. However, no line device is associated with the object

**User response:** Remove the action character or modification from the panel by restoring or blanking the field, or type the RESET command.

---

### LOCATE ERROR return-code

**Explanation:** An attempt was made to open a print data set. A LOCATE request for the specified data set failed with return code *return-code*. The system can also issue an explanatory message.

**User response:** Ensure that the data set being processed is an existing data set.

---

### LOG BROWSE ERR returncode-reasoncode

**Explanation:** An error occurred in trying to browse the log stream displayed on the OPERLOG panel. The message text contains the hexadecimal return and

reason codes from the IXGBRWSE macro.

**User response:** Try issuing the LOG command again or scrolling up or down with a scroll amount of MAX. If the problem persists, use the return and reason codes to determine the cause of the error.

---

### LOG CONN ERR returncode-reasoncode

**Explanation:** An error occurred in trying to connect to the log stream when displaying the OPERLOG panel. The message text contains the hexadecimal return and reason codes from the IXGCONN macro.

**User response:** Use the return and reason codes to determine the cause of the error.

---

### LOG DISC ERR returncode-reasoncode

**Explanation:** An error occurred in trying disconnect from the log stream displayed on the OPERLOG panel. The message text contains the hexadecimal return and reason codes from the IXGCONN macro.

**User response:** Use the return and reason codes to determine the cause of the error.

---

### LOG FUNCTION INOPERATIVE

**Explanation:** The SDSF SYSLOG panel is not available due to an SDSF initialization error.

**User response:** The system programmer should check the accompanying write-to-operator message for more information.

---

### LOGIC ERROR 1

**Explanation:** SDSF could not process the command as it was entered.

**User response:** Delete the command or enter the correct command.

---

### LOGIC ERROR 2

**Explanation:** SDSF could not process the command as it was entered.

**User response:** Delete the command or enter the correct command.

---

### LOGIC ERROR 3

**Explanation:** An internal error has occurred processing action characters or overtypes. Some actions since the last enter might have been lost.

**User response:** Press Enter to refresh the display and retry the actions or overtypes. If the problem persists, contact IBM for assistance.

---

**LOGLIM yyyy.ddd hh:mm:ss**

**Explanation:** The OPERLOG is being filtered and the limit for the number of hours to search has been reached. *yyyy.ddd hh:mm:ss* is the date and time of the record being processed when the limit was reached. Processing is ended for the current request.

SDSF might have been reading forward or backward in the OPERLOG. If SDSF detected more than one limit in processing a single request, the message is issued for the last record that was processed.

**User response:** Enter the LOGLIM command to change the limit for the operlog display. You can also enter the LOCATE command (by date and time) the NEXT and PREV commands, or SCROLL UP or DOWN MAX commands to scroll to a new position in the OPERLOG.

---

**LRECL TOO LARGE FOR GDDM**

**Explanation:** An attempt was made to view a file using the V action character. However, GDDM could not be invoked because the input record length of the file exceeded the maximum that can be processed by GDDM. See the GDDM documentation for the maximum record lengths acceptable to GDDM.

**User response:** The view request is terminated. The file can be browsed using SDSF, but not viewed using GDDM.

---

**MEMBER NAME MISSING**

**Explanation:** A member name was not specified on an SDSF panel, but the data set being used is partitioned.

**User response:** Specify a member name for the data set, or use a different data set name.

---

**MEMBER NAME NOT ALLOWED**

**Explanation:** A member name was specified on a command or panel, but the data set being used is sequential.

**User response:** Delete the member name for the data set, or use a different data set name.

---

**MEMBER NOT FOUND**

**Explanation:** A member of a PDS was specified on an SDSF panel, but the PDS does not contain a member with that name.

**User response:** Correct the member name.

---

**MENU READ LOOP**

**Explanation:** A loop has occurred processing the SDSF help panels under TSO.

**User response:** Contact IBM for assistance.

---

**MERGE ERROR returncode-reasoncode**

**Explanation:** An error occurred issuing an SJF merge request. In the message text, *returncode* is the decimal return code from the SJF merge service and *reasoncode* is the decimal reason code.

**User response:** Attempt to reissue the modify request. If the error persists, contact your system programmer for assistance.

---

**MIGRAT ALLOC FAILURE**

**Explanation:** In response to a PRINT ODSN command, the required print data set was migrated and could not be allocated.

**User response:** Recall the print data set and reissue the PRINT ODSN command.

---

**MOD NOT ALLOWED FOR PDS**

**Explanation:** An attempt has been made to allocate a print data set with MOD, but the data set is partitioned. SDSF does not support MOD for this case.

**User response:** Change the disposition to OLD or NEW or specify a sequential data set.

---

**MODULE NOT FOUND**

**Explanation:** A QUERY MODULE command was issued for a module but the module could not be located.

**User response:** The module named on the QUERY MODULE command must be an SDSF module that is accessible or currently loaded by SDSF.

---

**MODIFY ISSUED-number DS**

**Explanation:** A request to modify the output descriptors has been scheduled. *number* is a count of the number of data sets in the output group at the time the request was issued (leading zeros suppressed). A SWB modify request applies to all the data sets in the group.

**User response:** None.

---

**MUTUALLY EXCLUSIVE UPD**

**Explanation:** The use of an action character or overtype was incompatible with the concurrent use of another overtype. For example, you cannot use the P action character on the H display while simultaneously

## NO sysid SYSLOG FOUND • NO HELP AVAILABLE

overtyping the class field. Purge and the class change are mutually exclusive.

**User response:** Either restore or delete the field, or type RESET on the command line.

---

### NO sysid SYSLOG FOUND

**Explanation:** SDSF is unable to locate any SYSLOG data sets for the SYSID being processed.

**User response:** Use the SYSID command to change the SYSID, for example SYSID IP01.

---

### NO CHARS 'string' FOUND

**Explanation:** The FIND command could not find the character string *string*.

**User response:** None.

---

### NO COMMAND PROVIDED

**Explanation:** No command text was entered with the command on the System Command Extension pop-up or the / command, or no action character or overtype was entered with row numbers on the command line.

**User response:** None required. If you are attempting to save a command on the System Command Extension pop-up, type a command on the command line and then press the Save PF key (PF10).

To issue an action character from the command line, use this syntax:

*rows action-character*

To overtype a field from the command line, use this syntax:

*rows column-title=value*

*rows* can be one or more row numbers or ranges of row numbers.

---

### NO DATA IN DATA SETS

**Explanation:** The data sets for the job that has been selected are all empty data sets. There is no data to browse.

**User response:** None.

---

### NO DATA SETS ALLOCATED

**Explanation:** An allocation failure has occurred for each data set in the job to be displayed. Since no data sets were allocated, they cannot be browsed.

Additional messages describing the specific allocation failures might have been issued by the system.

**User response:** Use the system messages to determine the reason for the allocation failure and retry the request.

---

### NO DATA SETS AUTHORIZED

**Explanation:** An attempt was made to display a job but there is no data set the user is authorized to view.

**User response:** If you have been denied access in error, see "User authorization" on page 505 for more information.

---

### NO DATA SETS OPENED

**Explanation:** An open failure occurred for each data set in the job to be displayed. Since no data sets were opened, they cannot be browsed.

Additional messages can be issued by the system describing the error.

**User response:** Determine the reason for the open failure using the error codes in the message.

---

### NO DATA TO DISPLAY

**Explanation:** There is no data to display for the request. If you are requesting command details or groups, there may be no data because there are no commands in the list. The value for Show may be excluding commands from the list. If you are accessing an SDSF panel, data may not be available yet.

**User response:** To see command or group details, try changing the value for Show to include commands in the list. For example, a value of \* includes all commands for all groups, including commands that are not assigned to a group.

To see panel data, try accessing the panel again.

---

### NO DISPLAYABLE DATA

**Explanation:** A user has attempted to display a job's SYSOUT data, but the job has no data that can be displayed by that user.

**User response:** Delete the command or type RESET on the command line.

---

### NO FILTERS AVAILABLE

**Explanation:** An attempt was made to turn filtering on when there are no available filters.

**User response:** None required. To filter the panel, type a filter command or type FILTER ? to enter a filter on the Filter pop-up.

---

### NO HELP AVAILABLE

**Explanation:** SDSF could not show a help panel under TSO because it was unable to allocate or open the SDSF help panel data set.

**User response:** Check that the SDSFMENU data set is allocated to the SDSF help panel library. Check the

MENUS and MENUVOL parameters in ISFPARMS to see that they are coded correctly.

---

**NO OPERLOG FOUND**

**Explanation:** You entered a LOG command to display the OPERLOG panel, but no log stream is available to display.

**User response:** To display the SYSLOG panel, which contains messages for a single system, type LOG S.

---

**NO PREFIX 'string' FOUND**

**Explanation:** The character string *string* was not found in response to a FIND command.

**User response:** None.

---

**NO PREVIOUS INPUT**

**Explanation:** You entered a repeat command, but no modification has yet been done to repeat.

**User response:** Enter an action character or overtype a field prior to using the repeat command.

---

**NO PROMPT AVAILABLE**

**Explanation:** The Prompt function is not available for the selected field.

**User response:** None required.

---

**NO RESPONSE FROM RMF**

**Explanation:** SDSF has passed the timeout limit awaiting a response from RMF to display the DA panel.

**User response:** Retry the request. To bypass the error, use the SYSNAME command or pull-down choice to limit the number of systems being processed.

---

**NO RESPONSE RECEIVED**

**Explanation:** The delay interval for a command response or sysplex data had been reached. The command response or data on the SDSF panel is not shown. Sysplex data not shown may include WTORs on the Log panel, when you have used the SYSID command to request the log for a system other than the one you are logged on to.

**User response:** To see the command response, issue the ULOG command to view the user log. To increase the delay interval, use the SET DELAY command.

To increase the delay interval for sysplex data, use the SET TIMEOUT command.

You might also try limiting the amount of sysplex data being returned, with one or more of the following:

- Parameters on the panel command, for example, PR 1 to see only printer 1.

- The SYSNAME command or pull-down choice, to restrict the systems to be included.
- The DEST command or pull-down choice, to restrict the destinations to be included.
- The SELECT command, to temporarily restrict the panel based on the fixed field, for example, SELECT PRT33 to see only printer PRT33.

Note that the Filter function does not have the effect of limiting the data returned

If the problem cannot be corrected with these methods, the operator or system programmer should ensure that one or more SDSF servers has not been stopped by issuing the F *server*,D,C command. The system programmer should also review the WebSphere MQ configuration for possible communications problems.

Refer to “WebSphere MQ considerations” on page 361.

---

**NO STEP DATA FOUND**

**Explanation:** No job step data was found in response to a JS action character.

**User response:** No response is required.

---

**NO SUFFIX 'string' FOUND**

**Explanation:** The character string *string* was not found in response to a FIND command.

**User response:** None.

---

**NO WORD 'string' FOUND**

**Explanation:** The character string *string* was not found in response to a FIND command.

**User response:** None.

---

**NOT ALL SYMBOLS SHOWN**

**Explanation:** The number of symbols exceeds the number of symbols that can be shown by the pop-up.

**User response:** Follow your local procedure for reporting a problem to IBM.

---

**NOT ALLOWED - PRIOR OD**

| **Explanation:** The % action character was used to  
| invoke a REXX exec, but REXX execs are not allowed  
| because the current panel was accessed from the OD  
| (Output Descriptor) panel.

| **User response:** Delete the action character. If possible,  
| access the panel without first accessing OD, then try  
| the action character again.

---

### NOT ALLOWED WITH OUTDESC

**Explanation:** A value for forms, process mode, PAGEDEF, or FORMDEF has been entered along with an Output Descriptor Name. Those fields cannot be specified when Output Descriptor Name is used.

**User response:** Delete the value for forms, process mode, PAGEDEF, or FORMDEF if an Output Descriptor Name is to be used. Alternatively, delete the Output Descriptor Name.

---

### NOT AUTH TO LOGSTREAM

**Explanation:** You are not authorized to the log stream. Access to the log stream is required for this function.

**User response:** Contact your security administrator for authorization to the log stream.

---

### NOT AUTH TO OPERLOG

**Explanation:** You entered a LOG command to display the OPERLOG panel, but are not authorized to the log stream that is displayed on the OPERLOG panel.

**User response:** To display the SYSLOG panel, which contains messages for a single system, type LOG S.

---

### NOT AUTHORIZED BY EXIT

**Explanation:** You attempted to issue a command that you are not authorized by the SDSF user exit to issue.

**User response:** Delete the command.

If you have been denied authorization in error, the system programmer should check the SDSF user exit module, ISFUSER.

---

### NOT AUTHORIZED FOR CHECK

**Explanation:** You are not authorized to issue the command for the check.

**User response:** Delete the command.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR CHOICE

**Explanation:** You are not authorized for the pull-down choice.

**User response:** Select another choice or press PF3 to close the pull-down. If your authorization has changed during the current SDSF session and the change is not yet reflected in the pull-down, either type the SDSF command associated with the choice or exit and reenter SDSF.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR CLASS

**Explanation:** The user is not authorized to issue commands against the class.

**User response:** Delete the command.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR CMD

**Explanation:** You attempted to issue an action character, overwrite a field, or issue an MVS or JES command that you are not authorized to issue.

**User response:** Delete the action character, overtyped information, or MVS or JES command.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR CONS

**Explanation:** You attempted to activate an extended console but are not authorized to the console. The console is not activated, and the message responses is not available to the ULOG panel or with the slash command.

**User response:** Contact your security administrator to grant you access to the extended console.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR DEV

**Explanation:** The user is not authorized to issue commands against the device.

**User response:** Delete the command.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR DEST

**Explanation:** You are not authorized for a requested destination name.

**User response:** Delete the destination name.

If you have been denied authorization in error, see “User authorization” on page 505 for more information.

---

### NOT AUTHORIZED FOR ENC

**Explanation:** The user is not authorized to issue commands for the enclave.

**User response:** Delete the command.

---

**NOT AUTHORIZED FOR FUNCTION**

**Explanation:** You are not authorized for the function provided by a pop-up.

**User response:** Cancel the pop-up.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR INIT**

**Explanation:** You are not authorized to issue commands to the initiator.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR JOB**

**Explanation:** You are not authorized to issue commands against the job.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR NODE**

**Explanation:** The user is not authorized to issue commands against the node.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR PROC**

**Explanation:** You are not authorized to issue commands to the z/OS UNIX process.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR PRT**

**Explanation:** You are not authorized to issue commands to the printer.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR RES**

**Explanation:** You are not authorized to issue commands to the system resource.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR SE**

**Explanation:** You are not authorized to issue commands to the WLM scheduling environment.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED FOR SYS**

**Explanation:** You are not authorized to issue commands for the member of the MAS.

**User response:** Delete the command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**NOT AUTHORIZED TO DATA**

**Explanation:** The server has rejected a request for sysplex data due to an authorization failure. The data is not displayed.

**User response:** Exit SDSF and then reaccess it.

---

**NOT PAGE MODE DATA**

**Explanation:** A view request was entered for a data set that is not page mode. SDSF considers a data set to be page mode only if it is identified as being page mode by JES. SDSF converts the view request to browse. The data set is not composed by the view utility, but is displayed on the ODS panel.

**User response:** None.

---

**NOT VALID FOR TYPE**

**Explanation:** The action character is not a valid action against that object type.

**User response:** Enter the correct action character.

---

**NOT VALID WHEN REXX**

**Explanation:** An SDSF command was issued or a command operand was used that is not valid in the REXX environment.

**User response:** Delete the command or operand.

Refer to Chapter 13, "Using SDSF with the REXX programming language," on page 391 for more information.

## "O" ACTION REQUIRED • PARM INVALID

---

### "O" ACTION REQUIRED

**Explanation:** The field modification the user has attempted requires the O action character.

**User response:** Issue the O action character.

---

### OBTAIN ERROR return-code

**Explanation:** An attempt was made to open a print data set. An OBTAIN request failed with return code *return-code*.

The system can also issue an explanatory message.

**User response:** Ensure that the data set being processed exists either on the volume pointed to by the catalog or specified on the request.

For a description of the return code, refer to *z/OS DFSMSdfp Advanced Services*.

---

### OFFSET NOT ZERO

**Explanation:** The number specified after the destination name in an ISFNTBL macro is not 1. The number must be 1 in ISFNTBL macros that are named in the IDEST parameter.

**User response:** The system programmer should check the ISFNTBL macros named in the IDEST parameter of the ISFGRP macro.

---

### OPERLOG NOT ACTIVE

**Explanation:** You entered the LOG O command but OPERLOG is not active on the system to which you are logged on. The OPERLOG panel is displayed, but may not contain messages from the system to which you are logged on.

**User response:** To see messages from the system to which you are logged on, type LOG or LOG S.

---

### OPTION LOCALLY DISABLED

**Explanation:** The command or option has been disabled by the installation.

**User response:** If the command or option should be allowed, contact your system programmer to review the SDSF configuration options.

---

### OPTS=mask REC-CNT=record-count DSNAME=data-set-name

**Explanation:** This message is issued to the message line in response to a TRACE command. *mask* is the event mask used for tracing; *record-count* indicates the number of records written to the trace data set; *data-set-name* is the name of the trace data set.

**User response:** None.

---

### \*\*\* OS CVOL ERROR

**Explanation:** This message accompanies the ALLOC ERROR *return-code error-code information code* message.

**User response:** None.

---

### OUTADD ERROR return-code-reason-code

**Explanation:** An error occurred creating an output descriptor for the PRINT command. *return-code* is the decimal return code from the OUTADD macro, and *reason-code* is the hexadecimal reason code. The PRINT request is not executed.

**User response:** Use the return and reason codes to diagnose the error.

---

### OUTPUT DESC NOT AVAIL return-code

**Explanation:** An error occurred trying to obtain the output descriptors for at least one data set being displayed on the JDS panel. The output descriptor fields begin with the PageDef column in the default field list (PageDef, FormDef, Title, Name, and so on) in the default field list. See "Job Data Set panel (JDS)" on page 154.

In the message text, *return-code* is a reason code describing the source of the error, as follows:

- 01 — SJF service error
- 02 — SWBIT block validation error
- 03 — SWBIT job or data set key validation error
- 04 — SWBIT read I/O error.

The output descriptors for the data set are not shown. If the reason code is 01, message ISF027I is also issued to further identify the data set and error that occurred.

**User response:** Contact your system programmer to determine the cause of the error.

---

### OVERTYPE VALUE TOO LONG

**Explanation:** The value typed on an oertype extension pop-up is longer than the maximum width for the field.

**User response:** Correct the value.

---

### number PAGES PRINTED

**Explanation:** In response to a PRINT command, *number* pages were printed.

**User response:** None.

---

### PARM INVALID

**Explanation:** You entered a command with an invalid parameter, invalid printer name, invalid row number or row number range, invalid action character, or the parameter is not allowed in the current environment.



The cursor is positioned under the parameter in error.

**User response:** Correct the invalid parameter.

---

**PARM NOT ACCEPTABLE**

**Explanation:** The command that was entered is not valid in the current environment. It may have been rejected because of a setting in the SDSF configuration parameters, ISFPARMS.

**User response:** Correct the invalid parameter.

---

**PARTIAL DATA SHOWN**

**Explanation:** While generating the PR panel, SDSF detected that printers were being added dynamically. SDSF was unable to build a complete printer list because the list exceeded a table retry limit. The printer list is incomplete.

**User response:** Refresh the PR panel after dynamic addition of printers is complete.

---

**POINT ERROR RC=return-code**

**Explanation:** The POINT request for the spool data for a job failed. The job's SYSOUT is not displayed. This may occur if the job was purged or if the SYSOUT data was selected from the Display Active Users (DA) panel and the job was swapped out.

**User response:** Try displaying the SYSOUT later. If the job was active and swapped out, the SYSOUT will be accessible. If the job was purged, the SYSOUT will not be found. For a description of the return codes, refer to *z/OS DFSMS Macro Instructions for Data Sets*.

---

**number PREFIX string**

**Explanation:** In response to a FIND command, a number of occurrences of a character string have been found. If SDSF finds more than 999999 occurrences, *number* is 999999+. The cursor is positioned on the character string.

**User response:** None.

---

**PREFIX INVALID**

**Explanation:** The PREFIX parameter was used with the FIND command on a panel other than the SYSLOG or ODS panel. The cursor is positioned on the character string.

**User response:** None.

---

**PRINT ABEND abend-code**

**Explanation:** An abend occurred during an SDSF print request. *abend-code* is the abend completion code in hexadecimal. The print operation is terminated and the print file is closed.

**User response:** Use the abend code to determine the reason for the abend. Additional explanatory messages might have been issued by the system to further describe the abend.

---

**PRINT ALREADY OPEN**

**Explanation:** An attempt has been made to open a previously opened print file.

**User response:** If a different print file is to be used, issue a PRINT CLOSE command to close the current file.

If the current print file is to be used, use the PRINT command or print action character (X) to print to the file.

---

**PRINT CLOSED number LINE**

**Explanation:** In response to a PRINT CLOSE command or a print action character, *number* lines were printed before the print file was closed.

**User response:** None.

---

**PRINT ENDED — LOOP COND**

**Explanation:** An attempt was made to print an open print data set. The data set was not printed. This error occurs if you are trying to print an active print file or trying to print the active SDSF trace data set.

**User response:** Data sets other than the open print data set belonging to the user's TSO session can be printed individually from the JDS panel. Issue a PRINT CLOSE or TRACE OFF command before printing.

---

**PRINT FILE ERROR**

**Explanation:** The *ddname* you specified for printing cannot be found.

**User response:** Allocate a *ddname* and retry the request.

---

**PRINT NOT OPENED**

**Explanation:** A command requiring an open print data set was issued, but the print data set has not been opened.

**User response:** Issue either the PRINT OPEN or PRINT ODSN command to retry the request. For information on printing, see the online help.

---

**PRINT OPEN ERROR**

**Explanation:** The PRINT OPEN command or print action character failed.

**User response:** See the online help to diagnose the cause of error.

## PRINT OPENED • RESPONSE NOT RECEIVED

---

### PRINT OPENED

**Explanation:** The print file has been successfully opened.

**User response:** None.

---

### PRINT SCREEN UNAVAILABLE

**Explanation:** Another print job was in progress when you requested the print screen panel.

**User response:** Retry the command.

---

### \*\*\*\* PRIVATE CATALOG ERROR

**Explanation:** This message accompanies the ALLOC ERROR*return-code error-code information-code* or LOCATE ERROR*return-code* message, and explains why the allocation of the print file failed.

**User response:** Ensure that the data set used in the PRINT ODSN command is an existing data set.

---

### PROFILE DESCRIPTIONS CREATED.

**Explanation:** The first step of the ISFPARMS-to-RACF conversion is complete. Profile descriptions have been created for the ISFPARMS.

**User response:** Review the profile descriptions for completeness and appropriateness. In particular, look for lines marked CHANGE. These lines need to be edited.

---

### PROFILE DESCRIPTIONS DATA SET MUST BE ALLOCATED.

**Explanation:** The menu option that has been selected requires the profile description data set, but the data set has not been allocated. The data set is named on the conversion utility profile pop-up, which you display with option 1 of the conversion utility menu.

**User response:** Choose another menu option, or allocate the profile description data set. It must be a sequential file with record length of at least 80.

---

### PROMPT NOT AVAILABLE

**Explanation:** The Prompt function is not available. It may have been disabled by the installation.

**User response:** None required. You can type the desired value in the field.

---

### RACF COMMANDS CREATED.

**Explanation:** Creation of the RACF commands from profile descriptions is complete.

**User response:** Review the RACF commands for completeness and appropriateness. In particular, look for lines marked CHANGE. These lines need to be edited.

---

### RACF COMMANDS DATA SET MUST BE ALLOCATED.

**Explanation:** The menu option that has been selected requires the RACF commands data set, but the data set has not been allocated. The data set is specified in the SDSF Security Assist profile.

**User response:** Choose another menu option, or allocate the RACF commands data set. It must be a sequential file with record length of at least 133.

---

### | %exec-name RC=return-code

| **Explanation:** A REXX exec invoked with the % action character ended and returned the string *return-code*.

| **User response:** Examine the return code and respond as appropriate.

---

### number RECORDS SEARCHED

**Explanation:** A FIND command searched *number* SYSLOG or output data set records without finding the requested character string. The FIND ended before FINDLIM was reached.

**User response:** Use the Repeat-Find PF key or enter an F in the command input area to resume the search, or reset FINDLIM if authorized.

---

### RESPONSE NOT RECEIVED

**Explanation:** The timeout interval has been reached before one or more SDSF servers responded with data. The data on the SDSF panel is incomplete.

**User response:** To increase the timeout interval, use the SET TIMEOUT command or pull-down choice.

You might also try limiting the amount of sysplex data being returned, with one or more of the following:

- Parameters on the panel command, for example, PR 1 to see only printer 1.
- The SYSNAME command or pull-down choice, to restrict the systems to be included.
- The DEST command or pull-down choice, to restrict the destinations to be included.
- The SELECT command, to temporarily restrict the panel based on the fixed field, for example, SELECT PRT33 to see only printer PRT33.

Note that the Filter function does not have the effect of limiting the data returned

If the problem cannot be corrected with these methods, the operator or system programmer should ensure that one or more SDSF servers has not been stopped by issuing the F *server*,D,C command. The system programmer should also review the WebSphere MQ

configuration for possible communications problems. Refer to “WebSphere MQ considerations” on page 361 for more information.

---

#### number RESPONSES NOT SHOWN

**Explanation:** An action character or slash command has been entered that results in messages being displayed on the screen, and the number of message responses received exceeds the screen depth. *number* message responses could not be shown.

**User response:** Enter the ULOG or LOG commands to view all of the message responses.

---

#### RMF EXIT NOT INSTALLED

**Explanation:** The SDSF-supplied RMF data reduction exit is not installed on all systems in the sysplex. RMF is installed and active, but the SDSF exit is not in the RMF steplib or accessible to it.

**User response:** Ensure that the exit is installed. Refer to “RMF considerations” on page 360 for information.

---

#### RMF III NOT AVAILABLE

| **Explanation:** An attempt was made to access a panel that requires RMF Monitor III, and RMF Monitor III is not started. SDSF uses RMF Monitor III to obtain data for the panel.

| **User response:** Ensure that RMF Monitor III is started. For more information, refer to “RMF considerations” on page 360.

---

#### RMF LOCAL ERR returncode-reasoncode

**Explanation:** An error occurred during invocation of the RMF ERBSMFI Application Interface. *returncode-reasoncode* is the decimal return and reason code from the interface.

**User response:** Use the return code and reason code, along with the appropriate RMF documentation, to determine the cause of the error.

---

#### RMF NOT ENABLED

**Explanation:** An attempt was made to access the DA panel with RMF as the source of the data. RMF is not enabled on your system.

**User response:** None required. The DA panel is displayed with information derived from MVS control blocks rather than RMF. To request that DA use the MVS control blocks rather than RMF, and prevent display of this message, the installation can use the installation exit point of ISFUSER. For more information on the installation exit routines, refer to Chapter 9, “Using installation exit routines,” on page 345.

---

#### RMF PLEX ERR returncode-reasoncode

**Explanation:** An error occurred during invocation of the RMF ERB2XDGS Application Interface. *returncode-reasoncode* is the decimal return and reason code from the interface.

**User response:** Use the return code and reason code, along with the appropriate RMF documentation, to determine the cause of the error.

You can bypass the problem by typing SYSNAME with no operands to see data for the local system.

---

#### RMF REQUIRED

**Explanation:** An attempt was made to access the DA panel when SDSF is processing JES3, and either RMF is not installed or is disabled. The command is rejected.

**User response:** None required.

---

#### RMF SYSPLEX NOT ACTIVE

**Explanation:** The RMF server is not active. Sysplex data cannot be obtained for the DA display.

**User response:** You can bypass the problem by typing SYSNAME with no operands to see data for the local system.

For information about the RMF server, see your system programmer.

---

#### SAPI ERROR returncode - reasoncode

**Explanation:** A problem was encountered related to the SYSOUT application programming interface (SAPI). The return code *returncode* is from the SSOBRETN field and the reason code *reasoncode* is from the SSS2REAS field.

**User response:** For a description of the return code and reason code, see *z/OS MVS Using the Subsystem Interface*.

---

#### SCREEN DEFINITION ERROR

**Explanation:** Incorrect or invalid screen dimensions have been specified for SDSF running in batch. The dimensions are ignored.

Possible causes of this error are:

- Dimensions out of bounds
- Non-numeric dimensions
- Syntax error specifying parameter.

**User response:** Correct the screen dimensions and resubmit the SDSF job.

## SCREEN IMAGE PRINTED • SORT COLUMN NOT UNIQUE

---

### SCREEN IMAGE PRINTED

**Explanation:** The contents of the screen have been printed in response to an SDSF PRINT SCREEN command.

**User response:** None.

---

### SDSF ABEND *abend-code*

**Explanation:** A recoverable abend occurred. *abend-code* is the abend completion code in hexadecimal. SDSF continues; some functions may not be available.

**User response:** Use the abend code and the dump to diagnose the problem.

---

### SERVER NAME *server-name* TOO LONG

**Explanation:** The server name *server-name* specified on the SERVER parameter is longer than 8 characters.

**User response:** Correct *server-name*.

---

### SERVER NOT COMPATIBLE

**Explanation:** The SDSF client attempted to connect to an SDSF server, but the level of the server is not compatible with the level of the client.

**User response:** Ensure the client is connecting to the correct server. To see the name of the server, issue the WHO command.

Refer to “Accessing the server” on page 111 for details on how SDSF selects a server for connection.

---

### SERVER *server-name* NOTAVAIL

**Explanation:** SDSF was invoked using the SERVER keyword, but the named server is not available. SDSF continues execution using the parameters from the ISFPARMS in assembler macro format.

**User response:** Ensure that the named server is running and that the ISFPARMS statements have been activated.

---

### SET COMMAND COMPLETE

**Explanation:** The user issued the SET command and it has been completed successfully.

**User response:** None.

---

### SET SCREEN FAILED *function code*

**Explanation:** SDSF has received an error from the ISPF dialog manager. *function* is a number indicating the ISPF dialog function that failed. The numbers and the functions they represent are:

- 01 — VDEFINE
- 02 — VGET
- 03 — DISPLAY

- 04 — VPUT
- 05 — VCOPY
- 06 — ADDPOP
- 07 — VREPLACE

*code* is the return code from the failing function. Refer to *z/OS V2R2 ISPF Dialog Developer's Guide and Reference* or *z/OS V2R2 ISPF Services Guide* for the meaning of the return code.

**User response:** The system programmer should correct the error with the ISPF function.

---

### SHOW VALUE NOT VALID

**Explanation:** The value provided for Show is not valid. It must be a valid group name, or a group name with the pattern matching characters (\* and % by default). A group name must consist of alphanumeric characters or these special characters: @ # \$ . : - It must begin with an alphabetic character and cannot begin with isf or ibm. Those names are reserved for use by IBM. It cannot contain embedded blanks.

**User response:** Type a valid name. For a list of groups, press the Prompt key (PF4) with the cursor in the field.

---

### SOCKET NOT AVAILABLE

**Explanation:** An action or overtype requires a socket to be associated with the object. However, no socket is associated with the object

**User response:** Remove the action character or modification from the panel by restoring or blanking the field, or type the RESET command.

---

### SORT COLUMN NOT FOUND

**Explanation:** A SORT command was entered specifying a column name that does not exist for this panel. The cursor is positioned under the column name that was not recognized.

**User response:** Correct the column name and reenter the command.

---

### SORT COLUMN NOT UNIQUE

**Explanation:** A SORT command was entered using an abbreviated column name that does not uniquely identify one column in the panel. The cursor is positioned under the column name in error.

**User response:** Reenter the command specifying a unique abbreviation or a full column name.

---

**SORT COLUMN REPEATED**

**Explanation:** In a sort request, a column was specified more than once.

**User response:** Correct the sort request so that no column is specified more than once.

---

**SORT CRITERIA OBSOLETE**

**Explanation:** During the current SDSF session, this is the first display of this panel. This first display uses sort criteria saved from a previous session. One or more of the saved criteria specify a column name that has been removed from the ISFPARMS definition of this panel. A column might have been removed because of security changes, release migration, or customization of the installation supplied field lists.

The obsolete criteria are deleted. If there are any valid sort criteria, the panel is sorted using only the valid criteria.

An additional message, INVALID COLUMN, is displayed in the message line and indicates the column name that no longer exists.

**User response:** No action is required. A new SORT command can be issued to establish new sort criteria. See the additional message in the message line for more information.

---

**SORT ORDER NOT A OR D**

**Explanation:** A SORT command was entered, but the sort order specified is not A (for ascending sort) or D (for descending sort). The cursor is positioned under the operand in error.

**User response:** Correct the command and reenter it.

---

**SPOOL DATA ERROR**

**Explanation:** The spool data for a job became invalid while the job's SYSOUT data was being displayed. This might occur if the job was purged or if the SYSOUT data was selected from the DA panel and the job was swapped out.

**User response:** Try displaying the SYSOUT later. If the job was active and swapped out, the SYSOUT is accessible. If the job was purged, the SYSOUT will not be found.

---

**SRVCLASS NAME INVALID**

**Explanation:** The value entered for a service class was rejected by the WLM programmable service IWMERES.

**User response:** Refer to *z/OS MVS Programming: Workload Management Services* for more information about service classes.

---

**SSI 82 ERR returncode - reasoncode**

**Explanation:** A problem was encountered retrieving data from SSI 82. The return code is from the SSOBRETN field and the reason code is from the SJPRETN field.

**User response:** For a description of the return and reason code, see *z/OS MVS Using the Subsystem Interface*.

---

**SSI RETURN CODE return-code**

**Explanation:** A subsystem interface (SSI) return code of *return-code* was issued when a user tried to requeue an output group from the H panel or the JDS panel or tried to overwrite a field on the OD panel.

**User response:** The system programmer should see one of the following return codes:

- 4 — Subsystem does not support this function
- 8 — Subsystem exists but is not up
- 12 — Subsystem does not exist
- 16 — Function not completed
- 20 — Logical error.

---

**SSOB RETURN CODE return-code**

**Explanation:** An SSOB return code of *return-code* was issued when a user tried to requeue an output group from the H panel or the JDS panel.

**User response:** The system programmer should see one of the following return codes:

- 4 — No more data sets to select
- 8 — Job not found
- 12 — Invalid search arguments
- 16 — Unable to process now
- 20 — Duplicate job names
- 24 — Invalid combination of job name and job ID
- 28 — Invalid destination specified.

---

**STEP NAME NOT AVAILABLE**

**Explanation:** The user is trying to reset the performance group number for a started task and the step name is unavailable.

**User response:** None.

---

**STORAGE NOT AVAILABLE**

| **Explanation:** A request to obtain storage failed because the storage was not available.

| **User response:** The request is not processed. If

## SUBS RETURN CODE *return-code* • SYSOUT NOT FOUND

- | possible, increase the region size used to invoke SDSF.
- | In the REXX environment, use special variables or other
- | filter options to limit the number of REXX variables
- | needed to satisfy a request. For more information, type
- | REXXHELP (ISPF only).

---

### SUBS RETURN CODE *return-code*

**Explanation:** SDSF hThanks, Billas issued a return code of *return-code*.

**User response:** The system programmer should refer to the return code for a description of the error. The return codes are:

- 4 — Bad option passed
- 8 — Not in an authorized state
- 12 — Different JES system
- 16 — Requested address space identifier not valid
- 20 — Requested address space identifier not a TSO user
- 24 — JES not active
- 28 — Bad job key
- 32 — SRB abend
- 36 — Parameter invalid
- 40 — User swapped out
- 48 — Abend processing parameter
- 52 — Bad data set key
- 56 — Bad member-track-track-record (MTTR).  
If SUBS RETURN CODE 56 appears randomly on the log, and disappears when the user presses Enter, and if the system has a high paging rate, the message might indicate a timing exposure. Press Enter when the message appears.
- 60 — Buffer full
- 64 — GETMAIN failed
- 68 — User canceled
- 72 — Attention key pressed
- 76 — Cross-memory not active
- 80 — Bad application copy error
- 84 — Application copy level error
- 88 — Application copy update error
- 92 — Application copy no longer available
- 96 — ECSA application copy no longer available
- 100 — Invalid spool data set name call
- 104 — Buffer size invalid

- 108 — Dynamic printer addition overflow
- 112 — JQE no longer valid
- 116 — SJB/SDB invalid.
- 120 — Checkpoint version error
- 124 — Subsystem not defined
- 128 — Invalid buffer header
- 132 — Unable to obtain printer data

---

### *number* SUFFIX '*string*'

**Explanation:** In response to a FIND ALL command, *number* occurrences of a character string have been found. If SDSF finds more than 999,999 occurrences, *number* is 999999+. The cursor is positioned on the character string.

**User response:** None.

---

### SUFFIX INVALID

**Explanation:** The SUFFIX parameter was used with the FIND command on a panel other than the logs or ODS panels.

**User response:** Correct the command and reissue it.

---

### SWB ERROR *nnnn-rea1-rea2*

**Explanation:** An error occurred issuing a SWB modify request. In the message text, *nnnn* is the decimal return code from the SWB modify request. *rea1* and *rea2* are the decimal reason codes.

**User response:** Attempt to reissue the modify request. If the error persists, contact your system programmer for assistance.

---

### *field-name* SYNTAX ERROR

**Explanation:** An output descriptor has been overtyped, but SJF has detected a syntax error in the input for the *field-name* keyword. The variable *field-name* is the name of the output descriptor and might not necessarily be the same as the field title shown on the display.

**User response:** Correct the overtype.

---

### SYSOUT NOT FOUND

**Explanation:** An attempt to work with SYSOUT was rejected by the subsystem interface (SSI).

**User response:** Try the request again.

---

---

**SYSOUT REQUEUED**

**Explanation:** In response to your request, SYSOUT has been requeued or purged.

**User response:** None.

---

**number SYSOUT REQUEUED | PURGED**

**Explanation:** In response to your request, *number* SYSOUT data sets have been requeued or purged.

**User response:** None.

---

**SYSPLEX DA NOT AVAIL**

**Explanation:** You requested a sysplex-wide DA display, but either the RMF ERB2XDGS interface could not be loaded, or the installation has disabled the use of RMF for the DA display.

**User response:** No action is required. For information about the RMF server, see your system programmer.

---

**SYSTEM BUSY, RETRY**

**Explanation:** SDSF was unable to gather the data for a panel because a required system was busy.

**User response:** Refresh the panel by pressing Enter. If the problem persists, follow your local procedure for contacting IBM for service.

---

**SYSTEM MESSAGES NOTAVAIL**

**Explanation:** An error occurred initializing the Consoles query environment. WTORs and AMRF queue entries will not be displayed on the SR panel or the LOG panel.

**User response:** See your system programmer. SDSF may have previously issued a message describing the error.

---

**SYSTEM NOT CONNECTED**

**Explanation:** A command has been issued for a member of the MAS, but the command must be routed to the system and the system is not accessible.

**User response:** Retry the command when the system is connected.

---

**TEMP FILE ALLOC FAILED**

**Explanation:** An error occurred attempting to allocate the temporary file required by the GDDM view utility. The request to view a data set is ended.

**User response:** See the accompanying explanatory system message describing the error.

---

---

**TEMP FILE OPEN FAILED reason-code**

**Explanation:** An error occurred in the attempt to open the temporary file required by the GDDM view utility. The request to view a data set is ended. *reason-code* is one of the following:

- 01 — SDSF was unable to open the temporary file DCB. Accompanying messages can further describe the error.
- 02 — The block size of the temporary file exceeded the capacity of the DASD device on which it is allocated.

**User response:** Determine the reason for the failure and retry the view request. If *reason-code* is 02, the system programmer should change the unit name for the temporary file (defined by the VIO keyword in the ISFGRP macro of ISFPARMS) to a device capable of holding a copy of the page-mode data to be composed.

---

**TOO FEW PARMS**

**Explanation:** There were not enough parameters specified on the command. SDSF does not process the command.

**User response:** Correct the command and retry the request.

---

**TOO MANY COLUMNS SELECTED**

**Explanation:** You have selected too many columns or blocks on the pop-up.

**User response:** Correct the selection. For ARRANGE, you can select one column.

---

**TOO MANY DEST NAMES**

**Explanation:** More than four destination names were specified in an ISFNTBL macro or NTBL statement that is named in the IDEST parameter of the user's ISFGRP macro or GROUP statement.

No more than four destination names can be specified in an ISFNTBL macro or NTBL statement that is named in the IDEST parameter of the ISFGRP macro or GROUP statement.

**User response:** The system programmer should correct ISFPARMS. The user should correct or delete the DEST command so the maximum number is not exceeded.

---

**TOO MANY FILTERS**

**Explanation:** An attempt was made to enter more filters than are allowed. The maximum number of filters is 25.

**User response:** Delete the command. You can remove a filter with FILTER -column. Under ISPF, you can use

---

## TOO MANY PARAMETERS • TYPE A OR D FOR SORT ORDER

FILTER ? to display the pop-up, which allows you to modify filters, or delete them by blanking them out.

---

### TOO MANY PARAMETERS

**Explanation:** Too many parameters were specified with a command.

**User response:** Correct or delete the command.

---

### TOO MANY PARMS

**Explanation:** Too many parameters were specified with a command.

**User response:** Correct or delete the command.

---

### TOO MANY COLUMNS SELECTED

**Explanation:** You have selected too many columns or blocks on the pop-up.

**User response:** Correct the selection. For ARRANGE, you can select one column.

---

### \* TOP OF DATA REACHED \*

**Explanation:** A FIND PREV or FIND FIRST command reached the top of the data without finding the requested character string.

**User response:** Use the Repeat-Find PF key or enter an F in the command input area to resume the search at the bottom of the data.

---

### TRACE DCB ALREADY CLOSED

**Explanation:** A TRACE OFF command was entered, but the ISFTRACE file has already been closed. The TRACE OFF command is ignored.

**User response:** None.

---

### TRACE DCB ALREADY OPENED

**Explanation:** A TRACE ON command was entered, but the ISFTRACE file has already been opened. The TRACE ON command is ignored.

**User response:** None.

---

### TRACE DCB CLOSED

**Explanation:** In response to a TRACE OFF command, the ISFTRACE file has been closed.

**User response:** None.

---

### TRACE DCB OPENED

**Explanation:** In response to a TRACE ON command, the ISFTRACE file has been opened.

**User response:** None.

---

### TRACE NOT AVAILABLE

**Explanation:** SDSF is operating in split-screen mode, and the trace facility is not available in the session in which the message was issued. The trace facility is available in the other session.

**User response:** To use the trace facility, swap sessions.

---

### TRACE OFF - ABEND abend-code

**Explanation:** An I/O error has caused SDSF to turn tracing off. A system abend with an abend code of *abend-code* has occurred but has been handled by SDSF.

**User response:** To continue tracing, allocate a new trace data set. For more information on the abend, see the appropriate system codes manual.

---

### TRACE OFF - PERM I/O ERR

**Explanation:** An I/O error has caused SDSF to turn tracing off.

**User response:** To continue tracing, allocate a new trace data set.

---

### TRACING IS ON | OFF

**Explanation:** In response to a TRACE command, the status of tracing is shown to be on or off.

**User response:** None.

---

### TYPE A COLUMN NAME

**Explanation:** You left a field requiring a column name blank.

**User response:** Type a valid column name in the field.

---

### TYPE A NUMBER IN THIS FIELD

**Explanation:** You typed data that was not numeric in a numeric field, or there are blanks in the numeric field. The cursor is positioned on the field in error.

**User response:** Enter numeric data in the field.

---

### TYPE A OR D FOR SORT ORDER

**Explanation:** You typed something other than an A, D, or a blank on the Sort pop-up. The valid values are A (for ascending) or D (for descending). If the character is blank, the order is ascending.

**User response:** Type an A or D or blank out the character.



---

**TYPE LINES OR TIMES AND DATES**

**Explanation:** You pressed Enter on a Print pop-up but didn't specify either lines or times and dates to print.

**User response:** Type values for either lines or times and dates.

---

**ULOG CLOSED**

**Explanation:** A ULOG CLOSE command was issued and the user log has been successfully closed. All message responses have been deleted from the user log and the extended console has been deactivated.

**User response:** None.

---

**UNABLE TO FIND ORIGINAL**

**Explanation:** The user attempted an action on a foreign, independent enclave, but the corresponding original enclave could not be found. The original enclave may have terminated before the action was attempted.

**User response:** None.

---

**UNABLE TO FIND OWNER**

**Explanation:** The user attempted an action on a dependent enclave, but the owning address space could not be found. The owning address space may have ended before the action was attempted, or may be running on a system that does not support the Enclave Reset function.

**User response:** None.

---

**UNBALANCED PARENTHESIS**

**Explanation:** In attempting to overwrite a field, the user has omitted a required parenthesis.

**User response:** Enter the required parenthesis.

---

**UNBALANCED QUOTES**

**Explanation:** An ending quotation mark is either missing or you have an extra quote at the end.

**User response:** Correct the quote marks or enter a new string.

---

**UPDATE LENGTH TOO LONG**

**Explanation:** The update interval entered with the & command is longer than three digits.

**User response:** Retry the & command with an interval of 999 or less.

---

---

**UPDATE NOT AUTHORIZED**

**Explanation:** You have attempted to issue the & command to enter automatic update mode, but are not authorized to do so.

**User response:** Delete the & command.

If you have been denied authorization in error, see "User authorization" on page 505 for more information.

---

**UPDATE TIME TOO SMALL**

**Explanation:** The user has issued the & command to enter automatic update mode, but the update interval specified was less than the installation-defined minimum.

**User response:** Retry the & command with a larger interval.

---

**USE EQ,NE WITH PATTERNS**

**Explanation:** You specified an operator with less than or greater than and the value contained pattern matching.

**User response:** Change the operator to EQ or NE, or remove the pattern matching.

---

**USE EQ OR NE WHEN THE FILTER VALUE INCLUDES PATTERN MATCHING**

**Explanation:** You specified an operator with less than or greater than and the value contained pattern matching.

**User response:** Change the operator to EQ or NE, or remove the pattern matching.

---

**VALUE NOT AUTHORIZED**

**Explanation:** The value that was specified in an overwriteable field was rejected by SAF security. The value is ignored.

**User response:** None required. You can overwrite the field with a different value. If the value should be allowed, contact your security administrator.

---

**VALUE TOO LONG**

**Explanation:** An attempt was made to add a value that was selected from a list to existing text. The resulting combination was too long for the field. As a result, the existing text was not changed.

**User response:** None required. You might change or delete the existing text and then try selecting a value from the list again.

---

---

\*\*\*\* VOLUME NOT MOUNTED

**Explanation:** This message accompanies message ALLOC ERROR *return-code error-code information-code* or OBTAIN ERROR *return-code* and explains why allocation of the print file failed.

**User response:** Ensure that the PRINT ODSN command is issued using a valid existing data set.

---

**WIDTH CANNOT EXCEED maximum**

**Explanation:** The column width specified with the Arrange function is longer than the maximum allowed, which is *maximum*.

**User response:** Change the width to a number that is valid.

---

**number WORD 'string'**

**Explanation:** In response to a FIND ALL command, *number* occurrences of a character string have been found. If SDSF finds more than 999,999 occurrences, *number* is 999999+. The cursor is positioned on the character string.

**User response:** None.

---

**WORD INVALID**

**Explanation:** The WORD parameter was used with the FIND command on a panel other than the logs or ODS panels.

**User response:** None.

---

## Messages with HSF message numbers

This section describes messages issued with HSF message numbers.

A letter following the message number indicates the severity of the message:

I Information.

W Warning.

E Error.

---

**HSF0001I Server initializing**

**Explanation:** The SDSFAUX server is initializing. This message is issued when the SDSFAUX server starts the SDSFAUX address space.

The SDSFAUX address space provides data collection services used by various SDSF commands and displays.

**User response:** No response is required.

---

**HSF0002I Server initialization complete.**

**Explanation:** SDSFAUX server initialization is complete. This message indicates that the SDSFAUX server has finished initializing and is ready to accept requests from SDSF users.

The SDSFAUX address space provides data collection services used by various SDSF commands and displays.

**User response:** No response is required.

---

**HSF0003E Connect failed. RC=*return-code*  
RSN=*reason***

**Explanation:** The connection request to the SDSFAUX server has failed for the indicated return and reason codes.

The SDSFAUX services are unavailable to the caller.

**User response:** Verify that the SDSFAUX server is active and that the caller has the required security access.

---

**HSF0004E Cross-system resource *group* version mismatch with *member***

**Explanation:** The SDSFAUX server has detected an unsupported version of SDSF on the specified member and has stopped its XCF data collection agent.

SDSFAUX cannot share XCF resources with an unsupported release of SDSF.

**User response:** Update to a supported release of SDSF on the member listed.

---

**HSF0005E SDSFAUX server is already active on this system.**

**Explanation:** An attempt has been made to start the SDSFAUX server, which was already active on the system.

The SDSFAUX server attempting to start will stop.

There must only be one SDSFAUX server active at any one time.

**User response:** Before you restart the SDSFAUX or SDSF server, stop the current instance and ensure SDSFAUX is inactive.

---

**HSF0006E Operating system level not supported.**

**Explanation:** An attempt has been made to start the SDSFAUX server on a system that is running an unsupported version of the operating system.

The SDSFAUX server will stop.

**User response:** Upgrade to a supported release of the operating system.

**HSF0007I**    **Joined data-sharing group** *name as member.*

**Explanation:** The SDSFAUX server has successfully joined the indicated XCF group. The server will use this XCF group to perform cross-system data gathering requests.

**User response:** No response is required.

**HSF0009E**    **Incorrect execution key.**

**Explanation:** The SDSFAUX server cannot start because the execution key of the HSFSRV00 program did not match the IBM value of 4.

The SDSFAUX server will not start.

**User response:** Verify that all required maintenance has been applied for SDSF and confirm that there are no modifications to the SCHEDxx PARMLIB members that override the IBM PPT entry for HSFSRV00.

**HSF0010I**    **Module** *name* **loaded successfully at address** *hex.*

**Explanation:** The SDSFAUX server successfully loaded the indicated module at the specified address.

This message appears only in the HSFLOG output.

**User response:** No response is required.

**HSF0011I**    **Queue recovery for** *jobname* **ASCB(** *ascb* **)**  
**TCB(** *tcb* **) RB(** *rb* **)**

**Explanation:** The SDSFAUX server has attempted to recover a pending request for the indicated unit of work. The requestor's ASCB, TCB and RB addresses are listed.

This message is issued when there are problems with the task that owns the request queue in the SDSFAUX server. Typically there was an abend or server error when there were active requests.

This message appears only in the HSFLOG output.

**User response:** The requesting unit of work will be resumed with an appropriate return and reason code.

**HSF0020I**    **Command entered:** *command*

**Explanation:** The SDSFAUX server has received the specified operator command.

**User response:** No response is required.

**HSF0025E**    **Unknown operation**

**Explanation:** The SDSFAUX server has received an unknown operator command. Only DISPLAY and MODIFY operations are supported.

**User response:** Issue a supported operator command.

**HSF0026I**    **Command accepted:** *text*

**Explanation:** The SDSFAUX server has accepted the specified operator command.

**User response:** No response is required.

**HSF0027E**    **Invalid command :** *text*

**Explanation:** The SDSFAUX server has rejected the specified operator command because it is unrecognized or contains invalid syntax.

**User response:** Examine related messages and correct the operator command.

**HSF0028W**    **RMF data collection failed ERBSMFI**  
**RC=***rc* **RSN=***rsn*

**Explanation:** The SDSF data collection task received a non-zero return code and reason code from the RMF interface program ERBSMFI. Any SDSF commands that depend on the data collected by this RMF interface program will not be able to show any results.

**User response:** Ensure that RMF Monitor I has been started and that the ERBSMFI program is available to SDSFAUX.

**HSF0030W**    **Critical error in data collection for** *name*

**Explanation:** The named task has encountered a non-recoverable error during data collection. Any SDSF commands that depend on the data collected by this task will not be able to show any results.

**User response:** Look for any other earlier error messages issued by this task to determine the root cause of the problem.

**HSF0031I**    **Keyword** *keyword* **updated with new value** *value*

**Explanation:** The SDSFAUX server has refreshed the specified keyword with the new value.

**User response:** No response is required.

**HSF0032W**    **Internal resource shortage** *type : percent*

**Explanation:** The SDSFAUX server has detected an internal resource shortage of the specified type. The percentage of the maximum limit for the resource type is listed.

Known types:

## HSF0033I • HSF0045I

- PRV-STOR : Private storage below 16Mb
- EPRV-STOR : Private storage above 16Mb

**User response:** Examine the resource type to see if there is an underlying issue that is causing the shortage.

---

### HSF0033I Internal resource shortage relieved for *type*

**Explanation:** The SDSFAUX server internal resource shortage of the indicated type has been relieved.

Known types:

- PRV-STOR : Private storage below 16Mb
- EPRV-STOR : Private storage above 16Mb

**User response:** No response is required.

---

### HSF0034I Task *name* terminated RC= *rc*

**Explanation:** The SDSFAUX server task has terminated with the specified return code.

This message is written to the HSFLOG output.

**User response:** No response is required.

---

### HSF0035W SAF Class SDSF not active RC= *rc* RSN= *rsn*

**Explanation:** The SDSF SAF class is required for the SDSFAUX server to protect its services. A RACROUTE REQUEST=STAT service for the class has responded with the specified return and reason code.

All protected services will return a SAF "No Decision" return code.

**User response:** Activate the SDSF SAF class and define the required profiles to protect the SDSFAUX services.

For more information see Chapter 5, "Using SAF for security," on page 203.

---

### HSF0036I Task *name* initialization complete

**Explanation:** The SDSFAUX server task successfully initialized.

This message is written to the HSFLOG output.

**User response:** No response is required.

---

### HSF0037W SAF Class SDSF not RACLIS<sup>T</sup>ed

**Explanation:** The SDSF SAF class is not RACLIS<sup>T</sup>ed. The SDSFAUX server uses RACROUTE REQUEST=FASTAUTH to verify access to its services, and therefore, must have the SDSF class RACLIS<sup>T</sup>ed.

All protected services will return a SAF "No Decision" return code.

**User response:** RACLIS<sup>T</sup> the SDSF class so that the SDSFAUX server can use the RACROUTE REQUEST=FASTAUTH service.

For more information see Chapter 6, "SDSF and RACF," on page 217.

---

### HSF0040I ENF listener *name* installed for event *code*

**Explanation:** The SDSFAUX server has successfully installed the specified module as an ENF listener for the event code.

This message appears only in the HSFLOG output.

**User response:** No response is required.

---

### HSF0041I ENF listener *name* delete for event *code* RC= *rc*

**Explanation:** The SDSFAUX server has attempted to delete the specified module from the ENF listeners for the event code.

This message appears only in the HSFLOG output.

**User response:** If the return code is non-zero, contact IBM Software Support.

---

### HSF0042E ENF listener install for *name* event *code* *num* failed RC= *rc*

**Explanation:** The SDSFAUX server has attempted to install the specified module as an ENF listener for the event code, and the operation has failed with the indicated return code.

**User response:** Contact IBM Software Support.

---

### HSF0044E Command *name* install failed RC= *RC* RSN= *rsn*

**Explanation:** The SDSFAUX server has attempted to install the specified command and the operation has failed with the indicated return and reason code.

The command and its associated data gathering service will be unavailable.

**User response:** Contact IBM Software Support.

---

### HSF0045I Command *name* installed successfully

**Explanation:** The SDSFAUX server has successfully installed the specified command.

This command and its associated data gathering service will be available.

This message appears only in the HSFLOG output.

**User response:** No response is required.

---

**HSF0047I** Left data-sharing group *name*

**Explanation:** The SDSFAUX server has left its data-sharing group.

All cross-system services for this SDSFAUX server are now marked unavailable.

This message appears only in the HSFLOG output.

**User response:** No response is required.

---

**HSF0048I** No active users

**Explanation:** During shutdown, the SDSFAUX server determined that there are no connected users. Shutdown will proceed without delay.

**User response:** No response is required.

---

**HSF0049E** Required SDSF server not active

**Explanation:** During startup the SDSFAUX server has determined that the SDSF server is not active.

The SDSFAUX server will stop.

**User response:** The SDSFAUX server is typically started automatically by the SDSF server. Restart the SDSF server.

---

**HSF0050I** Sectoken \ *userid lvl access to name class profile res*

**Explanation:** This message appears in the HSFTRACE output when the SDSFAUX security trace is active.

The userid has requested the indicated level of access to the SAF class profile.

The result of this access request will be described by a subsequent HSF0061I message that uses the same sectoken value.

**User response:** No response is required.

---

**HSF0051I** SDSFAUX RESPONSE IN PROGRESS /  
RESPONSE COMPLETE *Sysname JES*  
*Version Status*

**Explanation:** This message is produced in response to the SDSFAUX DISPLAY JES operator command.

The "RESPONSE IN PROGRESS" message will be followed by a list of the systems, JES subsystems and versions that are known by the SDSFAUX server.

After all responses are sent, the "RESPONSE COMPLETE" message is issued.

**User response:** No response is required.

---

**HSF0052I** SDSFAUX RESPONSE IN PROGRESS /  
RESPONSE COMPLETE *Jobname ASID*  
*TCB Connect UCON*

**Explanation:** This message is produced in response to the SDSFAUX DISPLAY USER operator command.

A "RESPONSE IN PROGRESS" message will be followed by a list of the active SDSFAUX users and their connect date stamps.

After all responses are sent, the "RESPONSE COMPLETE" message is issued.

**User response:** No response is required.

---

**HSF0053I** SDSFAUX RESPONSE IN PROGRESS /  
RESPONSE COMPLETE *TaskTCB RXTA*  
*Flag Samples CPU*

**Explanation:** This message is produced in response to the SDSFAUX DISPLAY TASK operator command.

A "RESPONSE IN PROGRESS" message will be followed by a list of the active SDSFAUX tasks and their resource consumption.

After all responses are sent, the "RESPONSE COMPLETE" message is issued..

**User response:** No response is required.

---

**HSF0054I** SDSFAUX RESPONSE IN PROGRESS /  
RESPONSE COMPLETE *Name Active Get*  
*Free Lost RXBP*

**Explanation:** This message is produced in response to the SDSFAUX DISPLAY BPOOL operator command.

A "RESPONSE IN PROGRESS" message will be followed by a list of the SDSFAUX buffer pools.

After all responses are sent, the "RESPONSE COMPLETE" message is issued.

**User response:** No response is required.

---

**HSF0056I** SDSFAUX RESPONSE IN PROGRESS /  
RESPONSE COMPLETE *Name EPA*  
*Invoke Normal Return Abend*

**Explanation:** This message is produced in response to the SDSFAUX DISPLAY EXIT operator command.

A "RESPONSE IN PROGRESS" message will be followed by a list of the system exits installed by SDSFAUX.

After all responses are sent, the "RESPONSE COMPLETE" message is issued.

**User response:** No response is required.

---

---

**HSF0057I** SDSFAUX RESPONSE IN PROGRESS /  
RESPONSE COMPLETE Name *Jobname*  
TCB CPU-SRB CPU-TCB

**Explanation:** This message is produced in response to the SDSFAUX DISPLAY ZIIP operator command.

A "RESPONSE IN PROGRESS" message will be followed by a list of the zIIP offload environments managed by SDSFAUX.

After all responses are sent, the "RESPONSE COMPLETE" message is issued.

**User response:** No response is required.

---

**HSF0061I** Sectoken *token* SAF RC= *safrc* RACF  
RC= *rc* RACF RSN= *rsn*

**Explanation:** This message appears in the HSFTRACE output when the SDSFAUX security trace is active.

This trace message qualifies an earlier HSF0050I message with the same internal sectoken value. The HSF0050I message will describe the access request details.

The message specifies the SAF return code and the RACF return and reason codes from the RACROUTE REQUEST=FASTAUTH service.

**User response:** No response is required.

---

**HSF0062I** Server shutdown waiting for users to  
disconnect

**Explanation:** During shutdown, the SDSFAUX server will wait for connected users to gracefully disconnect before shutdown proceeds.

The SDSFAUX server lists any connected users in a HSF0052I message.

The SDSFAUX waits 60 seconds for users to disconnect and then shuts down.

**User response:** No response is required.

---

**HSF0064E** Service *name* failed RC= *rc* RSN= *rsn*

**Explanation:** The named service failed with the specified return and reason code.

This is a generic message that is used to present non-zero return codes from both internal SDSF services and other external programs and interfaces.

**User response:** When the service name is clear, refer to the return and reason codes in the appropriate manual for the owning software product.

If the cause is unclear, contact IBM Software Support.

---

**HSF0067E** CSVDYLPA add for module *name* failed  
RC= *rc* RSN= *rsn* DIAG= *code*

**Explanation:** The SDSFAUX server failed to dynamically add the specified module into LPA.

After this error, the SDSFAUX server issues a user abend and stops.

**User response:** Refer to the return and reason codes for the CSVDYLPA service in *z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU*.

If the cause is unclear, contact IBM Software Support.

---

**HSF0072I** Server shutdown proceeding

**Explanation:** During shutdown processing, SDSF has determined that no users are connected or that the time allowed for users to disconnect has been exceeded.

Shutdown processing continues and any user who is still connected will receive an error response when they resume processing.

**User response:** No response is required.

---

**HSF00741I** CSVDYLPA delete for *type* module *name*  
RC= *rc* RSN= *rsn*

**Explanation:** The SDSFAUX server attempted to delete the specified module from LPA and it completed with the indicated return and reason code.

**User response:** If the return code is non-zero, refer to the return and reason code descriptions for the CSVDYLPA service in *z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU*.

If the cause is unclear, contact IBM Software Support.

---

**HSF0078W** RMF Monitor I not active – some data  
may not be available

**Explanation:** The SDSF server has detected that RMF Monitor I is not active. Any SDSF commands that depend on the data collected by RMF will not be able to show any results.

**User response:** Ensure that RMF Monitor I has been started and that the ERBSMFI program is available to SDSFAUX.

---

**HSF0080I** Event : *text*

**Explanation:** The SDSFAUX server is logging the occurrence of a specific event in the HSFLOG output for diagnostic purposes.

**User response:** No response is required.

---

## Messages with ISF message numbers

This section describes messages issued by SDSF with message numbers.

A letter following the message number indicates the severity of the message:

- I** Information.
- W** Warning. The command will be processed, or the ISFPARMS will be activated. For ISFPARMS, SDSF has found an inconsistency and may have changed a value for a parameter.
- E** Error. A command will not be processed, or the ISFPARMS will not be activated.

---

**ISF008I**     **DYNAMIC ALLOCATION ERROR**  
**RC=return-code EC=error-code**  
**IC=information-code DDN=ddname**  
**VOL=volume-serial DSN=data-set-name**  
 \*\*\*\*\*

**Explanation:** An error has occurred during the dynamic allocation of a data set.

**User response:** For information on dynamic allocation return, error, and information codes, see the appropriate manual concerning system macros and facilities, or job management.

---

**ISF009I**     **SDSF TRACE I/O ERROR**

**Explanation:** An error occurred while writing a record to the trace output data set. Trace is no longer available for this SDSF session.

**User response:** Allocate a new trace output data set.

---

**ISF011I**     **OPEN ERROR ddname**

**Explanation:** An error occurred trying to open the indicated *ddname*, which is SDSFMENU, the SDSF help panel data set.

**User response:** Verify the *ddname* is allocated to the proper data set.

---

**ISF012I**     **SDSF ABEND USER|SYSTEM**  
*abend-code AT address IN MODULE*  
*module-name OFFSET offset*

**Explanation:** SDSF has abended with the user or system abend code *abend-code*. User abend codes are in decimal; system abend codes are in hexadecimal.

If the abend address is not in module *module-name*, UNKNOWN is displayed for *address*.

**User response:** The system programmer should see “SDSF user abend codes” on page 581 for information on the user abend codes, or the appropriate system codes manual for information on the system abend codes.

---

**ISF013I**     **Rx-Ry rega\_rega regb\_regb regc\_regc**  
*regd\_regd*

**Explanation:** The registers listed here are displayed in conjunction with ISF012I. Rx-Ry indicates the range of registers and *rega\_rega regb\_regb regc\_regc regd\_regd* is the contents of those registers.

**User response:** None.

---

**ISF014I**     **TEA=tea BEA=bea IN MODULE**  
*module-name OFFSET offset*

**Explanation:** This message is displayed in conjunction with ISF012I. TEA is the translation exception address and BEA is the breaking event address. If they cannot be displayed, the message shows N/A.

**User response:** None.

---

**ISF015I**     **ISF015I SDSF COMMAND**  
**ATTEMPTED|EXECUTED** *command*  
*userid logon-proc terminal-name*

**Explanation:** For COMMAND EXECUTED, a user issued an MVS or JES system command. For COMMAND ATTEMPTED, a user attempted to issue an MVS or JES system command that the user is not authorized to issue. *command* is the first 42 characters of the command text. If the text exceeds 42 characters, the text ends with a plus sign (+).

**User response:** For COMMAND ATTEMPTED, the operator should take whatever action is appropriate according to the installation’s procedures.

**Note:** If the command attempted or executed is the REPLY command, the command field of this message contains “REPLY *nn* TEXT of REPLY IS SUPPRESSED”. The text of the REPLY command is suppressed to prevent confidential data from being logged.

---

**ISF019I**     **OUTPUT REQUEUE|RELEASE|PURGE**  
**ATTEMPTED|SUCCESSFUL**  
**JOBNAME=jobname JOBID=jobid**  
**CLASS=class DEST=dest** *userid logon-proc*  
*terminal-name*

**Explanation:** A user *userid* running with logon procedure *logon-proc* on terminal *terminal-name* has requested that the indicated job (*jobname* and *jobid*) be requeued to the class *class* and destination *dest*, or released to the output queue to the class *class* and destination *dest*, or purged. If the message indicates the requeue was attempted rather than successful, the user was not authorized to make the request.

**User response:** None.

---

**ISF020E SDSF LEVEL ERROR FOR MODULE *module*, SDSF ASSEMBLED FOR *level* BUT JES2 IS AT *level jes2-level***

**Explanation:** SDSF has determined that the assembly level *level* of module *module* does not match the JES2 execution level *jes2-level*. SDSF initialization is terminated.

**User response:** The system programmer should verify that SDSF has been installed using the proper levels of the JES2 MACLIBS.

---

**ISF023I I/O ERROR *text***

**Explanation:** An I/O error occurred while SDSF was creating the temporary file used as input for the GDDM view utility. In the message, *text* describes the type of error.

All records up to the record causing the error are passed to the view utility. Other records are ignored. Because only partial data is passed to the view utility, formatting errors can occur.

**User response:** Ensure that the data set being viewed contains the correct data streams for the view utility.

---

**ISF024I USER *user-id* NOT AUTHORIZED TO SDSF, *reason***

**Explanation:** An unauthorized user, *user-id*, has attempted to use SDSF.

**User response:** Contact the system programmer or the Help Desk to find out if the user should be authorized to use SDSF.

A user is not authorized to use SDSF for one of these reasons:

- **COMMAND OPTION ERROR.** A failure occurred in parsing the parameters passed to SDSF. Initialization failed. If this problem persists, contact IBM support.
- **DENIED BY EXIT.** An initialization exit routine has denied authority.
- **INVALID BCP LEVEL.** SDSF was invoked under an unsupported level of the BCP. Initialization failed. Be sure the appropriate level of SDSF is being used with the level of operating system that you are running.
- **NO GROUP ASSIGNMENT.** The user does not fall into any group of users defined by ISFPARMS. For more information, see "Group authorization parameters (GROUP or ISFGRP)" on page 34.

- **PRODUCT NOT ENABLED.** SDSF has attempted to register its invocation on a z/OS system, and the registration has failed. If SDSF should be enabled for execution, check the IFAPRDxx member of your parmlib concatenation for an entry for SDSF.
- **REXX INIT FAILED.** Initialization of the REXX environment failed.
- **SERVER NOT AVAILABLE.** The SDSF server is required for ISFPARMS but is not active. The server is required for ISFPARMS when the user is not authorized to revert to an ISFPARMS defined with assembler macros. For more information, see Chapter 3, "Using the SDSF server," on page 109.
- **STORAGE NOT AVAIL.** The amount of storage available was insufficient to complete the request.
- **UNEXPECTED INIT FAIL.** SDSF has encountered an unrecoverable error during execution. Follow your local procedure for reporting a problem to IBM.

---

**ISF027I ERROR OCCURRED PROCESSING OUTPUT DESCRIPTORS FOR *jobname*, *procstep*, *stepname*, *ddname*, RC=*return-code* *reason-code***

**Explanation:** An error occurred retrieving the output descriptors for job *jobname*, procedure step *procstep*, step *stepname*, and ddname *ddname*. The scheduler JCL facility (SJF) SWBTUREQ service failed with return-code *return-code* and reason-code *reason-code*.

The output descriptors for the indicated data set are not shown on the JDS panel. The message OUTPUT DESC NOT AVAIL is issued in the SDSF message area.

**User response:** The meanings of the return and reason codes are documented in the SJF macro IEFSJTRC. Use the SDSF TRACE command to trace the SJF service calls to obtain additional information about the problem.

---

**ISF028E ISFGRP INDEX *return-code* HAS AN INVALID ISFNTBL SPECIFICATION for *listname*.**

**Explanation:** During SDSF initialization, an include or exclude list was being processed for a non-destination list. However, an ISFNTBL TYPE=DEST macro was used to specify the list. In the message text, *return-code* is the index number of the ISFGRP macro being processed, and *listname* is the name of the ISFGRP list that was being processed. (The index indicates the group by a count of groups. For example, an index of 3 indicates the group defined by the third GROUP statement in ISFPARMS.)

Initialization is terminated with a U0016 abend after the remaining include and exclude lists are processed.

**User response:** Correct the ISFNTBL macro pointed to by the indicated ISFGRP statement.



---

**ISF029I**      **SWB MODIFY**  
**ATTEMPTED | EXECUTED** *data-set-name*  
*userid logon-proc terminal-name*

**Explanation:** A user *userid* running with logon procedure *logon-proc* on terminal *terminal-name* has requested that output descriptors for data set *data-set-name* be modified.

If the message indicates **ATTEMPTED**, the user was not authorized to make the request. If the message indicates **EXECUTED**, the request has been scheduled for execution.

**User response:** None.

---

**ISF030E**      **SDSF TERMINATING DUE TO**  
**PROGRAM AUTHORIZATION**  
**FAILURE, REASON=reason-code**

**Explanation:** SDSF has been invoked but it cannot obtain authorized state. SDSF execution is terminated. The decimal *reason-code* describes the error as follows:

- 4 — Unrecognized SDSF SVC option code
- 8 — SDSF SVC not called from a program request block (PRB)
- 12 — SDSF SVC not called from an SDSF module
- 16 — SDSF SVC not called from a module residing in an authorized library
- 20 — SDSF SVC invoked by a module with an invalid prefix
- 24 — SDSF SVC was invoked by a module with an active ESTAE
- 28 — SDSF SVC was invoked by a module called through XCTL
- 32 — SDSF SVC was called from a non-reentrant module
- 36 — SDSF SVC not called from within an SDSF module
- 40 — SDSF SVC was invoked by a caller with an unacceptable mode

**User response:** Use the reason code to determine the cause of the error. Ensure that SDSF is invoked from an authorized library and in the proper environment.

---

**ISF031I**      **CONSOLE** *console-name* (*migration-id*)  
**ACTIVATED** (*share-status*)

**Explanation:** A user log has been started using console *console-name*. If a migration identifier has been assigned, *migration-id* contains the ID being used. If the console is being shared, the *share-status* is (SHARED).

**User response:** None.

---

**ISF032I**      **CONSOLE** *console-name* **ACTIVATE**  
**FAILED, RETURN CODE** *return-code*,  
**REASON CODE** *reason-code*

**Explanation:** An attempt to activate an extended console has failed. The message text contains the hexadecimal *return-code* and *reason-code* from the MCSOPER macro.

**User response:** Use the return and reason codes to determine the cause of the error.

---

**ISF033I**      *console-name* **MESSAGE RETRIEVAL**  
**FAILED, MCSOPMSG RETURN CODE**  
*return-code*, **REASON CODE** *reason-code*

**Explanation:** An attempt to retrieve a message from the extended console *console-name* failed. The message text contains the hexadecimal *return-code* and *reason-code* from the MCSOPMSG macro. Some messages might have been discarded by consoles.

**User response:** Use the return and reason codes to determine the cause of the error. You can reset the console by issuing a ULOG CLOSE command, followed by a ULOG command.

---

**ISF034I**      **ULOG IS EMPTY**

**Explanation:** An attempt has been made to access the user log, but it contains no records.

**User response:** If the ULOG is inactive, issue the ULOG command to activate it.

---

**ISF035I**      **SDSF SDUMP FAILED, RETURN**  
**CODE=return-code REASON=reason-code**

**Explanation:** SDSF failed to take an SDUMP. SDUMP returns the return code and the reason code.

**User response:** Use the return and reason codes to determine the cause of the error. For more information, refer to *z/OS MVS Programming: Authorized Assembler Services Reference LLA-SDU*.

---

**ISF036I**      **NO RECORDS TO DISPLAY**

**Explanation:** A LOG command has been entered to display the OPERLOG panel, but there are no log records to display.

**User response:** To display the SYSLOG panel, which contains messages for a single system, type LOG S.

---

**ISF037I**      **SDUMP NOT TAKEN, SUPPRESSED**  
**BY DAE**

**Explanation:** SDSF attempted to take an SDUMP, but it has been suppressed by the Dump Analysis and Elimination (DAE) component.

**User response:** None.

---

**ISF039I**      **ERROR PROCESSING ISPF** *service*  
**RC=return-code: message-text**

**Explanation:** An error has been encountered in using the ISPF service *service*. The return code from the service and the text of the ISPF short and long message is displayed.

**User response:** Use the return code and message text to understand and resolve the problem. If the problem persists, follow your local procedure for reporting a problem to IBM.

If the error is a system abend due to an out-of-space condition (such as SB37, SD37, or SE37) for table ISFACMTB, the table data set allocated to DDNAME ISFTABL is too small to store all of the commands. Reallocate the data set to a larger size. After the abend, the data set may still be in use by ISPF; exit ISPF to free it. When allocating the new data set, copy the existing ISFACMTB table to the new table to preserve your stored commands. Due to the abend, commands added during the current session are not preserved. For more information, refer to “Issuing MVS and JES commands” on page 358.

---

**ISF040I**      **INVALID MDB DISCARDED FOR**  
**BLOCKID** *blockid*

**Explanation:** SDSF encountered an invalid message data block (MDB) in the log stream when displaying the OPERLOG panel. The MDB is discarded. The ID of the block in which the MDB was found is *blockid*.

**User response:** None.

**Routing code:** ERLOG

---

**ISF041I**      **CONSOLE** *console-name* **IS IN USE**

**Explanation:** SDSF needed to activate an extended console and the default console name was already in use. As a result, SDSF activated a console with a unique name generated by modifying the default name.

**User response:** None.

---

**ISF042I**      **CONSOLE** *console-name* **IS IN USE**

**Explanation:** SDSF attempted to activate an extended console but the console name was in use. The console was not activated. The console will be shared by SDSF if sharing has not been disabled.

**User response:** Use the SET CONMOD ON command to allow SDSF to retry the activation using a modified console name, or change the console name with the SET CONSOLE command.

For more information, refer to “Issuing MVS and JES commands” on page 358.

---

**ISF045W**      **UNABLE TO OPEN TABLE LIBRARY**  
**ISFTABL, NUMBER OF SAVED**  
**COMMANDS MAY BE LIMITED.**

**Explanation:** SDSF could not open the table library that uses DDNAME ISFTABL, which is used to store system commands. The number of stored commands is limited to those saved in the ISPF profile. This message appears in the user log only. STORELIMIT is displayed below the command line on the System Command Extension pop-up.

**User response:** None required. To allow more commands to be stored, allocate the table library ISFTABL. For more information, place the cursor on this topic and press Enter (ISPF only):

For more information, refer to “Issuing MVS and JES commands” on page 358.

---

**ISF050I**      **USER=***user* **GROUP=***group* **PROC=***proc*  
**TERMINAL=***terminal*

**Explanation:** Tracing of messages related to security has been requested, or the user has been assigned to a group in ISFPARMS. The message identifies the user by user ID, group in ISFPARMS, logon procedure and terminal.

**User response:** None required.

---

**ISF051I**      **SAF** *authorization* **SAFRC=***saf-rc*  
**ACCESS=***access* **CLASS=***class*  
**RESOURCE=***resource* **RECVR=***userid*

**Explanation:** A SAF check has been performed.

*authorization*

describes the decision by SAF.

*saf-rc* is a return code from SAF, or N/A, when the pre-SAF exit is being used.

*access* is the access mode that was requested.

*class* is the SAF class.

*resource* is the SAF resource.

*userid* is the user's ID. RECVR= is included only if it is specified by this SAF check.

**User response:** None required. For more information on SAF resources used by SDSF, refer to Chapter 7, “Protecting SDSF functions,” on page 223.

---

**ISF052I**      **ISFUSER** *exit-type* *authorization*  
**EXITRC=***exit-rc* **SAFRC=***saf-rc*  
**ACCESS=***access*  
**CLASS=***class***RESOURCE=***resource*  
**RECVR=***userid*

**Explanation:** A SAF check has been performed.

*exit-type*

is the type of exit.

*authorization* describes the security decision.

*exit-rc* is a return code from the exit.

*saf-rc* is a return code from SAF, or N/A, when the pre-SAF exit is being used.

*access* is the access mode that was requested.

*class* is the SAF class.

*resource* is the SAF resource.

*userid* is the user's ID. RECVR= is included only if it is specified by this SAF check.

**User response:** None required. For more information on SAF resources used by SDSF, refer to Chapter 7, "Protecting SDSF functions," on page 223. For more information on user exit routines, refer to Chapter 9, "Using installation exit routines," on page 345.

---

**ISF053I**      **COMMAND=***command authorization*

**Explanation:** A check of ISFPARMS security for an SDSF command has been performed.

*command*  
is the command.

*authorization*  
describes the security decision.

**User response:** None required. For more information, refer to the AUTH parameter in "Group function parameters reference" on page 39.

---

**ISF054I**      **DEST=***destination authorization*

**Explanation:** A check of ISFPARMS security for a destination has been performed.

*destination*  
is the destination.

*authorization*  
describes the security decision.

**User response:** None required. For more information, refer to the DEST parameter in "Group function parameters reference" on page 39.

---

**ISF055I**      **ACTION=***action-character authorization*  
**USERLEVEL=***user-level*  
**REQLEVEL=***required-level jobname jobid*  
**RSN=***reason*

**Explanation:** A check of ISFPARMS security for an action character has been performed.

*action-character*  
is the action character.

*authorization*  
describes the security decision.

*user-level*  
is the user's command level.

*required-level*  
is the required command level.

*jobname* is the job name, if applicable.

*jobid* is the job ID, if applicable.

*reason* is the reason that authorization was denied. It is included only if authorization is denied. The reasons are:

**RSN=01 Job no longer valid**

Either the job has been purged or the output group is no longer available.

**RSN=02 CMDAUTH ALL was not specified**

The action requires a value of ALL for CMDAUTH in ISFPARMS.

**RSN=03 Not authorized for INIT command**

The user is not authorized to the INIT command.

**RSN=04 Destination not specified**

A destination that is required was not specified.

**RSN=05 Not a JES command**

The command that was issued must be a JES command but was not.

**RSN=06 Not authorized for command**

The user is not authorized for the command.

**RSN=07 Job name not in include list**

An include list is defined with Ixxx parameters in ISFPARMS.

**RSN=08 Job name in exclude list**

An exclude list is defined with Xxxx parameters in ISFPARMS.

**RSN=09 Command authority insufficient**

The user does not have the required command authority.

**User response:** None required. For more information, refer to the CMDLEV parameter in "Group function parameters reference" on page 39.

---

**ISF056I**      **ISFUSER=***exit-type authorization*  
**ACTION=***action-character* **EXITRC=***exit-rc*  
*jobname jobid*

**Explanation:** An exit has made a security check for an action character.

*exit-type*  
is the type of exit.

*authorization*  
describes the security decision.

*action-character*  
is the action character.

*exit-rc* is the return code from the exit.

*jobname* is the job name, if applicable.

*jobid* is the job ID, if applicable.

**User response:** None required. For more information, refer to Chapter 9, "Using installation exit routines," on page 345.

---

**ISF057I**      **GROUP=***group authorization*  
**USERAUTH=***user-authorization*  
**REQAUTH=***req-authorization* **RSN=***reason*

**Explanation:** A security check has been made for a group in ISFPARMS.

*group* is the name of the group.

*authorization*

describes the security decision.

*user-authorization*

is the list of user authority (OPER, ACCT, JCL, MOUNT).

*req-authorization*

is the authority that is required by the group.

*reason*

is the reason authorization was denied. It is included only if authorization was denied. The reasons are:

**RSN=01 User has insufficient authority**

The user does not have the required authority.

**RSN=02 User ID is not in include list (IUID)**

The include list is defined with the IUID parameter in ISFPARMS.

**RSN=03 user ID is in exclude list (XUID)**

The exclude list is defined with the XUID parameter in ISFPARMS.

**RSN=04 logon proc is not in include list (ILPROC)**

The include list is defined with the ILPROC parameter in ISFPARMS.

**RSN=05 logon proc is in exclude list (XLPROC)**

The exclude list is defined with the XLPROC parameter in ISFPARMS.

**RSN=06 terminal is not in include list (ITNAME)**

The include list is defined with the ITNAME parameter in ISFPARMS.

**RSN=07 terminal is in exclude list (XTNAME)**

The exclude list is defined with the XTNAME parameter in ISFPARMS.

**User response:** None required. For more information, refer to "Group function parameters reference" on page 39.

---

**ISF058I**      **COLUMN** *column authorization*  
**USERLEVEL=***user-level*  
**REQLEVEL=***required-level*

**Explanation:** A security check has been made for an overtypable column.

*column* is the column title, or, for REXX, the column name.

*authorization*

describes the security decision.

*user-level*

is the user's authority, specified by the CMDLEV parameter in ISFPARMS.

*required-level*

is the required authority.

**User response:** None required. For more information, refer to the CMDLEV parameter in "Group function parameters reference" on page 39.

---

**ISF059I**      **SAF ACCESS** *auth* **SAFRC=(***rc, rrc, rrs*  
**ACCESS=***access* **CLASS=***class*  
**RESOURCE=***resource*

**Explanation:** A security check was performed by the SDSFAUX address space on behalf of the user.

*auth* describes the security decision.

*rc,rrc,rrs*

is the SAF return code, RACF return code, and RACF reason code.

*access* is the access level requested.

*resource* is the resource name being checked.

**User response:** No response is required.

---

**ISF101E**      **SDSF INTERNAL ERROR OCCURRED**  
**IN MODULE** *module*, **REASON CODE**  
*reason-code*. **ADDITIONAL**  
**INFORMATION:** *additional-information*

**Explanation:** An error occurred in SDSF or in a system service required by SDSF.

**User response:** Use the reason code and additional information (if any) to determine the cause of the error.

The reason codes are:

- 101      The execution environment was not recognized.
- 104      The SVT for the server failed a validity check.
- 105      A call to the IFAEDREG service failed.
- 106      A call to the IFAEDDRG service failed.
- 110      The system symbol service ASASYMBM failed.
- 111      The output area provided for the system symbol service ASASYMBM is too small.

|     |                                                               |     |                                                                                                      |
|-----|---------------------------------------------------------------|-----|------------------------------------------------------------------------------------------------------|
| 120 | A ENFREQ listen request has failed.                           | 511 | An invalid parameter value was detected by a routine.                                                |
| 121 | A ENFREQ delete listen request has failed.                    | 512 | An invalid function code was detected by a routine.                                                  |
| 124 | The console query service CNZQUERY has failed.                | 513 | A service was invoked in an invalid environment, such as a client request in the server environment. |
| 130 | The level was invalid for the name/token service.             | 514 | A required storage area does not exist.                                                              |
| 131 | The persist indicator was invalid for the name/token service. | 515 | A storage area is not accessible or is in the wrong key.                                             |
| 132 | A name/token service call has terminated with an error.       | 516 | An unexpected condition was detected which indicates a logic error.                                  |
| 142 | The IXCARM register service has failed.                       | 517 | A mutually exclusive value was detected which indicates a logic error.                               |
| 143 | The IXCARM ready service has failed.                          | 519 | An invalid sub-type code was detected by a routine.                                                  |
| 144 | The IXCARM deregister service has failed.                     | 520 | A required module was not loaded or available.                                                       |
| 160 | The SAF encryption service has failed.                        | 530 | An error occurred during execution of the STIMERM service.                                           |
| 161 | The encryption key is invalid.                                | 531 | An error occurred during execution of the STIMER service.                                            |
| 176 | An error occurred during the AXSET service.                   | 532 | An error occurred during execution of the TTIMER service.                                            |
| 178 | An error occurred establishing an ESTAE.                      | 533 | A failure occurred during termination of a server subtask.                                           |
| 179 | An error occurred deleting an ESTAE.                          | 555 | An error occurred in setting the CIB count using QEDIT.                                              |
| 180 | An error occurred during the ATTACH service.                  | 557 | The LX system token contains an invalid LX value.                                                    |
| 182 | An error occurred attempting to ENQ a resource.               | 558 | Unable to reserve a system LX.                                                                       |
| 184 | An error occurred attempting to DEQ a resource.               | 559 | Unable to create an entry table.                                                                     |
| 185 | The CIB contained an unexpected command verb.                 | 560 | Unable to connect an entry table.                                                                    |
| 186 | An error occurred during execution the QEDIT service.         | 561 | The ALESERV extract service has failed.                                                              |
| 187 | An error occurred creating a resource termination manager.    | 562 | The ALESERV add service has failed.                                                                  |
| 188 | An error occurred deleting a resource termination manager.    | 563 | The ALESERV delete service has failed.                                                               |
| 189 | An error occurred obtaining the current task token.           | 564 | The ALESERV search service has failed.                                                               |
| 190 | An error occurred obtaining the job step task token.          | 576 | Unable to insert a node in a linked list.                                                            |
| 192 | An error occurred attempting to issue an ETDES service.       | 577 | An error occurred during processing of a DETACH macro.                                               |
| 197 | An error occurred invoking the DEVTYPE service.               | 578 | Unable to delete a node from a linked list.                                                          |
| 211 | TCB address not found in task management table.               | 583 | Unexpected token passed to a parse action routine.                                                   |
| 301 | A required REQ address was not provided.                      | 584 | Unrecognized parse token.                                                                            |
| 302 | An unexpected request was sent to a routine.                  | 585 | Invalid display type key.                                                                            |
| 303 | A request level is not supported by the current version.      | 586 | A buffer is too small.                                                                               |

- 587 A required buffer is not provided or the buffer length is zero.
- 601 A default CSCA was not found on the CSCA chain.
- 602 A local server was not found in the server group.
- 603 No servers were found in the server group.
- 604 A communications protocol was not specified for a server in a server group.
- 605 A communications protocol type was invalid.
- 606 The request queue name was not provided.
- 607 An index into the server status table was invalid.
- 608 A request requires the server status table but it is not defined.
- 609 The server status table is not marked active.
- 610 Unable to build the server status table.
- 611 An error occurred receiving a message.
- 612 The associated data retrieval routine for a request was not assigned.
- 613 Field offsets within the request were not assigned.
- 614 The transmission length for a request is zero.
- 615 The transmission length for a request is greater than the total length of the request.
- 616 The request origin is invalid in the current context. The request may have been forwarded but is not trusted.
- 617 The request is rejected because the request has already been marked as failed.
- 618 The request queue name is invalid, possibly because it is too long.
- 619 A server status value is incorrect.
- 620 A server status value is not expected in the current state.
- 621 A server request is not expected with the current server status.
- 622 The platform code for a queue manager is unacceptable.
- 623 The req fixed length is zero or greater than the total req length.
- 624 An invalid action character was detected.
- 625 An unsupported field was overtyped.
- 626 A base64 encoding has failed.
- 627 A data compression request has failed.
- 628 A data masking request has failed.

- 650 A JSON parse has failed.

---

**ISF102E** I/O ERROR DETECTED BY *module* ON I/O request FOR DDNAME *ddname*, RETURN CODE *return-code*, REASON CODE *reason-code*, *additional-information*.

**Explanation:** An error occurred in an input or output function requested by SDSF.

**User response:** The additional information (if any) may include system messages for the requested I/O function. See the appropriate system messages manual for more information.

---

**ISF103E** MEMBER *member-name* NOT FOUND, DDNAME *ddname*.

**Explanation:** A member name specified as input to the server could not be found.

**User response:** Correct the member name and retry the request.

---

**ISF104E** ALLOCATION OF LOGICAL PARMLIB FAILED, RETURN CODE *return-code*, REASON *reason-code*

**Explanation:** An error occurred attempting to allocate the logical parmlib using the IEFPRMLB service.

**User response:** Use the return and reason codes from the service to determine the cause of the error.

---

**ISF105E** DEALLOCATION OF LOGICAL PARMLIB FAILED, RETURN CODE *return-code*, REASON *reason-code*

**Explanation:** An error occurred attempting to deallocate the logical parmlib using the IEFPRMLB service.

**User response:** Use the return and reason codes from the service to determine the cause of the error.

---

**ISF106W** SDUMP ERROR OCCURRED IN MODULE *module*, RETURN CODE *return-code*, REASON CODE *reason-code*.

**Explanation:** An error in taking an SDUMP occurred in module *module* with the indicated return and reason codes.

**User response:** Use the return and reason codes to determine the cause of the error.

---

**ISF108E** DCB SYNAD INFORMATION *synad-text*.

**Explanation:** An I/O error has occurred on an input or output function requested by SDSF. The DCB SYNAD information returned as a result of the error is listed in *synad-text*.

**User response:** Use the text to determine the cause of the error.

---

**ISF109E**     **DYNAMIC ALLOCATION OF DDNAME *ddname* FAILED, RETURN CODE *return-code*, REASON *reason-code*, INFO CODE *information-code*.**

**Explanation:** SDSF attempted to allocate *ddname* but the allocation failed.

**User response:** For information on dynamic allocation error codes, see the appropriate manual concerning system macros and facilities, or job management.

---

**ISF110I**     **LOGGING TO DDNAME *ddname* SUSPENDED, MESSAGES WILL BE DIRECTED TO THE HARDCOPY LOG.**

**Explanation:** SDSF encountered an error using *ddname* as the server log. All server messages that are written to the log will be directed to the hardcopy log.

**User response:** None required. If you want server messages to be written to the server log, stop and start the server, being sure you have a server log allocated. If you do not want logging, allocate the server log to a dummy data set.

---

**ISF111E**     **DYNAMIC ALLOCATION OF *dataset-name* FAILED, RETURN CODE *return-code*, REASON *reason-code*, INFO CODE *information-code***

**Explanation:** SDSF attempted to allocate data set *dataset-name*, but the allocation failed.

**User response:** For information on dynamic allocation error codes, see the appropriate manual concerning system macros and facilities, or job management.

---

**ISF112I**     **SDSF ABEND *ab-code* REASON *code* SERVER *server-name* MODULE *x* OFFSET *y* LEVEL *z* PSW *psw* CAB *cab* TEA *tea* BEA *bea* MODULE *x* OFFSET *y* contents-of-registers**

**Explanation:** SDSF has abended with the user or system abend code *ab-code*. User abend codes are in decimal; system abend codes are in hexadecimal. Variable *tea* is the translation exception address; *bea* is the breaking event address. The contents of registers, *contents-of-registers*, are displayed two registers per line, in the format *access-register/ general-purpose-register*.

**User response:** The system programmer should refer to "SDSF user abend codes" on page 581 for information on the user abend codes, or the appropriate system codes manual for information on the system abend codes.

---

**ISF115E**     **SECURITY ERROR DETECTED BY *module-name* ON OPEN FOR DDNAME *ddname* resource-name**

**Explanation:** An error occurred in an OPEN operation. In response to a SAF check from JES, SAF denied access to a SYSOUT data set.

**User response:** See your security administrator.

---

**ISF116E**     **UNABLE TO LOCATE REQUESTED *jes-type* SUBSYSTEM NAMED *subsystem-name*.**

**Explanation:** SDSF is attempting to process the JES2 or JES3 subsystem *subsystem-name* but it is not defined to the system. SDSF initialization is terminated with a U0080 abend.

**User response:** Ensure that the subsystem has been specified correctly on the OPTIONS statement in ISFPRMxx, the JESNAME or JES3NAME command invocation options, or the isfjesname and isfjes3name REXX special variables.

---

**ISF120E**     **REQUEST FAILED, MODULE *module-name* WAS UNABLE TO OBTAIN *number* BYTES OF STORAGE FOR *area-name*.**

**Explanation:** A request to obtain storage by SDSF *module-name* for *area-name* failed because the indicated bytes of storage were not available.

**User response:** The request is not processed. If possible, increase the region size used to invoke SDSF.

In the REXX environment, use special variables or other filter options to limit the number of REXX variables needed to satisfy a request. For more information, type REXXHELP (ISPF only).

---

**ISF121I**     **MODULE ISFSM64 WAS UNABLE TO OBTAIN *number* BYTES OF STORAGE ( *nnn* SEGMENTS). CHECK MEMLIMIT VALUE.**

**Explanation:** SDSF attempted to obtain storage that is above the bar (above the 2-gigabyte line) but the amount of storage was not available. The value for MEMLIMIT for the user ID may be too low. This message is issued only once per session.

**System action:** SDSF attempts to obtain storage below the bar.

**User response:** Contact your system programmer. If SDSF could not obtain the required storage below the bar, the request is not processed and an additional message is issued.

---

**ISF130E**      **UNABLE TO ADD** *check-name* **HEALTH CHECK, HZSADDCK RETURN CODE** *return-code* **REASON CODE** *reason-code*.

**Explanation:** SDSF is attempting to add the check *check-name* to IBM Health Checker for z/OS. The HZSADDCK service has failed with the indicated return and reason codes. The check is not added. .

**User response:** Use the return and reason codes to diagnose the error. They are described in *IBM Health Checker for z/OS User's Guide*.

---

**ISF137I**      **SDSF SDUMP NOT TAKEN, SUPPRESSED BY DAE.**

**Explanation:** SDSF attempted to take an SDUMP, but it has been suppressed by the Dump Analysis and Elimination (DAE) component.

**User response:** None.

---

**ISF138E**      **POINT FAILED READING** *dataset-name*, **RETURN CODE** *return-code*, **RPLFDBK** *feedback-code*, **RPLRBAR** *rba*.

**Explanation:** A POINT request failed in an attempt to read *dataset-name* with the indicated return code, RPL feedback and relative block address. SDSF is unable to read the file.

When SYSLOG is being processed, *dataset-name* may be a logical data set name of the form *sysname.SYSLOG.SYSTEM*, where *sysname* is the MVS system name for the SYSLOG being processed. SDSF uses the current value of the SYSID command to derive the system name.

In a JES3 environment, a value of FF04FFFFFFFFFFFF for *rba* might indicate the SYSLOG data set is empty. This is to be expected if the SYSLOG is on a JES3 local system and no records have been written to it. In that case, you can issue the command SYSID \* to specify the global system. The global SYSLOG is processed regardless of which system you are logged on to.

**User response:** Use the return code and feedback to diagnose the error. If the SYSLOG was being processed, verify that the value of SYSID is correct for the SYSLOG you want to process.

---

**ISF139E**      **GET FAILED READING** *dataset-name*, **RETURN CODE** *return-code*, **RPLFDBK** *feedback-code*.

**Explanation:** A GET request failed in an attempt to read *dataset-name* with the indicated return code and RPL feedback. SDSF is unable to read the file.

**User response:** Use the return code and feedback to diagnose the error.

---

**ISF142E**      **DEVICE NAME CONVERSION ERROR OCCURRED FOR DEVICE ID** *device-id*, **RETURN CODE** *return-code*, **REASON** *reason-code*, **INFO CODE** *info-code*.

**Explanation:** An error occurred during the invocation of the JES device name conversion SSI. In the message text, the device id is the JES internal device being converted, the return code is from IEFSSREQ, the reason code is from SSOBRETN, and the info code is from SSJIRETN.

**User response:** Use the return and reason codes to diagnose the error, and then follow your local procedures for contacting IBM for support.

---

**ISF144E**      **UNABLE TO OBTAIN HEALTH CHECKER CHECK INFORMATION ON SYSTEM** *system*, **HZSQUERY CHECKINFO RETURN CODE** *return-code*, **REASON** *reason-code*.

**Explanation:** An attempt to gather IBM Health Checker for z/OS data was unsuccessful because the HZSQUERY CHECKINFO service failed.

**User response:** See *IBM Health Checker for z/OS User's Guide* and use the return and reason codes from the HZSQUERY CHECKINFO service to diagnose the error. If the error persists, follow your local procedures for calling IBM for service.

---

**ISF145E**      **REXX REQUEST SERVICE** *service-name* **FAILED, RETURN CODE** *return-code*, **REASON** *reason-code*.

**Explanation:** An invocation of the REXX service *service-name* failed with the indicated return and reason code.

**User response:** The request is not processed. Use the return and reason codes from the service to diagnose the error.

---

**ISF146I**      **REXX VARIABLE** *variable-name* **SET, RETURN CODE** *return-code*, **VALUE IS** *'value'*.

**Explanation:** The indicated REXX variable has been assigned the indicated value. The return code corresponds to the SHVRET field returned by the IRXEXCOM service. This message is issued only in verbose mode.

**User response:** None.

---

**ISF147I**      **REXX VARIABLE** *variable-name* **FETCHED, RETURN CODE** *return-code*, **VALUE IS** *'value'*.

**Explanation:** The indicated REXX variable has been obtained and contains the indicated value. The return code corresponds to the SHVRET field returned by the



IRXEXCOM service. This message is issued only in verbose mode.

**User response:** None.

---

**ISF148E**      **UNABLE TO OBTAIN SUBSYSTEM INFORMATION FOR SUBSYSTEM**  
*subsystem-name*, **RETURN CODE**  
*return-code*, **REASON CODE** *reason-code*.

**Explanation:** SDSF has attempted to obtain information about *subsystem-name* using the subsystem version information (SSVI) subsystem interface call but the SSI has failed. In the message text, *return-code* is the return code from IEFSSREQ and *reason-code* is the reason code in SSOBRETN.

**User response:** Use the return and reason codes to diagnose the error or follow your local procedures to contact IBM for support.

---

**ISF149E**      **UNABLE TO OBTAIN *ssi-request* DATA FOR SUBSYSTEM *subsystem-name*,**  
**RETURN CODE** *return-code*, **SSOBRETN**  
*ssob-return-code*, **REASON CODE**  
*reason-code*.

**Explanation:** A subsystem request directed to *subsystem-name* failed for *ssi-request* data with the referenced SSI return code and SSOB return code. The reason code is for the specific SSI function being performed. The SDSF function that required the SSI data cannot be performed.

**User response:** Use the request type and return codes to diagnose the error.

---

**ISF150E**      **COMMUNICATIONS ERROR OCCURRED PROCESSING** *service-name*,  
**RETURN CODE** *return-code*, **REASON CODE** *reason-code*. **ADDITIONAL INFORMATION:** *additional information*

**Explanation:** A error occurred while processing the indicated communications service. The required communication is not completed.

**User response:** If the service name begins with MQ, a WebSphere MQ service has failed. Use the WebSphere MQ service return and reason codes, and the additional information to determine the cause of the error.

---

**ISF151E**      **MESSAGE REJECTED FROM UNSUPPORTED PLATFORM,**  
**PLATFORM CODE** *code*, **PLATFORM NAME** *name*

**Explanation:** An error occurred in communications between SDSF servers. A message was received from a platform that is not supported. The message is ignored.

**User response:** If the message has been received in

error, follow your local procedures for contacting IBM support.

---

**ISF152E**      **MESSAGE REJECTED FROM USER**  
*user-identity* **DUE TO UNEXPECTED**  
**FORMAT NAME** *format-name*.

**Explanation:** A server request has been rejected due to an incorrect format name. The format is not recognized. The server does not process the request.

**User response:** None required. If the message has been received in error, follow your local procedures for contacting IBM support.

---

**ISF153E**      **MESSAGE REJECTED FROM USER**  
*user-identity* **DUE TO INCORRECT**  
**APPLICATION IDENTITY.**

**Explanation:** A server request has been rejected due to invalid data in the application identity data section of the message context. The request is not processed

**User response:** If the message is issued in error, follow your local procedures for contacting IBM for support.

---

**ISF154E**      **REQUEST REJECTED, TARGET JES UNACCEPTABLE FOR REQUESTOR.**

**Explanation:** A request for data has been processed by the server, but the target JES is not in the same MAS as the requestor. The request is rejected.

**User response:** Ensure that the server group definition references only those JES subsystems in the same MAS as the client. If the problem persists, follow your local procedures for contacting IBM support.

---

**ISF155E**      **REQUEST REJECTED, TARGET SYSPLEX UNACCEPTABLE FOR REQUESTOR.**

**Explanation:** A request for data has been processed by the server, but the target sysplex is not in the same sysplex as the requestor. The request is rejected.

**User response:** Ensure that the server group definition references only those systems in the same sysplex as the client. If the problem persists, follow your local procedures for contacting IBM support.

---

**ISF156I**      **UNABLE TO OBTAIN SYSPLEX INFORMATION, IXCQUERY**  
*function-name* **FAILED, RETURN CODE**  
*return-code*, **REASON CODE** *reason-code*.

**Explanation:** An error occurred using the IXCQUERY service to gather sysplex information. The sysplex information is not shown.

**User response:** Use the return and reason codes to diagnose the error.

---

**ISF160E**      **IXCSEND TO SERVER** *server-name*  
**FAILED, RETURN CODE** *return-code*,  
**REASON CODE** *reason-code*.

**Explanation:** The IXCSEND service has failed sending a message to *server-name* with the indicated return and reason code. The request is not processed.

**User response:** Use the return and reason codes to diagnose the problem. Refer to *z/OS MVS Programming: Sysplex Services Reference*. If the error persists, follow your local procedures for contacting IBM support.

---

**ISF161E**      **IXCSEND FROM SERVER** *server-name*  
**FAILED, RETURN CODE** *return-code*,  
**REASON CODE** *reason-code*.

**Explanation:** The IXCSEND service has failed receiving a message to *server-name* with the indicated return and reason code. The request is not processed.

**User response:** Use the return and reason codes to diagnose the problem. Refer to *z/OS MVS Programming: Sysplex Services Reference*. If the error persists, follow your local procedures for contacting IBM support.

---

**ISF162E**      **START SERVER** *server-name* **FAILED**,  
**IXCSRVR RETURN CODE** *return-code*,  
**REASON CODE** *reason-code*.

**Explanation:** The IXCSRVR start service has failed processing *server-name* with the indicated return and reason code. The request is not processed.

**User response:** Use the return and reason codes to diagnose the problem. Refer to *z/OS MVS Programming: Sysplex Services Reference*. If the error persists, follow your local procedures for contacting IBM support.

---

**ISF163E**      **STOP SERVER** *server-name* **FAILED**,  
**IXCSRVR RETURN CODE** *return-code*,  
**REASON CODE** *reason-code*.

**Explanation:** The IXCSRVR stop service has failed processing *server-name* with the indicated return and reason code. The request is not processed.

**User response:** Use the return and reason codes to diagnose the problem. Refer to *z/OS MVS Programming: Sysplex Services Reference*. If the error persists, follow your local procedures for contacting IBM support.

---

**ISF166E**      **SEND FAILED, BPX4QSN RETURN**  
**CODE** *return-code*, **REASON CODE**  
*reason-code*, **msgtype** *message-type*, **length**  
*length*.

**Explanation:** An error occurred in sending a message using the BPX4QSN service with the indicated return and reason codes. The message type used when sending the message was *message-type*. The size of the message being sent is indicated by *length*. The message is not sent.

**User response:** Use the return and reason codes to diagnose the error.

For return code 121 reason code xxxx030B, the size of the USS interprocess communication (IPC) message queue may be too small for SDSF to put a message on the queue. The message size needed by SDSF varies based on the type of request and the size of the response. Determine the maximum size of the queue by issuing the D OMVS,O operator command and inspecting the value of the IPCMSGQBYTES option. Use the length of the message being sent from the message text to increase the size of the queue as necessary.

Refer to *z/OS UNIX System Services Messages and Codes*.

---

**ISF167E**      **RECEIVE FAILED, BPX4QRC RETURN**  
**CODE** *return-code*, **REASON CODE**  
*reason-code*, **msgtype** *message-type*.

**Explanation:** An error occurred in receiving a message using the BPX4QRC service with the indicated return and reason codes. The message type used when sending the message was *message-type*. The message is not sent.

**User response:** Use the return and reason codes to diagnose the error. Refer to *z/OS UNIX System Services Messages and Codes*.

---

**ISF170I**      **SERVER** *server-name* **ARM**  
**REGISTRATION COMPLETE FOR**  
**ELEMENT TYPE** *element-type*, **ELEMENT**  
**NAME** *element-name*.

**Explanation:** The server has successfully registered with ARM with the indicated element type and name.

**User response:** None required.

---

**ISF171E**      **SERVER** *server-name* **ARM**  
**REGISTRATION FAILED FOR**  
**ELEMENT TYPE** *element-type*, **ELEMENT**  
**NAME** *element-name*, **RETURN CODE**  
*return-code*, **REASON CODE** *reason-code*.

**Explanation:** The server has attempted to register with ARM with the indicated element name and type. However, the registration has failed with the listed return and reason codes from the IXCARM macro.

**User response:** Use the return and reason codes to understand the problem. Refer to *z/OS Security Server RACF Security Administrator's Guide*.

---

**ISF172E**      **SERVER** *server-name* **ARM**  
**DEREGISTRATION FAILED, RETURN**  
**CODE** *return-code*, **REASON CODE**  
*reason-code*.

**Explanation:** The server has attempted to deregister from ARM, but the IXCARM service has failed with the

indicated return and reason codes.

**User response:** Use the return and reason codes to understand the problem. See *z/OS Security Server RACF Security Administrator's Guide*.

---

**ISF174E**     *xxxx* UNABLE TO LOAD MODULE  
                  *module*, RETURN CODE *return-code*,  
                  REASON CODE *reason-code*.

**Explanation:** SDSF was unable to load the indicated module.

**User response:** See the return and reason codes for information about the problem. If the codes indicate that the load module was not found, the libraries containing the SDSF load modules may not have been correctly installed.

---

**ISF175W**     *xxxx* UNABLE TO DELETE MODULE  
                  *module*, RETURN CODE *return-code*,  
                  REASON CODE *reason-code*.

**Explanation:** SDSF was unable to delete the indicated module.

**User response:** See the return and reason codes for information about the problem.

---

**ISF176E**     UNABLE TO GATHER DATA FOR  
                  *jobname*, MODULE *module-name* LEVEL  
                  ERROR.

**Explanation:** A request to gather data for *jobname* failed because the level of *module-name* is incompatible with the SDSF requester. The SISFLPA and SISFLOAD data sets are not at the same level.

**User response:** Ensure that the SISFLPA data set is at the same level as the SISFLOAD data set.

---

**ISF177E**     UNABLE TO GATHER DATA FOR  
                  *jobname*, MODULE *module-name* NOT  
                  FOUND.

**Explanation:** A request to gather data for *jobname* failed because module *module-name* was not found. This may be because the SISFLPA and SISFLOAD data sets are not at the same level.

**User response:** Ensure that the SISFLPA data set is at the same level as the SISFLOAD data set.

---

**ISF180I**     TASK *task-id* IS BEING RESTARTED  
                  DUE TO ABEND.

**Explanation:** In response to an abend, the task indicated by *task-id* is being restarted.

**User response:** None required.

---

**ISF181I**     TASK (*task-name*, *taskid*) CANNOT BE  
                  RESTARTED DUE TO ABEND.

**Explanation:** The indicated task has abended and cannot be restarted. If the task is required for SDSF server execution, the server will be terminated.

**User response:** Correct the problems indicated by the abend, or follow your local procedures for contacting IBM support

---

**ISF182I**     TASK (*task-name*, *taskid*) HAS BEEN  
                  RESTARTED.

**Explanation:** The indicated task has been successfully restarted.

**User response:** None required.

---

**ISF190E**     UNABLE TO CREATE DATASPACE  
                  *dataspace-name*, DSPSERV RETURN  
                  CODE *return-code*, REASON CODE  
                  *reason-code*.

**Explanation:** A failure has occurred trying to create the named data space. WTORs will not be displayed on the SR panel or on the Log panel.

**User response:** Follow your local procedures for reporting a problem to IBM.

---

**ISF191E**     UNABLE TO DELETE DATASPACE  
                  *dataspace-name* (*dataspace-generated-name*),  
                  DSPSERV RETURN CODE *return-code*,  
                  REASON CODE *reason-code*.

**Explanation:** A failure has occurred trying to delete the named data space.

**User response:** Follow your local procedures for reporting a problem to IBM.

---

**ISF192E**     DATA NOT AVAILABLE, *module*  
                  RETURN CODE *return-code*, REASON  
                  CODE *reason-code*. *additional-information*

**Explanation:** A request for data could not be satisfied. The request failed with the indicated return and reason codes from the indicated module. If appropriate, additional information, *additional-information*, is added.

**User response:** Use the return and reason code for the indicated module, and *additional-information* if it is included, to diagnose the error.

If *additional-information* refers to the SRB, retry the request.

For information about RMF return and reason codes, refer to return and reason codes in *z/OS RMF Programmer's Guide*.

---

**ISF193E** DATA NOT AVAILABLE, *module*  
SECURITY ERROR, RETURN CODE  
*return-code*, REASON CODE *reason-code*.

**Explanation:** A request for data could not be satisfied because of SAF security. The request failed with the indicated return and reason codes from the module *module*.

**User response:** If you have been denied access in error, contact your security administrator.

Use the return and reason code for the indicated module to diagnose the error.

For information about RMF return and reason codes, refer to return and reason codes in *z/OS RMF Programmer's Guide*.

---

**ISF194E** INVOCATION OF IRXEXEC FAILED  
PROCESSING EXEC *exec-name*,  
RETURN CODE *return-code*.

**Explanation:** An unexpected error occurred after invocation of the IRXEXEC interface in response to a % action character. The message contains the return code from IRXEXEC.

**User response:** Examine the return code and associated system messages, if any. For more information on the return codes from IRXEXEC, refer to *z/OS TSO/E REXX Reference*.

---

**ISF195I** REXX EXEC *exec-name*.

**Explanation:** The REXX exec *exec-name* ended without returning a return code.

**User response:** None required.

---

**ISF196I** REXX EXEC *exec-name* ENDED,  
RETURN CODE *return-code*.

**Explanation:** The REXX exec *exec-name* ended with the indicated return code.

**User response:** Respond as appropriate, based on the return code.

---

**ISF197E** UNABLE TO INVOKE EXEC *exec-name*,  
NEITHER SYSPROC NOR SYSEXEC  
ALLOCATED.

**Explanation:** A % action character was issued to invoke a REXX exec against a row in a table, but neither the SYSEXC nor SYSPROC DD was allocated. The data set containing the exec must be allocated to either SYSEXEC or SYSPROC.

**User response:** Allocate the data set containing the exec to either SYSEXEC or SYSPROC.

---

**ISF198E** UNABLE TO INVOKE EXEC *exec-name*,  
EXEC NOT FOUND.

**Explanation:** A % action character was issued to invoke a REXX exec, *exec-name*, against a row in a table. No data sets allocated to SYSEXC or SYSPROC contain a member with that name.

**User response:** If the exec name was entered incorrectly, try the % action character again with the correct name. If the exec name is correct, ensure that the data set containing the exec is allocated to SYSEXEC or SYSPROC.

---

**ISF199E** ABEND *abend-code* REASON CODE  
*reason-code* OCCURRED PROCESSING  
REXX EXEC *exec-name*, EXEC STOPPED.

**Explanation:** An abend occurred in processing a REXX exec, *exec-name*. Process of the exec stopped.

**User response:** Use the abend code and reason code to diagnose the problem.

---

**ISF300E** MODIFY COMMAND IGNORED DUE  
TO ERRORS.

**Explanation:** The text of an operator MODIFY command *command* was not recognized.

**User response:** Correct the command and retry the request.

---

**ISF301E** *value* WAS EXPECTED IN COMMAND  
POSITION *position* BEFORE *keyword*.

**Explanation:** A value, *value*, was missing in the indicated position in the command.

**User response:** Correct the command and retry the request.

---

**ISF302E** *value* WAS SEEN IN COMMAND  
POSITION *position* WHERE ONE OF  
THE FOLLOWING WAS EXPECTED:  
*valid-values*.

**Explanation:** An invalid value, *value*, was found at the indicated position in the command.

**User response:** Correct the command using one of the listed valid values.

---

**ISF303E** MODIFY COMMAND TEXT MISSING,  
COMMAND IGNORED.

**Explanation:** The MODIFY command was entered without required command text. The command is ignored.

**User response:** Correct the command and retry the request.

---

**ISF304I**      **MODIFY** *parameter* **COMMAND ACCEPTED.**

**Explanation:** The indicated parameter of the MODIFY command was accepted for processing.

**User response:** None required.

---

**ISF305E**      **ABEND** *abend-code* **OCCURRED PROCESSING MODIFY COMMAND.**

**Explanation:** An abend occurred in processing the MODIFY command. The command is not executed.

**User response:** Use the abend code to diagnose the problem.

---

**ISF306E**      **MODIFY** *command* **COMMAND IGNORED DUE TO AUTHORIZATION FAILURE.**

**Explanation:** A MODIFY command could not be processed because SAF checking has determined that the user is not authorized to issue the command.

**User response:** If you have been denied access in error, refer to "User authorization" on page 505 for more information.

---

**ISF307E**      **MODULE** *module* **NOT FOUND.**

**Explanation:** A MODIFY D,MODULE command was issued for a module, but the module could not be located.

**User response:** Verify that the module name was entered correctly. The module must be accessible or currently loaded by SDSF.

---

**ISF308E**      "*value*" **WAS SEEN IN COMMAND POSITION** *position* **BUT NOT EXPECTED.**

**Explanation:** An invalid value, *value*, was found at the indicated position in the command. The command is not processed.

**User response:** Correct the command.

---

**ISF310I**      *server-name* **COMMUNICATIONS ID SERVER STATUS SYSTEM JESN MEMREQSPROC**  
*requests-processed***BER**  
*id server status*  
*system jesn member*  
**QMGR:** *qmgr* **REQUESTQ:** *server-q*  
**QMGR:** *qmgr* **CLIENTQ:** *client-q*  
**CLUSTER/CLUSTERNL:** *cluster-name*

**Explanation:** Information about communication between SDSF servers is displayed in response to an operator command:

**id**      an identifier associated with the server

**server**      name of the server

**status**      status of the server

**system**      system on that the server is processing

**jesn**      JES2 subsystem for which the server gathers data

**member**      member of the MAS for the JES2 subsystem

**requests-processed**      number of requests processed

**qmgr**      name of the WebSphere MQ queue manager

**server-q**      name of the server request queue (shown only for the local server). The server request queue is used by the local server to get requests from the remote servers.

**client-q**      name of the client request queue. The client request queue is used by the client to send messages to the local server, and by the local server to send messages to the remote servers.

**cluster-name**      name of the WebSphere MQ cluster or cluster name-list

**User response:** None required.

---

**ISF311I**      **SERVER COMMUNICATIONS NOT ACTIVE.**

**Explanation:** A command to display information about server communication was issued, but communication between SDSF servers is not active.

**User response:** None required. For information about enabling communication between SDSF servers, refer to "Using the server for sysplex data" on page 112.

---

**ISF312I**      *server-name* **DISPLAY SERVER STATUS:** *status* **DEFAULT:** *status*  
**COMMUNICATIONS:** *status*  
**PARMS:** *member/dataset-name*  
**XCF COMMUNICATIONS:** *xcf-status*

**Explanation:** In response to an operator command, information about the status of server communications is displayed. The server status codes are:

**CloseQ**      request queue being closed

**Connected**      connect to queue manager complete

**Connecting**      connect to queue manager in progress

## ISF313I • ISF401I

**CreateModelQ**  
create of model queue in progress

**CreatedModelQ**  
model queue create complete

**DeleteClientQ**  
delete of client queue in progress

**DeletedClientQ**  
delete of client queue complete

**DeleteModelQ**  
delete of model queue in progress

**DisableClientQ**  
client queue being disabled

**Disconnecting**  
disconnect from queue manager in progress

**EnableClientQ**  
client queue being enabled

**EnabledClientQ**  
client queue enable complete

**Failed** prior initialization failed

**Inactive**  
communications not active

**OpenReqQ**  
request queue open in progress

**OpenedReqQ**  
request queue open complete

**OpenClientQ**  
client queue open in progress

**OpenedClientQ**  
client queue open complete

**SetSignal**  
event signal being set

**Signalled**  
event signal complete

**Starting**  
communications being started

**Stopping**  
communications being stopped

**TaskInit**  
task initialization in progress

**TaskTerm**  
task termination in progress

**TestComm**  
test communication in progress

Values for XCF application server status, *xcf-status*, are:

**Configured**  
SDSF can exploit XCF for sysplex requests

**Not Configured**  
the server is not configured to use XCF for sysplex requests

**User response:** None required.

---

**ISF313I** *server-name* **MODULE DISPLAY**  
**NAME:** *name* **EPADDR:** *entry-address*  
**FMID:** *module-fmid* **LEVEL:** *apar-level*  
**COMPDATE:** *date* **COMPTIME:** *time*

**Explanation:** The service-level information for module *name*, including its compile date and time is displayed in response to a MODIFY D,MODULE command.

**User response:** None.

---

**ISF314I** **ACCESS DENIED TO**  
*class-name/resource-name* **LEVEL** *access-level*  
**DUE TO SAF NO DECISION.**

**Explanation:** An attempt to access the resource *resource-name* protected by SAF class *class-name* with a requested access level of *access-level* has been denied. The SAF authorization check has resulted in a no-decision (indeterminate) result and SDSF has consequently failed the request.

**User response:** In the JES3 environment, all resources must be protected through SAF. It may be necessary to define profiles so that the named resources can be accessed.

---

**ISF315I** *server-name* **XCF COMMUNICATIONS**  
**APPLICATION SERVER NAME:** *name*  
**TASKS ACTIVE:** *nnn* **IDLE:** *nnn*  
**SENDS:** *count* **RECEIVES:** *count*

**Explanation:** In response to a display communications command, XCF communications data is displayed. *name* is the application server name being used by SDSF for XCF communications. A task is active if it is actively processing a request. An idle task is waiting for work. The send and receive counts indicate the number of messages sent or received by the server. The count is scaled using the K, M, G, T, and P characters or all asterisks if the count exceeds the space available.

**User response:** None.

---

**ISF401I** **SERVER** *server-name*  
**COMMUNICATIONS**  
**INITIALIZATION IN PROGRESS.**

**Explanation:** The communications between SDSF servers is being initialized.

**User response:** None required.

---

**ISF402I**      **SERVER** *server-name*  
**COMMUNICATIONS READY.**

**Explanation:** Initialization of communications for the indicated SDSF server has completed successfully. The server is ready to begin communications with other SDSF servers.

**User response:** None required.

---

**ISF403E**      **SERVER** *server-name*  
**COMMUNICATIONS**  
**INITIALIZATION FAILED,**  
**COMMUNICATIONS NOT**  
**AVAILABLE.**

**Explanation:** Communications for the indicated SDSF server did not initialize successfully. The server is not ready to begin communications with other SDSF servers.

**User response:** See associated messages for an explanation of the error.

---

**ISF404I**      **SERVER** *server-name*  
**COMMUNICATIONS STOPPED.**

**Explanation:** Communications for the indicated server was stopped. Communications is no longer available.

**User response:** Correct your server group definition in ISFPARMS and refresh them.

---

**ISF405I**      **SERVER** *server-name*  
**COMMUNICATIONS IN USE,**  
**SERVERGROUP DEFINITION**  
**UNCHANGED.**

**Explanation:** An attempt was made to modify the server group in ISFPARMS after the ISFPARMS were already being processed by the SDSF server. The request is ignored.

**User response:** None required. You cannot change the properties of a server group defined in ISFPARMS after the server has begun processing the ISFPARMS. To change the properties of the server group, first stop the server with the STOP command.

---

**ISF406I**      **SERVER** *server-name*  
**COMMUNICATIONS WAITING FOR**  
**CONNECTION.**

**Explanation:** Communications for the indicated server are waiting for a connection. The server cannot communicate with other servers in the group, and data from that server will not be included on the SDSF panels. It may be that WebSphere MQ is not active.

**User response:** See accompanying messages for more information. If WebSphere MQ is not active, start it.

---

**ISF407I**      **SERVER** *server-name*  
**COMMUNICATIONS WAITING FOR**  
**ACCESS TO REQUEST QUEUE.**

**Explanation:** During communications initialization, the server detected that the request queue name was in use. The server requires exclusive control of the request queue. Initialization will wait until the queue name is available. If the server has been recycled, there might be a delay until the queue manager marks the queue as being available.

The server will periodically try the failing request until the queue name is accessed.

**User response:** See accompanying messages for more information. Verify that the queue name is not in use by any other application.

---

**ISF408I**      **SERVER** *server-name* **DEFINING**  
**OBJECT** *object-name* **ON QUEUE**  
**MANAGER** *queue-manager-name*.

**Explanation:** SDSF is attempting to define an object using the named queue manager.

**User response:** None required.

---

**ISF409E**      **SERVER** *server-name* **UNABLE TO**  
**DEFINE OBJECT** *object-name* **ON**  
**QUEUE MANAGER** *queue-manager-name*.

**Explanation:** SDSF was unable to define the indicated object on the named WebSphere MQ queue manager.

**User response:** See additional messages for more information.

---

**ISF410I**      **SERVER** *server-name* **HAS DEFINED**  
**OBJECT** *object-name* **ON QUEUE**  
**MANAGER** *queue-manager-name*.

**Explanation:** SDSF defined the indicated object on the named WebSphere MQ queue manager.

**User response:** None required.

---

**ISF411I**      **RESPONSE FROM** *queue-manager:*  
*response-text*.

**Explanation:** The SDSF server has invoked the WebSphere MQ system command interface to perform an administrative request, such as creating a queue. The queue manager has responded with the indicated text.

**User response:** None required.

---

---

**ISF412I**      **COMMUNICATIONS WITH SERVER**  
*server-name* **SYSTEM** *system-name*  
**STOPPED.**

**Explanation:** Communications has been stopped with the indicated server in the server group. Requests will no longer be forwarded to the server for processing.

**User response:** Use the start communications command to resume processing for the server.

---

**ISF413E**      **SERVER ID** *server-id* **NOT PROCESSED,**  
**SERVER NOT FOUND IN**  
**SERVERGROUP.**

**Explanation:** A command was entered to modify a server in the server group, but the server ID was not recognized. The command is not processed.

**User response:** Retry the command with the correct server ID. To display the server ID, use the server operator command `F server-name,DISPLAY,C`.

---

**ISF414E**      **SERVER** *server-name* **SYSTEM**  
*system-name* **NOT PROCESSED, SERVER**  
**NOT FOUND IN SERVERGROUP.**

**Explanation:** A command was entered to modify a server in the server group, but the server and system name patterns did not match any server. The command is not processed.

**User response:** Retry the command with the correct server ID. To display the server and system names, use the server operator command:

`F server-name,DISPLAY,C`.

---

**ISF415I**      **SERVER** *server-name* **SYSTEM**  
*system-name* **STARTED, CURRENT**  
**STATUS IS** *status-text*.

**Explanation:** A server with the indicated name has been started. The status of the server is *status-text*.

**User response:** None required.

---

**ISF416I**      **SERVER** *server-name*  
**COMMUNICATIONS WILL BE**  
**RESTARTED.**

**Explanation:** Communications with *server-name* is being restarted. A restart may have been necessary because the connection was broken or was quiescing. Additional messages will be issued indicating when the restart is complete.

**User response:** None required.

---

**ISF417I**      **SERVER** *server-name*  
**COMMUNICATIONS STOPPING.**

**Explanation:** Communications is ending for *server-name*. No additional sysplex requests will be processed.

**User response:** None required.

---

**ISF418I**      **COMMAND TO** *queue-manager-name:*  
*command-text*

**Explanation:** The indicated queue manager administrative command is being sent to the queue manager for processing.

**User response:** None required.

---

**ISF420I**      **SERVER** *server-name* **DELETING**  
**OBJECT** *object-name* **ON QUEUE**  
**MANAGER** *queue-manager-name*.

**Explanation:** The SDSF server is deleting the indicated WebSphere MQ object on queue-manager *queue-manager-name*, because QDELETE(YES) was specified on the COMM statement in ISFPARMS for the server. The object was originally created by the SDSF server.

**User response:** None required.

---

**ISF421I**      **SERVER** *server-name* **HAS DELETED**  
**OBJECT** *object-name* **ON QUEUE**  
**MANAGER** *queue-manager-name*.

**Explanation:** The SDSF server has deleted the indicated WebSphere MQ object on queue manager *queue-manager-name*. The object was originally created by the SDSF server.

**User response:** None required.

---

**ISF422E**      **SERVER** *server-name* **UNABLE TO**  
**DELETE OBJECT** *object-name* **ON**  
**QUEUE MANAGER** *queue-manager-name*.

**Explanation:** The indicated WebSphere MQ object was not deleted by the SDSF server because the object was in use by WebSphere MQ. The server attempted to delete the object because QDELETE(YES) was specified on the COMM statement of ISFPARMS.

**User response:** See additional messages in the server joblog for more information.

---

**ISF423I**      **SERVER** *server-name*  
**COMMUNICATIONS WAITING FOR**  
**ACCESS TO CLIENT REQUEST**  
**QUEUE.**

**Explanation:** During communications initialization, the SDSF server detected that the client request queue was in use. The server requires exclusive control of the



client request queue. Initialization will wait until the queue name is available. If the server has been recycled, there might be a delay until the queue manager marks the queue as being available.

The server will periodically try the failing request until the queue name is accessed.

**User response:** None required.

---

**ISF424E**     **SERVER** *server-name* **UNABLE TO DEFINE OBJECT** *object-name* **ON QUEUE MANAGER** *queue-manager-name*, **OBJECT ALREADY EXISTS.**

**Explanation:** The SDSF server was unable to create the indicated WebSphere for MQ object on the named queue manager because the object already exists.

**User response:** To have the object redefined by the server, specify QREPLACE(YES) on the COMM statement for the server in ISFPARMS.

---

**ISF425I**     **SERVER** *server-name* **CLIENT QUEUE** *queue-name* **HAS A TARGET OF** *target-queue-name* **THAT DIFFERS FROM THE REQUEST QUEUE NAME OF** *request-queue-name*.

**Explanation:** During communications initialization, the SDSF server has detected that the client request queue has been defined with a target queue that differs from the expected name. The client request queue should be a queue alias for the server request queue. Processing continues. However, the server may not receive messages sent to the client queue because the target does not match.

**User response:** To have the server redefine the client request queue, specify QREPLACE(YES) on the COMM statement of ISFPARMS for the server.

---

**ISF426E**     **SERVER** *server-name* **CLIENT QUEUE** *queue-name* **CONFIGURED FOR CLUSTER** *cluster-name* **BUT QUEUE DEFINED FOR CLUSTER** *cluster-name-two*.

**Explanation:** The SDSF server has detected an inconsistency in the definition of WebSphere MQ queue *queue-name*. The cluster name specified on the COMM statement of ISFPARMS does not match the cluster attribute for the queue. The cluster name specified for the SDSF server in ISFPARMS must match the name associated with the queue. Communications initialization failed.

**User response:** Check that the cluster name on the COMM statement is correct. To have the server redefine the queue, use the QREPLACE(YES) option of the COMM statement.

---

**ISF427E**     **SERVER** *server-name* **CLIENT QUEUE** *queue-name* **CONFIGURED FOR CLUSTER NAMELIST** *comm-namelist-name* **BUT QUEUE DEFINED FOR CLUSTER NAMELIST** *queue-namelist-name*.

**Explanation:** The SDSF server has detected an inconsistency in the definition of WebSphere MQ queue *queue-name*. The cluster namelist specified on the COMM statement of ISFPARMS does not match the cluster attribute for the queue. The cluster namelist specified for the SDSF server in ISFPARMS must match the namelist associated with the queue. Communications initialization failed.

**User response:** Check that the cluster namelist on the COMM statement is correct. To have the server redefine the queue, specify QREPLACE(YES) on the COMM statement in ISFPARMS.

---

**ISF428I**     **SERVER** *server-name* **UNABLE TO DISABLE OBJECT** *object-name*.

**Explanation:** During server termination, a communications error prevented the server from disabling *object-name*. An object is disabled to prevent subsequent requests from being directed to it. Server communications continues.

Other servers in the server group may continue to send requests to this server. This may result in delays because the requests will timeout rather than being rejected immediately.

**User response:** Use any additional error messages issued by the server to determine the cause of the problem.

---

**ISF429I**     **SERVER** *server-name* **NOT DEFINING OBJECT** *object-name*, **QUEUE DEFINITION PROHIBITED.**

**Explanation:** The server is not defining *object-name* because the QDEFINE initialization option has been specified as NO. Initialization continues. However, if *object-name* is required by the server but has not already been defined, initialization may fail.

**User response:** You can change the QDEFINE initialization option on the COMM statement of ISFPARMS. Refer to "COMM statement" on page 30 for more information.

---

**ISF432E**     **SETTINGS DESCRIPTOR COLUMNS LENGTH** *length* **EXCEEDS MAXIMUM LENGTH OF** *maximum-length*.

**Explanation:** The columns list provided in the settings descriptor is too long and exceeds the maximum length. The columns list is ignored. An external call environment is used by the SDSF CIM provider.

## ISF433I • ISF451I

**User response:** Follow your local procedures for contacting IBM for service.

---

**ISF433I**      **SERVER** *server-name* **XCF**  
**CONNECTION ESTABLISHED AS**  
**SERVER** *xcf-application-server-name*.

**Explanation:** The SDSF server *server-name* has identified itself as *xcf-application-server-name* and is ready to process requests using XCF.

**User response:** None.

---

**ISF434I**      **SERVER** *server-name* **CONNECTION**  
**WITH XCF STOPPING.**

**Explanation:** The SDSF server *server-name* is stopping communication with XCF.

**User response:** None.

---

**ISF435I**      **SERVER** *server-name* **CONNECTION**  
**WITH XCF STOPPED.**

**Explanation:** The SDSF server *server-name* has stopped communication with XCF.

**User response:** None.

---

**ISF436I**      **NO SYSTEMS SATISFY SYSTEM**  
**NAME FILTER. USE THE SYSNAME**  
**COMMAND TO CHANGE THE**  
**VALUE.**

**Explanation:** A request for sysplex data has been processed but the current SYSNAME value does not match any system in the sysplex. The request is not processed.

**User response:** Use the SYSNAME command to change the system names that will be processed.

---

**ISF437I**      **DATA NOT AVAILABLE FROM**  
**SYSTEMS:** *system-name-list*.

**Explanation:** A sysplex request has been processed, but responses from the named systems have not been received within the timeout interval. The systems may be busy or unable to process the request.

**User response:** Review the timeout interval specified with the SET TIMEOUT command and retry the request.

---

**ISF438I**      **XCF SERVER NAME** *server-name* **NOT**  
**PROCESSED SINCE SERVER**  
*xcf-application-name* **ALREADY ACTIVE.**

**Explanation:** A request to start XCF communications using *server-name* has not been processed because SDSF is already connected to the XCF application server *xcf-application-name*. *server-name* cannot be changed while the application server is active.

**User response:** Stop SDSF XCF communications and then retry the request.

---

**ISF439I**      **SERVER** *server-name* **XCF**  
**CONNECTION ALREADY**  
**ESTABLISHED AS SERVER**  
*xcf-application-name*.

**Explanation:** SDSF server *server-name* has processed a request to start XCF communications, but the application server is already active as *xcf-application-name*.

**User response:** None.

---

**ISF440I**      **XCF SERVER** *xcf-application-name*  
**CANNOT BE UNDEFINED SINCE IT**  
**IS ALREADY ACTIVE.**

**Explanation:** While processing a command to refresh ISFPRMxx, SDSF encountered a CONNECT statement that defines XCFSRVNM(NONE) to disable the use of XCF. However, the XCF application server is already active. The refresh is processed but there is no change to the XCF status.

**User response:** To undefine XCF, stop communications prior to the refresh or restart the server.

---

**ISF441E**      **DATA NOT AVAILABLE FROM ANY**  
**SYSTEM.**

**Explanation:** A request for sysplex data has been made, but no systems have responded within the timeout interval. The systems may be busy or unable to process the request.

**User response:** Review the timeout interval specified with the SET TIMEOUT command and retry the request.

---

**ISF442I**      **SERVER** *server-name* **XCF**  
**COMMUNICATIONS READY.**

**Explanation:** SDSF is ready to accept sysplex requests using XCF. *server-name* is the name of the SDSF server.

**User response:** None.

---

**ISF450I**      **SERVER** *server-name* **starting SDSFAUX**

**Explanation:** SDSF server *server-name* has determined that SDSFAUX is not active and is starting it.

**User response:** No response is required.

---

**ISF451I**      **SERVER** *server-name* **stopping SDSFAUX**

**Explanation:** During the shutdown of SDSF server *server-name*, SDSF has determined that SDSFAUX is active and is stopping it.

**User response:** No response is required.

**ISF452E SDSFAUX COMMUNICATIONS FAILED, RETURN CODE** *0xreturn-code*, **REASON CODE** *0xreason-code*, **function** *function-name*, *additional information*

**Explanation:** An internal SDSF request (*function-name*) has been sent to the SDSFAUX address space but has failed with the indicated return and reason code in hexadecimal. If available, additional information may be provided that describes the error.

The return code is as follows:

| Return code (hexadecimal) | Description       |
|---------------------------|-------------------|
| 00                        | Success           |
| 04                        | Warning           |
| 08                        | Error             |
| 0C                        | Environment error |
| 10                        | Severe error      |
| 14                        | Fatal error       |

The *reason-code* is of the form *xxxxrrrr* where *xxxx* is an internal identifier for the module that has detected the error and *rrrr* is the reason code. The *reason-code* is as follows:

| Reason code (hexadecimal) | Description       | Response                                                                                                                               |
|---------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| xxxx040A                  | Results truncated | SDSF was unable to complete all data gathering requests because too much data was returned. Refine your request if possible and retry. |
| xxxx0410                  | Partial results   | SDSF was unable to complete all data gathering requests because too much data was returned. Refine your request if possible and retry. |
| xxxx0412                  | RMF required      | SDSF was unable to complete a data gathering request because RMF is required. Verify that RMF Monitor I is active.                     |

| Reason code (hexadecimal) | Description            | Response                                                                                                                                                                                                                                               |
|---------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| xxxx0413                  | RMF not installed      | SDSF was unable to complete a data gathering request because RMF is not installed. Verify that module ERBSMFI can be loaded.                                                                                                                           |
| xxxx0801                  | Not found              | Ensure that the SDSFAUX address space has been started.                                                                                                                                                                                                |
| xxxx0806                  | Access denied          | For function connect, verify user is authorized to the ISF.CONNECT. <i>system</i> resource in the SDSF class.<br><br>For other functions, enable security tracing using the SET SECTRACE command to determine the resource for which access is needed. |
| xxxx0813                  | SDSFAUX unavailable    | A request could not be processed because SDSFAUX is not started. Ensure the SDSF server is active and refresh ISFPRMxx to restart SDSFAUX.                                                                                                             |
| xxxx082F                  | Send to SDSFAUX failed | SDSF was unable to gather remote data because the send using XCF failed. Verify that all target systems are available.                                                                                                                                 |

| Reason code (hexadecimal) | Description                  | Response                                                                                                                                                                                    |
|---------------------------|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| xxxx0830                  | Receive by SDSFAUX failed    | SDSF was unable to receive results from XCF possibly because too much data was returned or a timeout occurred. Refine your request and use the SET TIMEOUT command to increase the timeout. |
| xxxx0858                  | SDSFAUX shutdown in progress | SDSFAUX is shutting down. Retry your request after SDSFAUX restarts.                                                                                                                        |
| Other                     | Internal error               | An internal error has occurred. Follow your local procedures for contacting IBM for support.                                                                                                |

**User response:** Use the additional information to diagnose the error. If no information is provided or the error cannot be resolved, contact IBM Software Support.

---

#### ISF453I SDSFAUX is already active

**Explanation:** During initialization of the SDSF server or a refresh of ISFPRMxx, SDSF has determined that SDSFAUX is already active and does not need to be started.

Parameters related to SDSFAUX on the CONNECT statement such as AUXPROC, AUXNAME, and AUXSAF are ignored.

**User response:** If changes have been made to the CONNECT statement related to SDSFAUX, stop and start the SDSF server for the changes to take effect.

---

#### ISF488E SDSF NOT STARTED DUE TO ERRORS IN START PARAMETERS.

**Explanation:** One or more parameters on the EXEC statement for the SDSF server was not recognized.

**User response:** Correct the parameters and retry the request.

---

#### ISF491E *value* WAS EXPECTED IN START PARAMETER POSITION *position* BEFORE *string*.

**Explanation:** SDSF encountered an error in a parameter on the START command.

**User response:** Use the position and string values to identify the parameter in error. Retry the START command with a corrected parameter.

---

#### ISF492E *value* WAS SEEN IN START PARAMETER POSITION *position* WHERE ONE OF THE FOLLOWING WAS EXPECTED: *list-of-values*.

**Explanation:** SDSF encountered an error in a parameter on the START command. The position of the error in the command string is indicated by *position*.

**User response:** Retry the START command using one of the valid values.

---

#### ISF493I ABEND *abend-code* OCCURRED PROCESSING START PARAMETERS.

**Explanation:** An abend occurred in processing the START command. The command is executed with any parameters that were processed prior to the abend.

**User response:** Use the abend code to diagnose the problem. You may want to use the MODIFY command to reset server options.

---

#### ISF515E SDSF INITIALIZATION FAILED FOR SERVER *server*.

**Explanation:** Initialization of server *server* failed to complete. Messages describing the reason for the failure will have been issued prior to this one.

**User response:** Use the error messages issued by SDSF to determine the cause of the initialization failure.

---

#### ISF517E SDSF SERVER WAS NOT STARTED DUE TO INVALID EXECUTION ENVIRONMENT, POSSIBLE MISSING PPT ENTRY.

**Explanation:** The SDSF server could not start due to an incorrect execution environment. The server is not running in the correct protect key.

**User response:** Verify that a PPT entry has been defined in your SCHEDxx member of the parmlib concatenation for program ISFHCTL.

---

#### ISF518E SDSF SERVER *server* NOT STARTED, NOT ENABLED FOR EXECUTION

**Explanation:** The SDSF server has attempted to register its invocation on a z/OS system, but the registration has failed. The server is not initialized.

**User response:** If SDSF should be enabled for execution, check the IFAPRDxx member of your parmlib concatenation for an entry for SDSF.

---

**ISF527E SDSF SERVER *server* NOT STARTED, START COMMAND MUST BE USED.**

**Explanation:** An attempt was made to start the SDSF server *server* through a batch job. The server must be started with the MVS START command.

**User response:** Issue the MVS START command to start the SDSF server.

---

**ISF528E SDSF SERVER *server* NOT STARTED, INVALID OPERATING SYSTEM LEVEL.**

**Explanation:** The SDSF server requires a higher level of the operating system than was found. The server was not started.

**User response:** None.

---

**ISF538E SDSF SERVER *server* ALREADY ACTIVE.**

**Explanation:** The START command was entered for an SDSF server that is already active. The command was ignored.

**User response:** None.

---

**ISF540I SERVER *server-name* ASSIGNED AS DEFAULT SERVER.**

**Explanation:** The indicated SDSF server has been made the default server. If no server is specified in the assembler ISFPARMS, users who do not explicitly state the server name on the SDSF command will connect to this server when accessing SDSF. Any server specified in ISFPARMS will be ignored.

**User response:** None required.

---

**ISF541I SERVER *server-name* UNASSIGNED AS DEFAULT SERVER.**

**Explanation:** The indicated SDSF server had been the default server but is no longer the default server. Either another server has been made the default server, or the server is terminating, or ISFPARMS has been refreshed with a different option on the CONNECT statement.

**User response:** None required.

---

**ISF542I SERVER *server-name* NOT ASSIGNED AS DEFAULT SERVER, SERVER *server-default-name* ALREADY ASSIGNED.**

**Explanation:** The indicated SDSF server, *server-name*, was not made the default server because a default

server, *server-default-name*, already has been assigned.

**User response:** None required. To make the server the default, regardless of whether a default has already been assigned, change the DEFAULT option on the CONNECT statement in ISFPARMS to DEFAULT(YES).

---

**ISF543I SERVER *server-name* ALREADY ASSIGNED AS DEFAULT SERVER, ASSIGNMENT UNCHANGED.**

**Explanation:** Processing ISFPARMS has resulted in no change to the default SDSF server. The indicated server, *server-name*, is the default server.

**User response:** None required.

---

**ISF544E *option* REJECTED, NOT AUTHORIZED FOR USE.**

**Explanation:** The named REXX option was rejected because the user is not authorized to use it.

**User response:** None required.

---

**ISF546I OPTIONS NOT APPLICABLE TO THE INITIAL COMMAND IGNORED.**

**Explanation:** SDSF was invoked with initial command options, but the options are not applicable to the initial panel being invoked. The initial options are ignored.

**User response:** None required.

---

**ISF701I SDSF TRACE STARTED USING TRACE MASK *trace-mask*.**

**Explanation:** In response to an operator command, the current trace mask is displayed.

**User response:** None required.

---

**ISF702I SERVER *server-name* DEBUG MODE IS ENABLED.**

**Explanation:** In response to an operator command, the current status for diagnostic mode is displayed.

**User response:** None required.

---

**ISF703I SERVER *server-name* DEBUG MODE IS DISABLED.**

**Explanation:** In response to an operator command, the current status for diagnostic mode is displayed.

**User response:** None required.

---

**ISF709I SDSF TRACE IS INACTIVE, TRACE MASK IS "*trace-mask*".**

**Explanation:** In response to an operator command, the current status for SDSF server trace is displayed.

## ISF710I • ISF731E

**User response:** None required.

---

**ISF710I SDSF TRACE IS ACTIVE USING TRACE MASK "trace-mask".**

**Explanation:** In response to an operator command, the current status for SDSF server trace is displayed.

**User response:** None required.

---

**ISF711I SDSF TRACE STARTED USING TRACE MASK trace-mask.**

**Explanation:** In response to the TRACE command, tracing has been started with the indicated trace mask.

**User response:** None required.

---

**ISF713E SDSF TRACE INITIALIZATION FAILED, RETURN CODE return-code, REASON CODE reason-code.**

**Explanation:** In response to the TRACE command, initialization of SDSF trace has failed with the indicated return and reason codes

**User response:** Use the indicated return and reason codes to diagnose the problem.

---

**ISF714I SDSF TRACE IS NOW INACTIVE.**

**Explanation:** In response to a TRACE OFF command, SDSF trace has become inactive.

**User response:** None required.

---

**ISF715I SDSF TRACE IS ALREADY ACTIVE USING TRACE MASK trace-mask**

**Explanation:** A TRACE ON command was entered, but SDSF trace is already active, with the indicated trace mask.

**User response:** None required.

---

**ISF716E SDSF TRACE DATA SET IS NOT ALLOCATED.**

**Explanation:** A TRACE ON command was entered, but the SDSF trace data set could not be dynamically allocated. SDSF trace is not started.

**User response:** Additional system messages may have been issued to the console. See them for additional information.

---

**ISF717I SDSF TRACE IS ALREADY INACTIVE.**

**Explanation:** A TRACE OFF command was entered, but SDSF trace is already inactive. The command is ignored.

**User response:** None required.

---

**ISF718E SDSF TRACE FAILED TO INACTIVATE.**

**Explanation:** A TRACE OFF command was entered, but SDSF trace was not turned off. Tracing continues.

**User response:** Retry the request.

---

**ISF724I SDSF LEVEL fmid INITIALIZATION COMPLETE FOR SERVER server.**

**Explanation:** The SDSF server was successfully initialized.

**User response:** None.

---

**ISF725I SDSF SHUTDOWN IN PROGRESS FOR SERVER server.**

**Explanation:** The SDSF server is being shut down.

**User response:** None.

---

**ISF726I SDSF PARAMETER PROCESSING STARTED.**

**Explanation:** The processing of the SDSF parameters has started.

**User response:** None.

---

**ISF727I SDSF PARAMETER PROCESSING STARTED IN TEST MODE.**

**Explanation:** The processing of the SDSF parameters has started in test mode. The syntax of the parameters will be checked, but the parameters will not be activated.

**User response:** None.

---

**ISF728I SDSF PARAMETERS HAVE BEEN ACTIVATED.**

**Explanation:** The processing of the SDSF parameters was successful and the parameters are now active.

**User response:** None.

---

**ISF729I NO ERRORS DETECTED IN SDSF PARAMETERS.**

**Explanation:** The processing of the SDSF parameters completed with no errors.

**User response:** None.

---

**ISF731E SDSF PARAMETERS NOT ACTIVATED DUE TO ERRORS.**

**Explanation:** Errors were found in the SDSF parameters. The parameters are not activated.

**User response:** Use the log file to review the

parameters. Correct the errors and process the parameters again.

---

**ISF732I      ERRORS DETECTED IN SDSF PARAMETERS.**

**Explanation:** Errors were found in the SDSF parameters.

**User response:** Use the log file to review the parameters. Correct the errors and process the parameters again.

---

**ISF733E      UNABLE TO READ SDSF PARAMETERS DUE TO I/O ERROR.**

**Explanation:** An I/O error prevented SDSF from reading the SDSF parameters.

**User response:** See accompanying system messages for more information about the I/O error.

---

**ISF734I      SDSF PARAMETERS HAVE BEEN ACTIVATED, WARNINGS WERE ISSUED.**

**Explanation:** SDSF ISFPARMS have been activated; however, during syntax checking of the ISFPARMS, SDSF issued warning messages.

**User response:** Check the server log for the warning messages. If you change the ISFPARMS, activate the changes with the MODIFY command.

---

**ISF735E      SDSF PARAMETERS ARE NOT ACTIVE.**

**Explanation:** An error was detected in the SDSF parameters when the SDSF server was started. SDSF parameters are not activated.

**User response:** Use the log file to review the parameters. Correct the errors and activate the parameters with the MODIFY command.

---

**ISF736I      SDSF SHUTDOWN PROCEEDING FOR SERVER *server-name*.**

**Explanation:** A STOP command has been issued to shut down an SDSF server. The server is waiting for completion of outstanding work.

**User response:** None required.

---

**ISF737E      SDSF PARAMETERS NOT ACTIVATED DUE TO ABEND.**

**Explanation:** Due to an abend, SDSF parameters were not activated.

**User response:** Use the MODIFY command to active the parameters. The MODIFY command is described in "Server operator commands" on page 120.

---

**ISF738I      ABEND *abend-code* DETECTED PROCESSING SDSF PARAMETERS.**

**Explanation:** While SDSF parameters were being processed in test mode, an abend was detected.

**User response:** Use the abend code to diagnose the problem.

---

**ISF739I      SDSF PARAMETERS BEING READ FROM MEMBER *member-name* OF DATA SET *dataset-name*.**

**Explanation:** The SDSF server is reading SDSF parameters from the indicated data set and member.

**User response:** None required.

---

**ISF740E      VARIABLE *variable-name* DATA VALUE '*value*' IS TOO LONG.**

**Explanation:** The value for the named special variable exceeds the valid length.

**User response:** Special variables that are associated with SDSF commands cannot exceed the SDSF command length. Adjust the value of the special variable to the valid length.

---

**ISF741E      ERROR PROCESSING COMMAND '*command*' ASSOCIATED WITH VARIABLE *variable-name*, REASON: *reason-text*.**

**Explanation:** The value of the special variable *variable-name* was rejected with the indicated reason text. The command is not processed.

**User response:** Ensure that the syntax of the special variable *variable-name* conforms to the syntax required by the SDSF command *command-name*. The syntax of the commands is described in the online help.

---

**ISF742E      COLUMN *column-name* NAMED IN *variable-name* VARIABLE IGNORED, NOT FOUND IN CURRENT FIELD LIST.**

**Explanation:** The named column was not found in the current field list. A REXX variable will not be created with its value.

**User response:** Ensure the column name specified in *variable-name* are valid for the current field list. If the column is valid for the panel, but is found only on the alternate field list, use the ALTERNATE option on the SDSF host command used to invoke the panel. Refer to "Issuing commands with ISFEXEC" on page 395 for more information.

---

**ISF743E** VARIABLE *variable-name* HAS A DATA VALUE EXCEEDING *number* BYTES AND IS TOO LONG.

**Explanation:** The value of the special variable *variable-name* was rejected because the data value is too long. The associated command is not processed.

**User response:** Ensure that the syntax of the special variable *variable-name* conforms to the syntax required by the associated SDSF command. For the syntax of an SDSF command, see the online help.

---

**ISF744E** UNABLE TO FETCH REXX VARIABLE *variable-name*, IRXEXCOM SHVRET RETURN CODE *return-code*.

**Explanation:** SDSF was unable to read the value of *variable-name*. The IRXEXCOM service failed to fetch the variable with return code *return-code* for field SHVRET. The associated command will not be processed.

**User response:** Use the return code from the IRXEXCOM service as described in *z/OS TSO/E REXX Reference* to diagnose the error.

---

**ISF745E** ERROR PROCESSING '*command*', REASON: *reason-code*.

**Explanation:** SDSF was unable to run command. The error is described by *reason-code*.

**User response:** Use the reason code to diagnose the error. For syntax errors, correct the command format or the operands specified on a special variable. For authorization errors, ensure the user has the appropriate authority to the command.

---

**ISF746E** ACTION REQUEST REJECTED, ROW TOKEN INVALID.

**Explanation:** A row token referenced on an ISFACT command has failed a validity check. The action is not performed.

**User response:** The row token is created by the ISFEXEC command and must be passed unmodified to SDSF on the ISFACT command. Some of the conditions causing the token to become invalid are:

- The token has been modified or contains an invalid character
- The token does not correspond to the display being modified. For example, the token was generated for a row on the H panel but is being used on the O panel.
- The token was generated on a different level of SDSF than the one currently being run.
- The token was generated for a different use ID than the one performing the action.

---

**ISF747E** ACTION REQUEST REJECTED, ROW NOT FOUND.

**Explanation:** A row token referencing a row that no longer exists was encountered during processing of an ISFACT command. The requested action is not performed.

**User response:** None.

---

**ISF748E** ACTION REQUEST REJECTED, ROW NOT UNIQUE.

**Explanation:** A row token that references a row that is not unique was encountered during processing of an ISFACT command. The requested action is not performed.

**User response:** Obtain a new row token by running the ISFEXEC command again and retrying the ISFACT request.

---

**ISF749E** ACTION REQUEST REJECTED, *column-name* IS NOT MODIFIABLE.

**Explanation:** An attempt to modify a column that could not be modified was encountered during processing of an ISFACT command. The requested modification was not performed.

**User response:** Verify that the named column can be modified. You must be authorized to modify the column. For a list of columns, issue the COLSHELP command from any SDSF command line under ISPF.

---

**ISF750E** ACTION REQUEST REJECTED, *column-name* NOT FOUND IN CURRENT FIELD LIST.

**Explanation:** A column that is not in the current field list was encountered during processing of an ISFACT command. The request was not performed.

**User response:** Ensure that you have included the necessary option on the ISFACT command:

- If the column is in the alternate field list, use ALTERNATE or ALTERNATE2 (when the panel is accessed from another panel with an action character)
- If the column is a delayed-access column, use DELAYED or DELAYED2.

To find which columns are available in your REXX exec, access the panel and display the contents of the ISFCOLS or ISFCOLS2 special variable.

To display a list of columns that identifies which are delayed access, type COLSHelp in SDSF's help (ISPF only).

The system programmer can specify the columns that are included in the primary and alternate field lists



using ISFPARMS. Refer to “Variable field lists (FLD or ISFFLD)” on page 86 for more information.

---

**ISF751E**      **COLUMN** *column-name* **ACTION**  
**IGNORED, NO DATA PROVIDED.**

**Explanation:** Data to modify a column was null or all blanks when processing an ISFACT command. The request is ignored.

**User response:** Ensure that the data to be used to modify a column is non-blank.

---

**ISF752E**      **COLUMN** *column-name* **ACTION**  
**REJECTED, DATA LENGTH** *data-length*  
**EXCEEDS THE MAXIMUM OF**  
*maximum-length.*

**Explanation:** On an ISFACT command, the data to modify column *column-name* is too long. The request is rejected.

**User response:** Ensure that the length of the data to be modified does not exceed the maximum width for the field.

---

**ISF753E**      **ACTION REQUEST REJECTED,**  
**COMMAND** *command* **NOT**  
**ACCEPTABLE.**

**Explanation:** A command, *command*, that is not acceptable to ISFACT was encountered while processing the ISFACT command.

**User response:** Ensure that the command used on ISFACT is a command to access a tabular panel.

---

**ISF754I**      **COMMAND** '*command*' **GENERATED**  
**FROM ASSOCIATED VARIABLE**  
*variable-name.*

**Explanation:** The SDSF command *command* was run based on the data contained in the REXX special variable *variable-name*.

**User response:** None.

---

**ISF755E**      **HOST COMMAND NOT PROVIDED.**

**Explanation:** The REXX SDSF host command environment was invoked but no command was provided.

**User response:** Ensure that a command is passed to the SDSF host command environment.

---

**ISF756I**      **NO ACTIONS PERFORMED, ROW**  
**NOT MODIFIED.**

**Explanation:** No actions were provided or accepted for the row. The row has not been modified.

**User response:** None.

---

**ISF757I**      **VARIABLE** *variable-name* **BEING**  
**PROCESSED WITH VALUE** '*value*'.

**Explanation:** The indicated special variable has been retrieved and contains the indicated value.

**User response:** None.

---

**ISF758E**      **ERROR PROCESSING DATA**  
**ASSOCIATED WITH VARIABLE**  
*variable-name*, **REASON:** *reason-text.*

**Explanation:** An error occurred processing the data associated with the indicated variable. The reason is given by *reason-text*.

**User response:** The function is not performed.

---

**ISF759E**      **PRINT ERROR OCCURRED:** *error-text.*

**Explanation:** In the processing of a print request, an error occurred. The error is described by *error-text*.

**User response:** None.

---

**ISF760I**      **HOST COMMAND BEING**  
**PROCESSED:** *command.*

**Explanation:** SDSF has been invoked to process the REXX host command *command*.

**User response:** None.

---

**ISF761E**      **COLUMN** *column-name* **ACTION**  
**REJECTED, DATA VALUE** '*value*'  
**UNACCEPTABLE.**

**Explanation:** An action for a row was rejected because the modified data was unacceptable for the column. For example, the oertype extension character (+) was specified, and that is not valid in the REXX environment.

**User response:** Correct the data to be used to modify the column.

---

**ISF762I**      **COLUMN** *column-name* **ACTION**  
**REJECTED, VALUE** '*value*' **EXCEEDS**  
**THE MAXIMUM NUMBER OF**  
**VALUES OF** *max-values.*

**Explanation:** The number of values being used to modify the indicated column exceeds the maximum number of related values allowed for that column. The request is rejected.

**User response:** Correct the data so that the number of related values does not exceed the maximum number of values for the column. For more information, see the online help for overtyping columns on that panel.

---

**ISF763E** COLUMN *column-name* ACTION REJECTED, DATA VALUE '*value*' INVALID, REASON: *reason text*.

**Explanation:** An action taken against a row was rejected because the modified data failed a syntax check for the column. The reason is indicated by *reason-text*. For example, a syntax error can occur if the column is defined for numeric data but an attempt was made to modify it with non-numeric data.

**User response:** Correct the data to be used to modify the column.

---

**ISF764I** COMMAND '*command*' GENERATED FROM ASSOCIATED VARIABLE *variable-name*, STATUS: *status*.

**Explanation:** The SDSF command *command* was run based on the data contained in the REXX special variable *variable-name* with any completion status indicated in the status text.

**User response:** None.

---

**ISF765I** VARIABLE *variable-name* NOT DEFINED, DEFAULT VALUE '*value*' BEING USED.

**Explanation:** The named REXX variable was not found so the indicated value was applied as a default.

**User response:** None.

---

**ISF766I** REQUEST COMPLETED, STATUS: *completion-status*.

**Explanation:** An SDSF request has completed with the indicated status. The completion status is the text from the SDSF message area and also corresponds to the REXX special variable ISFMSG.

**User response:** None.

---

**ISF767I** REQUEST COMPLETED, STATUS: *completion-status*.

**Explanation:** An SDSF request has completed with no additional status. The REXX special variable ISFMSG contains no data.

**User response:** None.

---

**ISF769I** SYSTEM COMMAND ISSUED, COMMAND TEXT: *command-text*.

**Explanation:** A system command was issued with the ISFEXEC command *command* or the ISFSLASH command. The text of the command is shown in *command-text*.

**User response:** None.

---

**ISF770W** REQUEST LIMIT *limit* FROM VARIABLE *variable-name* REACHED.

**Explanation:** The limit for the number of requests, *limit*, set by special variable *variable-name*, has been reached.

**User response:** If necessary, change the limit.

---

**ISF771E** VARIABLE *variable-name* NOT ACCESSIBLE, PROCESSING TERMINATED.

**Explanation:** Variable *variable-name* does not exist or could not be fetched. Processing is stopped.

**User response:** Verify that the variable name is correct and exists.

---

**ISF772I** VARIABLE *variable-name* IGNORED, DOES NOT CONTAIN DATA.

**Explanation:** Variable *variable-name* does not contain any data and is skipped.

**User response:** Verify that the variable name is correct.

---

**ISF775E** VARIABLE *variable-name* NOT ACCEPTABLE, DOES NOT CONTAIN DATA.

**Explanation:** Variable *variable-name* has been fetched, but does not contain data. A value for this variable is required.

**User response:** Verify that the value for the variable is present.

---

**ISF776I** PROCESSING STARTED FOR ACTION *action-count* OF *total-count*.

**Explanation:** When processing actions or commands, SDSF started processing the action that is number *action-count* out of the total number, *total-count*.

**User response:** None required.

---

**ISF777E** STOP TIME AND DATE INCONSISTENT WITH START TIME AND DATE.

**Explanation:** A date range is not acceptable because the ending time and date is prior to the starting time and date.

**User response:** Correct the time and date range.

---

---

**ISF778I STOP REQUEST BEING PROCESSED.**

**Explanation:** SDSF is processing a stop request and will end.

**User response:** None required.

---

**ISF779E PARSING ERROR OCCURRED WHILE PROCESSING JSON REQUEST, RETURN CODE=*return-code*, REASON=*reason*.**

**Explanation:** A parsing error occurred while parsing a JSON document as described by *return-code* and *reason*. The document may not be well formed or may contain a syntax error. The document is not processed. The return-code is an internal code that can be used by IBM to diagnose the error.

**User response:** Correct the document and retry the request.

---

**ISF780E JSON PROPERTY *property-name* NOT RECOGNIZED OR NOT IN CORRECT CONTEXT.**

**Explanation:** A JSON document was being processed, and *property-name* was not recognized as a valid property, or the property is not a valid subproperty of an object. The document is not processed.

**User response:** Correct the document and retry the request.

---

**ISF781E JSON OBJECT NESTING LEVEL EXCEEDED.**

**Explanation:** A JSON document was being processed and too many levels of subproperties were found. The document was not processed.

**User response:** Correct the document and retry the request.

---

**ISF782W NO ROWS SATISFY REQUEST.**

**Explanation:** A request was received but constraints resulted in no rows being generated for the response.

**User response:** None.

---

**ISF783E ERROR OCCURRED GENERATING JSON DOCUMENT FOR REQUEST.**

**Explanation:** An unrecoverable error occurred in generating a document for a JSON response.

**User response:** Refer to additional messages that further describe the error.

---

---

**ISF784E VARIABLE *variable* REQUIRES SPECIFICATION OF VARIABLE *variable*.**

**Explanation:** A variable was specified that requires another variable that is missing. The request may fail or be processed as if neither variable were specified.

**User response:** Correct the error and retry the request.

---

**ISF785E VARIABLE *variable1* VALUE '*value*' MUST NOT BE LESS THAN VARIABLE *variable12* VALUE '*value*'.**

**Explanation:** The value in *variable1* is less than the value in *variable12*. This is not allowed.

**User response:** Correct the error and retry the request.

---

**ISF786E VARIABLE ISFFIND VALUE '*string*' WITH LENGTH *length* IS TOO LONG FOR SPECIFIED COLUMN RANGE *start-column* TO *end-column*.**

**Explanation:** The string specified in the ISFFIND variable is too long to fit within the specified column range.

**User response:** Correct the error and retry the request.

---

**ISF787E VARIABLE *variable* VALUE '*value*' EXCEEDS THE RECORD LENGTH OF THE DATA.**

**Explanation:** The value of variable *variable* is greater than the record length of the data that is being browsed. The request cannot be processed.

**User response:** Correct the error and retry the request.

---

**ISF788E VARIABLE *variable* IS IGNORED, IT CONTAINS A TOKEN THAT IS NOT VALID.**

**Explanation:** The value of variable *variable* is a token that is not valid. The request is processed as if the variable were not specified.

**User response:** Ensure that the token was not modified before you attempted to use it.

---

**ISF789E VARIABLE *variable* IS IGNORED, IT CONTAINS A TOKEN THAT IS NOT VALID IN THIS CONTEXT.**

**Explanation:** The value of variable *variable* is a token that is not valid for this request. The request is processed as if the variable were not specified.

**User response:** Ensure that the token was not modified before you attempted to use it. The variable that contains the token may not have been cleared

---

before it was set. To clear variables, use the ISFRESET function.

---

**ISF790E** THE VALUE SPECIFIED FOR VARIABLE *variable* IS NOT VALID ON THE *panel* PANEL.

**Explanation:** The value of variable *variable* is a token that is not valid for the current panel. The request cannot be processed.

**User response:** Correct the value that is in error. For the value that is in error, see the previous ISF757I message. For information about the valid values, use the SEARCH command or the REXXH command.

---

**ISF791E** VARIABLE *variable* IS IGNORED, THE TOKEN REPRESENTS A RECORD THAT NO LONGER EXISTS.

**Explanation:** The record represented by the token in variable *variable* does not exist. The request is specified as if the variable were not specified.

**User response:** None required.

---

**ISF792E** DATA NOT AVAILABLE, NOT AUTHORIZED TO COMMAND *command*.

**Explanation:** A request for data could not be satisfied. The request requires a command that you are not authorized to use.

**User response:** For authorization to the command, contact your security administrator.

---

**ISF793E** DATA NOT AVAILABLE, HEALTH CHECKER NOT ACTIVE ON SYSTEM *system-name*.

**Explanation:** A request for data could not be satisfied because IBM Health Checker for z/OS is not active on the indicated system.

**User response:** Contact your system programmer to activate IBM Health Checker for z/OS.

---

**ISF794W** MAXIMUM RESPONSE SIZE REACHED, ROWS *row-1* THROUGH *row-2* NOT PROCESSED.

**Explanation:** The size of the response exceeds the maximum allowed. Rows *row-1* through *row-2* are skipped. They are not included in the response.

**User response:** Use filters to limit the number of rows being selected, then try the request again.

---

**ISF800E** UNEXPECTED END OF FILE ENCOUNTERED PROCESSING STATEMENT NUMBER *number*.

**Explanation:** While processing a continuation statement, the end of file was reached.

**User response:** Use the log file to review the parameters. Correct the errors and process the parameters again.

---

**ISF801E** STATEMENT NUMBER *number* IS TOO LONG.

**Explanation:** SDSF parameter statement number *number* is longer than the maximum allowed length of 32756 characters.

**User response:** Use the log file to review the parameters. Ensure that a statement is not continued incorrectly. Correct the statement in error and process the parameters again.

---

**ISF802E** INPUT FILE IS EMPTY.

**Explanation:** The input file for processing SDSF parameters contained no parameters.

**User response:** Correct the input file and retry the request.

---

**ISF803E** COMMENT NOT CLOSED ON LINE NUMBER *number*.

**Explanation:** A comment opened on line number *number* was not closed. Comments must be complete on a single line.

**User response:** Use the log file to locate the line and close the comment.

---

**ISF804E** PROCESSING ENDED DUE TO I/O ERROR.

**Explanation:** Processing of SDSF parameters ended due to an input or output error. Either SDSF or the system may have issued additional messages describing the error.

**User response:** Use the messages to determine the cause of the I/O error.

---

**ISF805I** PREVIOUSLY PROCESSED *statement-type* AT STATEMENT *statement-number* BEING REPLACED.

**Explanation:** A statement of the same type has already been processed and will be replaced by the later statement. The statement being replaced is *statement-number*.

**User response:** None required. However, you should check your ISFPARMS to remove duplicate statements.

---

**ISF806E**     *parameter* VALUE *value* IS IN ERROR,  
INVALID SYNTAX SPECIFIED.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* contains invalid syntax.

**User response:** Correct the syntax.

---

**ISF807E**     *parameter* VALUE *value* IS TOO LONG,  
MAXIMUM LENGTH ALLOWED IS  
*maximum*.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is longer than the maximum allowed length, indicated by *maximum*.

**User response:** Correct the length of the value.

---

**ISF808E**     *parameter* VALUE *value* IS NOT  
NUMERIC.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is not numeric. It must be numeric.

**User response:** Correct the value.

---

**ISF809E**     *parameter* VALUE *value* IS TOO SMALL,  
MINIMUM VALUE ALLOWED IS  
*minimum*.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is smaller than the minimum allowed value, indicated by *minimum*.

**User response:** Correct the value.

---

**ISF810E**     *parameter* VALUE *value* IS TOO LARGE,  
MAXIMUM VALUE ALLOWED IS  
*maximum*.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is larger than the maximum allowed value, indicated by *maximum*.

**User response:** Correct the value.

---

**ISF811E**     *parameter* VALUE *value* IS INVALID.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is invalid.

**User response:** Correct the value.

---

**ISF812E**     *parameter* VALUE *value* IS AN INVALID  
SYSOUT CLASS.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is not a valid SYSOUT class. Valid classes are A-Z and 0-9.

**User response:** Correct the value.

---



---

**ISF813E**     *parameter* VALUE *value* CONTAINS  
INVALID HEXADECIMAL DIGITS.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* contains characters that are not valid hexadecimal digits. Valid hexadecimal digits are 0-9 and A-F.

**User response:** Correct the value.

---

**ISF814E**     *parameter* VALUE *value* IS TOO SHORT,  
MINIMUM LENGTH ALLOWED IS  
*minimum*.

**Explanation:** The value indicated by *value* in the parameter indicated by *parameter* is shorter than the minimum allowed length, indicated by *minimum*.

**User response:** Correct the value.

---

**ISF815E**     *parameter* VALUE *values* MUST HAVE  
DIFFERENT CHARACTERS FOR EACH  
VALUE.

**Explanation:** The values indicated by *values* are not unique. Each value specified on this parameter must be unique.

**User response:** Correct the values so that each is unique.

---

**ISF816E**     *first-parameter* IS MUTUALLY  
EXCLUSIVE WITH *second-parameter*.

**Explanation:** The parameters indicated by *first-parameter* and *second-parameter* cannot be used together.

**User response:** Delete one of the parameters.

---

**ISF817I**     GROUP INDEX *group-index-number*  
ASSIGNED TO GROUP *group-name*.

**Explanation:** The index number indicated by *group-index-number* is assigned to the group indicated by *group-name*. The name, *group-name*, is a name assigned by you with the NAME parameter, or, if NAME is omitted, it is a name assigned by SDSF.

**User response:** None required.

---

**ISF818I**     GROUP *group-name* REPLACES  
STATEMENT *statement-type*, GROUP  
INDEX IS *index-number* .

**Explanation:** A group named *group-name* has been encountered more than once; the latest occurrence replaces the previous occurrence. The index number assigned to the group is indicated by *index-number*. (The index indicates the group by a count of groups. For example, an index of 3 indicates the group defined by the third GROUP statement in ISFPARMS.)

**User response:** None required. You should check your parameters to remove duplicate group statements.

---

**ISF819I**      *statement-type* NAMED *name* REPLACES STATEMENT *number*.

**Explanation:** The statement named *name* has been encountered more than once. The latest occurrence replaces the previous occurrence.

**User response:** None required. You should check your parameters to remove duplicate statements.

---

**ISF820I**      *statement* NAMED *name* FOR *display1* DISPLAY CONFLICTS WITH PRIOR DEFINITION FOR *display2*.

**Explanation:** An FLD statement with the name *name*, for the indicated SDSF display, conflicts with an FLD statement for another display that has already been encountered.

**User response:** None required. You should check your parameters to remove duplicate statements.

---

**ISF821E**      *string* WAS EXPECTED BEFORE *string* ON LINE *line-number* COLUMN *column-number*.

**Explanation:** A syntax error has been encountered at the indicated line and column.

**User response:** Correct the statement.

---

**ISF822E**      *value* WAS SEEN ON LINE *line-number* COLUMN *column-number* WHERE ONE OF THE FOLLOWING WAS EXPECTED: *valid-values*.

**Explanation:** An invalid value, *value*, was found at the indicated line and column. The valid values are shown in *valid-values*.

**User response:** Correct the statement using one of the listed values.

---

**ISF823I**      INPUT SKIPPED UP TO THE NEXT *value*.

**Explanation:** A syntax error has occurred on a previously identified statement. SDSF is skipping to the indicated *value* to continue processing.

**User response:** Correct the statement in error.

---

**ISF824E**      *error-string* ON LINE *line-number* COLUMN *column-number* SHOULD BE DELETED.

**Explanation:** The character string *error-string* located on the indicated line and column is in error and should be deleted.

**User response:** Delete or correct the string in error.

---

**ISF825I**      *string* IS INSERTED BEFORE THE ERROR POINT.

**Explanation:** In response to previous syntax errors, SDSF has inserted a character string, *string* before the error in order to continue processing.

**User response:** Correct the error.

---

**ISF826E**      *statement* OFFSET OF *offset* IS TOO LONG FOR USE WITH STRING *string*, MAXIMUM COMBINED OFFSET AND STRING LENGTH IS *maximum*.

**Explanation:** In the indicated statement, the offset *offset*, when used with the string *string*, results in an invalid value for that statement. The maximum for the combination of the offset and string length is *maximum*.

**User response:** Correct the string or offset.

---

**ISF828E**      *first-statement* STATEMENT REQUIRED PRIOR TO THIS *second-statement*.

**Explanation:** You must include a statement of the type indicated by *first-statement* before the statement indicated by *second-statement*.

**User response:** Reorder or add statements to achieve the required order.

---

**ISF829E**      *first-value* AND *second-value* MUST HAVE DIFFERENT VALUES.

**Explanation:** The values indicated by *first-value* and *second-value* are the same. They must be different.

**User response:** Change one or both of the values so that they are different.

---

**ISF830E**      *parameter* VALUE IS TOO SHORT, VALUE MUST BE *required-length* BYTES BUT IS ONLY *actual-length*.

**Explanation:** The value specified for the indicated parameter is too short. The message indicates the required length of the value (*required-length*) and the length of the value that was actually specified (*actual-length*).

**User response:** Correct the value to be the required number of bytes.

---

**ISF831E**      *parameter* VALUE IS TOO LONG, VALUE MUST BE *required-length* BYTES BUT IS *actual-length*.

**Explanation:** The value specified for the indicated parameter is too long. The message indicates the required length of the value (*required-length*) and the

length of the value that was actually specified (*actual-length*).

**User response:** Correct the value to be the required number of bytes.

**ISF832I** *statement* **NAMED** *name* **CONFLICTS WITH PREVIOUS DEFINITION FOR** *statement*.

**Explanation:** The statement with the name *name* conflicts with another statement of a different type that has already been encountered.

**User response:** None required. You should review your statements to remove the conflict.

**ISF833E** **COLUMN** *column* **IS NOT VALID FOR THE** *display* **DISPLAY.**

**Explanation:** The indicated column has been specified with an FLDENT statement for a display on which it is not valid.

**User response:** Remove the FLDENT statement for that display, or change the display with which the FLDENT statement is associated.

**ISF834E** *string* **WAS EXPECTED BEFORE** *string* **IN STATEMENT** *statement-number*.

**Explanation:** A syntax error has been encountered at the indicated statement.

**User response:** Correct the statement.

**ISF835E** *value* **WAS SEEN IN STATEMENT** *statement* **WHERE ONE OF THE FOLLOWING WAS EXPECTED:** *valid-values*.

**Explanation:** An invalid value, *value*, was found at the indicated statement. The valid values are shown in *valid-values*.

**User response:** Correct the statement using one of the listed values.

**ISF836E** *parameter* **VALUE** *string* **IS IN ERROR, INVALID DATA SET NAME SYNTAX.**

**Explanation:** The indicated parameter specifies a data set name containing invalid syntax.

**User response:** Correct the data set name and retry the request.

**ISF837E** *parameter* **VALUE CONTAINS** *number* **CHARACTERS, BUT IT MUST BE EVEN.**

**Explanation:** The value specified on the indicated parameter is an odd number of characters; the value

must be an even number of characters.

**User response:** Correct the value to contain an even number of characters.

**ISF838E** *secondary-statement-type* **NAMED** *secondary-statement-name* **REFERENCED BY** *primary-statement-type* *primary-statement-name* **NOT FOUND.**

**Explanation:** A statement indicated by *primary-statement-type* *primary-statement-name* references a statement, *secondary-statement-type* *secondary-statement-name* that could not be found.

**User response:** Correct the parameters so that the group definition and the name of the referenced statement agree.

**ISF839I** *statement-type* **NAMED** *name* **IS NOT REFERENCED BY ANY OTHER STATEMENT.**

**Explanation:** The indicated statement is valid only when referred to by another statement. It was encountered, but no other statement referred to it.

**User response:** None required. However, if the statement is to be used, you must correct the parameters so that the statement name is referred to in a parameter in a group definition.

**ISF840I** *statement* **NAMED** *name* **CONTAINS NO ENTRIES.**

**Explanation:** The indicated statement contains no column or list entries. It is ignored.

**User response:** Delete or complete the statement.

**ISF841E** **GROUP** *group-name* **REFERENCES** *statementname* **WHICH IS AN INVALID TYPE FOR** *group-keyword*.

**Explanation:** The indicated group statement references a statement that is the wrong type.

**User response:** Correct one or both statements.

**ISF842E** *group-statement* **IN GROUP** *group-name* **IS FOR DISPLAY TYPE** *type* **BUT REFERENCES** *statement* **NAMED** *name* **FOR DISPLAY TYPE** *type*.

**Explanation:** The indicated group statement references a statement that is for the wrong SDSF display.

**User response:** Correct one or both statements.

---

**ISF843E**     *value* VALUE REQUIRED FOR THIS  
                  *statement* STATEMENT.

**Explanation:** The indicated statement is missing a required value.

**User response:** Complete the statement by adding the missing value.

---

**ISF844W**     *statement* VALUE *value* EXCEEDS THE  
                  MAXIMUM ALLOWED, CHANGED  
                  TO *new-value*.

**Explanation:** The indicated value in the indicated statement was greater than the maximum allowed; SDSF has changed the value to *new-value*.

**User response:** Correct the value to be less than or equal to the maximum allowed.

---

**ISF845W**     *statement* VALUE *value* TOO LONG FOR  
                  COLUMN WIDTH, TRUNCATED TO  
                  *number* CHARACTERS.

**Explanation:** The indicated value in the statement type indicated by *statement* is too long for the width of the column. It is truncated to fit the column.

**User response:** None required. To avoid truncation of the value, correct it to fit the column width, or lengthen the column.

---

**ISF846W**     NO GROUPS HAVE BEEN DEFINED.

**Explanation:** The ISFPARMS contained no GROUP statements. At least one GROUP statement is required.

**User response:** Add at least one GROUP statement to the ISFPARMS.

---

**ISF847I**     WHEN STATEMENT SELECTED FOR  
                  THIS SYSTEM.

**Explanation:** The WHEN statement has been selected for this system. All statements that follow the WHEN statement will be processed for this system, until another WHEN statement is encountered.

**User response:** None required.

---

**ISF848I**     WHEN STATEMENT DOES NOT  
                  MATCH THIS SYSTEM, FOLLOWING  
                  STATEMENTS SKIPPED UNTIL NEXT  
                  WHEN.

**Explanation:** The WHEN statement specified conditions that do not match the current system. Subsequent statements will be checked for syntax but not processed, until the next WHEN statement is found.

**User response:** None required.

---



---

**ISF849I**     *statement-name* STATEMENT NOT  
                  SELECTED DUE TO PREVIOUS WHEN  
                  STATEMENT.

**Explanation:** Because it follows a WHEN statement that contained conditions that were not met, the statement is checked for syntax but not otherwise processed.

**User response:** None required.

---

**ISF850E**     *primary-statement* CONTAINS NO  
                  *secondary-statement* ENTRIES.

**Explanation:** A statement, *primary-statement*, was encountered that requires other statements, *secondary-statement*, but no such statements followed it. The statement *primary-statement* is ignored.

**User response:** Either delete the statement *primary-statement*, or add the required statements indicated by *secondary-statement*.

---

**ISF851E**     LOCAL SERVER NOT DEFINED IN  
                  SERVER GROUP (SERVER NAME  
                  *server-name*, SYSTEM NAME  
                  *system-name*).

**Explanation:** A server group was defined for the indicated server on the indicated system, but the server group did not include the local server. A server group must include the local server. The local server is the currently executing server that is running on this system.

**User response:** Add a SERVER statement for the local server to the server group definition.

---

**ISF852I**     *statement-type* STATEMENT IGNORED,  
                  *statement-type* IN USE.

**Explanation:** An attempt was made to modify an initialization statement after the SDSF server was already active. The statement is ignored.

**User response:** To change a server group after the server group is in use, you can:

1. Make the change to ISFPARMS.
  2. End server communications with the MODIFY *server-name*, STOP,C,TERM command.
  3. Use the MODIFY *server-name*, REFRESH command to cause the new ISFPARMS to be processed.
- 

**ISF853E**     INSUFFICIENT SERVERS DEFINED IN  
                  SERVER GROUP.

**Explanation:** A SERVERGROUP statement was encountered, but there are not at least two SERVER statements following it. A server group must consist of at least two servers, including the local server. The server group is not defined.



**User response:** Correct the server group definition so that it includes at least two servers.

---

**ISF854E**      **NUMBER OF SERVERS IN SERVER GROUP** *number* **EXCEEDS THE MAXIMUM OF** *maximum*.

**Explanation:** A SERVERGROUP statement was encountered with more than the maximum number of allowed SERVER statements following it.

**User response:** Correct the server group definition so that it includes a valid number of servers.

---

**ISF855E**      **SERVER** *server-name* **DUPLICATES DEFINITION OF SERVER** *server-name* **ON STATEMENT** *statement-number* **FOR SYSTEM** *system-name*, **JESNAME** *jes-name*, **MEMBER** *member-name*.

**Explanation:** A duplicate definition has been detected in the server group for the indicated system, JES, and member. More than one server in the server group is defined as processing a system, JES and member. This is not allowed.

**User response:** Correct the server group definition in ISFPARMS.

---

**ISF856I**      **PARAMETER** *parameter* **IS OBSOLETE AND IS IGNORED.**

**Explanation:** An obsolete parameter has been encountered. It will be ignored.

**User response:** None required. To avoid seeing this message in the future, delete the parameter from ISFPARMS.

---

**ISF857E**      **COMMAND IS TOO LONG, MAXIMUM LENGTH ALLOWED IS** *maximum-length*.

**Explanation:** The command or parameter being processed causes the resulting command to exceed the valid maximum length.

**User response:** Ensure that the total length of the command conforms to the valid length.

---

**ISF858E**      **VALUE** '*value*' **IS NOT VALID, BEGINS WITH THE RESTRICTED CHARACTERS** *characters*.

**Explanation:** The value of an option is not valid because it has a prefix that consists of the restricted characters, *characters*. The option is not processed.

**User response:** Ensure that the value does not start with restricted characters. For example, the value of the REXX prefix option cannot start with ISF.

---

**ISF859E**      **COMMAND IS TOO SHORT, MINIMUM LENGTH ALLOWED IS** *minimum-length*.

**Explanation:** The command being processed is too short.

**User response:** Ensure that the command conforms to the valid length.

---

**ISF860I**      *statement* **STATEMENT IGNORED, NOT SUPPORTED IN THIS RELEASE.**

**Explanation:** The indicated statement in ISFPARMS has been ignored during ISFPARMS processing because it is not supported in this release of SDSF.

**User response:** None required, though you may want to remove the statement from ISFPARMS or use the WHEN statement to provide conditional processing of the statement.

---

**ISF861I**      **STATEMENT** *statement* **KEYWORD** *keyword* **IGNORED, NOT SUPPORTED IN THIS RELEASE.**

**Explanation:** The indicated keyword in ISFPARMS has been ignored during ISFPARMS processing because it is not supported in this release of SDSF.

**User response:** None required, though you may want to remove the keyword from ISFPARMS or use the WHEN statement to provide conditional processing of the statement that contains it.

---

**ISF862I**      **KEYWORD** *keyword* **VALUE** *value* **IGNORED, NOT SUPPORTED IN THIS RELEASE.**

**Explanation:** The indicated value in ISFPARMS has been ignored during ISFPARMS processing because it is not supported in this release of SDSF.

**User response:** None required, though you may want to change the value in ISFPARMS or use the WHEN statement to provide conditional processing of the statement that contains it.

---

**ISF863E**      *option* **IS REQUIRED WHEN** *keyword* **IS SPECIFIED.**

**Explanation:** The command keyword *keyword* requires that option *option* also be specified, but it was omitted. The command or statement is not processed.

**User response:** Correct the command.

---

**ISF864E**      **PROPERTY** *property* **VALUE CANNOT BE AN ARRAY.**

**Explanation:** A JSON document was being processed and *property* was recognized but its value was an array.

The property cannot define array values. The document was not processed.

**User response:** Correct the document and retry the request.

**ISF865E**      **PROPERTY *property* VALUE CANNOT BE NUMERIC.**

**Explanation:** A JSON document was being processed and *property* was recognized but its value was numeric. The property cannot define numeric values. The document was not processed.

**User response:** Correct the document and retry the request.

**ISF866E**      **PROPERTY *property* VALUE CANNOT BE BOOLEAN.**

**Explanation:** A JSON document was being processed and *property* was recognized but its value was Boolean. The property cannot define Boolean values. The document was not processed.

**User response:** Correct the document and retry the request.

**ISF867E**      *value-name1* **VALUE *value1* IS INCONSISTENT WITH *value-name2* VALUE *value2*.**

**Explanation:** The named values have dependencies that are inconsistent. For example, a starting value is greater than an ending value. The document is not processed.

**User response:** Correct the document and retry the request.

**ISF868E**      **PROPERTY *property-name* VALUE CANNOT BE A STRING.**

**Explanation:** In a JSON document, *property-name* was recognized. Its value was a string, but the property cannot define string values.

**User response:** Correct the document and retry the request.

**ISF901E**      **BINARY CONVERSION ERROR OCCURRED IN ISSUING AN SDSF MESSAGE.**

**Explanation:** In issuing an SDSF message, SDSF encountered a binary conversion error.

**User response:** Follow your local procedure to call IBM for service.

**ISF902E**      **INSERT OF AN INVALID TYPE WAS ENCOUNTERED IN AN SDSF MESSAGE.**

**Explanation:** In issuing an SDSF message, SDSF encountered a problem in inserting a value into a message.

**User response:** Follow your local procedure to call IBM for service.

**ISF903E**      **INVALID INSERT NUMBER WAS ENCOUNTERED IN AN SDSF MESSAGE.**

**Explanation:** In issuing an SDSF message, SDSF encountered a problem in inserting a value into a message.

**User response:** Follow your local procedure to call IBM for service.

**ISF904E**      **SDSF MESSAGE TOO LONG.**

**Explanation:** In issuing an SDSF message, SDSF encountered a message that exceeded the maximum allowed length.

**User response:** Follow your local procedure to call IBM for service.

**ISF905E**      **INCORRECT NUMBER OF INSERTS PASSED FOR AN SDSF MESSAGE.**

**Explanation:** In issuing an SDSF message, SDSF encountered a problem with inserting values into the message.

**User response:** Follow your local procedure to call IBM for service.

**ISF906E**      **SDSF MESSAGE NOT ISSUED, SDSF MESSAGE TABLE NOT LOADED.**

**Explanation:** SDSF could not issue a message because the message table containing the messages was not loaded.

**User response:** Follow your local procedure to call IBM for service.

**ISF908E**      **MESSAGE *message-number* LINE *line-number* NOT FOUND IN MESSAGE TABLE.**

**Explanation:** SDSF could not issue a message because the message or a line in the multi-line message was not found in the message table.

**User response:**

Follow your local procedure to call IBM for service.

---

**ISF912E**      **MESSAGE** *message-number* **REMOVED**  
**IN** *release: message-inserts*.

**Explanation:** Message *message-number* was removed in a previous release of SDSF, but SDSF attempted to issue it with the indicated inserts. *release* shows the version, release and FMID.

**User response:**

Message *message-number* is not issued. Follow your local procedures for contacting IBM for service.

---

**ISF922E**      **SDSF CONFIGURATION ERROR.**

**Explanation:** SDSF has been invoked incorrectly when running as an ISPF dialog.

**User response:** The system programmer should correct the invocation of SDSF. For an example of the statements needed to invoke SDSF from the ISPF main menu, refer to member ISF@PRI4 in data set ISF.SISFPLIB and “ISPF considerations” on page 364.

---

**ISF999I**      **DIAG:** *diagnostic-data*.

**Explanation:** SDSF has encountered an internal condition in which diagnostic data has been collected.

**User response:** Follow your local procedure for reporting a problem to IBM.

---

**ISF2001E**      **SDSF INVOCATION FAILED, RETURN**  
**CODE** *return-code*.

**Explanation:** The SDSF Java API attempted to perform an SDSF request, but the invocation failed with the indicated return code. The return codes are the standard SDSF return codes documented in the class description for ISFBase.

**User response:** To determine the source of the error, list the SDSF messages contained in the ISFRequestResults object used for the request.

---

**ISF2002E**      **COMMAND NOT PROVIDED.**

**Explanation:** A method was invoked that requires a command to be provided but the command was missing.

**User response:** Supply a command as required by the method parameters.

---

**ISF2003E**      **PROPERTY NAME ARRAY**  
**DIMENSION DIFFERENT THAN**  
**VALUE ARRAY DIMENSION.**

**Explanation:** The requestPropertyChange method was invoked to change the property of an object. However, the number of property names does not match the number of supplied property values.

**User response:** The property name array must

correspond one-to-one with the values supplied in the property value array. Correct the arrays that are passed in to the method.

---

**ISF2004E**      **PROPERTY NAME MISSING IN**  
**ARRAY ELEMENT** *element-number*.

**Explanation:** The requestPropertyChange method was invoked to change the property of an object. However, the number of property names does not match the number of supplied property values.

**User response:** Correct the property name array.

---

**ISF2005E**      **RESULTS OBJECT NOT PROVIDED.**

**Explanation:** SDSF was invoked to perform a function but the results object was not provided.

**User response:** Follow your local procedures for contacting IBM for support.

---

**ISF2006E**      **ROW TOKEN WAS NOT PROVIDED**  
**FOR OBJECT** *object-name*.

**Explanation:** An action was attempted against a row object, but the object does not contain a row token. The object name is the fixed field for the object. The action cannot be performed.

**User response:** Verify that the object was not modified in any way such that the action cannot be performed. Check that the nomodify request setting was not used when the object was originally retrieved.

---

**ISF2007E**      **ROW TOKEN WAS NOT PROVIDED**  
**FOR OBJECT** *object-name* **IN REPEAT**  
**LIST ENTRY** *entry-number*.

**Explanation:** An action was attempted against a row object using a repeat list, but the object does not contain a row token. The object name is the fixed field and the entry number is the position of the object in the repeat list.

**User response:** Verify that the object was not modified in any way such that the action cannot be performed. Check that the nomodify request setting was not used when the object was originally retrieved.

---

**ISF2008E**      **PROPERTY NAME ARRAY NOT**  
**PROVIDED.**

**Explanation:** The requestPropertyChange method was invoked to change the property of an object. However, the property name array was not provided.

**User response:** Supply the property name array.

---

---

**ISF2009E**    **PROPERTY VALUE ARRAY NOT PROVIDED.**

**Explanation:** The requestPropertyChange method was invoked to change the property of an object. However, the property value array was not provided.

**User response:** Supply the property value array.

---

**ISF2010E**    **PARAMETER *parameter-name* MUST HAVE THE VALUE *parameter-value*.**

**Explanation:** A method was invoked using *parameter-name*, but the required value was not provided.

**User response:** Verify the parameter values for the method are correct.

---

**ISF2011E**    **INCONSISTENT INDEXES IN SETTINGS, fromIndex, from-index, IS EQUAL TO toIndex, to-index.**

**Explanation:** The request settings have been used to specify a range of rows to return. However, the range indexes are not consistent because the from-index is equal to the to-index.

**User response:** Correct the request settings and retry the request.

---

**ISF2012E**    **INCONSISTENT INDEXES IN SETTINGS, fromIndex, from-index, IS GREATER THAN toIndex, to-index.**

**Explanation:** The request settings have been used to specify a range of rows to return. However, the range indexes are not consistent because the from-index is greater than the to-index.

**User response:** Correct the request settings and retry the request.

---

**ISF2101E**    **SDSF INTERNAL ERROR OCCURRED IN *class-name*#*method-name*, REASON=*reason-code*.**

**Explanation:** An internal error occurred in the indicated class and method.

**User response:** Follow your local procedures to contact IBM for support.

---

**ISF2102E**    **TRACE TABLE ENTRY TOO LARGE.**

**Explanation:** An error occurred processing an internal trace entry.

**User response:** Follow your local procedures to contact IBM for support.

---

---

**ISF2103E**    **TRACE TABLE TOO LARGE.**

**Explanation:** An error occurred processing the internal trace table.

**User response:** Follow your local procedures to contact IBM for support.

---

**ISF2104E**    **TRACE TABLE ENTRY TOO SMALL.**

**Explanation:** An error occurred processing an internal trace entry.

**User response:** Follow your local procedures to contact IBM for support.

---

**ISF2105E**    **TRACE TABLE TOO SMALL.**

**Explanation:** An error occurred processing the internal trace table.

**User response:** Follow your local procedures to contact IBM for support.

---

**ISF2106E**    **CANNOT CONVERT VALUE *value* WITH RESULT *result*.**

**Explanation:** An error occurred processing an internal trace entry.

**User response:** Follow your local procedures to contact IBM for support.

---

**ISF2201W**    **RESPONSE LIMIT IN EFFECT, *number* OF *total* OBJECTS RETURNED.**

**Explanation:** A request limit was set for the current request. The number of objects returned is limited by the request limit in ISFRequestSettings.

**User response:** None.

---

**ISF2202I**    **PROCESSING STARTED...**

**Explanation:** SDSF has started processing a request.

**User response:** None.

---

**ISF2203I**    **PROCESSING COMPLETED.**

**Explanation:** SDSF has finished processing a request.

**User response:** None.

---

**ISF2204E**    **VALUE NOT ALLOWED FOR OPTION "*option*".**

**Explanation:** A value was specified for option *option*, but the option does not accept values.

**User response:** Remove the value from the option and retry the request.

---

---

**ISF2205E** VALUE REQUIRED FOR OPTION  
"option".

**Explanation:** An option was specified without a value, but the option requires that a value be used.

**User response:** Add a value to the option and retry the request.

---

**ISF2206I** REPORT BEING WRITTEN TO  
*pathname*.

**Explanation:** A report has been requested and is being written to the named path.

**User response:** None.

---

**ISF2207E** UNABLE TO OPEN REPORT FILE  
*pathname*, REASON=*reason-text*.

**Explanation:** An error occurred attempting to open the report file using the named path. The report will be written to stdout.

**User response:** Ensure the path names a valid path for the report.

---

**ISF2208E** UNRECOGNIZED OPTION "option".

**Explanation:** An unknown option was specified.

**User response:** Correct the option and try the request again.

---

**ISF2209I** PARAMETERS IGNORED.

**Explanation:** A request was processed that does not accept parameters, but parameters were specified. The parameters are ignored and processing continues.

**User response:** Remove the unsupported parameters.

---

**ISF2210W** RESPONSE LIMIT IN EFFECT, *number*  
OBJECTS RETURNED.

**Explanation:** A response limit was set for the current request. The number of objects returned is limited by the response limit in ISFRequestSettings.

**User response:** None required.

---

## Messages for IBM Health Checker for z/OS

This section describes messages that are issued as output of SDSF's checks for IBM Health Checker for z/OS.

---

**ISFH1001I** SDSF server *server-name* is using  
statements from member *member-name* of  
data set *dataset-name*.

**Explanation:** The SDSF server is active and using the indicated parmlib member from the named data set.

**System action:** None.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

---

**ISFH1002I** SDSF server *server-name* is not active,  
parmlib statements are not being used.

**Explanation:** The SDSF server is not active. The use of the SDSF parmlib member ISFPRMxx requires that the SDSF server be active.

IBM recommends that you use parmlib member ISFPRMxx rather than assembler macro ISFPARMS to configure SDSF. The statements in ISFPRMxx are easier

to define and more dynamic than assembler macros. Some functions, such as sysplex support, are not available using the assembler macros.

**System action:** In a JES2 environment, SDSF uses the assembler macro ISFPARMS for configuration parameters. In a JES3 environment, SDSF assigns default values.

**Operator response:** None.

**System programmer response:** Consider migrating from the assembler macro ISFPARMS to parmlib member ISFPRMxx if you plan on changing any SDSF configuration values from their default settings.

**Problem determination:** None.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

---

**ISFH1003I** SDSF server *server-name* is active but  
parmlib statements are not being used.  
A possible syntax error in the  
statements may exist.

**Explanation:** The SDSF server is active but parmlib member ISFPRMxx is not being used to configure

SDSF. This may be because the SDSF server detected a syntax error in the configuration statements.

**System action:** In a JES2 environment, SDSF uses the assembler macro ISFPARMS for configuration parameters. In a JES3 environment, SDSF assigns default values.

**Operator response:** None.

**System programmer response:** Examine the server initialization log for errors in ISFPRMxx statements. Correct any errors that prevent the statements from being activated and then use the SDSF server refresh command to reprocess the statements.

**Problem determination:** None.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

**ISFH1004I** SDSF is not using parmlib statements for its configuration parameters. However, no values have been customized.

**Explanation:** SDSF is not using parmlib member ISFPRMxx for its configuration parameters, and SDSF-supplied defaults are being used for all values.

**System action:** If this is a JES2 environment, SDSF is using the assembler macro based ISFPARMS. No values have been changed in ISFPARMS. If this is a JES3 environment, SDSF is using default values and is not using the assembler macro based ISFPARMS.

**Operator response:** None.

**System programmer response:** If you plan on changing any SDSF configuration values from their default settings, use parmlib member ISFPRMxx for your configuration changes.

You can use the sample members ISFPRM00 and ISFPRM01 in ISF.SISFJCL to assist you in defining your configuration.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

**ISFH1005E** SDSF is using assembler macro ISFPARMS for its configuration parameters.

**Explanation:** SDSF is using the assembler macro based ISFPARMS for its configuration parameters rather than

parmlib member ISFPRMxx. ISFPARMS has been customized by the installation.

**System action:** None.

**Operator response:** None.

**System programmer response:** IBM recommends that you use parmlib member ISFPRMxx rather than assembler macro ISFPARMS to configure SDSF. The statements in ISFPRMxx are easier to define and more dynamic than assembler macros. Some functions, such as sysplex support, are not available using the assembler macros.

Consider migrating from the assembler macro ISFPARMS to parmlib member ISFPRMxx.

You can use the migration tool ISFACP, supplied with SDSF, to convert your existing ISFPARMS to the statement format required by parmlib member ISFPRMxx. You can also use the sample members ISFPRM00 and ISFPRM01 in ISF.SISFJCL to define your configuration.

After defining the configuration statements, refer to Chapter 3, "Using the SDSF server," on page 109 for the steps necessary to start the SDSF server and activate the configuration.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

**ISFH1006I** ISFPARMS module being analyzed has a service level of *service-level*, and a compile date and time of *compile-date compile-time*.

**Explanation:** ISFPARMS will be analyzed for installation customization changes. The service level, compile date, and compile time of the ISFPARMS module that has been found are listed.

This message is only issued when the check is running in verbose mode.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** Use the details from the message to determine that the intended level of ISFPARMS has been found on your system.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

---

**ISFH1007I** ISFPARMS group structure has been customized. No further analysis of ISFPARMS will be performed.

**Explanation:** The groups in ISFPARMS have been customized. Either the number of groups has been changed, or the group names have been changed from the defaults supplied by SDSF.

No further analysis of ISFPARMS will be performed to determine if other customizations are present.

**System action:** No further checking is done to determine which group keywords vary from the SDSF defaults.

**Operator response:** None.

**System programmer response:** Assess whether the customization is still required. Consider migrating from the assembler macro ISFPARMS to parmlib member ISFPRMxx if the configuration parameter is required.

You can use the migration tool ISFACP, supplied with SDSF, to convert your existing ISFPARMS to the statement format required by parmlib member ISFPRMxx. You can also use the sample members ISFPRM00 and ISFPRM01 in ISF.SISFJCL to define your configuration.

**Source:** z/OS SDSF Operation and Customization

**Module:** ISFHCPRM

**Reference documentation:** z/OS SDSF Operation and Customization

**Automation:** None.

---

**ISFH1008I** This check is not applicable since SDSF is not enabled for execution on this system.

**Explanation:** The IFAEDSTA service has indicated that SDSF is not enabled for execution on this system.

**System action:** The check is disabled and no further checking will be done.

**Operator response:** None.

**System programmer response:** If SDSF should be enabled, verify that the statements in the IFAPRDxx member of parmlib are correct.

**Problem determination:** None.

**Source:** z/OS MVS Initialization and Tuning Reference

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** z/OS MVS Initialization and Tuning Reference

---

**ISFH1009I** Load of ISFPARMS failed with abend code *abend-code* reason code *reason-code*. Analysis of ISFPARMS will not be performed.

**Explanation:** The load of the ISFPARMS module failed with the indicated abend and reason codes. In a JES3 environment in which the SDSF JES2 feature is not installed, ISFPARMS will not be present and this error can be ignored.

**System action:** No analysis of ISFPARMS can be done to determine if it has been customized.

**Operator response:** None.

**System programmer response:** Use the abend return and reason codes to determine why ISFPARMS cannot be loaded.

**Problem determination:** None.

**Source:** z/OS MVS System Codes

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** z/OS SDSF Operation and Customization

---

**ISFH1010R** ISFPARMS Customization Report

**Explanation:** Header line for SDSF\_ISFPARMS\_IN\_USE check.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** None.

---

**ISFH1011R** S Macro Name Parameter Changed  
Comments

**Explanation:** Header line for SDSF\_ISFPARMS\_IN\_USE check.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCPRM

**Automation:** None.

Reference documentation: None.

---

**ISFH1012R**    -----  
 -----

**Explanation:** Header line for SDSF\_ISFPARMS\_IN\_USE check.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** None.

---

**ISFH1013R**    *status macro name parameter changed*  
                   *comments*

**Explanation:** Detail line for SDSF\_ISFPARMS\_IN\_USE check.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** None.

---

**ISFH1014R**    **Total changes found:** *change-count*.

**Explanation:** Total line for SDSF\_ISFPARMS\_IN\_USE check.

**System action:** Processing continues.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** None.

---

**ISFH1015I**    **The class *class-name* is active.**

**Explanation:** The indicated SAF class is active, as recommended.

**System action:** None.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCPRM

**Automation:** None.

**Reference documentation:** None.

---

**ISFH1016E**    **The class *class-name* is not active.**

**Explanation:** The indicated SAF class is not active.

**System action:** If this is a JES2 environment, SDSF will use ISFPARMS to make authorization decisions related to the class. If this is a JES3 environment, requests for authorization that are related to the class will be denied.

**Operator response:** None.

**System programmer response:** IBM recommends that the security administrator activate this class and define profiles in it to protect use of SDSF function. In the JES3 environment, use of SAF security is required. The class should be activated and defined with the appropriate profiles so SDSF can be used with JES3.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCSAF

**Automation:** None.

**Reference documentation:** None.

---

**ISFH1017I**    **RACROUTE *request-type* completed. SAF**  
                   **return code *saf-return-code*, return code**  
                   ***return-code*, reason code *reason-code*.**

**Explanation:** The named RACROUTE request issued by the check has completed with the indicated return and reason codes. This message is only issued in debug mode.

**System action:** None.

**Operator response:** None.

**System programmer response:** None.

**Problem determination:** None.

**Source:** None.

**Module:** ISFHCSAF



## SDSF user abend codes

This section explains the codes that SDSF issues in the case of an abend. The entry for each abend code includes a brief description of the meaning of the code and a suggested response for the system programmer.

The SDSF abend codes are issued in the SDSF ABEND USER message described in Chapter 15, “SDSF messages and codes,” on page 505 (ISF012I). System abend codes are in the SDSF ABEND SYSTEM message (also ISF012I). See the appropriate system codes manual for information on system abend codes.

Table 222. SDSF Abend Codes

### Abend

| Code | Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0010 | SDSF was invoked in an inconsistent manner.<br><br><i>System Programmer Response:</i> Check that SDSF was not invoked using an incorrect entry point, such as a line mode invocation using an interactive entry point.                                                                                                                                                                                                                                                     |
| 0011 | The logical screen size was changed to less than the minimum width of 80 characters.<br><br><i>User Response:</i> Change the logical screen size to have a width of at least 80 characters.                                                                                                                                                                                                                                                                                |
| 0012 | SDSF detected a non-supported terminal. The terminal has a line length of less than 80 characters.<br><br><i>User Response:</i> Use a terminal with a line length of at least 80 characters.                                                                                                                                                                                                                                                                               |
| 0013 | An error has occurred opening a file. A read to the job file control block (JFCB) may have failed.<br><br><i>System Programmer Response:</i> Check for a JCL or hardware error. If you are running SDSF in batch, be sure you have allocated both ISFIN and ISFOUT.                                                                                                                                                                                                        |
| 0015 | A system initialization error has occurred.<br><br><i>System Programmer Response:</i> See an accompanying write-to-operator message for more information.                                                                                                                                                                                                                                                                                                                  |
| 0016 | During SDSF initialization, an include or exclude list was being processed that specified an ISFNTBL TYPE=DEST macro. However, the list being processed is not for destinations. SDSF initialization is terminated after all include and exclude lists are processed. Message ISF028E is issued to further describe the error.<br><br><i>System Programmer Response:</i> Ensure that the ISFNTBL macro is coded correctly for the include or exclude list being processed. |
| 0028 | An error was encountered while attempting to locate, retrieve, or process a SYSOUT data set record.<br><br><i>System Programmer Response:</i> Follow your local procedure to call IBM for service.                                                                                                                                                                                                                                                                         |
| 0031 | An invalid function code was passed to the SDSF I/O interface routine.<br><br><i>System Programmer Response:</i> Follow your local procedure to call IBM for service.                                                                                                                                                                                                                                                                                                      |
| 0032 | An unrecoverable error has occurred in an SDSF storage management routine. A storage request could not be satisfied.<br><br><i>System Programmer Response:</i> Follow your local procedure for reporting a problem to IBM.                                                                                                                                                                                                                                                 |
| 0041 | There is a logic error in the SDSF DA panel routine.<br><br><i>System Programmer Response:</i> Follow your local procedure to call IBM for service.                                                                                                                                                                                                                                                                                                                        |
| 0053 | A dynamic allocation error has occurred.<br><br><i>System Programmer Response:</i> See the associated write-to-operator message for more information.                                                                                                                                                                                                                                                                                                                      |

Table 222. SDSF Abend Codes (continued)

| Abend Code | Explanation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0061       | The initialization of SDSF under ISPF was unsuccessful. The support for ISPF might have been installed incorrectly, or SDSF might have been put into the TSO authorized command tables. SDSF cannot run from the TSO authorized command tables.<br><br><i>System Programmer Response:</i> Check the support for ISPF, and be sure that SDSF is not in the TSO authorized command tables.                                                                                                                                                                                                         |
| 0071       | The terminal has become disconnected, or there is a logic error in the terminal or display routine.<br><br><i>System Programmer Response:</i> None, if terminal has been disconnected. Otherwise, follow your local procedure to call IBM for service.                                                                                                                                                                                                                                                                                                                                           |
| 0072       | SDSF has abended because the Attention key was pressed.<br><br><i>User Response:</i> Reaccess SDSF.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 0073       | The menu data set is defective.<br><br><i>System Programmer Response:</i> If you have made changes to the menu data set, check the changes. If the problem cannot be found, you can replace the installed SDSF panel data set with the original panel data set on the SDSF distribution tape.                                                                                                                                                                                                                                                                                                    |
| 0080       | A SDSF initialization failure has occurred processing the JES2 checkpoint. Message ISF006I contains the explanatory information.<br><br><i>System Programmer Response:</i> See the accompanying write-to-operator message for information.                                                                                                                                                                                                                                                                                                                                                       |
| 0081       | The level of JES2 that SDSF was assembled for does not match the level of JES2 that is being executed.<br><br><i>System Programmer Response:</i> Ensure that SDSF has been assembled for the proper set of JES2 macro libraries for the execution system. If the JES2 macro libraries were not correct, reassemble SDSF for the correct JES2 macro libraries. See the accompanying ISF020E message for more information on JES2 levels. Also, check the SDSF library concatenations and the library authorizations to be sure the correct level of SDSF is being used.                           |
| 0082       | The level of the SDSF JES2 feature is not compatible with the level of the SDSF base code. This error may occur if maintenance is required by both the SDSF base and feature FMIDs but has been applied to only one of the FMIDs.<br><br><i>System Programmer Response:</i> Ensure that a consistent level of the SDSF load modules is being used. Check the Inklst data sets for compatible versions of the SISFLOAD and SISFMOD1 data sets. If maintenance has been applied to either SISFLOAD or SISFMOD1, ensure that any co-requisite relationships have been preserved when applying PTFs. |
| 0083       | ISFPARMS was found to not be generated at the current level.<br><br><i>System Programmer Response:</i> ISFPARMS was assembled using an incorrect macro level or with macros that do not correspond to this release. Reassemble ISFPARMS using the correct macro level.                                                                                                                                                                                                                                                                                                                           |
| 0091       | SDSF has detected an error return code during the execution of an ISPF service. SDSF execution has terminated.<br><br><i>System Programmer Response:</i> See the accompanying ISF039I message for more information.                                                                                                                                                                                                                                                                                                                                                                              |
| 0092       | A failure occurred when SDSF invoked an ISPF dialog service.<br><br><i>System Programmer Response:</i> See the accompanying ISF039I message for more information.                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 0093       | SDSF has detected an error return code during the execution of an ISPF service. SDSF execution has terminated.<br><br><i>System Programmer Response:</i> See the accompanying ISF039I message for more information.                                                                                                                                                                                                                                                                                                                                                                              |
| 0105       | A logic error has been encountered during SAF processing. Expected parameters were not available; SAF processing is unable to continue.<br><br><i>System Programmer Response:</i> Follow your local procedure to call IBM for service.                                                                                                                                                                                                                                                                                                                                                           |
| 0113       | An unexpected error has occurred.<br><br><i>System Programmer Response:</i> Follow your local procedure to call IBM for service.                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

Table 222. SDSF Abend Codes (continued)

**Abend**

**Code      Explanation**

0201 An unrecoverable error has occurred which causes the server to abend. The reason code indicates the cause for the error:

0001 Unable to obtain storage for the CAB

0002 Unable to obtain storage for the SAB

0003 Incorrect execution environment. The server is not running in the correct protect key. Verify that a PPT entry has been defined in the SCHEDxx member of the parmlib concatenation for program ISFHCTL.

0222 SDSF abended in response to the ABEND command.

*System Programmer Response:* The person who issued the ABEND command can print or display the dump that was requested.



---

## Appendix A. SDSF problem management

This topic is a guide to resolving problems with SDSF. It includes hints for observing and identifying a problem and a reference for managing problems.

---

### Observing and identifying a problem

The following are some questions you might ask yourself when you experience a problem with SDSF. They may help you to identify and resolve the problem, or to give needed information to IBM personnel at the IBM Support Center.

- Are you using new levels of JES, ISPF, or TSO? The problem may be in the relationship between SDSF and JES, ISPF, or TSO.
- Was any maintenance applied, or hardware change made, at the time the problem first appeared? The problem may be in the maintenance or hardware change.
- If maintenance has been applied recently, does SDSF run properly when it is removed? Again, the maintenance may have been improperly applied, or may itself have a problem.
- Are all users of SDSF affected by the problem, or just a few users?
- If it is a recurring problem, does it always show the same symptoms?

---

### Gathering information about a problem

Use this section when you need to gather information about a problem with SDSF, either to analyze the problem yourself, or to describe the problem to the IBM Support Center.

#### Dumps

SDSF requests an SDUMP whenever an abend occurs. This dump will be written to the SYS1.DUMPxx data sets. If the Dump Analysis and Elimination (DAE) component is active, duplicate dumps will be suppressed

When sending module listings to IBM along with a dump, be sure that the module listings have the same date as the date of the modules in the dump.

#### Trace

The trace facility is used to create trace records containing key environmental data useful for servicing SDSF. Trace records can be written to either a SYSOUT file or a wraparound DASD data set from strategic points throughout the SDSF code.

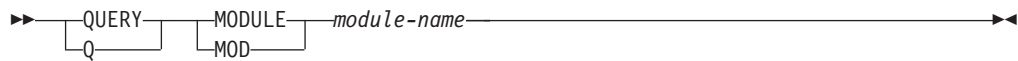
The trace facility is intended to be used under the direction of IBM Service.

#### Module information

Use the commands under the direction of IBM Service to gather module level and compile information.

##### SDSF client

To gather information on the SDSF client, use the QUERY MODULE command. The syntax is as follows:



*module-name*

is the name of the SDSF module. The module must be in ISFVTBL or currently be loaded.

### SDSF server

To gather information on the SDSF server, use the MODIFY command. The syntax is as follows:

#### Display Server Options



*module-name*

is the name of the SDSF module. The module must be in ISFVTBL or currently be loaded.

## SDSF problem index

### Problems with the Repeat-Find PF keys (PF5 and PF17)

If you use the Repeat-Find PF keys under ISPF and they don't invoke the Repeat Find function, the problem may be that the SDSF table library was not concatenated correctly with the ISPF table libraries. You may also see the ISPF message RFIND NOT ACTIVE to indicate this. The SDSF Repeat-Find key should be defined as IFIND.

### Problems with the LOG, RETRIEVE and TUTOR commands

If you issue a LOG, RETRIEVE, or TUTOR command from ISPF and it does not invoke the SDSF LOG, RETRIEVE, or tutorial function, the problem may be that the SDSF table library was not concatenated correctly with the ISPF table libraries.

### Users are experiencing authorization problems

If users are incorrectly being denied authorization to issue commands or access data sets, there are several possible explanations:

- The users are being placed in the wrong authorization group. Have the users issue the WHO command to display their authorization group index, and check the ISFGRP, ISFNTBL, and ISFFLD macros in ISFPARMS or the GROUP, NTBL, and FLD initialization statements to see that they are coded correctly. In ISFPARMS, be sure that you have used commas and continuation characters correctly with macros that occupy more than one line. (The index indicates the group by a count of groups. For example, an index of 3 indicates the group defined by the third GROUP statement in ISFPARMS.)

Also, if the problem is with issuing MVS or JES2 commands from the command line, check the CMDAUTH parameter for that group. For users to issue MVS or JES2 commands from the command line, ALL must have been specified for CMDAUTH for their group. See the description of the CMDAUTH parameter in "Group authorization parameters (GROUP or ISFGRP)" on page 34.

- For SAF users, SAF resources were not authorized properly. See Chapter 7, “Protecting SDSF functions,” on page 223 for more information on authorizing users to use commands, action characters, overtypable fields, and jobs using the SAF interface.
- The user exit module, ISFUSER, contains errors. Check any authorization code you have added to the user exit. For more information see Chapter 9, “Using installation exit routines,” on page 345.

If the authorization macros and the user exit appear to be coded correctly, follow your local procedures for calling the IBM Support Center. Have the following documentation ready:

- A description of the panel being used and the action being performed when the problem occurred
- A listing of the authorization parameters, and a listing of the user exit routine, if you have written one
- Output from SDSF trace with mask X'C000'.

## **SDSF has abended**

If the abend message and code, along with the explanations in the documentation, don't provide you with enough information to resolve the problem, follow your local procedure for calling IBM. Use the ABEND keyword to describe the problem and have the following documentation ready:

- A description of the panel being used and the operation being performed when the abend occurred.
- A record of any messages and abend codes issued. An error message at the system console includes such information as the name of the failing module and the contents of the registers.
- A dump. SDSF should have requested a dump be sent to a SYS1.DUMP data set.
- If the problem is related to the SYSLOG panel, a dump of the SDSF SYSLOG index and a listing of the SYSLOG messages.
- Output from SDSF trace with mask X'C000'.

## **Documentation is incorrect**

Determine whether the problem directly affects your ability to use SDSF. If the problem does directly affect your ability to use SDSF, follow your local procedures for reporting a problem to IBM. Use the DOC keyword when calling IBM.

If the problem does not directly affect your ability to use SDSF, fill out and mail the Readers' Comment Form that is at the back of this manual, or write to the address shown in the edition notice at the front of this manual.

## **An SDSF message is incorrect**

Follow your local procedure for calling IBM. Have the following documentation ready, using the MSG keyword to describe the problem:

- A description of the panel being used and the operation being performed when the message was received
- A record of the incorrect message

## A message was not found in the tutorial

If you get an ISPF message indicating that ISPF could not find an SDSF tutorial message, check to see that the SDSF message library, ISF.SISFMLIB, is concatenated to the ISPF message library.

## Data on an SDSF panel is garbled or incorrect

Verify your ISFPARMS assembly condition code. Also, ensure that the SDSF panel library is concatenated correctly.

If the panel library is concatenated correctly, follow your local procedure for calling IBM. Have the following documentation of the problem ready:

- A printout of the screen. To print the screen, use the PRINT SCREEN command if you entered SDSF through TSO, or the ISPF PRINT-HI command if you entered SDSF through ISPF.

## RMF exit is not installed

If you are trying to use the sysplex DA support and receive the message RMF Exit Is Not Installed, SDSF has not been properly defined to RMF.

SDSF supplies an exit module that must be accessible to the RMF started task. The exit module may reside in the linklst, lpa, or in a steplib defined to the RMF started task. The error message is issued when RMF attempts to load the exit routine but it is not found.

If you are running RMF and want to use the sysplex DA function in SDSF, modules in the SISFLOAD data set must be made accessible to the RMF started task on each system in the sysplex.

If you installed ISF.SISFLOAD in the link list or link pack area, no action is necessary. RMF will be able to load the SDSF modules it needs from the LNKLIST or LPA.

If you are running SDSF in a TSO STEPLIB, you will need to add a steplib to the RMF started task procedure. Add the following statement to your RMF procedure JCL for each system in the sysplex:

```
//STEPLIB DD DSN=ISF.SISFLOAD,DISP=SHR
```

## Communication problems within a server group

Possible causes of communications problems between SDSF servers or between a server are:

- Network connectivity problems. Follow your local procedures for diagnosing network problems.
- WebSphere MQ errors. When a WebSphere MQ error is detected, SDSF issues a message that may contain the return and reason code for the function being performed.
- Timeouts. These occur when the server does not respond in a specified time. This may be normal if the system is heavily loaded or if a large volume of data is requested. If the default timeout is too small, increase it with the TIMEOUT parameter in ISFPARMS. Users can increase the timeout with the SET TIMEOUT command. Users can also reduce timeouts by requesting less data. For example, when accessing the PR panel, they can request data only for specific printers by using parameters on the PR command.



It may be that the server has not responded because:

- The target JES is not in the same MAS as the user, or the target system is not in the same sysplex. The server group definition needs to be changed to correct this. See “Server group definition parameters (SERVERGROUP, SERVER, COMM)” on page 28 for details on defining a server group.
- The server is stopped. Ensure the server is active by issuing this command:  
`F server,D,C`
- There is a problem with the WebSphere MQ configuration. Ensure that WebSphere MQ channels are properly defined and started. See “WebSphere MQ considerations” on page 361 for information on configuring WebSphere MQ.
- Inconsistent levels of JES2. Ensure SDSF has been reassembled on the target system as described in Chapter 10, “Installation and configuration considerations,” on page 355.



---

## Appendix B. SAF equivalents for ISFPARMS

You can use this topic as a guide when providing SAF security for the function provided by ISFGRP parameters in ISFPARMS or GROUP statements. The tables list all of the parameters that can be coded on the ISFGRP macro or GROUP statement, except the parameters for the variable field lists.

The parameters and their values are shown with the corresponding SAF equivalent that can be used to protect the function. Some parameters are not related to security and must be specified in the ISFGRP macro or GROUP statement.

For details of the security interface used with SAF, refer to Chapter 5, "Using SAF for security," on page 203.

---

### ACTION

SDSF initialization function. Not applicable to SAF.

---

### ACTIONBAR

SDSF initialization function. Not applicable to SAF.

---

### APPC

SDSF initialization function. Not applicable to SAF.

---

### AUPDT

SDSF initialization function. Not applicable to SAF.

---

### AUTH=ABEND

| Class | Access | SDSF Resource Name | Description                                      |
|-------|--------|--------------------|--------------------------------------------------|
| SDSF  | READ   | ISFCMD.MAINT.ABEND | Gives user authority to issue the ABEND command. |

---

### AUTH=ACTION

| Class | Access | SDSF Resource Name   | Description                                       |
|-------|--------|----------------------|---------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.ACTION | Gives user authority to issue the ACTION command. |

---

### AUTH=ALL

| Class | Access | SDSF Resource Name | Description                                     |
|-------|--------|--------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.**          | Gives user authority to issue any SDSF command. |

---

## AUTH=ALLOPER

---

| Class | Access | SDSF Resource Name                                                                                                                                                                                                        | Description                                              |
|-------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.*<br>ISFCMD.ODSP.*<br>ISFCMD.FILTER.ACTION<br>ISFCMD.FILTER.DEST<br>ISFCMD.FILTER.FINDLIM<br>ISFCMD.FILTER.OWNER<br>ISFCMD.FILTER.PREFIX<br>ISFCMD.FILTER.RSYS<br>ISFCMD.FILTER.SYSID<br>ISFCMD.FILTER.SYSNAME | Gives user authority to issue any SDSF operator command. |

---

---

## AUTH=ALLUSER

---

| Class | Access | SDSF Resource Name | Description                                              |
|-------|--------|--------------------|----------------------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.*       | Gives user authority to issue any SDSF end user command. |

---

---

## AUTH=APF

---

| Class | Access | SDSF Resource Name             | Description                                    |
|-------|--------|--------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.APF. <i>system</i> | Gives user authority to issue the APF command. |

---

---

## AUTH=AS

---

| Class | Access | SDSF Resource Name            | Description                                   |
|-------|--------|-------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.AS. <i>system</i> | Gives user authority to issue the AS command. |

---

---

## AUTH=CK

---

| Class | Access | SDSF Resource Name                  | Description                                   |
|-------|--------|-------------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.HCHECKER. <i>system</i> | Gives user authority to issue the CK command. |

---

---

## AUTH=DA

---

| Class | Access | SDSF Resource Name             | Description                                   |
|-------|--------|--------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.ACTIVE. <i>jesx</i> | Gives user authority to issue the DA command. |

---

---

## AUTH=DEST

| Class | Access | SDSF Resource Name            | Description                                                                                                                                                                         |
|-------|--------|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.DEST            | Gives user authority to issue the DEST command. Destination names specified are also checked for authority.                                                                         |
| SDSF  | READ   | ISFOPER.ANYDEST. <i>jesx</i>  | Equivalent to DEST for the AUTH parameter, with no DEST parameter. Users authorized to the DEST command and to this resource can issue the DEST command using any destination name. |
| SDSF  | READ   | ISFAUTH.DEST. <i>destname</i> | Equivalent to DEST for the AUTH parameter, with a DEST parameter. In the SAF resource, <i>destname</i> is a destination name specified through the DEST parameter.                  |

---

## AUTH=DYNX

| Class | Access | SDSF Resource Name              | Description                                     |
|-------|--------|---------------------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.DYNX. <i>system</i> | Gives user authority to issue the DYNX command. |

---

## AUTH=ENC

| Class | Access | SDSF Resource Name                 | Description                                    |
|-------|--------|------------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.ENCLAVE. <i>system</i> | Gives user authority to issue the ENC command. |

---

## AUTH=ENQ

| Class | Access | SDSF Resource Name                 | Description                                    |
|-------|--------|------------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.ENQUEUE. <i>system</i> | Gives user authority to issue the ENQ command. |

---

## AUTH=FINDLIM

| Class | Access | SDSF Resource Name    | Description                                        |
|-------|--------|-----------------------|----------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.FINDLIM | Gives user authority to issue the FINDLIM command. |

---

## AUTH=H

| Class | Access | SDSF Resource Name           | Description                                  |
|-------|--------|------------------------------|----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.HELD. <i>jesx</i> | Gives user authority to issue the H command. |

---

## AUTH=I

---

| Class | Access | SDSF Resource Name    | Description                                  |
|-------|--------|-----------------------|----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.INPUT.jesx | Gives user authority to issue the I command. |

---

## AUTH=INIT

---

| Class | Access | SDSF Resource Name         | Description                                     |
|-------|--------|----------------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.INITIATOR.jesx | Gives user authority to issue the INIT command. |

---

## AUTH=INPUT

---

| Class | Access | SDSF Resource Name  | Description                                      |
|-------|--------|---------------------|--------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.INPUT | Gives user authority to issue the INPUT command. |

---

## AUTH=JC

---

| Class | Access | SDSF Resource Name        | Description                                   |
|-------|--------|---------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.JOBCLASS.jesx | Gives user authority to issue the JC command. |

---

## AUTH=JG

---

| Class | Access | SDSF Resource Name    | Description                                   |
|-------|--------|-----------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.GROUP.jesx | Gives user authority to issue the JG command. |

---

## AUTH=J0

---

| Class | Access | SDSF Resource Name    | Description                                   |
|-------|--------|-----------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.JOB0.jesx | Gives user authority to issue the J0 command. |

---

## AUTH=LI

---

| Class | Access | SDSF Resource Name    | Description                                   |
|-------|--------|-----------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.LINE.jesx | Gives user authority to issue the LI command. |

---

---

## AUTH=LNK

---

| Class | Access | SDSF Resource Name             | Description                                    |
|-------|--------|--------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.LNK. <i>system</i> | Gives user authority to issue the LNK command. |

---

---

## AUTH=LOG

---

| Class | Access | SDSF Resource Name              | Description                                    |
|-------|--------|---------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.SYSLOG. <i>jesx</i> | Gives user authority to issue the LOG command. |

---

---

## AUTH=LPA

---

| Class | Access | SDSF Resource Name             | Description                                    |
|-------|--------|--------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.LPA. <i>system</i> | Gives user authority to issue the LPA command. |

---

---

## AUTH=MAS

---

| Class | Access | SDSF Resource Name           | Description                                    |
|-------|--------|------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.MAS. <i>jesx</i> | Gives user authority to issue the MAS command. |

---

---

## AUTH=NC

---

| Class | Access | SDSF Resource Name          | Description                                   |
|-------|--------|-----------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.NC. <i>jesx</i> | Gives user authority to issue the NC command. |

---

---

## AUTH=NO

---

| Class | Access | SDSF Resource Name            | Description                                   |
|-------|--------|-------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.NODE. <i>jesx</i> | Gives user authority to issue the NO command. |

---

---

## AUTH=NS

---

| Class | Access | SDSF Resource Name          | Description                                   |
|-------|--------|-----------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.NS. <i>jesx</i> | Gives user authority to issue the NS command. |

---

---

## AUTH=O

| Class | Access | SDSF Resource Name             | Description                                  |
|-------|--------|--------------------------------|----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.OUTPUT. <i>jesx</i> | Gives user authority to issue the O command. |

---

---

## AUTH=PAG

| Class | Access | SDSF Resource Name              | Description                                    |
|-------|--------|---------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.PAGE. <i>system</i> | Gives user authority to issue the PAG command. |

---

---

## AUTH=PARM

| Class | Access | SDSF Resource Name                 | Description                                     |
|-------|--------|------------------------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.PARMLIB. <i>system</i> | Gives user authority to issue the PARM command. |

---

---

## AUTH=PR

| Class | Access | SDSF Resource Name               | Description                                   |
|-------|--------|----------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.PRINTER. <i>jesx</i> | Gives user authority to issue the PR command. |

---

---

## AUTH=PREF

| Class | Access | SDSF Resource Name   | Description                                       |
|-------|--------|----------------------|---------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.PREFIX | Gives user authority to issue the PREFIX command. |

---

---

## AUTH=PROC

| Class | Access | SDSF Resource Name               | Description                                     |
|-------|--------|----------------------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.PROCLIB. <i>jesx</i> | Gives user authority to issue the PROC command. |

---

---

## AUTH=PS

| Class | Access | SDSF Resource Name                 | Description                                   |
|-------|--------|------------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.PROCESS. <i>system</i> | Gives user authority to issue the PS command. |

---



---

## AUTH=PUN

---

| Class | Access | SDSF Resource Name             | Description                                    |
|-------|--------|--------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.PUNCH. <i>jesx</i> | Gives user authority to issue the PUN command. |

---

---

## AUTH=RDR

---

| Class | Access | SDSF Resource Name              | Description                                    |
|-------|--------|---------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.READER. <i>jesx</i> | Gives user authority to issue the RDR command. |

---

---

## AUTH=RES

---

| Class | Access | SDSF Resource Name                  | Description                                    |
|-------|--------|-------------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.RESOURCE. <i>system</i> | Gives user authority to issue the RES command. |

---

---

## AUTH=RM

---

| Class | Access | SDSF Resource Name              | Description                                   |
|-------|--------|---------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.RESMON. <i>jesx</i> | Gives user authority to issue the RM command. |

---

---

## AUTH=RSYS

---

| Class | Access | SDSF Resource Name | Description                                     |
|-------|--------|--------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.RSYS | Gives user authority to issue the RSYS command. |

---

---

## AUTH=SE

---

| Class | Access | SDSF Resource Name               | Description                                   |
|-------|--------|----------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.SCHENV. <i>system</i> | Gives user authority to issue the SE command. |

---

---

## AUTH=SO

---

| Class | Access | SDSF Resource Name          | Description                                   |
|-------|--------|-----------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.SO. <i>jesx</i> | Gives user authority to issue the SO command. |

---

---

## AUTH=SP

---

| Class | Access | SDSF Resource Name             | Description                                   |
|-------|--------|--------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.SPOOL. <i>jesx</i> | Gives user authority to issue the SP command. |

---

---

## AUTH=SR

---

| Class | Access | SDSF Resource Name            | Description                                   |
|-------|--------|-------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.SR. <i>system</i> | Gives user authority to issue the SR command. |

---

---

## AUTH=ST

---

| Class | Access | SDSF Resource Name             | Description                                   |
|-------|--------|--------------------------------|-----------------------------------------------|
| SDSF  | READ   | ISFCMD.DSP.STATUS. <i>jesx</i> | Gives user authority to issue the ST command. |

---

---

## AUTH=SYS

---

| Class | Access | SDSF Resource Name                | Description                                    |
|-------|--------|-----------------------------------|------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.SYSTEM. <i>system</i> | Gives user authority to issue the SYS command. |

---

---

## AUTH=SYSID

---

| Class | Access | SDSF Resource Name  | Description                                      |
|-------|--------|---------------------|--------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.SYSID | Gives user authority to issue the SYSID command. |

---

---

## AUTH=SYSNAME

---

| Class | Access | SDSF Resource Name    | Description                                        |
|-------|--------|-----------------------|----------------------------------------------------|
| SDSF  | READ   | ISFCMD.FILTER.SYSNAME | Gives user authority to issue the SYSNAME command. |

---

---

## AUTH=TRACE

---

| Class | Access | SDSF Resource Name | Description                                      |
|-------|--------|--------------------|--------------------------------------------------|
| SDSF  | READ   | ISFCMD.MAINT.TRACE | Gives user authority to issue the TRACE command. |

---

---

## AUTH=ULOG

---

| Class | Access | SDSF Resource Name            | Description                                     |
|-------|--------|-------------------------------|-------------------------------------------------|
| SDSF  | READ   | ISFCMD.ODSP.ULOG. <i>jesx</i> | Gives user authority to issue the ULOG command. |

---

---

## BROWSE

SDSF initialization function. Not applicable to SAF.

---

## CMDAUTH=DEST

---

| Class  | Access | SDSF Resource Name                                                           | Description                                                                                                                                                                                       |
|--------|--------|------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF   | READ   | ISFOPER.DEST. <i>jesx</i>                                                    | SDSF does further checking for authority to jobs and output based on destination (destination operator authority).                                                                                |
| SDSF   | ALTER  | ISFAUTH.DEST. <i>destname</i>                                                | Used with the above ISFOPER.DEST. <i>jesx</i> resource, is equivalent to DEST for CMDAUTH with a DEST parameter, when <i>destname</i> is a destination name specified through the DEST parameter. |
| WRITER | ALTER  | <i>jesx</i> .LOCAL. <i>devicename</i><br><i>jesx</i> .RJE. <i>devicename</i> | Authorizes user to specific LOCAL or RJE printers or punches based on <i>devicename</i> .                                                                                                         |

---

---

## CMDAUTH=DISPLAY

---

| Class    | Access | SDSF Resource Name                                                                               | Description                                                                                                          |
|----------|--------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid</i><br><i>node.userid.jobname.jobid</i> .<br>GROUP. <i>ogroupid</i> | Gives users authority to issue D and L action characters for any job or output group to which they have READ access. |

---

---

## CMDAUTH=GROUP

---

| Class    | Access | SDSF Resource Name                                                                               | Description                                                                                                                                                         |
|----------|--------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | ALTER  | <i>node.userid.jobname.jobid</i><br><i>node.userid.jobname.jobid</i> .<br>GROUP. <i>ogroupid</i> | Equivalent to GROUP for CMDAUTH, when <i>jobname</i> is the group prefix. (With structured TSO user IDs, you can specify <i>userid</i> instead of <i>jobname</i> .) |

---

---

## CMDAUTH=INIT

---

| Class | Access  | SDSF Resource Name                  | Description                                                                 |
|-------|---------|-------------------------------------|-----------------------------------------------------------------------------|
| SDSF  | CONTROL | ISFINIT.I( <i>xx</i> ). <i>jesx</i> | Equivalent to INIT for CMDAUTH, when <i>xx</i> is the initiator identifier. |

---

---

## CMDAUTH=NOTIFY

No direct SAF equivalent. To provide comparable authority, see “Providing function comparable to NOTIFY authority” on page 263.

---

## CMDAUTH=MSG

Logging of user access to resources is controlled by the security product.

---

## CMDAUTH=USERID

---

| Class    | Access | SDSF Resource Name                                                                      | Description                                                                                                                                                                                                        |
|----------|--------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | ALTER  | <i>node.userid.jobname.jobid</i><br><i>node.userid.jobname.jobid.</i><br>GROUP.ogroupid | Equivalent to USERID for CMDAUTH, when <i>userid</i> is the name of the job the user is trying to access. (Even when no profiles are defined in the JESSPOOL class, users are authorized to output that they own.) |

---

---

## CMDAUTH=ALL

---

| Class  | Access | SDSF Resource Name                                         | Description                                                                                                                                                                      |
|--------|--------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF   | READ   | ISFOPER.SYSTEM                                             | Gives user authority to issue the SDSF / command. When used in conjunction with OPERCMDS profiles, the system (MVS or JES2) checks authority to the MVS or JES2 commands issued. |
| SDSF   | READ   | ISFOPER.DEST. <i>jesx</i>                                  | SDSF does further checking for authority to jobs and output based on destination (destination operator authority).                                                               |
| SDSF   | ALTER  | ISFAUTH.DEST. <i>destname</i>                              | Used with the above ISFOPER.DEST. <i>jesx</i> resource, is equivalent ALL for CMDAUTH, with no DEST parameter. Use generic profiles to give authority to all jobs and output.    |
| WRITER | ALTER  | <i>jesx.LOCAL.devicename</i><br><i>jesx.RJE.devicename</i> | Use generic profiles to give authority to all printers and punches.                                                                                                              |
| SDSF   | ALTER  | ISFINIT.I( <i>xx</i> ). <i>jesx</i>                        | Use generic profiles to give authority to all initiators.                                                                                                                        |

---

---

## CMDLEV

| Class      | Access | SDSF Resource Name                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Description                                                                                                  |
|------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| SDSF       | UPDATE | ISFATTR.JOB. <i>field</i><br>ISFATTR.OUTPUT. <i>field</i><br>ISFATTR.OUTDESC. <i>field</i><br>ISFATTR.CHECK. <i>field</i><br>ISFATTR.ENCLAVE. <i>field</i><br>ISFATTR.JOBCL. <i>field</i><br>IISFATTR.LINE. <i>field</i><br>ISFATTR.MEMBER. <i>field</i><br>ISFATTR.NETOPTS. <i>field</i><br>ISFATTR.NODE. <i>field</i><br>ISFATTR.OFFLOAD. <i>field</i><br>SFATTR.PROPTS. <i>field</i><br>ISFATTR.RDR. <i>field</i><br>ISFATTR.RESMON. <i>field</i><br>ISFATTR.RESOURCE. <i>field</i><br>ISFATTR.SPOOL. <i>field</i><br>ISFATTR.MODIFY. <i>field</i><br>ISFATTR.SELECT. <i>field</i> | Authorizes use of overtypable fields.<br>See the SDSF resource name for each field in Table 112 on page 274. |
| OPERCMDSDS |        | Depends on the generated MVS or JES2 command.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | See the OPERCMDSDS resource names in Table 86 on page 242 and Table 114 on page 295.                         |

---

## CONFIRM

SDSF initialization function. Not applicable to SAF.

---

## CPUFMT

SDSF initialization function. Not applicable to SAF.

---

## CTITLE

SDSF initialization function. Not applicable to SAF.

---

## CURSOR

SDSF initialization function. Not applicable to SAF.

---

## DADFLT

SDSF initialization function. Not applicable to SAF.

---

## DATE

SDSF initialization function. Not applicable to SAF.

---

## DATESEP

SDSF initialization function. Not applicable to SAF.

---

## DEST

---

| Class | Access | SDSF Resource Name                                     | Description                                                                                                                                                           |
|-------|--------|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF  | ALTER  | ISFAUTH.DEST. <i>destname</i>                          | Equivalent to DEST for the CMDAUTH parameter, with a DEST parameter. In the SAF resource, <i>destname</i> is a destination name specified through the DEST parameter. |
| SDSF  | READ   | ISFAUTH.DEST. <i>destname</i> .<br><i>Ddsid.dsname</i> | Equivalent to DEST for the DSPAUTH parameter, with a DEST parameter. In the SAF resource, <i>destname</i> is a destination name specified through the DEST parameter. |

---

---

## DISPLAY

SDSF initialization function. Not applicable to SAF.

---

## DSPAUTH=ADEST

---

| Class | Access | SDSF Resource Name                                        | Description                                                                                                                                                            |
|-------|--------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF  | READ   | ISFOPER.DEST. <i>jesx</i>                                 | SDSF does further checking for authority to jobs and output based on destination (destination operator authority).                                                     |
| SDSF  | READ   | ISFAUTH.DEST. <i>destname</i> .<br>DATASET. <i>dsname</i> | Equivalent to ADEST for the DSPAUTH parameter, with a DEST parameter. In the SAF resource, <i>destname</i> is a destination name specified through the DEST parameter. |

---

---

## DSPAUTH=ALL

---

| Class | Access | SDSF Resource Name            | Description                                                                                                                                                          |
|-------|--------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF  | READ   | ISFOPER.DEST. <i>jesx</i>     | SDSF does further checking for authority to jobs and output based on destination (destination operator authority).                                                   |
| SDSF  | READ   | ISFAUTH.DEST. <i>destname</i> | Equivalent to ALL for the DSPAUTH parameter, with a DEST parameter. In the SAF resource, <i>destname</i> is a destination name specified through the DEST parameter. |

---

---

## DSPAUTH=AMDEST

---

| Class | Access | SDSF Resource Name        | Description                                                                                                        |
|-------|--------|---------------------------|--------------------------------------------------------------------------------------------------------------------|
| SDSF  | READ   | ISFOPER.DEST. <i>jesx</i> | SDSF does further checking for authority to jobs and output based on destination (destination operator authority). |

---

| Class | Access | SDSF Resource Name                                                                                                                                                       | Description                                                                                                                                                                                                                          |
|-------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF  | READ   | ISFAUTH.DEST. <i>destname</i> .<br>DATASET.JESMSGGLG<br><br>ISFAUTH.DEST. <i>destname</i> .<br>DATASET.JESJCL<br><br>ISFAUTH.DEST. <i>destname</i> .<br>DATASET.JESYSMSG | Equivalent to AMDEST for the DSPAUTH parameter, with a DEST parameter, when JESMSGGLG, JESJCL, JESYSMSG are data set names of JES2 message data sets and <i>destname</i> is a destination name specified through the DEST parameter. |

## DSPAUTH=AMSG

| Class    | Access | SDSF Resource Name                                                                                                                                                                                     | Description                                                                                                                                                                                                                  |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid</i> .<br>D <i>dsid</i> .JESMSGGLG<br><br><i>node.userid.jobname.jobid</i> .<br>D <i>dsid</i> .JESJCL<br><br><i>node.userid.jobname.jobid</i> .<br>D <i>dsid</i> .JESYSMSG | Equivalent to AMSG for the DSPAUTH parameter, when JESMSGGLG, JESJCL, JESYSMSG are data set names of JES2 message data sets. (You can define generic profiles for the above AMDEST resources to obtain equivalent function.) |

## DSPAUTH=GROUP

| Class    | Access | SDSF Resource Name                                         | Description                                                                                                                                                                       |
|----------|--------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid</i> .<br>D <i>dsid.dsname</i> | Equivalent to GROUP for the DSPAUTH parameter, when <i>jobname</i> is the group prefix. (With structured TSO user IDs, you can specify <i>userid</i> instead of <i>jobname</i> .) |

## DSPAUTH=GRPMSG

| Class    | Access | SDSF Resource Name                                                                                                                                                                                     | Description                                                                                                                                                           |
|----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid</i> .<br>D <i>dsid</i> .JESMSGGLG<br><br><i>node.userid.jobname.jobid</i> .<br>D <i>dsid</i> .JESJCL<br><br><i>node.userid.jobname.jobid</i> .<br>D <i>dsid</i> .JESYSMSG | Equivalent to GRPMSG for the DSPAUTH parameter, when JESMSGGLG, JESJCL, JESYSMSG are data set names of JES2 message data sets and <i>jobname</i> is the group prefix. |

## DSPAUTH=NOTIFY

No direct SAF equivalent. To provide comparable authority, see “Providing function comparable to NOTIFY authority” on page 263.

---

## DSPAUTH=USERID

| Class    | Access | SDSF Resource Name                                       | Description                                                                                                                                                                                                                      |
|----------|--------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid.</i><br><i>Ddsid.dsname</i> | Equivalent to USERID for the DSPAUTH parameter, when <i>userid</i> is the name of the job the user is trying to access. (Even when no profiles are defined in the JESSPOOL class, users are authorized to output that they own.) |

---

---

## EMCSAUTH

SDSF initialization function. Not applicable to SAF.

---

---

## EMCSREQ

SDSF initialization function. Not applicable to SAF.

---

---

## GPLEN

SDSF initialization function. Not applicable to SAF.

---

---

## GPREF

SDSF initialization function. Not applicable to SAF.

---

---

## ICMD

| Class    | Access | SDSF Resource Name                                                                                 | Description                                                                                                                      |
|----------|--------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | ALTER  | <i>node.userid.jobname.jobid</i><br><br><i>node.userid.jobname.jobid.</i><br><i>GROUP.ogroupid</i> | Equivalent to the ICMD parameter, when <i>jobname</i> is a job name specified by the associated ISFNTBL macro or NTBL statement. |

---

---

## IDEST

| Class | Access | SDSF Resource Name            | Description                                                                                                                                                                                                    |
|-------|--------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDSF  | READ   | ISFOPER.ANYDEST. <i>jesx</i>  | If users do not have an IDEST parameter with initial destinations specified, they must have READ access to this resource, or no jobs can appear on the panels.                                                 |
| SDSF  | READ   | ISFAUTH.DEST. <i>destname</i> | SDSF initialization function. Users must be authorized to the <i>destnames</i> that correspond to the initial destination values specified by their IDEST parameter. If not, no jobs can appear on the panels. |

---



---

## IDSP

| Class    | Access | SDSF Resource Name                                       | Description                                                                                                                      |
|----------|--------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid.</i><br><i>Ddsid.dsname</i> | Equivalent to the IDSP parameter, when <i>jobname</i> is a job name specified by the associated ISFNTBL macro or NTBL statement. |

---

---

## IDSPD

| Class    | Access | SDSF Resource Name                                                                                                                                                                            | Description                                                                                                      |
|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | READ   | <i>node.userid.jobname.jobid.</i><br><i>Ddsid.JESMSG LG</i><br><br><i>node.userid.jobname.jobid.</i><br><i>Ddsid.JESJCL</i><br><br><i>node.userid.jobname.jobid.</i><br><i>Ddsid.JESYSMSG</i> | Equivalent to the IDSPD parameter, when JESMSG LG, JESJCL, JESYSMSG are data set names of JES message data sets. |

---

---

## ILOGCOL

SDSF initialization function. Not applicable to SAF.

---

---

## INPUT

SDSF initialization function. Not applicable to SAF.

---

---

## ISTATUS

Includes jobs on the SDSF panels based on job name. To provide equivalent function, see "Table build exit point" on page 353.

---

---

## ISYS

SDSF initialization function. Not applicable to SAF.

---

---

## LANG

SDSF initialization function. Not applicable to SAF.

---

---

## LOG/LOGOPT

SDSF initialization function. Not applicable to SAF.

---

---

## OWNER

SDSF initialization function. Not applicable to SAF.

---

---

## PREFIX

SDSF initialization function. Not applicable to SAF.

---

---

## RSYS

SDSF initialization function. Not applicable to SAF.

---

## SYSID

SDSF initialization function. Not applicable to SAF.

---

## UPCTAB

SDSF initialization function. Not applicable to SAF.

---

## VALTAB

SDSF initialization function. Not applicable to SAF.

---

## VIO

SDSF initialization function. Not applicable to SAF.

---

## XCMD

---

| Class    | Access | SDSF Resource Name                                                                             | Description                                                                                                                                             |
|----------|--------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | NONE   | <i>node.userid.jobname.jobid</i><br><i>node.userid.jobname.jobid.</i><br><i>GROUP.ogroupid</i> | Equivalent to the XCMD parameter, when <i>jobname</i> is a job name specified by the associated ISFNTBL macro or NTBL statement and the access is NONE. |

---

## XDSP

---

| Class    | Access | SDSF Resource Name                                       | Description                                                                                                                                             |
|----------|--------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | NONE   | <i>node.userid.jobname.jobid.</i><br><i>Ddsid.dsname</i> | Equivalent to the XDSP parameter, when <i>jobname</i> is a job name specified by the associated ISFNTBL macro or NTBL statement and the access is NONE. |

---

## XDSPD

---

| Class    | Access | SDSF Resource Name                                                                                                                                                                            | Description                                                                                                                                              |
|----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| JESSPOOL | NONE   | <i>node.userid.jobname.jobid.</i><br><i>Ddsid.dsname</i>                                                                                                                                      | Equivalent to the XDSPD parameter, when <i>jobname</i> is a job name specified by the associated ISFNTBL macro or NTBL statement and the access is NONE. |
| JESSPOOL | READ   | <i>node.userid.jobname.jobid.</i><br><i>Ddsid.JESMSG LG</i><br><br><i>node.userid.jobname.jobid.</i><br><i>Ddsid.JESJCL</i><br><br><i>node.userid.jobname.jobid.</i><br><i>Ddsid.JESYSMSG</i> | User must then be authorized to the message data sets for the job.                                                                                       |

---

---

## **XSTATUS**

Excludes jobs from the SDSF panels based on a job's name. To provide equivalent function, see "Table build exit point" on page 353.



## Appendix C. SDSF resource names for SAF security

The following tables contain a list of all the resource names you need to use SAF security. See Chapter 5, “Using SAF for security,” on page 203 for more information about using the SAF Security Interface.

Table 223. Security Classes, Resource Names, and What They Protect

| Class    | Resource Name                                                                                                 | Protects                                                 |
|----------|---------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| JESSPOOL | <i>nodeid.userid.jobname.jobid</i>                                                                            | Jobs                                                     |
| JESSPOOL | <i>nodeid.userid.jobname.jobid</i> .<br>GROUP. <i>ogroupid</i>                                                | Output groups                                            |
| JESSPOOL | <i>nodeid.userid.jobname.jobid</i> .<br>Ddsid. <i>dsname</i>                                                  | SYSIN/SYSOUT data sets                                   |
| JESSPOOL | <i>nodeid.+MASTER+.SYSLOG.SYSTEM</i> .<br><i>sysname</i>                                                      | Access to the JES logical log, for displaying the SYSLOG |
| JESSPOOL | <i>nodeid.userid.jobname.jobid</i> .EVENTLOG.SMFSTEP<br><i>nodeid.userid.jobname.jobid</i> .EVENTLOG.STEPDATA | JES data sets used for job steps                         |
| JESSPOOL | <i>nodeid.userid.groupname.groupid</i>                                                                        | Job groups                                               |
| LOGSTRM  | See “OPERLOG” on page 271.                                                                                    | Log stream used for OPERLOG                              |
| LOGSTRM  | See “Checks on the CK and CKH panels” on page 252.                                                            | Log stream for check history (CKH panel)                 |
| OPERCMD5 | See Chapter 7, “Protecting SDSF functions,” on page 223.                                                      | MVS and JES generated commands                           |
| OPERCMD5 | <i>server-name</i> .MODIFY.DEBUG                                                                              | DEBUG parameter of MODIFY                                |
| OPERCMD5 | <i>server-name</i> .MODIFY.DISPLAY                                                                            | DISPLAY parameter of MODIFY                              |
| OPERCMD5 | <i>server-name</i> .MODIFY.FOLDMSG                                                                            | FOLDMSG parameter of MODIFY                              |
| OPERCMD5 | <i>server-name</i> .MODIFY.LOGCLASS                                                                           | LOGCLASS parameter of MODIFY                             |
| OPERCMD5 | <i>server-name</i> .MODIFY.REFRESH                                                                            | REFRESH parameter of MODIFY                              |
| OPERCMD5 | <i>server-name</i> .MODIFY.START                                                                              | START parameter of MODIFY                                |
| OPERCMD5 | <i>server-name</i> .MODIFY.STOP                                                                               | STOP parameter of MODIFY                                 |
| OPERCMD5 | <i>server-name</i> .MODIFY.TRACE                                                                              | TRACE parameter of MODIFY                                |
| OPERCMD5 | <i>server-name</i> .MODIFY.TRCLASS                                                                            | TRCLASS parameter of MODIFY                              |
| SDSF     | GROUP. <i>group-name.server-name</i>                                                                          | Membership in groups defined in ISFPARMS                 |
| SDSF     | ISFCMD.DSP.ACTIVE. <i>jesx</i>                                                                                | DA panel command                                         |
| SDSF     | ISFCMD.DSP.HELD. <i>jesx</i>                                                                                  | H panel command                                          |
| SDSF     | ISFCMD.DSP.INPUT. <i>jesx</i>                                                                                 | I panel command                                          |
| SDSF     | ISFCMD.DSP.OUTPUT. <i>jesx</i>                                                                                | O panel command                                          |
| SDSF     | ISFCMD.DSP.SCHENV. <i>system</i>                                                                              | SE panel command                                         |

Table 223. Security Classes, Resource Names, and What They Protect (continued)

| Class | Resource Name               | Protects           |
|-------|-----------------------------|--------------------|
| SDSF  | ISFCMD.DSP.STATUS.jesx      | ST panel command   |
| SDSF  | ISFCMD.ODSP.APF.system      | APF panel command  |
| SDSF  | ISFCMD.ODSP.AS.system       | AS panel command   |
| SDSF  | ISFCMD.ODSP.DYNX.system     | DYNX panel command |
| SDSF  | ISFCMD.ODSP.ENCLAVE.system  | ENC panel command  |
| SDSF  | ISFCMD.ODSP.ENQUEUE.system  | ENQ panel command  |
| SDSF  | ISFCMD.ODSP.HCHECKER.system | CK panel command   |
| SDSF  | ISFCMD.ODSP.INITIATOR.jesx  | INIT panel command |
| SDSF  | ISFCMD.ODSP.JOBCLASS.jesx   | JC panel command   |
| SDSF  | ISFCMD.ODSP.DEVICE.system   | JD panel command   |
| SDSF  | ISFCMD.ODSP.STORAGE.system  | JM panel command   |
| SDSF  | ISFCMD.ODSP.JOB0.jesx       | J0 panel command   |
| SDSF  | ISFCMD.ODSP.LINE.jesx       | LI panel command   |
| SDSF  | ISFCMD.ODSP.LNK.system      | LNK panel command  |
| SDSF  | ISFCMD.ODSP.LPA.system      | LPA panel command  |
| SDSF  | ISFCMD.ODSP.MAS.jesx        | MAS panel command  |
| SDSF  | ISFCMD.ODSP.NC.jesx         | NC panel command   |
| SDSF  | ISFCMD.ODSP.NODE.jesx       | NO panel command   |
| SDSF  | ISFCMD.ODSP.NS.jesx         | NS panel command   |
| SDSF  | ISFCMD.ODSP.PAGE.system     | PAGE panel command |
| SDSF  | ISFCMD.ODSP.PARMLIB.system  | PARM panel command |
| SDSF  | ISFCMD.ODSP.PRINTER.jesx    | PR panel command   |
| SDSF  | ISFCMD.ODSP.PROCESS.system  | PS panel command   |
| SDSF  | ISFCMD.ODSP.PROCLIB.jesx    | PROC panel command |
| SDSF  | ISFCMD.ODSP.PUNCH.jesx      | PUN panel command  |
| SDSF  | ISFCMD.ODSP.READER.jesx     | RDR panel command  |
| SDSF  | ISFCMD.ODSP.RESMON.jesx     | RM panel command   |
| SDSF  | ISFCMD.ODSP.RESOURCE.system | RES panel command  |
| SDSF  | ISFCMD.ODSP.SO.jesx         | SO panel command   |
| SDSF  | ISFCMD.ODSP.SPOOL.jesx      | SP panel command   |
| SDSF  | ISFCMD.ODSP.SR.system       | SR panel command   |
| SDSF  | ISFCMD.DSP.SYMBOL.system    | SYM panel command  |
| SDSF  | ISFCMD.ODSP.SYSTEM.system   | SYS panel command  |
| SDSF  | ISFCMD.ODSP.SYSLOG.jesx     | LOG panel command  |
| SDSF  | ISFCMD.ODSP.ULOG.jesx       | ULOG panel command |
| SDSF  | ISFCMD.FILTER.ACTION        | ACTION command     |
| SDSF  | ISFCMD.FILTER.DEST          | DEST command       |
| SDSF  | ISFCMD.FILTER.FINDLIM       | FINDLIM command    |
| SDSF  | ISFCMD.FILTER.INPUT         | INPUT command      |
| SDSF  | ISFCMD.FILTER.OWNER         | OWNER command      |

Table 223. Security Classes, Resource Names, and What They Protect (continued)

| Class | Resource Name                                                                       | Protects                                                                             |
|-------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| SDSF  | ISFCMD.FILTER.PREFIX                                                                | PREFIX command                                                                       |
| SDSF  | ISFCMD.FILTER.RSYS                                                                  | RSYS command                                                                         |
| SDSF  | ISFCMD.FILTER.SYSID                                                                 | SYSID command                                                                        |
| SDSF  | ISFCMD.FILTER.SYSNAME                                                               | SYSNAME command                                                                      |
| SDSF  | ISFCMD.MAINT.ABEND                                                                  | ABEND command                                                                        |
| SDSF  | ISFCMD.MAINT.TRACE                                                                  | TRACE command                                                                        |
| SDSF  | ISFCMD.OPT.SERVER                                                                   | SERVER parameter of SDSF command                                                     |
| SDSF  | ISFDISP.DELAY. <i>owner.jobname</i>                                                 | JY action character on the DA panel                                                  |
| SDSF  | ISFJOB.DDNAME. <i>owner.jobname.system</i>                                          | JD action character on the AS, DA, I, INIT, NS and ST panels                         |
| SDSF  | ISFJOB.STORAGE. <i>owner.jobname.system</i>                                         | JM action character on the AS, DA, I, INIT, NS and ST panels                         |
| SDSF  | ISFOPER.SYSTEM                                                                      | Command line commands                                                                |
| SDSF  | ISFOPER.DEST. <i>jesx</i>                                                           | Operator authority                                                                   |
| SDSF  | ISFAPF. <i>datasetname</i>                                                          | APF data sets                                                                        |
| SDSF  | ISFDYNX. <i>exitname</i>                                                            | DYNX data sets                                                                       |
| SDSF  | ISFENQ. <i>majorname.sysname</i>                                                    | Enqueues                                                                             |
| SDSF  | ISFLNK. <i>datasetname</i>                                                          | LnkLst data sets                                                                     |
| SDSF  | ISFLPA. <i>datasetname</i>                                                          | LPA data sets                                                                        |
| SDSF  | ISFPARM. <i>datasetname</i>                                                         | Parmlib data sets                                                                    |
| SDSF  | ISFPAG. <i>datasetname</i>                                                          | Page data sets                                                                       |
| SDSF  | ISFPLIB. <i>proc-name</i>                                                           | PROC data sets                                                                       |
| SDSF  | ISFSYM. <i>symbolname.sysname</i>                                                   | System symbols                                                                       |
| SDSF  | ISFSYS. <i>sysplexname.systemname</i>                                               | Systems                                                                              |
| SDSF  | ISFAUTH.DEST. <i>destname</i>                                                       | Operator destinations for command objects and destination names for the DEST command |
| SDSF  | ISFAUTH.DEST. <i>destname.DATASET.dsname</i><br>ISFAUTH.DEST.DATASET. <i>dsname</i> | Operator destination to browse objects                                               |
| SDSF  | ISFOPER.ANYDEST. <i>jesx</i>                                                        | All destinations for the DEST command                                                |
| SDSF  | ISFENC. <i>subsys-type.subsys-name</i>                                              | Enclaves                                                                             |
| SDSF  | ISFINIT.I( <i>xx</i> ). <i>jesx</i>                                                 | Initiators                                                                           |
| SDSF  | ISFJDD.CF. <i>sysname</i>                                                           | Coupling facility on the JD panel                                                    |
| SDSF  | ISFJDD.IP. <i>sysname</i>                                                           | TCP/IP server on the JD panel                                                        |
| SDSF  | ISFJOBCL. <i>class.jesx</i>                                                         | Job classes                                                                          |
| SDSF  | ISFLINE. <i>device-name.jesx</i>                                                    | Lines                                                                                |

Table 223. Security Classes, Resource Names, and What They Protect (continued)

| Class    | Resource Name                                                                                           | Protects                                                            |
|----------|---------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| SDSF     | ISFAPPL. <i>device-name.jesx</i><br>ISFSOCK. <i>device-name.jesx</i><br>ISFLINE <i>device-name.jesx</i> | Network connections                                                 |
| SDSF     | ISFNODE. <i>node-name.jesx</i>                                                                          | Nodes                                                               |
| SDSF     | ISFNS. <i>device-name.jesx</i>                                                                          | Network servers                                                     |
| SDSF     | ISFPROC. <i>owner.jobname</i>                                                                           | z/OS UNIX processes                                                 |
| SDSF     | ISFSO. <i>device-name.jesx</i>                                                                          | Offloaders                                                          |
| SDSF     | ISFRDR. <i>device-name.jesx</i>                                                                         | Readers                                                             |
| SDSF     | ISFRES. <i>resource.system</i>                                                                          | WLM resources                                                       |
| SDSF     | ISFRM. <i>resource.jesx</i>                                                                             | JES resources                                                       |
| SDSF     | ISFSE. <i>sched-env.system</i>                                                                          | Scheduling environments                                             |
| SDSF     | ISFSP. <i>volser.jesx</i>                                                                               | Spool volumes                                                       |
| SDSF     | ISFSR. <i>msg-type.system.jobname</i>                                                                   | System requests, where<br><i>message-type</i> is ACTION or<br>REPLY |
| SDSF     | SERVER.NOPARM                                                                                           | Fall-back to ISFPARMS in<br>assembler format                        |
| WRITER   | <i>jesx.LOCAL.devicename</i>                                                                            | Local printers and punches,<br>including those on other<br>systems  |
| WRITER   | <i>jesx.RJE.devicename</i>                                                                              | RJE devices                                                         |
| XFACILIT | HZS. <i>sysname.checkowner.checkname.</i><br><i>action</i>                                              | IBM Health Checker for z/OS                                         |
|          | where <i>action</i> is ACTIVATE, DEACTIVATE, DELETE, QUERY,<br>REFRESH, RUN, UPDATE or MESSAGES         |                                                                     |

Table 224. SDSF Class Resource Names and Overtypable Fields

| SDSF Resource Name (UPDATE Authority Required) | Overtypable Field | Panel |
|------------------------------------------------|-------------------|-------|
| ISFATTR.CHECK.CATEGORY                         | CATEGORY          | CK    |
| ISFATTR.CHECK.DEBUG                            | DEBUG             | CK    |
| ISFATTR.CHECK.EINTERVAL                        | EINTERVAL         | CK    |
| ISFATTR.CHECK.INTERVAL                         | INTERVAL          | CK    |
| ISFATTR.CHECK.PARM                             | PARAMETERS        | CK    |
| ISFATTR.CHECK.SEVERITY                         | SEVERITY          | CK    |
| ISFATTR.CHECK.USERDATE                         | USERDATE          | CK    |
| ISFATTR.CHECK.VERBOSE                          | VERBOSE           | CK    |
| ISFATTR.CHECK.WTOTYPE                          | WTOTYPE           | CK    |
| ISFATTR.ENCLAVE.SRVCLASS                       | SRVCLASS          | ENC   |
| ISFATTR.INIT.ALLOC                             | ALLOC             | INIT  |
| ISFATTR.INIT.BARRIER                           | BARRIER           | INIT  |
| ISFATTR.INIT.DEFCNT                            | DEFCOUNT          | INIT  |
| ISFATTR.INIT.GROUP                             | GROUP             | INIT  |



Table 224. SDSF Class Resource Names and Overtimeable Fields (continued)

| <b>SDSF Resource Name (UPDATE Authority Required)</b> | <b>Overtimeable Field</b> | <b>Panel</b> |
|-------------------------------------------------------|---------------------------|--------------|
| ISFATTR.INIT.MODE                                     | MODE                      | INIT         |
| ISFATTR.INIT.UNALLOC                                  | UNALLOC                   | INIT         |
| ISFATTR.JOB.CLASS                                     | C                         | I ST         |
| ISFATTR.JOB.EXECNODE                                  | EXECNODE                  | I ST         |
| ISFATTR.JOB.PGN                                       | PGN                       | DA           |
| ISFATTR.JOB.PRTDEST                                   | PRTDEST                   | I ST         |
| ISFATTR.JOB.PRTY                                      | PRTY                      | I ST         |
| ISFATTR.JOB.QUIESCE                                   | QUIESCE                   | DA           |
| ISFATTR.JOB.SCHENV                                    | SCHEDULING-ENV            | I ST         |
| ISFATTR.JOB.SRVCLASS                                  | SRVCLASS                  | DA           |
| ISFATTR.JOB.SRVCLS                                    | SRVCLASS                  | I ST         |
| ISFATTR.JOB.SYSAFF                                    | SAFF                      | I ST         |
| ISFATTR.JOBCL.ACCT                                    | ACCT                      | JC           |
| ISFATTR.JOBCL.ACTIVE                                  | ACTIVE                    | JC           |
| ISFATTR.JOBCL.AUTH                                    | AUTH                      | JC           |
| ISFATTR.JOBCL.BLP                                     | BLP                       | JC           |
| ISFATTR.JOBCL.COMMAND                                 | COMMAND                   | JC           |
| ISFATTR.JOBCL.CONDPURG                                | CPR                       | JC           |
| ISFATTR.JOBCL.COPY                                    | CPY                       | JC           |
| ISFATTR.JOBCL.GROUP                                   | GROUP                     | JC           |
| ISFATTR.JOBCL.HOLD                                    | HOLD                      | JC           |
| ISFATTR.JOBCL.IEFUJP                                  | UJP                       | JC           |
| ISFATTR.JOBCL.IEFUSO                                  | USO                       | JC           |
| ISFATTR.JOBCL.JCLIM                                   | JCLIM                     | JC           |
| ISFATTR.JOBCL.JESLOG                                  | JESLOG                    | JC           |
| ISFATTR.JOBCL.JLOG                                    | LOG                       | JC           |
| ISFATTR.JOBCL.JOBRC                                   | JOBRC                     | JC           |
| ISFATTR.JOBCL.JOURNAL                                 | JRNL                      | JC           |
| ISFATTR.JOBCL.MODE                                    | MODE                      | JC           |
| ISFATTR.JOBCL.MSGCLASS                                | MC                        | JC           |
| ISFATTR.JOBCL.MSGLEVEL                                | MSGLV                     | JC           |
| ISFATTR.JOBCL.ODISP                                   | ODISP                     | JC           |
| ISFATTR.JOBCL.OUTPUT                                  | OUT                       | JC           |
| ISFATTR.JOBCL.PARTNAME                                | PARTNAME                  | JC           |
| ISFATTR.JOBCL.PGMRNAME                                | PGNM                      | JC           |
| ISFATTR.JOBCL.PGN                                     | PGN                       | JC           |
| ISFATTR.JOBCL.PROCLIB                                 | PL                        | JC           |
| I ISFATTR.JOBCL.PROMORATE                             | PROMORT                   | JC           |
| ISFATTR.JOBCL.QHELD                                   | QHLD                      | JC           |

Table 224. SDSF Class Resource Names and Overtypable Fields (continued)

| SDSF Resource Name (UPDATE Authority Required) | Overtypable Field | Panel |
|------------------------------------------------|-------------------|-------|
| ISFATTR.JOBCL.REGION                           | REGION            | JC    |
| ISFATTR.JOBCL.RESTART                          | RST               | JC    |
| ISFATTR.JOBCL.SCAN                             | SCN               | JC    |
| ISFATTR.JOBCL.SCHENV                           | SCHEDULING-ENV    | JC    |
| ISFATTR.JOBCL.SDEPTH                           | SDEPTH            | JC    |
| ISFATTR.JOBCL.SWA                              | SWA               | JC    |
| ISFATTR.JOBCL.SYSSYM                           | SYSSYM            | JC    |
| ISFATTR.JOBCL.TDEPTH                           | TDEPTH            | JC    |
| ISFATTR.JOBCL.TIME                             | MAX-TIME          | JC    |
| ISFATTR.JOBCL.TYPE26                           | TP26              | JC    |
| ISFATTR.JOBCL.TYPE6                            | TP6               | JC    |
| ISFATTR.JOBCL.XBM                              | XBM               | JC    |
| ISFATTR.JOBGROUP.SCHENV                        | SCHEDULING-ENV    | JG    |
| ISFATTR.JOBGROUP.SYSAFF                        | SAFF              | JG    |
| ISFATTR.LINE.TRANSPARENCY                      | TRANSP            | LI    |
| ISFATTR.LINE.APPLID                            | APPLID            | LI    |
| ISFATTR.LINE.AUTODISC                          | ADISC             | LI    |
| ISFATTR.LINE.CODE                              | CODE              | LI    |
| ISFATTR.LINE.COMPRESS                          | COMP              | LI    |
| ISFATTR.LINE.DUPLEX                            | DUPLEX            | LI    |
| ISFATTR.LINE.INTERFACE                         | INTF              | LI    |
| ISFATTR.LINE.JRNUM                             | JRNUM             | LI    |
| ISFATTR.LINE.JTNUM                             | JTNUM             | LI    |
| ISFATTR.LINE.LINECCHR                          | LINECCHR          | LI    |
| ISFATTR.LINE.LOG                               | LOG               | LI    |
| ISFATTR.LINE.NODE                              | NODE              | LI    |
| ISFATTR.LINE.PASSWORD                          | PASSWORD          | LI    |
| ISFATTR.LINE.REST                              | REST              | LI NC |
| ISFATTR.LINE.SPEED                             | SPEED             | LI    |
| ISFATTR.LINE.SRNUM                             | SRNUM             | LI    |
| ISFATTR.LINE.STNUM                             | STNUM             | LI    |
| ISFATTR.LOGON.PASSWORD                         | PASSWORD          | NS    |
| ISFATTR.MEMBER.CKPTHOLD                        | CKPTHOLD          | MAS   |
| ISFATTR.MEMBER.DORMANCY                        | DORMANCY          | MAS   |
| ISFATTR.MEMBER.SELMNAME                        | SELECTMODENAME    | JP    |
| ISFATTR.MEMBER.SPARTN                          | PARTNAME          | JP    |
| ISFATTR.MEMBER.SYNCTOL                         | SYNCTOL           | MAS   |
| ISFATTR.MODIFY.BURST                           | MBURST            | SO    |
| ISFATTR.MODIFY.CLASS                           | MCLASS            | SO    |

Table 224. SDSF Class Resource Names and Overtimeable Fields (continued)

| SDSF Resource Name (UPDATE Authority Required) | Overtimeable Field | Panel    |
|------------------------------------------------|--------------------|----------|
| ISFATTR.MODIFY.DEST                            | MDEST              | SO       |
| ISFATTR.MODIFY.FCB                             | MFCB               | SO       |
| ISFATTR.MODIFY.FLASH                           | MFLH               | SO       |
| ISFATTR.MODIFY.FORMS                           | MFORMS             | SO       |
| ISFATTR.MODIFY.HOLD                            | MHOLD              | SO       |
| ISFATTR.MODIFY.ODISP                           | MODSP              | SO       |
| ISFATTR.MODIFY.PRMODE                          | MPRMODE            | SO       |
| ISFATTR.MODIFY.SYSAFF                          | MSAFF              | SO       |
| ISFATTR.MODIFY.UCS                             | MUCS               | SO       |
| ISFATTR.MODIFY.WRITER                          | MWRITER            | SO       |
| ISFATTR.NETOPTS.APPL                           | APPL               | NS       |
| ISFATTR.NETOPTS.CONNECT                        | CONNECT            | LI NC NO |
| ISFATTR.NETOPTS.CTIME                          | CONN-INT           | LI NC NO |
| ISFATTR.NETOPTS.IPNAME                         | IPNAME             | NC NS    |
| ISFATTR.NETOPTS.LINE                           | LINE               | NC       |
| ISFATTR.NETOPTS.LOG                            | LOG                | NS       |
| ISFATTR.NETOPTS.LOGON                          | LOGON              | NC       |
| ISFATTR.NETOPTS.NETSRV                         | NETSRV             | NC       |
| ISFATTR.NETOPTS.NETSRV                         | SRVNAME            | NC       |
| ISFATTR.NETOPTS.NODE                           | ANODE              | NC       |
| ISFATTR.NETOPTS.PORT                           | PORT               | NC NS    |
| ISFATTR.NETOPTS.SECURE                         | SECURE             | NC NO NS |
| ISFATTR.NETOPTS.SOCKET                         | SOCKET             | NS       |
| ISFATTR.NETOPTS.STACK                          | STACK              | NS       |
| ISFATTR.NODE.AUTHORITY                         | AUTHORITY          | NO       |
| ISFATTR.NODE.COMPACT                           | COMPACT            | NC       |
| ISFATTR.NODE.COMPACT                           | CP                 | NO       |
| ISFATTR.NODE.DIRECT                            | DIRECT             | NO       |
| ISFATTR.NODE.ENDNODE                           | END                | NO       |
| ISFATTR.NODE.HOLD                              | HOLD               | NO       |
| ISFATTR.NODE.JRNUM                             | JRNUM              | NO       |
| ISFATTR.NODE.JTNUM                             | JTNUM              | NO       |
| ISFATTR.NODE.LINE                              | LINE               | NC NO    |
| ISFATTR.NODE.LOGMODE                           | LOGMODE            | NC NO    |
| ISFATTR.NODE.LOGON                             | LOGON              | NO       |
| ISFATTR.NODE.MAXRETR                           | MAXRETRIES         | NO       |
| ISFATTR.NODE.NETHOLD                           | NHOLD              | NO       |
| ISFATTR.NODE.NETSRV                            | NETSRV             | NO       |
| ISFATTR.NODE.NODENAME                          | NODENAME           | NO       |

Table 224. SDSF Class Resource Names and Overtypable Fields (continued)

| SDSF Resource Name (UPDATE Authority Required) | Overtypable Field | Panel  |
|------------------------------------------------|-------------------|--------|
| ISFATTR.NODE.PARTNAM                           | PARTNAME          | NO     |
| ISFATTR.NODE.PATH                              | PATH              | NO     |
| ISFATTR.NODE.PATHMGR                           | PMG               | NO     |
| ISFATTR.NODE.PENCRYPT                          | PEN               | NO     |
| ISFATTR.NODE.PRIVATE                           | PRV               | NO     |
| ISFATTR.NODE.PRTDEF                            | PRTDEF            | NO     |
| ISFATTR.NODE.PRTTSO                            | PRTTSO            | NO     |
| ISFATTR.NODE.PRTXWTR                           | PRTXWTR           | NO     |
| ISFATTR.NODE.PTYPE                             | PTYPE             | NO     |
| ISFATTR.NODE.PUNDEF                            | PUNDEF            | NO     |
| ISFATTR.NODE.PWCNTL                            | PWCNTL            | NO     |
| ISFATTR.NODE.RECEIVE                           | RECV              | NO     |
| ISFATTR.NODE.REST                              | REST              | NO     |
| ISFATTR.NODE.SENDP                             | SENDP             | NO     |
| ISFATTR.NODE.SENTREST                          | SENTRS            | NO     |
| ISFATTR.NODE.SRNUM                             | SRNUM             | NO     |
| ISFATTR.NODE.SSIGNON                           | SSIGNON           | NO     |
| ISFATTR.NODE.STNUM                             | STNUM             | NO     |
| ISFATTR.NODE.SUBNET                            | SUBNET            | NO     |
| ISFATTR.NODE.TRACE                             | TR                | NO     |
| ISFATTR.NODE.TRANSMIT                          | TRANS             | NO     |
| ISFATTR.NODE.VERIFY                            | VERIFY            | NO     |
| ISFATTR.OFFLOAD.ARCHIVE                        | ARCHIVE           | SO     |
| ISFATTR.OFFLOAD.CRTIME                         | CRTIME            | SO     |
| ISFATTR.OFFLOAD.DATASET                        | DSNAME            | SO     |
| ISFATTR.OFFLOAD.LABEL                          | LABEL             | SO     |
| ISFATTR.OFFLOAD.NOTIFY                         | NOTIFY            | SO     |
| ISFATTR.OFFLOAD.PROTECT                        | PROT              | SO     |
| ISFATTR.OFFLOAD.RETENT                         | RTPD              | SO     |
| ISFATTR.OFFLOAD.VALIDATE                       | VALIDATE          | SO     |
| ISFATTR.OFFLOAD.VOLS                           | VOLS              | SO     |
| ISFATTR.OUTDESC.ADDRESS                        | ADDRESS           | JDS OD |
| ISFATTR.OUTDESC.AFPPARMS                       | AFPPARMS          | JDS OD |
| ISFATTR.OUTDESC.BLDG                           | BUILDING          | JDS OD |
| ISFATTR.OUTDESC.COLORMAP                       | COLORMAP          | JDS OD |
| ISFATTR.OUTDESC.COMSETUP                       | COMSETUP          | JDS OD |
| ISFATTR.OUTDESC.DEPT                           | DEPARTMENT        | JDS OD |
| ISFATTR.OUTDESC.FORMDEF                        | FORMDEF           | JDS OD |
| ISFATTR.OUTDESC.FORMLLEN                       | FORMLLEN          | JDS OD |

Table 224. SDSF Class Resource Names and Overtypable Fields (continued)

| SDSF Resource Name (UPDATE Authority Required) | Overtypable Field     | Panel      |
|------------------------------------------------|-----------------------|------------|
| ISFATTR.OUTDESC.INTRAY                         | ITY                   | JDS        |
| ISFATTR.OUTDESC.INTRAY                         | INTRAY                | OD         |
| ISFATTR.OUTDESC.IPDEST                         | IP DESTINATION        | OD         |
| ISFATTR.OUTDESC.NAME                           | NAME                  | JDS OD     |
| ISFATTR.OUTDESC.NOTIFY                         | NOTIFY                | JDS OD     |
| ISFATTR.OUTDESC.OCOPYCNT                       | OCOPYCNT              | JDS OD     |
| ISFATTR.OUTDESC.OFFSETXB                       | OFFSETXB              | JDS OD     |
| ISFATTR.OUTDESC.OFFSETXF                       | OFFSETXF              | JDS OD     |
| ISFATTR.OUTDESC.OFFSETYB                       | OFFSETYB              | JDS OD     |
| ISFATTR.OUTDESC.OFFSETYF                       | OFFSETYF              | JDS OD     |
| ISFATTR.OUTDESC.OUTBIN                         | OUTBN                 | JDS        |
| ISFATTR.OUTDESC.OUTBIN                         | OUTBIN                | OD         |
| ISFATTR.OUTDESC.OVERLAYB                       | OVERLAYB              | JDS OD     |
| ISFATTR.OUTDESC.OVERLAYF                       | OVERLAYF              | JDS OD     |
| ISFATTR.OUTDESC.PAGEDEF                        | PAGEDEF               | JDS OD     |
| ISFATTR.OUTDESC.PORTNO                         | PORTNO                | OD         |
| ISFATTR.OUTDESC.PORTNO                         | PORT                  | JDS        |
| ISFATTR.OUTDESC.PRINTO                         | PRTOPTNS              | OD         |
| ISFATTR.OUTDESC.PRINTQ                         | PRTQUEUE              | OD         |
| ISFATTR.OUTDESC.RETAINF                        | RETAINF               | OD         |
| ISFATTR.OUTDESC.RETAINS                        | RETAINS               | OD         |
| ISFATTR.OUTDESC.RETRYL                         | RETRYL                | OD         |
| ISFATTR.OUTDESC.RETRYT                         | RETRYT                | OD         |
| ISFATTR.OUTDESC.ROOM                           | ROOM                  | JDS OD     |
| ISFATTR.OUTDESC.TITLE                          | TITLE                 | JDS OD     |
| ISFATTR.OUTDESC.USERDATA                       | USERDATA1             | JDS        |
| ISFATTR.OUTDESC.USERDATA                       | USERDATA              | OD         |
| ISFATTR.OUTDESC.USERLIB                        | USERLIB               | JDS OD     |
| ISFATTR.OUTPUT.BURST                           | BURST                 | JDS J0     |
| ISFATTR.OUTPUT.BURST                           | BURST                 | H O        |
| ISFATTR.OUTPUT.CHARS                           | CHARS                 | JDS J0     |
| ISFATTR.OUTPUT.CLASS                           | C                     | H O JDS J0 |
| ISFATTR.OUTPUT.COPYCNT                         | CC                    | JDS J0     |
| ISFATTR.OUTPUT.COPYMOD                         | CPYMOD                | JDS        |
| ISFATTR.OUTPUT.DEST                            | DEST (secondary JES2) | H          |
| ISFATTR.OUTPUT.DEST                            | DEST                  | H O JDS J0 |
| ISFATTR.OUTPUT.FCB                             | FCB                   | JDS J0     |
| ISFATTR.OUTPUT.FCB                             | FCB                   | H O        |
| ISFATTR.OUTPUT.FLASH                           | FLASH                 | JDS J0     |

Table 224. SDSF Class Resource Names and Overtimeable Fields (continued)

| SDSF Resource Name (UPDATE Authority Required) | Overtimeable Field | Panel      |
|------------------------------------------------|--------------------|------------|
| ISFATTR.OUTPUT.FLASH                           | FLASH              | H O        |
| ISFATTR.OUTPUT.FORMS                           | FORMS              | H O JDS J0 |
| ISFATTR.OUTPUT.ODISP                           | ODISP              | H JDS O    |
| ISFATTR.OUTPUT.PRMODE                          | PRMODE             | H O JDS J0 |
| ISFATTR.OUTPUT.PRTY                            | PRTY               | H O        |
| ISFATTR.OUTPUT.UCS                             | UCS                | H O JDS J0 |
| ISFATTR.OUTPUT.WRITER                          | WTR                | H O JDS J0 |
| ISFATTR.PROPTS.ASIS                            | ASIS               | PR         |
| ISFATTR.PROPTS.BPAGE                           | B                  | PR PUN     |
| ISFATTR.PROPTS.CB                              | CB                 | PR         |
| ISFATTR.PROPTS.CCTL                            | CCTL               | PR PUN     |
| ISFATTR.PROPTS.CHAR                            | CHAR1-4            | PR         |
| ISFATTR.PROPTS.CKPTLINE                        | CKPTLINE           | PR PUN     |
| ISFATTR.PROPTS.CKPTMODE                        | CKPTMODE           | PR         |
| ISFATTR.PROPTS.CKPTPAGE                        | CKPTPAGE           | PR PUN     |
| ISFATTR.PROPTS.CKPTSEC                         | CKPTSEC            | PR         |
| ISFATTR.PROPTS.CMPCT                           | CMPCT              | PR PUN     |
| ISFATTR.PROPTS.COMPACT                         | COMPACT            | PR PUN     |
| ISFATTR.PROPTS.COMPRESS                        | COMP               | PR PUN     |
| ISFATTR.PROPTS.COPIES                          | COPIES             | PR PUN     |
| ISFATTR.PROPTS.COPYMARK                        | COPYMARK           | PR         |
| ISFATTR.PROPTS.COPYMOD                         | CPYMOD             | J0 PR      |
| ISFATTR.PROPTS.CTRACE                          | CTR                | LI NC NS   |
| ISFATTR.PROPTS.DEVFCB                          | DFCB               | PR         |
| ISFATTR.PROPTS.DGRPY                           | DGRPY              | PR PUN     |
| ISFATTR.PROPTS.DYN                             | DYN                | PR PUN     |
| ISFATTR.PROPTS.FLUSH                           | FLS                | PUN        |
| ISFATTR.PROPTS.FSATRACE                        | FSATRACE           | PR         |
| ISFATTR.PROPTS.FSSNAME                         | FSSNAME            | PR         |
| ISFATTR.PROPTS.HONORTRC                        | HONORTRC           | PR         |
| ISFATTR.PROPTS.JTRACE                          | JTR                | LI NC NS   |
| ISFATTR.PROPTS.LRECL                           | LRECL              | PUN        |
| ISFATTR.PROPTS.MARK                            | M                  | PR         |
| ISFATTR.PROPTS.NEWPAGE                         | NEWPAGE            | PR         |
| ISFATTR.PROPTS.NPRO                            | NPRO               | PR         |
| ISFATTR.PROPTS.OPACTLOG                        | OPLOG              | PR PUN     |
| ISFATTR.PROPTS.PAUSE                           | PAU                | PR PUN     |
| ISFATTR.PROPTS.PDEFAULT                        | PDEFAULT           | PR         |
| ISFATTR.PROPTS.PRESELCT                        | PSEL               | PR         |

Table 224. SDSF Class Resource Names and Overtypable Fields (continued)

| SDSF Resource Name (UPDATE Authority Required) | Overtypable Field | Panel           |
|------------------------------------------------|-------------------|-----------------|
| ISFATTR.PROPTS.RESTART                         | RESTART           | LI              |
| ISFATTR.PROPTS.RTIME                           | REST-INT          | LI NS           |
| ISFATTR.PROPTS.SELECT                          | SELECT            | PR PUN          |
| ISFATTR.PROPTS.SEP                             | SEP               | PR PUN          |
| ISFATTR.PROPTS.SEPCHARS                        | SEPCHAR           | PR              |
| ISFATTR.PROPTS.SEPDS                           | SEPDS             | PR PUN RDR      |
| ISFATTR.PROPTS.SETUP                           | SETUP             | PR PUN          |
| ISFATTR.PROPTS.SPACE                           | K                 | PR              |
| ISFATTR.PROPTS.SUSPEND                         | SUS               | PUN             |
| ISFATTR.PROPTS.TRACE                           | TR                | LI NC NS PR PUN |
| ISFATTR.PROPTS.TRANS                           | TRANS             | PR              |
| ISFATTR.PROPTS.TRKCELL                         | TRKCELL           | PR              |
| ISFATTR.PROPTS.UCSVERIFY                       | UCSV              | PR              |
| ISFATTR.PROPTS.UNIT                            | UNIT              | LI PR PUN SO    |
| ISFATTR.PROPTS.VTRACE                          | VTR               | LI NC NS        |
| ISFATTR.PROPTS.WS                              | WORK- SELECTION   | LI PR PUN SO    |
| ISFATTR.PROPTS.MODE                            | MODE              | PR              |
| ISFATTR.RDR.AUTHORITY                          | AUTHORITY         | RDR             |
| ISFATTR.RDR.CLASS                              | C                 | RDR             |
| ISFATTR.RDR.HOLD                               | HOLD              | RDR             |
| ISFATTR.RDR.MCLASS                             | MC                | RDR             |
| ISFATTR.RDR.PRIOINC                            | PI                | RDR             |
| ISFATTR.RDR.PRIOLIM                            | PL                | RDR             |
| ISFATTR.RDR.PRTDEST                            | PRTDEST           | RDR             |
| ISFATTR.RDR.PUNDEST                            | PUNDEST           | RDR             |
| ISFATTR.RDR.SYSAFF                             | SAFF1             | RDR             |
| ISFATTR.RDR.TRACE                              | TR                | RDR             |
| ISFATTR.RDR.UNIT                               | UNIT              | RDR             |
| ISFATTR.RDR.XEQDEST                            | XEQDEST           | RDR             |
| ISFATTR.RESMON.LIMIT                           | LIMIT             | RM              |
| ISFATTR.RESMON.WARNPCT                         | WARN%             | RM              |
| ISFATTR.RESOURCE. <i>system</i>                | System            | RES             |
| ISFATTR.SELECT.BURST                           | SBURST            | PR SO           |
| ISFATTR.SELECT.CLASS                           | SCLASS            | PR PUN          |
| ISFATTR.SELECT.CLASS                           | SCLASS, SCLASS1-8 | SO              |
| ISFATTR.SELECT.DEST                            | SDEST1            | PR PUN SO       |
| ISFATTR.SELECT.DISP                            | SDISP             | SO              |
| ISFATTR.SELECT.FCB                             | SFCB              | PR SO           |
| ISFATTR.SELECT.FLASH                           | SFLH              | PR SO           |

Table 224. SDSF Class Resource Names and Overtypable Fields (continued)

| <b>SDSF Resource Name (UPDATE Authority Required)</b> | <b>Overtypable Field</b> | <b>Panel</b>    |
|-------------------------------------------------------|--------------------------|-----------------|
| ISFATTR.SELECT.FORMS                                  | SFORMS                   | PR PUN SO       |
| ISFATTR.SELECT.HOLD                                   | SHOLD                    | SO              |
| ISFATTR.SELECT.JOBCLASS                               | CLASSES, CLASS1-8        | INIT            |
| ISFATTR.SELECT.JOBNAME                                | SJOBNAME                 | PR PUN SO       |
| ISFATTR.SELECT.LIM                                    | LINE-LIM-LO              | PR PUN          |
| ISFATTR.SELECT.LIM                                    | LINE-LIM-HI              | PR PUN          |
| ISFATTR.SELECT.LIM                                    | LINE-LIMIT               | LI NC PR PUN SO |
| ISFATTR.SELECT.ODISP                                  | SODSP                    | NC SO           |
| ISFATTR.SELECT.OUTDISP                                | SODSP                    | LI              |
| ISFATTR.SELECT.OWNER                                  | SOWNER                   | PR PUN SO       |
| ISFATTR.SELECT.PLIM                                   | PAGE-LIM-LOW             | PR              |
| ISFATTR.SELECT.PLIM                                   | PAGE-LIM-HI              | PR              |
| ISFATTR.SELECT.PLIM                                   | PAGE-LIMIT               | LI NC PR SO     |
| ISFATTR.SELECT.PRMODE                                 | SPRMODE1                 | PR PUN RDR      |
| ISFATTR.SELECT.PRMODE                                 | SPRMODE1                 | SO              |
| ISFATTR.SELECT.RANGE                                  | SRANGE                   | PUN SO          |
| ISFATTR.SELECT.RANGE                                  | SRANGE                   | PR              |
| ISFATTR.SELECT.SCHENV                                 | SSCHEDULING-ENV          | SO              |
| ISFATTR.SELECT.SRVCLS                                 | SSRVCLASS                | SO              |
| ISFATTR.SELECT.SYSAFF                                 | SSAFF                    | SO              |
| ISFATTR.SELECT.UCS                                    | SUCS                     | PR SO           |
| ISFATTR.SELECT.VOL                                    | SVOL1                    | PR              |
| ISFATTR.SELECT.VOL                                    | SVOL                     | PUN SO          |
| ISFATTR.SELECT.WRITER                                 | SWRITER                  | PR PUN SO       |
| ISFATTR.SPOOL.MINPCT                                  | MINPCT                   | SP              |
| ISFATTR.SPOOL.OVFNAME                                 | OVERFNAM                 | SP              |
| ISFATTR.SPOOL.PARTNAME                                | PARTNAME                 | SP              |
| ISFATTR.SPOOL.RESERVED                                | RES                      | SP              |
| ISFATTR.SPOOL.SYSAFF                                  | SAFF                     | SP              |



---

## Appendix D. Accessibility

Accessible publications for this product are offered through IBM Knowledge Center (<http://www.ibm.com/support/knowledgecenter/SSLTBW/welcome>).

If you experience difficulty with the accessibility of any z/OS information, send a detailed message to the "Contact us" web page for z/OS (<http://www.ibm.com/systems/z/os/zos/webqs.html>) or use the following mailing address.

IBM Corporation  
Attention: MHVRCFS Reader Comments  
Department H6MA, Building 707  
2455 South Road  
Poughkeepsie, NY 12601-5400  
United States

---

### Accessibility features

Accessibility features help users who have physical disabilities such as restricted mobility or limited vision use software products successfully. The accessibility features in z/OS can help users do the following tasks:

- Run assistive technology such as screen readers and screen magnifier software.
- Operate specific or equivalent features by using the keyboard.
- Customize display attributes such as color, contrast, and font size.

---

### Consult assistive technologies

Assistive technology products such as screen readers function with the user interfaces found in z/OS. Consult the product information for the specific assistive technology product that is used to access z/OS interfaces.

---

### Keyboard navigation of the user interface

You can access z/OS user interfaces with TSO/E or ISPF. The following information describes how to use TSO/E and ISPF, including the use of keyboard shortcuts and function keys (PF keys). Each guide includes the default settings for the PF keys.

- *z/OS TSO/E Primer*
- *z/OS TSO/E User's Guide*
- *z/OS V2R2 ISPF User's Guide Vol I*

---

### Dotted decimal syntax diagrams

Syntax diagrams are provided in dotted decimal format for users who access IBM Knowledge Center with a screen reader. In dotted decimal format, each syntax element is written on a separate line. If two or more syntax elements are always present together (or always absent together), they can appear on the same line because they are considered a single compound syntax element.

Each line starts with a dotted decimal number; for example, 3 or 3.1 or 3.1.1. To hear these numbers correctly, make sure that the screen reader is set to read out

punctuation. All the syntax elements that have the same dotted decimal number (for example, all the syntax elements that have the number 3.1) are mutually exclusive alternatives. If you hear the lines 3.1 USERID and 3.1 SYSTEMID, your syntax can include either USERID or SYSTEMID, but not both.

The dotted decimal numbering level denotes the level of nesting. For example, if a syntax element with dotted decimal number 3 is followed by a series of syntax elements with dotted decimal number 3.1, all the syntax elements numbered 3.1 are subordinate to the syntax element numbered 3.

Certain words and symbols are used next to the dotted decimal numbers to add information about the syntax elements. Occasionally, these words and symbols might occur at the beginning of the element itself. For ease of identification, if the word or symbol is a part of the syntax element, it is preceded by the backslash (\) character. The \* symbol is placed next to a dotted decimal number to indicate that the syntax element repeats. For example, syntax element \*FILE with dotted decimal number 3 is given the format 3 \\* FILE. Format 3\* FILE indicates that syntax element FILE repeats. Format 3\* \\* FILE indicates that syntax element \* FILE repeats.

Characters such as commas, which are used to separate a string of syntax elements, are shown in the syntax just before the items they separate. These characters can appear on the same line as each item, or on a separate line with the same dotted decimal number as the relevant items. The line can also show another symbol to provide information about the syntax elements. For example, the lines 5.1\*, 5.1 LASTRUN, and 5.1 DELETE mean that if you use more than one of the LASTRUN and DELETE syntax elements, the elements must be separated by a comma. If no separator is given, assume that you use a blank to separate each syntax element.

If a syntax element is preceded by the % symbol, it indicates a reference that is defined elsewhere. The string that follows the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you must refer to separate syntax fragment OP1.

The following symbols are used next to the dotted decimal numbers.

**? indicates an optional syntax element**

The question mark (?) symbol indicates an optional syntax element. A dotted decimal number followed by the question mark symbol (?) indicates that all the syntax elements with a corresponding dotted decimal number, and any subordinate syntax elements, are optional. If there is only one syntax element with a dotted decimal number, the ? symbol is displayed on the same line as the syntax element, (for example 5? NOTIFY). If there is more than one syntax element with a dotted decimal number, the ? symbol is displayed on a line by itself, followed by the syntax elements that are optional. For example, if you hear the lines 5 ?, 5 NOTIFY, and 5 UPDATE, you know that the syntax elements NOTIFY and UPDATE are optional. That is, you can choose one or none of them. The ? symbol is equivalent to a bypass line in a railroad diagram.

**! indicates a default syntax element**

The exclamation mark (!) symbol indicates a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicate that the syntax element is the default option for all syntax elements that share the same dotted decimal number. Only one of the syntax elements that share the dotted decimal number can specify the ! symbol. For example, if you hear the lines 2? FILE, 2.1! (KEEP), and 2.1 (DELETE), you know that (KEEP) is the

default option for the FILE keyword. In the example, if you include the FILE keyword, but do not specify an option, the default option KEEP is applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, the default FILE(KEEP) is used. However, if you hear the lines 2? FILE, 2.1, 2.1.1! (KEEP), and 2.1.1 (DELETE), the default option KEEP applies only to the next higher dotted decimal number, 2.1 (which does not have an associated keyword), and does not apply to 2? FILE. Nothing is used if the keyword FILE is omitted.

**\* indicates an optional syntax element that is repeatable**

The asterisk or glyph (\*) symbol indicates a syntax element that can be repeated zero or more times. A dotted decimal number followed by the \* symbol indicates that this syntax element can be used zero or more times; that is, it is optional and can be repeated. For example, if you hear the line 5.1\* data area, you know that you can include one data area, more than one data area, or no data area. If you hear the lines 3\* , 3 HOST, 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

**Notes:**

1. If a dotted decimal number has an asterisk (\*) next to it and there is only one item with that dotted decimal number, you can repeat that same item more than once.
2. If a dotted decimal number has an asterisk next to it and several items have that dotted decimal number, you can use more than one item from the list, but you cannot use the items more than once each. In the previous example, you can write HOST STATE, but you cannot write HOST HOST.
3. The \* symbol is equivalent to a loopback line in a railroad syntax diagram.

**+ indicates a syntax element that must be included**

The plus (+) symbol indicates a syntax element that must be included at least once. A dotted decimal number followed by the + symbol indicates that the syntax element must be included one or more times. That is, it must be included at least once and can be repeated. For example, if you hear the line 6.1+ data area, you must include at least one data area. If you hear the lines 2+, 2 HOST, and 2 STATE, you know that you must include HOST, STATE, or both. Similar to the \* symbol, the + symbol can repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the \* symbol, is equivalent to a loopback line in a railroad syntax diagram.



---

## Notices

This information was developed for products and services offered in the U.S.A. or elsewhere.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing  
IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing  
Legal and Intellectual Property Law  
IBM Japan, Ltd.  
19-21, Nihonbashi-Hakozakicho, Chuo-ku  
Tokyo 103-8510, Japan

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

Site Counsel  
IBM Corporation  
2455 South Road  
Poughkeepsie, NY 12601-5400  
USA

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this information and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement, or any equivalent agreement between us.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

If you are viewing this information softcopy, the photographs and color illustrations may not appear.

#### COPYRIGHT LICENSE:

This information might contain sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

---

## Policy for unsupported hardware

Various z/OS elements, such as DFSMS, HCD, JES2, JES3, and MVS™, contain code that supports specific hardware servers or devices. In some cases, this device-related element support remains in the product even after the hardware devices pass their announced End of Service date. z/OS may continue to service element code; however, it will not provide service related to unsupported hardware devices. Software problems related to these devices will not be accepted

for service, and current service activity will cease if a problem is determined to be associated with out-of-support devices. In such cases, fixes will not be issued.

---

## Minimum supported hardware

The minimum supported hardware for z/OS releases identified in z/OS announcements can subsequently change when service for particular servers or devices is withdrawn. Likewise, the levels of other software products supported on a particular release of z/OS are subject to the service support lifecycle of those products. Therefore, z/OS and its product publications (for example, panels, samples, messages, and product documentation) can include references to hardware and software that is no longer supported.

- For information about software support lifecycle, see: IBM Lifecycle Support for z/OS (<http://www.ibm.com/software/support/systemsz/lifecycle/>)
- For information about currently-supported IBM hardware, contact your IBM representative.

---

## Programming interface information

This book is intended to help the customer customize SDSF and set up SDSF security.

This publication primarily documents information that is NOT intended to be used as Programming Interfaces of SDSF.

This publication also documents intended Programming Interfaces that allow the customer to write programs to obtain the services of SDSF. This information is identified where it occurs, either by an introductory statement to a chapter or section or by the following marking:

————— **Programming Interface Information** —————

————— **End of Programming Interface Information** —————

---

## Trademarks

IBM, the IBM logo, and [ibm.com](http://www.ibm.com) are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available at Copyright and Trademark information (<http://www.ibm.com/legal/copytrade.shtml>).





---

# Index

## Special characters

- ? query character
  - defining with DCHAR parameter 24
- / command
  - authority to enter MVS and JES commands 46, 268
- \* character, with SCHARS parameter 26
- % character, with SCHARS parameter 26
- &; (automatic reissue of commands)
  - interval, specifying minimum 45
  - restricting use of 35

## A

- abbreviations in column data 88
- abend
  - codes 581
  - managing 587
- ABEND command
  - authorization to issue 249
- ABENDCON default field title
  - Dynamic Exits panel 141
- ABENDNUM default field title
  - Dynamic Exits panel 140
- ABENDRSN default field title
  - Job Step panel 162
- access authority, SAF 206
- access to SDSF, controlling 45, 591
- accessibility 621
  - contact IBM 621
  - features 621
- ACCT default field title
  - Held Output Queue panel 147
  - Input Queue panel 150
  - JC panel 153
  - Output Queue panel 177
  - Status panel 196
- ACTDORM default field title
  - Multi-Access Spool panel 168
- ACTFILES default field title
  - Process panel 185
- ACTHOLD default field title
  - Multi-Access Spool panel 168
- action characters
  - confirmation of 49
  - reference to by command level 74
  - specifying authorization to use 46, 49, 223
- ACTION command
  - authorization to issue 249
- ACTION default field title
  - Job Dependencies panel 158
- action messages
  - protecting with SAF 321
- ACTION parameter 35
- ACTIONBAR parameter in ISFPARMS 44
- ACTIVE default field title
  - Dynamic Exits panel 140

- ACTIVE, default field title
  - Job Class panel 154
- ADDRESS default field title
  - Output Descriptors panel 174
- Address Space Memory panel 135
  - ASFLD2 parameter 45
  - ASFLDS parameter 44
  - variable field list of
    - alternate, defining 45
    - primary, defining 44
- ADDRESS-LINE1 default field title
  - Job Data Set panel 155
- ADDRESS-LINE2 default field title
  - Job Data Set panel 155
- ADDRESS-LINE3 default field title
  - Job Data Set panel 155
- ADDRESS-LINE4 default field title
  - Job Data Set panel 156
- ADEST value 54
- ADISC default field title
  - Lines panel 165
- ADMSYMBL 24
- AFD command 385
- AFPPARMS Default field title
  - Job Data Set panel 156
  - Output Descriptor panel 175
- alias
  - queue 118, 363
  - queue manager 363
- ALL value
  - for ACTION parameter 43
  - for CMDAUTH parameter 46
  - for DSPAUTH parameter 54
- Alloc default field title
  - Initiator panel 149
- allocating
  - SDSF data sets 24
- AllocCount default field title
  - Initiator panel 149
- alternate field list for SDSF panels
  - defining 86
- AMDEST value 54, 59, 74
- AMSG value 54, 59, 74
- ANode default field title
  - NC panel 169
- ANODE default field title
  - LI panel 166
- APF default field title
  - Link Pack Area panel 167
- APF indicator default field title
  - Link List panel 167
- APPC parameter in ISFPARMS 44
- Appl default field title
  - NS panel 171
- APPL default field title
  - Job Device panel 160
- APPLDATA default field title
  - Job Device panel 160
- APPLID default field title
  - Lines panel 165

- ARCHIVE default field title
  - Spool Offload panel 192
- AReq default field title
  - Reader panel 188
- ARM registration of server 120
- ARRINTV default field title
  - Enclaves panel 142
- ARRTIME default field title
  - Enclaves panel 142
- ASID default field title
  - Address Space Memory panel 136
  - Display Active Users Panel 138
  - Enqueue panel 143
  - Initiator panel 149
  - Input Queue panel 151
  - NS panel 171
  - Process panel 185
  - Status panel 197
- ASIDX default field title
  - Address Space Memory panel 136
  - Display Active Users Panel 138
  - Enqueue panel 143
  - Initiator panel 149
  - Input Queue panel 151
  - Process panel 185
  - Status panel 197
- ASIS default field title
  - Printer panel 183
- assistive technologies 621
- ASYS default field title
  - Input Queue panel 150
  - Status panel 196
- AttStat default field title
  - MAS and JESPLEX panels 169
- auditing
  - commands with MSG 48
  - SAF requests 204
- AUPDT parameter 35
- AUTH default field title
  - JC panel 153
- AUTH parameter 45
  - specifying with SAF 329, 591
- AUTHORITY default field title
  - NODE panel 172
  - Reader panel 188
- authorization
  - using SAF to change 204
- authorization group
  - users placed in wrong 586
  - with error messages 505
- authorization parameters 15
  - quick reference to 35
  - using to define
    - action characters that can be issued 49
    - automatic update interval 35
    - default address space types and positions displayed on Display Active Users panel 51
    - destination names used with DEST command 52, 58

authorization parameters (*continued*)  
 using to define (*continued*)  
 display of SYSOUT and SYSIN data sets 54, 58  
 fields overtypeable on SDSF panels 46, 49  
 groups of users 34  
 jobs displayed on SDSF panels 58, 66, 67  
 jobs for which commands can be issued 46  
 MVS and JES commands that can be issued 46  
 MVS and JES2 commands that can be issued 49  
 SDSF commands allowed 45  
 SYSLOG displayed in multi-access spool environment 72  
 who can use SDSF 45  
 WTOR messages displayed on SYSLOG 43

authorization parameters in ISFPARMS  
 checking for user authorization 505  
 using to define  
 combining use with SAF security 204

Authorized Program Facility panel 137  
 APFFLD2 parameter 44  
 variable field list of  
 alternate, defining 44

Authorized Program Facilitypanel  
 APFFLDS parameter 44  
 variable field list of  
 primary, defining 44

authorizing users 15  
 problems with 586  
 to use SDSF 45  
 with an installation exit routine 345

AUTODELAY default field title  
 SR panel 201

Automatic Restart Manager (ARM)  
 registration of server 120

automatic update  
 interval, specifying minimum 35  
 restricting use of 35

AUTOREPLY default field title  
 SR panel 201

AUTOTEXT default field title  
 SR panel 201

AUTOTIME default field title  
 SR panel 201

Aux default field title  
 Address Space Memory panel 136

AUXPCT default field title  
 SYS panel 199

AVGCONN default field title  
 Job Device panel 160

AVGMSU default field title  
 SYS panel 200

## B

B abbreviation in column data 88  
 B default field title  
 Printer panel 183  
 BADASID default field title  
 SYS panel 199

Barrier default field title  
 Initiator panel 149

batch 383

batch job  
 displaying on Display Active Users panel 51  
 running SDSF as 389

BDTNAME default field title  
 NODE panel 173

BEGINTME default field title  
 Job Step panel 163

BLKSIZE default field title  
 Authorized Program Facility panel 137  
 Job Device panel 159  
 Link List panel 166  
 Link Pack Area panel 167  
 PARMLIB panel 179  
 PROC panel 184  
 SRCH panel 195

BLP default field title  
 JC panel 153  
 Reader panel 188

BOSS default field title  
 MAS and JESPLEX panels 168

browse check output with  
 ISFBROWSE 464

browse job output with EXECIO 457, 460

browse job output with  
 ISFBROWSE 458, 459, 462

browse the OPERLOG with ISFLOG 471

browse the SYSLOG with ISFLOG 469

browsing output  
 authority 54  
 custom property 94  
 ISFPARMS authority 49, 74  
 SAF authority 223, 262, 329

browsing output with ISFBROWSE 411

BUFSIZE default field title  
 NODE panel 173

BUILDING default field title  
 Job Data Set panel 155  
 Output Descriptors panel 174

BURST default field title  
 Held Output Queue panel 146  
 Job 0 panel 163  
 Job Data Set panel 155  
 Output Queue panel 176  
 Printer panel 180

BURSTPAGE default field title  
 Punch panel 187

BYTE-CNT default field title  
 Job 0 panel 164  
 Job Data Set panel 154

BYTESIN default field title  
 Job Device panel 160

BYTESOUT default field title  
 Job Device panel 160

## C

C default field title  
 Display Active Users panel 138  
 Held Output Queue panel 146  
 Initiator panel 149  
 Input Queue panel 150

C default field title (*continued*)  
 Job 0 panel 163  
 Job Data Set panel 154  
 Output Queue panel 176  
 Printer panel 180  
 Reader panel 188  
 Status panel 196

CADSPCT default field title  
 SYS panel 199

CANCEL (\$C) command  
 authorization with ISFPARMS 47, 74  
 authorization with SAF 206

canceling jobs  
 authorization with ISFPARMS 47  
 authorization with SAF 206

CARDS default field title  
 Held Output Queue panel 147  
 Input Queue panel 151  
 Output Queue panel 177  
 Status panel 197

carriage control  
 custom property 102

case of panels, specifying 103

CATDSN default field title  
 SYS panel 200

CATEGORY default field title  
 CK panel 145

CATTYPE default field title  
 SYS panel 200

CATVOL default field title  
 SYS panel 200

CC default field title  
 Job 0 panel 163  
 Job Data Set panel 154  
 Job Step panel 162

CCTL default field title  
 Printer panel 183  
 Punch panel 186

CGS default field title  
 Printer panel 183

changing  
 class of output of jobs  
 authorization with ISFPARMS 47  
 authorization with SAF 206

CHAR1 default field title  
 Printer panel 182

CHAR2 default field title  
 Printer panel 182

CHAR3 default field title  
 Printer panel 182

CHAR4 default field title  
 Printer panel 182

CHARS default field title  
 Job 0 panel 164  
 Job Data Set panel 155

CK command  
 authorization to issue 249

CK panel 144

CK panel scope  
 controlling 98

CKH panel 144  
 CKHFLDS parameter 46  
 limiting 98, 347  
 variable field list of  
 alternate, defining 46  
 primary, defining 46

CKPTLINE default field title  
   Printer panel 181  
 CKPTMODE default field title  
   Printer panel 181  
 CKPTPAGE default field title  
   Printer panel 181  
   Punch panel 186  
 CKPTREC default field title  
   Printer panel 181  
   Punch panel 186  
 CKPTSEC default field title  
   Printer panel 181  
 CKTPLINE default field title  
   Punch panel 186  
 CL default field title  
   Punch panel 186  
 Class1-8 default field titles  
   Initiator panel 149  
 CLASSES default field title  
   Initiator panel 148  
 CLEAR default field title  
   Printer panel 183  
 CLIENT default field title  
   Job Device panel 160  
 CMDAUTH parameter 46  
   authorization to issue MVS/JES  
   commands 47  
   specifying with SAF 329  
 CMDLEV parameter 49  
   specifying with SAF 328, 329  
 CMPCT default field title  
   Printer panel 183  
 CODE default field title  
   Lines panel 165  
 code pages 103  
 CODPAG parameter 105  
 COLORMAP default field title  
   Job Data Set panel 156  
   Output Descriptors panel 174  
 column headings 86  
 COMCHAR default field title  
   MAS and JESPLEX panels 168  
 COMM statement 28, 30  
 command authority exit point 349  
 COMMAND default field title  
   JC panel 153  
   MAS and JESPLEX panels 168  
   Process panel 185  
   Spool Volumes panel 193  
 commands  
   AFD 385  
   and EMCS 55  
   authorization to issue  
   problems with 586  
   with installation exit routines 345  
   with ISFPARMS 46, 49  
   with SAF security scheme 224,  
   249, 268, 272  
   authorized SDSF commands 45, 249  
   generated MVS/JES commands 206,  
   214  
   ISFACP 17  
   logging of 48  
   MVS and JES, issuing 46, 268  
   unauthorized use of, tracking 48  
 communications  
   problems with 588  
   communications (*continued*)  
   starting between servers 130  
   stopping 131  
 COMP default field title  
   Lines panel 165  
   Printer panel 183  
   Punch panel 186  
 Comp% default field title  
   Spool Volumes panel 194  
 COMPAC default field title  
   Printer panel 183  
 Compact default field title 170  
 COMPACT default field title  
   NODE panel 172  
   Punch panel 186  
 COMSETUP default field title  
   Job Data Set panel 156  
   Output Descriptors panel 174  
 conditional access with RACF 221  
 conditional processing of ISFPARMS  
   WHEN statement 20, 22  
 CONFIRM parameter 49  
 confirmation of action characters,  
   controlling 49  
 CONN default field title  
   Job Step panel 162  
 Conn-Int default field title  
   LI panel 166  
   NC panel 169  
 Connect default field title 169  
 CONNECT default field title  
   Job Device panel 160  
   LI panel 166  
   NODE panel 173  
 CONNECT statement 33  
 ConnStat default field title  
   MAS and JESPLEX panels 169  
 console  
   name 358  
 CONSOLE class 206, 221  
 CONSOLE default field title  
   SR panel 201  
 console used with / command 46  
 contact  
   z/OS 621  
 CONTROL (K) command  
   authorization to issue 74  
 conversion assist for RACF 340  
 converting assembler macros to  
   statements 17  
 converting ISFPARMS to RACF 340  
 COPIES default field title  
   Printer panel 183  
   Punch panel 187  
 COPYMARK default field title  
   Printer panel 181  
 COUNT default field title  
   CK panel 144  
   Job Memory panel 162  
 CPC default field title  
   SYS panel 200  
 CPR default field title  
   JC panel 153  
 CPU default field title  
   Process panel 185  
 CPU use  
   custom property 99  
 CPU-TIME default field title  
   Display Active Users Panel 138  
   Enclave panel 141  
 CPU% default field title  
   Display Active Users Panel 138  
 CPUCRIT default field title  
   Display Active Users panel 139  
   Enclaves panel 142  
 CPUFMT parameter 50  
 CPUNUM default field title  
   SYS panel 200  
 CPUPR default field title  
   SYS panel 199  
 CPUTIME default field title  
   Job Step panel 162  
 CPY default field title  
   JC panel 153  
 CPYMOD default field title  
   Job 0 panel 164  
   Job Data Set panel 155  
   Printer panel 181  
 CPYMODFT default field title  
   Job Data Set panel 155  
 CRDATE default field title  
   Authorized Program Facility  
   panel 137  
   Held Output Queue panel 147  
   Link List panel 167  
   Link Pack Area panel 167  
   Output Queue panel 176  
   PARMLIB panel 179  
   PROC panel 184  
   SRCH panel 195  
 CRDATE-CRTIME default field title  
   Job Data Set panel 155, 164  
 CRETCODE default field title  
   Job Group panel 160  
 CRTIME default field title  
   Spool Offload panel 193  
 CSA default field title  
   Address Space Memory panel 136  
 CSAPCT default field title  
   Address Space Memory panel 136  
   SYS panel 199  
 CSQZPARM, values for SDSF 361  
 CTCNODE default field title  
   NODE panel 174  
 CTIME default field title  
   NODE panel 173  
 CTITLE parameter 50  
 CTr default field title  
   NC panel 169  
   NS panel 171  
 CTR default field title  
   LI panel 166  
 CURSOR parameter 50  
 cursor placement, controlling 50  
 CUSTOM parameter 51  
 customizing parameters 51  
 customizing properties 93  
 customizing SDSF  
   writing an installation exit  
   routine 345  
 CVTVERID default field title  
   SYS panel 200

## D

- d 146
  - DA command
    - authorization to issue 249
  - DA panel scope
    - controlling 99
  - DADFLT parameter 51
  - data sets
    - allocating SDSF 24
    - freeing dynamically allocated 28
  - DataSetName default field title
    - Spool Volumes panel 194
  - DATE default field title
    - SR panel 201
  - date format, controlling 51
  - DATE parameter 51
  - date separator, controlling 52
  - DATEE default field title
    - CK panel 145
    - CKH panel 144
    - Process panel 185
    - RM panel 190
  - DATEN default field title
    - CKH panel 144
  - DATESEP parameter 52
  - DATETIMEE default field title
    - Held Output Queue panel 148
    - Input Queue panel 152
    - Output Queue panel 177
    - Status panel 197
  - DATIMEN default field title
    - Held Output Queue panel 148
    - Output Queue panel 178
    - Status panel 197
  - DATETIMER default field title
    - Held Output Queue panel 148
    - Input Queue panel 152
    - Output Queue panel 177
    - Status panel 197
  - DCHAR parameter 24
  - DDNAME default field title
    - Job 0 panel 164
  - DEBUG default field title
    - CK panel 145
  - Default default field title
    - Initiator panel 149
    - Spool Volumes panel 194
  - default field title
    - JC panel 152
  - default SDSF server, defining 33
  - DefCount default field title
    - Initiator panel 149
  - DEFDATE default field title
    - CK panel 145
  - DEFINE command
    - example 118
  - DEFVOL default field title
    - Authorized Program Facility panel 137
    - PROC panel 184
  - DELAYRSN default field title
    - Input Queue panel 151
    - Status panel 197
  - DELDATE default field title
    - CK panel 145
  - DEPARTMENT default field title
    - Job Data Set panel 155
  - DEPARTMENT default field title
    - (continued)
    - Output Descriptors panel 174
  - DEPEND default field title
    - Job Dependencies panel 158
  - DESC default field title
    - Job Delay panel 157
    - SR panel 201
  - DESCRIPT default field title
    - SE panel 190
  - DEST command
    - destination names used on 52, 58
    - how to protect with SAF 253
  - DEST default field title
    - Held Output Queue panel 146
    - Job 0 panel 164
    - Job Data Set panel 154
    - Output Queue panel 176
    - Printer panel 180
  - DEST parameter 52
    - Specifying with SAF 52
  - DEST value on CMDAUTH parameter 47
  - DESTDEF
    - coding 357
  - destination names of jobs
    - SAF authorization 253
    - specifying usage with DEST command 52
    - used to control
      - authorization to issue commands 46
      - authorization to view SYSOUT and SYSIN for jobs 54, 58
      - jobs displayed on SDSF panels 58, 60, 74
  - destination operator authority 206, 215, 254, 330
  - DESTN default field title
    - Punch panel 187
  - DEVICE default field title
    - Held Output Queue panel 147
    - Input Queue panel 150
    - Output Queue panel 176
    - Status panel 196
  - DevType default field title
    - Reader panel 188
  - DEVTYPE default field title
    - Printer panel 182
    - Punch panel 187
  - DFCB default field title
    - Printer panel 181
  - DFIELD2 parameter 53
  - DFIELDS parameter 53
  - DGRPY default field title
    - Printer panel 182
    - Punch panel 187
  - DIAG1 default field title
    - CK panel 144
    - CKH panel 144
  - DIAG2 default field title
    - CK panel 144
    - CKH panel 144
  - DIAGFROM default field title
    - CK panel 144
  - diagnostic information, modules 585
  - DIRECT default field title
    - NODE panel 173
  - DISCON default field title
    - LI panel 165
  - DISP1 default field title
    - Job Device panel 159
  - DISP2 default field title
    - Job Device panel 159
  - DISP3 default field title
    - Job Device panel 160
  - DISPLAY (\$D) command
    - authorization to issue, specifying 47, 74
  - DISPLAY (D) command
    - authorization to issue 74
  - Display Active Users panel 137
    - address space types and positions on, specifying
      - in ISFPARMS 51
      - and RMF 360
    - authorization to display 45, 249
    - jobs displayed on 58, 67
      - by owner 66
    - variable field list of
      - alternate, defining 86
      - primary, defining 86
  - DISPLAY parameter in ISFPARMS 53
  - DISPLAY value on CMDAUTH parameter 48
  - displaying
    - message help 505
- DJOBID default field title
  - Job Dependencies panel 158
- DJOBNAME default field title
  - Job Dependencies panel 158
- DLY default field title
  - Input Queue panel 150
  - Status panel 196
- DORMANCY default field title
  - Multi-Access Spool panel 168
- DP default field title
  - Display Active Users panel 138
  - Printer panel 180
- DPRIO default field title
  - Punch panel 187
- DSecLabel default field title 170
- DSECLABEL default field title
  - LI panel 165
  - NODE panel 173
  - NS panel 171
  - Printer panel 182
  - Punch panel 187
  - Reader panel 188
  - Spool Offload panel 193
- DSENQSHR, default field title
  - Job Class panel 154
- DSI parameter 24
- DSID default field title
  - Job 0 panel 163
  - Job Data Set panel 154
- DSNAME default field title
  - Job 0 panel 164
  - Job Data Set panel 155
  - Job Device panel 159
  - PROC panel 184
  - Spool Offload panel 191

DSORG default field title  
 Authorized Program Facility panel 137  
 Job Device panel 160  
 Link List panel 167  
 Link Pack Area panel 167  
 PARMLIB panel 179  
 PROC panel 184  
 SRCH panel 195  
 DSPAUTH parameter 54  
 Specifying with SAF 329  
 DSPName default field title  
 NS panel 171  
 DSPNAME default field title  
 Printer panel 182  
 Punch panel 187  
 Reader panel 188  
 DSYSID default field title  
 RM panel 189  
 DTracks default field title  
 Spool Volumes panel 194  
 DTrackU default field title  
 Spool Volumes panel 194  
 dump  
 of SDSF, taking 585  
 with abends 581  
 DUPJOB, default field title  
 Job Class panel 154  
 DUPLEX default field title  
 Lines panel 165  
 DYNAMIC default field title  
 Printer panel 183  
 Punch panel 187  
 Dynamic Exits panel 140  
 ASFLD2 parameter 55  
 DYNXFLDS parameter 55  
 variable field list of  
 alternate, defining 55  
 primary, defining 55  
 dynamically allocated data sets  
 enqueueing on 24  
 freeing 28

## E

ECPU% default field title  
 Display Active Users panel 139  
 ECPU—Time default field title  
 Display Active Users panel 139  
 ECSA default field title  
 Address Space Memory panel 136  
 ECSAPCT default field title  
 Address Space Memory panel 136  
 SYS panel 199  
 EDT default field title  
 SYS panel 200  
 EINTERVAL default field title  
 CK panel 146  
 ELAPSED default field title  
 Job Step panel 162  
 EMCS authority 55  
 EMCS console  
 name modification 96  
 sharing 97, 347, 349  
 EMCS required for system  
 commands 55  
 EMCSAUTH parameter 55

EMCSREQ parameter 55  
 ENC command  
 authorization to issue 249  
 ENC panel scope  
 controlling 100, 101  
 ENCFLD2 parameter 56  
 ENCFLDS parameter 56  
 Enclaves panel  
 authorization to display 45, 249  
 variable field list 141  
 variable field list of  
 alternate, defining 56  
 primary, defining 56  
 END default field title  
 NODE panel 172  
 end user group 328, 334  
 END-DATE default field title  
 Held Output Queue panel 147  
 Output Queue panel 177  
 Status panel 197  
 END-TIME default field title  
 Held Output Queue panel 147  
 Output Queue panel 177  
 Status panel 197  
 ENDTIME default field title  
 Job Step panel 163  
 ENQTOKEN default field title  
 Enqueue panel 143  
 Enqueue panel 142  
 ENQFLDS parameter 56  
 variable field list of  
 primary, defining 56  
 enqueueing on dynamically allocated  
 data sets 24  
 ERRCOND default field title  
 Job Group panel 161  
 ERRSTAT default field title  
 Job Group panel 161  
 ESQA default field title  
 Address Space Memory panel 136  
 ESQAPCT default field title  
 Address Space Memory panel 136  
 SYS panel 199  
 ESYSD default field title  
 Held Output Queue panel 147  
 Input Queue panel 151  
 Output Queue panel 177  
 Status panel 196  
 EXCOUNT default field title  
 CK panel 144  
 EXCP default field title  
 Job Step panel 162  
 EXCP-Cnt default field title  
 Display Active Users Panel 138  
 EXCPCT default field title  
 Job Device panel 160  
 exec  
 generating 393  
 EXECNAME default field title  
 CK panel 146  
 EXECNODE default field title  
 Input Queue panel 150  
 Status panel 196  
 exit point  
 command authority 349  
 display authority exit point 350  
 initialization 347

exit point (*continued*)  
 installation of 346  
 post-SAF 352  
 pre-SAF 351  
 SDSF termination 351  
 table build 353  
 EXITNAME default field title  
 CK panel 145  
 EXT default field title  
 Spool Volumes panel 193  
 extended console 268, 321  
 name 358  
 OPERPARM 322  
 EXTENT default field title  
 Authorized Program Facility  
 panel 137  
 Link List panel 166  
 Link Pack Area panel 167  
 PARMLIB panel 179  
 PROC panel 184  
 SRCH panel 195

## F

FAIL default field title  
 CK panel 145  
 FASTPATH default field title  
 Dynamic Exits panel 140  
 FCB default field title  
 Held Output Queue panel 146  
 Job 0 panel 163  
 Job Data Set panel 155  
 Output Queue panel 176  
 Printer panel 180  
 FCBLOAD default field title  
 Printer panel 183  
 field title  
 Reader panel 188  
 fields on SDSF panels  
 defining in ISFPARMS 86  
 defining with statements 86  
 overtyping  
 authorization with ISFPARMS 49  
 authorization with SAF 271  
 FILTER command  
 limit of lines searched on  
 OPERLOG 25  
 filtering  
 bypassing 348  
 FIND command  
 limit of lines searched for, specifying  
 in ISFPARMS 24  
 FINDLIM command  
 authorization to issue 249  
 FINDLIM parameter 24  
 FIRSTSMP default field title  
 Job Delay panel 157  
 FIXBPCT default field title  
 SYS panel 199  
 FIXED default field title  
 Address Space Memory panel 136  
 Job Memory panel 162  
 FIXEDB default field title  
 Address Space Memory panel 136  
 FIXPCT default field title  
 SYS panel 199

- FLASH default field title
  - Held Output Queue panel 146
  - Job 0 panel 164
  - Job Data Set panel 155
  - Output Queue panel 176
  - Printer panel 180
- FLASHC default field title
  - Job 0 panel 164
  - Job Data Set panel 155
- FLD statement 86
  - parameters 87
- FLDENT statement
  - parameters 87
- FLS default field title
  - Punch panel 186
- FLUSHACT default field title
  - Input Queue panel 151
  - Status panel 198
- format of CPU busy, controlling 50
- FORMDEF default field title
  - Job Data Set panel 155
  - Output Descriptors panel 174
- FORMLen default field title
  - Job Data Set panel 156
  - Output Descriptors panel 174
- FORMS default field title
  - Held Output Queue panel 146
  - Job 0 panel 163
  - Job Data Set panel 155
  - Output Queue panel 176
  - Printer panel 180
  - Punch panel 187
- FPROT default field title
  - Job Memory panel 162
- FRAG default field title
  - Job Memory panel 162
- FREEASID default field title
  - SYS panel 199
- freeing dynamically allocated data sets 28
- FSASYSNM default field title
  - Printer panel 182
- FSATTRACE default field title
  - Printer panel 181
- FSSNAME default field title
  - Printer panel 181
- FSSPROC default field title
  - Printer panel 181

## G

- G abbreviation in column data 88
- GB abbreviation in column data 88
- GCP-Use% default field title
  - Display Active Users panel 139
- GCP—Time default field title
  - Display Active Users panel 139
- GDDM (Graphical Data Display Manager)
  - invoking with V action character 24
  - viewing page-mode output 263
- generated MVS/JES commands 206, 214
- generating a REXX exec 393
- GLOBAL default field title
  - CK panel 144
  - MAS and JESPLEX panels 168
- global search characters, specifying 26

- GPLEN parameter 56
- GPREF parameter 57
- Group default field title
  - Initiator panel 149
- GROUP default field title
  - Printer panel 179
  - PUN panel 185
  - RDR panel 188
- Group field
  - JC panel 152
- group membership
  - setting up with GROUP statement 327
- group prefix
  - defining 56, 57
  - using to control
    - jobs users can display 67
    - jobs users can issue commands for 46
    - jobs users can view messages only for 56
    - jobs users can view output for 56
- GROUP statement
  - examples of 34
  - parameters 34, 35
  - purpose of 34
  - sample with SAF profiles 329, 331, 334
  - setting up group membership with 327
  - using SAF security 203
- GROUP value
  - for CMDAUTH parameter 48
  - for DSPAUTH parameter 54
  - for PREFIX parameter 67
- groups of users, defining 34
- GRPMMSG value 55, 59, 74
- GRS default field title
  - SYS panel 200
- GSDSF class 218

## H

- H command
  - adding generic character 95, 347
  - authorization to issue 249
- HALT (\$Z) command
  - authorization to issue, specifying 47, 74
- HBURST default field title
  - Printer panel 183
- HCHARS default field title
  - Printer panel 183
- HCPYMOD default field title
  - Printer panel 183
- headings on SDSF panels, defining 86
- Health Check history panel
  - variable field list of
    - alternate, defining 86
    - primary, defining 86
- Health Check History panel 144
- Health Checker panel 144
  - authorization to display 45, 249
  - CKFLD2 parameter 46
  - CKFLDS parameter 46
  - variable field list of
    - alternate, defining 46
- Health Checker panel (*continued*)
  - variable field list of (*continued*)
    - primary, defining 46
- Held Output Queue panel 146
  - authority to display 249
  - authority to display, specifying 45
  - jobs displayed on, controlling
    - by destination name 58
    - by job name 60, 74
    - by job name prefix 67
    - by owner 66
  - variable field list of 147
    - alternate, defining 86
    - primary, defining 86
- help
  - for messages 505
  - search 505
- help panel data set
  - DD statement in TSO logon procedure 26
  - specifying name and volume serial of 26
- HFCB default field title
  - Printer panel 183
- HFIELD2 parameter 57
- HFLASH default field title
  - Printer panel 183
- HFORMS default field title
  - Printer panel 183
  - Punch panel 187
- HICPUPCT default field title
  - Job Step panel 163
- HICPUPGM default field title
  - Job Step panel 163
- HiCyl default field title
  - Spool Volumes panel 193
- HiHead default field title
  - Spool Volumes panel 193
- HITRK default field title
  - Spool Volumes panel 193
- HiUsed default field title
  - Spool Volumes panel 194
- HOLD (\$H) command
  - authorization to issue 46, 47, 74
- HOLD default field title
  - Multi-Access Spool panel 168
  - NODE panel 172
  - Reader panel 188
- HOLD-CNT default field title
  - JC panel 152
- holding
  - jobs
    - authorization for, specifying 47
    - output of jobs
      - authorization for, specifying 49
- HOLDUNTIL default field title
  - Input Queue panel 151
  - Status panel 198
- HONORTRC default field title
  - Printer panel 182
- HUCS default field title
  - Printer panel 183
- HVCOM default field title
  - Address Space Memory panel 136
- HVCOMHWM default field title
  - Address Space Memory panel 136

- HVCOMNUM default field title
  - Address Space Memory panel 136
- HWNAME default field title
  - SYS panel 200
- I**
- I command
  - authorization to issue 249
- IBM Health Checker for z/OS
  - CK panel 144
  - CKH panel 144
- ICMD parameter 57
- IDBACK parameter, value for 361
- IDEST parameter 58
  - Specifying with SAF 58
- IDFORE, value for 361
- IDSP parameter 58
- IDSPD parameter 54, 58, 74
- IEANUC default field title
  - SYS panel 200
- IEASYM default field title
  - SYS panel 200
- IEASYS default field title
  - SYS panel 200
- IFIELD2 parameter 59
- IFIELDS parameter 59
- ILOGCOL parameter 59
  - SYSLOG position, specifying 59
- ILPROC parameter 38
- IN value 51
- INBUFSZ default field title
  - Job Device panel 159
- IND default field title
  - Multi-Access Spool panel 168
- index, to help and tutorial 505
- INIT command
  - authorization to issue 249
- INIT panel
  - default initiators 95
- INIT value 51
- initialization exit point 347
- initialization parameters 15
  - sample of 18
- initiator panel 148
- Initiator panel
  - authority to display, specifying 46
  - authorization to display 45
  - variable field list of 148
    - alternate, defining 86
    - primary, defining 86
- initiators
  - authority to control from Initiator panel, specifying 46
  - displaying
    - on Display Active Users panel 51
  - SAF authorization 206
- INPUT command
  - authorization to issue 249
- INPUT parameter 59
- Input Queue panel 149
  - authority to display 45, 249
  - jobs displayed on, controlling
    - by destination name 58
    - by job name 60
    - by job name prefix 67
    - by owner 66
- Input Queue panel (*continued*)
  - variable field list 149
  - variable field list of 149, 150
    - alternate, defining 86
    - primary, defining 86
- installation exit points 346
- installation exit routines 345
- installing SDSF
  - with JES2 secondary subsystem 357
- INTAVG default field title
  - RM panel 189
- INTERRUPT (\$I) command
  - authorization to issue 47, 74, 206
- INTERVAL default field title
  - CK panel 145
  - Job Delay panel 157
- INTF default field title
  - Lines panel 165
- INTFLD2 parameter 60
- INTFLDS parameter 60
- INTHIGH default field title
  - RM panel 189
- INTLOW default field title
  - RM panel 189
- INTRAY default field title
  - Output Descriptors panel 174
- IODFDATE default field title
  - SYS panel 200
- IODFDSN default field title
  - SYS panel 200
- IOPRIOGRP default field title
  - Display Active Users panel 140
  - Enclaves panel 142
- IP DESTINATION default field title
  - Output Descriptors panel 175
- IPAddr default field title
  - NC panel 170
- IPADDR default field title
  - Job Device panel 159
  - LI panel 165
- IPLDATE default field title
  - SYS panel 200
- IPLDAYS default field title
  - SYS panel 200
- IPLTYPE default field title
  - SYS panel 200
- IPLUNIT default field title
  - SYS panel 199
- IPLVOL default field title
  - SYS panel 199
- IPName default field title
  - NC panel 170
  - NS panel 171
- IPNAME default field title
  - LI panel 165
- ISFACP command 17
- ISFACR command 340
- ISFACT command 404, 418
- ISFACTIONS special variable 440
- ISFAPPC special variable 440
- ISFBROWSE command 411
- ISFBROWSE, examples 412
- ISFBROWSE, special variables 412
- ISFCALLS 394
- ISFCKLIM special variable 440
- ISFCMDLIM special variable 440
- ISFCMODE special variable 440
- ISFCOLOR special variable 441
- ISFCOLS special variable 440
- ISFCOLUMNGROUPS special variable 441
- ISFCONMOD special variable 440, 441
- ISFCONS special variable 440
- ISFDATE special variable 440
- ISFDCOLS special variable 440
- ISFDDNAME special variable 440
- ISFDELAY special variable 440
- ISFDESCODE special variable 442
- ISFDEST special variable 440
- ISFDIAG special variable 440
- ISFDISPLAY special variable 440
- ISFDISPLAYMODE special variable 440
- ISFDSNAME special variable 440
- ISFEXEC command 395
- ISFFILTER special variable 440
- ISFFILTERMODE special variable 440
- ISFFIND special variable 443
- ISFFINDENDCOL special variable 443
- ISFFINDLIM special variable 443
- ISFFINDSTARTCOL special variable 443
- ISFFIRSTLINEDATE special variable 443
- ISFFIRSTLINEDSID special variable 443
- ISFFIRSTLINEJOBID special variable 443
- ISFFIRSTLINERECNO special variable 443
- ISFFIRSTLINETIME special variable 443
- ISFFIRSTLINETOKEN special variable 443
- ISFFLD macro 86
  - parameters 87
- ISFGRP macro
  - examples of 34
  - parameters 34, 35
  - purpose of 34
  - setting up group membership with 327
  - using SAF security 203
- ISFGRP macros
  - checking authorization 505
- ISFHIGHLIGHT special variable 443
- ISFINPUT special variable 440
- ISFINTENSITY special variable 443
- ISFISP 366
- ISFISP2 366
- ISFJES3NAME special variable 440
- ISFJESNAME special variable 440
- ISFLASTLINEDATE special variable 444
- ISFLASTLINEDSID special variable 444
- ISFLASTLINEJOBID special variable 444
- ISFLASTLINERECNO special variable 444
- ISFLASTLINETIME special variable 444
- ISFLINE special variable 440
- ISFLINELIM special variable 440
- ISFLOG command 420
- ISFLOGSTARTDATE special variable 440, 444
- ISFLOGSTARTTIME special variable 440, 444
- ISFLOGSTOPDATE special variable 440, 445
- ISFLOGSTOPTIME special variable 440, 444

- ISFLRECL special variable 440
  - ISFMSG special variable 440
  - ISFNTBL macro
    - examples of 91
    - format of 92
    - parameters 92
    - purpose of 91
  - ISFOWNER special variable 440
  - ISFPARMS
    - refreshing 129
  - ISFPARMS module 15
    - backup to SAF 204
    - conditional processing in 20, 22
    - converting to SAF security 327
    - converting to statements 17
    - NTBL statements in 15
    - running SDSF as a batch job 390
    - sample 18
    - sample with SAF resources 328
    - symbols in 22
    - WHEN statement 20
  - ISFPLIB data set
    - DD statement in TSO logon procedure 26
    - specifying name and volume serial of 26
  - ISFPMAC macro 22, 23
  - ISFPREFIX special variable 440
  - ISFPRTBLKSIZE special variable 440
  - ISFPRTCLASS special variable 440
  - ISFPRTCOPIES special variable 440
  - ISFPRTDATACLAS special variable 440
  - ISFPRTDDNAME special variable 440
  - ISFPRTDEST special variable 440
  - ISFPRTDIRBLKS special variable 440
  - ISFPRTDISP special variable 440
  - ISFPRTDSNAME special variable 440
  - ISFPRTFCB special variable 440
  - ISFPRTFORMDEF special variable 440
  - ISFPRTFORMS special variable 440
  - ISFPRTLRECL special variable 440
  - ISFPRTMEMBER special variable 440
  - ISFPRTMGMTCLAS special variable 440
  - ISFPRTOUTDESNAME special variable 440
  - ISFPRTPAGEDEF special variable 440
  - ISFPRTPRIMARY special variable 440
  - ISFPRTPRTMODE special variable 440
  - ISFPRTRECFM special variable 440
  - ISFPRTSECONDARY special variable 440
  - ISFPRTSPACETYPE special variable 440
  - ISFPRTSTORCLAS special variable 440
  - ISFPRTUCS special variable 440
  - ISFPRTUNIT special variable 440
  - ISFPRTVOLSER special variable 440
  - ISFRCOLS special variable 440
  - ISFRECFM special variable 440
  - ISFRESET function 428, 440
  - ISFRESP special variable 440
  - ISFROWS special variable 440
  - ISFSCHARS special variable 440
  - ISFSCROLL special variable 447
  - ISFSCROLLTYPE special variable 447
  - ISFSECTTRACE special variable 440
  - ISFSERVER special variable 440
  - ISFSLASH command 425
  - ISFSORT special variable 440
  - ISFSTARTLINETOKEN special variable 448
  - ISFSYSID special variable 440
  - ISFSYSNAME special variable 440
  - ISFTIMEOUT special variable 440
  - ISFTITLES special variable 440
  - ISFTLINE special variable 440
  - ISFTR macro 103
    - syntax 105
    - using for defining code pages 103
    - using UPCTAB parameter with 103
    - using VALTAB parameter with 103
  - ISFTRACE special variable 440
  - ISFTRMASK special variable 440
  - ISFUCOLS special variable 440
  - ISFULOG special variable 440
  - ISFUSER module, using to customize SDSF 345
  - ISPF (Interactive System Productivity Facility)
    - adding SDSF to menu 364
    - help panel data set
      - DD statement in TSO logon procedure 26
      - specifying name and volume serial of 26
      - main menu 364
  - ISR@PRIM 364
  - ISTATUS parameter 60
  - ISYS default field title
    - Held Output Queue panel 147
    - Input Queue panel 150
    - Output Queue panel 177
    - Status panel 196
  - ISYS parameter 60
  - ITNAME parameter 38
  - ITY default field title
    - Job Data Set panel 156
  - UUID parameter 34
- ## J
- J0 command
    - authorization to issue 249
  - J0FLD2 parameter 63
  - J0FLDS parameter 63
  - Java
    - information 477
    - security 487
    - using with SDSF 477
  - JC default field title
    - Held Output Queue panel 148
    - Output Queue panel 177
  - JCFLD2 parameter 61
  - JCLDS parameter 61
  - JCLIM default field title
    - JC panel 152
  - JD panel scope
    - controlling 100
  - JDDFLD2 parameter 61
  - JDDFLDS parameter 61
  - JDMFLD2 parameter 61
  - JDMFLDS parameter 61
  - JDPLD2 parameter 62
  - JDPLDS parameter 61
  - JDSFLD2 parameter 62
  - JDSFLDS parameter 62
  - JDYFLD2 parameter 62
  - JDYFLDS parameter 62
  - JES commands, issuing
    - authorization for, specifying
      - problems with 586
      - with a user exit routine 345
      - with ISFPARMS parameters 46
      - with SAF security 206
      - with statements 46
  - JES2
    - DESTDEF considerations 357
    - secondary subsystems, installing SDSF with 357
    - subsystem name, specifying 25
  - JES2 resources 189
  - JES2, processed by SDSF 366, 384
  - JES3
    - considerations 355
    - global 355
    - subsystem name, specifying 25, 356
  - JES3, processed by SDSF 366, 384
  - JES3NAME parameter 25, 356
  - JESLevel default field title 170
  - JESLEVEL default field title
    - Initiator panel 149
    - LI panel 165
    - NODE panel 173
    - NS panel 171
    - Printer panel 182
    - Punch panel 187
    - Reader panel 188
    - RM panel 190
    - Spool Offload panel 193
  - JESLOG, default field title
    - Job Class panel 153
  - JESN default field title 170
    - LI panel 165
    - NODE panel 173
    - NS panel 171
    - Punch panel 187
    - Reader panel 188
  - JESNAME default field title
    - Initiator panel 149
    - MAS and JESPLEX panels 168
    - Printer panel 182
    - RM panel 190
    - Spool Offload panel 193
    - SYS panel 199
  - JESNAME parameter 25
  - JESNODE default field title
    - SYS panel 199
  - JESPLEX (JP) panel 168
  - JESPLEX panel
    - authorization to display 249
  - jesplex-wide data 112
  - JESSPOOL class 254, 260
  - JG command
    - authorization to issue 249
  - JGFLD2 parameter 62
  - JGFLDS parameter 62
  - JGSTATUS default field title
    - Input Queue panel 151
    - Status panel 198
  - JM panel scope
    - controlling 100



- JNAME default field title
  - Dynamic Exits panel 140
  - Output Queue panel 175
- JNUM default field title
  - Display Active Users panel 138
  - Held Output Queue panel 146
  - Initiator panel 148
  - Input Queue panel 150
  - LI panel 164
  - Printer panel 179
  - Punch panel 186
  - Reader panel 188
  - Status panel 195
- job 0 panel 163
- Job 0 panel
  - variable field list for 163
- Job Class panel
  - fields 152
  - variable field list of
    - primary, defining 86
- job Data Set panel
  - variable field list for 154
- Job Data Set panel 154
  - variable field list of
    - alternate, defining 86
    - primary, defining 86
- Job Delay panel 157
  - variable field list of
    - primary, defining 86
- Job Dependency panel 158
- Job Device panel 158
  - variable field list of
    - primary, defining 86
- job devices
  - protecting 259
- Job Group panel 160
- Job Memory panel 161
  - variable field list of
    - primary, defining 86
- Job Status panel 195
- Job Step panel 162
- job steps
  - SAF authority to 260
- JOB value 51
- JOBACCT1 default field title
  - Held Output Queue panel 148
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 197
- JOBACCT2 default field title
  - Held Output Queue panel 148
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 197
- JOBACCT3 default field title
  - Held Output Queue panel 148
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 197
- JOBACCT4 default field title
  - Held Output Queue panel 148
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 197
- JOBACCT5 default field title
  - Held Output Queue panel 148
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 197
- JOBACCT5 default field title *(continued)*
  - Output Queue panel 177
  - Status panel 197
- JOBCORR default field title
  - Display Active Users panel 140
  - Held Output Queue panel 148
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 197
- JOBGROUP default field title
  - Input Queue panel 151
  - Job Group panel 160
  - Status panel 197
- JOBGRPID default field title
  - Input Queue panel 151
  - Job Group panel 160
  - Status panel 197
- JobID default field title
  - NC panel 169
- JOBID default field title
  - Address Space Memory panel 136
  - Display Active Users panel 138
  - Held Output Queue panel 146
  - Initiator panel 149
  - Input Queue panel 149
  - Job Dependencies panel 158
  - LI panel 164
  - Output Queue panel 175
  - Printer panel 179
  - Process panel 184
  - Punch panel 186
  - Reader panel 188
  - Spool Offload panel 190
  - SR panel 201
  - Status panel 195
- Jobname default field title
  - NC panel 169
- JOBNAME default field title
  - Enqueue panel 143
  - Initiator panel 148
  - Job Dependencies panel 158
  - LI panel 164
  - Printer panel 179
  - Punch panel 185
  - Reader panel 188
  - Spool Offload panel 190
  - SR panel 201
- JOBNUM default field title
  - SYS panel 199
- JOBRC, default field title
  - Job Class panel 154
- jobs
  - canceling
    - authorization with ISFPARMS 47
    - authorization with SAF 47
  - controlling
    - by issuing MVS/JES command for 46
    - by issuing MVS/JES2 command for 52
  - displayed on SDSF panels, controlling
    - by destination name 58
    - by job name 60, 74
  - displaying
    - SYSOUT and SYSIN for 54, 58
    - SAF authorization 206, 213, 260
- jobs *(continued)*
  - steps
    - SAF authority to 213
- JOBSET default field title
  - Input Queue panel 151
  - Status panel 198
- JP (JESPLEX) panel 168
- JP command
  - authorization to issue 249
- JP default field title
  - Held Output Queue panel 147
  - Output Queue panel 176
  - Printer panel 180
- JPRIO default field title
  - Punch panel 187
- JR default field title
  - LI panel 165
- JRNL default field title
  - JC panel 153
- JRNum default field title
  - NC panel 169
- JRNUM default field title
  - NODE panel 173
- JSFLD2 parameter 63
- JSFLDS parameter 63
- JT default field title
  - LI panel 165
- JTNum default field title
  - NC panel 169
- JTNUM default field title
  - NODE panel 173
- JTr default field title
  - NC panel 170
  - NS panel 171
- JTR default field title
  - LI panel 166
- JType default field title
  - NC panel 169
- JTYPE default field title
  - Address Space Memory panel 136
  - LI panel 164

## K

- K default field title
  - Printer panel 181
- KEY default field title
  - Job Memory panel 162
- keyboard
  - navigation 621
  - PF keys 621
  - shortcut keys 621

## L

- LABEL default field title
  - Spool Offload panel 192
- LANG parameter in ISFPARMS 63
- LARGEST default field title
  - Job Memory panel 162
- LARGESTF default field title
  - Job Memory panel 162
- LAST-CHECKPOINT default field title
  - Multi-Access Spool panel 168
- Last-GCon-Date-Tim default field title
  - MAS and JESPLEX panels 168

LASTIME default field title  
     Job Device panel 160  
 LASTSAMP default field title  
     Job Delay panel 157  
 LATCHWAITPID default field title  
     Process panel 185  
 length of fields, specifying 86  
 LEVEL default field title  
     Enqueue panel 143  
 LgFree default field title  
     Spool Volumes panel 194  
 LI command  
     authorization to issue 249  
 LIMIT default field title  
     RM panel 189  
 limit of lines searched on OPERLOG 25  
 limit of lines searched with FIND  
     command 24  
 Line default field title  
     NC panel 169  
 LINE default field title  
     NODE panel 172  
 Line-Lim-Hi default field title  
     LI panel 166  
 Line-Lim-Lo default field title  
     LI panel 166  
 Line-Limit default field title 170  
 LINE-LIMIT default field title  
     LI panel 165  
     Printer panel 181  
     Punch panel 186  
     Spool Offload panel 190  
 Line-Limit-Hi default field title 170  
 Line-Limit-Lo default field title 170  
 LINECCHR default field title  
     Lines panel 165  
 LINECNT parameter 25  
 LINEFLD2 parameter 63  
 LINEFLDS parameter 63  
 LINELIMH default field title  
     Printer panel 182  
     Punch panel 187  
     Spool Offload panel 193  
 LINELIML default field title  
     Printer panel 182  
     Punch panel 187  
     Spool Offload panel 193  
 lines  
     protecting with SAF 265  
 Lines panel  
     authorization to display 45, 249  
     variable field list 164  
     variable field list of  
         alternate, defining 86  
         primary, defining 86  
 lines per page of printed output,  
     specifying 25  
 Link List panel 166  
     LNKFLD2 parameter 64  
     LNKFLDS parameter 64  
     variable field list of  
         alternate, defining 64  
         primary, defining 64  
 Link Pack Area panel 167  
     LPAFLD2 parameter 64  
     LPAFLDS parameter 64  
 Link Pack Area panel (*continued*)  
     variable field list of  
         alternate, defining 64  
         primary, defining 64  
 LIST (\$L) command  
     authorization to issue, specifying 47,  
         74, 206  
 LNAME default field title  
     NODE panel 172  
 LOADDSN default field title  
     SYS panel 200  
 LOADPARM default field title  
     SYS panel 200  
 LOADUNIT default field title  
     SYS panel 200  
 LOCAL value 60  
 LOCALE default field title  
     CK panel 146  
 LoCyl default field title  
     Spool Volumes panel 193  
 LOG command  
     authorization to issue 249  
 Log default field title  
     NS panel 171  
 LOG default field title  
     JC panel 153  
     Lines panel 165  
 LOGDATE default field title  
     CK panel 145  
 logical log 318  
 logical SYSLOG 318  
 LOGLIM parameter 25  
 LogMode default field title 170  
 LOGMODE default field title  
     NODE panel 172  
 Logon default field title  
     NC panel 170  
     NODE panel 172  
 logon procedure  
     using to define a group of users 34  
 LOGSTREAM default field title  
     CK panel 146  
 LOGSTRM class 271  
 LoHead default field title  
     Spool Volumes panel 193  
 LOTRK default field title  
     Spool Volumes panel 193  
 LPAR default field title  
     SYS panel 199  
 LRECL default field title  
     Authorized Program Facility  
         panel 137  
     Job Data Set panel 157  
     Job Device panel 159  
     Link List panel 167  
     Link Pack Area panel 167  
     PARMLIB panel 179  
     Printer panel 183  
     PROC panel 184  
     Punch panel 186  
     SRCH panel 195  
 LUNAME default field title  
     Job Device panel 160  
 M default field title  
     Printer panel 181  
 MAJOR default field title  
     Enqueue panel 143  
 MargExc default field title  
     Spool Volumes panel 194  
 MargPct default field title  
     Spool Volumes panel 194  
 MAS (Multi-access spool) panel 168  
 MAS command  
     authorization to issue 249  
 MAS panel  
     authorization to display 249  
 MAX-RC default field title  
     Held Output Queue panel 147  
     Output Queue panel 176  
     Status panel 196  
 MAX-TIME default field title  
     JC panel 153  
 MAXASID default field title  
     SYS panel 199  
 MAXFILES default field title  
     Process panel 185  
 MAXLINES default field title  
     NODE panel 173  
 MAXRETR default field title  
     NODE panel 173  
 MB abbreviation in column data 88  
 MBURST default field title  
     Spool Offload panel 191  
 MC default field title  
     Held Output Queue panel 148  
     Input Queue panel 151  
     JC panel 153  
     Output Queue panel 177  
     Reader panel 188  
     Status panel 197  
 MCLASS default field title  
     Spool Offload panel 192  
 MDEST default field title  
     Spool Offload panel 192  
 MEMBER field  
     JC panel 152  
 membership in groups, SAF control  
     of 267  
 MEMLIMIT default field title  
     Address Space Memory panel 136  
     Display Active Users panel 139  
     Job Step panel 163  
 MEMLIMU default field title  
     Job Step panel 163  
 MENUS parameter 25  
 MENUVOL parameter 26  
 messages 505  
     help panels 505  
     problem with 587  
 MESSATE-TEXT default field title  
     SR panel 201  
 MFCB default field title  
     Spool Offload panel 192  
 MFLH default field title  
     Spool Offload panel 192  
 MFORMS default field title  
     Spool Offload panel 192  
 MHOLD default field title  
     Spool Offload panel 192

## M

M abbreviation in column data 88

- MigDSName default field title
    - Spool Volumes panel 194
  - MigPhase default field title
    - Spool Volumes panel 194
  - migrating
    - to statements for ISFPARMS 17
  - MigSys default field title
    - Spool Volumes panel 194
  - MigVol default field title
    - Spool Volumes panel 194
  - MinExc default field title
    - Spool Volumes panel 194
  - MinPct default field title
    - Spool Volumes panel 194
  - MINTIME default field title
    - Job Delay panel 157
  - mixed case, specifying 103
  - MLA default field title
    - SYS panel 200
  - MOBJ default field title
    - Address Space Memory panel 136
  - MOBJHWM default field title
    - Address Space Memory panel 136
  - MOBJNUM default field title
    - Address Space Memory panel 136
  - Mode default field title
    - Initiator panel 149
  - MODE default field title
    - JC panel 152
    - Printer panel 181
  - model queue
    - defining 118, 363
  - MODEPA default field title
    - Dynamic Exits panel 140
  - MODIFIED default field title
    - CK panel 145
  - MODLOADPT default field title
    - Dynamic Exits panel 140
  - MODNAME default field title
    - CK panel 145
    - Dynamic Exits panel 140
  - MODSIZE default field title
    - Dynamic Exits panel 140
  - MODSP default field title
    - Spool Offload panel 192
  - module information, displaying 585
  - modules, SDSF
    - ISFPARMS 18
    - ISFUSER 345
  - mount messages
    - protecting with SAF 321
  - MPRMODE default field title
    - Spool Offload panel 192
  - MQSeries
    - cluster 31
    - configuration 361
    - considerations 361
    - help with 361
    - objects
      - defining manually 32
      - delete option 32
      - replace option 31
    - OS/390 libraries 361
    - queue prefix 31
    - queues 118, 363
    - queues, protecting 322
    - remote queues 363
  - MQSeries (*continued*)
    - sample DEFINE commands 118
    - security 316
    - storage estimates 362
  - MQSeries, APAR for large messages 361
  - MSAFF default field title
    - Spool Offload panel 192
  - MSG value 48
  - MsgDest default field title
    - MAS and JESPLEX panels 169
  - MSGVLV default field title
    - JC panel 153
  - MsgPrefix default field title
    - MAS and JESPLEX panels 169
  - MSGTYPE default field title
    - SR panel 201
  - MSU default field title
    - SYS panel 200
  - MUCS default field title
    - Spool Offload panel 192
  - multi-access spool 168
  - multi-access spool (MAS) panel 168
  - Multi-Access Spool environment
    - specifying JES2 system ID in 72
  - MVS/JES commands
    - authorization for, specifying
      - problems with 586
      - with a user exit routine 345
      - with ISFPARMS parameters 46, 73
      - with SAF 215, 268
  - MVS/JES commands, console used to issue 46, 358
  - MVS/JES commands, storing 359
  - MVS/JES2 commands
    - authorization for, specifying
      - with ISFPARMS parameters 49
  - MWRITER default field title
    - Spool Offload panel 192
- ## N
- NAME default field title
    - CKH panel 144
    - Job Data Set panel 155
    - Job Device panel 159
    - Output Descriptors panel 174
  - navigation
    - keyboard 621
  - NC command
    - authorization to issue 249
  - NC panel 169, 170
    - variable field list 169
  - NCFLD2 parameter 65
  - NCFLDS parameter 65
  - NETID default field title
    - SYS panel 200
  - netmail 67
  - NETPR default field title
    - NODE panel 173
  - NETPU default field title
    - NODE panel 174
  - Netsrv default field title
    - NC panel 170
  - NETSRV default field title
    - NODE panel 173
  - Network Connection panel
    - authorization to display 45
    - variable field list of
      - primary, defining 86
  - network connections
    - protecting with SAF 268
  - Network Server panel
    - authorization to display 45
    - variable field list of
      - primary, defining 86
  - network servers
    - protecting with SAF 269
  - NEWPAGE default field title
    - Printer panel 182
  - NO command
    - authorization to issue 249
  - NO panel
    - variable field list 172
  - NODE default field title
    - Held Output Queue panel 147
    - Input Queue panel 150
    - Job Data Set panel 155
    - LI panel 164
    - Output Queue panel 176
    - Printer panel 181
  - NODEFLD2 parameter 65
  - NODEFLDS parameter 65
  - NODENAME default field title
    - NODE panel 172
  - nodes
    - protecting with SAF 270
  - Nodes panel
    - authorization to display 45, 249
    - variable field list of
      - alternate, defining 86
      - primary, defining 86
  - NONE value 66, 67
  - Notices 625
  - NOTIFY default field title
    - Held Output Queue panel 147
    - Input Queue panel 150
    - Job Data Set panel 156
    - Output Descriptors panel 175
    - Output Queue panel 177
    - Spool Offload panel 191
    - Status panel 196
  - NOTIFY parameter of job card, using to control authorization 46, 55
  - NOTIFY value 48, 55, 328
  - NPRO default field title
    - Printer panel 181
  - NS command
    - authorization to issue 249
  - NS panel
    - variable field list 171
  - NSFLD2 parameter 65
  - NSFLDS parameter 65
  - NSNAME default field title
    - LI panel 166
  - NTBL statement
    - examples of 91
    - format of 92
    - parameters 92
    - purpose of 91
  - NTBLENT statement
    - examples of 91
    - purpose of 91

NUCLST default field title  
 SYS panel 200  
 NUMCAT default field title  
 CK panel 145  
 numeric values, scaling 88

## O

O command  
 authorization to issue 249  
 O-GRP-N default field title  
 Held Output Queue panel 147  
 Job Data Set panel 155  
 Output Queue panel 176  
 Printer panel 181  
 OCLASS default field title  
 Punch panel 187  
 OCOPYCNT default field title  
 Job Data Set panel 157  
 OCOPYCNT Default field title  
 Output Descriptor panel 175  
 ODFLD2 parameter 66  
 ODFLDS parameter 65  
 ODISP default field title  
 Held Output Queue panel 146  
 JC panel 152  
 Output Queue panel 176  
 offloaders  
 protecting with SAF 312, 317, 318  
 Offs default field title  
 Status panel 197  
 OffS default field title  
 Held Output Queue panel 147  
 Output Queue panel 176  
 OFFSETXB default field title  
 Job Data Set panel 156  
 Output Descriptors panel 174  
 OFFSETXF default field title  
 Job Data Set panel 156  
 Output Descriptors panel 174  
 OFFSETYB default field title  
 Job Data Set panel 156  
 Output Descriptors panel 175  
 OFFSETYF default field title  
 Job Data Set panel 156  
 Output Descriptors panel 175  
 OFIELD2 parameter 66  
 OFIELDS parameter 66  
 OGD default field title  
 Held Output Queue panel 147  
 OGD1 default field title  
 Output Queue panel 176  
 Printer panel 182  
 Punch panel 187  
 OGD2 default field title  
 Held Output Queue panel 147  
 Output Queue panel 176  
 Printer panel 182  
 Punch panel 187  
 OGNAME default field title  
 Punch panel 187  
 OHR default field title  
 Held Output Queue panel 147  
 Output Queue panel 176  
 ONERR default field title  
 Job Group panel 161

OPACTLOG default field title  
 Printer panel 183  
 OPEN default field title  
 Job Device panel 160  
 operator group 328, 331  
 OPERCMDS class 224  
 OPERLOG panel 271  
 including inactive log stream data 97  
 limiting amount searched 25  
 OPTIONS statement 22  
 parameters 23  
 ORIGIN default field title  
 CK panel 146  
 ORIGINAL default field title  
 Enclave panel 141  
 ORIGNODE default field title  
 Input Queue panel 150  
 Status panel 196  
 OSCONFIG default field title  
 SYS panel 200  
 OTHERWISE default field title  
 Job Dependencies panel 158  
 OUT default field title  
 JC panel 153  
 OUT value 51  
 OUTBIN default field title  
 Job Data Set panel 156  
 Output Descriptors panel 174  
 OUTBUFSZ default field title  
 Job Device panel 159  
 OUTDISP default field title  
 Job Data Set panel 157  
 Output Data Set panel  
 authorization to use, specifying 54,  
 345  
 Output Descriptors panel 174  
 variable field list 174  
 variable field list of  
 alternate, defining 66  
 primary, defining 65  
 output groups  
 SAF authority to 206, 213, 260  
 output of jobs  
 controlling  
 by issuing MVS/JES commands  
 for 46  
 by issuing MVS/JES2 commands  
 for 52  
 displaying  
 specifying authorization for 54,  
 58, 345  
 Output Queue panel 175  
 authorization to display 45, 249  
 authorization to display,  
 specifying 249  
 jobs displayed on, controlling  
 by destination name 57, 58  
 by job name 60, 74  
 by job name prefix 67  
 by owner 66  
 variable field list of 175  
 alternate, defining 86  
 primary, defining 86  
 OUTPUT-HOLD-TEXT default field title  
 Held Output Queue panel 147  
 Output Queue panel 176

OVA default field title  
 Spool Volumes panel 194  
 OverFNam default field title  
 Spool Volumes panel 194  
 OverInto default field title  
 Spool Volumes panel 194  
 OVERLAYB default field title  
 Job Data Set panel 156  
 Output Descriptors panel 174  
 OVERLAYF default field title  
 Job Data Set panel 156  
 Output Descriptors panel 174  
 OverOccur default field title  
 Spool Volumes panel 194  
 overtypable fields  
 setting up generic and discrete  
 profiles 272  
 tables 274  
 overtyping fields  
 authorization for 46, 49  
 authorization for, SAF 206, 215, 271  
 reference for, by command level 74  
 OVERWARN default field title  
 RM panel 190  
 OWNER command  
 authorization 328, 330, 610  
 Owner default field title  
 NC panel 169  
 OWNER default field title  
 CKH panel 144  
 Display Active Users panel 138  
 Held Output Queue panel 146  
 Initiator panel 149  
 Input Queue panel 150  
 Job 0 panel 163  
 Job Data Set panel 154  
 Job Group panel 160  
 LI panel 164  
 Output Queue panel 176  
 Printer panel 180  
 Process panel 184  
 Punch panel 186  
 Reader panel 188  
 Spool Offload panel 190  
 Status panel 196  
 OWNER keyword 328  
 OWNERAS default field title  
 Enclave panel 141  
 OWNERASX default field title  
 Enclave panel 141  
 OWNERID default field title  
 Address Space Memory panel 136  
 OWNERJOB default field title  
 Enclave panel 141  
 OWNERS default field title  
 Enqueue panel 143  
 OWNERSYS default field title  
 Enclave panel 141  
**P**  
 P abbreviation in column data 88  
 PAGE default field title  
 Job Step panel 162  
 Page panel 178  
 PAG parameter 66, 67

Page panel (*continued*)  
 variable field list of  
 alternate, defining 67  
 primary, defining 66  
 PAGE-CNT default field title  
 Job 0 panel 164  
 Job Data Set panel 154  
 Printer panel 180  
 Punch panel 186  
 Page-Lim-Hi default field title  
 LI panel 166  
 Page-Lim-Lo default field title  
 LI panel 166  
 Page-Limit default field title 170  
 PAGE-LIMIT default field title  
 LI panel 165  
 Printer panel 181  
 Spool Offload panel 190  
 Page-Limit-Hi default field title 170  
 Page-Limit-Lo default field title 170  
 PAGE-PRT default field title  
 Printer panel 180  
 Punch panel 186  
 PAGEDEF default field title  
 Job Data Set panel 155  
 Output Descriptors panel 174  
 PAGELIMH default field title  
 Printer panel 182  
 Spool Offload panel 193  
 PAGELIML default field title  
 Printer panel 182  
 Spool Offload panel 193  
 PAGERATE default field title  
 SYS panel 199  
 PAGING default field title  
 Display Active Users Panel 138  
 panel data set  
 DD statement in TSO logon  
 procedure 26  
 specifying name and volume serial  
 of 26  
 Panel scope  
 controlling 98, 99, 100, 102  
 panels  
 description of  
 Address Space Memory 135  
 Authorized Program Facility 137  
 CK 144  
 CKH 144  
 Display Active Users 137  
 Dynamic Exits 140  
 Enclaves panel 141  
 Enqueue 142  
 Held Output panel 146  
 Initiator panel 148  
 Input Queue panel 149  
 LI panel 164  
 Link List 166  
 Link Pack Area 167  
 multi-access spool (MAS)  
 panel 168  
 NC panel 169  
 NO panel 172  
 NS panel 171  
 Output Descriptors panel 174  
 Output Queue panel 175  
 PAG 178  
 panels (*continued*)  
 description of (*continued*)  
 PARM 179  
 Printer panel 179  
 PROC 184  
 Process panel 184  
 PUN panel 185  
 RDR panel 187  
 Spool Offload panel 190  
 Spool Volumes panel 193  
 SRCH 195  
 Status panel 195  
 SYS 199  
 System Symbols 198  
 Panels  
 Address Space Memory panel 135  
 Authorized Program Facility  
 panel 137  
 Dynamic Exits panel 140  
 Enqueue panel 142  
 Link List panel 166  
 Link Pack Area panel 167  
 PAG panel 178  
 PARMLIB panel 179  
 PROC panel 184  
 SRCH panel 195  
 SYS panel 199  
 System Symbols panel 198  
 PARM default field title  
 CK panel 145  
 PARM panel scope  
 controlling 101  
 PARMLen default field title  
 CK panel 145  
 PARMLIB panel 179  
 PARMFLD2 parameter 67  
 PARMFLDS parameter 67  
 variable field list of  
 alternate, defining 67  
 primary, defining 67  
 PARTNAM default field title  
 NODE panel 173  
 PARTNAM, default field title  
 Job Class panel 154  
 PartName default field title  
 MAS and JESPLEX panels 169  
 Spool Volumes panel 194  
 Password default field title  
 NS panel 171  
 PASSWORD default field title  
 Lines panel 165  
 password protection  
 bypassing 22  
 PATH default field title  
 NODE panel 173  
 pattern matching characters, for  
 PREFIX 26  
 PAU default field title  
 Printer panel 181  
 Punch panel 186  
 PB abbreviation in column data 88  
 PBufAux default field title  
 MAS and JESPLEX panels 169  
 PBufCSA default field title  
 MAS and JESPLEX panels 169  
 PBufFixed default field title  
 MAS and JESPLEX panels 169  
 PDefault default field title  
 Printer panel 183  
 PEN default field title  
 NODE panel 172  
 PER default field title  
 Enclave panel 141  
 PERCENT default field title  
 Job Delay panel 157  
 permitting other users to view your  
 jobs 263  
 PGMNAME default field title  
 Job Step panel 162  
 PGN default field title  
 Enclave panel 141  
 JC panel 153  
 PGNM default field title  
 JC panel 153  
 PHASE default field title  
 Input Queue panel 151  
 Status panel 197  
 PHASENAME default field title  
 Input Queue panel 151  
 Status panel 197  
 PI default field title  
 Reader panel 188  
 PID default field title  
 Process panel 185  
 PL default field title  
 JC panel 153  
 PLult field title  
 Reader panel 188  
 PMGR default field title  
 NODE panel 172  
 point-and-shoot  
 custom property 101, 102  
 POLICY default field title  
 Job Device panel 160  
 POLSTAT default field title  
 CK panel 145  
 Port default field title  
 NC panel 170  
 NS panel 171  
 PORT default field title  
 Job Data Set panel 156  
 Job Device panel 159  
 LI panel 165  
 PortName default field title 170  
 PORTNAME default field title  
 LI panel 166  
 NS panel 171  
 PORTNO default field title  
 Output Descriptors panel 175  
 POS default field title  
 Address Space Memory panel 136  
 Display Active Users panel 138  
 Input Queue panel 150  
 Status panel 196  
 post-SAF exit point 352  
 PPID default field title  
 Process panel 185  
 PR command  
 authorization to issue 249  
 PR panel  
 device name format 101  
 pre-SAF exit point 351

- prefix
    - of job names, using to control jobs
      - with ISFPARMS 67
      - with SDSF's internal parameters 56, 57
  - PREFIX command
    - adding generic character 95, 347
    - authorization to issue 249
  - PREFIX parameter 67
  - PREq default field title
    - Reader panel 188
  - PREVCKPT default field title
    - Multi-Access Spool panel 168
  - primary field lists for SDSF panels 86, 89
  - primary option menu
    - case of 103
  - PrimTG default field title
    - MAS and JESPLEX panels 168
  - PRINT command
    - default SYSOUT class for 26
    - lines per page 25
  - Printer panel 179
    - authorization to display 45, 249
    - controlling, using job destination name 58
    - variable field list of 179
      - alternate, defining 86
      - primary, defining 86
  - printers
    - authorization to control 47, 74, 206, 312
    - controlling
      - by issuing MVS/JES commands 46
      - by issuing MVS/JES2 commands 52
  - printing
    - controlling lines per page 25
    - custom property 102
  - PRIQ, default field title
    - Job Class panel 154
  - PRITRK, default field title
    - Job Class panel 154
  - PRMODE default field title
    - Held Output Queue panel 146
    - Job 0 panel 163
    - Job Data Set panel 155
    - Output Queue panel 176
    - Printer panel 180
    - Punch panel 187
  - problems
    - management of 585
  - PROC default field title
    - Job Step panel 162
  - PROC panel 184
  - Proc-Lines default field title
    - NC panel 169
  - PROC-LINES default field title
    - LI panel 164
    - SO panel 190
  - Process panel 184
    - authorization to display 45, 249
    - variable field list of
      - alternate, defining 68
      - primary, defining 68
  - Proclib panel
    - PROCFLD2 parameter 68
    - PROCFLDS parameter 68
    - variable field list of
      - alternate, defining 68
      - primary, defining 68
  - PROCNAME default field title
    - CK panel 145
  - PROCS default field title
    - Address Space Memory panel 136
  - PROCSTEP default field title
    - Display Active Users pane 137, 138
    - Initiator panel 148
    - Job 0 panel 164
    - Job Data Set panel 154
  - profile descriptions 341
  - PROGRAMMER-NAME default field title
    - Held Output Queue panel 147
    - Input Queue panel 150
    - Output Queue panel 177
    - Status panel 196
  - PROMORT default field title
    - JC panel 153
  - PROMOTED default field title
    - Display Active Users panel 139
    - Enclaves panel 142
  - properties for use with the PROPERTY statement 94
  - PROPERTY statement 93
    - parameters 93
  - PROPLIST statement 93
    - parameters 93
  - PROT default field title
    - Spool Offload panel 192
  - PRT-PAGE default field title
    - Output Queue panel 176
  - PRT-REC default field title
    - Output Queue panel 176
  - PRTDEF default field title
    - NODE panel 173
  - PRTDEST default field title
    - Input Queue panel 150
    - Reader panel 188
    - Status panel 196
  - PRTFLD2 parameter 68
  - PRTFLDS parameter 68
  - PRTOPTNS default field title
    - Output Descriptors panel 175
  - PRTQUEUE default field title
    - Output Descriptors panel 175
  - PRITSO default field title
    - NODE panel 173
  - PRTXWTR default field title
    - NODE panel 173
  - PRTY default field title
    - Held Output Queue panel 146
    - Input Queue panel 150
    - Output Queue panel 176
    - Status panel 196
  - PRVT default field title
    - NODE panel 172
  - PS command
    - authorization to issue 249
  - PS panel scope
    - controlling 101
  - PSEL default field title
    - Printer panel 181
  - PSFLD2 parameter 68
  - PSFLDS parameter 68
  - PTracks default field title
    - Spool Volumes panel 194
  - PTrackU default field title
    - Spool Volumes panel 194
  - PTYPE default field title
    - NODE panel 173
  - PUN command
    - authorization to issue 249
  - PUN panel
    - device name format 101
    - variable field list 185
    - variable field list of 185
  - Punch panel
    - authorization to display 45, 249
  - punches
    - authorization to control 314
    - protecting with SAF 313
  - PUNDEF default field title
    - NODE panel 173
  - PUNDEST default field title
    - Reader panel 188
  - PUNFLD parameter 68
  - PUNFLD2 parameter 69
  - PURGE (\$C) command
    - authorization with ISFPARMS 47, 74
    - authorization with SAF 206
  - purging jobs and output
    - authorization for, specifying 47
  - PWCNTL default field title
    - NODE panel 173
- ## Q
- QHLD default field title
    - JC panel 152
  - query character, specifying 24
  - QUERY MODULE command 585
  - QUEUE default field title
    - SR panel 201
    - Status panel 196
  - QUEUE Default field title
    - Job 0 panel 164
    - Job Data Set panel 156
  - queue manager
    - communication between 363
    - on COMM statement 30
    - remote 363
  - queues
    - defining 118, 363
    - defining remote 363
    - protecting 323
  - QUIESCE default field title
    - Display Active Users panel 139
    - Enclave panel 141
- ## R
- RACF
    - brief summary of commands 217
    - conditional access 221
    - converting ISFPARMS to 340
    - creating a resource group profile 219
    - delegation of authority 218
    - establishing security 219

- RACF (*continued*)
  - security administration 217
  - using RACLIST 220
  - using RACLIST REFRESH 220
- RACLIST 220, 265
- RALEVEL default field title
  - Reader panel 188
- RD-DATE default field title
  - Held Output Queue panel 147
  - Input Queue panel 151
  - Output Queue panel 177
  - Status panel 196
- RD-TIME default field title
  - Held Output Queue panel 147
  - Input Queue panel 150
  - Output Queue panel 177
  - Status panel 196
- RDR panel
  - device name format 101
  - variable field list 187
  - variable field list of 187, 188
- Reader panel
  - authorization to display 45, 249
- readers
  - protecting with SAF 314
- READY value 51
- REAL default field title
  - Address Space Memory panel 136
  - Display Active Users Panel 138
- REALAFC default field title
  - SYS panel 199
- REALAFCB default field title
  - SYS panel 199
- REASON default field title
  - CK panel 145
- REC-CNT default field title
  - Job 0 panel 164
  - Job Data Set panel 154
  - Printer panel 180
  - Punch panel 186
  - Reader panel 188
- REC-PROC default field title
  - Reader panel 188
- REC-PRT default field title
  - Printer panel 180
  - Punch panel 186
- RECEIVE default field title
  - NODE panel 172
- RECFM default field title
  - Authorized Program Facility panel 137
  - Job 0 panel 164
  - Job Data Set panel 157
  - Job Device panel 159
  - Link List panel 167
  - Link Pack Area panel 167
  - PARMLIB panel 179
  - PROC panel 184
  - SRCH panel 195
- RECPERTRK default field title
  - Spool Volumes panel 193
- REFDATE default field title
  - Authorized Program Facility panel 137
  - Link List panel 167
  - Link Pack Area panel 167
  - PARMLIB panel 179
- REFDATE default field title (*continued*)
  - PROC panel 184
  - SRCH panel 195
- REFRESH 220
- Region default field title
  - Reader panel 188
- REGION default field title
  - JC panel 153
  - Job Step panel 163
- REGIONU default field title
  - Job Step panel 163
- RelConn default field title
  - NC panel 170
- RELEASE (\$A) command
  - authorization to issue 47, 74, 206
- RELEASE (\$O) command
  - authorization to issue 47, 49, 74, 206
- releasing
  - jobs
    - authorization for, specifying 47
    - output of jobs
      - authorization for, specifying 47
- remote queue
  - defining 363
- REPEAT (\$N) command
  - authorization to issue 47, 74, 206
- Repeat-Find PF key
  - problems with 586
- REPLY (R) command
  - authorization to issue 74
- reply messages
  - protecting with SAF 321
- REQSTATE default field title
  - RES panel 189
- REQTIME default field title
  - Enqueue panel 143
- REQTYPE default field title
  - Enqueue panel 143
- requests
  - protecting with SAF 321
- Reserved default field title
  - Spool Volumes panel 194
- RESET (E) command
  - authorization to issue, specifying 47, 74, 206
- RESFLD2 parameter 69
- RESFLDS parameter 69
- RESGROUP default field title
  - Display Active Users panel 138
  - Enclave panel 141
- RESID default field title
  - Job Device panel 160
- resource group class
  - GSDSF 218
  - RACLIST 219
- Resource Monitor panel
  - authorization to display 45, 249
  - RMFLD2 parameter 69
  - RMFLDS parameter 69
  - variable field list 189
  - variable field list of
    - primary, defining 69
- Resource panel
  - variable field list 189
  - variable field list of
    - alternate, defining 86
    - primary, defining 86
- resources 189
- Resources panel
  - authorization to display 45
- Rest default field title
  - NC panel 170
- REST default field title
  - Lines panel 165
  - NODE panel 172
- Rest-Int default field title
  - LI panel 166
  - NS panel 171
- RESTART (\$E) command
  - authorization to issue, specifying 47, 74, 206
- Restart default field title
  - NS panel 171
- RESTART default field title
  - LI panel 166
- ResType default field title
  - Initiator panel 149
- RESULT default field title
  - CK panel 144
  - CKH panel 144
- RETAINF default field title
  - Output Descriptors panel 175
- RETAINS default field title
  - Output Descriptors panel 175
- RETRYL default field title
  - Output Descriptors panel 175
- RETRYT default field title
  - Output Descriptors panel 175
- return codes
  - ISFBROWSE 414
- REXGEN 393
- REXX
  - action character 432
  - action characters 438
  - browsing 411
  - commands 434
  - diagnosing 476
  - examples 450
  - generating an exec 393
  - ISFACT 404
  - ISFBROWSE 411
  - ISFCALLS 394
  - ISFEXEC 395
  - ISFGET 418
  - ISFLOG 420
  - ISFRESET 428, 440
  - ISFSLASH 425
  - printing 416
  - security 475
  - special variables 428, 440
  - system 475
  - using with SDSF 391
- REXXIN default field title
  - CK panel 146
- REXXOUT default field title
  - CK panel 146
- RFIND NOT ACTIVE message, ISPF 586
- RM command
  - authorization to issue 249
- RMF (Resource Measurement Facility)
  - bypassing 347
  - Display Active Users panel 137
  - exit not installed 588
  - migration considerations 360

RMF (Resource Measurement Facility) *(continued)*  
 services, protecting 360  
 RMLEVEL default field title  
 Reader panel 188  
 RMT default field title  
 Held Output Queue panel 146  
 Input Queue panel 150  
 Job Data Set panel 155  
 Output Queue panel 176  
 Printer panel 181  
 RMTSHR default field title  
 LI panel 165  
 RNAMEL default field title  
 Enqueue panel 143  
 RNUM default field title  
 Held Output Queue panel 147  
 Input Queue panel 150  
 Output Queue panel 176  
 Status panel 196  
 ROOM default field title  
 Job Data Set panel 155  
 Output Descriptors panel 174  
 ROUTE (\$R) command  
 authorization to issue, specifying 47,  
 74, 206  
 ROUTECD default field title  
 SR panel 201  
 routing codes  
 and WTOR messages displayed on the  
 SYSLOG 43, 45  
 ROWACTIVE special variable 449  
 RPRIO default field title  
 Reader panel 188  
 RPTCLASS default field title  
 Display Active Users panel 139  
 Enclave panel 141  
 RSID default field title  
 Multi-Access Spool panel 168  
 RST default field title  
 JC panel 153  
 RSYS command  
 authorization to issue 249  
 RTPD default field title  
 Spool Offload panel 192

## S

SAF  
 grouping class 219  
 migration considerations 327  
 SAF indeterminate exit point 352  
 SAF logging  
 custom property 102  
 SAF security  
 access authority 206  
 action characters 223, 242  
 APF 249  
 auditing requests 204  
 Authorized program facility data  
 sets 249  
 checks on the CK and CKH  
 panels 252  
 classes 205  
 converting ISFPARMS 327  
 DEST command 253  
 destination names 253

SAF security *(continued)*  
 destination operator authority 254  
 devices used by a job 259  
 Dynamic exit information 256  
 DYNX 256  
 enclaves 256  
 ENQ 257  
 Enqueue information 257  
 establishing 217  
 broad access considerations 219  
 conditional access 221  
 RACLIST command 220  
 REFRESH command 220  
 generated MVS and JES  
 commands 224, 225, 272  
 GROUP 203  
 groups 328  
 end users 334  
 operators 331  
 summary of profiles 337  
 system programmers 329  
 initiators 257  
 ISFGRP 203  
 JES2 resources on the RM panel 258  
 JESPLEX members 266  
 JESSPOOL class 254, 260  
 job classes 259  
 job groups 260  
 job steps 260  
 jobs 260  
 jobs, devices used by 259  
 lines 265  
 Link list data sets 266  
 LNK 266  
 MAS members 266  
 migration from ISFPARMS 591  
 migration from ISFPARMS  
 parameters 204, 591  
 MVS and JES commands on command  
 line 268  
 network connections 268  
 network servers 269  
 nodes 270  
 offloaders 312, 317, 318  
 output groups 260, 261  
 overtypable fields 271, 309  
 PAG 310  
 Page data sets 310  
 PARM 311  
 PARM data sets 311  
 permitting other users to view your  
 data 263  
 printers 311  
 PROC 313  
 Proclibs 313  
 protecting SDSF tasks 205  
 punches 313  
 readers 314  
 resource names 205, 609  
 scheduling environments 315  
 SDSF commands 249  
 SDSF resources 205, 223  
 server 316  
 supplementing 205, 345  
 SYM 319  
 SYS 319  
 SYSIN/SYSOUT data sets 260, 261

SAF security *(continued)*  
 SYSLOG 318  
 System information 319  
 system requests 321  
 System Symbol information 319  
 Table of SDSF Resource Names 609  
 WLM enclaves 256  
 WLM resources 315  
 SAFF default field title  
 Input Queue panel 150  
 Reader panel 188  
 Spool Volumes panel 193  
 Status panel 196  
 SAMP default field title  
 Job Delay panel 157  
 sample  
 ISFPARMS module 18  
 SAF security for groups 328  
 sample ISFPARMS to restrict batch 390  
 SBURST default field title  
 Printer panel 180  
 Spool Offload panel 191  
 scaling, numeric values 88  
 SCHARS parameter 26  
 SCHDATE default field title  
 CK panel 145  
 Scheduling Environment panel  
 variable field list of  
 alternate, defining 86  
 primary, defining 86  
 scheduling environments 190  
 Scheduling environments panel  
 authorization to display 45  
 Scheduling-Env default field title  
 JC panel 153  
 SCHENV default field title  
 Input Queue panel 150  
 Status panel 196  
 SCHINT default field title  
 CK panel 145  
 SCLASS default field title  
 Printer panel 179  
 Punch panel 186  
 Spool Offload panel 191  
 SCLASS1-8 default field title  
 Spool Offload panel 193  
 SCN default field title  
 JC panel 153  
 SCOPE default field title  
 Enclave panel 141  
 Enqueue panel 143  
 SCPU default field title  
 Display Active Users panel 138  
 screen size  
 in batch 383  
 specifying maximum supported 26  
 SCRSIZE parameter 26  
 SDEPTH, default field title  
 Job Class panel 154  
 SDEST1 default field title  
 Printer panel 180  
 Punch panel 186  
 Spool Offload panel 191  
 SDEST2 default field title  
 Printer panel 180  
 SDEST2-4 default field titles  
 Punch panel 186



SDEST3 default field title  
Printer panel 180

SDEST4 default field title  
Printer panel 180

SDISP default field title  
Spool Offload panel 191

SDSF termination exit point 351

SDSF, multiple instances of 358

SDSFCOLCOUNT special variable 440

SDSFCOLLEN special variable 440

SDSFCOLSTART special variable 440

SDSFROW special variable 440

SE panel 190

search characters 26

Search panel 195

SecLabel default field title  
Display Active Users panel 139  
Initiator panel 149  
Process panel 185  
Reader panel 188

SECLABEL default field title  
Held Output Queue panel 147  
Input Queue panel 150  
Job 0 panel 164  
Job Data Set panel 155  
Job Group panel 161  
Output Queue panel 176  
Printer panel 180  
Punch panel 187  
Status panel 196

secondary JES2 subsystems 357

SecTG default field title  
MAS and JESPLEX panels 168

SECTRK, default field title  
Job Class panel 154

Secure default field title  
NC panel 170  
NS panel 171

SECURE default field title  
LI panel 166  
NODE panel 173

security conversion assist 340

SEFLD2 parameter 70

SEFLDS parameter 70

SEGID default field title  
Job 0 panel 164  
Job Data Set panel 155

Sel default field title  
Spool Volumes panel 194

SELECT default field title  
Printer panel 183  
Punch panel 186

SELECT Default field title  
Job 0 panel 164  
Job Data Set panel 156

SELECT-RANGE default field title  
Spool Offload panel 191

SelectModeName default field title  
MAS and JESPLEX panels 169

sending comments to IBM xxi

SENDP default field title  
NODE panel 172

SENTRS default field title  
NODE panel 172

SEP default field title  
Printer panel 180  
Punch panel 186

SEPCHAR default field title  
Printer panel 181

SEPDS default field title  
Printer panel 180  
Punch panel 186

SEQ default field title  
Authorized Program Facility panel 137  
Dynamic Exits panel 140  
Link List panel 166  
Link Pack Area panel 167  
PARMLIB panel 179  
PROC panel 184  
SRCH panel 195

SEQMAX default field title  
Dynamic Exits panel 141  
PROC panel 184

SEQUENCE default field title  
Job Device panel 159

SERV default field title  
Job Step panel 162

server  
accessing 111  
changing options 124  
communications 118  
    problems with 588  
    security 322  
default, specifying 33  
DISPLAY command 128, 585  
displaying information about 127  
group  
    defining 28  
    displaying information about 128  
    sample statements 29  
    starting communications 130  
groups, adding to or modifying 117  
groups, examples 113  
initial state, specifying 30  
input to 109  
introduction 109  
logging 111  
multiple servers on a system 109  
operator commands 120  
options 120  
processing statements 110  
protecting with SAF 316  
REFRESH command 129  
refreshing ISFPARMS 129  
registering with ARM 120  
security 112  
specifying 26  
START,COMM command 130  
starting 120  
STOP,COMM command 131  
stopping 132  
stopping communications 131  
system it runs on 30  
XCF 33

SERVER default field title  
Display Active Users panel 139  
Process panel 185

SERVER parameter 26  
SAF authorization for 249

SERVER statement 28, 29

SERVERGROUP statement 28, 29

SESSION default field title  
LI panel 165

SETNAME default field title  
Link Listpanel 167

SETUP default field title  
Printer panel 181  
Punch panel 186

SEVCODE default field title  
CK panel 145

SEVERITY default field title  
CK panel 145

SFCB default field title  
Printer panel 180  
Spool Offload panel 191

SFLH default field title  
Printer panel 180  
Spool Offload panel 191

SFORM2 default field title  
Punch panel 185  
Spool Offload panel 191

SFORM2-8 default field title  
Printer panel 179

SFORM3 default field title  
Punch panel 185  
Spool Offload panel 191

SFORM4 default field title  
Punch panel 185  
Spool Offload panel 191

SFORM5 default field title  
Punch panel 185  
Spool Offload panel 191

SFORM6 default field title  
Punch panel 185  
Spool Offload panel 191

SFORM7 default field title  
Punch panel 185  
Spool Offload panel 191

SFORM8 default field title  
Punch panel 185  
Spool Offload panel 191

SFORMS default field title  
Printer panel 179  
Punch panel 185  
Spool Offload panel 191

shared spool 168

SHCENV default field title  
Job Group panel 161

SHOLD default field title  
Spool Offload panel 191

shortcut keys 621

SHRMO default field title  
Address Space Memory panel 136

SHRMOHWM default field title  
Address Space Memory panel 136

SHRMONUM default field title  
Address Space Memory panel 136

SID default field title  
MAS panel 168  
Multi-Access Spool panel 168

SIO default field title  
Display Active Users Panel 138  
SYS panel 199

SJOBNAME default field title  
Printer panel 180  
Punch panel 186  
Spool Offload panel 191

Slash command  
modifying the character used 96

Slash command (*continued*)  
 modifying the number of stored  
 commands 95

SLCPU default field title  
 Display Active Users panel 140

SLEVEL default field title  
 MAS and JESPLEX panels 168

SLOTS default field title  
 PAG panel 178

SMC default field title  
 Enqueue panel 143

SMF default field title  
 SYS panel 199

SMS default field title  
 Authorized Program Facility  
 panel 137  
 Job Device panel 160  
 Link List panel 166  
 Link Pack Area panel 167  
 PARMLIB panel 179  
 PROC panel 184  
 SRCH panel 195

SNODE1 default field title  
 Printer panel 182

SNODE2 default field title  
 Printer panel 182

SNODE3 default field title  
 Printer panel 182

SNODE4 default field title  
 Printer panel 182

SO command  
 authorization to issue 249

Socket default field title  
 NS panel 171

SOCKETN default field title  
 LI panel 165

SODISP default field title  
 LI panel 166  
 Spool Offload panel 191

SODISP2 default field title  
 LI panel 166  
 Spool Offload panel 191

SODISP3 default field title  
 LI panel 166  
 Spool Offload panel 191

SODISP4 default field title  
 LI panel 166  
 Spool Offload panel 191

SODsp default field title  
 NC panel 170

SOFLD2 parameter 70

SOFLDS parameter 70

SOURCE default field title  
 Job Delay panel 157

SOWNER default field title  
 Printer panel 181  
 Punch panel 186  
 Spool Offload panel 191

SP command  
 authorization to issue 249

SP default field title  
 Display Active Users panel 138

SPACING default field title  
 Display Active Users panel 138

special variable 445

SPEED default field title  
 Lines panel 165

SPIN default field title 197  
 Display Active Users panel 139  
 Input Queue panel 151

SPIN Default field title  
 Job 0 panel 164  
 Job Data Set panel 156

SPINNABLE default field title  
 Job Data Set panel 157

spool data set  
 data sets, number of supported by  
 SDSF 24  
 password protecting 22  
 RACF protecting 22  
 specifying prefix for 24

Spool Offload panel  
 authorization to display 45, 249  
 variable field list 190  
 variable field list of 190  
 alternate, defining 86  
 primary, defining 86

spool offloaders  
 protecting with SAF 312, 317, 318  
 SAF authorization 216

Spool Volumes panel  
 authorization to display 45, 249  
 SPFLD2 parameter 71  
 SPFLDS parameter 70  
 variable field list 193  
 variable field list of  
 alternate, defining 71  
 primary, defining 70

SPOOLPCT default field title  
 SYS panel 199

SPRMODE1 default field title  
 Printer panel 180  
 Punch panel 186  
 Spool Offload panel 191

SPRMODE2 default field title  
 Printer panel 180

SPRMODE2-4 default field titles  
 Punch panel 186

SPRMODE3 default field title  
 Printer panel 180

SPRMODE4 default field title  
 Printer panel 180

SQA default field title  
 Address Space Memory panel 136

SQAPCT default field title  
 Address Space Memory panel 136  
 SYS panel 199

SR command  
 authorization to issue 249

SR default field title  
 LI panel 165

SRANGE default field title  
 Printer panel 181  
 Punch panel 186

SRBTIME default field title  
 Job Step panel 162

SRCH panel  
 SRCH parameter 71  
 variable field list of  
 alternate, defining 71  
 primary, defining 71

SRFLD2 parameter 71

SRFLDS parameter 71

SNum default field title  
 NC panel 169

SRNUM default field title  
 NODE panel 173

SRout1 default field title  
 Printer panel 182

SRout2 default field title  
 Printer panel 182

SRout3 default field title  
 Printer panel 182

SRout4 default field title  
 Printer panel 182

SrvClass default field title  
 Initiator panel 149

SRVCLASS default field title  
 Enclave panel 141  
 Input Queue panel 150  
 Status panel 196

SrvJobNm default field title  
 NS panel 171

SrvName default field title 170

SSAFF default field title  
 Spool Offload panel 191

SSCHEDULING—ENV default field title  
 Spool Offload panel 191

SSCP default field title  
 SYS panel 200

SSI (subsystem interface) request 77, 79

SSIGNON default field title  
 NODE panel 173

SSMODE default field title 196  
 Input Queue panel 150

SSRVCLASS default field title  
 Spool Offload panel 191

SSTYPE default field title  
 Enclave panel 141

ST command  
 adding generic character 96, 348  
 authorization to issue 249

ST default field title  
 LI panel 165

ST-DATE default field title  
 Held Output Queue panel 147  
 Input Queue panel 151  
 Output Queue panel 177  
 Status panel 197

ST-TIME default field title  
 Held Output Queue panel 147  
 Input Queue panel 151  
 Output Queue panel 177  
 Status panel 196

Stack default field title  
 NS panel 171

STACK default field title  
 Job Device panel 160

START (\$S) command  
 authorization to issue 47, 74, 206

Start-Date-Time default field title  
 MAS and JESPLEX panels 168

Start-Type default field title  
 MAS and JESPLEX panels 168

STARTBY default field title  
 Input Queue panel 151  
 Status panel 198

STATDATE default field title  
 SYS panel 200

STATE default field title  
 CK panel 144  
 Process panel 185

statements  
 using to define  
 fields overtypeable on SDSF  
 panels 46  
 MVS and JES commands that can  
 be issued 46

STATIC default field title  
 PROC panel 184

Status default field title  
 NC panel 169

STATUS default field title  
 Authorized Program Facility  
 panel 137  
 CK panel 144  
 CKH panel 144  
 Display Active Users panel 138  
 Enclave panel 141  
 Enqueue panel 143  
 Held Output Queue panel 146  
 Initiator panel 148  
 Input Queue panel 150  
 JESPLEX panel 168  
 Job Dependencies panel 158  
 Job Group panel 160  
 LI panel 164  
 NODE panel 172  
 NS panel 171  
 Output Queue panel 176  
 PAG panel 178  
 Printer panel 179  
 PROC panel 184  
 Process panel 184  
 PUN panel 185  
 RDR panel 187  
 RM panel 189  
 Spool Offload panel 190  
 Spool Volumes panel 193  
 SRCH panel 195  
 Status panel 196

STATUS field  
 JC panel 152

Status panel 195  
 authority to display 45, 249  
 jobs displayed on, controlling  
 by destination name 58  
 by job name 60, 74  
 by job name prefix 67  
 by owner 66  
 variable field list of 195  
 alternate, defining 86  
 primary, defining 86

STC default field title  
 PROC panel 184

STC value 51

STCID default field title  
 CK panel 145

STCNUM default field title  
 SYS panel 199

STEPN default field title  
 Address Space Memory panel 136

STEPNAME default field title  
 Display Active Users panel 137  
 Initiator panel 148  
 Job 0 panel 164

STEPNAME default field title (*continued*)  
 Job Data Set panel 154  
 Job Step panel 162

STEPNUM default field title  
 Job Data Set panel 157  
 Job Step panel 162

STFLD2 parameter 71

STFLDS parameter 71

STIME default field title  
 Job Device panel 160

STNum default field title  
 NC panel 169

STNUM default field title  
 NODE panel 173

STOKEN default field title  
 Dynamic Exits panel 140

STOP (\$P) command  
 authorization to issue 47, 74, 206

STOP command 132  
 authorization to issue 74  
 stopping the server 132

storage estimates for MQSeries page  
 sets 362

storage estimates for WebSphere MQ  
 page sets 362

STORCRIT default field title  
 Display Active Users panel 139

STREAM default field title  
 NODE panel 173

STRNAME default field title  
 Job Device panel 159

STT default field title  
 Spool Volumes panel 194

Stunted default field title  
 Spool Volumes panel 194

SubGroup default field title  
 Held Output Queue panel 148  
 Input Queue panel 151  
 Output Queue panel 177  
 Status panel 197

SUBNET default field title  
 NODE panel 172

SUBPOOL default field title  
 Job Memory panel 162

SUBSYS default field title  
 Address Space Memory panel 136  
 Enclave panel 142

subsystem interface (SSI) request 77, 79

subsystem name, JES2, specifying 25

subsystem name, JES3, specifying 25,  
 356

SUBUSER default field title  
 Input Queue panel 151  
 Status panel 197

SUCS default field title  
 Printer panel 180  
 Spool Offload panel 191

summary of changes xxvi  
 as updated April 2016 xxiv  
 as updated December 2015 xxv  
 as updated June 2016 xxiii  
 as updated March 2014 xxvii  
 as updated March 2016 xxv  
 as updated October 2016 xxiii

Summary of changes xxvii

SUS default field title  
 Punch panel 186

SUSPEND default field title  
 Printer panel 183

SVOL default field title  
 Printer panel 182  
 Punch panel 186  
 Spool Offload panel 191

SVOL2 default field title  
 Printer panel 182

SVOL2-4 default field title  
 Punch panel 187

SVOL3 default field title  
 Printer panel 182

SVOL4 default field title  
 Printer panel 182

SWA default field title  
 JC panel 153  
 Reader panel 188

SWAP default field title  
 Job Step panel 163

SWAPR default field title  
 Address Space Memory panel 136  
 Display Active Users panel 138

SWAPS default field title  
 Job Step panel 163

SWRITER default field title  
 Printer panel 180  
 Punch panel 186

SWRITER. default field title  
 Spool Offload panel 191

symbols, using in ISFPARMS 22

SYNCTOL default field title  
 Multi-Access Spool panel 168

SYSAFF default field title  
 Job Group panel 161

SYSID (system ID)  
 parameter in ISFPARMS 72  
 specifying in Multi-Access Spool  
 environment 72  
 system ID of, specifying 72

SYSID command  
 authorization to issue 249

SysID default field title  
 NC panel 170  
 NODE panel 173

SYSID default field title  
 Held Output Queue panel 147  
 Initiator panel 149  
 LI panel 165  
 NS panel 171  
 Output Queue panel 176  
 Printer panel 182  
 Punch panel 186  
 Reader panel 188  
 Spool Offload panel 192

SYSID3 (system ID)  
 parameter in ISFPARMS 72  
 specifying in JES3 environment 72

SYSIN (system input)  
 displaying for jobs  
 authorization for, specifying 54

SYSIN/SYSOUT  
 SAF authorization 206, 260

SYSLEV default field title  
 CK panel 145

SYSLEVEL default field title  
 Address Space Memory panel 136

- SYSLEVEL default field title *(continued)*
    - Authorized Program Facility panel 137
    - Dynamic Exits panel 141
    - Enclave panel 142
    - Link List panel 167
    - Link Pack Area panel 167
    - PAG panel 178
    - PARMLIB panel 179
    - Process panel 185
    - SYS panel 199
    - System Symbol panel 198
  - SYSLOG
    - protecting with SAF 318
  - SYSLOG index
    - name of 24
  - SYSLOG panel
    - system ID of SYSLOG displayed on 72
  - SYSMSU default field title
    - SYS panel 200
  - SYSNAME
    - command 60
  - SYSNAME command
    - authorization to issue 249
  - SysName default field title 170
    - NODE panel 173
  - SYSNAME default field title
    - Address Space Memory panel 136
    - Authorized Program Facility panel 137
    - CK panel 145
    - CKH panel 144
    - Dynamic Exits panel 141
    - Enclave panel 141
    - Enqueue panel 143
    - Initiator panel 149
    - Input Queue panel 151
    - JESPlx panel 168
    - Job Step panel 163
    - LI panel 165
    - Link List panel 167
    - Link Pack Area panel 167
    - Multi-Access Spool panel 168
    - NS panel 171
    - PAG panel 178
    - PARMLIB panel 179
    - Printer panel 182
    - Process panel 185
    - Punch panel 186
    - Reader panel 188
    - RM panel 190
    - Spool Offload panel 192
    - SR panel 201
    - Status panel 197
    - System Symbol panel 198
  - SYSOUT (system output)
    - class, specifying default for 28
    - displaying for jobs
      - specifying authorization for 54, 58, 345
  - SYSOUT display authority exit point 350
  - SYSOUT parameter 26
  - sysplex
    - defining server group 28
    - ISFPARMS in 20
  - sysplex *(continued)*
    - server group examples 113
  - sysplex DA 60, 588
    - disabling 347
    - migration considerations 360
  - SYSPLEX default field title
    - CKH panel 144
    - SYS panel 199
  - sysplex-wide, defined 112
  - SYSSYM, default field title
    - Job Class panel 154
  - system commands, console used to issue 46, 358
  - system commands, storing 359
  - SYSTEM default field title
    - Display Active Users panel 138
  - system field
    - RES panel 189
  - system ID, specifying 72
  - system input (SYSIN)
    - displaying for jobs
      - authorization for, specifying 54
  - system log
    - protecting with SAF 318
  - system output (SYSOUT)
    - class, specifying default for 28
    - displaying for jobs
      - specifying authorization for 54, 58, 345
  - System panel 199
    - SYS parameter 72
    - variable field list of
      - alternate, defining 72
      - primary, defining 72
  - system programmer group 328, 329
  - system requests
    - protecting with SAF 321
  - system symbols
    - disabling 94
  - System symbols panel
    - SYMFLDS parameter 72
    - variable field list of
      - primary, defining 72
  - System Symbols panel 198
  - system symbols, using in ISFPARMS 22
  - SYSTEMS default field title
    - SE panel 190
  - SzAAP% default field title
    - Display Active Users panel 139
  - SzIIP% default field title
    - Display Active Users panel 139
- T**
- T abbreviation in column data 88
  - table build exit point 346, 353
  - Target default field title
    - Spool Volumes panel 194
  - TB abbreviation in column data 88
  - TDEPTH default field title
    - JC panel 153
  - terminal names
    - using to define a group of users 34
  - terminal screen, largest supported 26
  - TGNUM default field title
    - Input Queue panel 150
    - Spool Volumes panel 193
  - TGNUM default field title *(continued)*
    - Status panel 196
  - TGPCT default field title
    - Input Queue panel 150
    - Spool Volumes panel 193
    - Status panel 196
  - TGUE default field title
    - Spool Volumes panel 193
  - Time default field title
    - Reader panel 188
  - TIME default field title
    - Job Dependencies panel 158
    - SR panel 201
  - TIMEE default field title
    - Process panel 185
    - RM panel 190
  - TIMEOUT interval, default 27
  - TIMEOUT parameter 27
  - title 87
  - TITLE default field title
    - Job Data Set panel 155
    - Output Descriptors panel 174
  - tokens 406
  - TOT-ERRS default field title
    - LI panel 165
  - Tot-Lines default field title
    - NC panel 169
  - TOT-LINES default field title
    - Input Queue panel 151
    - LI panel 165
    - SO panel 191
    - Status panel 197
  - TOT-PAGE default field title
    - Held Output Queue panel 146
    - Output Queue panel 176
  - TOT-REC default field title
    - Held Output Queue panel 146
    - Output Queue panel 176
  - TOTAL default field title
    - Job Memory panel 162
  - TOTAL24 default field title
    - Job Memory panel 162
  - TOTAL31 default field title
    - Job Memory panel 162
  - TOTAL64 default field title
    - Job Memory panel 162
  - TOTERRS default field title
    - PAG panel 178
  - TP Default field title
    - Job Data Set panel 156
  - TP26 default field title
    - JC panel 153
  - TP6 default field title
    - JC panel 153
  - TPACCT default field title
    - Job Data Set panel 156
  - TPDATEE default field title
    - Job Data Set panel 157
  - TPDATER default field title
    - Job Data Set panel 156
  - TPDATETIMEE default field title
    - Job Data Set panel 157
  - TPDATETIMER default field title
    - Job Data Set panel 157
  - TPJNAME default field title
    - Job Data Set panel 156

TPJOBID default field title  
 Job Data Set panel 156

TPTIMEE default field title  
 Job Data Set panel 157

TPTIMER default field title  
 Job Data Set panel 156

Tr default field title  
 NC panel 169  
 NS panel 171

TR default field title  
 Lines panel 165  
 NODE panel 172  
 Printer panel 181  
 Punch panel 186

TRACE parameter 27

trademarks 627

TRAN-ACT default field title  
 Display Active Users panel 139

TRAN-RES default field title  
 Display Active Users panel 139

TRANS default field title  
 Printer panel 182

TRANS value 51

translation tables 103

TRANSMIT default field title  
 NODE panel 172

TRANSP default field title  
 Lines panel 165

TRC default field title  
 Printer panel 183

TRCLASS parameter 28

TRDEF statement  
 syntax 107

TRKCELL default field title  
 Printer panel 182

TRKPERCYL default field title  
 Spool Volumes panel 193

TRKPERTG default field title  
 Spool Volumes panel 194

TRTAB statement 103  
 syntax 105  
 using for defining code pages 103  
 using UPCTAB parameter with 103  
 using VALTAB parameter with 103

TSO authority, using to define a group of users 34

TSO default field title  
 PROC panel 184

TSO logon procedure  
 adding DD statements to 26

TSO user group 328

TSOAUTH parameter 39

TSU value 51

TSUNUM default field title  
 SYS panel 199

Type default field title  
 NC panel 169  
 Spool Volumes panel 194

TYPE default field title  
 Display Active Users panel 138  
 Enclave panel 141  
 Held Output Queue panel 147  
 Initiator panel 148  
 Input Queue panel 150  
 Job Device panel 159  
 Job Memory panel 162  
 LI panel 165

TYPE default field title (*continued*)  
 Output Queue panel 176  
 PAG panel 178  
 Printer panel 182  
 Process panel 185  
 Punch panel 186  
 Reader panel 188  
 Spool Offload panel 190  
 Status panel 195  
 System Symbol panel 198

TYPE parameter 88

TYPE=DEST parameter 92

## U

UCS default field title  
 Held Output Queue panel 146  
 Job 0 panel 163  
 Job Data Set panel 155  
 Output Queue panel 176  
 Printer panel 180

UCSV default field title  
 Printer panel 181

UIC default field title  
 SYS panel 199

UJP default field title  
 JC panel 153

ULOG panel  
 authority to display, specifying 321  
 extended console 321  
 CICS 322  
 NetView 322

UnAlloc default field title  
 Initiator panel 149

UNALLOC parameter 28

unallocating dynamically allocated data sets 28

Unit default field title  
 NC panel 169

UNIT default field title  
 Enqueue panel 143  
 Job Device panel 159  
 LI panel 164  
 Printer panel 181  
 Punch panel 186  
 Reader panel 188  
 Spool Offload panel 192

UNITCT default field title  
 Job Device panel 159

UPCTAB parameter 72, 107  
 lowercase to uppercase, converting from 72  
 requesting a code page, using for 72  
 translate tables, defining 72

UPDREASON default field title  
 CK panel 145

uppercase, specifying 103

UseCount default field title  
 Initiator panel 149

USENUM default field title  
 PAG panel 178  
 RM panel 189

USEPCT default field title  
 PAG panel 178  
 RM panel 189

user authorization 505

user exit routine, SDSF 345

user groups, defining 34

user ID  
 using to define a group of users 34  
 using to restrict  
 authority to issue commands for jobs 46  
 authority to view SYSOUT and SYSIN for jobs 54  
 jobs displayed on SDSF panels 66, 67

user interface  
 ISPF 621  
 TSO/E 621

USERDATA default field title  
 Enqueue panel 143

USERDATA Default field title  
 Job Data Set panel 156, 175

USERDATE default field title  
 CK panel 145

USERID default field title  
 Enclaves panel 142

USERID value 49, 55, 66, 67

USERLIB default field title  
 Job Data Set panel 156  
 Output Descriptors panel 175

UserPages default field title  
 MAS and JESPLEX panels 169

using SDSF  
 batch processing 383

USO default field title  
 JC panel 153

## V

VALIDATE default field title  
 Spool Offload panel 192

VALTAB parameter 73, 106  
 checking for valid characters, using for 73  
 requesting a code page, using for 73

VALUE 48

VALUE default field title  
 System Symbol panel 198

variable field list  
 for SDSF panels, defining 86

VERBOSE default field title  
 CK panel 146

VERIFYP default field title  
 NODE panel 172

VERSION default field title  
 Multi-Access Spool panel 168

viewing page-mode output  
 authorization  
 initialization statements 49  
 ISFPARMS 49, 53, 73  
 SAF 260, 263, 328  
 specifying unit name of temporary file 73

VIO default field title  
 Job Step panel 163  
 PAG panel 178

VIO parameter 73

VMUSER default field title  
 SYS panel 199

VOLS default field title  
 Spool Offload panel 192

- VolSer default field title
  - Spool Volumes panel 194
- VOLSER default field title
  - Authorized Program Facility panel 137
  - Job Device panel 159
  - Link List panel 166
  - Link Pack Area panel 167
  - PAG panel 178
  - PARMLIB panel 179
  - PROC panel 184
  - SRCH panel 195
- VS/JES commands
  - authorization for, specifying
    - with ISFPARMS parameters 46
    - with statements parameters 46
- VTr default field title
  - NC panel 170
  - NS panel 171
- VTR default field title
  - LI panel 166

## W

- WAIT-CNT default field title
  - JC panel 152
- WAITERS default field title
  - Enqueue panel 143
- WAITEXC default field title
  - Enqueue panel 143
- WAITSHR default field title
  - Enqueue panel 143
- WARNPCT default field title
  - RM panel 189
- WebSphere MQ
  - cluster 31
  - configuration 361
  - considerations 361
  - help with 361
  - libraries 361
  - objects
    - defining manually 32
    - delete option 32
    - replace option 31
  - queue prefix 31
  - queues 118, 363
  - queues, protecting 322
  - remote queues 363
  - sample DEFINE commands 118
  - security 316
  - storage estimates 362
- WebSphere MQ, APAR for large messages 361
- WHEN default field title
  - Job Dependencies panel 158
- WHEN statement 20
- who can use SDSF, specifying 45, 346
- WITH default field title
  - Input Queue panel 152
  - Status panel 198
- WLM resources 189
- WLM scheduling environments 190
- Work-Selection default field title
  - NC panel 170
- WORK-SELECTION default field title
  - LI panel 165
  - Printer panel 180

- WORK-SELECTION default field title
  - (continued)
    - Punch panel 186
    - Spool Offload panel 191
- WORKLOAD default field title
  - Display Active Users panel 138
  - Enclave panel 141
  - Job Step panel 162
- WPOS default field title
  - Input Queue panel 150
  - Status panel 196
- write-to-operator (WTO) messages,
  - issuing for commands 46
- write-to-operator-with-reply (WTOR)
  - messages
    - displayed on SYSLOG panel
      - specifying in ISFPARMS 43
- WRITER default field title
  - Printer panel 180
- WTOINT default field title
  - MAS and JESPLEX panels 168
- WTOLIM default field title
  - MAS and JESPLEX panels 168
- WTONUM default field title
  - CK panel 145
- WTORNUM default field title
  - SYS panel 199
- WTORs, controlling 385
- WTOTYPE default field title
  - CK panel 145
- WTR default field title
  - Held Output Queue panel 146
  - Job 0 panel 164
  - Job Data Set panel 155
  - Output Queue panel 66, 176
- WTRID default field title
  - Punch panel 187

## X

- XBM default field title
  - JC panel 152
- XBMPROC, default field title
  - Job Class panel 153
- XCF application server
  - specifying 33
- XCMD parameter 73
- XDSP parameter 74
- XDSPD parameter 54, 59, 74
- XEQ-CNT default field title
  - JC panel 152
- XEQDEST default field title
  - Reader panel 188
- XLPROC parameter 38
- XNAMEREQ default field title
  - NODE panel 173
- XSTATUS parameter 74
- XTNAME parameter 38
- XUID parameter 39

## Z

- z/OS Version 2 Release 2 updates
  - column changes 13
- z/OSMF 366
  - adding the SDSF task 367

- z/OSMF (continued)
  - properties file 367
  - requirements 366
  - security 368
  - settings 367
  - TSO logon proc 367
- zAAP columns
  - custom property 99
- zAAP use
  - custom property 99
- zAAP-Time default field title
  - Display Active Users panel 139
  - ENC panel 142
- zAAP-Use% default field title
  - Display Active Users panel 139
- ZAAPNTIM default field title
  - Display Active Users panel 139
  - Enclaves panel 142
- ZAAPNUM default field title
  - SYS panel 200
- zACP-Time default field title
  - Display Active Users panel 139
  - ENC panel 142
- zICP-Time default field title
  - ENC panel 142
- zIIP-Time default field title
  - ENC panel 142
- ZIIPCPTM default field title
  - Display Active Users panel 139
  - Job Step panel 163
- ZIIPNTIM default field title
  - Display Active Users panel 139
  - Enclaves panel 142
  - Job Step panel 163
- ZIIPNUM default field title
  - SYS panel 200
- ZIIPTIME default field title
  - Display Active Users panel 139
  - Job Step panel 163
- ZIIPUSE default field title
  - Display Active Users panel 139





Product Number: 5650-ZOS

Printed in USA

SA23-2274-09

