z/OS

Bulk Data Transfer Commands

Version 2 Release 1

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About This Book

This book is a reference guide to the commands of the Bulk Data Transfer (BDT) licensed program. It describes all of the BDT commands.

Who Should Read This Book

This book is for:
- System programmers, who need to establish and maintain BDT sessions
- System operators, who need to operate BDT
- End users, who need to display information about their jobs.

How to Use This Book

If you are unfamiliar with BDT commands, begin with Chapter 1, "Writing and Submitting BDT Commands," on page 1.

This book contains three chapters and a glossary.
- Chapter 1, "Writing and Submitting BDT Commands," is an introduction to BDT commands. It explains the types of BDT commands and how to write and submit BDT commands.
- Chapter 2, "Command Guide," presents some common operator tasks and explains how to use BDT commands to perform them.
- Chapter 3, "Command Reference," describes all of the BDT commands. The commands are listed alphabetically by abbreviated command name. For example, MODIFY commands, which are abbreviated as F commands, are listed before INQUIRY, or I commands.

Related Reading

Where necessary, this book references information in other books, using shortened versions of the book title. For complete titles and order numbers of the books for all products that are part of z/OS, see see *z/OS Information Roadmap*.

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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. Writing and Submitting BDT Commands

BDT commands allow you and the BDT subsystem to communicate with each other through your console. You use commands to ask the BDT subsystem for information. You also use commands to control the BDT subsystem, its resources, its connection to other nodes in the BDT network, and the jobs it is processing. In response to your commands, BDT sends messages to you about events in the system.

This chapter is an introduction to writing and submitting BDT commands. It explains:

- What the command types are
- What the format of a BDT command is
- How to use the command syntax diagrams
- How to submit commands
- How BDT processes commands.

Command Types

These are the basic BDT commands and their functions:

- **INQUIRY (I)** commands request information about jobs or the BDT subsystem.
- **MODIFY (F)** commands change parameters or values given during initialization or in previous commands.
- **CALL (X), START (S), RESTART (R),** and **CANCEL (C)** commands control the SNA manager. They start and stop sessions between nodes.
- **VARY (V)** commands control BDT resources such as virtual logical units (VLUs).
- The **MESSAGE (Z)** command allows you to communicate with any TSO, JES3, or multiple console support (MCS) console anywhere in the BDT network.
- The **SEND (T)** command routes commands to other BDT systems.
- The **JES** command sends JES3 commands from one JES3 system to another JES3 system in the same complex.
- The **DUMP** command dumps the BDT address space.
- The **RETURN** command terminates BDT.

The MODIFY,NODE,FENCE command, the START,SNA,LOG command, the SEND command, and the MESSAGE command are for the File-to-File feature only. The MODIFY,JES3 command is for the SNA NJE feature only. All other commands can be used with both features.

Format of BDT Commands

This book describes each BDT command with a syntax diagram. The syntax diagram shows the parts and punctuation of the command. To construct a command from the diagram follow the diagram from left to right, choosing the path that suits your needs.

Figure 1 on page 2 shows a sample syntax diagram and explains how to use it to construct a command. This command is for illustration only. Do not attempt to

enter it.

```
           (1)                 (2)          (3)
                                          ┌─ALL──┐              (5)  (6)
►►─────────prefix──┬─ASAMPLE─┬──┬─SOME──┬──────────────────┬──jnum───────────►◄
                   └─A───────┘  └─NONE──┘       (4)      
                                            ┌─E─┐
                                            └─Q─┘
```
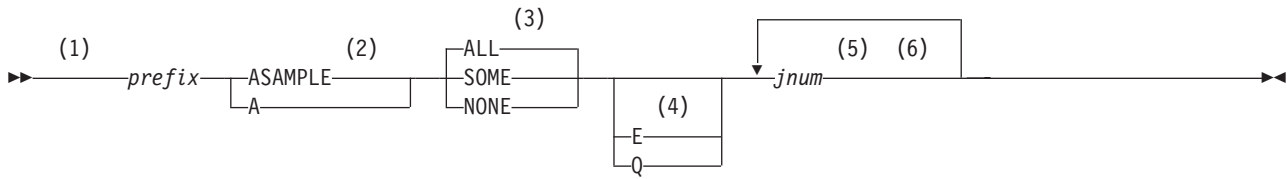
Notes:

1   Start here.

2   Choose either ASAMPLE or A.

3   Choose one of the options. The default is always above the main line. In this case, ALL is the default.

4   Choose E, Q, or neither.

5   Repeat *jnum* any number of times. Variables are always in italics.

6   End here.

Figure 1. Sample Syntax Diagram for an BDT Command

BDT Command Prefix

The prefix tells the system that the command is a BDT command. The prefix you use depends on the type of console you are using (MCS, JES3, or TSO), and whether your system programmer has created short-cuts (such as PF keys). For a listing of the IBM-defined prefixes, see Table 1.

Table 1. IBM-Defined Prefixes

Type of Console	Prefix in a Single-BDT Complex	Prefix in a Poly-BDT Complex
MCS	*bdt-char* or BDT or F [*bdt-proc.*]*bdt-id*	Same
JES3	*S,BDT	*S,BDT,SY(*node-name*)
TSO	BDT	BDT SY(*node-name*)

bdt-char is a special character (such as /) that routes the command directly to a specific system. Do not use a delimiter (a comma or a blank) after *bdt-char*. For information on defining *bdt-char*, see *z/OS BDT Installation*.

bdt-proc is the name of the cataloged procedure in SYS1.PROCLIB that is used to start BDT. It is optional.

bdt-id is the installation-defined identifier of BDT.

SY(*node-name*) is the system parameter that indicates to which BDT subsystem the command should go. Include the parentheses as shown.

Note: At an MCS console, the bdt-char prefix and the "BDT" prefix invoke BDT user exit routine BDTUX28. The "F" prefix does not.

Some valid specifications for a command using the TSO prefix are listed below.

    BDT,S,NODE=FTF,Q,J=3431

    BDT,SAMPLE,NODE=NODEC,J=(2871,3431,4982)

How to Submit Commands

You can submit commands either interactively or in a batch job.

Submitting Commands Interactively

You can submit commands by typing them at your console, following the rules of command syntax.

Frequently used commands can be assigned to the program function keys (PF keys) on the console's keyboard. The PF keys can be set up to issue a command immediately when you press them, or to produce skeletal commands with blank spaces for you to fill in.

Submitting Commands in a Batch Job

You can submit commands in a batch job, using this format:

```
//job card
//   EXEC PGM=BDTBATCH
//SYSPRINT DD DUMMY
//SYSIN DD *
command
/EOT
command
/EOT
```

If you use this method to submit commands:
- Do not use a prefix. Start with the command word.
- Begin the command in any column.
- When using more than one command, start each command on a new line and separate the commands with a /EOT statement.
- Do not use the line-end character — it is invalid.

How BDT Processes Commands

When you submit a command, TQI makes a copy of the command on the TQI checkpoint data set. BDT then reads the command from the data set. If you disable TQI, commands you submit go directly to BDT.

Note: When BDT is restarted, any commands on the TQI checkpoint data set are discarded. Because of this, when restarting BDT after a failure, do not issue BDT commands that initiate BDT activity or inquire about a job's status until you receive message BDT2225 indicating that TQI initialization is complete. Once you receive this message you may safely submit commands.

Chapter 2. Command Guide

This chapter describes how to use BDT commands to perform a few important tasks. It presents the commands that allow you to:

- Start the transaction queueing integrity (TQI) facility.
- Start BDT.
- Start a BDT session.
- Stop a BDT session.
- Determine if a session is working when it seems to be stuck.
- Find a job in the system.
- Cancel, hold, or reschedule a job that is on the BDT work queue.
- Handle problems in dependent transaction control (DTC) networks.
- Manage the BDT system log.

The commands are all shown with a prefix. Do not use a prefix when submitting commands in a batch job.

Starting the Transaction Queuing Integrity (TQI) Facility

TQI must be started on each processor from which users submit commands and file-to-file transactions in order for the commands and transactions to be checkpointed. TQI must also be started in order for users to receive BDT messages. TQI may be started in either of two ways:

- Automatically during initialization of the MVS base control program. To do this, include a START command for TQI in the COMMNDxx member of SYS1.PARMLIB.
- Manually by the operator. To do this, issue the MVS START command. Note that if some time later TQI restarts automatically, any user parameters that the operator may have included on the START command are lost.

Starting BDT

If you want to use the transaction queueing integrity (TQI) facility to allow you to receive BDT messages, you should begin by starting TQI. See "Starting the Transaction Queuing Integrity (TQI) Facility."

Starting BDT requires the steps described below.

Step 1. Make Sure That the System Is Ready

Make sure:

- MVS is running.
- JES is running.
- The VTAM network is established.
- The console authorization level is 15.

Step 2. Invoke Your BDT Start Procedure

Use the MVS command

    S *bdt-proc*

where *bdt-proc* is the name of your start procedure. You will be prompted by message BDT3036 to enter a start type (cold, warm, or hot), and by message BDT3037 (if a cold or warm start) to enter the name of the member that contains the BDT start procedure. For information on when to use a cold, warm, or hot start, see "When to Use a Cold, Warm, or Hot Start."

Note: If an error occurs while you are starting BDT, you may have to cancel BDT before you try to start it again.

Step 3. Vary JES3 Online (For Hot Starts on JES3 Systems Only)

This step is necessary only for JES3 systems doing a hot start. If you want users to be able to submit JES3 commands through BDT, you must vary JES3 online with the BDT command

> *prefix* V,JES3,ONLINE

Note: Whenever you restart BDT, the fencing of VLUs for file-to-file nodes returns to the setup defined in the initialization stream.

If you want to change the fencing, use the BDT command

> *prefix* F,NODE=*node-name*,FENCE=(*from,to*).

When to Use a Cold, Warm, or Hot Start

When to Use a Cold Start

A cold start is the most severe type of start. It disrupts processing more than the other types of start. For this reason you should use a hot or warm start whenever possible.

The only situations that require a cold start are:
- To start BDT for the first time in your installation
- After a failure that cannot be corrected by a hot or warm start
- To install new releases or enhancements that require a cold start.

Cold start processing reads the initialization stream. In many installations the initialization stream used for a cold start will be different from the one used on the previous start.

If there are any errors in the initialization stream BDT displays a message describing the error on the console or writes it to the BDTOUT data set. If the error is so severe that BDT would not be able to run properly, BDT will terminate in the initialization stage. If this happens, you must alert the system programmer so that the problem can be corrected before you attempt to start again.

During a cold start all BDT jobs (both active and inactive) are lost. These jobs must be resubmitted. Also, any changes that you made by issuing commands (such as MODIFY) are lost. TQI data sets are unaffected.

When to Use a Warm Start

A warm start is less severe than a cold start, but you should use a hot start if possible. A warm start is required for the following situations:
- After a failure that cannot be corrected by a hot start

- To make changes to the initialization stream and put the new initialization values into effect.

Warm start processing reads the initialization stream. Since it does so, a warm start can change the global-local relationship defined between nodes. If a warm start is to change the global-local relationship, you should make sure that the work queue is empty before stopping and warm-starting BDT. Any errors found in the initialization stream will be treated as they are during a cold start.

Jobs that were active when BDT came down are interrupted. BDT will either restart these jobs or dispose of them according to their failure option. Jobs on the work queue are not affected unless the global-local relationship between nodes is redefined by the warm start. In this case the fate of jobs on the work queue is unpredictable.

All of the changes you made to jobs by issuing commands (such as MODIFY) will remain in effect.

When to Use a Hot Start

You can use a hot start to restart BDT:
- After a normal shutdown.
- After BDT terminates because of a failure of MVS or JES.
- To load a new copy of BDT code if there have been recursive abends (the same module and displacement appear in message BDT3713 for each failure). You must terminate BDT with the RETURN command before doing a hot start for this purpose.

Hot start processing does *not* read the initialization stream, so system limits remain as they were set by the previous initialization.

The jobs that were active when BDT came down should restart. Jobs on the work queue are not affected.

All of the changes you made to jobs by issuing commands (such as MODIFY) will remain in effect.

Summary of Start Types

The table below shows the different start types and their effects.

Start Type	Reads Initialization Stream	Saves Work Queue	Saves MODIFY Job Changes	Saves MODIFY System Changes
Cold	Yes	No	No	No
Warm	Yes	Yes	Yes	No
Hot	No	Yes	Yes	No

Starting a BDT Session

Your initialization stream may start sessions automatically. If it does not, you will have to issue BDT commands to start sessions.

Before starting sessions, you may need to activate the BDT SNA manager.

Activating the BDT SNA Manager

You must activate the BDT SNA manager if:

- You are doing a cold start of BDT
- You are doing a warm or hot start of BDT and the BDT SNA manager was not active when BDT terminated
- The BDT SNA manager has been canceled with a BDT C,SNA,NODE=ALL command.

If you aren't sure whether the BDT SNA manager is active or if any sessions have already been established, use

> *prefix* S,SNA,STATUS,LIST

to display the status of the BDT SNA manager and a list of all active sessions.

Activate the BDT SNA manager with the BDT command

> *prefix* X,SNA

Look for message BDT2801, SNA MANAGER READY.

Starting the Session

When the BDT SNA manager is active, use

> *prefix* S,SNA,NODE=*node-name*

or

> *prefix* R,SNA,NODE=*node-name*

to establish a session between a node at your BDT subsystem and another node. R,SNA,NODE also enables automatic session restart (ASR).

For R,SNA,NODE, message BDT2860 will tell you that a session is being started. For S,SNA,NODE, several messages, including BDT2860, will tell you a session is being started.

Stopping a BDT Session

To cancel a session between a node at your BDT subsystem and another node, you must know the name of the other node. If you aren't sure of the node name, first use

> *prefix* I,L=ALL

to display the names of all nodes connected to your BDT subsystem by BDT sessions.

To stop a session between a node at your BDT subsystem and another node when active work completes, use

> *prefix* C,SNA,NODE=*node-name*,QUIESCE

To stop a session between a node at your BDT subsystem and another node immediately, use

> *prefix* C,SNA,NODE=*node-name*,FORCE

Several messages, including BDT2803, SESSION TERMINATED WITH node-name (appl-id), will be issued in response to the C,SNA command.

To restart a session canceled with the C,SNA command, use S,SNA,NODE=*node-name* or R,SNA,NODE=*node-name*. (See "Starting a BDT Session" on page 7.)

Determining If a Session Is Working

- To display a list of active sessions, use

  prefix S,SNA,STATUS,LIST

- To display the status of all sessions, including sessions that are offline, and to display the status of VLUs for those sessions, use

  prefix I,NODE=ALL

- If you are interested in one particular session, you can save time by using

  prefix I,NODE=*node-name*

  to display the status of the session with a particular node.

Determining If Data Is Moving between Your Node and Another Node

To determine if data is moving between the node or nodes at your BDT subsystem and another node use

  prefix I,A,NODE=*node-name*

and note, in message BDT8673, the number of bytes transferred for some of the jobs. Then issue the command again a few minutes later and see if the number of bytes transferred has increased. If there is no increase in the number of bytes transferred, or if a job has a large elapsed time but few bytes transferred, there is a problem on the session, possibly in ACF/VTAM.

Getting Data Moving Again

To get the session working again, try canceling the session :i1 RESTART (R) command and starting it up again. To cancel it, first try.

  prefix C,SNA,NODE=*node-name*,QUIESCE

If this doesn't work you will have to use

  prefix C,SNA,NODE=*node-name*,FORCE

Several messages, including BDT2803, SESSION TERMINATED WITH node-name (appl-id), will be issued in response to the C,SNA command.

To restart the session use

  prefix R,SNA,NODE=*node-name*

Message BDT2860 will tell you that a session is being started.

If the session still doesn't move data, the problem is most likely in ACF/VTAM. See the the ACF/VTAM publications or the person responsible for the ACF/VTAM network.

Determining If Data Is Moving on a Particular Job

To determine if data is moving on a particular job, use

  prefix I,A,J=*job-no*

and note, in message BDT8673, the number of bytes transferred for the job. Then issue the command again a few minutes later and see if the number of bytes

transferred has increased. If there is no increase in the number of bytes transferred, or if the job has a large elapsed time but few bytes transferred, there is a problem on the session, possibly in ACF/VTAM.

If data is not moving on a job, use

> *prefix* I,J=*job-no*

to display more information. If message BDT8612 shows the job's status as complete (C) on the "from" node but active (A) on the "to" node, it may be that the "from" node has sent the last of the data but the session was interrupted before the data was received by the "to" node.

You may want to cancel, hold, or reschedule the stuck job.

Canceling, Holding, or Rescheduling a Job

Using BDT commands, you can cancel, hold, or reschedule a job that is on the work queue at your BDT subsystem.

If you have the file-to-file feature, you may also need to cancel, hold, or reschedule a job that is on the work queue at another node. See "Canceling, Holding, or Rescheduling a Job That Is on the Work Queue at Another Node" on page 11.

If You Don't Know the Job Number

To cancel a job you must know the job number, and to hold or reschedule a job you must know the job number and whether the job is active or not active.

If you don't know the number or status of the job, you could use the

> *prefix* I,J=*job-name*

command, or the

> *prefix* I,Q

command to display that information. See "Displaying Information About Jobs" on page 11 for other commands that will display the number and status of a job.

Canceling a Job That Is on the Work Queue at Your BDT Subsystem

- To cancel a job that is not in a DTC network use
  > *prefix* F,J=*job-no*,C

  Look for message BDT8618 to tell you that the job is being canceled.
- To cancel a job that is in a DTC network use
  > *prefix* F,NET,ID=*net-id*,J=*job-no*,C

  Look for message BDT8680 to tell you that the job is being canceled.

Holding a Job That Is on the Work Queue at Your BDT Subsystem

- To put an active job into operator hold use
  > *prefix* F,J=*job-no*,C,R,H

  Look for message BDT8618.
- To put a job that is not active into operator hold use
  > *prefix* F,J=*job-no*,H

Look for message BDT8618 to tell you that the job is being held.

- To release a job that is in operator hold use

    prefix F,J=*job-no*,R

Look for message BDT8618 to tell you that the job is being released from hold.

Rescheduling an Active Job That Is on the Work Queue at Your BDT Subsystem

To cancel and then reschedule an active job use

    prefix F,J=*job-no*,C,R

Look for message BDT8618.

Canceling, Holding, or Rescheduling a Job That Is on the Work Queue at Another Node

A file-to-file job submitted at your file-to-file node may be in a session for which your file-to-file node is the local node; this job will be put on the work queue at the global node. Use

    prefix SEND,*node-name,command*

to send a BDT command to the global node. For example, to cancel a file-to-file job at another node use

    prefix SEND,*node-name*,F,J=*job- no*,C

Displaying Information About Jobs

The commands on the next few pages will help you display information about jobs that are on the work queue at your BDT subsystem.

If you have the file-to-file feature, you may need to display information about jobs that are at other nodes. File-to-file jobs submitted at your file-to-file node will be on the work queue at other nodes any time your file-to-file node is the local node in the session. For information on locating file-to-file jobs on work queues at other nodes, see "If a File-to-File Job Is on the Work Queue at Another Node" on page 13.

If You Know the Job Name or Job Number

To display the status of the job use

    prefix I,J=*job-no* or *job-name*

It is usually better to use the job number, if you know it, rather than the job name, because a job number is unique to a job, while several jobs may have the same job name. Knowing the job's status allows you to find out still more about the job:

- If the status is A (for active) you can use

    prefix I,A,J=*job-no*

to tell you how long the job has been running and how many bytes of data have been transferred.

- If the status is Q (for on the work queue) there may be other information in the message:

    – H=OPR—the job is in operator hold. To release the job, use

        prefix F,J=*job-no*,R

– H=URS—the job is in hold because a data set is enqueued (it is unavailable). BDT will release the job in 15 minutes. If the data set is available, the job will run. Otherwise, the job will be put into enqueue hold again for another 15 minutes.

– H=NET—the job is in a DTC network and is waiting for a predecessor job to complete. The DTC network name (*net-id*) and the job's hold count are also in the message. See "Handling Problems in DTC Networks" on page 13 for ways to deal with problems in DTC networks. If you want to know what other jobs are in the same DTC network, use

> *prefix* I,NET,ID=*net-id*

– H=TQI—the job was submitted at the local node and is still on the TQI data set; the job may also be on the work queue at the global node but the local node has not yet received confirmation of this.

- For other fields in the message, such as S, C, RESCH, and CAN, see the explanation for BDT8612 in *z/OS BDT Messages and Codes*. There isn't any further investigation you can do with these fields. If the status is C on the sending node and A on the receiving ("to") node, see "Determining If Data Is Moving on a Particular Job" on page 9.

If You Know Part of the Job Name

If you know at least the first character of the job name you can use

> *prefix* I,J=*job-name**

entering as much as you know of the job name followed by an asterisk (*). This will display the jobs whose names begin with those characters. For example, if you know that the job name begins with the letters DBP, use *prefix* I,J=DBP*.

If You Don't Know the Job Name or Job Number

- Did you submit the job? If so, use

> *prefix* I,Q,*

to display the jobs submitted from your terminal.

- Do you know the other node name (the one that is not your own node) for the job? If so, use

> *prefix* I,Q,NODE=*node-name*

- If there is a large work queue, you could narrow your search by using

> *prefix* I,A,NODE=*node-name*

to display the job if it is active, or

> *prefix* I,B[,TO=*node-name*,FROM=*node-name*,+ ORIGIN=*node-name*]

to display the job if it is not active but is backlogged. Use the TO, FROM, and ORIGIN parameters if you know this information about the nodes involved.

- If you know the priority of the job you could use

> *prefix* I,P=*prty*

to display the jobs of that priority.

- If you know that the job is in a DTC network and you know the network ID, use

> *prefix* I,NET,ID=*net-id*

to display the jobs in that network.

- If you know that the job is in a DTC network but you do not know the network ID, you could use

> *prefix* I,NET

> to display the network IDs of every DTC network at your BDT subsystem.

If a File-to-File Job Is on the Work Queue at Another Node

If the job you want to locate is a file-to-file job on the work queue at another node use

> *prefix* SEND,*node-name*,*command*

to send a BDT command to the other node. For example, to find out the number of a job that is active at another node you could send the I,A command to that node:

> *prefix* SEND,*node-name*,I,A

Handling Problems in DTC Networks

Dependent transaction control (DTC) networks can be very complicated structures. If you experience a problem with a DTC network you may want to notify the user who submitted the jobs or the person in your installation who is responsible for maintaining DTC networks.

Runaway First Job in a DTC Network

Unless the DTC network is carefully constructed, the first job in the network can run and complete before its successors are submitted. This kind of "runaway" first job will not release its successors, and as a result, the rest of the DTC network will never run.

If a DTC network gets held because of a runaway first job, you can use the

> *prefix* F,NET,ID=*net-id*,J=*job- no*,D

command or the

> *prefix* F,NET,ID=*net-id*,J=*job- no*,R

command to start the network moving. Look for message BDT8680 to tell you the job is released. You must know the structure of the network to use these commands effectively. If you do not know the structure of the network, you will have to flush the entire network.

Flushing a DTC Network

Use the

> *prefix* F,NET,ID=*net-id*,J=*job- no*,F

command to flush a DTC network. You will get a message BDT8680 for the job you specified with *job-no* and for each successor job in the network that is flushed.

The F,NET,ID=*net-id*,J=*job-no*,F command flushes **only** the job and its successors. You can display the remainder of the network with

> *prefix* I,NET,ID=*net-id*

Then, use

> *prefix* F,NET,ID=*net-id*,J=*job- no*,F

against the remaining jobs, checking each time with I,NET,ID=*net-id* until the DTC network is entirely gone.

Preventing a Runaway First Job in a DTC Network

After flushing a DTC network that was stuck, tell the user to resubmit the DTC network, using one of the following methods to prevent the runaway first job problem:

- Submit the network "bottom-up", that is, submit the first job last.
- Submit the first job in operator hold, then release it after the entire network has been submitted by using

    prefix F,J=*job-no*,R

    Message BDT8618 will tell you that the job has been released.

- Give the first job a hold count, then release it after the entire network has been submitted by using

    prefix F,NET,ID=*net-id*,J=*job- no*,R

    Message BDT8680 will tell you that the job has been released.

Releasing a Job from DTC Network Hold

A job in a DTC network is normally released when all its predecessor jobs complete. You might need to release a job manually if one of its predecessors abends or is canceled. Or, you might need to release a job manually if it has been given a hold count (with the NETHOLD parameter when it was submitted) that is higher than the number of predecessors for the job.

- To release a job you can lower its hold count, one unit at a time, by using

    prefix F,NET,ID=*net-id*,J=*job- no*,D

    Message BDT8680 will tell you the hold count of the job until it is 0; then the message will tell you that the job has been released.

- To release a job no matter how high the hold count, use

    prefix F,NET,ID=*net-id*,J=*job- no*,R

    Message BDT8680 will tell you the job has been released.

The Job Released from DTC Hold Still Won't Run

The job may be in another hold status as well, such as operator hold. Use

    prefix I,J=*job-no*

to find out if the job is in another hold status. If message BDT8612 tells you that H=OPR or H=URS, use

    prefix F,J=*job-no*,R

to release the job.

Jobs Are Rejected When a DTC Network Is Submitted

This problem is related to the problem of jobs remaining after flushing a DTC network.

If a DTC network is submitted when there are jobs with the same network ID already in the system, the new jobs will combine with the other jobs to form a DTC network that will not run properly (unless the remaining old jobs and the incoming new jobs are identical).

When this happens you should notify either the user who submitted the jobs or the person in your installation who is responsible for maintaining DTC networks. The easiest solution is to flush out the entire DTC network with that ID. Use

    prefix F,NET,ID=*net-id*,J=*job- no*,F

You will get a message BDT8680 for the job you specified with *job-no* and for each successor job in the network that is flushed. If you do not flush the entire network, you must know the exact structure of both the old and new networks and be very careful about canceling jobs, adjusting hold counts, and so on.

Managing the BDT System Log

The BDT system log contains information about BDT processing. Using BDT commands, you can change the destination of the BDT system log, and print the BDT system log.

Changing the Destination of the BDT System Log

When changing the destination of the BDT system log, you might first display the current destination using

> *prefix* I,LOG

Routing the Log to Your Console

- To route the BDT system log to your console in addition to its original destination use

  > *prefix* F,LOG,ADEST=*

  Message BDT8711 will tell you that your console has been added to the destination routing table of the log.
- To change the destination of the BDT system log from its original destination to your console use

  > *prefix* F,LOG,SYSLOG=WTO

  Message BDT9921 will tell you the new primary log destination.

Routing the Log to Another Console

- To route the BDT system log to a console in addition to its original destination use

  prefix F,LOG,ADEST=*node-name,sys-name,console-type,console- name* Message BDT8711 will tell you that the console has been added to the destination routing table of the log.
- To change the destination of the BDT system log from its original destination to a console receiving JES3 routing code messages use

  > *prefix* F,LOG,SYSLOG=JES3

  Message BDT9921 will tell you the new primary log destination.

Route the log only to a console that "rolls", and not to a console that has to be cleared.

Printing the BDT System Log

You can print the BDT system log if the destination of the log is a printer. Use

> *prefix* I,LOG

to display the current destination of the BDT system log.

If the destination is not a printer, use

> *prefix* F,LOG,SYSLOG=PRINT

to change the destination to a printer. Message BDT9921 will tell you the new primary log destination.

To print the log use

> *prefix* F,LOG,WRITE

Look for message BDT9932 to tell you that the BDT system log is being sent to a printer.

Chapter 3. Command Reference

This chapter describes all of the BDT commands.

The commands are in alphabetic order by abbreviated command name, and each command begins a new page. Each command description contains a brief explanation of the purpose of the command, a syntax diagram, some brief usage notes, messages BDT issues in response to the command, and some examples of the command in use.

If you do not understand terms or rules of command syntax, refer to Chapter 1, "Writing and Submitting BDT Commands," on page 1.

C,SNA — Cancel a Session

Purpose

Use this command to cancel a session between a node at your BDT subsystem and another node or nodes. Canceling a session stops all communication.

Format
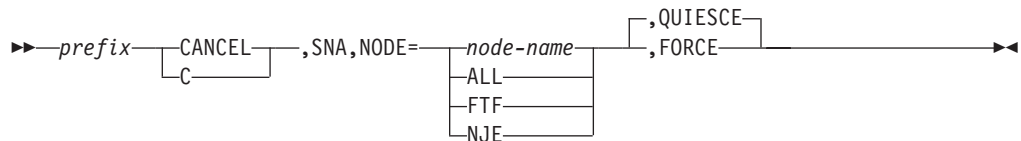
```
                                               ,QUIESCE
►►─prefix─┬─CANCEL─┬─,SNA,NODE=─┬─node-name─┬─┬─────────┬──►◄
         └─C──────┘            ├─ALL───────┤ └,FORCE───┘
                               ├─FTF───────┤
                               └─NJE───────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA
> is required.

node-name
> is the name of the node to which communication is to be stopped. Specify only one node name.

ALL
> specifies that communication to all nodes is to be stopped. This cancels the BDT SNA manager.

FTF
> specifies that all file-to-file communication is to be stopped.

NJE
> specifies that all NJE communication is to be stopped.

FORCE
> disables the session immediately. Jobs being processed will be terminated.

QUIESCE
> disables the system in an orderly fashion. Jobs being processed will be allowed to complete; no new jobs will be begun. If you do not specify FORCE or QUIESCE, QUIESCE is assumed.

Usage Notes

1. All forms of this command disable automatic session restart (ASR).
2. When stopping communication between file-to-file nodes, you can issue this command at either the local node or the global node.
3. You must be authorized to use this command.
4. To restart sessions terminated with C,SNA,NODE=*node-name*, C,SNA,NODE=FTF, or C,SNA,NODE=NJE, use the START,SNA or RESTART,SNA command.

   To restart sessions terminated with C,SNA,NODE=ALL, use the X,SNA command to reactivate the BDT SNA manager, and the START,SNA command to start the sessions.
5. The QUIESCE parameter allows jobs on the session to finish, and so saves you from having to resubmit jobs that are being processed when you issue the CANCEL command. The FORCE parameter does not allow jobs on the session to finish. NJE jobs terminated with the FORCE parameter will have to be resubmitted. File-to-file jobs terminated with the FORCE parameter may be restarted from the last checkpoint.
6. If you issue a CANCEL command with the QUIESCE parameter, but then decide you do not want to wait for an orderly session shutdown, you may issue a second CANCEL command with the FORCE parameter before the first CANCEL has completed.
7. To suspend the transfer of data without canceling the session, use the V (VARY) command.

Results

BDT issues these messages:

```
BDT2861 SESSION CANCEL REQUESTED FOR node-name (appl-id)
        TYPE={FTF|NJE}
BDT2866 STOP SESSION INITIATED - node-name (appl-id) -
        ERC=(err codes) - OPERATOR CANCELLED SESSION
BDT2803 SESSION TERMINATED WITH node-name (appl-id)
BDT2820 SCIP  SESSION UNBIND REQUESTED FOR node-name
        (appl-id), TYPE={FTF|NJE}
BDT2803 SESSION TERMINATED WITH node-name (appl-id)
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

For C,SNA,NODE=ALL, BDT2861 is not issued, and the following additional messages are issued:

```
BDT2866 STOP SESSION INITIATED - node-name (appl-id) -
        ERC=(err codes)
BDT2805 SNA MANAGER TERMINATED
BDT6006 (0001,SNA) JOB ENDED AT hh:mm:ss ON yyyy.ddd -
        COMP=ZE RO
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

Examples of canceling a session

1. Using an F *id* prefix, stop communication between your node, SYSA1, and node SYSA2. The identifier of BDT (for use in the prefix) is A1.

   ```
   F A1 CANCEL,SNA,NODE=SYSA2
   ```
   Result:

```
          BDT2861 SESSION CANCEL REQUESTED FOR SYSA2 (APPLA2)
                  TYPE=FTF
          BDT2866 STOP SESSION INITIATED - SYSA2 (APPLA2) -
                  ERC=(D04,0) - OPERATOR CANCELLED SESSION
          BDT2803 SESSION TERMINATED WITH SYSA2 (APPLA2)
          BDT2820 SCIP SESSION UNBIND REQUESTED FOR SYSA1
                  (APPLA1), TYPE=FTF
          BDT2803 SESSION TERMINATED WITH SYSA1 (APPLA1)
```

2. Using the *S,BDT prefix, stop all file-to-file communication immediately between your file-to-file node and other nodes.

   `*S,BDT,CANCEL,SNA,NODE=FTF,FORCE`

   Result:

```
          BDT2862 SESSION QUIESCE REQUESTED FOR SYSA2 (APPLA2), TYPE=FTF
          BDT2861 SESSION CANCEL REQUESTED FOR SYSA2 (APPLA2)
                  TYPE=FTF
          BDT2866 STOP SESSION INITIATED - SYSA2 (APPLA2) -
                  ERC=(D04,0) - OPERATOR CANCELLED SESSION
          BDT2803 SESSION TERMINATED WITH SYSA2 (APPLA2)
          BDT2820 SCIP SESSION UNBIND REQUESTED FOR SYSA1
                  (APPLA1), TYPE=FTF
          BDT2803 SESSION TERMINATED WITH SYSA1 (APPLA1)
```

3. Using the *S,BDT prefix, stop communication between your node, SYSA1, and all other nodes.

   `*S,BDT,CANCEL,SNA,NODE=ALL`

   Result:

```
          BDT2866 STOP SESSION INITIATED - SYSA2 (APPLA2) -
                  ERC=(C04,0)
          BDT2803 SESSION TERMINATED WITH SYSA2 (APPLA2)
          BDT2805 SNA MANAGER TERMINATED
          BDT6006 (0001,SNA) JOB ENDED AT 18:56:46 ON 83.152 -
                  COMP=ZERO
          BDT2820 SCIP SESSION UNBIND REQUESTED FOR SYSA1
                  (APPLA1), TYPE=FTF
          BDT2803 SESSION TERMINATED WITH SYSA1 (APPLA1)
```

DUMP — Dump the BDT Address Space

Purpose

Use this command to take a formatted dump of the BDT address space.

Format

```
                              ┌─'OPERATOR-REQUESTED-DUMP'─┐
►►──prefix──DUMP──,TITLE──┴─'dump-title'────────────────┴──────────────────►◄
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

dump-title
   is the title you assign to the dump. The title can be up to 50 characters long, and should be enclosed in single quotation marks. If you omit this parameter, the title for your dump is "OPERATOR-REQUESTED-DUMP."

Usage Notes

1. You must be authorized to use this command.
2. This command does not bring down BDT.

Results

Before taking the dump, BDT issues this message if the WANTDUMP=ASK parameter was specified in the OPTIONS initialization statement:

```
BDT9990 SPECIFY DUMP OPTION {YES|NO|BDT|PRDMP}
```

Refer to *z/OS BDT Messages and Codes* for a description of the dump options.

After taking the dump, BDT issues these messages:

```
BDT3720 BDT FORMATTED DUMP COMPLETE, BD008, COMMGR
BDT9936 OPERATOR-REQUESTED DUMP COMPLETE
```

See *z/OS BDT Diagnosis Reference* for a description of the dump produced.

Example of dumping the BDT address space

Using an F *id* prefix, dump the BDT address space and call the dump MYDUMP. The BDT *id* (for use in the prefix) is A1.

```
F A1 BDT,DUMP,TITLE='MYDUMP'
```

Result:

```
BDT3720 BDT FORMATTED DUMP COMPLETE, BD008, COMMGR
BDT9936 OPERATOR-REQUESTED DUMP COMPLETE
```

F,DUMP — Change the Dump Option

Purpose

Use this command to change the BDT formatted dump option that will be used if BDT fails.

Format

```
►►──prefix──┬─MODIFY─┬──,DUMP──┬─,YES─┬──────────────────────────────►◄
            └─F──────┘         ├─,NO──┤
                               └─,ASK─┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

DUMP
    is the BDT formatted dump option.

YES
    specifies that a dump is to be taken if BDT fails.

NO specifies that no dump is to be taken if BDT fails.

ASK
    specifies that if BDT fails, BDT is to issue message BDT9990 to ask the operator whether to take a dump.

Usage Note

1. This command overrides the options used on the WANTDUMP parameter of the OPTIONS initialization statement.
2. To display the dump option that is in effect, use the I,OPT command.

Results

BDT issues this message:

```
BDT8662  BDT DUMP OPTION IS  {YES|NO|ASK}
```

Examples of changing the dump option

1. Using an F *id* prefix, change the dump option to NO. The identifier of BDT (for use in the prefix) is A1.

   ```
   F A1 F,DUMP,NO
   ```
   Result:
   ```
   BDT8662  BDT DUMP OPTION IS NO
   ```

2. Using a prefix of *S,BDT, change the dump option to ASK.

   ```
   *S,BDT,MODIFY,DUMP,ASK
   ```
   Result:
   ```
   BDT8662  BDT DUMP OPTION IS ASK
   ```

F,J,C — Cancel a Job

Purpose

Use this command to cancel a job. If the job is active, you may request a dump, reschedule the job, or hold the job.

Format
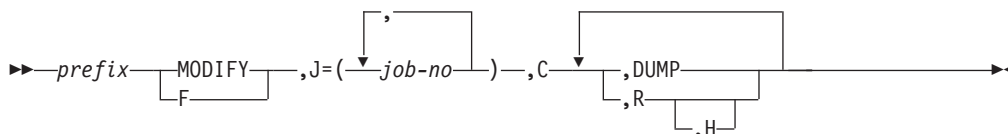
prefix
　is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

job-no
　is the number of the job that is to be canceled.

C　cancels the job. The job must be on the work queue. It may be active or not active.

DUMP
　requests that BDT take a dump. BDT takes a BDT formatted dump and either an MVS SVC dump or a S060 system dump. Use this parameter only with active jobs.

R　reschedules the canceled job. If it is a file-to-file job, it restarts from the last checkpoint taken. If it is a SNA NJE job, it restarts from the beginning; there are no checkpoints for NJE. Use this parameter only with active jobs.

H puts the canceled job back on the work queue, in operator hold. Use this parameter only with active jobs.

Usage Notes

1. You may need to be authorized to use this command.
2. Do not use this command for dynamic application programs (DAPs), such as the BDT SNA manager, which also appear on the work queue.
3. To hold a job that is not active, use F,J,H.
4. If you want to cancel a job but don't know the job number, use either the I,Q command or the I,J=*job-name* command to display the number of the job you want to cancel.
5. To cancel a job that is in a DTC network, use the F,NET,ID,J,C command.

Results

BDT issues this message if the job was on the work queue but not active:

```
BDT8618  JOB job-no job-name, CANCEL REQUEST FROM
         BDT OPERATOR INITIATED
```

BDT issues this message if the job was active:

```
BDT8618  JOB job-no job-name, CANCEL REQUEST FROM
         BDT OPERATOR ACCEPTED
```

BDT produces a BDT formatted dump with completion code BD122. Depending on the options used at your installation, BDT also produces either an MVS SVC dump with a U07A abend (the hex representation of BD122) or an S060 system dump requested by the SYSUDUMP, SYSABEND, or SYSMDUMP DD statement in the BDT start procedure.

For DUMP, BDT takes a BDT formatted dump, and either an MVS SVC dump or an S060 system dump.

Examples of canceling a job

1. Using an F *id* prefix, cancel job 0357, which is not active. The BDT *id* is BDT1.

   ```
   F BDT1 BDT,F,J=0357,C
   ```

   Result:

   ```
   BDT8618  JOB 0357 MYJOB, CANCEL REQUEST FROM
            BDT OPERATOR INITIATED
   ```

2. Using an F *id* prefix, cancel active job 0846 with a dump. The BDT *id* (for use in the prefix) is A1.

   ```
   F A1 MODIFY,J=0846,C,DUMP
   ```

   Result:

   ```
   BDT8618  JOB 0846 THISJOB, CANCEL REQUEST FROM
            BDT OPERATOR ACCEPTED
   ```

3. Using a prefix of *S,BDT, cancel job 0523 and reschedule it.

   ```
   *S,BDT,F,J=0523,C,R
   ```

   Result:

   ```
   BDT8618  JOB 0523 THATJOB, CANCEL REQUEST FROM
            BDT OPERATOR ACCEPTED
   ```

4. Using a prefix of *S,BDT, cancel job 0678 with a dump and reschedule it.

   ```
   *S,BDT,F,J=0678,C,DUMP,R
   ```

   Result:

```
BDT8618  JOB 0678 YOURJOB, CANCEL REQUEST FROM
         BDT OPERATOR ACCEPTED
```

5. Using an F *id* prefix, cancel job 0893 and reschedule it in hold. The identifier of BDT (for use in the prefix) is A1.

```
F A1 F,J=0893,C,R,H
```

Result:

```
BDT8618  JOB 0893 HISJOB, CANCEL REQUEST FROM
         BDT OPERATOR ACCEPTED
```

F,J,H or R — Hold or Release a Job

Purpose

Use this command to put a job that is not active into operator hold, to release a job from operator hold, or to release a job from *data set enqueue* hold. A job is put into data set enqueue hold when the job requires a data set that is unavailable.

Format

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

job-no
    is the number of the job to be held or released.

H   holds the job (prevents scheduling of the job).

R   releases the job (allows the job to be scheduled).

Usage Notes

1. A job is put into data set enqueue hold because it requires a data set that is unavailable. BDT will automatically release the job in fifteen minutes. If the data set is available then, the job will run. If not, the job will be put into data set enqueue hold again for another 15 minutes. If you know that the required data set has become available, you can release it before the 15 minutes has passed with the F,J,R command.
2. To put an active job into operator hold use the F,J,C,R,H command.
3. To release a job that is in a DTC network from DTC network hold, use the F,NET,ID,J,R command.

Result

BDT issues this message:

```
BDT8618  JOB job-no job-name, {HELD|RELEASED}
```

Examples of holding or releasing a job

1. Using a prefix of BDT, put job 0145 into hold.

```
BDT,F,J=0145,H
```

Result:

```
BDT8618  JOB 0145 THISJOB, HELD
```

2. Using an F *id* prefix, release job 0145 from hold. The identifier of BDT (for use in the prefix) is A1.

```
F A1 MODIFY,J=0145,R
```

Result:

```
BDT8618  JOB 0145 THISJOB, RELEASED
```

F,J,P — Change a Job's Priority

Purpose

Use this command to change the priority of a job on the work queue.

Format

▶▶──*prefix*──┬─MODIFY─┬──,J=(──▼──*job-no*──),P=*prty*──────────────────────────────▶◀
　　　　　　　　└─F─────┘

prefix
　　is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

job-no
　　is the number of the job whose priority is to be changed. The job cannot be active.

prty
　　is the new priority to be assigned to the job. Priorities range from 0 to 15, with 15 the highest priority and the first to be scheduled.

Usage Notes

1. Use this command only for jobs that result from a transaction. Do not use it for a dynamic application program (DAP), such as the BDT SNA manager, though DAPs also appear on the work queue.
2. To display the priority of a job use the I,J command.

Result

BDT issues this message:

```
BDT8613  JOB job-no job-name P=prty CHANGED FROM P=old-prty
```

Example of changing a job's priority

Using an F *id* prefix, change the priority of job 0068 to 10. The identifier of BDT (for use in the prefix) is BDTA.

```
F BDTA F,J=0068,P=10
```

Result:

```
BDT8613  JOB 0068 THATJOB P=10 CHANGED FROM P=8
```

F,JES3 — Suspend or Resume NJE Communication from JES3 to BDT (SNA NJE Feature Only)

Purpose

Use this command to suspend or resume SNA NJE communication from JES3 to BDT.

Format

```
►►─prefix──┬─MODIFY─┬──,JES3──┬─,SUSPEND─┬────────────────────►◄
           └─F──────┘         └─,RESUME──┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

JES3
is the SNA NJE interface between JES3 and BDT.

SUSPEND
suspends (halts) SNA NJE transactions from JES3 to BDT. All other JES3 to BDT communication continues.

RESUME
allows suspended SNA NJE transactions from JES3 to BDT to resume. Resume is the default.

Usage Note

If NJE transactions have been suspended from JES3 to BDT (see F,JES3 command), the V,JES3,ONLINE command will allow suspended NJE transactions to resume.

Results

BDT issues this message for MODIFY,JES3,SUSPEND:

```
BDT9965 NJE TRANSACTIONS ARE SUSPENDED FROM JES3
```

or, if JES3 is already suspended:

```
BDT9965 NJE TRANSACTIONS ARE ALREADY SUSPENDED FROM JES3
```

BDT issues this message for MODIFY,JES3,RESUME:

```
BDT9965 NJE TRANSACTIONS ARE RESUMED FROM JES3
```

or, if JES3 is already resumed:

```
BDT9965 NJE TRANSACTIONS ARE ALREADY RESUMED FROM JES3
```

Examples of suspending/resuming NJE communication

1. Using a prefix of *S,BDT, suspend NJE transactions from JES3 to BDT.

   ```
   *S,BDT,F,JES3,SUSPEND
   ```

   Result:

   ```
   BDT9965 NJE TRANSACTIONS ARE SUSPENDED FROM JES3
   ```

2. Using a prefix of *S,BDT, resume NJE transactions from JES3 to BDT.

   ```
   *S,BDT,F,JES3,RESUME
   ```

   Result:

```
BDT9965 NJE TRANSACTIONS ARE RESUMED FROM JES3
```

F,LOG,ADEST or DDEST — Specify the Destination of the BDT System Log

Purpose

Use this command to route the BDT system log to your console or to any console in the BDT network. The system log will also go to its original destination.

Format

```
►►──prefix──┬─MODIFY─┬──,LOG──┬─,ADEST─┬──=──────────────────────────────►
            └─F──────┘        └─,DDEST─┘

►──┬─*──────────────────────────────┬──────────────────────────────────────►◄
   └─(node-name,sys-name,type,name)─┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG
    specifies the BDT system log.

ADEST
    causes the BDT system log to be routed to the indicated destination.

DDEST
    stops reception of the BDT system log at the indicated destination.

*   causes the BDT system log to be routed to the console at which the command is entered.

node-name
    is the name of the node to which the log is to be routed.

sys-name
    is the identifier of the processor to which the log is to be routed (1 to 8 characters).

type
    is the identifier of the type of console to which the log is to be routed (3 to 5 characters):
- TSO — TSO user
- JES — JES3 console
- MCS — MCS console
- JMC — JES3 console destination class.

name
    is the name of the console to which the log is to be routed (1 to 8 characters):
- User ID for a TSO user
- Console name for a JES3 console
- Console name for an MCS console
- JES3 message class name.

Note: Do not route the log to a TSO terminal or a console that has to be "cleared". This type of console will flood with the log messages, and you will not be able to enter a command to stop receiving the log. Route the log only to a console that "rolls".

Usage Note

For a description of JES3 console destination classes, see *z/OS JES3 Commands*.

Results

BDT issues this message:

```
BDT8711 node-name sys-name type name  {ADDED TO|
        DELETED FROM} SYSLOG  DESTINATION ROUTING TABLE
```

The destination specified in the command receives or stops receiving the BDT system log.

Examples of specifying routing of the BDT system log

1. Using a prefix of *S,BDT, route the BDT system log to this console (which is JES3 console CN1 on system SY1 at node SPK01).

   ```
   *S,BDT,F,LOG,ADEST=*
   ```

   Result:

   ```
   BDT8711 SPK01 SY1 JES CN1 ADDED TO SYSLOG DESTINATION
           ROUTING TABLE
   ```

2. Using a prefix of *S,BDT, stop reception of the BDT system log at JES3 console CN2 on system SY1 at your node, SPK01.

   ```
   *S,BDT,MODIFY,LOG,DDEST=(SPK01,SY1,JES,CN2)
   ```

   Result:

   ```
   BDT8711 SPK01 SY1 JES CN2 DELETED FROM SYSLOG DESTINATION
           ROUTING TABLE
   ```

F,LOG,SYSLOG — Change the BDT System Log Destination

Purpose

Use this command to change the output device for the BDT system log from its original destination to a new destination. The output device you designate may be one or more of the following: a printer, consoles receiving JES3 routing code messages, or your console.

Format
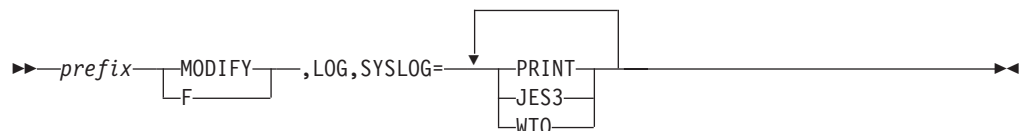
prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG
   specifies the BDT system log.

PRINT
specifies a printer as the output device for the system log.

JES3
specifies consoles receiving JES3 routing code messages as the output device for the system log.

WTO
specifies your console as the output device for the system log.

Note: Do not route the log to a console that has to be "cleared". This type of console will flood with the log messages, and you will not be able to enter a command to stop receiving the log. Route the log only to a console that "rolls".

Usage Notes

1. When specifying more than one output device, use commas to separate output devices and enclose the list in parentheses. (See the examples.)
2. Use the I,LOG command to display the current log destination.

Results

BDT issues this message:

```
BDT9921 PRIMARY SYSLOG DESTINATION(S): {[PRINT|JES3|WTO]}
```

The BDT system log is routed to the designated devices.

Examples of changing the BDT system log destination

1. Using an F *id* prefix, route the BDT system log to the printer. The identifier of BDT (for use in the prefix) is A2.

   ```
   F A2 MODIFY,LOG,SYSLOG=PRINT
   ```

   Result:

   ```
   BDT9921  PRIMARY SYSLOG DESTINATION(S): PRINT
   ```

2. Using a prefix of *S,BDT, route the BDT system log to the printer and to JES3 consoles.

   ```
   e12BDT,F,LOG,SYSLOG=(PRINT,JES3)
   ```

   Result:

   ```
   BDT9921  PRIMARY SYSLOG DESTINATION(S): PRINT,JES3
   ```

F,LOG,MSGPROP — Change the BDT Message Propagation Option Status

Purpose

Use this command to change the message propagation option status.

Format

```
►►─prefix──┬─MODIFY─┬──,LOG,MSGPROP=(YES|NO)────────────────────────►◄
           └─F──────┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG
> specifies the BDT system log.

YES
> specifies message propagation is to be enabled. This option will allow the BDT system to route messages that come from another BDT system to the nodes in routing table.

NO specifies message propagation is to be disabled. This option will prevent messages coming from another BDT system from being routed to the BDT nodes in the routing table. This does not affect the routing of messages that do not come from another BDT system as the output device for the system log.

Usage Note

If you specify MSGPROP=YES, you may expose your BDT system to a possible message loop if any of the BDT nodes route messages to a node that has already routed the message.

F,LOG,WRITE — Print the BDT System Log

Purpose

Use this command to print the BDT system log.

Format

```
►►─prefix──┬─MODIFY─┬──,LOG,WRITE─────────────────────────────────►◄
           └─F──────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG
> specifies the BDT system log.

WRITE
> causes the contents of the BDT system log to be printed.

Usage Note

The BDT system log destination must be a printer. Use the I,LOG command to display the destination of the log. If the destination is not a printer, use the F,LOG,SYSLOG=PRINT command to change the destination to a printer.

Result

BDT issues this message:
```
BDT9932 A BDT SYSLOG DATA SET HAS BEEN QUEUED TO SYSOUT
        CLASS 'x'
```

Example of printing the BDT system log

Using an F *id* prefix, print the contents of the BDT system log. The BDT *id* is A1.
```
F A1 F,LOG,WRITE
```

Result:

```
BDT9932 A BDT SYSLOG DATA SET HAS BEEN QUEUED TO SYSOUT
           CLASS 'x'
```

F,MSG,E or D — Enable or Disable the TQI Message Handler

Purpose

Use this command to disable or enable the TQI message handler for routing messages.

Format

```
►►──prefix──┬─MODIFY─┬──,MSG──┬─,DISABLE─┬──────────────────────────►◄
            └─F──────┘        ├─,D───────┤
                              ├─,ENABLE──┤
                              └─,E───────┘
```

prefix
  is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

  bdt-char

  BDT,*node-name*

  bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

  When using BDT,*node-name*, substitute a node name for *node-name*.

  Do not use a prefix when submitting commands in a batch job.

MSG
  specifies the TQI message handler.

DISABLE or D
  disables the message handler for routing messages.

ENABLE or E
  enables the message handler for routing messages.

Usage Notes

1. You can use this command at two types of consoles only:
   - The MCS console for the processor on which the TQI address space exists.
   - A JES3 console. From a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
2. For information on defining *bdt-char*, see *z/OS BDT Installation*
3. In most cases, BDT will disable the message handler automatically when it encounters errors. However, in some cases you will need to disable the message handler with this command. Your system programmer will tell you when to disable the message handler.
4. Use this command to enable the message handler again after an error disabling it has been fixed. Again, your system programmer will tell you when to enable the message handler.

Results

For DISABLE:
- Messages will not be recorded on the message data set.
- All messages will go to the BDT system log.
- WTO messages will go to operators' consoles.
- BDT will attempt to route other messages to their destinations, but may not be successful.

BDT issues this message for DISABLE:

```
BDT2120 node-name MSG DISABLE COMMAND PROCESSED
```

For ENABLE, messages will be recorded on the message data set and will be routed to their usual destinations as well as to the BDT system log.

BDT issues this message for ENABLE:

```
BDT2120 node-name MSG ENABLE COMMAND PROCESSED
```

Examples of enabling/disabling the TQI message handler

1. From the MCS console, disable the message handler for routing messages. The *bdt-char* prefix is +.

   ```
   +MODIFY,MSG,D
   ```

   Result:

   ```
   BDT2120 SPK01 MSG DISABLE COMMAND PROCESSED
   ```

2. From a JES3 console, enable the message handler for routing messages on processor SY1. The *bdt-char* prefix is +.

   ```
   *SEND SY1 +MODIFY,MSG,E
   ```

   Result:

   ```
   BDT2120 SPK01 MSG ENABLE COMMAND PROCESSED
   ```

F,MSG,STATUS — Display the Status of the TQI Message Handler

Purpose

Use this command to display the status of the TQI message handler. The status displayed includes whether the message handler is active (in existence) and whether it is enabled or disabled (recording or not recording messages).

Format

```
►►─prefix──┬─MODIFY─┬──,MSG──┬─,STATUS─┬─────────────────────►◄
           └─F──────┘        └─,ST─────┘
```

prefix

is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

> *bdt-char*

> BDT,*node-name*

bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

When using BDT,*node-name*, substitute a value for *node-name*.

Do not use a prefix when submitting commands in a batch job.

MSG
specifies the TQI message handler.

STATUS or ST
displays the status of the message handler.

Usage Notes

1. If you use this command when messages are going to the system log because the message handler is disabled or not active, you will still receive the response to this message on your console.

2. You can use this command at two types of consoles only:
   - The MCS console for the processor on which the TQI address space exists.
   - A JES3 console. At a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.

3. For information on defining *bdt-char*, see *z/OS BDT Installation*

Result

BDT issues this message:

```
BDT2132 node-name MSG STATUS:  {ACTIVE|NOT ACT} /
{ENABLED|DISABLED}
```

Example of displaying TQI message handler status

From the MCS console, display the status of the message handler. The *bdt-char* prefix is +.

```
+F,MSG,STATUS
```

Result:

```
BDT2132 SPK01 MSG ACTIVE / ENABLED
```

F,NET,ID,J,C — Cancel a Job in a DTC Network

Purpose

Use this command to cancel a job in a dependent transaction control (DTC) network.

Format

```
►►──prefix──┬─MODIFY─┬──,NET,ID=net-id,J=(──┬──────┬──job-no──),C──────────►◄
            └─F──────┘                      │  ,   │
                                            └──────┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET
specifies that jobs being affected are in a DTC network.

net-id
> is the identifier of the DTC network containing the job to be canceled.

job-no
> is the number of the job to be canceled.

C   specifies that the job should be canceled. If the job is not active it will be canceled immediately. If the job is active it will complete before being canceled. In either case, successor jobs will not be released.

Usage Notes

1. When using this command, consider the effect that canceling a job has on the rest of the network. For example, perhaps you should lower the hold count of the other jobs and let them run, or cancel or flush part or all of the network.

2. If you want to cancel a job in a DTC network but don't know the job number, use I,NET,ID=*net-id* to display the jobs in the network. If you don't know the network ID, use I,NET to display the network ID of every DTC network at your BDT subsystem.

Result

BDT issues this message:

```
BDT8680  JOB job-no (job-name), NET=net-id, CANCELED [(A)]
```

The letter A indicates the job was active when canceled.

Example of canceling a job in a DTC network

Using a prefix of *S,BDT, cancel job 2046 in network WHSE06.

```
*S,BDT,F,NET,ID=WHSE06,J=2046,C
```

Result:

```
BDT8680 JOB 2046 (WHSE1), NET=WHSE06, CANCELED
```

F,NET,ID,J,I or D — Change the Hold Count of a Job in a DTC Network

Purpose

Use this command to raise by one or lower by one the hold count of a job in a dependent transaction control (DTC) network. This changes the number of predecessor jobs that must complete before the job can be scheduled.

Format

```
►►──prefix──┬─MODIFY─┬──,NET,ID=net-id,J=(──▼──job-no──┐──),──┬───┬──────►◄
            └─F──────┘                    └──,──────────┘     ├─I─┤
                                                              └─D─┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET
> specifies that the job is in a DTC network.

> **net-id**
>> is the identifier of the DTC network containing the job.
>
> **job-no**
>> is the number of the job whose hold count is to be lowered or raised. The job must be in DTC network hold.
>
> **I**   increases the hold count by 1.
>
> **D**   decreases the hold count by 1.

Usage Notes

1. Use this command only for jobs that are in DTC network hold; do not use it for active jobs.
2. See the F,J,C and F,J,H or R commands for jobs that are not in DTC networks.
3. If you want to change the hold count of a job in a DTC network but don't know the job number, use I,NET,ID=*net-id* to display the jobs in the network. If you don't know the network ID, use I,NET to display the network ID of every DTC network at your BDT subsystem.

Results

BDT issues this message:

```
BDT8680 JOB job-no (job-name), NET=net-id,
        {RELEASED|HC=hold-count}
```

The job's hold count is raised or lowered by one. If the count becomes 0, BDT can schedule the job.

Examples of changing the hold count of a DTC network job

1. Using a prefix of BDT, lower the hold count for job 0456 in network PAYROLL3.

    ```
    BDT F,NET,ID=PAYROLL3,J=0456,D
    ```

    Result:

    ```
    BDT8680 JOB 0456 (PAY01), NET=PAYROLL3, HC=001
    ```

2. Using a prefix of BDT, raise the hold count for jobs 0567 and 0568 in network ACCOUNTA.

    ```
    BDT F,NET,ID=ACCOUNTA,J=(0567,0568),I
    ```

    Result:

    ```
    BDT8680 JOB 0567 (ACCT1), NET=ACCOUNTA, HC=002
    BDT8680 JOB 0568 (ACCT2), NET=ACCOUNTA, HC=003
    ```

F,NET,ID,J,F — Cancel a DTC Network

Purpose

Use this command to cancel ("flush") a job and all its successor jobs in a dependent transaction control (DTC) network.
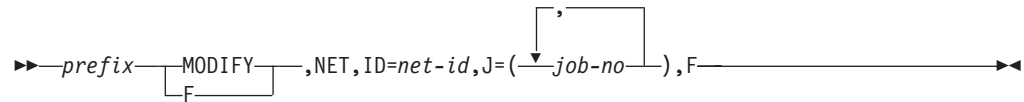
Format

```
►►──prefix──┬─MODIFY─┬──,NET,ID=net-id,J=(──▼──job-no──┐),F──────────────►◄
            └─F──────┘                        └────,────┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET
    specifies that jobs being affected are in a DTC network.

net-id
    is the ID of the network containing the job(s).

job-no
    is the number of the job you want to flush.

F   cancels ("flushes") the job and all its successor jobs.

Usage Notes

1. If the job is not active it will be canceled immediately, along with its successor jobs. If the job is active it will complete and successor jobs will be canceled.
2. Never assume that you have flushed out an entire DTC network with this command. Always use the I,NET,ID command to check.

Results

BDT issues this message for the job you used in the command:

```
BDT8680 JOB job-no (job-name), NET=net-id, FLUSHED [(A)]
```

BDT then issues this message showing each successor job being flushed:

```
BDT6220 JOB (job-no job-name), NET=net-id, REL=(job-no,job-name),
        FLUSHED [(A)]
```

BDT flushes the job and its successor jobs.

Example of canceling a DTC network

Using a prefix of BDT, cancel job 0087 and all jobs after it in network RECVD30. Job 0087 has as its successors jobs 0089, 0090, 0092, and 0093. See Figure 2 on page 36 for a description of the effect of this command.

```
BDT,F,NET,ID=RECVD30,J=0087,F
```

Result:

```
BDT8680 JOB 0087 (RECT02), NET=RECVD30, FLUSHED
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0089,RECT03),
        FLUSHED
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0090,RECT05),
        FLUSHED
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0092,RECT07),
        FLUSHED
BDT6220 JOB (0087 RECT02), NET=RECVD30, REL=(0093,RECT08),
        FLUSHED
```

```
                 DTC Network RECVD30

                       0086
                        |    |
               0087        0088
                |    |      |       |
            0089    0090         0091
             |       |
          0092     0093


     Canceled Jobs                    Remaining Jobs

          0087                             0086
           |    |                            |
       0089    0090                        0088
        |       |                            |
     0092     0093                         0091
```
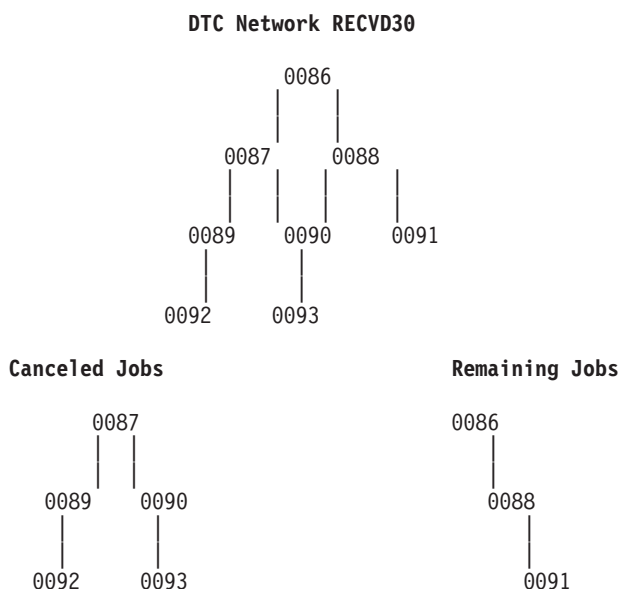
Figure 2. Canceling a DTC Network

F,NET,ID,J,R — Release a Job from DTC Network Hold

Purpose

Use this command to release a job that is in dependent transaction control (DTC) network hold. This command releases the job no matter what the hold count of the job is. It releases the job **only** from DTC network hold; it does not release the job from any other holds (such as operator hold).

Format

```
►►──prefix──┬─MODIFY─┬──,NET,ID=net-id,J=(──▼──job-no──),R───────────►◄
            └─F──────┘                      └───,───┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET
    specifies that jobs being affected are in a DTC network.

net-id
    is the ID of the DTC network containing the job.

job-no
    is the number of the job you want to release.

R   releases the job.

Usage Notes

1. Use this command only for jobs that are in DTC network hold; do not use it for active jobs.
2. Use the F,J,H or R command for jobs that are not in DTC networks.

3. If you want to release a job from DTC network hold but don't know the job number, use I,NET,ID=*net-id* to display the jobs in the network. If you don't know the network ID, use I,NET to display the network ID of every DTC network at your BDT subsystem.

Results

BDT issues this message:

```
BDT8680  JOB job-no (job-name), NET=net-id, RELEASED
```

BDT releases the job from network hold, regardless of its hold count.

BDT can now schedule and run the job, unless there are other restrictions on the job.

Example of releasing a job from DTC network hold

Using a prefix of BDT, release job 0657 in network PAYOCT82.

```
BDT,F,NET,ID=PAYOCT82,J=0657,R
```

Result:

```
BDT8680  JOB 0657 (PAY01), NET=PAYOCT82, RELEASED
```

F,NODE,FENCE — Control VLU Fencing (File-to-File Feature Only)

Purpose

Use this command at the global node to change fencing of virtual logical units (VLUs) for file-to-file sessions.

VLU fencing controls the use of VLUs by direction. It allows you to set a certain number of VLUs for "from" use only, and a certain number for "to" use only. The rest remain available for use in either direction as needed.

Format

►►──*prefix*──┬─MODIFY─┬──,NODE=*node-name*,FENCE=(*from*,*to*)─────────────►◄
             └─F──────┘

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name
    is the name of the local node. You cannot specify your own node for *node-name*.

FENCE=(from,to)
    specifies how many VLUs are to be fenced in each direction:
- *from* is the number of VLUs to be used for data transfer from the local node to the global node
- *to* is the number of VLUs to be used for data transfer to the local node from the global node.

The total number of VLUs (*from* + *to*) must not exceed the total number of data transfer VLUs available (that is, the total VLUs on the session minus one for the communication VLU).

Usage Notes

1. This command is for file-to-file sessions only.
2. Use the I,NODE command to display the status of VLUs at a node or nodes.
3. The direction of fencing is in relation to the node specified as *node-name*. "From" means from the local node to the global node; "to" means to the local node from the global node.
4. Fencing that has been defined by this command will remain in effect until the next BDT restart. A restart puts the fencing defined at initialization into effect.
5. To remove fencing from all VLUs, use:

   FENCE=(), FENCE=(0), or FENCE=(0,0).
6. You must be at the global node to use this command.

Results

BDT issues this message showing the status of each VLU.

```
BDT8645 {FTF|NJE} NODE node-name  VLU vlu-name TYPE vlu-type
        VLU STATUS  {ONLINE|OFFLINE}
{ALLOCATED|UNALLOCATED}
        {OPEN|CLOSED} {SEND MODE|RECEIVE MODE}.
```

BDT issues this message showing the number of VLUs fenced in the "to" and "from" directions.

```
BDT8656 node-name  FROM FENCE = nnn  TO FENCE = mmm
```

Examples of controlling VLU fencing

1. Using a prefix of *S,BDT, set up VLU fencing to node MCR10 for 7 "from" VLUs and 5 "to" VLUs.

   ```
   *S,BDT,F,NODE=MCR10,FENCE=(7,5)
   ```

   Result:

   ```
   BDT8645 FTF NODE MCR10  VLU 002 TYPE XFR VLU STATUS
           ONLINE / UNALLOCATED / CLOSED /
      .
      .
      .
   BDT8645 FTF NODE MCR10  VLU 004 TYPE XFR VLU STATUS
           ONLINE / UNALLOCATED / CLOSED /
   BDT8656 MCR10  FROM FENCE = 020  TO FENCE = 005
   ```

2. Using an F *id* prefix, remove all fencing to node SPK01. The BDT *id* is A1.

   ```
   F A1 F,N=SPK01,FENCE=(0,0)
   ```

   Result:

   ```
   BDT8645 FTF NODE MCR10  VLU 002 TYPE XFR VLU STATUS
           ONLINE / UNALLOCATED / CLOSED /
      .
      .
      .
   BDT8645 FTF NODE MCR10  VLU 020 TYPE XFR VLU STATUS
           ONLINE / UNALLOCATED / CLOSED /
   BDT8656 SPK01  FROM FENCE = 000  TO FENCE = 000
   ```

F,TQI,E or D — Enable or Disable TQI

Purpose

Use this command to disable or enable the TQI address space for recording commands and transaction requests.

You need to disable the TQI address space when it has trouble recording commands and transactions. You will be notified of recording trouble by messages BDT9985 or BDT9974, or your system programmer.

Also, you may need to disable the TQI address space when reading from the TQI data set has been suspended with the S,TQI,SUSPEND command.

After the problem has been corrected, use this command to enable the TQI address space again.

Format
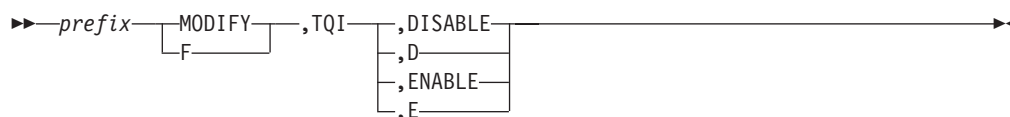
```
►►─prefix──┬─MODIFY─┬─,TQI──┬─,DISABLE─┬──────────────────►◄
           └─F──────┘       ├─,D───────┤
                            ├─,ENABLE──┤
                            └─,E───────┘
```

prefix
> is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:
>> *bdt-char*
>> BDT,*node-name*

> *bdt-char* is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as **+** or **-**).

> Do not use a prefix when submitting commands in a batch job.

TQI
> specifies the BDT transaction queueing integrity (TQI) address space.

DISABLE or D
> disables the TQI address space for recording transactions.

ENABLE or E
> enables the TQI address space for recording transactions.

Usage Notes

1. You can use this command at two types of consoles only:
   - The MCS console for the processor on which the TQI address space exists.
   - A JES3 console. At a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
2. How you submit commands, and what BDT does with user's transactions when TQI is disabled, depends on whether TQI is required in your installation or not.
   - If TQI is not required, commands and transactions will bypass TQI processing and pass directly to BDT.

- If TQI is required, BDT will reject commands and transactions unless they are submitted with the MVS MODIFY or F prefix. This prefix is:

  MODIFY [*bdt-proc.*]*bdt-id command*

  or

  F [*bdt-proc.*]*bdt-id command*

  where *bdt-proc* is the name of the cataloged procedure in SYS1.PROCLIB that is used to start BDT, and *bdt-id* is the installation-defined identifier used to identify BDT. Any other prefix will cause the command to be rejected by BDT.

3. You may want to use this command to disable TQI when you have suspended reading of the TQI checkpoint data set by BDT (with the S,TQI,SUSPEND command).
4. For information on defining *bdt-char*, see *z/OS BDT Installation*

Results

BDT issues this message for DISABLE:

```
BDT2120 node-name TQI DISABLE COMMAND PROCESSED
```

BDT issues this message for ENABLE:

```
BDT2120 node-name TQI ENABLE COMMAND PROCESSED
```

Examples of enabling/disabling TQI

1. From an MCS console, disable recording of commands and transactions at node SPK01. The *bdt-char* prefix is +.

   ```
   +MODIFY,TQI,D
   ```

   Result:

   ```
   BDT2120 SPK01 TQI DISABLE COMMAND PROCESSED
   ```

2. From an MCS console, enable TQI's recording of commands and transactions at node SPK01. The *bdt-char* prefix is +.

   ```
   +MODIFY,TQI,E
   ```

   Result:

   ```
   BDT2120 SPK01 TQI ENABLE COMMAND PROCESSED
   ```

F,TQI,STATUS — Display the Status of the TQI Address Space

Purpose

Use this command to display the status of the TQI address space. The status displayed includes whether the TQI address space is active (in existence); whether it is enabled or disabled (recording or not recording); and whether TQI is defined as required or not required for your installation.

Format

```
►►──prefix──┬─MODIFY─┬──,TQI──┬─,STATUS─┬──────────────────────────►◄
            └─F──────┘        └─,ST─────┘
```

prefix
:   is the prefix. With this command you must use one of the following prefixes rather than the prefix you use with most other commands:

    bdt-char

    BDT,*node-name*

    bdt-char is a character defined during installation of BDT that routes commands directly to the BDT subsystem or, in a poly-BDT complex, to a specific BDT node. It is a 1-character special symbol (such as + or -).

    Do not use a prefix when submitting commands in a batch job.

TQI
:   specifies the BDT transaction queueing integrity (TQI) address space.

STATUS or ST
:   displays the status of the TQI address space.

Usage Notes

1. You can use this command at two types of consoles only:
    *   The MCS console for the processor on which the TQI address space exists.
    *   A JES3 console. At a JES3 console, use the JES3 *SEND command to route this command to the processor on which the TQI address space exists.
2. For information on defining the *bdt-char*, see *z/OS BDT Installation*

Result

BDT issues this message:

```
BDT2127 node-name TQI STATUS:
        {REQUIRED|NOT REQ} / {ACTIVE|NOT ACT} /
          {ENABLED|DISABLED} / {DEFAULT|NOT DFLT}
```

Example of displaying TQI address space status

From an MCS console, display the status of the TQI address space at node SPK01. The *bdt-char* prefix is +.

```
+F,TQI,STATUS
```

Result:

```
BDT2127 SPK01 TQI STATUS: REQUIRED / ACTIVE / ENABLED /
        DEFAULT
```
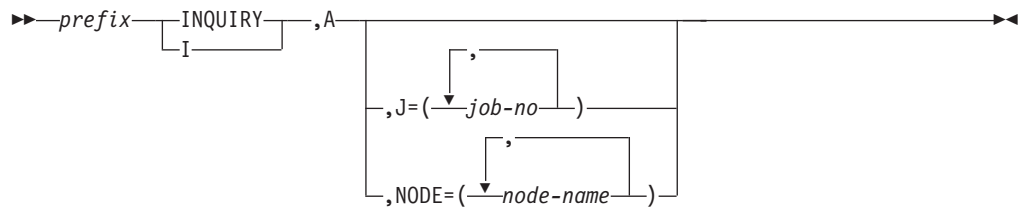

I,A — Display the Status of Active Jobs

Purpose

Use this command to display information about any or all jobs that are active at your BDT subsystem. An active job is a job on the BDT work queue that has been selected by BDT for processing. This command will not display complete information for inbound NJE jobs.

Format

```
►►─prefix──┬─INQUIRY─┬──,A─┬──────────────────────────────────┬──►◄
           └─I───────┘     │        ┌─────,─────┐              │
                           ├──,J=(───▼──job-no───┴──)──────────┤
                           │          ┌──────,──────┐          │
                           └──,NODE=(──▼──node-name──┴──)──────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

A   specifies that the jobs being displayed are active jobs.

job-no
> is the number of the job for which information is to be displayed.

node-name
> is the name of a node. It specifies that all jobs active between your BDT subsystem and *node-name* are to be displayed.

If you do not specify *job-no* or *node-name*, this command will display all jobs that are active at your BDT subsystem.

Usage Note

For jobs that are on the work queue but are not active, use the I,J command.

Results

BDT issues these messages for each active job:

```
BDT8672 BDTJOB JOBNAME  JESJOB DAP FROM   TO   ELAPSED CPU TIME BYTES
BDT8673 job-no job-name jesjob dap node1 node2 hh mm ss  ss.hh nnnnn [K|M|G]
```

For jobs for which the sending and receiving nodes are the same, BDT will issue two BDT8673 messages.

For each job that is scheduled but is waiting for a data set, BDT issues this message:

```
BDT8673 job-no job-name jesjob dap  node1 node2 {SHR=dsn|EXC=dsn}
```

Notice that the information displayed is the same as above except that the data set disposition is displayed instead of time and bytes information.

Examples of displaying active jobs status

1. Using a prefix of *S,BDT, display information for all active jobs.

   ```
   *S,BDT,I,A
   ```
   Result:

```
BDT8672   BDTJOB JOBNAME JESJOB  DAP FROM   TO    ELAPSED  CPU TIME  BYTES
BDT8673   0166   PAY005          SEQ SPK02 MYNOD  00 00 12 00000.20  24587
BDT8673   2101   TOPJOB          SEQ MCR10 MYNOD  01 28 16 00006.30  01307K
BDT8673   3656   LOWJOB          PDS MYNOD NPZ05  00 42 13 00000.74  13815
   .
   .
   .
BDT8673   8397   BDTJOB          PDS MYNOD SPK02  00 09 26 00000.60  00145K
```

2. Using a prefix of BDT, display information for job number 0166.

   BDT,INQUIRY,A,J=0166

   Result:

```
BDT8672 BDTJOB JOBNAME JESJOB DAP FROM   TO    ELAPSED  CPU TIME  BYTES
BDT8673 0166   PAY005          SEQ SPK02 MYNOD 00 00 12 00000.20  24587
```

3. Using a prefix of *S,BDT, display information for all jobs active between node SPK02 and your BDT subsystem.

   *S,BDT,I,A,NODE=SPK02

   Result:

```
BDT8672 BDTJOB JOBNAME JESJOB DAP FROM   TO    ELAPSED  CPU TIME  BYTES
BDT8673 0166   PAY005          SEQ SPK02 MYNOD 00 00 12 00000.20  24587
  .
  .
  .
BDT8673 8397   BDTJOB          PDS MYNOD SPK02 00 09 26 00000.60  00145K
```

I,A,TCB — Display the Status of Active BDT Tasks

Purpose

Use this command to display the status of all active task control blocks (TCBs) for BDT tasks.

Format

```
►►─prefix──┬─INQUIRY─┬──,A,TCB────────────────────────────────────►◄
           └─I───────┘
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

A   specifies that the status of active TCBs is to be displayed.

TCB
   specifies that the status of all active TCBs is to be displayed. There is one TCB for each resident BDT function and one for each request for data transfer.

Results

BDT issues this message:

```
BDT8670 S         TCB     DAP  USER          PROGRAM...
BDT8671 {A|W|N}  tcb-addr name {job-no|FCT} mod-name...

              ...SEQN          PSW
          ...rec-code seq-no   {.psw.|TCBFLGS tcbflgs}
```

If the job or function has failed or is in the process of failing, one of the following appears at the end of the message:

```
ABEND= {BDnnn|Snnn|Unnn}

ABEND IN PROGRESS
```

Example of displaying the status of active BDT tasks

Using a prefix of BDT, display the status of all active TCBs.

```
BDT,I,A,TCB
```

*Result:*

```
BDT8670  S  TCB    DAP    USER    PROGRAM   SEQN  PSW
BDT8671  N  74FDC8 WAIT   FCT     BDTINIT   0005  TCBFLGS  0000800400
BDT8671  N  74E990 TIMER  FCT     BDTGSC1   0006  TCBFLGS  0002800400
BDT8671  N  74E098 COMMGR FCT     BDTGSC1   0007  TCBFLGS  0002800400
BDT8671  N  7525E0 MSDV   FCT     BDTGSC1   0008  TCBFLGS  0002800400
   .
   .
   .
BDT8671  W  7027F8 PDS    0029              0042  .D16AB6.
```

I,B — Display Backlog of Jobs

Purpose

Use this command to display a summary of the backlog of jobs on the work queue at your BDT subsystem. This command also displays the number of active jobs on the work queue at your BDT subsystem, and BDT's use of sessions. The jobs displayed are file-to-file jobs for which your file-to-file node is the global node, and outbound NJE jobs. This command will not display complete information for inbound NJE jobs.
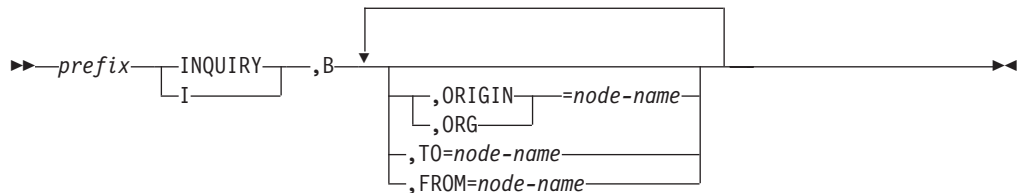
Format

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

B specifies that the backlog of jobs is to be displayed.

ORIGIN=node-name or ORG=node-name

displays the backlog of jobs submitted at *node-name* for which your BDT subsystem is the source or destination node. Do not use more than one node name.

TO=node-name

displays the backlog of jobs that transfer data to *node-name* from your BDT subsystem. The job can have been submitted at your BDT subsystem or at *node-name*. If you specify your node for *node-name*, this displays jobs transferring data to that node from any other node. Do not use more than one node name with this parameter.

FROM=node-name

displays the backlog of jobs that transfer data from *node-name* to your BDT subsystem. The job can have been submitted at either node. If you specify your

node for *node-name*, this displays jobs transferring data from that node to any other node. Do not use more than one node name with this parameter.

If you do not specify ORIGIN, TO, or FROM, this command displays all jobs backlogged at your work queue.

Usage Notes

1. To see the backlog of file-to-file jobs for which your file-to-file node is the local node, use SEND to send the I,B command to the nodes that are global to your file-to-file node. Use the name of your file-to-file node for *node-name*.

2. The list below shows various combinations of the TO, FROM, and ORIGIN keywords. For each set of keywords, there is a description of the jobs whose statistics will be included in the totals displayed in the messages.

   You do not need to use the keywords shown in [ ]: these are defaults forced by the combination of the other keywords. For example, in the first item, you would need to use only the TO= keyword.

   TO=your-node [FROM=any] [ORIGIN=either]
   specifies that the jobs transferring data to your node from any other nodes be displayed. The jobs can have been submitted at any node.

   [TO=any] FROM=your-node [ORIGIN=either]
   specifies that the jobs transferring data from your node to any other nodes be displayed. The jobs can have been submitted at any node.

   [TO=any] [FROM=any] ORIGIN=your-node
   specifies that the jobs submitted at your node be displayed. The jobs can transfer data either to or from your node.

   TO=your-node FROM=other-node [ORIGIN=either]
   specifies that the jobs transferring data to your node from another node be displayed. The jobs can have been submitted at either node.

   TO=other-node [FROM=your-node] [ORIGIN=either]
   specifies that the jobs transferring data to another node from your node be displayed. The jobs can have been submitted at either node.

   TO=your-node [FROM=any] ORIGIN=your-node
   specifies that the jobs submitted at your node, and transferring data to your node from any other node, be displayed.

   [TO=any] FROM=your-node ORIGIN=your-node
   specifies that the jobs submitted at your node, and transferring data from your node to any other node, be displayed.

   TO=your-node FROM=your-node [ORIGIN=your-node]
   specifies that the jobs that transfer data within your node, (internal transfer jobs), be displayed.

   Note: If you want to display a summary of all jobs transferring data to a node at your BDT subsystem and also a summary of all jobs transferring data from a node at your BDT subsystem, you must use two separate commands: I,B,TO=your-node and I,B,FROM=your-node.

   TO=your-node FROM=other-node ORIGIN=your-node
   specifies that the jobs submitted at your node, and transferring data from another node to your node, be displayed.

TO=your-node FROM=other-node ORIGIN=other-node
> specifies that the jobs submitted at another node, and transferring data from that node to your node, be displayed.

TO=other-node FROM=your-node ORIGIN=your-node
> specifies that the jobs submitted at your node, and transferring data from your node to another node, be displayed.

TO=other-node FROM=your-node ORIGIN=other-node
> specifies that the jobs submitted at another node, and transferring data from your node to that node, be displayed.

Results

BDT issues these messages:

```
BDT8697  ORIGIN  FROM  TO    OPER  URS   DTC  ACTIVE  QUEUED   TOTAL
BDT8697  node    node  node nnnn  nnnn  nnnn  nnnn    nnnn     nnnn
BDT8696  SESSIONS=nnnn LIMIT=mmmm
```

Examples of displaying job backlog

1. Using an F *id* prefix, display the backlog of jobs submitted at node OTHER and going either to or from your BDT subsystem. The identifier of BDT (for use in the prefix) is A1.

   ```
   F A1 I,B,ORG=OTHER
   ```

   Result:

   ```
   BDT8697  ORIGIN  FROM  TO    OPER  URS   DTC  ACTIVE  QUEUED   TOTAL
   BDT8697  OTHER               0001  0000  0007  0014    0003     0025
   BDT8696  SESSIONS=0100  LIMIT=0150
   ```

2. Using a prefix of *S,BDT, display the backlog of jobs being sent to your BDT subsystem from node ELSE1.

   ```
   *S,BDT,I,B,FROM=ELSE1
   ```

   Result:

   ```
   BDT8697  ORIGIN  FROM  TO    OPER  URS   DTC  ACTIVE  QUEUED   TOTAL
   BDT8697          ELSE1       0002  0000  0004  0030    0012     0048
   BDT8696  SESSIONS=0100  LIMIT=0150
   ```

3. Using an F *id* prefix, display the backlog of jobs waiting to be sent to node THEM2 from your BDT subsystem. The identifier of BDT (for use in the prefix) is A1.

   ```
   F A1 INQUIRY,B,TO=THEM2
   ```

   Result:

   ```
   BDT8697  ORIGIN  FROM  TO    OPER  URS   DTC  ACTIVE  QUEUED   TOTAL
   BDT8697                THEM2 0000  0001  0003  0010    0009     0023
   BDT8696  SESSIONS=0080  LIMIT=0100
   ```

4. Using a prefix of *S,BDT, display the backlog of jobs being sent to your BDT subsystem from node THERE, which were submitted at node THERE.

   ```
   *S,BDT,I,B,ORIGIN=THERE,FROM=THERE
   ```

   Result:

   ```
   BDT8697  ORIGIN  FROM  TO    OPER  URS   DTC  ACTIVE  QUEUED   TOTAL
   BDT8697  THERE   THERE       0002  0000  0003  0008    0002     0015
   BDT8696  SESSIONS=0100  LIMIT=0120
   ```

5. Using a prefix of BDT, display the backlog of jobs waiting to be sent from the node in your BDT subsystem named MYNOD, to any other node, that were submitted at MYNOD.

   ```
   BDT,I,B,FROM=MYNOD,ORIGIN=MYNOD
   ```

   Result:

```
BDT8697  ORIGIN  FROM  TO    OPER  URS   DTC   ACTIVE  QUEUED  TOTAL
BDT8697  MYNOD   MYNOD       0003  0000  0012  0010    0008    0033
BDT8696  SESSIONS=0106  LIMIT=0150
```

6. Using a prefix of *S,BDT, display the backlog of internal transfer jobs waiting. (Internal transfer jobs transfer data from one data set at your node to another data set at a node in your BDT subsystem.) Your node is HERE0.

   *S,BDT,INQUIRY,B,FROM=HERE0,TO=HERE0

   Result:

```
BDT8697  ORIGIN  FROM  TO     OPER  URS   DTC   ACTIVE  QUEUED  TOTAL
BDT8697          HERE0 HERE0  0000  0000  0000  0002    0000    0002
BDT8696  SESSIONS=0106  LIMIT=0150
```

I,C — Display the Status of Cell Pools and SNA Buffer Pools

Purpose

Use this command to display the status of cell pools and SNA buffer pools.

Format

```
►►──prefix──┬─INQUIRY─┬──,C──┬──────────┬─────────────────────►◄
            └─I───────┘      ├─,name─┤
                             └─,SNA──┘
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

C   specifies that the status of cell pools and SNA buffer pools is to be displayed.

name
   is the name of the cell pool for which status is to be displayed.

SNA
   specifies that the status of the SNA buffer pool is to be displayed.

If you do not specify *name* or SNA, this command displays the status of all cell pools and SNA buffers.

Result

BDT issues this message:

```
BDT8639  ------------------ CELL POOL STATISTICS ------------------
BDT8639   ID SIZE TOTL INUS MXUS DPLT SDWNCT   STATUS   SUBPOOL
BDT8639   name nnnn  nnnn  nnnn  nnnn  nnnn  nnnnnn nnnnnnnn    nnn
         .
         .
         .
BDT8639  ------------------ IFC GETMAINED STORAGE ------------------
BDT8639  USAGE  CUR-STORAGE   MAX-STORAGE   CUR-CNT  MAX-CNT  SUBPOOL
BDT8639  TYPE   nnnnnnnn      nnnnnnnn      nnnnnnnn nnnnnnn     nnn
```

Examples of displaying cell and SNA buffer pools status

1. Using an F *id* prefix, display status of all cell pools. The identifier of BDT (for use in the prefix) is BDTA.

   F BDTA I,C

   Result:

```
BDT8639 ------------------ CELL POOL STATISTICS ------------------
BDT8639 ID   SIZE TOTL INUS MXUS DPLT SDWNCT   STATUS  SUBPOOL
BDT8639 SAVE 0128 0160 0049 0132 0001 000000   NORMAL     010
BDT8639 OCMB 0256 0256 0000 0179 0000 000000   NORMAL     011
    .
    .
    .
BDT8639 ----------------- IFC GETMAINED STORAGE ------------------
BDT8639 USAGE   CUR-STORAGE   MAX-STORAGE  CUR-CNT  MAX-CNT  SUBPOOL
BDT8639 IFCBUFS 00000000       00006064    0000000  0000007     039
BDT8639 LCTBUFS 00004096       00004096    0000001  0000001     040
```

2. Using a prefix of BDT, display status of the interfunction communication manager (IFC) cell pool.

   `BDT,INQUIRY,C,IFC`

   Result:

```
BDT8639 ------------------ CELL POOL STATISTICS ------------------
BDT8639  ID  SIZE TOTL INUS MXUS DPLT SDWNCT   STATUS  SUBPOOL
BDT8639  IFC 0816 0050 0000 0145 0005 000000   NORMAL     019
BDT8639
BDT8639 ----------------- IFC GETMAINED STORAGE ------------------
BDT8639 USAGE   CUR-STORAGE   MAX-STORAGE  CUR-CNT  MAX-CNT  SUBPOOL
BDT8639 IFCBUFS 00000000       00006064    0000000  0000007     039
BDT8639 LCTBUFS 00004096       00004096    0000001  0000001     040
```

I,DSN — Display Data Set Status

Purpose

Use this command to display the status of data sets associated with active jobs at your BDT subsystem.

Format

```
>>--prefix--┬--INQUIRY--┬--┬--,DSN----┬--┬--,J=--┬--job-no----┬--┬------->◁
            └--I--------┘  └--,DSN=dsn-┘  └       └--job-name--┘  ┘
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

DSN
   displays the status of all data sets being used by one job.

DSN=dsn
   displays the status of all jobs using one data set. Substitute the name of a data set for *dsn*.

job-no
   is the number of the job for which data set status is to be displayed.

job-name
   is the name of the job for which data set status is to be displayed. If more than one job has the same job name, data set status will be displayed for all jobs found with that job name.

If you do not specify J=*job-no* or J=*job-name*, this command will display the data set status for all active jobs that have allocated data sets.

Usage Notes

1. You can display data set status only for jobs that have been scheduled and thus have allocated their data sets.

2. The status displayed is only for data sets at your BDT subsystem. If you want to see the status of data sets at a node in another BDT subsystem, you must use the SEND command to send this command to the other node.

3. You cannot use this command to display the status of data sets associated with callable dynamic application programs (DAPs) such as SNA.

Result

BDT issues this message for each data set or job requested:

```
BDT8631 job-no job-name {FROM|TO}
{ENQUEUED|DYNALLOC|ALLOCATED}
        {EXC|SHR} dsn
```

Examples of displaying data set status

1. Display the status of all data sets for all active jobs. Use the JES3 prefix (*S,BDT).

    `*S,BDT,I,DSN`

    Result:

    ```
    BDT8631 JOBNO JOBNAME DD    STATUS      CTL  DATA SET NAME
    BDT8631 5678  WHSE01  FROM  ALLOCATED   SHR  WHSE.LAB.TOTAL
    BDT8631 5679  PAY009  TO    ALLOCATED   EXC  PAY.PROD.ANNUAL
       .
       .
       .
    ```

2. Using a prefix of BDT, display the status of all data sets for job WHSE01.

    `BDT,I,DSN,J=WHSE01`

    Result:

    ```
    BDT8631 JOBNO JOBNAME DD    STATUS      CTL  DATA SET NAME
    BDT8631 5678  WHSE01  FROM  ALLOCATED   SHR  WHSE.LAB.TOTAL
    ```

3. Using a prefix of BDT, display the status of data set JULY.INVENT.PARTS for all active jobs.

    `BDT,I,DSN=JULY.INVENT.PARTS`

    Result:

    ```
    BDT8631 JOBNO JOBNAME DD    STATUS      CTL  DATA SET NAME
    BDT8631 4567  WHSE01  FROM  ALLOCATED   SHR  JULY.INVENT.PARTS
    BDT8631 4569  WHSE02  FROM  ALLOCATED   SHR  JULY.INVENT.PARTS
    ```

4. Using a prefix of BDT, display the status of data set JULY.INVENT.PARTS for the job WHSE01.

    `BDT,INQUIRY,DSN=JULY.INVENT.PARTS,J=WHSE01`

    Result:

    ```
    BDT8631 JOBNO JOBNAME DD    STATUS      CTL  DATA SET NAME
    BDT8631 4567  WHSE01  FROM  ALLOCATED   SHR  JULY.INVENT.PARTS
    ```
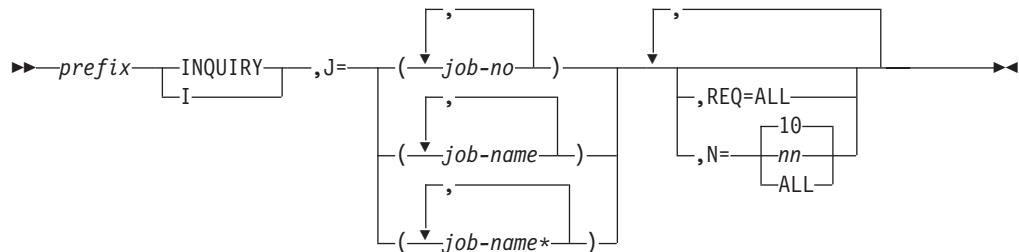
I,J — Display the Status of a Job on the BDT Work Queue

Purpose

Use this command to display the status of a job on the BDT work queue at your BDT subsystem.

The information displayed includes the job name, number, priority, node of origin, sending and receiving node and DAP, status at both the from and to nodes (queued, active, canceled, scheduled), hold status, DTC network ID and hold count, and whether the job has been rescheduled or canceled.

Format

```
►►─prefix─┬─INQUIRY─┬─,J=─┬─(─┬──────┬─job-no──────┬─)─┬─────┬─┬──────────────┬──────────►◄
          └─I───────┘     │   │      │              │   │     │ ├─,REQ=ALL─────┤
          │               │   └──,───┘              │   │     │ │       ┌─10─┐ │
          │               │                         │   │     │ └─,N=───┼─nn─┼─┘
          │               ├─(─┬──────┬─job-name────┬─)─┤     │         └─ALL┘
          │               │   │      │              │   │     │
          │               │   └──,───┘              │   │     │
          │               │                         │   │     │
          │               └─(─┬──────┬─job-name*───┬─)─┘     │
          │                   │      │              │         │
          │                   └──,───┘              │         │
          └──────────────────────────────────────────,──────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

job-no
> is the number of the job for which status is to be displayed. Each job has a unique job number.

job-name
> is the name of the job for which status is to be displayed. If more than one job has the same name, status will be displayed for all jobs found with that name.

job-name*
> specifies that all jobs whose names begin with the characters up to the asterisk (*) should be displayed.

REQ=ALL
> displays the job's characteristics, such as DCB information. This information is the text units from the master job definition (MJD).

N=nn or ALL
> specifies the number of jobs requested with J=*job-name* for which you want status displayed: *nn* jobs or ALL jobs. If you omit this parameter, 10 is assumed.

Usage Note

To display all the jobs on the work queue, use the I,Q command.

Results

BDT issues this message:
```
BDT8612 JOB job-no job-name, P=prty O=origin-node,
  [from-node/dap] {(Q|A|C|S)} TO [to-node/dap]
{(Q|A|C|S)}
        [H=(OPR|,URS|,NET|TQI)][,NET=(net-id,hold-ct)]
        [,{RESCH|CAN}]
```

For REQ=ALL, BDT also issues this message:
```
BDT8620  JOB job-no job-name {TO|FROM|GENERIC} KEY(text unit)
```

Examples of displaying BDT work queue job status

1. Using a prefix of BDT, display the status of job number 0056.

   ```
   BDT,I,J=0056
   ```

   Result:

   ```
   BDT8612 JOB 0056 MYJOB, P=10 O=MYNOD, MYNOD/SEQ(A) TO
           XNODE/SEQ(A)
   ```

2. Using a prefix of BDT, display the status of the job or jobs named WHSE3.

   ```
   BDT,INQUIRY,J=WHSE3
   ```

   Result:

   ```
   BDT8612 JOB 3456 WHSE3, P=10 O=ZNODE, ZNODE/PDS(Q) TO
           MYNOD/PDS(Q)
   ```

3. From a TSO terminal display the status of the first three jobs whose names begin with WHSE.

   ```
   BDT,I,J=WHSE*,N=3
   ```

   Result:

   ```
   BDT8612 JOB 3456 WHSE1, P=10 O=ZNODE,
           ZNODE/SEQ(Q) TO MYNOD/SEQ(Q) H=(OPR)
   BDT8612 JOB 3460 WHSE2, P=10 O=ZNODE, ZNODE/SEQ(Q)
           TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)
   BDT8612 JOB 3462 WHSE3, P=10 O=ZNODE, ZNODE/SEQ(Q)
           TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)
   ```

4. Using a prefix of *S,BDT, display the status of all jobs whose names begin with WHSE.

   ```
   *S,BDT,I,J=WHSE*,N=ALL
   ```

   Result:

   ```
   BDT8612 JOB 3456 WHSE01, P=10 O=ZNODE,
           ZNODE/SEQ(Q) TO MYNOD/SEQ(Q) H=(TQI)
   BDT8612 JOB 3460 WHSE02, P=10 O=ZNODE, ZNODE/SEQ(Q)
           TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)
   BDT8612 JOB 3462 WHSE03, P=10 O=ZNODE, ZNODE/SEQ(Q)
           TO MYNOD/SEQ(Q) H=(,NET), NET=(WAREHSE,1)
   BDT8612 JOB 4078 WHSERT, P=08 O=MYNOD, MYNOD/PDS(A)
           TO KNODE/PDS(A)
   BDT8612 JOB 5119 WHSE40, P=07 O=MYNOD, MYNOD/SEQ(Q)
           TO BNODE/SEQ(Q)
   ```

5. Using a prefix of *S,BDT, display the text units information for job PDSA1.

   ```
   *S,BDT,I,J=PDSA1,REQ=ALL
   ```

   Result:

   ```
   BDT8612 JOB 0044 PDSA1, P=04 O=SYSA1, SYSA1/PDS(Q)
           TO KNODE/PDS(Q) H=(,URS)
   BDT8620 BDTJOB 0044 PDSA1 FROM KEY(0002 SYS1.BDT51.INIT)
   BDT8620 BDTJOB 0044 PDSA1 FROM KEY(0004 08)
   BDT8620 BDTJOB 0044 PDSA1 GENERIC KEY(0102 BDTTEST,6,909)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0004 04)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0005 04)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0006 04)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(000A 000002)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0008)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(000C 00001B)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0049 90)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0030 0C30)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0042 0050)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0010 111111)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0015 3350)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0002 BDT5.TEST.SYSA2PDS)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(003C 0200)
   BDT8620 BDTJOB 0044 PDSA1 TO KEY(0003 MSG=A)
   ```

```
BDT8620 BDTJOB 0044 PDSA1 FROM KEY(0004 08)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0004 08)
BDT8620 BDTJOB 0044 PDSA1 TO KEY(0004 01)
```

I,L — Display Session Status

Purpose

Use this command to display the status of a session and the node to which the session is connected. This command will not display the status of the node or nodes in your own BDT subsystem.

Format

```
►►─prefix──┬─INQUIRY─┬──,L=─┬─appl-id─┬──┬───────┬──────────────►◄
           └─I───────┘      └─ALL─────┘  └─,STAT─┘
```

prefix
  is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

appl-id
  is the ACF/VTAM application ID of the session for which status and node connection is to be displayed.

ALL
  specifies that status and node information is to be displayed for all sessions connected to your BDT subsystem.

STAT
  displays ACF/VTAM statistics for the session(s) requested.

Usage Note

To find the ACF/VTAM application ID for an active node, use the S,SNA,STATUS,LIST command.

Results

BDT issues this message for I,L=*appl-id*.

```
BDT8643 appl-id VTAM, {ONLINE|OFFLINE} , NODE IS node-name
```

BDT issues this message for I,L=*appl-id*,STAT:

```
BDT8647  appl-id CID=network-addr SEND=send-count
         RECV=receive-count
```

Examples of displaying session status

1. Using a prefix of *S,BDT, display the status of the session with *appl-id* of APPLA2.

   ```
   *S,BDT,I,L=APPLA2
   ```

   Result:

   ```
   BDT8643 APPLA2 VTAM, ONLINE, NODE IS SYSA2
   ```

2. Using an F *id* prefix, display ACF/VTAM statistics for the session with *appl-id* of APPLA2. The identifier of BDT (for use in the prefix) is BDTA.

   ```
   F BDTA INQUIRY,L=APPLA2,STAT
   ```

   Result:

BDT8647 APPLA2 CID=1942FEID SEND=00000007 RECV=00000005

I,LOG — Display the BDT System Log Destination

Purpose

Use this command to display the destination of the BDT system log.

Format

```
►►─prefix─┬─INQUIRY─┬─,LOG────────────────────────────────────────►◄
          └─I───────┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

LOG
specifies that the destination of the BDT system log is to be displayed.

Result

BDT issues this message:

BDT9921 PRIMARY SYSLOG DESTINATION(S) {[PRINT|JES|WTO]}

Example of displaying BDT system log destination

Using a prefix of BDT, display the destination of the BDT system log.

BDT,I,LOG

Result:

BDT9921 PRIMARY SYSLOG DESTINATION(S) PRINT

I,NET — Display DTC Networks

Purpose

Use this command to display the network ID of every dependent transaction control (DTC) network at your BDT subsystem and the number of jobs within each network.

Format

```
►►─prefix─┬─INQUIRY─┬─,NET────────────────────────────────────────►◄
          └─I───────┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET
specifies that DTC networks are to be displayed.

Result

BDT issues this message:

```
BDT8685 NET = net-id  JOBS = nnnn
```

Example of displaying DTC networks

Using a prefix of *S,BDT, display the DTC networks at node SYSA1.

```
*S,BDT,I,NET
```

Result:

```
BDT8685 NET = ACCOUNTA  JOBS =   63
BDT8685 NET = ACCOUNTB  JOBS =  174
BDT8685 NET = ACCOUNTC  JOBS =   27
```

I,NET,ID — Display the Status of Jobs in a DTC Network

Purpose

Use this command to display the status of any or all jobs in a dependent transaction control (DTC) network.

Format

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

NET
    specifies that jobs in a DTC network are to be displayed.

net-id
    is the ID of the network containing the job or jobs for which status is to be displayed.

job-no
    is the number of the job for which status is to be displayed.

job-name
    is the name of the job for which status is to be displayed.

    If you do not specify *job-no* or *job-name*, this command will display the status of all jobs in the network.

Usage Note

If you use more than one *net-id*, you may use only one *job-no* or *job-name*. If you use more than one *job-no* or *job-name*, you may use only one *net-id*.

Result

BDT issues this message for each job:

```
BDT8680 JOB job-no (job-name), NET=net-id, HC=hold-count
```

Examples of displaying the status of DTC network jobs

1. Using an F *id* prefix, display the status of all jobs in network ACCOUNTA. The BDT *id* is A1.

   ```
   F A1 I,NET,ID=ACCOUNTA
   ```

   Result:

   ```
   BDT8680 JOB 7173 (JOBA), NET=ACCOUNTA, HC=001
   BDT8680 JOB 7174 (JOBB), NET=ACCOUNTA, HC=002
   BDT8680 JOB 7177 (JOBC), NET=ACCOUNTA, HC=002
   BDT8680 JOB 7180 (TOTL), NET=ACCOUNTA, HC=002
   ```

2. Using a prefix of BDT, display the status of job 7180 in network ACCOUNTA.

   ```
   BDT,INQUIRY,NET,ID=ACCOUNTA,J=7180
   ```

   Result:

   ```
   BDT8680 JOB 7180 (TOTL), NET=ACCOUNTA, HC=002
   ```

3. Using a prefix of BDT, display the status of jobs JOBA and JOBB in network ACCOUNTA.

   ```
   BDT,I,NET,ID=ACCOUNTA,J=(JOBA,JOBB)
   ```

   Result:

   ```
   BDT8680 JOB 7173 (JOBA), NET=ACCOUNTA, HC=001
   BDT8680 JOB 7174 (JOBB), NET=ACCOUNTA, HC=002
   ```

4. Using a prefix of BDT, display the status of all jobs in networks ACCOUNTA and ACCOUNTB.

   ```
   BDT,I,NET,ID=(ACCOUNTA,ACCOUNTB)
   ```

   Result:

   ```
   BDT8680 JOB 7173 (JOBA), NET=ACCOUNTA, HC=001
   BDT8680 JOB 7174 (JOBB), NET=ACCOUNTA, HC=002
   BDT8680 JOB 7177 (JOBC), NET=ACCOUNTA, HC=002
   BDT8680 JOB 7180 (TOTL), NET=ACCOUNTA, HC=002
   BDT8680 JOB 9078 (XJOB), NET=ACCOUNTB, HC=000
   BDT8680 JOB 9080 (TOTL), NET=ACCOUNTB, HC=001
   ```

5. Using a prefix of BDT, display the status of the jobs named TOTL in networks ACCOUNTA and ACCOUNTB.

   ```
   BDT,I,NET,ID=(ACCOUNTA,ACCOUNTB),J=TOTL
   ```

   Result:

   ```
   BDT8680 JOB 7180 (TOTL), NET=ACCOUNTA, HC=002
   BDT8680 JOB 9080 (TOTL), NET=ACCOUNTB, HC=001
   ```

I,NODE — Display the Status of Nodes

Purpose

Use this command to display the status of the node or nodes at your BDT subsystem, the status of another node, or the status of all nodes in your network. This command also displays the status of each virtual logical unit (VLU) on the node(s), the job or DAP active on each VLU, and the number of bytes transferred.

Format
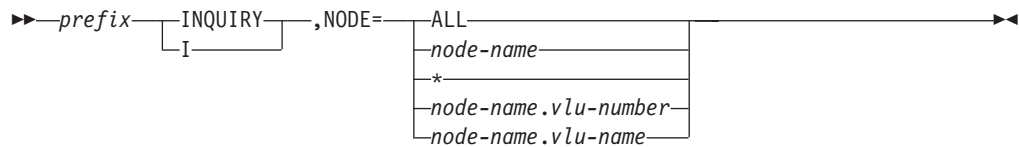
```
►►──prefix──┬─INQUIRY─┬──,NODE=──┬─ALL──────────────────┬──────────────────────────►◄
            └─I───────┘          ├─node-name────────────┤
                                 ├─*────────────────────┤
                                 ├─node-name.vlu-number─┤
                                 └─node-name.vlu-name───┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

ALL
> displays the status of all nodes to which your BDT subsystem is connected.

node-name
> is the name of the node for which status is to be displayed.

* specifies your own node. You may also substitute the name of your node for *node-name*.

node-name.vlu-number
> is the name of the node and the number of the file-to-file VLU for which status is to be displayed. The number must be three digits. The numbers of the file-to-file VLUs are:
> * 001 — Communication VLU; this communicates control information
> * 002 through 255 — Data transfer VLUs; these transfer data.

node-name.vlu-name
> is the name of the node and the name of the NJE VLU for which status is to be displayed. The names of NJE VLUs are:
> * OS1 through OS7 — Outbound SYSOUT streams 1-7 for SNA NJE
> * IS1 through IS7 — Inbound SYSOUT streams 1-7 for SNA NJE
> * OJ1 through OJ7 — Outbound job streams 1-7 for SNA NJE
> * IJ1 through IJ7 — Inbound job streams 1-7 for SNA NJE.

Results

BDT issues this message for each node:

```
BDT8646 {FTF|NJE} node-name IS {ONLINE|OFFLINE|LOCAL}
```

BDT issues this message for each VLU on each session (or for the VLU used in the command):

```
BDT8645 {FTF|NJE} NODE node-name  VLU vlu-name TYPE vlu-type
        VLU STATUS {ONLINE|OFFLINE}
{ALLOCATED|UNALLOCATED}
        {OPEN|CLOSED} {SEND MODE|RECEIVE MODE}.
```

Message BDT8645 will only include SEND MODE or RECEIVE MODE if the VLU is allocated.

For each file-to-file session, BDT also issues this message:

```
BDT8656 node-name FROM FENCE = nnn  TO FENCE = mmm
```

The fields show the number of VLUs fenced in the "to" and "from" directions. (This message is not issued for NJE sessions.)

Examples of displaying node status

1. Using an F *id* prefix, display the status of node KGN01. The BDT identifier (for use with the prefix) is A1.

   ```
   F A1 BDT,I,NODE=KGN01
   ```

   Result:

   ```
   BDT8646 FTF  KGN01    IS LOCAL
   BDT8656 KGN01    FROM FENCE  000 TO FENCE  000
   BDT8645 FTF NODE KGN01  VLU 001 TYPE COM VLU STATUS
           ONLINE / ALLOCATED / CLOSED /
   BDT8645 FTF NODE KGN01  VLU 002 TYPE XFR VLU STATUS
           ONLINE / UNALLOCATED / CLOSED /
      .
      .
      .
   BDT8645 FTF NODE KGN01  VLU 004 TYPE XFR VLU STATUS
           ONLINE / UNALLOCATED / CLOSED /
   ```

2. Using a prefix of *S,BDT, display the status of VLU 001 on file-to-file node KGN01.

   ```
   *S,BDT,INQUIRY,NODE=KGN01.001
   ```

   Result:

   ```
   BDT8646 FTF  KGN01    IS LOCAL
   BDT8656 KGN01    FROM FENCE  000 TO FENCE  000
   BDT8645 FTF NODE KGN01  VLU 001 TYPE COM VLU STATUS
           ONLINE / ALLOCATED / CLOSED /
   ```

I,OPT — Display System Status

Purpose

Use this command to display the following information about the BDT subsystem:

- The date, type, and time of the last BDT restart
- The status of the BDT to JES3 interface (whether you can communicate with JES3)
- The system dump option in effect.

Format

```
►►─prefix─┬─INQUIRY─┬─,OPT──────────────────────────────────────────────►◄
          └─I───────┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

OPT
    specifies that the status of the system is to be displayed.

Results

BDT issues these messages:

```
BDT8662 BDT DUMP OPTION IS [YES|NO|ASK]
```

```
BDT8663 BDT/JES3 COMMUNICATION INTERFACE [ONLINE|OFFLINE]
```

```
BDT8664 BDT SYSTEM sys-id WAS [HOT|WARM|COLD] STARTED
        ON yyyy.ddd AT hh:mm:ss
```

Example of displaying system status

Using a prefix of *S,BDT, display system status.

```
*S,BDT,I,OPT
```

Result:

```
BDT8662 BDT DUMP OPTION IS 'YES'
BDT8663 BDT/JES3 COMMUNICATION INTERFACE ONLINE
BDT8664 BDT SYSTEM MYNOD WAS HOT STARTED ON 83.106
        AT 2:04:22
```

I,P — Display the Status of Jobs by Priority

Purpose

Use this command to display the status of jobs of a designated priority.

The information displayed includes the job name, number, priority, status at both the from and to nodes (queued, active, canceled, scheduled), hold status, DTC network ID, and whether the job has been rescheduled or canceled.

Format

```
►►──prefix──┬──INQUIRY──┬──,P=prty──┬────────────────────────────────┬──►◄
            └──I────────┘           │        ┌──10──┐                │
                                    └──,N=──┼──nn──┼─────────────────┘
                                            └──ALL──┘
```

prefix
  is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

prty
  displays the status of jobs of the indicated priority. The value for *prty* can be from 0 to 15. 15 is the highest priority and the first to be scheduled.

N=nn or ALL
  specifies the number of jobs of the designated priority for which status is to be displayed: *nn*jobs or ALL jobs. If you do not specify this parameter, the first 10 jobs of the designated priority will be displayed.

Usage Note

You may need to be authorized to use N=ALL.

Result

BDT issues this message:

```
BDT8612  JOB job-no job-name, P=prty, {(Q|A|C|S)}
         TO {(Q|A|C|S)} [H=(OPR|,URS|,NET|TQI)],
         [NET=net-id] [,{RESCH|CAN}]
```

Examples of displaying the status of jobs by priority

1. Using a prefix of *S,BDT, display the status of the first five jobs of priority 04.

   ```
   *S,BDT,I,P=04,N=5
   ```

   Result:

```
BDT8612 JOB 3723 PAY3, P=04, (Q) TO (Q) H=(,NET),
         NET=PAYALL
BDT8612 JOB 4100 ADW22, P=04, (S) TO (Q)
BDT8612 JOB 4670 DYD512, P=04, (Q) TO (Q) H=(TQI)
BDT8612 JOB 1866 UBE235, P=04, (Q) TO (Q)
BDT8612 JOB 2074 SJJ5054, P=04, (A) TO (A)
```

2. Using a prefix of *S,BDT, display the status of all jobs of priority 12.

```
*S,BDT,I,P=12,N=ALL
```

Result:

```
BDT8612 JOB 2280 PAY16, P=12, (Q) TO (Q) H=(,NET),
         NET=PAYALL
BDT8612 JOB 3984 9490ATL, P=12, (S) TO (Q)
BDT8612 JOB 4008 DOB812, P=12, (Q) TO (Q) H=(OPR)
BDT8612 JOB 4789 KGA5058, P=12, (Q) TO (Q)
BDT8612 JOB 5096 PFM5091, P=12, (A) TO (A)
```

I,Q — Display the BDT Work Queue

Purpose

Use this command to display the jobs on the work queue at your BDT subsystem. The file-to-file jobs displayed will be the jobs for which your file-to-file node is the global node. Jobs will be displayed in order by priority, with the highest priority first.

The information displayed includes the job name, number, priority, status at both the from and to nodes (queued, active, canceled, scheduled), hold status, DTC network ID, and whether the job has been rescheduled or canceled.

Format

```
►►──prefix──┬─INQUIRY─┬──,Q──┬──────────────────┬──N=──┬──10──┬──────►◄
            └─I───────┘       ├─,*───────────────┤      ├─nn──┤
                              ├─,NODE=node-name──┤      └─ALL─┘
                              ├─,H───────────────┤
                              └─,ENQ─────────────┘
```
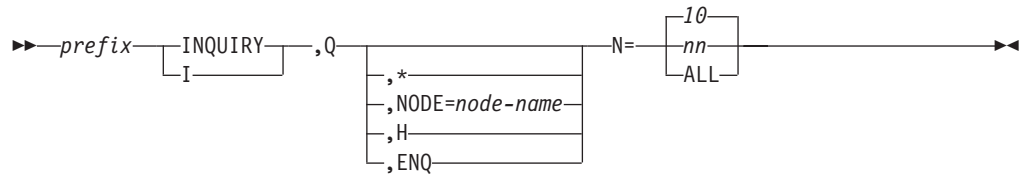
prefix
 is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

Q specifies that jobs on the work queue at your BDT subsystem are to be displayed.

* displays jobs for transactions submitted at your terminal or console.

NODE=node-name
 displays jobs for transactions that transfer data between your BDT subsystem and *node-name*. For file-to-file jobs, *node-name* must be the local node.

H displays jobs that are being held on the BDT work queue. Possible reasons for a job being held are:

 • The user entered the job in operator hold.

 • The operator put the job in operator hold by using the MODIFY,J,H command.

 • The job is in DTC network hold.

- The job is a file-to-file job submitted at the local node and it is still on the TQI checkpoint data set; the job is also on the work queue at the global node but the local node has not yet received confirmation of this.

ENQ

displays jobs being held in the BDT work queue because of a data set enqueue problem (the job is waiting for a data set that is already in use).

N=nn or ALL

specifies the number of jobs to be displayed: *nn* or ALL. If you do not specify this parameter, the first 10 jobs of the highest priority on the BDT work queue will be displayed.

Warning: Do not specify N=ALL or a large number for N=*nn* if doing so would generate a large volume of output. System performance will be affected if there are too many messages for your console to handle.

Usage Notes

1. You may need to be authorized by your installation to use N=ALL.
2. If you have both a file-to-file node and an NJE node at your BDT subsystem, your work queue will show NJE jobs before file-to-file jobs.

Results

BDT issues this message for each file-to-file job on the queue:

```
BDT8612  JOB job-no job-name, P=prty, {(Q|A|C|S)}
         TO {(Q|A|C|S)} [H=(OPR|,URS|,NET|TQI)],
         [NET=net-id] [,{RESCH|CAN}]
```

BDT issues this message for each NJE job on the queue:

```
BDT8612  JOB job-no job-name, P=prty, JESJOB jobnumber {(Q|A|C|S)}
         TO {(Q|A|C|S)} [H=(OPR|,URS|,NET|TQI)],
         [NET=net-id] [,{RESCH|CAN}]
```

Examples of displaying the BDT work queue

1. Using a prefix of *S,BDT, display the first ten jobs (the default) on the BDT work queue.

   ```
   *S,BDT,I,Q
   ```

   Result:

   ```
   BDT8612 JOB 0007 RUD10, P=02, JESJOB JOB00025, (Q) TO (S)
   BDT8612 JOB 8755 RUD10, P=11, (A) TO (A)
   BDT8612 JOB 8757 RUD12, P=11, (A) TO (A)
   BDT8612 JOB 4433 PDSTWO, P=08, (Q) TO (Q)
      .
      .
      .
   BDT8612 JOB 7966 PROB3L, P=05, (Q) TO (Q)
   ```

2. Using a prefix of *S,BDT, display all jobs on the BDT work queue.

   ```
   *S,BDT,INQUIRY,Q,N=ALL
   ```

   Result:

   ```
   BDT8612 JOB 0007 RUD10, P=02, JESJOB JOB00025, (Q) TO (S)
   BDT8612 JOB 8755 RUD10, P=11, (A) TO (A)
   BDT8612 JOB 8757 RUD12, P=11, (A) TO (A)
   BDT8612 JOB 4433 PDSTWO, P=08, (Q) TO (Q)
      .
      .
      .
   BDT8612 JOB 8876 PROB6L, P=03, (Q) TO (Q)
   ```

3. Using an F *id* prefix, display the first eight jobs on the BDT work queue. The BDT *id* (for use with the prefix) is A1.

```
F A1 BDT,I,Q,N=8
```

Result:

```
BDT8612 JOB 0007 RUD10, P=02, JESJOB JOB00025, (Q) TO (S)
BDT8612 JOB 8755 RUD10, P=11, (A) TO (A)
BDT8612 JOB 8757 RUD12, P=11, (A) TO (A)
BDT8612 JOB 4433 PDSTWO, P=08, (Q) TO (Q)
   .
   .
   .
BDT8612 JOB 6556 PROB2L, P=04, (Q) TO (Q)
```

4. Display the jobs submitted at this TSO terminal.

```
BDT,I,Q,*,N=ALL
```

Result:

```
BDT8612  JOB 1234 MYJOB01, P=04, (A) TO (A)
BDT8612  JOB 1256 MYJOB02, P=04, (Q) TO (Q)
BDT8612  JOB 1290 MYJOB03, P=05, (Q) TO (Q)
```

5. Display the first 25 jobs for transactions between your BDT subsystem and node SPK02. Use the JES3 prefix (*S,BDT).

```
*S,BDT,I,Q,NODE=SPK02,N=25
```

Result:

```
BDT8612  JOB 2039 MYJOB10, P=08, (Q) TO (Q) H=OPR
BDT8612  JOB 5986 HISJOB4, P=07, (Q) TO (Q)
BDT8612  JOB 7983 TOPJOB0, P=07, (S) TO (Q)
   .
   .
   .
BDT8612  JOB 8039 OUTJOB1, P=06, (Q) TO (Q) H=,URS
```

6. Using a prefix of *S,BDT, display the jobs in hold status.

```
*S,BDT,INQUIRY,Q,H
```

Result:

```
BDT8612  JOB 2039 MYJOB10, P=08, (Q) TO (Q) H=(TQI)
BDT8612  JOB 8945 ONEJOB, P=07, (Q) TO (Q) H=(OPR,NET)
         NET=NETONE
BDT8612  JOB 8950 TWOJOB, P=06, (Q) TO (Q) H=(OPR,NET)
         NET=NETTWO
```

7. Using a prefix of BDT, display the jobs in hold status because of a data set enqueue problem.

```
BDT,I,Q,ENQ
```

Result:

```
BDT8612 JOB 8676 THISJOB, P=04, (Q) TO (Q), H=(,URS)
```

I,QS — Display BDT Work Queue Information

Purpose

Use this command to display information about available space on the BDT work queue at your BDT subsystem.

Format

```
►►──prefix──┬─INQUIRY─┬──,QS────────────────────────────────►◄
            └─I───────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

QS specifies that information about available space on the BDT work queue is to be displayed.

Result

BDT issues this message:

```
BDT8667  BLKSIZE=nnnnn, BLOCKS=nnnnn, AVAIL=nnnnn,
         nn% SPACE REMAINING
```

Example of displaying BDT work queue information

Using a prefix of *S,BDT, display information about available space on the BDT work queue.

```
*S,BDT,I,QS
```

Result:

```
BDT8667  BLKSIZE=02048, BLOCKS=00234, AVAIL=00124,
         53% SPACE REMAINING
```

I,R — Display Operator-Action Messages

Purpose

Use this command to display outstanding operator-action messages.

Format

```
►►──prefix──┬─INQUIRY─┬──,R───────────────────────────────────►◄
            └─I───────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

R specifies that outstanding operator-action messages are to be displayed.

Result

BDT displays all outstanding operator-action messages.

Example of displaying operator-action messages

Using an F *id* prefix, display outstanding operator-action messages. The identifier of BDT (for use in the prefix) is BDTX.

```
F BDTX I,R
```

Result:

```
BDT8627  NO ACTION MESSAGES PRESENTLY OUTSTANDING
```

I,X,FCT — Display Statistics for BDT Modules by FCT Name

Purpose

Use this command to display statistics for modules loaded by a particular function control table (FCT), or to display statistics for all modules loaded by FCTs.

Format

```
►►─prefix─┬─INQUIRY─┬─,X,FCT=─┬─fct-name─┬──────────────────────────►◄
          └─I───────┘         └─ALL──────┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

X is required.

fct-name
is the name of the FCT that loads the modules for which statistics are to be displayed.

ALL
requests statistics for all modules loaded by FCTs.

Result

BDT issues this message:

```
BDT8622  module EPA-entry-pt USE-use-ct ATTR-attrflg
         RBP-rbptr FCT-dap
```

If the requested FCT did not load any modules, BDT issues this message:

```
BDT8624 NO MODULES LOADED BY FCT fct-name
```

Examples of displaying statistics for BDT modules by FCT name

1. Using a prefix of BDT, display statistics for all modules loaded by FCTs.

   ```
   BDT,I,X,FCT=ALL
   ```

   Result:

   ```
   BDT8624 NO MODULES LOADED BY FCT TIMER
   BDT8624 NO MODULES LOADED BY FCT COMMGR
   BDT8622 IGG019KU EPA-00F7C000 USE-000A ATTR-B122
           RBP-00000000 FCT-MSDV
   BDT8622 IGG019JA EPA-00A63BD8 USE-000A ATTR-B122
           RBP-00000000 FCT-MSDV
   BDT8622 IGG019LI EPA-00F7C3F8 USE-000A ATTR-B122
           RBP-00000000 FCT-MSDV
   BDT8622 IGG019KA EPA-00B66000 USE-000A ATTR-B122
           RBP-00000000 FCT-MSDV
      .
      .
      .
      .
   BDT8622 BDTUX07  EPA-001E1DD8 USE-0001 ATTR-1322
           RBP-00000000 FCT-WAIT
   ```

2. Using a prefix of BDT, display statistics for modules loaded by the TIMER FCT.

   ```
   BDT,I,X,FCT=TIMER
   ```

Result:
```
BDT8624 NO MODULES LOADED BY FCT TIMER
```

I,X,M — Display Statistics for BDT Modules by Module Name

Purpose

Use this command to display statistics for the module you specify, or for all modules.

Format

```
►►─prefix──┬─INQUIRY─┬──,X,M=──┬─mod-name─┬──────────────────────────────►◄
           └─I───────┘         └─ALL──────┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

X   is required.

mod-name
    is the name of the module for which statistics are to be displayed.

ALL
    displays statistics for all active modules.

Result

BDT issues this message:

```
BDT8622  mod-name EPA-entry-pt USE-use-ct ATTR-attrflg
         RBP-rbptr
```

Example of displaying statistics for BDT modules by module name

Using a prefix of BDT, display statistics for module BDTSNA.

```
BDT,INQUIRY,X,M=BDTSNA
```

Result:
```
BDT8622 BDTSNA  EPA-00293B40 USE-0001 ATTR-0323 RBP-00000000
```

JES — Submit a JES3 Command from BDT

Purpose

Use this command to direct a JES3 command from BDT to the JES3 system in the same complex.

Format

```
►►─prefix──┬─JES─┬──,jes3-command──────────────────────────────────────────►◄
           └─J───┘
```

prefix
    is the prefix.

jes3-command
>   is the JES3 command you want to submit. Use only the following JES3
>   commands:
>
>   1. VARY, or V
>   2. MODIFY, or F
>   3. INQUIRY, or I
>   4. MESSAGE, or Z
>
>   Do not include the JES3 identifier with the JES3 command. The JES3 identifier
>   precedes JES3 commands; it is usually an * or an 8. For example, use I,Q and
>   not *I,Q.

Usage Notes

1. Use this command only for JES3. It is not applicable in a JES2 complex.
2. Your installation may require a password on this command.
3. When you use this command your terminal appears to JES3 to be a remote job
   processing (RJP) terminal.

Result

You will receive JES3 messages at your terminal in response to this command.

Example of submitting a JES3 command from BDT

Display all jobs in the JES3 job queue that originated from the BDT system SPK01.

```
BDT JES,INQUIRY,Q,NODE=SPK01
```

Result:

```
BDT8612  JOB 2039 MYJOB10, P=08, (Q) TO (Q) H=OPR
BDT8612  JOB 5986 HISJOB4, P=07, (Q) TO (Q)
BDT8612  JOB 7983 TOPJOB0, P=07, (S) TO (Q)
  .
  .
  .
BDT8612  JOB 8039 OUTJOB1, P=06, (Q) TO (Q) H=,URS
```

R,SNA,NODE — Restart a Session

Purpose

Use this command to establish communication between a node at your BDT
subsystem and another node, and to turn on the automatic session restart (ASR)
function.

If the session fails (for example, an ACF/VTAM error occurs on the line) ASR will
try to restart the session.

Format

```
►►──prefix──┬─RESTART─┬──,SNA,NODE=node-name────────────────────────────►◄
            └─R───────┘
```

prefix
>   is the prefix that is appropriate for your terminal or console. Do not use a
>   prefix when submitting commands in a batch job.

SNA
> specifies that SNA communication is to be established.

node-name
> is the name of the node with which you want to establish communication. Use only one *node-name* in this command.

Usage Note

You must be authorized to use this command.

Results

ASR is enabled for the session.

If the session is already active, BDT issues this message:

```
BDT 2806 SESSION WITH node-name (appl-id) IS ALREADY ACTIVE
```

If the session is not already active, BDT issues this message:

```
BDT2860  SESSION START REQUESTED FOR node-name (appl-id)
```

BDT also issues the messages that appear in response to the START command.

BDT establishes a SNA session with *node-name*.

Example of restarting a session

Using an F *id* prefix, start the session to node NPZ01 with ASR active. The BDT *id* is A1.

```
F A1 R,SNA,NODE=NPZ01
```

Result:

```
BDT2860  SESSION START REQUESTED FOR NPZ01 (APPLN1)
```

RETURN — Terminate BDT

Purpose

Use this command to terminate the BDT address space.

Format

▶▶──*prefix*──RETURN──◀◀

prefix
> Is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

Usage Notes

1. You must be authorized to use this command.
2. In JES3 systems you must vary JES3 offline before stopping BDT. Use the V,JES3,OFF command to vary JES3 offline.
3. Instead of the BDT RETURN command you can use the MVS STOP *bdt-proc* command to stop BDT.

4. After you issue the BDT RETURN or MVS STOP command you can check the status of the termination process by reissuing RETURN or STOP. This does not speed termination, but it does display the number of DAPs pending termination. The number should be less each time you enter RETURN or STOP. If the number does not change for a long time, and BDT seems to be stuck, you can use the MVS CANCEL command to terminate BDT abnormally and request a dump: CANCEL *bdt-proc*,DUMP.

5. To cancel individual BDT sessions without terminating BDT, use the C,SNA or V command.

Results

BDT does not issue a message.

BDT terminates without a dump.

BDT:
- Fails all transactions currently active and deallocates their data sets.
- Terminates all DAPs with a completion code of BD033.
- Suspends TQI to prevent the processing of new work while termination is in progress. (This command suspends TQI in the same way as the S,TQI,SUSPEND command.) Any new work that enters BDT and attempts to bypass TQI will be rejected.

Example of terminating BDT

Using a prefix of *S,BDT, terminate BDT.

```
*S,BDT,RETURN
```

S,SNA,LIMIT — Change the Concurrent Session Limit

Purpose

Use this command to change the limit of the number of sessions that are allowed to be active at the same time at your BDT subsystem.

Format

```
►►──prefix──┬─START─┬──,SNA,LIMIT=num──────────────────────────────►◄
            └─S─────┘
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA
   is required.

num
   is the maximum number of sessions that can be active at any one time at your BDT subsystem. The value for *num* can be from 0 to 999. If you have both file-to-file and NJE at your BDT subsystem, the number of sessions at your BDT subsystem is the number of file-to-file sessions and the number of NJE sessions combined.

Usage Note

This command does not affect the number of VLUs active on any one session, but limits the total number of sessions in which your BDT subsystem can participate.

Results

BDT changes the concurrent session limit to the new value.

BDT issues this message:

```
BDT2818 SNA MANAGER ACTIVE: SESSIONS=nnnn LIMIT=nnnn
```

Example of changing the concurrent session limit

Using an F *id* prefix, change the limit of concurrent sessions for your BDT subsystem to 15. The identifier of BDT (for use in the prefix) is A1.

```
F A1 S,SNA,LIMIT=15
```

Result:

```
BDT2818 SNA MANAGER ACTIVE: SESSIONS=0001 LIMIT=015
```

S,SNA,LOG=? — Display the Destination of the SNA Manager Log

Purpose

Use this command to display the destination of the SNA manager log.

Format

```
►►──prefix──┬─START─┬──,SNA,LOG=?──────────────────────────────────►◄
            └─S─────┘
```

prefix
 is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA
 specifies the BDT SNA manager log.

LOG=?
 displays the destination (console or other device) of the BDT SNA manager log.

Usage Notes

1. You must be authorized to use this command.
2. To display the destination of the BDT system log, use the I,LOG command.

Result

BDT issues this message:

```
BDT2867 SNA MANAGER IS LOGGING TO node-name sys-name type name
```

Example of displaying the SNA manager log destination

Using an F *id* prefix, display the destination of the BDT SNA manager log. The identifier of BDT (for use in the prefix) is BDTA.

```
F BDTA S,SNA,LOG=?
```

Result:
```
BDT2867 SNA MANAGER IS LOGGING TO SPK01 SY2 JES CN02
```

S,SNA,LOG — Change the Destination of the SNA Manager Log (File-to-File Feature Only)

Purpose

Use this command to route the BDT SNA manager log to a different file-to-file destination.

Format

```
►►──prefix──┬─START─┬──,SNA,LOG=(node-name,sys-name,type,name)──────────►◄
            └─S─────┘
```

prefix
    is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA
    specifies the BDT SNA manager log.

node-name
    is the name of the file-to-file node to which the log is to be routed.

sys-name
    is the identifier of the processor to which the log is to be routed (1 to 8 characters).

type
    is the identifier of the type of console to which the log is to be routed (3 to 5 characters):

- TSO — TSO user
- JES — JES3 console
- MCS — MCS console
- JMC — JES3 console destination class.

name
    is the name of the console to which the log is to be routed (1 to 8 characters):

- User ID for a TSO user
- Console name for a JES3 console
- Console name for an MCS console
- JES3 message class name.

Usage Notes

1. For a description of JES3 console destination classes, see *z/OS JES3 Commands*.
2. To change the destination of the BDT system log, use the F,LOG,ADEST or F,LOG,SYSLOG command.

Result

BDT issues this message:
```
BDT2867 SNA MANAGER IS NOW LOGGING TO node-name,sys-name,
        type,name
```

Example of changing the SNA manager log destination

Using a prefix of *S,BDT, route the BDT SNA manager log to JES3 console CN10 at node SPK01, system SY2.

```
*S,BDT,S,SNA,LOG=(SPK01,SY2,JES,CN10)
```

Result:

```
BDT2867 SNA MANAGER IS NOW LOGGING TO SPK01,SY2,JES,CN10
```

S,SNA,NODE — Start a Session

Purpose

Use this command to start a session, that is, to establish the networking connection between a node at your BDT subsystem and another node.

Note: This command does not start the automatic session restart (ASR) function. To start a session with ASR turned on, use the RESTART,SNA command.

Format

```
►►─prefix──┬─START─┬─,SNA,NODE=node-name───────────────────────────────►◄
           └─S─────┘
```

prefix

is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies that a session is to be started.

node-name

is the node with which you want to start a session. Use only one *node-name* in this command.

Usage Notes

1. You must be authorized to use this command.
2. This command does not affect the automatic session restart (ASR) function. ASR remains on or off according to the last command that affected it (for example, C,SNA, or RESTART,SNA).
3. If you use the START,SNA,NODE command to start a session and then decide that you also want ASR to be on, you can use the RESTART,SNA command to turn on ASR. You do not need to cancel the session to do this.

Results

BDT issues these messages:

```
BDT2860  SESSION START REQUESTED FOR node-name (appl-id)
BDT2820  SCIP SESSION BIND REQUESTED FOR node-name (appl-id),
         TYPE={FTF|NJE}
BDT2822  LOGON IN PROGRESS FOR node-name (appl-id)
BDT2820  SCIP SESSION BIND REQUESTED FOR node-name (appl-id),
         TYPE={FTF|NJE}
BDT2802  SESSION ESTABLISHED WITH node-name (appl-id),
         TYPE={FTF|NJE}
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

When the command is issued at a file-to-file node, BDT also issues this message:

```
BDT2831  NEGOTIATED BDT SESSION PARAMETERS FOR
         node-name (appl-id) ARE (VLU=nn,BUFNO=nn,BUFSZ=nn,CS=opt)
```

When the command is issued at an NJE node, BDT also issues these messages:

```
BDT2878  SNA SESSION ESTABLISHED WITH NODENAME (appl-id),
         TYPE=NJE
BDT2884  SNA SESSION ESTABLISHED WITH node-name (appl-id),
         TYPE=NJE
BDT2877  node-name (appl-id)  BUFSZ=nnnn, SNA
         TERMINATION EXTENSION = YES
```

Note: You will only receive all of these messages at your console if you enter the command in a poly-BDT system.

BDT establishes a SNA session with *node-name*.

Examples of starting a session

1. Using a prefix of *S,BDT, start a file-to-file session between the file-to-file node at your BDT subsystem, SYSA1, and node SYSA2.

   ```
   *S,BDT,START,SNA,NODE=SYSA2
   ```

   Result:

   ```
   BDT2860  SESSION START REQUESTED FOR SYSA2 (APPLA2)
   BDT2820  SCIP SESSION BIND REQUESTED FOR SYSA2 (APPLA2),
            TYPE=FTF
   BDT2831  NEGOTIATED BDT SESSION PARAMETERS FOR SYSA2
            (APPLA2) ARE (VLU=030,BUFNO=010,BUFSZ=0256,CS=NJE)
   BDT2802  SESSION ESTABLISHED WITH SYSA1 (APPLA1), TYPE=FTF
   BDT2822  LOGON IN PROGRESS FOR SYSA2 (APPLA2)
   BDT2831  NEGOTIATED BDT SESSION PARAMETERS FOR SYSA1
            (APPLA1) ARE (VLU=030,BUFNO=010,BUFSZ=0256,CS=NJE)
   BDT2802  SESSION ESTABLISHED WITH SYSA2 (APPLA2), TYPE=FTF
   ```

2. Using an F *id* prefix, start an NJE session between your NJE node, SYSA1, and node SYSA2n. The identifier of BDT (for use in the prefix) is AA.

   ```
   F AA S,SNA,NODE=SYSA2n
   ```

   Result:

   ```
   BDT2860  SESSION START REQUESTED FOR SYSA2N (APPLA2N)
   BDT2820  SCIP SESSION BIND REQUESTED FOR SYSA2N (APPLA2N),
            TYPE=NJE
   BDT2878  SNA SESSION ESTABLISHED WITH SYSA1N (APPLA1N),
            TYPE=NJE
   BDT2802  SESSION ESTABLISHED WITH SYSA1N (APPLA1N), TYPE=NJE
   BDT2877  SYSA2N (APPLA2N)  BUFSZ = 00492, SNA TERMINATION
            EXTENSION = YES
   BDT2822  LOGON IN PROGRESS FOR SYSA2N (APPLA2N)
   BDT2884  SNA SESSION ESTABLISHED WITH SYSA2N (APPLA2N),
            TYPE=NJE
   BDT2802  SESSION ESTABLISHED WITH SYSA2N (APPLA2N), TYPE=NJE
   BDT2877  SYSA2N (APPLA2N) BUFSZ = 00492, SNA TERMINATION
            EXTENSION = YES
   ```

S,SNA,STATUS,LIST — Display the Status of the SNA Manager

Purpose

Use this command to display the status of the SNA manager and information about active sessions.

Format

```
►►─prefix──┬─START──┬─,SNA──┬─,STATUS─┬──┬────────┬──────────────────────►◄
           └─S──────┘       ├─,STAT───┤  ├─,─LIST─┤
                            └─,ST─────┘  └─,─L────┘
```

prefix
> is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA
> specifies the BDT SNA manager.

STATUS or STAT or ST
> displays the status of the BDT SNA manager.

LIST or L
> displays a list of active sessions by node name and ACF/VTAM application ID, and indicates whether each is file-to-file or NJE.

Usage Notes

1. You must be authorized to use this command.
2. To display the status of a single session, use the I,L command.

Results

BDT issues this message for each communication type (file-to-file or NJE) that is active in your BDT subsystem:

```
BDT2918 SNA MANAGER {FTF|NJE} COMMUNICATION
        {ACTIVE|QUIESCED}
```

BDT then issues this message:

```
BDT2818 SNA MANAGER   {ACTIVE:|PENDING TERMINATION:}
        SESSIONS=nnnn LIMIT=mmmm
```

For LIST, BDT also issues this message for each active session:

```
BDT2825 node-name (appl-id) IS ACTIVE, TYPE={NJE|FTF}
```

Examples of displaying SNA manager status

1. Using a prefix of *S,BDT, display the status of the BDT SNA manager and the number of active sessions.

   ```
   *S,BDT,S,SNA,STAT
   ```

   Result:

   ```
   BDT2918 SNA MANAGER NJE COMMUNICATION ACTIVE
   BDT2818 SNA MANAGER ACTIVE: SESSIONS=0096 LIMIT=0150
   ```

2. Using an F *id* prefix, display the status of the BDT SNA manager and list all active sessions. The identifier of BDT (for use in the prefix) is A1.

   ```
   F A1 SNA,STAT,LIST
   ```

Result:

```
BDT2918 SNA MANAGER NJE COMMUNICATION ACTIVE
BDT2818 SNA MANAGER ACTIVE: SESSIONS=0096 LIMIT=0150
BDT2825 SPK01 (APPLK1) IS ACTIVE, TYPE=NJE
BDT2825 SPK02 (APPLK2) IS ACTIVE, TYPE=NJE
BDT2825 SPK03 (APPLK3) IS ACTIVE, TYPE=NJE
   .
   .
   .
BDT2825 SPK05 (APPLK3) IS ACTIVE, TYPE=NJE
```

S,TQI,DELAY — Change the Read Checkpoint Interval

Purpose

Use this command to change the time interval at which BDT reads from the TQI checkpoint data set looking for work to do.

Format

```
►►──prefix──┬──START──┬──,TQI,DELAY=secs────────────────────────────────►◄
            └──S──────┘
```

prefix
 is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

TQI
 specifies that the time interval at which BDT reads from the checkpoint record is to be changed.

secs
 is the time interval in seconds. *secs* may be from 1 to 99999.

Result

BDT issues this message:

```
BDT2222 TQI TIME DELAY CHANGED TO nnnnn SECONDS
```

Example of changing the read checkpoint interval

Using an F *id* prefix, change the read checkpoint interval to 45 seconds. The ID of the BDT system (for use with the prefix) is A1.

```
F A1 S,TQI,DELAY=45
```

Result:

```
BDT2222 TQI TIME DELAY CHANGED TO 00045 SECONDS
```

S,TQI,SUSPEND, or RESTART — Control BDT's Access to the TQI Checkpoint Data Set

Purpose

Use this command to:

- Prevent BDT from reading commands and transactions recorded on the TQI checkpoint data set. You might do this when BDT has problems reading commands and transactions. You will be notified of BDT problems by message BDT2217, or your system programmer.
- Allow BDT to read commands and transactions recorded on the TQI checkpoint data set. You might do this once the problem has been corrected. Your system programmer will tell you when to issue this command.

Format

```
►►──prefix──┬─START─┬──,TQI──┬─,SUSPEND─┬──────────────────────────────►◄
            └─S─────┘        └─,RESTART─┘
```

prefix
    is the prefix that is appropriate for your terminal or console. Do not use a prefix when entering commands in a batch job.

TQI
    specifies the TQI checkpoint data set.

SUSPEND
    prevents BDT from reading commands or transactions recorded on the TQI checkpoint data set.

RESTART
    allows BDT to read commands and transactions recorded on the TQI checkpoint data set.

    To use the S,TQI,RESTART command, you must be at a JES3 console or at the MCS console for the processor on which the TQI address space exists.

- At the MCS console, use one of these prefixes when entering S,TQI,RESTART:

        bdt-char

        BDT,*node-name*

        F [*bdtproc.*]*bdt-id*

    At a JES3 console, submit S,TQI,RESTART in this format:

    *SEND*processor* F*bdt-id*,START,TQI,RESTART

    If you have user exit routine BDTUX10 at your installation, and you have the password that is required, you can also enter S,TQI,RESTART in this format:

    F [*bdtproc.*]*bdt-id*,S(*password*),TQI,RESTART

Usage Notes

1. You can use the S,TQI,SUSPEND command from either an MCS or JES3 console, or a TSO terminal that can submit commands.
2. Once you have used the S,TQI,SUSPEND command, use the MODIFY (F) prefix on all commands to make the commands bypass TQI until you restart reading from the TQI checkpoint data set. Use

    MODIFY [*bdt-proc.*]*id*
    command

or

F [*bdt-proc.*] *id command*

where *bdt-proc* is the name of the cataloged procedure in SYS1.PROCLIB used
to start BDT, and *id* is the installation-defined BDT identifier. Any other prefix
will cause the command to be recorded on the TQI checkpoint data set; since
BDT will not be reading the data set, the command will not be executed.

3. If you are going to suspend reading from the TQI checkpoint data set for a
   long time, you may also want to stop TQI's recording of commands and
   transactions. Use the F TQI,D command.
   - If TQI is not required in your installation, this will make the commands and
     transactions go directly to BDT without being recorded by TQI. The users
     will have lost the protection of having their transactions recorded, but their
     transactions can be processed.
   - If TQI is required in your installation, disabling BDT TQI will cause
     transactions to be rejected. However, you will still be able to submit
     commands using the MVS MODIFY or F prefix.

   If you are going to suspend reading from the TQI checkpoint data set for a
   short time, you probably don't need to disable TQI. Transactions will continue
   to be recorded on the TQI checkpoint data set, and will be read when TQI is
   enabled. Users still have the protection of TQI, but the transactions won't be
   processed until the TQI address space is enabled and reading is restarted.

Results

For SUSPEND, BDT stops reading commands and transactions recorded on the
TQI checkpoint data set.

BDT issues this message for SUSPEND:
```
BDT2220 TQI SUSPENDED
```

For RESTART, BDT resumes reading commands and transactions recorded on the
TQI checkpoint data set.

BDT issues this message for RESTART:
```
BDT2221 TQI RESTARTED
```

Examples of controlling BDT access to the TQI checkpoint data set

1. Using a prefix of *S,BDT, stop BDT from reading commands and transactions
   from the TQI checkpoint data set.
   ```
   *S,BDT,S,TQI,SUSPEND
   ```
   Result:
   ```
   BDT2220 TQI SUSPENDED
   ```

2. Using an F *id* prefix, allow BDT to resume reading commands and transactions
   from the TQI checkpoint data set for the BDT subsystem with the ID of A1.
   ```
   F A1,START,TQI,RESTART
   ```
   Result:
   ```
   BDT2221 TQI RESTARTED
   ```

3. Using a prefix of *S,BDT, allow BDT to resume reading commands and
   transactions from the TQI checkpoint data set for the BDT subsystem with the
   ID of A1 on processor SY1.

```
*SEND SY1 F A1,S,TQI,RESTART
```
Result:
```
BDT2221 TQI RESTARTED
```

T — Send a Command to Another BDT Node (Requires File-to-File Feature)

Purpose

Use this command to direct a BDT command from one file-to-file node to another file-to-file node.

Format

```
►►──prefix──┬─SEND─┬──,node-name,bdt-command────────────────────────────────►◄
            └─T────┘
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name
   is the name of the file-to-file node to which you want to send the command.

bdt-command
   is the BDT command you want to send.

Usage Notes

1. You cannot use the SEND command to send another SEND command. You can use it to send any other BDT command, including the JES command.
2. If a session terminates before the SEND command is processed, the command will not execute and will be discarded. When this happens there is no notification from the system.

Result

You will receive any responses at your console.

Example of sending a command to another BDT node

Using a prefix of BDT, display the jobs that are active at node SYSA1.
```
BDT,SEND,SYSA1,I,A
```

Result:

```
BDT8672  BDTJOB JOBNAME JESJOB  DAP FROM   TO    ELAPSED   CPU TIME  BYTES
BDT8673  0166   PAY005          SEQ SYSA1 SYSA2  00 00 12  00000.20  24587
BDT8673  2101   TOPJOB          SEQ SYSA1 SYSA2  01 28 16  00006.30  01307K
BDT8673  3656   LOWJOB          PDS SYSA1 SYSA2  00 42 13  00000.74  13815
  .
  .
  .
BDT8673  8397   BDTJOB          PDS SYSA1 SYSA2  00 09 26  00000.60  00145K
```

V — Control a Session Using VLUs

Purpose

Use this command to control a BDT session between your node and another node by controlling the virtual logical units (VLUs) between the nodes. You can stop data from flowing on selected VLUs or you can stop data from flowing on all VLUs (except the communication VLU).

Format
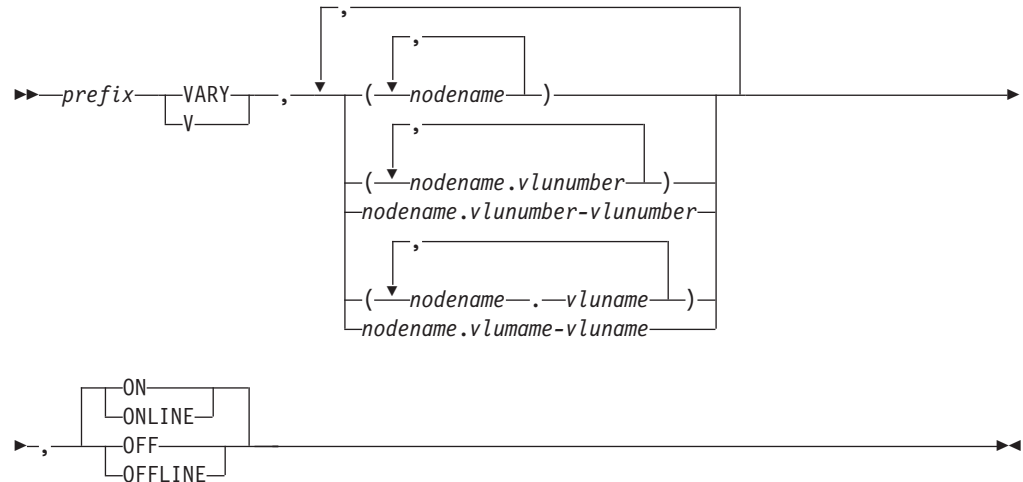
prefix
>   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name
>   is the name of a node with which your node is connected by a BDT session. If it is a file-to-file node, it must be local to your file-to-file node.

>   V,*node-name*,ON and V,*node-name*,OFF vary all VLUs in the session with *node-name* except the communication VLU. V,*node-name*,OFF does not cancel the session.

vlunumber
>   is the number of a file-to-file VLU to be varied. The numbers of the file-to-file VLUs you can vary are three-digit numbers from 002 through 255. Do not vary off the communication VLU (the communication VLU is number 001). Doing so would prevent BDT from using any other VLUs to that node. By leaving the communication VLU online, you permit the communication of commands and messages to continue between your node and *node-name*.

>   Vary a range of VLU numbers by specifying *vlunumber-vlunumber*.

vluname
>   is the name of an NJE VLU to be varied. The NJE VLU is at your node and is used in a session with *node-name*. VLU names are:
>   - OS1 through OS7 — Outbound SYSOUT streams 1-7 for SNA NJE
>   - IS1 through IS7 — Inbound SYSOUT streams 1-7 for SNA NJE
>   - OJ1 through OJ7 — Outbound job streams 1-7 for SNA NJE

- IJ1 through IJ7 — Inbound job streams 1-7 for SNA NJE.

  Vary a range of VLU names by specifying *vluname-vluname*. The VLUs must all be of the same type: OS, IS, OJ, or IJ.

ON or ONLINE
   allows data to flow.

OFF or OFFLINE
   stops data from flowing. Data transfers in progress will be allowed to complete; no new data transfers will be allowed.

Usage Notes

1. If you vary inbound NJE VLUs offline at your NJE node, the corresponding outbound NJE VLUs at the other node in the session will automatically be varied offline if someone at the other node attempts to transfer data using those VLUs. If that happens, the VLUs at both nodes must be varied online before communication can be resumed.
2. If you don't want to wait for data transfers to complete, you may want to cancel the session with the node (see the C,SNA command).
3. You may vary a range of VLUs that extends beyond the VLUs defined. Those VLUs that are defined will be varied.
4. Varying a VLU does not affect the direction in which the VLUs can transfer data.
5. There is a limit to the number of transfers that can be active in your BDT subsystem at any one time. (The limit is set by the system programmer at initialization and can be changed with the S,SNA,LIMIT command.) There can be more VLUs available than are allowed to be active at the same time. When one transfer finishes, BDT will choose the next VLU to become active according to the priority of jobs on the work queue and the availability of other requirements, such as the data sets involved. By varying off a number of VLUs to some nodes, and varying on more VLUs to other nodes, you can make BDT send or receive more transfers with the selected nodes.
6. To find out which VLUs are online and offline now, and how many are defined for a session, use the I,NODE command.

Results

Communication is allowed (ON) or prevented (OFF).

BDT issues this message for each VLU that is varied:

```
BDT8703 {FTF|NJE} NODE node-name {vluname|vlunumber} VARIED
        {ONLINE|OFFLINE} SESSION IS {ACTIVE|INACTIVE}
```

For VARY,*node-name*,OFF, transactions in progress on the session may or may not complete and may or may not restart if interrupted. The session (all VLUs to the node) is varied offline.

For VARY,*vlunumber*,OFF or VARY,*vluname*,OFF the current activity on the VLU is allowed to complete; once that activity has completed, BDT will not use the VLU.

Varying a VLU affects only the ability of data to flow between nodes; the SNA connection status is not changed.

Examples of controlling a session using VLUs

1. A file-to-file session exists between the file-to-file node at your BDT subsystem and node DAL03. Using an F *id* prefix, prevent communication between the file-to-file node at your BDT subsystem and node DAL03. The BDT *id* (for use in the prefix) is BDT1.

   ```
   F BDT1 V,DAL03,OFF
   ```

   Result:

   ```
   BDT8703 FTF NODE DAL03 002 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 FTF NODE DAL03 003 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 FTF NODE DAL03 004 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 FTF NODE DAL03 005 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 FTF NODE DAL03 006 VARIED OFFLINE SESSION IS INACTIVE
                    .
                    .
                    .
   BDT8703 FTF NODE DAL03 254 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 FTF NODE DAL03 255 VARIED OFFLINE SESSION IS INACTIVE
   ```

2. Resume communication between your file-to-file node and node DAL03.

   ```
   F BDT1 VARY,DAL03,ON
   ```

   Result:

   ```
   BDT8703 FTF NODE DAL03 002 VARIED ONLINE SESSION IS ACTIVE
   BDT8703 FTF NODE DAL03 003 VARIED ONLINE SESSION IS ACTIVE
   BDT8703 FTF NODE DAL03 004 VARIED ONLINE SESSION IS ACTIVE
   BDT8703 FTF NODE DAL03 005 VARIED ONLINE SESSION IS ACTIVE
   BDT8703 FTF NODE DAL03 006 VARIED ONLINE SESSION IS ACTIVE
                    .
                    .
                    .
   BDT8703 FTF NODE DAL03 254 VARIED ONLINE SESSION IS ACTIVE
   BDT8703 FTF NODE DAL03 255 VARIED ONLINE SESSION IS ACTIVE
   ```

3. An NJE session exists between the NJE node at your BDT subsystem and the node KGN01. Using a prefix of *S,BDT, prevent communication between the NJE node at your BDT subsystem and the node KGN01.

   ```
   *S,BDT,V,KGN01,OFF
   ```

   Result:

   ```
   BDT8703 NJE NODE KGN01 OS1 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 NJE NODE KGN01 OS2 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 NJE NODE KGN01 OS3 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 NJE NODE KGN01 OS4 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 NJE NODE KGN01 OS5 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 NJE NODE KGN01 OS6 VARIED OFFLINE SESSION IS INACTIVE
                    .
                    .
                    .
   BDT8703 NJE NODE KGN01 IJ6 VARIED OFFLINE SESSION IS INACTIVE
   BDT8703 NJE NODE KGN01 IJ7 VARIED OFFLINE SESSION IS INACTIVE
   ```

4. Your node (KGN01) is connected to five other nodes (KGN02, KGN03, KGN04, KGN05, KGN06) The maximum transfer limit is 100. Each session to another node has 50 VLUs defined but only 20 online. KGN01 has many transfers queued for KGN02 but only a few for the other nodes.

   To reduce the backlog of jobs for KGN02, you need to vary on more VLUs for KGN02, and vary off some VLUs for the other nodes. Remember to vary online from the first offline VLU upwards, and offline from the high end of the range of online VLUs. Use the JES3 prefix (*S,BDT).

   ```
   *S,BDT,VARY,KGN02.021-050,ON
   *S,BDT,VARY,(KGN03.010-019,KGN04.010-019,KGN05.010-019,
           KGN06.010-019),OFF
   ```

Result:

```
BDT8703 FTF NODE KGN02 021 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE KGN02 022 VARIED ONLINE SESSION IS ACTIVE
     .
     .
     .
BDT8703 FTF NODE KGN02 050 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE KGN03 010 VARIED OFFLINE SESSION IS INACTIVE
     .
     .
BDT8703 FTF NODE KGN03 019 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE KGN04 010 VARIED OFFLINE SESSION IS INACTIVE
     .
     .
BDT8703 FTF NODE KGN04 019 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE KGN05 010 VARIED OFFLINE SESSION IS INACTIVE
     .
     .
     .
BDT8703 FTF NODE KGN05 019 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE KGN06 010 VARIED OFFLINE SESSION IS INACTIVE
     .
     .
     .
BDT8703 FTF NODE KGN06 019 VARIED OFFLINE SESSION IS INACTIVE
```

5. Using a prefix of *S,BDT, remove VLU 003 from use in the session with node SPK01.

```
*S,BDT,V,SPK01.003,OFFLINE
```

Result:

```
BDT8703 FTF NODE SPK01 003 VARIED OFFLINE SESSION IS INACTIVE
```

6. Using a prefix of *S,BDT, bring VLUs 004 and 005 into use in the session with node SPK01.

```
*S,BDT,V,SPK01.004-005,ON
```

Result:

```
BDT8703 FTF NODE SPK01 004 VARIED ONLINE SESSION IS ACTIVE
BDT8703 FTF NODE SPK01 005 VARIED ONLINE SESSION IS ACTIVE
```

7. Using an F *id* prefix, remove VLUs 004 and 006 from use in the session with node SPK02, and remove VLUs 005 through 008 from use in the session with node MCR10. The *id* of BDT (for use in the prefix) is BDTA.

```
F BDTA V,(SPK02.004,SPK02.006,MCR10.005-008),OFF
```

Result:

```
BDT8703 FTF NODE SPK02 004 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE SPK02 006 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 005 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 006 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 007 VARIED OFFLINE SESSION IS INACTIVE
BDT8703 FTF NODE MCR10 008 VARIED OFFLINE SESSION IS INACTIVE
```

V,JES3 — Control the JES3 to BDT Interface

Purpose

Use this command to allow or prevent JES3 from sending commands, file-to-file transactions, and NJE transactions to BDT.

Format

```
►►─prefix─┬─VARY─┬─,JES3,─┬─ON──────┬──────────────────►◄
          └─V────┘        ├─ONLINE──┤
                          ├─OFF─────┤
                          └─OFFLINE─┘
```
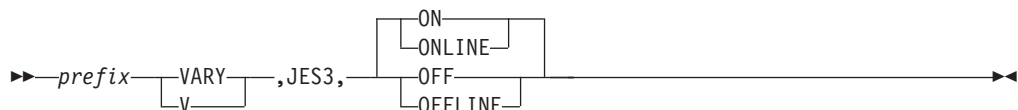
prefix
   is the prefix. Do not use a prefix when submitting commands in a batch job.

JES3
   is the interface between JES3 and BDT.

ON or ONLINE
   allows JES3 to send commands and transactions to BDT. This is the default.

OFF or OFFLINE
   prevents JES3 from sending commands or transactions to BDT.

Usage Notes

1. To suspend or resume communication from JES3 to BDT for NJE only, use the F,JES3 command.
2. If NJE transactions have been suspended from JES3 to BDT (see F,JES3 command), the V,JES3,ONLINE command will allow suspended NJE transactions to resume.
3. You might want to issue this command before doing a JES3 dynamic system interchange (DSI). Your system programmer will tell you if it is necessary.
4. This command has no effect in a JES2 complex.

Result

BDT issues this message:

```
BDT9967 JES3  INTERFACE VARIED {ONLINE|OFFLINE}
```

Examples of controlling the JES3 to BDT interface

1. Using a prefix of *S,BDT, prevent JES3 from sending commands or transactions to BDT.

   ```
   *S,BDT,V,JES3,OFF
   ```
   Result:
   ```
   BDT9967 JES3 INTERFACE VARIED OFFLINE
   ```
2. Allow JES3 to send commands and transactions to BDT.

   ```
   *S,BDT,V,JES3,ON
   ```
   Result:
   ```
   BDT9967 JES3 INTERFACE VARIED ONLINE
   ```

X,SNA — Activate the BDT SNA Manager

Purpose

Use this command to activate the BDT SNA manager for your BDT subsystem. You need to activate the BDT SNA manger in order to establish sessions.

Format

```
►►──prefix──┬──CALL──┬──,SNA──────────────────────────────────►◄
            └───X────┘
```

prefix
   is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

SNA

specifies that the BDT SNA manager is to be activated.

Usage Notes

1. You must be authorized to use this command.

2. Use X,SNA when doing a cold start of BDT, or when doing a warm or hot start of BDT if the BDT SNA manager was not active when BDT was terminated. Also, use X,SNA to reactivate the BDT SNA manager after issuing a C,SNA,NODE=ALL command. For more information see Chapter 2, "Command Guide," on page 5.

3. If the ACF/VTAM network has not been started when you use this command, message BDT2851 will be issued repeatedly until you start ACF/VTAM. Once ACF/VTAM is started, the command will be processed and will activate the BDT SNA manager.

   At a BDT subsystem that has both file-to-file and NJE nodes, you must activate an ACF/VTAM application for file-to-file and an ACF/VTAM application for NJE before you can activate the BDT SNA manager. At your installation, these applications may be activated automatically when you bring up ACF/VTAM. If not, you can issue an ACF/VTAM VARY NET ACT command for each of the applications. See *VTAM Operation* for a description of the VARY NET ACT command.

Result

BDT issues these messages:

```
BDT6306 JOB job-no IS SNA P=15 O=origin-id T=receiving-node
        F=sending-node (yyddd-hh .mm .ss)
BDT2801 SNA MANAGER READY
```

Example of activating the BDT SNA manager

Using a prefix of *S,BDT, start SNA networking for your node, SYSA2.

```
*S,BDT,CALL,SNA
```

Result:

```
BDT6306 JOB 0001 IS SNA P=15 O=SYSA2
        T=SYSA2 F=SYSA2 (86.256-08 08 09)
BDT2801 SNA MANAGER READY
```

Z — Send Messages to Other Consoles or Users (File-to-File Feature Only)

Purpose

Use this command to send a message from a console at one file-to-file node to one or more consoles at the same or other file-to-file nodes.

Format

```
►►──prefix──┬──MESSAGE──┬──,(node-name,sys-name,type,name),message-text──────►◄
            └──Z────────┘
```

prefix
is the prefix that is appropriate for your console or terminal. Do not use a prefix when submitting commands in a batch job.

node-name
is the name of the node to which the message is to be sent.

sys-name
is the identifier of the processor to which the message is to be sent (1 to 8 characters).

type
is the identifier of the type of console to which the message is to be sent (3 to 5 characters):

- TSO — TSO user
- JES — JES3 console
- MCS — MCS console
- JMC — JES3 console destination class.

name
is the name of the console to which the message is to be sent (1 to 8 characters):

- User ID for a TSO user
- Console name for a JES3 console
- Console name for an MCS console
- JES3 message class name.

message-text
is the message you want to send.

Usage Notes

1. This command is for file-to-file nodes only.
2. If you are on a TSO console, you are limited to 255 characters on the input line.

Result

BDT issues this message to the receiver:

```
BDT9935 MESSAGE FROM node-name sys-name type name message-text
```

Examples of sending messages to other consoles or users

1. Using a prefix of BDT send the message "BDT system ready" to user D58BXHM on TSO system SY1 at node MCR10. You are user D74BCJK on system SY2 at the same node.

   ```
   BDT,Z,(MCR10 SY1 TSO D58BXHM),BDT system ready
   ```

   Result:

   ```
   BDT9935 MESSAGE FROM MCR10 SY2 TSO D74BCJK:
           BDT SYSTEM READY
   ```

2. From JES3 console CN1, send the message "BDT system shutdown at 1700" to all JES consoles on system SY1 at node SPK01.

   ```
   *S,BDT,MESSAGE,(SPK01 SY1 JES ALL),BDT system shutdown at 1700
   ```

   Result:

   ```
   BDT9935 MESSAGE FROM SPK01 SY1 JES CN1:
           BDT SYSTEM SHUTDOWN AT 1700
   ```

Appendix. Accessibility

Accessible publications for this product are offered through the z/OS® Information Center, which is available at www.ibm.com/systems/z/os/zos/bkserv/.

If you experience difficulty with the accessibility of any z/OS information, please send a detailed message to mhvrcfs@us.ibm.com or to the following mailing address:

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Accessibility features

Accessibility features help a user who has a physical disability, such as restricted mobility or limited vision, to use software products successfully. The major accessibility features in z/OS enable users to:

- Use assistive technologies such as screen readers and screen magnifier software
- Operate specific or equivalent features using only the keyboard
- Customize display attributes such as color, contrast, and font size.

Using assistive technologies

Assistive technology products, such as screen readers, function with the user interfaces found in z/OS. Consult the assistive technology documentation for specific information when using such products to access z/OS interfaces.

Keyboard navigation of the user interface

Users can access z/OS user interfaces using TSO/E or ISPF. Refer to *z/OS TSO/E Primer*, *z/OS TSO/E User's Guide*, and *z/OS ISPF User's Guide Vol I* for information about accessing TSO/E and ISPF interfaces. These guides describe how to use TSO/E and ISPF, including the use of keyboard shortcuts or function keys (PF keys). Each guide includes the default settings for the PF keys and explains how to modify their functions.

Dotted decimal syntax diagrams

Syntax diagrams are provided in dotted decimal format for users accessing the z/OS Information Center using 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 can be considered as 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 your 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, you know that 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 can be used 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 giving 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, this indicates a reference that is defined elsewhere. The string following the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you should refer to separate syntax fragment OP1.

The following words and symbols are used next to the dotted decimal numbers:

- ? means an optional syntax element. A dotted decimal number followed by the ? 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 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.

- ! means a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicates 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 same dotted decimal number can specify a ! 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 this example, if you include the FILE keyword but do not specify an option, default option KEEP will be applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, 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 only applies 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.

- * means a syntax element that can be repeated 0 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, and 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

  Note:
  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 could write HOST STATE, but you could not write HOST HOST.
  3. The * symbol is equivalent to a loop-back line in a railroad syntax diagram.

- + means a syntax element that must be included one or more times. A dotted decimal number followed by the + symbol indicates that this 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 only repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the * symbol, is equivalent to a loop-back line in a railroad syntax diagram.

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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.

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