



**Program Directory for
z/OS V1R13 RSM Enablement Offering**

V1.13.0

Program Number 5694-A01

FMIDs JBB778H, JBB778K

for Use with
z/OS V1R13

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Note

Before using this information and the product it supports, be sure to read the general information under “Notices” on page 25.

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1.0 Introduction

This program directory is intended for system programmers who are responsible for program installation and maintenance. It contains information about the material and procedures associated with the installation of z/OS® V1R13 RSM Enablement Offering.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic and optional program materials and documentation for z/OS V1R13 RSM Enablement Offering.
- 3.0, “Program Support” on page 5 describes the IBM® support available for z/OS V1R13 RSM Enablement Offering.
- 4.0, “Program and Service Level Information” on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into z/OS V1R13 RSM Enablement Offering.
- 5.0, “Installation Requirements and Considerations” on page 9 identifies the resources and considerations that are required for installing and using z/OS V1R13 RSM Enablement Offering.
- 6.0, “Installation Instructions” on page 17 provides detailed installation instructions for z/OS V1R13 RSM Enablement Offering. It also describes the procedures for activating the functions of z/OS V1R13 RSM Enablement Offering, or refers to appropriate publications.

Section 3.2, “Preventive Service Planning” on page 5 tells you how to find any updates to the information and procedures in this Program Directory.

1.1 z/OS V1R13 RSM Enablement Offering Description

The RSM Enablement Offering web deliverable is designed to provide paging support that takes advantage of the storage class memory (SCM) available on IBM zEnterprise EC12 (zEC12) servers. In addition to providing far better paging performance than can be achieved using external disk paging devices, this new support is designed to support paging for 1 MB pages, and expected to yield substantial improvements in SVC dump data capture time. z/OS storage management can now use SCM in preference to external paging devices to improve performance for non-VIO local paging operations and overall system performance.

1.2 z/OS V1R13 RSM Enablement Offering FMIDs

z/OS V1R13 RSM Enablement Offering consists of the following FMIDs:

JBB778H
JBB778K

2.0 Program Materials

An IBM program is identified by a program number. The program number for z/OS V1R13 RSM Enablement Offering is 5694-A01.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product.

The program announcement material describes the features supported by z/OS V1R13 RSM Enablement Offering. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is Web Delivery. The code for this deliverable can be downloaded from URL <http://www-03.ibm.com/systems/z/os/zos/downloads/>. The deliverable contains all the programs and data needed for installation. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 17 for more information about how to install the program.

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for z/OS V1R13 RSM Enablement Offering.

2.3 Program Publications

The following sections identify the basic and optional publications for z/OS V1R13 RSM Enablement Offering.

2.3.1 Basic Program Publications

The program directory for z/OS V1R13 RSM Enablement Offering is available on the web.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for z/OS V1R13 RSM Enablement Offering.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 1 on page 4 during the installation of z/OS V1R13 RSM Enablement Offering. To order copies, contact your IBM representative or visit the IBM Publications Center at: <http://www.ibm.com/shop/publications/order/>

<i>Figure 1. Publications Useful During Installation</i>	
Publication Title	Form Number
<i>IBM SMP/E for z/OS User's Guide</i>	SA22-7773
<i>IBM SMP/E for z/OS Commands</i>	SA22-7771
<i>IBM SMP/E for z/OS Reference</i>	SA22-7772
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA22-7770

3.0 Program Support

This section describes the IBM support available for z/OS V1R13 RSM Enablement Offering.

3.1 Program Services

Contact your IBM representative for specific information about available program services.

3.2 Preventive Service Planning

Before you install z/OS V1R13 RSM Enablement Offering, make sure that you have reviewed the current Preventive Service Planning (PSP) information. Review the PSP Bucket for General Information, Installation Documentation, and the Cross Product Dependencies sections. For the Recommended Service section, instead of reviewing the PSP Bucket, it is recommended you use the IBM.ProductInstall-RequiredService fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.ProductInstall-RequiredService)** operand on the **APPLY CHECK command**. See 6.1.6, “Perform SMP/E APPLY” on page 19 for a sample APPLY command.

In order to exploit Flash Express on a zEC12 server you will have to have all the maintenance identified in the hardware PSP bucket installed (Upgrade: 2827DEVICE, Subset: 2827/ZOS). In addition, the following Fix Categories have been created to simplify the verification that the required fixes are installed:

- IBM.Device.Server.zEC12-2827
- IBM.Device.Server.zEC12-2827.Exploitation

You can obtain the latest PSP Bucket information by going to the following website:

<http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp>

You can also use S/390® SoftwareXcel or contact the IBM Support Center to obtain the latest PSP Bucket information.

For program support, access the Software Support Website at <http://www-01.ibm.com/software/support/>.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for z/OS V1R13 RSM Enablement Offering are included in Figure 2.

UPGRADE	SUBSET	Description
ZOSV1R13	JBB778H	RSM Enablement

3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 3 on page 6 identifies the component IDs (COMPID) for z/OS V1R13 RSM Enablement Offering.

<i>Figure 3. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
JBB778H	5752SC1CW	Auxiliary storage manager (ASM)	78H
JBB778H	5752SC1C3	I/O supervisor (IOS)	78H
JBB778H	5752SC132	Interactive problem control system (IPCS)	78H
JBB778H	5752SC1C8	Nucleus initialization program (NIP)	78H
JBB778H	5752BB1CT	Machine check handler (MCH)	78H
JBB778H	5752SC1CZ	Reconfiguration of command processing	78H
JBB778H	5752SC1CR	Real storage manager (RSM)	78H
JBB778H	5752SCRTM	Recovery Termination Manager (RTM)	78H
JBB778H	5752SC115	Stand-alone dump (SADMP)	78H
JBB778H	5752SC1C5	Supervisor control	78H
JBB778H	5752SC1CH	Virtual storage management (VSM)	78H

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of z/OS V1R13 RSM Enablement Offering. The program level refers to the APAR fixes that have been incorporated into the program. The service level refers to the PTFs that have been incorporated into the program.

4.1 Program Level Information

The following APAR fixes against previous releases of BCP element have been incorporated into this release. They are listed by FMID.

- FMID JBB778H

OA32339	OA36680	OA37405	OA38128	OA38819
OA32453	OA36706	OA37420	OA38155	OA38829
OA34693	OA36782	OA37471	OA38221	OA39209
OA34751	OA36887	OA37531	OA38243	OA39215
OA35455	OA36949	OA37649	OA38304	OA39228
OA35463	OA37025	OA37809	OA38334	OA39368
OA35738	OA37046	OA37821	OA38346	OA39533
OA35898	OA37047	OA37831	OA38400	OA39838
OA35922	OA37186	OA37957	OA38409	OA39850
OA36156	OA37201	OA37878	OA38430	OA39976
OA36242	OA37211	OA38014	OA38451	OA40161
OA36434	OA37251	OA38025	OA38454	OA40254
OA36487	OA37211	OA38056	OA38592	OA40541
OA36607	OA37320	OA38115	OA38742	

4.2 Service Level Information

No PTFs against this release of z/OS V1R13 RSM Enablement Offering have been incorporated into the product package.

Frequently check the z/OS V1R13 RSM Enablement Offering PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then add the **FIXCAT(IBM.ProductInstall-RequiredService)** operand on your APPLY CHECK command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating z/OS V1R13 RSM Enablement Offering. The following terminology is used:

- *Driving system*: the system on which SMP/E is executed to install the program.
The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.
- *Target system*: the system on which the program is configured and run.
The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install z/OS V1R13 RSM Enablement Offering.

5.1.1 Machine Requirements

The driving system can run in any hardware environment that supports the required software.

5.1.2 Programming Requirements

Figure 4. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Any one of the following:				
5694-A01	z/OS	V01.12.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.05.00	N/A	No

Note: The Driving System may require migration to a service supported z/OS release. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use z/OS V1R13 RSM Enablement Offering.

5.2.1 Machine Requirements

The target system can run in any hardware environment that supports the required software.

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: Installation requisites identify products that are required and *must* be present on the system or products that are not required but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product. These products are specified as PREs or REQs.

Figure 5 (Page 1 of 2). Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5694-A01	z/OS	V1.13.0	N/A	No
Note: See note 1 on page 11 for required PTFs for JBB778H				

Figure 5 (Page 2 of 2). Target System Mandatory Installation Requisites

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
5694-A01	z/OS BCP JPN FMID JBB778J required if installing JBB778K FMID	V1.13.0	N/A	No
Note: See note 2 on page 11 for required PTFs for JBB778K				

Note: Installation might require migration to new z/OS releases to be service supported. See http://www-03.ibm.com/systems/z/os/zos/support/zos_eos_dates.html.

Notes:

1. These are the required PTFs for JBB778H:

UA60104	UA61668	UA62955	UA64425	UA66335
UA60826	UA61696	UA62967	UA64657	UA66365
UA60923	UA61801	UA63009	UA65136	UA66372
UA61134	UA62206	UA63106	UA65665	UA66429
UA61259	UA62375	UA63185	UA66060	UA66494
UA61648	UA62387	UA63494	UA66122	UA66559
UA61649	UA62850	UA63989	UA66304	

2. These are the required PTFs for JBB778K:

UA66561

5.2.2.2 Operational Requisites: Operational requisites are products that are required and *must* be present on the system or products that are not required but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.

Conditional operational requisites identify products that are *not* required for this product to operate its basic functions but are required at run time for this product to operate specific functions.

Figure 6. Target System Conditional Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level	Function
5694-A01	z/OS RMF V01.13 with APAR OA38660 (HRM7780 - UA66440; JRM778J - UA66441)	RMF support for Storage Class Memory
5694-A01	z/OS High Level Assembler V01.13 with APAR PM49761 (HMQ4160 - UK81531)	New Hardware Support

5.2.2.3 Toleration/Coexistence Requisites: z/OS V1R13 RSM Enablement Offering has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites: z/OS V1R13 RSM Enablement Offering has no negative requisites.

5.2.3 DASD Storage Requirements

z/OS V1R13 RSM Enablement Offering libraries can reside on all supported DASD types.

Figure 7 lists the total space that is required for each type of library.

Figure 7. Total DASD Space Required by z/OS V1R13 RSM Enablement Offering

Library Type	Total Space Required in 3390 Trks
Target	41
Distribution	151
File System	0

Note:

- For non-RECFM U data sets, IBM recommends using system-determined block sizes for efficient DASD utilization. For RECFM U data sets, IBM recommends using a block size of 32760, which is most efficient from the performance and DASD utilization perspective.
- Abbreviations used for data set types are shown as follows.
 - U** Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.
 - S** Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

E Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

For more information about the names and sizes of the required data sets, see 6.1.4, “Allocate SMP/E Target and Distribution Libraries” on page 18.

3. All target and distribution libraries listed have the following attributes:

- The default name of the data set can be changed.
- The default block size of the data set can be changed.
- The data set can be merged with another data set that has equivalent characteristics.
- The data set can be either a PDS or a PDSE.

4. All target libraries listed have the following attributes:

- These data sets can be SMS-managed, but they are not required to be SMS-managed.
- These data sets are not required to reside on the IPL volume.
- The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.

5. All target libraries that are listed and contain load modules have the following attributes:

- These data sets can be in the LPA, but they are not required to be in the LPA.
- These data sets can be in the LNKLIST.
- These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries required to install z/OS V1R13 RSM Enablement Offering. The storage requirements of z/OS V1R13 RSM Enablement Offering must be added to the storage required by other programs that have data in the same library.

Note: Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

<i>Figure 8 (Page 1 of 2). Storage Requirements for z/OS V1R13 RSM Enablement Offering Target Libraries</i>								
Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C O M	L R E C L	No. of 3390 Trks	No. of DIR Blks
HELP	HELP	TVOL1	E	PDS	FB	80	0	0
LINKLIB	LMOD	TVOL1	E	PDS	U	0	0	0
LPALIB	LMOD	TVOL1	E	PDS	U	0	14	0
MACLIB	Macro	TVOL2	E	PDS	FB	80	0	1
MIGLIB	LMOD	TVOL1	E	PDS	U	0	0	1

Figure 8 (Page 2 of 2). Storage Requirements for z/OS V1R13 RSM Enablement Offering Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
MODGEN	Macro	TVOL2	E	PDS	FB	80	25	0
MSGENU	MSG	TVOL2	E	PDS	VB	259	0	0
MSGJPN	MSG	TVOL2	E	PDS	VB	259	0	0
NUCLEUS	LMOD	TVOL1	E	PDS	U	0	0	0
PARMLIB	Parm	TVOL1	E	PDS	FB	80	0	0
SAXREXEC	Data	TVOL2	E	PDS	VB	255	2	0
SBLSLCI0	Clist	TVOL1	E	PDS	FB	80	0	0
SBLSPNL0	Panel	TVOL1	E	PDS	FB	80	0	0

Figure 9. Storage Requirements for z/OS V1R13 RSM Enablement Offering Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AAXREXEC	E	PDS	VB	255	2	0
ABLSCLI0	E	PDS	FB	80	0	0
ABLSPNL0	E	PDS	FB	80	0	0
AHELP	E	PDS	FB	80	0	0
ALINKLIB	E	PDS	U	0	0	0
AMACLIB	E	PDS	FB	80	123	0
AMIGLIB	E	PDS	U	80	0	0
AMODGEN	E	PDS	FB	80	25	0
AMSGENU	E	PDS	VB	259	0	0
AMSGJPN	E	PDS	VB	259	0	0
AOSCE	E	PDS	U	0	0	0
AOSC5	E	PDS	U	0	0	0
AOS12	E	PDS	U	0	0	0
AOS32	E	PDS	U	0	0	0
APARMLIB	E	PDS	FB	80	1	0

5.3 FMIDs Deleted

FMIDs JBB778H and JBB778K are dependant FMIDs that are installed on base FMID HBB7780, therefore, installing FMID JBB778H and JBB778K does not result in the deletion of other FMIDs.

5.4 Special Considerations

z/OS V1R13 RSM Enablement Offering has no special considerations for the target system.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of z/OS V1R13 RSM Enablement Offering.

Please note the following points:

- If you want to install z/OS V1R13 RSM Enablement Offering into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing z/OS V1R13 RSM Enablement Offering

6.1.1 SMP/E Considerations for Installing z/OS V1R13 RSM Enablement Offering

RSM Enablement Offering is packaged using the SMP/E GIMZIP function. The SMP/E GIMUNZIP function is required to process the downloaded package. Refer to z/OS SMP/E Reference for information about using GIMZIP and GIMUNZIP.

You need to ensure that you have met the driving system requirements documented in "Driving System Requirements" in this program directory.

You will need to perform the following tasks:

1. Allocate a R/W file system directory on the z/OS driving system where the downloaded package will be staged.
2. The RSM Enablement Offering package is available from URL
<http://www-03.ibm.com/systems/z/os/zos/downloads/>

Download the README.txt file from the web. Make sure this file is transferred from the download site as a text file. This README.txt file is a sample job that performs the following tasks:

- Executes the z/OS UNIX System Services pax command to extract the GIMZIP archives from the downloaded package.
- Executes the GIMUNZIP program to expand the GIMZIP archives and places their contents in data sets that can be processed by SMP/E.
- Executes the SMP/E RECEIVE from DASD function to receive the FMID.

This job must be updated to reflect your environment.

Download the pax file from the web. The pax file contains the SMPMCS and the associated RELFILES. The pax file must be transferred from the Web and to the host system in binary format.

3. Update and run the sample job provided in the README.txt file. This job will perform the required tasks up to and including the SMP/E RECEIVE from DASD step.

After the SMP/E RECEIVE of the RSM Enablement Offering has successfully completed, use the SMP/E APPLY and ACCEPT commands to install RSM Enablement Offering. Instructions and sample jobs are provided later in this program directory.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 10. Using values lower than the recommended values can result in failures in the installation. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. See the SMP/E manuals for instructions on updating the global zone.

<i>Figure 10. SMP/E Options Subentry Values</i>		
Subentry	Value	Comment
DSSPACE	Existing target CSI value	IBM recommends using the existing target system CSI DSSPACE value.
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 Perform SMP/E RECEIVE

When you install z/OS V1R13 RSM Enablement Offering as a Web download package, the SMP/E RECEIVE is performed during the execution of the README file. In this case, you can skip this section and continue with the next section of the program directory.

6.1.4 Allocate SMP/E Target and Distribution Libraries

All data sets used by z/OS V1R13 RSM Enablement Offering are the same as those used for z/OS V1R13, so no new allocations are required.

6.1.5 Create DDDEF Entries

All DDDEFs used by z/OS V1R13 RSM Enablement Offering are the same as those used for z/OS V1R13, so no new DDDEFs are required.

6.1.6 Perform SMP/E APPLY

Ensure that you have the latest HOLDDATA; then edit and submit a sample job, as shown in Figure 11 on page 20, to perform an SMP/E APPLY CHECK for z/OS V1R13 RSM Enablement Offering.

The latest HOLDDATA is available through several different portals, including <http://service.software.ibm.com/holddata/390holddata.html>. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

You should install the FMIDs regardless of the status of unresolved HIPER or FIXCAT APARs. However, do not deploy the software until the unresolved HIPER and FIXCAT APARs have been analyzed to determine their applicability. That is, before deploying the software either ensure fixing PTFs are applied to resolve all HIPER or FIXCAT APARs, or ensure the problems reported by all HIPER or FIXCAT APARs are not applicable to your environment.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the APPLY CHECK. The SMP/E root cause analysis identifies the cause only of *errors* and not of *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings, instead of errors).

Here are sample APPLY commands:

1. To ensure that all recommended and critical service is installed with the FMIDs, receive the latest HOLDDATA and use the APPLY CHECK command as follows

```
APPLY S(JBB778H,JBB778K) CHECK
FORFMID(JBB778H,JBB778K)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND .
```

If you are not installing FMID JBB778K, the language FMID, then you must remove FMID JBB778K from the SELECT and FORFMID operands shown in the example above.

Some HIPER APARs might not have fixing PTFs available yet. You should analyze the symptom flags for the unresolved HIPER APARs to determine if the reported problem is applicable to your environment and if you should bypass the specific ERROR HOLDS in order to continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixing PTFs available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

2. To install the FMIDs without regard for unresolved HIPER APARs, you can add the BYPASS(HOLDCLASS(HIPER)) operand to the APPLY CHECK command. This will allow you to install FMIDs even though one or more unresolved HIPER APARs exist. After the FMIDs are

installed, use the SMP/E REPORT ERRSYSMODS command to identify unresolved HIPER APARs and any fixing PTFs.

```
APPLY S(JBB778H,JBB778K) CHECK
FORFMID(JBB778H,JBB778K)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
..any other parameters documented in the program directory
```

If you are not installing FMID JBB778K, remove JBB778K from the SELECT and FORFMID operands shown in the example above.

This method is the quicker, but requires subsequent review of the Exception SYSMOD report produced by the REPORT ERRSYSMODS command to investigate any unresolved HIPERs. If you have received the latest HOLDDATA, you can also choose to use the REPORT MISSINGFIX command and specify Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

If you bypass HOLDS during the installation of the FMIDs because fixing PTFs are not yet available, you can be notified when the fixing PTFs are available by using the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink.

After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

A sample APPLY job is shown below.

```
//APPLY JOB
//STEP1 EXEC PGM=GIMSMP,REGION=0M,TIME=NOLIMIT
//SMPCSI DD DSN=csiname,DISP=SHR
//SMPCNTL DD *
  SET BOUNDARY(targetzone) .
  APPLY CHECK
  FORFMID(JBB778H,JBB778K)
  SELECT(JBB778H,JBB778K)
  GROUPEXTEND(NOAPARS,NOUSERMODS)
  SOURCEID(RSU*)
  FIXCAT(IBM.ProductInstall-RequiredService)
  BYPASS(HOLDSYSTEM,
  HOLDUSER,HOLDCLASS(UCLREL,ERREL,HIPER)) .
/*
```

Figure 11. SMP/E APPLY for z/OS V1R13 RSM Enablement Offering

Required Updates

1. Update the job parameters.
2. Replace the csiname on the SMPCSI DD statement with your CSI name.
3. Update targetzone to your target zone name.
4. If you are not installing FMID JBB778K, remove the FMID from the sample job before running the job.

Note: The GROUPEXTEND operand indicates that SMP/E applies all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from APPLY CHECK: You will receive a return code of 0 if this job runs correctly.

Expected Return Codes and Messages from APPLY: You will receive a return code of 0 if this job runs correctly.

6.1.7 Perform SMP/E ACCEPT

Edit and submit a sample job, as shown in Figure 12 on page 22, to perform an SMP/E ACCEPT CHECK for z/OS V1R13 RSM Enablement Offering.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the PRE, ID, REQ, and IFREQ on the ACCEPT CHECK. The SMP/E root cause analysis identifies the cause of only *errors* but not *warnings* (SMP/E treats bypassed PRE, ID, REQ, and IFREQ conditions as warnings rather than errors).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E Commands book for details.

After you take actions that are indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

A sample accept job is shown below:

```

//ACCEPT JOB
//STEP1 EXEC PGM=GIMSMP,REGION=0M,TIME=NOLIMIT
//SMPCSI DD DSN=csiname,DISP=SHR
//SMPCNTL DD *
    SET BOUNDARY(dlibzone) .
    ACCEPT CHECK
    FORFMID(JBB778H,JBB778K)
    SELECT(JBB778H,JBB778K)
    GROUPEXTEND(NOAPARS,NOUSERMODS)
    SOURCEID(RSU*)
    FIXCAT(IBM.ProductInstall-RequiredService)
    BYPASS(HOLDSYSTEM,
    HOLDUSER,HOLDCLASS(UCLREL,ERREL,HIPER)) .
/*

```

Figure 12. SMP/E ACCEPT for z/OS V1R13 RSM Enablement Offering

Required Updates

1. Update the job parameters.
2. Replace the csiname on the SMPCSI DD statement with your CSI name.
3. Update dlibzone to your dlib zone name.
4. If you are not installing FMID JBB778K, remove the FMID from the sample job before running the job.

Note: The GROUPEXTEND operand indicates that SMP/E accepts all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

Expected Return Codes and Messages from ACCEPT CHECK: You will receive a return code of 0 if this job runs correctly.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edit or bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

Expected Return Codes and Messages from ACCEPT: You will receive a return code of 0 if this job runs correctly.

6.1.8 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command identifies requisites for products that are installed in separate zones. This command also creates APPLY and ACCEPT commands in the SMPPUNCH data set. You can use the APPLY and ACCEPT commands to install those cross-zone requisites that the SMP/E REPORT CROSSZONE command identifies.

After you install z/OS V1R13 RSM Enablement Offering, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries that describe all the target and distribution libraries to be reported on.

For more information about REPORT CROSSZONE, see the SMP/E manuals.

6.2 Migration Considerations

Please refer to Summary of Message and Interface Changes (SA22-7505-20), z/OS MVS System Messages Volume 6 (GOS - IEA) (SA22-7636-24), z/OS MVS System Messages Volume 7 (IEB - IEE) (SA22-7637-24), and z/OS MVS System Messages Volume 9 (IGF - IWM) (SA22-7639-22) for information on the message changes.

Refer to z/OS V1R13 Migration (GA22-7499-21) for migration actions associated with z/OS V1R13 RSM Enablement Offering.

6.3 Activating z/OS V1R13 RSM Enablement Offering

For exploitation details for the z/OS V1R13 RSM Enablement Offering, see z/OS MVS Initialization and Tuning Guide, z/OS MVS Initialization and Tuning Reference, and z/OS MVS System Commands.

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APAR numbers are provided in this document to assist in locating PTFs that may be required. Ongoing problem reporting may result in additional APARs being created. Therefore, the APAR lists in this document may not be complete. To obtain current service recommendations and to identify current product service requirements, always contact the IBM Customer Support Center or use S/390 SoftwareXcel to obtain the current "PSP Bucket".

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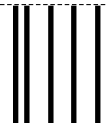
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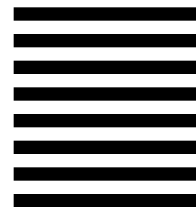
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