



**Program Directory for
IBM IMS Sysplex Manager for z/OS**

V01.03.00

Program Number 5655-P01

FMIDs H31S130, H32A130

for Use with
z/OS

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Note!

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 29.

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1.0 Introduction

This Program Directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of IBM IMS Sysplex Manager for z/OS. This publication refers to IBM IMS Sysplex Manager for z/OS as IMS Sysplex Manager.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 4 identifies the basic and optional program materials and documentation for IMS Sysplex Manager.
- 3.0, “Program Support” on page 8 describes the IBM support available for IMS Sysplex Manager.
- 4.0, “Program and Service Level Information” on page 10 lists the APARs (program level) and PTFs (service level) incorporated into IMS Sysplex Manager.
- 5.0, “Installation Requirements and Considerations” on page 12 identifies the resources and considerations required for installing and using IMS Sysplex Manager.
- 6.0, “Installation Instructions” on page 21 provides detailed installation instructions for IMS Sysplex Manager. It also describes the procedures for activating the functions of IMS Sysplex Manager, or refers to appropriate publications.

Before installing IMS Sysplex Manager, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that were supplied with this program in softcopy form as well as this Program Directory and then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 8 tells you how to find any updates to the information and procedures in this Program Directory.

IMS Sysplex Manager is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory is provided in softcopy form on the CBPDO tape which is identical to the hardcopy form provided with your order. All service and HOLDDATA for IMS Sysplex Manager are included on the CBPDO tape.

Do not use this Program Directory if you are installing IMS Sysplex Manager with a SystemPac or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the Program Directory as required.

1.1 IMS Sysplex Manager Description

IMS Sysplex Manager for z/OS, V1.3 (5655-P01) lets you manage multiple IMS systems in a sysplex or IMSplex environment. It supports real-time display of IMS sysplex and IMSplex-related information. IMS Sysplex Manager helps IMS system programmers, operations personnel, DBAs, and help-desk personnel administer an IMS Sysplex environment by centralizing sysplex information through a single interface. This capability enables you to drill down to the areas of information that you need to access in order to keep IMS availability high.

IMS Sysplex Manager provides features that assist you in managing data sharing, shared message queues, and IMSplex Common Service layer (CSL) components such as the Operations Manager (OM), Resource Manager (RM), Open Database Manager (ODBM), and Structured Call Interface (SCI).

You can use IMS Sysplex Manager to perform the following tasks:

- Display real-time data:
 - Generated by IMS systems that are running in a sysplex or IMSplex
 - Related to the CSL components that are associated with the IMSplex environment
 - Of Coupling Facility (CF) structures used by IMS
- View and delete IMSplex Resource Manager structure entries.
- Monitor Destination Queue depths and manage messages on the Shared Queues.
- Observe IRLM long locks and view IRLM statistics.
- Control the operation of IMS systems in a sysplex environment.

IMS Sysplex Manager supports IMS in varying environments. For example:

- An IMSplex environment where the IMS system makes use of the CSL and SCI, OM, ODBM and RM components
- A SMplex where IMS exists in a sysplex or IMS sysplex

IMS Sysplex Manager for z/OS, V1.3 provides the following new features and enhancements that enable you to:

- Define transactions by name or by attribute that have an affinity to one or more IMS systems in the Shared Queue group.
- Protect the IMS control region from out of storage outage by monitoring and taking automatic actions against run-away transactions in the Shared Queue environment.
- Delete multiple RM structure entries. Structure entries can now be deleted by resource type or by owner.
- Collect console dumps of IMS address spaces and CF structures around the sysplex for one or more IMS components.
- View Fast Database Recovery (FDBR), Open Database Manager (ODBM), and IMS Connect in the Component List display.
- Display the following information:
 - Additional status data for the CSL RM structure entries to help you in determining when it is safe to delete entries off the structure
 - Real-time PI Locking Data
 - DBRC information on RECON placement and RECON VSAM statistics
 - In-memory queue buffer utilization

- History data set information such as utilization and activities
- Auto-refresh drill down panels (panels with changing statistics).
- Identify which job or task uses the most IRLM structure.
- Generate exceptions for user-defined thresholds.

Additionally, the display of information in IMS Sysplex Manager is now enhanced. For example:

- For ease of use, the IMS Sysplex Manager ISPF panels were redesigned to give you the same look and feel as the IMS ISPF panels.
- The display of dependent regions was redesigned and now shows vital data on the first panel such as number of locks held, a cross-memory state indicator, and a submenu for drill down data.
- More detailed description is provided for IMS runtime parameters.

1.2 IMS Sysplex Manager FMIDs

IMS Sysplex Manager consists of the following FMIDs:

H31S130 IMS Sysplex Manager
H32A130 IMS Tools Generic Exits

Important information with regard to FMID H32A130

Refer to Chapter 5.4, “Special Considerations” on page 19 for successor information.

2.0 Program Materials

An IBM program is identified by a program number and a feature number. The program number for IMS Sysplex Manager is 5655-P01 and its feature number is 6000.

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. Optional Machine-Readable Materials are orderable under separate feature numbers, and are not required for the product to function.

The program announcement material describes the features supported by IMS Sysplex Manager. 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 magnetic tape or downloadable files. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, "Installation Instructions" on page 21 for more information about how to install the program.

Figure 1 describes the program file content for IMS Sysplex Manager.

Figure 2 on page 5 describes the program file content for IMS Tools Generic Exits.

You can refer to the *CBPDO Memo To Users Extension* to see where the files reside on the tape.

Notes:

1. The data set attributes in this table should be used in the JCL of jobs reading the data sets, but since the data sets are in IEBCOPY unloaded format, their actual attributes may be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

<i>Figure 1 (Page 1 of 2). Program File Content for H31S130 - IMS Sysplex Manager</i>				
Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.H31S130.F1	PDS	FB	80	8800
IBM.H31S130.F2	PDS	FB	80	8800
IBM.H31S130.F3	PDS	U	0	6144
IBM.H31S130.F4	PDS	FB	80	8800
IBM.H31S130.F5	PDS	FB	80	8800

<i>Figure 1 (Page 2 of 2). Program File Content for H31S130 - IMS Sysplex Manager</i>				
Name	O R G	R E C F M	L R E C L	BLK SIZE
IBM.H31S130.F6	PDS	FB	80	8800
IBM.H31S130.F7	PDS	FB	80	8800
IBM.H31S130.F8	PDS	FB	80	8800

<i>Figure 2. Program File Content for H32A130 - IMS Tools Generic Exits</i>				
Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.H32A130.F1	PDS	FB	80	8800
IBM.H32A130.F2	PDS	U	0	6144
IBM.H32A130.F3	PDS	FB	80	8800
IBM.H32A130.F4	PDS	FB	80	8800
IBM.H32A130.F5	PDS	U	0	6144

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IMS Sysplex Manager.

2.3 Program Publications

The following sections identify the basic and optional publications for IMS Sysplex Manager.

2.3.1 Basic Program Publications

Figure 3 identifies the basic unlicensed program publications for IMS Sysplex Manager. One copy of each of these publications is included when you order the basic materials for IMS Sysplex Manager. For additional copies, contact your IBM representative.

<i>Figure 3. Basic Material: Unlicensed Publications</i>	
Publication Title	Form Number
IBM IMS Sysplex Manager for z/OS License Information	GC18-9550

Figure 4 identifies the basic unlicensed or licensed publications that are not available in hardcopy form, but are available through the internet or other media for IMS Sysplex Manager.

<i>Figure 4. Basic Material: Other Unlicensed or Licensed Publications</i>		
Publication Title	Form Number	How Available
IBM IMS Sysplex Manager for z/OS User's Guide	SC19-2471	http://www.ibm.com/software/data/db2imstools/library.html
Refer to one of the following as appropriate for the Release Level of Tools Base*:		
IBM IMS Tools Base for z/OS: IMS Tools Common Services User's Guide	SC19-2894	http://www.ibm.com/software/data/db2imstools/library.html
IBM Tools Base IMS Tools Common Services for z/OS User's Guide	SC19-3266	http://www.ibm.com/software/data/db2imstools/library.html
IBM Tools Base IMS Tools Common Services for z/OS User's Guide	SC19-3396	http://www.ibm.com/software/data/db2imstools/library.html

*Refer to Chapter 5.4, "Special Considerations" on page 19 and 6.2, "Activating IMS Sysplex Manager" on page 28 for more details.

2.3.2 Optional Program Publications

No optional publications are provided for IMS Sysplex Manager.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IMS Sysplex Manager.

2.5 Publications Useful During Installation

The publications listed in Figure 5 on page 7 may be useful during the installation of IMS Sysplex Manager. To order copies, contact your IBM representative or visit the IBM Publications Center on the World Wide Web at:

<http://www.ibm.com/shop/publications/order>

<i>Figure 5. 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 IMS Sysplex Manager.

3.1 Program Services

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

3.2 Preventive Service Planning

Before installing IMS Sysplex Manager, it is VERY IMPORTANT that you review the current Preventive Service Planning (PSP) information. The PSP buckets maintain current lists (which have been identified since the package was created) of any recommended or required service for this package's installation. This includes software PSP information that contains HIPER, and/or required PTFs against the base release.

While there can be overlap between software, hardware, and functional PSP buckets, reviewing all that apply to this package will ensure that you identify any known service required for your installation of this package.

If you obtained IMS Sysplex Manager as part of a CBPDO, there is HOLDDATA included on the PDO.

If the CBPDO for IMS Sysplex Manager is more than two weeks old when you install it, you should contact the IBM Support Center, use S/390 SoftwareXcel to obtain the current "PSP Bucket" or obtain the current PSP from the Web at <https://techsupport.services.ibm.com/server/390.psp390>

For program support, access the Software Support Web site at <http://www-3.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 IMS Sysplex Manager are:

Figure 6. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
5655P01	H31S130	IMS Sysplex Manager
5655P01	H32A130	IMS Tools Generic Exits

3.3 Statement of Support Procedures

Report any difficulties you have using this program to your IBM Support Center. If an APAR is required, the Support Center will advise how you should submit any needed information or documentation.

Figure 7 on page 9 identifies the component IDs (COMPID) for IMS Sysplex Manager.

<i>Figure 7. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
H31S130	5655P0100	IMS Sysplex Manager	130
H32A130	5655P0101	IMS Tools Generic Exits	130

4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of IMS Sysplex Manager. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs incorporated into the program.

4.1 Program Level Information

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

- FMID H31S120

PK31950	PK34236	PK39621
PK31947	PK34237	PK41373
PK33596	PK35431	PK43046
PK33722	PK35912	PK44248
PK33814	PK37921	PK55709
PK33937	PK38153	PK56100
PK33983	PK38577	PK56662
PK34235	PK39420	PK62736

- FMID H32A120

PK32671	PK46891	PK62154
PK34558	PK55913	PK63005
PK37946		

- FMID H2B7120

PK57154
PK63428

4.2 Service Level Information

No PTFs against this release of IMS Sysplex Manager have been incorporated into the product tape.

Over time it is HIGHLY recommended that you frequently check the IMS Sysplex Manager PSP bucket for HIPER and SPECIAL Attention PTFs against all FMIDs which should be installed.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating IMS Sysplex Manager. The following terminology is used:

- *Driving system*: the system used to install the program.

The program may have specific operating system or product level requirements for utilizing processes such as binder or assembly utilities during the install.

- *Target system*: the system on which the program is intended to run.

The program may have specific product level requirements such as needing access to another product's library for link-edits that may directly affect the elements during the install or for its basic or enhanced operation. These requirements may be mandatory or optional.

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should 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.

Some cases where two systems should be used include the following:

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.
- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to 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 IMS Sysplex Manager.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

<i>Figure 8. Driving System Software Requirements</i>	
Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5694-A01	z/OS V01.11.00
5655-G44	SMP/E for z/OS V03.05.00

5.2 Target System Requirements

This section describes the environment of the target system required to install and use IMS Sysplex Manager.

IMS Sysplex Manager installs in the DBS (P115) SREL.

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: An installation requisite is defined as a product that is required and **must** be present or one that is not required but **should** be present on the system for the successful installation of this product.

A mandatory installation requisite identifies products that are required, without exception, or this product **will not install** on your system. This includes products specified as PREs or REQs.

<i>Figure 9. Mandatory Installation Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
n/a	IMS Tools Generic Exits, FMID H32A130, at current maintenance level (this FMID is delivered as part of the IMS Sysplex Manager package)*

*For detailed information for IMS Tools Generic Exits, FMID H32A130, and its successors refer to Chapter 5.4, "Special Considerations" on page 19.

A conditional installation requisite identifies products that are **not** required for successful install but may resolve such things as certain warning messages at installation time. They include products that are specified as IF REQs.

IMS Sysplex Manager has no conditional installation requisites.

5.2.2.2 Operational Requisites: An operational requisite is defined as a product that is required and **must** be present or a product that is not required but **should** be present on the system in order for this product to operate all or some of its functions.

A mandatory operational requisite identifies products that are required, without exception, or this product **will not operate** its basic function unless the requisite is met. This includes products specified as PREs or REQs.

<i>Figure 10. Mandatory Operational Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5635-A01	IMS V10.01.00
5635-A02	IMS V11.01.00
5635-A03	IMS V12.01.00

A conditional operational requisite identifies products that are **not required** for the basic function but are needed at run time for this product to utilize specific functions. They may include products specified as IF REQs.

<i>Figure 11. Conditional Operational Requisites</i>		
Program Number	Product Name and Minimum VRM/Service Level	Function
Any one of the following:		
5635-A01	IMS V10.01.00 with APAR PK55462	For utilizing the Control Region Affinity Support
5635-A02	IMS V11.01.00	For utilizing the Control Region Affinity Support
5635-A03	IMS V12.01.00	For utilizing the Control Region Affinity Support
Any one of the following:		
5635-A01	IMS V10.01.00 with APAR PK54323	For viewing IMS Connect Information
5635-A02	IMS V11.01.00	For viewing IMS Connect Information
5635-A03	IMS V12.01.00	For viewing IMS Connect Information

5.2.2.3 Toleration/Coexistence Requisites: A toleration/coexistence requisite is defined as a product that must be present on a sharing system. These systems can be other systems in a multisystem environment (not necessarily sysplex), a shared DASD environment (such as test and production), or systems that reuse the same DASD at different time intervals.

IMS Sysplex Manager has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites: A negative requisite identifies products that must *not* be installed on the same system as this product.

IMS Sysplex Manager has no negative requisites.

5.2.3 DASD Storage Requirements

IMS Sysplex Manager libraries can reside on all supported DASD types. The values below are for 3390 DASD.

Figure 12 lists the total space required for each type of library.

<i>Figure 12. Total DASD Space Required by IMS Sysplex Manager</i>	
Library Type	Total Space Required in 3390 Trks
Target	410 tracks for H31S130
Target	40 tracks for H32A130
Distribution	596 tracks for H31S130
Distribution	46 tracks for H32A130

Notes:

1. IBM recommends use of system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, IBM recommends a block size of 32760, which is the most efficient from a performance and DASD utilization perspective.
2. Abbreviations used for the data set type are:
 - U** Unique data set, allocated by this product and used only by this product. To determine the correct storage needed for this data set, this table provides all required information; no other tables (or Program Directories) need to be referenced for the data set size.
 - S** Shared data set, allocated by this product and used by this product and others. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to 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 others. This data set is NOT allocated by this product. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This

existing data set must have enough free space to accommodate the storage size given in this table.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old one and reclaim the space used by the old release and any service that had been installed. You can determine whether or not these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

For more information on the names and sizes of the required data sets, please refer to 6.1.7, "Allocate SMP/E Target and Distribution Libraries" on page 24.

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

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

4. All target libraries listed have the following attributes:

- The data set may be SMS-managed.
- It is not required for the data set to be SMS-managed.
- It is not required for the data set to reside on the IPL volume.
- The values in the "Member Type" column are not necessarily the actual SMP/E element types identified in the SMPMCS.

5. All target libraries listed which contain load modules have the following attributes:

- The data set can be placed in the LPA.
- It is not required for the data set to be in the LPA. Ensure that the IMS Sysplex Manager subsystem module GJESS110 is copied to the LPA.
- The data set can be placed in the LNKLST.
- Load libraries SGJELoad and SGLXLOAD, and SFOILOAD must be APF-authorized.

The following figures describe the target and distribution libraries required to install IMS Sysplex Manager. The storage requirements of IMS Sysplex Manager must be added to the storage required by other programs having data in the same library or path.

Note: The data in these tables should be used when determining 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.

Figure 13 (Page 1 of 2). Storage Requirements for IMS Sysplex Manager Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C O R D S	L R E C O R D S	No. of 3390 Trks	No. of DIR Blks
SGJEBASE	Sample	Any	U	PDS	FB	80	5	2

Figure 13 (Page 2 of 2). Storage Requirements for IMS Sysplex Manager 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
SGJECEXE	Exec	Any	U	PDS	FB	80	9	3
SGJELOAD	Module	Any	U	PDS	U	0	126	45
SGJEMLIB	Message	Any	U	PDS	FB	80	6	3
SGJEPLIB	Panel	Any	U	PDS	FB	80	251	20
SGJESAMP	Sample	Any	U	PDS	FB	80	11	2
SGJETLIB	Table	Any	U	PDS	FB	80	2	2

Figure 14. Storage Requirements for IMS Tools Generic Exits 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
SGLXLOAD	Module	Any	S	PDS	U	0	23	12
SGLXMAC	Macro	Any	S	PDS	FB	80	2	3
SGLXSAMP	Sample	Any	S	PDS	FB	80	2	2
SFOILOAD	Module	Any	S	PDS	U	0	13	8

Figure 15. Storage Requirements for IMS Sysplex Manager 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
AGJEBASE	U	PDS	FB	80	5	2
AGJECEXE	U	PDS	FB	80	9	3
AGJELOAD	U	PDS	U	0	279	140
AGJEMLIB	U	PDS	FB	80	6	3
AGJEPLIB	U	PDS	FB	80	284	20
AGJESAMP	U	PDS	FB	80	11	2
AGJETLIB	U	PDS	FB	80	2	2

Figure 16. Storage Requirements for IMS Tools Generic Exits 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
AGLXLOAD	S	PDS	U	0	22	15
AGLXMAC	S	PDS	FB	80	2	3
AGLXSAMP	S	PDS	FB	80	2	2
AFOILOAD	S	PDS	U	0	20	15

5.3 FMIDs Deleted

Installing IMS Sysplex Manager may result in the deletion of other FMIDs. To see what FMIDs will be deleted, examine the ++VER statement in the product's SMPMCS.

If you do not wish to delete these FMIDs at this time, you must install IMS Sysplex Manager into separate SMP/E target and distribution zones.

Note: These FMIDs will not automatically be deleted from the Global Zone. Consult the SMP/E manuals for instructions on how to do this.

5.4 Special Considerations

- The PSP Bucket has the most current information and must be reviewed before installation.
- If not already done so, we strongly recommend that IBM Tools Base for z/OS, V1.3 (formerly known as IBM IMS Tools Base for z/OS) (5655-V93) be ordered and installed instead of using FMID H32A130. Tools Base is a no-charge offering and is separately orderable. The offering is a replacement for many of the shared IMS Tools FMIDs and contains infrastructure used by IBM DB2 and IMS tools. The product offers technologies and common services that are leveraged by IBM tools to provide more uniform post-installation configuration, customization, administration, policy management, access, and autonomies.
- It is recommended to install all the IMS tools that share FMIDs into the same SMP/E target and distribution zones to avoid maintaining multiple instances of these FMIDs. If you use different SMP/E target and distribution zones, you will have to install and maintain multiple instances of the same FMIDs, which will increase your maintenance and DASD requirements.

IMS Sysplex Manager delivers IMS Tools Generic Exits, FMID H32A130. Even though FMID H32A130 is delivered with IMS Sysplex Manager, this FMID has been superseded and replaced several times over the last few years. We recommend not to install it, but install the latest release of Tools Base instead.

If IMS Tools Generic Exits, FMID H32A130 or one of its successor FMIDs, is already installed into the intended distribution and target zones, do not attempt to install FMID H32A130 again.

FMID H32A130 replacement information:

- Replacement: IBM Tools Base for z/OS, V1.3 (5655-V93). The product is no-charge and delivers:
 - FMID HTCZ110 (IBM Tools Customizer for z/OS used by tools enabled to the Tools Customizer)
 - FMID HAHN130 (IBM Tools Base for z/OS)
Note: Larger data sets in terms of DASD space and directory blocks are required. Refer to the applicable Program Directory for required space requirements.

FMID HAHN130, DELETEDs and SUPERSEDEs the following FMIDs:

- IMS Tools Online System Interface, FMID H2B7110 and H2B7120
- IMS Tools Generic Exits, FMID H32A110, H32A120, and H32A130
- IMS Hardware Data Compression Extended, FMID H08J110, H08J120, H22D210, and H22D220
- IMS Tools Knowledge Base, FMID HABW110
- IMS Tools Base for z/OS, V1.1, FMID HAHN110
- Tools Base for z/OS, V1.2, FMID HAHN120

Should you receive FMID H2B7110, H2B7120, H32A110, H32A120, or H32A130 (all shared FMIDs) with another IMS tool, we recommend to not attempt to install any of the superseded FMIDs into this environment. Install and use the latest available level of Tools Base for z/OS instead.

For install instructions of IBM Tools Base for z/OS, see the product's Program Directory (GI10-8819).

For migration and customization information refer to the IBM Tools Base IMS Tools Common Services for z/OS User's Guide at URL:

<http://www.ibm.com/software/data/db2imstools/library.html>

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of IMS Sysplex Manager.

Please note the following:

- If you want to install IMS Sysplex Manager 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.
- Sample jobs have been provided to help perform some or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing IMS Sysplex Manager

6.1.1 SMP/E Considerations for Installing IMS Sysplex Manager

This release of IMS Sysplex Manager is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

6.1.2 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 17. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

SUB-ENTRY	Value	Comment
DSSPACE	(200,200,500)	3390 DASD tracks
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IMS Sysplex Manager:

<i>Figure 18. Sample Installation Jobs</i>			
Job Name	Job Type	Description	RELFILE
GJEALA	SMP/E	Sample job to allocate and initialize a new SMP/E CSI data set (Optional)	IBM.H31S130.F2
GJEALB	SMP/E	Sample job to allocate SMP/E data sets (Optional)	IBM.H31S130.F2
GJERECEV	RECEIVE	Sample RECEIVE job	IBM.H31S130.F2
GJERECV2	RECEIVE	Sample RECEIVE job for IMS Tools Generic Exits	IBM.H31S130.F2
GJEALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.H31S130.F2
GJEALLC2	ALLOCATE	Sample job to allocate target and distribution libraries for IMS Tools Generic Exits	IBM.H31S130.F2
GJEDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.H31S130.F2
GJEDDEF2	DDDEF	Sample job to define SMP/E DDDEFs for IMS Tools Generic Exits	IBM.H31S130.F2
GJEAPPLY	APPLY	Sample APPLY job	IBM.H31S130.F2
GJEACCEP	ACCEPT	Sample ACCEPT job	IBM.H31S130.F2

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 18 to find the appropriate relfile data set.

You may also choose to copy the jobs from the tape or product files by submitting the job below. Use either the //TAPEIN or the //FILEIN DD statement, depending on your distribution medium, and comment out or delete the other statement. Add a job card and change the lowercase parameters to uppercase values to meet your site's requirements before submitting.

```
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//*****
//* Make the //TAPEIN DD statement below active if you install*
//* from a CBPDO tape by uncommenting the DD statement below. *
//*****
//*TAPEIN DD DSN=IBM.H31S130.F2,UNIT=tunit,
//* VOL=SER=volser,LABEL=(x,SL),
//* DISP=(OLD,KEEP)
//*****
//* Make the //TAPEIN DD statement below active if you install*
//* from a product tape received outside the CBPDO process *
```

```

/* (using the optional SMP/E RECEIVE job) by uncommenting      *
/* the DD statement below.                                     *
/******
/*TAPEIN  DD DSN=IBM.H31S130.F2,UNIT=tunit,
/*          VOL=SER=31S130,LABEL=(3,SL),
/*          DISP=(OLD,KEEP)
/******
/* Make the //FILEIN DD statement below active for            *
/* downloaded DASD files.                                     *
/******
/*FILEIN  DD DSN=IBM.H31S130.F2,UNIT=SYSALLDA,DISP=SHR,
/*          VOL=SER=filevol
//OUT     DD DSNAME=jcl-library-name,
//          DISP=(NEW,CATLG,DELETE),
//          VOL=SER=dasdvol,UNIT=SYSALLDA,
//          SPACE=(TRK,(20,10,5))
//SYSUT3  DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN   DD *
          COPY INDD=xxxxIN,OUTDD=OUT
/*

```

In the sample above, update the statements as noted below:

If using TAPEIN:

tunit is the unit address where the product tape is mounted

volser is the volume serial matching the product tape

x is the tape file number where the data set name is on the tape

Refer to the documentation provided by CBPDO to see where IBM.H31S130.F2 is on the tape.

If using FILEIN

filevol is the volume serial of the DASD device where the downloaded files reside.

OUT

jcl-library-name is the name of the output data set where the sample jobs will be stored

dasdvol is the volume serial of the DASD device where the output data set will reside

SYSIN

xxxxIN is either TAPEIN or FILEIN depending on your input DD statement.

6.1.4 Allocate SMP/E CSI (Optional)

If you are using an existing CSI, do not execute this job.

If you are allocating a new SMP/E data set for this install, edit, and submit sample job GJEALA to allocate the SMP/E data set for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

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

6.1.5 Initialize CSI zones (Optional)

Edit and submit sample job GJEALB to initialize SMP/E zones for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

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

6.1.6 Perform SMP/E RECEIVE

Having obtained IMS Sysplex Manager as part of a CBPDO, use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the IMS Sysplex Manager FMIDs as well as any service, HOLDDATA, included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

Note: IMS Tools Generic Exits, FMID H32A130, is a mandatory installation and operational requisite for IMS Sysplex Manager. If you have already installed FMID H32A130 do not attempt to receive this FMID again.

- You can also choose to edit and submit sample job GJERECEV to perform the SMP/E RECEIVE for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

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

- If you are installing FMID H32A130, IMS Tools Generic Exits, edit and submit sample job GJERECV2 to perform the SMP/E RECEIVE for this component. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages for GJERECV2: You will receive a return code 0 if this job runs correctly.

6.1.7 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job GJEALLOC to allocate the SMP/E target and distribution libraries for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

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

If you are installing FMID H32A130, IMS Tools Generic Exits, edit and submit sample job GJEALLC2 to allocate the SMP/E target and distribution libraries for this component. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages for GJEALLC2: You will receive a return code of 0 if this job runs correctly.

6.1.8 Create DDDEF Entries

Edit and submit sample job GJEDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

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

If you are installing FMID H32A130, IMS Tools Generic Exits, edit and submit sample job GJEDDEF2 to create DDDEF entries for the SMP/E target and distribution libraries for this component. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages for GJEDDEF2: You will receive a return code of 0 if this job runs correctly.

6.1.9 Perform SMP/E APPLY

1. Ensure you have the latest Enhanced HOLDDATA, then edit and submit sample job GJEAPPLY to perform an SMP/E APPLY CHECK for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

Enhanced HOLDDATA introduces ERROR HOLDS against FMIDs for HIPER APARs. Prior to installing, you should ensure you have the latest Enhanced HOLDDATA (available at url <http://service.software.ibm.com/holdata/390holddata.html>). The FMID(s) should be installed regardless of the status of unresolved HIPERs, however, the software should not be deployed until the unresolved HIPERs have been analyzed to determine applicability.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the APPLY CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

There are two methods to complete an FMID installation where ++HOLDS for HIPERs exist for the FMID(s) being installed:

- a. To ensure that all recommended and critical service is installed with the FMID(s), add the SOURCEIDs of PRP, HIPER, and RSU* to the APPLY command. There may be PE or HIPER APARs that do not have resolving PTFs available yet. You need to analyze the symptom flags to determine if you want to BYPASS the specific ERROR HOLDS and continue the FMID installation.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(PRP,HIPER,RSU*,...)
GROUPEXTEND .
```

This method requires more initial research, but will provide resolution for all HIPERs that have fixes available and are not in a PE chain. There may still be unresolved PEs or HIPERs that will require the use of BYPASS.

- b. To install the FMID(s) as it would have been installed prior to Enhanced HOLDDATA, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. This will allow the FMID to be installed even though there are HIPER ERROR HOLDS against it. Note that not all ERROR HOLDS were bypassed, only the HIPER ERROR HOLDS. After the FMID(s) are installed, the SMP/E REPORT ERRSYSMODS command should be run to identify any missing HIPER maintenance.

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
..any other parameters documented in the program directory
```

This method is the quicker of the two, but requires subsequent review of the REPORT ERRSYSMODS to investigate any HIPERs.

If you bypass any HOLDS during the installation of the FMID(s) because fixing PTFs were not yet available you can use the APAR Status Tracking (AST) function of ServiceLink or the APAR Tracking function of ResourceLink to be notified when the fixing PTF is available.

2. After you have taken any actions indicated by the APPLY CHECK, remove the CHECK operand and run the job again to perform the APPLY.

Note: The GROUPEXTEND operand indicates that SMP/E apply 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.

6.1.10 Perform SMP/E ACCEPT

Edit and submit sample job GJEACCEP to perform an SMP/E ACCEPT CHECK for IMS Sysplex Manager. Consult the instructions in the sample job for more information.

To receive the full benefit of the SMP/E Causer SYSMOD Summary Report, do *not* bypass the following on the ACCEPT CHECK: PRE, ID, REQ, and IFREQ. This is because the SMP/E root cause analysis identifies the cause only of **ERRORS** and not of **WARNINGS** (SYSMODs that are bypassed are treated as warnings, not errors, by SMP/E).

Before using SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. This will cause entries produced from JCLIN to be saved in the distribution zone whenever a SYSMOD containing inline JCLIN is ACCEPTed. For more information on the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

Once you have taken any actions indicated by the ACCEPT CHECK, remove the CHECK operand and run the job again to perform the ACCEPT.

Note: The GROUPEXTEND operand indicates that SMP/E accept 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 containing replacement modules are being ACCEPTed, SMP/E ACCEPT processing will link-edit/bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder may issue messages documenting unresolved external references, resulting in a return code of 4 from the ACCEPT step. These messages can be ignored, because the distribution libraries are not executable and the unresolved external references will 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.

6.1.11 Run REPORT CROSSZONE

The SMP/E REPORT CROSSZONE command will identify requisites defined for products that have been installed in separate zones. This command will also create APPLY and ACCEPT commands in the SMPPUNCH data set that you can use to install those cross-zone requisites it identifies.

After you have installed IMS Sysplex Manager, 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 describing all the target and distribution libraries to be reported on.

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

6.1.12 Cleaning Up Obsolete Data Sets, and DDDEFs

Note!

This section only applies to those customers that have IMS Tools Online System Interface, FMID H2B7110 or FMID H2B7120, installed on their system and have completed the installation of the successor IMS Tools Generic Exits, FMID H32A130, into the same target and distribution zones.

The following data sets, allocated and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete data sets after you delete the previous release from your system.

- AFOIMAC
- SFOIMAC

The following DDDEF entries, created and used by previous releases of this product, are no longer used in this release. You may choose to delete these obsolete DDDEF entries after you delete the previous release from your system.

- AFOIMAC
- SFOIMAC

6.2 Activating IMS Sysplex Manager

For customization and use of IMS Sysplex Manager for z/OS refer to IMS Sysplex Manager for z/OS User's Guide, SC19-2471.

Additionally, refer to one of the following as appropriate for the release level of Tools Base:

- IBM IMS Tools Base for z/OS: IMS Tools Common Services User's Guide SC19-2894, or
- IBM Tools Base IMS Tools Common Services for z/OS User's Guide SC19-3266, or
- IBM Tools Base IMS Tools Common Services for z/OS User's Guide SC19-3396

These publications can be found at URL: <http://www.ibm.com/software/data/db2imstools/library.html>

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Program Directory for IBM IMS Sysplex Manager for z/OS, February 2012

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1	2	3	4	5	N	

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Ease of product installation	1	2	3	4	5	N
Contents of Program Directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	1	2	3	4	5	N
Readability and organization of Program Directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
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