Program Directory for
IBM Tivoli OMEGAMON XE for Storage on z/OS

V5.3.0
Program Number 5698-T05

for Use with
z/OS

Document Date: September 2014
Note

Before using this information and the product it supports, be sure to read the general information under 7.0, “Notices” on page 33.

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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 IBM Tivoli OMEGAMON XE for Storage on z/OS. This publication refers to IBM Tivoli OMEGAMON XE for Storage on z/OS as OMEGAMON XE for Storage on z/OS.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 4 identifies the basic program materials and documentation for OMEGAMON XE for Storage on z/OS.
- 3.0, “Program Support” on page 7 describes the IBM support available for OMEGAMON XE for Storage on z/OS.
- 4.0, “Program and Service Level Information” on page 9 lists the APARs (program level) and PTFs (service level) that have been incorporated into OMEGAMON XE for Storage on z/OS.
- 5.0, “Installation Requirements and Considerations” on page 10 identifies the resources and considerations that are required for installing and using OMEGAMON XE for Storage on z/OS.
- 6.0, “Installation Instructions” on page 23 provides detailed installation instructions for OMEGAMON XE for Storage on z/OS. It also describes the procedures for activating the functions of OMEGAMON XE for Storage on z/OS, or refers to appropriate publications.

Before installing OMEGAMON XE for Storage on z/OS, read the CBPDO Memo To Users and the CBPDO Memo To Users Extension that are supplied with this program in softcopy format and this program directory; then keep them for future reference. Section 3.2, “Preventive Service Planning” on page 7 tells you how to find any updates to the information and procedures in this program directory.

OMEGAMON XE for Storage on z/OS is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The program directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for OMEGAMON XE for Storage on z/OS are included on the CBPDO tape.

Do not use this program directory if you install OMEGAMON XE for Storage on z/OS with a SystemPac or ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this program directory as needed.
1.1 OMEGAMON XE for Storage on z/OS Description

IBM Tivoli introduces significant updates to IBM Tivoli OMEGAMON Performance Monitors for key System z environments designed to run on IBM Tivoli Monitoring V6.3.0 Fix Pack 2 or higher and deliver enhanced capabilities designed to:

- Improve problem resolution efficiency by requiring fewer steps to isolate root cause performance impact in real time, therefore providing higher availability.
- Improve visibility, control, and automation with the more comprehensive 3270-based user interface capable of viewing the entire enterprise-wide environment from a single 3270 screen.
- Reduce the time required for installation, configuration, and maintenance by utilizing enhanced IBM Tivoli Monitoring and PARMGEN configuration tool functions. You must migrate your Configuration Tool (ICAT) setting to PARMGEN at APAR OA45024 level (HKCI310 PTF UA73689) since the Configuration Tool is no longer supported.

OMEGAMON XE for Storage on z/OS is the comprehensive monitor for z/OS I/O subsystem performance and storage availability. The product combines comprehensive storage performance monitoring with a flexible, easy-to-use browser interface that helps you clearly understand storage conditions and ensure optimal performance. Specifically, you use Tivoli OMEGAMON XE for Storage on z/OS to manage the performance and availability of mainframe attached storage (including disk, tape devices, and virtual tape devices) and the data sets that are located on them. The product also features in-depth analysis of the following three key components of IBM storage software:

- Data Facility Systems Managed Storage (DFSMS), which manages the service levels and priorities of data sets based on user created storage goals.
- Data Facility Hierarchical Storage Manager (DFSMShsm), which manages backup of data based on usage patterns.
- Data Facility Removable Media Manager (DFSMSrmm), which manages tape volumes across multiple systems, including the data sets on the volumes.

New in OMEGAMON XE for Storage on z/OS V5.3.0:

- Reduction in TCO by reducing CPU required to collect volume space and cache subsystem statistics.
- Ability to extract Dataset Attribute Groups into a spread sheet for detailed analysis.
- Enhancements to further increase the usability and functionality of the enhanced 3270 user interface (3270UI):
  - Supports near term history for the enhanced 3270 user interface workspaces.
  - Support for embedded data.
- Leverages Tivoli Monitoring and the self-describing agent autonomic capability to remove the necessity for using application CDs to manually synchronize management servers and agents.
1.2 OMEGAMON XE for Storage on z/OS FMIDs

OMEGAMON XE for Storage on z/OS consists of the following FMIDs:

- HKS3530
- HKOB730
- HKS8730
2.0 Program Materials

An IBM program is identified by a program number. The program number for OMEGAMON XE for Storage on z/OS is 5698-T05.

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 OMEGAMON XE for Storage on z/OS. 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 physical media or downloadable files. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, “Installation Instructions” on page 23 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for OMEGAMON XE for Storage on z/OS in the CBPDO Memo To Users Extension.

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for OMEGAMON XE for Storage on z/OS.

2.3 Program Publications

The following sections identify the basic publications for OMEGAMON XE for Storage on z/OS.

Figure 1 identifies the basic unlicensed publications for OMEGAMON XE for Storage on z/OS.

The unlicensed documentation for OMEGAMON XE for Storage on z/OS can be found on the IBM Knowledge Center at http://www.ibm.com/support/knowledgecenter/SS2JFP/welcome.

<table>
<thead>
<tr>
<th>Figure 1 (Page 1 of 2). Basic Material: Unlicensed Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication Title</td>
</tr>
<tr>
<td>Planning and Configuration Guide</td>
</tr>
<tr>
<td>User's Guide</td>
</tr>
<tr>
<td>Tuning Guide</td>
</tr>
<tr>
<td>Troubleshooting Guide</td>
</tr>
</tbody>
</table>
Prior to installing OMEGAMON XE for Storage on z/OS, IBM recommends you review the Quick Start guide as well as the Planning and Configuration guides if you have not already done so. This documentation focuses on the things you will need to know for a successful installation and configuration of this product.

Refer to the Program Directory for IBM Tivoli Management Services on z/OS (GI11-4105) for a complete documentation list and installation instructions for its product components.

## 2.4 Program Source Materials

No program source materials or viewable program listings are provided for OMEGAMON XE for Storage on z/OS.
2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 2 during the installation of OMEGAMON XE for Storage on z/OS.

<table>
<thead>
<tr>
<th>Publication Title</th>
<th>Form Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM SMP/E for z/OS User's Guide</td>
<td>SA22-7773</td>
</tr>
<tr>
<td>IBM SMP/E for z/OS Commands</td>
<td>SA22-7771</td>
</tr>
<tr>
<td>IBM SMP/E for z/OS Reference</td>
<td>SA22-7772</td>
</tr>
<tr>
<td>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</td>
<td>GA22-7770</td>
</tr>
</tbody>
</table>

These publications can be obtained from the IBM Publications Center website at http://www.ibm.com/shop/publications/order/.
3.0 Program Support

This section describes the IBM support available for OMEGAMON XE for Storage on z/OS.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install OMEGAMON XE for Storage on z/OS, 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 6.1.9, “Perform SMP/E APPLY” on page 28 for a sample APPLY command.

If you obtained OMEGAMON XE for Storage on z/OS as part of a CBPDO, HOLDDATA is included.

If the CBPDO for OMEGAMON XE for Storage on z/OS is older than two weeks by the time you install the product materials, you can obtain the latest PSP Bucket information by going to the following website:


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 OMEGAMON XE for Storage on z/OS are included in Figure 3.

This product has an installation requirement for IBM Tivoli Management Services on z/OS V6.3.0 or higher (5698-A79), so you should review the PSP buckets for it as well. Refer to the Program Directory for IBM Tivoli Management Services on z/OS (GI11-4105) for those UPGRADE and SUBSET values.
### 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 4 identifies the component IDs (COMPID) for OMEGAMON XE for Storage on z/OS.

#### Figure 4. Component IDs

<table>
<thead>
<tr>
<th>FMID</th>
<th>COMPID</th>
<th>Component Name</th>
<th>RETAIN Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>HKS3530</td>
<td>5608A1000</td>
<td>OMEGAMON XE for Storage on z/OS</td>
<td>530</td>
</tr>
<tr>
<td>HKOB730</td>
<td>5608A41OB</td>
<td>OMNIMON Base</td>
<td>730</td>
</tr>
<tr>
<td>HKSB730</td>
<td>5608A41SP</td>
<td>Shared Probes</td>
<td>730</td>
</tr>
</tbody>
</table>
4.0 Program and Service Level Information

This section identifies the program and relevant service levels of OMEGAMON XE for Storage on z/OS. 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 components included with OMEGAMON XE for Storage on z/OS have been incorporated into this release. They are listed by FMID.

- FMID HKS3530
  0A42900 0A43141 0A43253 0A43448 0A43607 0A43672 0A43714 0A43789
  0A43837 0A43916 0A44194 0A44279 0A44359 0A44380 0A44448 0A44451
  0A44569 0A44677

- FMID HKOB730
  0A38724 0A38914 0A39194 0A39399 0A39622 0A39639 0A39649 0A39671
  0A39889 0A40088 0A40373 0A40429 0A40800 0A40853 0A40973 0A41117
  0A41153 0A41333 0A41451 0A41552 0A41669 0A41694 0A42127 0A42259
  0A42748 0A42958 0A43096 0A43163 0A43364 0A43638

- FMID HKS8730
  0A43611 0A45090

4.2 Service Level Information

No PTFs against this release of OMEGAMON XE for Storage on z/OS have been incorporated into the product package.
5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating OMEGAMON XE for Storage on z/OS. The following terminology is used:

- **Driving system**: the system on which SMP/E is executed to install the program.
- **Target system**: the system on which the program is configured and run.

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 OMEGAMON XE for Storage on z/OS.

#### 5.1.1 Machine Requirements

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

Note: SMP/E is a requirement for Installation and is an element of z/OS but can also be ordered as a separate product, 5655-G44, minimally V03.05.00.

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.

5.2 Target System Requirements

This section describes the environment of the target system required to install and use OMEGAMON XE for Storage on z/OS.

OMEGAMON XE for Storage on z/OS installs in the z/OS (Z038) 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

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.
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.

Conditional installation requisites identify products that are not required for successful installation of this product but can resolve such things as certain warning messages at installation time. These products are specified as IF REQs.

OMEGAMON XE for Storage on z/OS has no conditional installation requisites.

### 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.

#### Figure 6. Target System Mandatory Installation Requisites

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name</th>
<th>Minimum VRM</th>
<th>Minimum Service Level will satisfy these APARs</th>
<th>Included in the shipped product?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5694-A01</td>
<td>z/OS</td>
<td>V01.13.00</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>5650-ZOS</td>
<td>z/OS</td>
<td>V02.01.00</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>5698-A79</td>
<td>IBM Tivoli Management Services on z/OS</td>
<td>V06.03.00</td>
<td>N/A</td>
<td>No</td>
</tr>
</tbody>
</table>

#### Figure 7. Target System Mandatory Operational Requisites

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5694-A01</td>
<td>z/OS V01.13.00</td>
</tr>
<tr>
<td>5650-ZOS</td>
<td>z/OS V02.01.00</td>
</tr>
<tr>
<td>5698-A79</td>
<td>IBM Tivoli Management Services on z/OS V06.03.00 or higher</td>
</tr>
</tbody>
</table>

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. These products are specified as IF REQs.
5.2.2.3 Toleration/Coexistence Requisites

Toleration/coexistence requisites identify products that must be present on sharing systems. 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 environment at different time intervals.

OMEGAMON XE for Storage on z/OS has no toleration/coexistence requisites.

5.2.2.4 Incompatibility (Negative) Requisites

Negative requisites identify products that must not be installed on the same system as this product.

OMEGAMON XE for Storage on z/OS has no negative requisites.

5.2.3 DASD Storage Requirements

OMEGAMON XE for Storage on z/OS libraries can reside on all supported DASD types.

Figure 8 lists the total space that is required for each type of library.

<table>
<thead>
<tr>
<th>Library Type</th>
<th>Total Space Required in 3390 Trks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>1890</td>
</tr>
<tr>
<td>Distribution</td>
<td>1556</td>
</tr>
</tbody>
</table>

Notes:

1. If you are installing into an existing environment that has the data sets in Figure 11 on page 15 and Figure 12 on page 16 already allocated, ensure sufficient disk space and directory blocks are available to support the requirement listed. This might require you to reallocate some data sets to avoid x37 abends.

2. Use system determined block sizes for efficient DASD utilization for all non-RECFM U data sets. For RECFM U data sets, a block size of 32760 is recommended, which is the most efficient from a performance and DASD utilization perspective.

3. 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.

If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old release and reclaim the space that was used by the old release and any service that had been installed. You can determine whether 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 about the names and sizes of the required data sets, see 6.1.6, "Allocate SMP/E Target and Distribution Libraries" on page 27.

4. All target and distribution libraries listed have the following attributes:
   - The default name of the data set can not be changed.
   - The default block size of the data set can be changed.
   - The data set can not be merged with another data set that has equivalent characteristics.

5. 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.

6. All target libraries that are listed and contain load modules have the following attributes:
   - These data sets can not be in the LPA.
   - These data sets can be in the LNKLST except for TKANMODS.

If you are installing into an existing environment, ensure the values used for the SMP/E work datasets reflect the minimum values shown in Figure 9 on page 15. Check the corresponding DDDEF entries in all zones because use of values lower than these can result in failures in the installation process. Refer to the SMP/E manuals for instructions on updating DDDEF entries.
If you are installing into an existing environment, ensure the current SMP/E support dataset allocations reflect the minimum values shown in Figure 10. Check the space and directory block allocation and reallocate the data sets, if necessary.

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>P</th>
<th>R</th>
<th>F</th>
<th>E</th>
<th>G</th>
<th>M</th>
<th>L</th>
<th>Prim No. of 3390 Trks</th>
<th>Sec No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMPWRK1</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>150</td>
<td>150</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMPWRK2</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>150</td>
<td>150</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMPWRK3</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>300</td>
<td>600</td>
<td>1320</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMPWRK4</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>150</td>
<td>150</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SMPWRK6</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>300</td>
<td>1500</td>
<td>660</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYSUT1</td>
<td>E</td>
<td>SEQ</td>
<td>--</td>
<td>--</td>
<td>75</td>
<td>75</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYSUT2</td>
<td>E</td>
<td>SEQ</td>
<td>--</td>
<td>--</td>
<td>75</td>
<td>75</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYSUT3</td>
<td>E</td>
<td>SEQ</td>
<td>--</td>
<td>--</td>
<td>75</td>
<td>75</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SYSUT4</td>
<td>E</td>
<td>SEQ</td>
<td>--</td>
<td>--</td>
<td>75</td>
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Figure 11 and Figure 12 on page 16 describe the target and distribution libraries that will be allocated by this product's install jobs or that will be required for installation. The space requirements reflect what is specified in the allocation job or the space that this product will require in existing libraries. Additional tables are provided to show the specific space required for libraries that are used by each FMID. See 5.2.4, “DASD Storage Requirements by FMID” on page 17 for more information.

The storage requirements of OMEGAMON XE for Storage on z/OS must be added to the storage required by other programs having data in the same library or path.
### Figure 11. Storage Requirements for OMEGAMON XE for Storage on z/OS Target Libraries

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### Figure 12 (Page 1 of 2). Storage Requirements for OMEGAMON XE for Storage on z/OS Distribution Libraries

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### 5.2.4 DASD Storage Requirements by FMID

The tables in this section can help determine the specific space required for components not already installed in an existing environment. There is a table for each FMID included with the product.

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<td></td>
<td></td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DKANMOD</td>
<td></td>
<td></td>
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<td>PDS</td>
<td>U</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DKANMODL</td>
<td></td>
<td></td>
<td>E</td>
<td>PDS</td>
<td>U</td>
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<td>S</td>
<td>PDSE</td>
<td>U</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DKANMODS</td>
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<td></td>
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<td>PDS</td>
<td>U</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DKANOSRC</td>
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<td></td>
<td>S</td>
<td>PDS</td>
<td>VB</td>
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<tr>
<td>DKANPAR</td>
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<td>PDS</td>
<td>FB</td>
<td>80</td>
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<td>PDS</td>
<td>FB</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>DKANSAM</td>
<td></td>
<td></td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Installing OMEGAMON XE for Storage on z/OS might result in the deletion of other FMIDs. To see which FMIDs will be deleted, examine the ++VER statement in the SMPMCS of the product.

If you do not want to delete these FMIDs at this time, install OMEGAMON XE for Storage on z/OS into separate SMP/E target and distribution zones.

Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

### 5.3 FMIDs Deleted

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>R</th>
<th>E</th>
<th>C</th>
<th>F</th>
<th>R</th>
<th>E</th>
<th>L</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dikanwenu</td>
<td>S PDS FB</td>
<td>80</td>
<td>21</td>
<td>27</td>
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<td></td>
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</tr>
<tr>
<td>Dkobdatf</td>
<td>S PDS FB</td>
<td>80</td>
<td>1</td>
<td>2</td>
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<td></td>
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<tr>
<td>Dkobhelp</td>
<td>S PDS FB</td>
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<td>17</td>
<td>66</td>
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</tbody>
</table>

**Figure 14** (Page 2 of 2). Storage Requirements for HKOB730 Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>R</th>
<th>E</th>
<th>C</th>
<th>F</th>
<th>R</th>
<th>E</th>
<th>L</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tkandaltv</td>
<td>Data</td>
<td>E PDS VB</td>
<td>6160</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tkandomd</td>
<td>LMOD</td>
<td>E PDS U</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tkandomdl</td>
<td>LMOD</td>
<td>E PDS U</td>
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<td>32</td>
<td>10</td>
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<td></td>
</tr>
<tr>
<td>Tkankggi</td>
<td>Data</td>
<td>E PDS FB</td>
<td>80</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dkandaltv</td>
<td>E PDS VB</td>
<td>6160</td>
<td>6</td>
<td>2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dkandomd</td>
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<td>2</td>
<td>3</td>
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<td></td>
</tr>
<tr>
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<td>32</td>
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</tr>
<tr>
<td>Dkankggi</td>
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<td>80</td>
<td>2</td>
<td>2</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 15. Storage Requirements for HKSB730 Libraries**
5.4 Special Considerations

To effectively manage a suite of products with common components, you can install products into shared zones of a consolidated software inventory (CSI). Space requirements are reduced by installing products into shared CSI zones avoiding the duplication when different target zones, distribution zones, and data sets are used. Sharing a common set of zones also allows SMP/E to automatically manage IFREQ situations that exist across product components.

If you intend to share a Tivoli Enterprise Monitoring Server on z/OS with other products, use shared CSI zones so product configuration sets up the runtime environment correctly.

The installation of OMEGAMON XE for Storage on z/OS requires the Tivoli Enterprise Monitoring Server on z/OS be installed in the CSI. Refer to the Program Directory for IBM Tivoli Management Services on z/OS (GI11-4105) for installation instructions of its product components.

The OMEGAMON XE and Tivoli Management Services on z/OS shared documentation, and other Tivoli product documentation can be found at the IBM Knowledge Center url listed below:

http://www.ibm.com/support/knowledgecenter/SSAUBV/welcome

If you are installing into an existing CSI zone that contains the listed FMIDs, ensure the maintenance has been installed previously or it must be installed with this product package.

HKCI310 - UA73688 UA73689
HKDS630 - UA69363 UA70675 UA70678
HKLV630 - UA70676 UA70677

IBM Tivoli Monitoring V6.3.0 Fix Pack 3 is recommended for a number of APAR fixes, including Java 6 & 7 security support and Persistent Datastore APAR OA44915: MULTIPLE ABENDS DUE TO PERSISTENT DATABOR FACILITY OVERLAY.

Consider the following items when using shared CSI zones.

- You must specify the same high-level qualifier for the target and distribution libraries as the other products in the same zones for the configuration tool to work correctly.

- If you install a product into an existing CSI that contains a previous version of the same product, SMP/E deletes the previous version during the installation process. To maintain multiple product versions concurrently, they must be installed into separate CSI zones.

- If you install into an existing environment, you might need to remove data set references from the installation jobs to avoid errors because the data sets already exist.

- If you are installing into an existing environment that has the data sets already allocated, ensure sufficient space and directory blocks are available to support the requirement listed in the DASD tables. This might require you to reallocate some data sets to avoid x37 abends.

When OMEGAMON XE for Storage on z/OS is used with the IBM Tivoli OMEGAMON Dashboard Edition on z/OS product, they should both be installed in the same CSI target and distribution zones.
ensures the maintenance level of the Engine and Management Server components, which are used by both products, is at the same level. If they are installed in different CSI zones, you should check to ensure the maintenance levels of the Engine and Management Server components in both zones are the same or at a compatible level. This is also true for your runtime library environments (RTE).

The PSP bucket will have the most current information and must be reviewed before installation. The OMEGAVIEW or OMEGAMON Dashboard Edition configuration document must also be reviewed for other operational considerations.
6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of OMEGAMON XE for Storage on z/OS.

Please note the following points:

- If you want to install OMEGAMON XE for Storage on z/OS 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. Additionally, to assist you in doing this, IBM has provided samples to help you create an SMP/E environment at the following url:
  http://www.ibm.com/support/docview.wss?rs=660&context=SSZJDU&uid=swg21066230
- 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.

6.1 Installing OMEGAMON XE for Storage on z/OS

6.1.1 SMP/E Considerations for Installing OMEGAMON XE for Storage on z/OS

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of OMEGAMON XE for Storage on z/OS.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 16. 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.

<table>
<thead>
<tr>
<th>Subentry</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSSPACE</td>
<td>300,1200,1200</td>
<td>Use 1200 directory blocks</td>
</tr>
<tr>
<td>PEMAX</td>
<td>SMP/E Default</td>
<td>IBM recommends using the SMP/E default for PEMAX.</td>
</tr>
</tbody>
</table>
6.1.3 SMP/E CALLLIBS Processing

OMEGAMON XE for Storage on z/OS uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When OMEGAMON XE for Storage on z/OS is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SEZACMTX

**Note:** CALLLIBS uses the previous DDDEFs only to resolve the link-edit for OMEGAMON XE for Storage on z/OS. These data sets are not updated during the installation of OMEGAMON XE for Storage on z/OS.

6.1.4 Installation Job Generator Utility

A utility is available to generate the necessary installation jobs for this product and others that might be included in the product package deliverable. Be aware that not all products are supported at this time and maintenance might have to be installed to get the latest updates for the product table. It is recommended you use this job generation utility to create a set of jobs to install the product package when installing into an existing environment rather than using the sample jobs provided for each product.

The job generation utility is delivered in the Configuration Tool component of the Tivoli Management Services on z/OS product, which is a requisite of this product. This utility is enhanced thru the maintenance stream so there could be an issue if it is invoked from an environment without the latest maintenance. Ensure the latest maintenance is installed for the components of this product to get the latest updates for the product table.

If you are installing for the first time into a new environment and don't have an existing environment available to invoke this utility, you must use the sample jobs for the Tivoli Management Services on z/OS product and install it first. This will install the FMID containing the job generation utility and the latest maintenance. Then you can invoke the utility from the target library TKANCUS to install other products in the package.

The job generation utility can be invoked from the SMP/E target library with the low-level qualifier of TKANCUS, launch the utility by using ISPF option 6 and entering the following command.

```ex 'hilev.TKANCUS'
```

Select "SMP/E-install z/OS products with Install Job Generator (JOBGEN)" from the Installation and Configuration Tool main menu.

You can use the online help available as a tutorial to become familiar with the utility and its processes.
6.1.4.1 Introduction to the Job Generator

The job generation utility creates a set of jobs to define an SMP/E environment (CSI and supporting data sets), allocate product libraries (target and distribution zone data sets and DDDEFS), and install the products (RECEIVE APPLY ACCEPT). You can use these jobs to create a totally new environment or to install the products into an existing CSI.

Processing Steps

- The jobs are generated from a series of ISPF interactive panels and ISPF file tailoring.
- The initial step is selection of the product mix. The set of products will determine any additions to the basic set of values needed to create the JCL.

Process Log

- One of the members of the generated job library is KCIJGLOG, which is the process log.
- This member shows the generating parameters and internal lists that were used to create the batch jobs.
- It also indicates which jobs were actually produced and need to be run. Note that the RECEIVE, APPLY, and ACCEPT jobs are always generated even if the selected products are already in the target CSI. In that case, the jobs install additional maintenance when available.

6.1.4.2 Product Selection

You can select one or more products from a table that will determine the set of FMIDs to install. You must select at least one product and you should always select the appropriate version of the IBM Tivoli Management Services on z/OS product (5698-A79) that is an installation requisite for this product offering. This will install the necessary FMIDs and maintenance for a new environment but also ensure any requisite maintenance will be processed when installing into an existing environment.

The selection table contains information about all of the supported products and might contain entries for products that you do not have or do not wish to install. Select only those products that are available in the package delivered and that you want to install.

6.1.4.3 Installing into an existing CSI

When the high-level qualifiers point to an existing environment, the job generation utility eliminates the jobs that allocate and initialize the CSI.

The job generation utility suppresses the creation of libraries that already exist in the target environment. Instead, the generator creates a job to determine whether sufficient space is available for any additional data to be installed into the libraries.

The member KCIJGANL is generated to report on the available space for each of the existing libraries that will have new data. However, KCIJGANL cannot check for the maintenance stream requirements.
The space analyzer function is very helpful in identifying data set space issues that might cause X37 abends during APPLY and ACCEPT processing.

6.1.4.4 Job Generator - Update Command

The job generation utility was enhanced to allow dynamic additions to the product table. The UPDATE routine is used to obtain additional data for products that are available but not yet included in the installation job generator table, KCIDJG00.

You must have the product RELFILEs available on DASD in order to run this routine and all components of the product must be available. After a successful run, the output of this routine will replace the KCIDJG00 member of the work data set. If you make multiple changes to the data member be sure to save the original member as a backup.

Note: Not all products qualify for inclusion in the job generator process at this time. Refer to the online help for more information about this facility.

6.1.5 Sample Jobs

If you choose not to use the installation job generator utility documented in the previous section, you can use the sample jobs that were created for OMEGAMON XE for Storage on z/OS. This will require you to research and tailor each of the jobs accordingly.

The sample jobs provided expect a CSI to exist already. The sample installation jobs in Figure 17 are provided as part of the product to help you install OMEGAMON XE for Storage on z/OS.

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS3J3ALO</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution libraries</td>
<td>IBM.HKS3530.F15</td>
</tr>
<tr>
<td>KS3J4DDF</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.HKS3530.F15</td>
</tr>
<tr>
<td>KS3J5REC</td>
<td>RECEIVE</td>
<td>Sample RECEIVE job</td>
<td>IBM.HKS3530.F15</td>
</tr>
<tr>
<td>KS3J6APP</td>
<td>APPLY</td>
<td>Sample APPLY job</td>
<td>IBM.HKS3530.F15</td>
</tr>
<tr>
<td>KS3J7ACC</td>
<td>ACCEPT</td>
<td>Sample ACCEPT job</td>
<td>IBM.HKS3530.F15</td>
</tr>
</tbody>
</table>

The installation of OMEGAMON XE for Storage on z/OS requires the Tivoli Enterprise Monitoring Server on z/OS be installed in the CSI. Refer to the Program Directory for IBM Tivoli Management Services on z/OS (GI11-4105) for installation instructions of its product components.

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.8, “Perform SMP/E RECEIVE” on page 28) then copy the jobs from the relfiles to a work data set for editing and submission. See Figure 17 to find the appropriate relfile data set.
You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

//STEP1 EXEC PGM=IEBCOPY,REGION=4M
//SYSPRINT DD SYSOUT=*
//TAPEIN DD DSN=IBM.HKS3530.F15,UNIT=tunit,
  VOL=SER=volser,LABEL=(x,SL),
  DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.HKS3530.F15,UNIT=SYSALLDA,DISP=SHR,
  VOL=SER=filevol
//OUT DD DSNNAME=jcl-library-name,
  DISP=(NEW,CATLG,DELETE),
  VOL=SER=dasdvol,UNIT=SYSALLDA,
  SPACE=(TRK,(10,2,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
  COPY INDD=xxxxIN,OUTDD=OUT
  SELECT MEMBER=(KS3J3ALO,KS3J4DDF,KS3J5REC,KS3J6APP,KS3J7ACC)
/*

See the following information to update the statements in the previous sample:

TAPEIN:
  tunit is the unit value that matches the product package.
  volser is the volume serial that matches the product package.
  x is the tape file number that indicates the location of the data set name on the tape.
  See the documentation that is provided by CBPDO for the location of IBM.HKS3530.F15 on the tape.

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 are stored.
  dasdvol is the volume serial of the DASD device where the output data set resides.

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

6.1.6 Allocate SMP/E Target and Distribution Libraries

Edit and submit the generated job KC1JGALO to allocate the SMP/E target and distribution libraries for OMEGAMON XE for Storage on z/OS.

If you are not using the generated allocation job, select the sample job KS3J3ALO. Edit and submit it after making appropriate changes for your environment. Consult the instructions in the sample job for more information. Consider the following issues before submitting the job.

- If you are installing into an existing environment, you might have to remove lines for data sets that already exist.
• If you are installing into an existing environment that has the data sets already allocated, ensure sufficient space and directory blocks are available to support the requirement listed in the DASD tables. This might require you to reallocate some data sets to avoid x37 abends.

Expected Return Codes and Messages: 0

6.1.7 Create DDDEF Entries

Edit and submit the generated job KCIJGDDF to create DDDEF entries for the SMP/E target and distribution libraries for OMEGAMON XE for Storage on z/OS.

If you are not using the generated job, select the sample job KS3J4DDF. Edit and submit it after making appropriate changes for your environment. Consult the instructions in the sample job for more information. If you are installing into an existing environment, you might have to remove lines for data sets that already exist.

Expected Return Codes and Messages: 0

6.1.8 Perform SMP/E RECEIVE

If you have obtained OMEGAMON XE for Storage on z/OS as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the OMEGAMON XE for Storage on z/OS FMIDs, service, and HOLDDATA that are included on the CBPDO package. For more information, see the documentation that is included in the CBPDO.

You can also choose to edit and submit the generated job KCIJGREC or the sample job KS3J5REC to perform the SMP/E RECEIVE for OMEGAMON XE for Storage on z/OS. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: 0

6.1.9 Perform SMP/E APPLY

Ensure that you have the latest HOLDDATA, then edit and submit the generated job KCIJGAPP to perform an SMP/E APPLY CHECK for OMEGAMON XE for Storage on z/OS.

If you are not using the generated job, select the sample job KS3J6APP to perform an SMP/E APPLY CHECK. Edit and submit it after making appropriate changes for your environment. Consult the instructions in the sample job for more information.

The latest HOLDDATA is available through several different portals, including http://service.software.ibm.com/holdata/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(fmid,...) CHECK
   FORFMID(fmid,...)
   SOURCEID(RSU*)
   FIXCAT(IBM.ProductInstall-RequiredService)
   GROUPEXTEND

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

   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.

**Expected Return Codes and Messages from APPLY CHECK: 0**

After you take actions that are 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 applies all requisite SYSMODs. The requisite SYSMODs might be applicable to other functions.

If the BYPASS operand is not included in the control statement when processing a PTF with a ++HOLD statement, the job will get a return code of 12 and the following message.

GIM30206E command PROCESSING FAILED FOR SYSMOD sysmod.
HOLD REASON IDS WERE NOT RESOLVED.

**Expected Return Codes and Messages from APPLY: 4**

You can receive many of the following messages depending on your environment. These messages can be ignored, because they will not affect product execution.

GIM23913W LINK-EDIT PROCESSING FOR SYSMOD aaaaaaa
WAS SUCCESSFUL FOR MODULE bbbbbbb IN
LMOD ccccccc IN THE dddddddd LIBRARY. THE
RETURN CODE WAS ee. DATE yy.ddd -- TIME
hh:mm:ss -- SEQUENCE NUMBER nnnnnn --
SYSPRINT FILE ffffffff.

IEW2454W SYMBOL symbol UNRESOLVED. NO AUTOCALL (NCAL) SPECIFIED.

After installing new function, you should perform two operations:

1. Create a backup of the updated data sets, including any SMP/E data sets affected, in case something happens to the data sets during the next phase.

2. Do some testing before putting the new function into production.

After you are satisfied that an applied SYSMOD has performed reliably in your target system, you can install it in your distribution libraries using the ACCEPT process.

Another good practice is to accept most SYSMODs, particularly FMIDs, before performing another APPLY process. This provides you the ability to use the RESTORE process of SMP/E and to support the scenario where SMP/E needs to create a new load module from the distribution libraries during the APPLY process.
6.1.10 Perform SMP/E ACCEPT

Edit and submit the generated job KCIJGACC to perform an SMP/E ACCEPT CHECK for OMEGAMON XE for Storage on z/OS.

If you are not using the generated job, select the sample job KS3J7ACC to perform an SMP/E ACCEPT CHECK. Edit and submit it after making appropriate changes for your environment. 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 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.

Expected Return Codes and Messages from ACCEPT CHECK: 0

After you take actions that are 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 accepts all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.

If the BYPASS operand is not included in the control statement when processing a PTF with a ++HOLD statement, the job will get a return code of 12 and the following message.

```
GIM30206E command PROCESSING FAILED FOR SYSMOD sysmod.
    HOLD REASON IDS WERE NOT RESOLVED.
```

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 if no PTFs are being installed: 0
6.2 Activating OMEGAMON XE for Storage on z/OS

Prior to activating OMEGAMON XE for Storage on z/OS, IBM recommends you review the Quick Start guide as well as the Planning and Configuration guides if you have not already done so. This documentation focuses on the things you will need to know for a successful installation and configuration of this product.

The *Planning and Configuration Guide* documentation contains the step-by-step procedures to activate the functions of OMEGAMON XE for Storage on z/OS.

This documentation can be found online at:

http://www.ibm.com/support/knowledgecenter/SS2JFP/welcome
7.0 Notices

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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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