Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 58.
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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 DB2 Performance Solution Pack for z/OS. This publication refers to IBM DB2 Performance Solution Pack for z/OS as DB2 Performance Solution Pack.

The Program Directory contains the following sections:

- **2.0, “Program Materials” on page 5** identifies the basic program materials and documentation for DB2 Performance Solution Pack.
- **3.0, “Program Support” on page 9** describes the IBM support available for DB2 Performance Solution Pack.
- **4.0, “Program and Service Level Information” on page 11** lists the APARs (program level) and PTFs (service level) that have been incorporated into DB2 Performance Solution Pack.
- **5.0, “Installation Requirements and Considerations” on page 14** identifies the resources and considerations that are required for installing and using DB2 Performance Solution Pack.
- **6.0, “Installation Instructions” on page 35** provides detailed installation instructions for DB2 Performance Solution Pack. It also describes the procedures for activating the functions of DB2 Performance Solution Pack, or refers to appropriate publications.

Before installing DB2 Performance Solution Pack, 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 9** tells you how to find any updates to the information and procedures in this program directory.

DB2 Performance Solution Pack 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 DB2 Performance Solution Pack are included on the CBPDO tape.

Do not use this program directory if you install DB2 Performance Solution Pack 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 DB2 Performance Solution Pack Description

**IBM DB2 Performance Solution Pack for z/OS, V1.4 (5655-E74)** delivers integrated performance management for DB2 for z/OS by combining function from the IBM products listed below. DB2 Performance Solution Pack for z/OS, V1.4 includes new releases of IBM DB2 SQL Performance Analyzer for z/OS and IBM DB2 Query Workload Tuner for z/OS (renamed from IBM InfoSphere Optim Query Workload Tuner for DB2 for z/OS).
These products are included in DB2 Performance Solution Pack for z/OS, V1.4:

- IBM DB2 SQL Performance Analyzer for z/OS, V5.1 (5697-W51)
- IBM DB2 Query Workload Tuner for z/OS, V5.1 (5655-AB4)
- IBM Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS, V5.3 (5655-W37)
- IBM DB2 Query Monitor for z/OS, V3.2 (5655-V42)

DB2 SQL Performance Analyzer for z/OS, V5.1 enhancements include:

- Iterative What If?
  - The What If? function has been enhanced to allow What If? processing to be done iteratively so that modifications can be done until the user is satisfied with the results. For each What If? iteration, the user can create and drop virtual indexes as well as change the SQL statement. The previous Query Limits report panel is displayed after each iteration with an additional row reflecting the information from the latest set of changes, which allows for a visual comparison of the results of all iterations in order to determine which modification produced the best results. Each of the generated reports is appended with the new information from the latest iteration so that at the end of each iteration for a statement, each report will have information in it that reflects all changes made to the statement up to that point in time during the What If? testing.

- Reports with CSV delimiters
  - Clients might want to have the report information in specific formats or they might have a need to use the report output as input into another step in a data management process. SQL PA has been enhanced to provide data from the explain table in a file using CSV delimiters. The CSV file can be imported into a spreadsheet or other program to create customized reports in the user’s desired format.

- Migration of DB2 Path Checker COMPARE feature
  - The COMPARE functionality from IBM DB2 Path Checker for z/OS has been migrated into DB2 SQL Performance Analyzer for z/OS, V5.1. The COMPARE function compares existing explain information for a bound package between a base (usually the most recent) explain table record set and a previous (older) explain table record set. This allows the user to view the history of access path changes to the package being compared, as shown by the explain table information. The statement matching techniques provided include matching SQL statements based on target names and query type, comparing statement source in addition to matching target names and query type, matching based on the QUERYNO (“query number”) of each SQL statement, and matching based on order of appearance of SQL statements in the DBRM. The report generated will use the side-by-side format for its readability so that only differences (changes) that are likely to affect the access path will be reported.

- Migration of DB2 Path Checker TEST feature
  - The TEST functionality from DB2 Path Checker for z/OS has been migrated into DB2 SQL Performance Analyzer for z/OS, V5.1. The TEST function dynamically explains a package or DBRM and compares it to existing explain information for a bound package. This function uses the same four statement matching techniques described above for the COMPARE function. The
report generated will use the side-by-side format for its readability so that only differences (changes) that are likely to affect the access path will be reported.

DB2 Query Workload Tuner for z/OS, V5.1 is based on the new IBM Data Server Manager platform. It is a modernized, web-based tool that provides expert recommendations which can help you improve the performance of query workloads. It can help you improve performance with guidance by looking at query designs, statistics quality, and database design to come up with recommendations on how to tune complete workloads. The new web-based architecture of Data Server Manager provides a simple integrated environment that streamlines the ongoing administration of complex database environments.

Tivoli OMEGAMON XE for DB2 Performance Expert on z/OS, V5.3 provides the following benefits:

- Continued migration of key classic 3270 user interface features to the enhanced 3270 user interface
- Integration themes, including:
  - Enterprise monitoring integration with IBM Tivoli OMEGAMON XE for CICS on z/OS
  - Integration within the DB2 Tools family of products: DB2 Query Monitor for z/OS and IBM Management Console for IMS and DB2 for z/OS
- Updates to DB2 Analytics Accelerator for z/OS, V4.1 (5697-DAB) monitoring capabilities
- Enhancements to the historical performance and trend analysis tools:
  - Batch reporting
  - The performance database (PDB)
  - The spreadsheet input data generator (CSV)

DB2 Query Monitor for z/OS, V3.2 delivers performance improvements, improved product integration, better ease of use, and improved reliability, availability, and serviceability. Performance improvements are obtained by reducing the collection overhead for fetch-intensive workloads, by expanded zIIP exploitation, and by implementing literal stripping for dynamic SQL text collection. Product integration advancements focus on DB2 11 for z/OS exploitation and support for the separately available DB2 Analytics Accelerator. DB2 Query Monitor for z/OS, V3.2 supports DB2 11 for z/OS. It also gives you the ability to identify accelerated queries, enabling key metrics and statistics, showcasing the return on investment for IBM DB2 Analytics Accelerator. In addition, DB2 Query Monitor for z/OS, V3.2 offers enhanced integration with DB2 Query Workload Tuner for z/OS, giving you better end-to-end tuning for SQL queries and workloads.

### 1.2 DB2 Performance Solution Pack FMIDs

DB2 Performance Solution Pack consists of the following FMIDs:

- HBPF140
- H238320
- H238KN0
- H25F132
- H2AQ510
- H1D0510
Note!

FMID H25F132 contains common code and is shared among multiple IBM DB2 tools and is, therefore, made available with multiple DB2 tools. The parent product for H25F132 is DB2 Change Accumulation for z/OS, V03.01.00 (program number 5697-P45). When installing one of the tools that require the use of the FEC Common Code, it is highly recommended that FEC be brought up to current maintenance level at the time of installation. If not, unpredictable results may occur.
2.0 Program Materials

An IBM program is identified by a program number. The program number for DB2 Performance Solution Pack is 5655-E74.

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

The program announcement material describes the features supported by DB2 Performance Solution Pack. 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 35 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for DB2 Performance Solution Pack in the CBPDO Memo To Users Extension.

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for DB2 Performance Solution Pack.

2.3 Program Publications

The following sections identify the basic publications for DB2 Performance Solution Pack.

Figure 1 identifies the basic unlicensed publications for DB2 Performance Solution Pack. Those that are in softcopy format publications can be obtained from the IBM Publications Center website at: http://www.ibm.com/shop/publications/order/

<table>
<thead>
<tr>
<th>Publication Title</th>
<th>Form Number</th>
<th>Media Format</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Form Number</td>
<td>Media Format</td>
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<tr>
<td>----------------------------------------------------------------------------------</td>
<td>-------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>DB2 Query Monitor for z/OS Publications:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DB2 SQL Performance Analyzer Publications:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>OMEGAMON XE for DB2 PE on z/OS Publications:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quick Start Guide for the SQL Dashboard and the end-to-end SQL monitoring functions</td>
<td>GH12-7046</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
<tr>
<td>Messages</td>
<td>GH12-7049</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
<tr>
<td>Monitoring Performance from the OMEGAMON Classic Interface</td>
<td>SH12-7050</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
<tr>
<td>Monitoring Performance from ISPF</td>
<td>SH12-7052</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
<tr>
<td>Configuration and Customization</td>
<td>GH12-7054</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
<tr>
<td>Parameter Reference</td>
<td>SH12-7055</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
<tr>
<td>Monitoring Performance from the IBM Tivoli OMEGAMON Enhanced 3270 User Interface</td>
<td>SH12-7056</td>
<td><a href="https://www.ibm.com/support/docview.wss?uid=swg27020910">https://www.ibm.com/support/docview.wss?uid=swg27020910</a> 0#omegaxepe-lib</td>
</tr>
</tbody>
</table>
2.3.1 Optional Program Publications

No optional publications are provided for DB2 Performance Solution Pack.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for DB2 Performance Solution Pack.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 2 during the installation of DB2 Performance Solution Pack.
<table>
<thead>
<tr>
<th>Publication Title</th>
<th>Form Number</th>
<th>Media Format</th>
</tr>
</thead>
</table>
3.0 Program Support

This section describes the IBM support available for DB2 Performance Solution Pack.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install DB2 Performance Solution Pack, 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 6.1.12, “Perform SMP/E APPLY” on page 41 for a sample APPLY command.

If you obtained DB2 Performance Solution Pack as part of a CBPDO, HOLDDATA is included.

If the CBPDO for DB2 Performance Solution Pack 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 DB2 Performance Solution Pack are included in Figure 3.

<table>
<thead>
<tr>
<th>UPGRADE</th>
<th>SUBSET</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655E74</td>
<td>HBPF140</td>
<td>DB2 Performance Solution Pack</td>
</tr>
<tr>
<td>5655V42</td>
<td>H238320</td>
<td>DB2 Query Monitor</td>
</tr>
<tr>
<td>5697I03</td>
<td>H238KN0</td>
<td>DB2 Query Monitor Standard Edition Identifier</td>
</tr>
<tr>
<td>5697P45</td>
<td>H25F132</td>
<td>FEC Common Code</td>
</tr>
</tbody>
</table>
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 DB2 Performance Solution Pack.
4.0 Program and Service Level Information

This section identifies the program and relevant service levels of DB2 Performance Solution Pack. 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 DB2 Performance Solution Pack have been incorporated into this release. They are listed by FMID.

- FMID H238310

  PM39680  PM53471  PM63589  PM73947  PM84668
  PM41353  PM54403  PM63608  PM74074  PM84921
  PM43187  PM54492  PM63676  PM74299  PM85042
  PM44098  PM54494  PM63772  PM74730  PM85050
  PM44581  PM54856  PM64058  PM75369  PM85317
  PM44685  PM56211  PM64323  PM75373  PM85351
  PM45012  PM56277  PM64414  PM75732  PM85523
  PM45027  PM57011  PM64906  PM75733  PM86685
  PM45479  PM57233  PM65024  PM76179  PM86855
  PM45896  PM57881  PM65479  PM76689  PM88057
  PM46046  PM57931  PM65505  PM76805  PM89040
  PM46113  PM58516  PM66023  PM77044  PM89481
  PM46371  PM58683  PM66045  PM77732  PM89566
  PM46480  PM59149  PM66340  PM78119  PM89776
  PM46789  PM59588  PM67100  PM78776  PM90408
  PM47237  PM59627  PM67327  PM78855  PM90891
  PM48207  PM59747  PM67602  PM79240  PM91149
  PM48726  PM60216  PM67617  PM79326  PM91406
  PM49554  PM60318  PM69155  PM80429  PM91787
  PM49559  PM60845  PM69225  PM80601  PM92111
  PM49841  PM61298  PM70454  PM81187  PM92273
  PM50930  PM61628  PM70811  PM82477  PM92276
  PM50944  PM61889  PM70565  PM82271  PM92295
  PM51647  PM62893  PM71472  PM82808  PM92826
  PM51929  PM62932  PM72234  PM82946  PM92828
  PM52211  PM63172  PM72531  PM83464  PM92906
  PM52235  PM63303  PM72534  PM83552  PM93256
  PM53268  PM63500  PM72611  PM84152  PM93361
  PM53288  PM63503  PM72873  PM84448  PM94449
  PM53459  PM63581  PM73882  PM84647
• FMID H1D0420

| PI06636 | PI15319 | PI19838 | PI23851 | PI29975 |
| PI09471 | PI15394 | PI20261 | PI24056 | PI31595 |
| PI11536 | PI16685 | PI20770 | PI25063 | PI31898 |
| PI11734 | PI17417 | PI21348 | PI27221 | PI34967 |
| PI11827 | PI17895 | PI21674 | PI27655 | PI35993 |
| PI13798 | PI18562 | PI22999 | PI28656 | PM97648 |
| PI14462 | PI19443 |          |          |          |

• FMID HKOB700

| OA38724 | OA39649 | OA40800 | OA41451 | OA42748 |
| OA38914 | OA39671 | OA40853 | OA41552 | OA42958 |
| OA39194 | OA39889 | OA40973 | OA41669 | OA43096 |
| OA39399 | OA40088 | OA41117 | OA41694 | OA43163 |
| OA39622 | OA40373 | OA41153 | OA42127 | OA43364 |
| OA39639 | OA40429 | OA41333 | OA42259 | OA43638 |

• FMID HKDB520

| PI05051 | PI07716 | PI11908 | PI16974 | PI22399 |
| PI05440 | PI07722 | PI12525 | PI16983 | PI22405 |
| PI05484 | PI07798 | PI12690 | PI17560 | PI22876 |
| PI06014 | PI08004 | PI12785 | PI17671 | PI23278 |
| PI06091 | PI08011 | PI12870 | PI17998 | PI23577 |
| PI06314 | PI08012 | PI13052 | PI18018 | PI23758 |
| PI06523 | PI08684 | PI13102 | PI18063 | PI23803 |
| PI06562 | PI09449 | PI13644 | PI18922 | PI24083 |
| PI06838 | PI09716 | PI13710 | PI19565 | PI24251 |
| PI06883 | PI09778 | PI13916 | PI19949 | PI24825 |
| PI06890 | PI10526 | PI14179 | PI19953 | PI25281 |
| PI06900 | PI10530 | PI14217 | PI19962 | PI25427 |
| PI06913 | PI10641 | PI14676 | PI19965 | PI25583 |
| PI06922 | PI10732 | PI14840 | PI20056 | PI25914 |
| PI06931 | PI10798 | PI14889 | PI20182 | PI25922 |
| PI06933 | PI10854 | PI15377 | PI20482 | PI26107 |
| PI06972 | PI10863 | PI15680 | PI21156 | PI26193 |
| PI07142 | PI11557 | PI15944 | PI21784 | PI26282 |
| PI07225 | PI11775 | PI16191 | PI22243 | PI26394 |
| PI07326 | PI11811 | PI16268 | PI22260 | PI26693 |
| PI07406 | PI11845 | PI16762 | PI22392 | PI26854 |
4.2 Service Level Information

No PTFs against this release of DB2 Performance Solution Pack have been incorporated into the product package.

Frequently check the DB2 Performance Solution Pack PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then add the **FIXCAT(IBM.PRODUCTINSTALL-REQUIREDSERVICE)** operand on your APPLY CHECK command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.
5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating DB2 Performance Solution Pack. The following terminology is used:

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

  The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.

- **Target system**: the system on which the program is configured and run.

  The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

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

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.

- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install DB2 Performance Solution Pack.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements
Figure 5. Driving System Software Requirements

<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>Any one of the following:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<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 or higher</td>
<td>N/A</td>
<td>No</td>
</tr>
</tbody>
</table>

**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 V03.06.00.

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

Both DB2 Query Monitor for z/OS, and IBM InfoSphere Optim Data Tools Runtime Client component is installed into a file system, either HFS or zFS. Before installing DB2 Performance Solution Pack, you must ensure that the target system file system data sets are available for processing on the driving system. OMVS must be active on the driving system and the target system file system data sets must be mounted on the driving system.

If you plan to install DB2 Performance Solution Pack in a zFS file system, this requires that zFS be active on the driving system. Information on activating and using zFS can be found in z/OS Distributed File Service zSeries File System Administration, SC24-5989.

### 5.2 Target System Requirements

This section describes the environment of the target system required to install and use DB2 Performance Solution Pack.

DB2 Performance Solution Pack is special, in that it is installed in two different SRELs, and these SYSRELS need to be installed into different SMP/E target and distribution zones.

The following FMIDs install into the DBS (P115) SREL.

- HBPF140
- H238320
- H238KN0
- H25F132
- H2AQS10
- H1D0510

The following FMIDs install into 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.

<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>5639-OLC</td>
<td>IBM DB2 Data Access Common Collector for z/OS (FMID HCQC110 at current maintenance level)</td>
<td>V01.01.00</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>N/A</td>
<td>FEC Common Code (FMID H25F132) with PTF UK95204</td>
<td>N/A</td>
<td>Yes</td>
<td>Yes *</td>
</tr>
</tbody>
</table>

Note: *H25F132 has been included in this shipment for your convenience. You may already have this FMID from another product which ships this FMID.

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

DB2 Performance Solution Pack 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.

### Figure 7. Target System Mandatory Installation Requisites z/OS (SREL Z038) Products

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM</th>
<th>Minimum Service Level will satisfy these APARs</th>
<th>Included in the shipped product?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5698-A79</td>
<td>IBM Tivoli Management Services on z/OS 06.03.00 N/A No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5694-A01</td>
<td>z/OS 01.13.00 N/A No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5650-zOS</td>
<td>z/OS 02.01.00 or higher N/A No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Any one of the following:

- 5698-A79 IBM Tivoli Management Services on z/OS
- 5694-A01 z/OS
- 5650-zOS z/OS

### Figure 8. Target System Mandatory Operational Requisites DBS (SREL P115) Products

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655-V93</td>
<td>IBM Tools Base for z/OS V01.04.00 or higher - HTCZ110, (IBM Tools Customizer for z/OS)</td>
</tr>
<tr>
<td>5605-DB2</td>
<td>DB2 for z/OS V10.01.00</td>
</tr>
<tr>
<td>5697-P31</td>
<td>DB2 for z/OS value Unit Edition V10.01.00</td>
</tr>
<tr>
<td>5615-DB2</td>
<td>DB2 for z/OS V11.01.00</td>
</tr>
<tr>
<td>5697-P43</td>
<td>DB2 for z/OS value Unit Edition V11.01.00</td>
</tr>
</tbody>
</table>

Any one of the following:

- 5655-V93 IBM Tools Base for z/OS
- 5605-DB2 DB2 for z/OS
- 5697-P31 DB2 for z/OS value Unit Edition
- 5615-DB2 DB2 for z/OS
- 5697-P43 DB2 for z/OS value Unit Edition

Note: IBM Tools Base for z/OS, (5655-V93) is a mandatory operational requisite for DB2 Query Monitor, and DB2 SQL Performance Analyzer. IBM Tools Base for z/OS is a no-charge product that must be separately ordered. Tools Base contains IBM Tools Customizer for z/OS, FMID HTCZ110, which must
be installed with the most current maintenance level in order to customize DB2 Performance Solution Pack. Refer to the IBM Tools Base for z/OS, Program Directory (GI10-8819) for installation instructions.

**Figure 9. Target System Mandatory Operational Requisites Z/OS (SREL Z038) Products**

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

Any one of the following:

<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 or higher</td>
</tr>
</tbody>
</table>

Any one of the following:

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5605-DB2</td>
<td>DB2 for z/OS V10.01.00</td>
</tr>
<tr>
<td>5697-P31</td>
<td>DB2 for z/OS Value Unit Edition V10.01.00</td>
</tr>
<tr>
<td>5615-DB2</td>
<td>DB2 for z/OS V11.01.00</td>
</tr>
<tr>
<td>5697-P43</td>
<td>DB2 for z/OS Value Unit Edition V11.01.00</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.

**Figure 10. Target System Conditional Operational Requisites DBS (SREL P115) Products**

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5694-A01</td>
<td>z/OS V01.13.00</td>
<td>CAE Server under USS*</td>
</tr>
<tr>
<td>5650-zOS</td>
<td>z/OS V02.01.00 or higher</td>
<td>CAE Server under USS*</td>
</tr>
</tbody>
</table>

**Note:** Ensure the most current maintenance of (31-bit) Java 1.6 (including all prerequisites) is installed on your mainframe.

**Figure 11 (Page 1 of 2). Target System Conditional Operational Requisites z/OS (SREL Z038) Products**

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5655-M15</td>
<td>CICS Transaction Server for z/OS V03.01.00 or higher</td>
<td></td>
</tr>
<tr>
<td>5655-S97</td>
<td>CICS Transaction Server for z/OS V04.01.00 or higher</td>
<td></td>
</tr>
</tbody>
</table>
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.

DB2 Performance Solution Pack 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.

DB2 Performance Solution Pack has no negative requisites.

5.2.3 DASD Storage Requirements

DB2 Performance Solution Pack libraries can reside on all supported DASD types.

Figure 12 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>19129</td>
</tr>
<tr>
<td>Distribution</td>
<td>11418</td>
</tr>
<tr>
<td>File System(s)</td>
<td>1050</td>
</tr>
</tbody>
</table>

Figure 13. Total DASD Space Required by DB2 Performance Solution Pack z/OS (SREL Z038) Products

<table>
<thead>
<tr>
<th>Library Type</th>
<th>Total Space Required in 3390 Trks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>3890</td>
</tr>
</tbody>
</table>
Notes:

1. For non-RECFM U data sets, IBM recommends using system-determined block sizes for efficient DASD utilization. For RECFM U data sets, IBM recommends using a block size of 32760, which is most efficient from the performance and DASD utilization perspective.

2. 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 6.1.8, “Allocate SMP/E Target and Distribution Libraries” on page 40

3. Abbreviations used for the file system path type are as follows.
   - **N**: New path, created by this product.
   - **X**: Path created by this product, but might already exist from a previous release.
   - **P**: Previously existing path, created by another product.

4. All target and distribution libraries listed have the following attributes:
   - The default name of the data set can be changed.
   - The default block size of the data set can be changed.
   - The data set can be merged with another data set that has equivalent characteristics.
   - The data set can be either a PDS or a PDSE.

<table>
<thead>
<tr>
<th>Library Type</th>
<th>Total Space Required in 3390 Trks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>3770</td>
</tr>
<tr>
<td>File System(s)</td>
<td>200</td>
</tr>
</tbody>
</table>

Figure 13. Total DASD Space Required by DB2 Performance Solution Pack z/OS (SREL Z038) Products
- DB2 Query Monitor requires that SCQMLOAD, and ACQMLOAD, must be PDSEs.
- OMEGAMON XE for DB2 PE requires that TKANMODP, and DKANMODP, must be PDSEs.

- 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.

- All target libraries that are listed and contain load modules have the following attributes:
  - The DB2 Query Monitor requires the following:
    - These data sets can be in the LPA, but they are not required to be in the LPA.
    - These data sets can be in the LNKLST.
    - SCQMLOAD and SFECLOAD must be APF-authorized.

  - The OMEGAMON XE for DB2 PE requires the following:
    - The data sets may not be in the LPA.
    - The data sets may be in the LNKLST, except for TKANMODR and TKANMODS.

  - The DB2 SQL Performance Analyzer and DB2 Query Workload Tuner requires the following:
    - These data sets can be in the LPA, but they are not required to be in the LPA.
    - These data sets can be in the LNKLST.
    - These data sets are not required to be APF-authorized.

- DB2 Query Monitor, and OMEGAMON XE for DB2 PE requires that the SMPLTS data set must be a PDSE. If your existing SMPLTS is a PDS, you will need to allocate a new PDSE and copy your existing SMPLTS into it and then change the SMPLTS DDDEF entry to indicate the new PDSE data set.

5. For OMEGAMON XE for DB2 PE, if you are installing into an existing environment that has the data sets in Figure 16 on page 22 and Figure 24 on page 26 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. 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.

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>P</th>
<th>E</th>
<th>R</th>
<th>C</th>
<th>F</th>
<th>M</th>
<th>L</th>
<th>Prim No.</th>
<th>Sec No.</th>
<th>Prim No.</th>
<th>Sec No.</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>
<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>
<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>
<td></td>
<td></td>
<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>
<td></td>
</tr>
</tbody>
</table>
If you are installing into an existing environment, ensure the current SMP/E support dataset allocations reflect the minimum values shown in Figure 15. Check the space and directory block allocation and reallocate the data sets, if necessary.

The following figures describe the target and distribution libraries and file system paths required to install DB2 Performance Solution Pack. The storage requirements of DB2 Performance Solution Pack must be added to the storage required by other programs that have data in the same library or path.

Note: Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.
### Figure 16. Storage Requirements for DB2 Performance Solution Pack Target Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>Target Type</th>
<th>Device No.</th>
<th>No. of Trks</th>
<th>No. of Dir Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBPFBASE</td>
<td>SAMP</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>67</td>
</tr>
<tr>
<td>SBPFDENU</td>
<td>DATA</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>14</td>
</tr>
</tbody>
</table>

### Figure 17. Storage Requirements for DB2 Query Monitor Target Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>Target Type</th>
<th>Device No.</th>
<th>No. of Trks</th>
<th>No. of Dir Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCQMDBRM</td>
<td>Macro</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>11</td>
</tr>
<tr>
<td>SCQMDENU</td>
<td>DATA</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>55</td>
</tr>
<tr>
<td>SCQMFORM</td>
<td>DATA</td>
<td>U PDS VB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>251</td>
<td>3</td>
</tr>
<tr>
<td>SCQMLMOD</td>
<td>LMOD</td>
<td>U PDSE U</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>251</td>
<td>17001</td>
</tr>
<tr>
<td>SCQMMENU</td>
<td>MSG</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>5</td>
</tr>
<tr>
<td>SCQMNOTC</td>
<td>DATA</td>
<td>U PDS VB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>SCQMPENU</td>
<td>Panel</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>SCQMQRAY</td>
<td>DATA</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>SCQMSAMP</td>
<td>Sample</td>
<td>U PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>10</td>
</tr>
<tr>
<td>SCQMTRAN</td>
<td>DATA</td>
<td>U PDS VB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>256</td>
<td>17001</td>
</tr>
</tbody>
</table>

### Figure 18. Storage Requirements for FEC Common Code Target Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>Target Type</th>
<th>Device No.</th>
<th>No. of Trks</th>
<th>No. of Dir Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFECDBRM</td>
<td>Macro</td>
<td>S PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>6</td>
</tr>
<tr>
<td>SFECLOAD</td>
<td>LMOD</td>
<td>S PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>6</td>
</tr>
<tr>
<td>SFECMENU</td>
<td>MSG</td>
<td>S PDS U</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>5</td>
</tr>
<tr>
<td>SFECPENU</td>
<td>Panel</td>
<td>S PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>5</td>
</tr>
<tr>
<td>SFECSCAMP</td>
<td>Sample</td>
<td>S PDS FB</td>
<td>T Y P E O C</td>
<td>3390</td>
<td>80</td>
<td>6</td>
</tr>
</tbody>
</table>
### Figure 19. Storage Requirements for DB2 Query Workload Tuner Target Libraries

<table>
<thead>
<tr>
<th>Library</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>E</th>
<th>P</th>
<th>R</th>
<th>F</th>
<th>C</th>
<th>E</th>
<th>R</th>
<th>No. of 3390 Trks</th>
<th>No. of 3390 DIR Trks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SGWTBASE</td>
<td>SAMP</td>
<td>Any U PDS FB</td>
<td>80</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGWTNOTC</td>
<td>DATA</td>
<td>Any U PDS VB</td>
<td>137</td>
<td>6</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Figure 20. Storage Requirements for DB2 SQL Performance Analyzer Target Libraries

<table>
<thead>
<tr>
<th>Library</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>E</th>
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### Figure 21 (Page 2 of 2). Storage Requirements for OMEGAMON XE for DB2 PE Target Libraries

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**Installation Requirements and Considerations**

25
### Figure 22. DB2 Query Monitor File System Paths

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### Figure 23. OMEGAMON XE for DB2 PE File System Paths

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### Figure 24. Storage Requirements for DB2 Performance Solution Pack Distribution Libraries

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### Figure 25 (Page 1 of 2). Storage Requirements for DB2 Query Monitor Distribution Libraries

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### Figure 27. Storage Requirements for DB2 Query Workload Tuner Distribution Libraries

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</tr>
<tr>
<td>AANLSQL</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Figure 29 (Page 1 of 2). Storage Requirements for OMEGAMON XE for DB2 PE Distribution Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T Y P E</th>
<th>O R E C</th>
<th>F M L E</th>
<th>R E C L</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
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<tr>
<td>AEIWLIB</td>
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<td>VB</td>
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<td>169</td>
<td>44</td>
<td></td>
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<tr>
<td>AEIWPKGI</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>DKANCLI</td>
<td>S PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
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<td></td>
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<tr>
<td>DKANCUS</td>
<td>E PDS</td>
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<tr>
<td>DKANDATV</td>
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<td>VB</td>
<td>6160</td>
<td>206</td>
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<tr>
<td>DKANEXEC</td>
<td>S PDS</td>
<td>VB</td>
<td>255</td>
<td>20</td>
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<tr>
<td>DKANHENU</td>
<td>E PDS</td>
<td>FB</td>
<td>80</td>
<td>150</td>
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<tr>
<td>DKANISP</td>
<td>S PDS</td>
<td>FB</td>
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<td>DKANMAC</td>
<td>E PDS</td>
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<td>DKANMOD</td>
<td>E PDS</td>
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<td>555</td>
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<td>80</td>
<td>15</td>
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</tr>
</tbody>
</table>
5.3 FMIDs Deleted

Installing DB2 Performance Solution Pack 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 DB2 Performance Solution Pack 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 DELETIFMID command. See the SMP/E Commands book for details.
5.4 Special Considerations

DB2 Performance Solution Pack has a number of special considerations.

SREL and SMP/E Considerations:

DB2 Performance Solution Pack will be installed in two different SRELs, and these SRELs need to be installed into different SMP/E target and distribution zones. See 5.2, “Target System Requirements” on page 15 for further information.

SMP/E ++VER DELETE Considerations:

As DB2 Performance Solution Pack installs into different SMP/E zones, be aware that one would have to manage the ++VER(srel) DELETE(fmid) statements, in the SMPMCS data sets, as the FMID(s) may now be in different SMP/E Zones. It is possible that the DELETE operation will fail due to the prior release of DB2 PE being installed into a different pair of zones, in which case deleting the prior release will require additional actions by the installer.

PDSE Considerations:

DB2 Performance Solution Pack uses the "partitioned data set extended" or PDSE format for some target libraries. There are some operational differences between PDS and PDSE data sets. The PDS format may be shared by more than one z/OS system and no special precautions are necessary. However the PDSE format may only be shared by z/OS systems which are part of a sysplex or which are connected using Global Resource Serialization (are in a GRS complex). If z/OS systems share use of a PDSE data set outside of a sysplex or GRS environment, you may experience severe problems when the data set is updated. This is due to the fact that PDSE directory information is cached in storage, and when the data set is updated from one system the other system(s) have no knowledge of the update, and their cached directory information will be incorrect.

You must take care not to share those data sets that are PDSEs between z/OS systems unless they are in a sysplex or are connected in a GRS complex. If you need to share the content of these PDSE data sets, a separate copy must be created for each z/OS system.

DB2 Query Monitor Considerations:

FEC Common Code

FMID H25F132 Considerations for the DB2 Query Monitor:

It is strongly recommended to install all the DB2 tools that share the same common code FMID into the same SMP/E target and distribution zones. Several of the DB2 tools will be delivering common code, shipping the same FMID. You will only be required to install the common code FMID once. If you use different SMP/E target and distribution zones, you will have to install and maintain multiple instances of the same FMID, which will increase your maintenance and DASD requirements.
Note!

The DB2 Query Monitor (FMID H238320) invokes UNIX shell scripts during installation. Some of these shell scripts require that the userid running them has at least read access to RACF facility class resource BPX.FILEATTR.APF.

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 install multiple products which require the DB2 Data Access Common Collector for z/OS (5639-OLC) use shared CSI zones.

The installation of DB2 Query Monitor requires the DB2 Data Access Common Collector for z/OS (5639-OLC) be installed in the CSI. Refer to the Program Directory for DB2 Data Access Common Collector for z/OS (GI10-8973) for installation instructions of its product components.

Consider the following items when using shared CSI zones:

- 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 DB2 Query Monitor is used with InfoSphere Guardium S-TAP for DB2 on z/OS, V9.1 (5655-STP) and later releases or InfoSphere Optim Workload Replay for DB2 for z/OS V2.1 (5655-O18), and later releases, they should all be installed in the same CSI target and distribution zones. This ensures the maintenance level of the products and collector components are at a compatible level. If they are installed in different CSI zones, you must check to ensure the maintenance levels of the product and collector component in each zone are at a compatible level.

The PSP bucket will have the most current information and must be reviewed before installation.

The following are the operating system and environment requirements for DB2 Query Monitor's mainframe components:

The monitoring agent, Query Monitor subsystem, ISPF Client, and CAE Agent run on a mainframe system and require the following operating system and environment:
If you wish to run the CAE Server under USS, the most current maintenance of (31 bit) Java 1.6 (including all prerequisites) must be installed on your mainframe. 64-bit Java is not supported.

**Note:**
- This requirement applies to running the CAE Server under USS and is not required if you only plan to run the CAE Agent on an LPAR.
- Java builds are available at: http://www-03.ibm.com/systems/z/os/zos/tools/java/

**z/OS support for Unicode**

**Note:** The installation of z/OS support for Unicode with SMP/E is described in z/OS Planning for Installation (GA22-7504). Please refer to this document to find a complete list of the necessary steps.

**Notes:**
- DB2 Query Monitor supports IBM SQL Performance Analyzer (SQL/PA) Versions 2.1, 2.2 and higher.
- DB2 Query Monitor requires that the HFS in which the CAE Server components are installed must be on DASD that is shared between primary and backup servers (to support failover server capability in the CAE).
- The total capacity of the two ZFS or HFS file systems used by the CAE Server under USS (if you choose to run the server under USS) should be 1 GB (1200 cylinders).
- The user ID that the CAE Agent runs under must have an OMVS segment.

For CAE Server host:

- **Operating System:** Windows XP, Windows 7
- **RAM:** 1GB
- **Disk Space:** 1 GB free
- **Processor Speed:** Pentium IV, 1 GHz
- **Network Access Speed:** LAN, T1, DSL, or cable modem
- **Network Protocols:** TCP/IP
- **Display Requirements:** SVGA monitor; 256 colors or greater

For CAE Browser Client:

- Firefox 2.0.0.13 or later
- Internet Explorer V8 or later
- Adobe Flash Player 10

**Note:**

The disk space required by DB2 Query Monitor includes:

- 768 MB RAM, 1 GB for the CAE Server
There are no disk space requirements for the CAE Browser Client

**DB2 SQL Performance Analyzer Considerations:**

DB2 SQL Performance Analyzer has no special considerations for the target system.

**DB2 Query Workload Tuner Considerations:**

This SMP/E installation is part of the larger process of installing and configuring DB2 Workload Tuner for z/OS. To download DB2 Query Workload Tuner for z/OS, please refer to the applicable DVDs and License Activation Kit. For documentation that explains the setup process, see:
http://www.ibm.com/support/docview.wss?uid=swg27046888

**OMEGAMON XE for DB2 PE 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 DB2 PE 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 - UA76853
HKDS630 - 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 DATASTORE FACILITY OVERLAY.

Recommended maintenance for enhanced 3270UI integration with Tivoli OMEGAMON XE for CICS on z/OS V5.3 and DB2 Query Monitor for z/OS V3.2.
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.

- If you want OMEGAMON XE for DB2 PE on z/OS and the Data Studio Workbench feature of DB2 Accessories Suite to coexist, ensure they are installed in different CSI target zones. Then separate run-time environments of OMEGAMON XE for DB2 PE and Data Studio Workbench can be configured to coexist in a given LPAR.
6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of DB2 Performance Solution Pack.

Please note the following points:

- If you want to install DB2 Performance Solution Pack into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

DB2 Performance Solution Pack is special, in that it is installed in two different SRELs, and these SYSRELS need to be installed into different SMP/E target and distribution zones.

Refer to 6.1, “Installing DBS (SREL P115) Products for DB2 Performance Solution Pack” for installation instructions for the following FMIDS.

- HBPF140
- H238320
- H238KN0
- H25F132
- H2AQ510
- H1D0510

Refer to 6.2, “Installing z/OS (SREL Z038) Products for DB2 Performance Solution Pack” on page 44 for installation instructions for the following FMIDS.

- HKDB53X
- HKDB530
- HKOB730
- HPMZ530

6.1 Installing DBS (SREL P115) Products for DB2 Performance Solution Pack

This section describes the installation instructions for

- DB2 Performance Solution Pack
- DB2 Query Monitor
- DB2 SQL Performance Analyzer
6.1.1 SMP/E Considerations for Installing DB2 Performance Solution Pack DBS Products

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of DB2 Performance Solution Pack.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 30. 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>(500,500,500)</td>
<td>3390 DASD tracks</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

DB2 Performance Solution Pack DBS Products use the CALLLIBS function provided in SMP/E to resolve external references during installation. When the DB2 Performance Solution Pack DBS Products are installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- LINKLIB
- SCEECPP
- SCEELIB
- SCEELKED
- SCEELKEX
- SDSNLOAD
- SIBMCALL
- SISPLOAD

**Note:** CALLLIBS uses the previous DDDEFs only to resolve the link-edits for DB2 Performance Solution Pack DBS Products. These data sets are not updated during the installation of DB2 Performance Solution Pack.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install the DB2 Performance Solution Pack DBS Products:
You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.7, “Perform SMP/E RECEIVE” on page 39) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 31 on page 36 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
//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.HBPF140.F1,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.HBPF140.F1,UNIT=tunit, 
//* VOL=SER=IBM.HBPF140,LABEL=(2,SL), 
//* DISP=(OLD,KEEP) 
//*******************************************************************************/
//* Make the //FILEIN DD statement below active for * 
//* downloaded DASD files. * 
//*******************************************************************************/
//FILEIN DD DSN=IBM.HBPF140.F1,UNIT=SYSALLDA,DISP=SHR, 
//* VOL=SER=filevol 
//OUT DD DSN=jcl-library-name, 
// DISP=(NEW,CATLG,DELETE), 
// VOL=SER=dasdv01,UNIT=SYSALLDA, 
// SPACE=(CYL,(20,10,5)) 
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1)) 
//SYSIN DD * 
COPY INDD=xxxxIN,OUTDD=OUT 
/*
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.HBPF140.F1 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.
  dasdv01 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.
6.1.5 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 BPFALA to allocate the SMP/E data set for the DB2 Performance Solution Pack DBS Products. 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 Initialize CSI zones (Optional)

Edit and submit sample job BPFALB to initialize SMP/E zones for the DB2 Performance Solution Pack DBS Products. 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.

6.1.7 Perform SMP/E RECEIVE

Note: FEC Common Code, H25F132, is a mandatory installation and operational requisite for DB2 Query Monitor. If you have already installed FEC Common Code, H25F132, do not receive this FMID again.

If you have obtained DB2 Performance Solution Pack as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the DB2 Performance Solution Pack 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 sample job BPFRECV1 to perform the SMP/E RECEIVE for DB2 Performance Solution Pack. 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.

You can also choose to edit and submit sample job BPFRECV2 to perform the SMP/E RECEIVE for DB2 Query Monitor. 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.

If you have run the BPFRECV2 job, you will be required to run sample job BPFRECV3 to perform the SMP/E RECEIVE for DB2 Query Monitor Standard Edition Identifier. 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.

If you are installing FEC Common Code edit and submit sample job BPFRECV4 to perform the SMP/E RECEIVE for FEC Common Code. 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.

You can also choose to edit and submit sample job BPFRECV5 to perform the SMP/E RECEIVE for DB2 SQL Performance Analyzer. 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.

You can also choose to edit and submit sample job BPFRECV6 to perform the SMP/E RECEIVE for DB2 Query Workload Tuner. 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.

6.1.8 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job BPFALLOC to allocate the SMP/E target and distribution libraries for the DB2 Performance Solution Pack DBS Products. 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.

If you are installing FEC Common Code edit and submit sample job BPFALLO1 to allocate the SMP/E target and distribution libraries for FEC Common Code. 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.

6.1.9 Allocate, create and mount zFS Files (Optional)

If you are allocating a new zFS data set for this install, edit, and submit sample job BPFALZFS to allocate, format and mount a zFS file system for the DB2 Query Monitor feature.

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.

6.1.10 Allocate File system Paths

Mount the file system data set of the target system on the driving system when you run the sample BPFISMKD job because the job will create paths in the file system.

Before you run the sample job to create the paths in the file system, ensure that OMVS is active on the driving system and that the file system of the target system is mounted to the driving system. If you install the DB2 Performance Solution Pack DBS Products into a zSeries file system (zFS), zFS must be active on the driving system.
If you plan to install the DB2 Performance Solution Pack DBS Products into a new file system, create the mountpoint and mount the new file system to the driving system. For DB2 Performance Solution Pack, the recommended mountpoint is /usr/lpp/cqmv3r2/.

Edit and submit sample job BPFISMKD to allocate the file system for the DB2 Performance Solution Pack DBS Products. Consult the instructions in the sample job for more information.

If you create a new file system for this product, consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This action can be helpful if an IPL occurs before the installation is completed.

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

### 6.1.11 Create DDDEF Entries

Edit and submit sample job BPFDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for the DB2 Performance Solution Pack DBS Products. 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.

If you are installing FEC Common Code, edit and submit sample job BPFDDEF1 to create DDDEF entries for the SMP/E target and distribution libraries for FEC Common Code. 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.

### 6.1.12 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job BPFApPPLy to perform an SMP/E APPLY CHECK for the DB2 Performance Solution Pack DBS Products. 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/holddaTa/390holddata.html. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

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

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

Here are sample APPLY commands:

a. 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,fmid,...} CHECK
   FORFMID(fmid,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.

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

   This method is 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.

2. 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.
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: This job should complete with a return code of 4 or less, and may issue the following messages which do not affect product installation: GIM23903W, GIM23913W, IEW2480W, IEW2482W.

Note: It is strongly recommended that DB2 Query Monitor is installed into a new environment. If it is installed into an existing environment you may receive the following messages during the APPLY:

GIM39311E ** SHELL SCRIPT CQMUPXPT PROCESSING TO DELETE HFS COMPTPX IN THE SCQMBIN LIBRARY FAILED FOR SYSMOD AK78471. SEQUENCE NUMBER 000001.

GIM39311E ** SHELL SCRIPT CQMUNPAX PROCESSING TO DELETE HFS CQMPAX IN THE SCQMBIN LIBRARY FAILED FOR SYSMOD H238320. SEQUENCE NUMBER 000004.

6.1.13 Perform SMP/E ACCEPT

Edit and submit sample job BPFACCEP to perform an SMP/E ACCEPT CHECK for the DB2 Performance Solution Pack DBS Products. 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.

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.

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

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edit or bind the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.
Expected Return Codes and Messages from ACCEPT: You will receive a return code of 0 if this job runs correctly.

6.1.14 Run REPORT CROSSZONE

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

After you install the DB2 Performance Solution Pack DBS Products, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries that describe all the target and distribution libraries to be reported on.

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

6.2 Installing z/OS (SREL Z038) Products for DB2 Performance Solution Pack

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of OMEGAMON XE for DB2 PE.

Please note the following points:

- If you want to install OMEGAMON XE for DB2 PE 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.

6.2.1 SMP/E Considerations for Installing OMEGAMON XE for DB2 PE

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of OMEGAMON XE for DB2 PE.
6.2.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 30 on page 36. 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>

6.2.3 SMP/E CALLLIBS Processing

OMEGAMON XE for DB2 PE uses the CALLLIBS function provided in SMP/E to resolve external references during installation. When OMEGAMON XE for DB2 PE is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEELKED
- SCEERUN
- SDSNLOAD
- SEZACMTX

**Note:** CALLLIBS uses the previous DDDEFs only to resolve the link-edit for OMEGAMON XE for DB2 PE. These data sets are not updated during the installation of OMEGAMON XE for DB2 PE.

6.2.4 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.

6.2.4.1 Introduction to the Job Generator: The job generation utility creates a set of jobs to define a 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.

6.2.4.2 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.
6.2.4.3 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.

6.2.4.4 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.

6.2.5 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 DB2 PE. 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 31 on page 36 are provided as part of the product to help you install OMEGAMON XE for DB2 PE.

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>KDBX3ALO</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution libraries</td>
<td>IBM.HKDB53X.F4</td>
</tr>
<tr>
<td>KDBX4DDF</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.HKDB53X.F4</td>
</tr>
<tr>
<td>KDBX5REC</td>
<td>RECEIVE</td>
<td>Sample RECEIVE job</td>
<td>IBM.HKDB53X.F4</td>
</tr>
<tr>
<td>KDBX6BDI</td>
<td>MKDIR</td>
<td>Sample job to invoke the supplied EIWMKDIR EXEC to allocate file system paths</td>
<td>IBM.HKDB53X.F4</td>
</tr>
<tr>
<td>KDBX7APP</td>
<td>APPLY</td>
<td>Sample APPLY job</td>
<td>IBM.HKDB53X.F4</td>
</tr>
</tbody>
</table>
The installation of OMEGAMON XE for DB2 PE 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 6.1.7, “Perform SMP/E RECEIVE” on page 39) then copy the jobs from the refiles to a work data set for editing and submission. See Figure 31 on page 36 to find the appropriate refile 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.

```plaintext
//STEP1 EXEC PGM=IEBCOPY,REGION=4M
//SYSPRINT DD SYSOUT=/c5197
//TAPEIN DD DSN=IBM.HKDB53X.F4,UNIT=tunit,
// VOL=SER=volser,LABEL=(x,SL),
// DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.HKDB53X.F4,UNIT=SYSALLDA,DISP=SHR,
// VOL=SER=fiulevol
//OUT DD DSNAME=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))
//SY SIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
SELECT MEMBER=(KDBX3ALO,KDBX4DDF,KDBX5REC,KDBX7APP,KDBX8ACC)
SELECT MEMBER=(KDBX6BDI)
/*/ 
```

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.HKDB53X.F4 is on the tape.

**FILEIN:**
- **fiulevol** 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.
**6.2.6 Allocate SMP/E Target and Distribution Libraries**

Edit and submit the generated job KCIJGALO to allocate the SMP/E target and distribution libraries for OMEGAMON XE for DB2 PE.

If you are not using the generated allocation job, select the sample job KDBX3ALO. 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**

**6.2.7 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 DB2 PE.

If you are not using the generated job, select the sample job KDBX4DDF. 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**

**6.2.8 Perform SMP/E RECEIVE**

If you have obtained OMEGAMON XE for DB2 PE as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the OMEGAMON XE for DB2 PE 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 KDBX5REC to perform the SMP/E RECEIVE for OMEGAMON XE for DB2 PE. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages: 0**
6.2.9 Allocate, create and mount ZFS Files (Optional)

This job allocates, creates a mountpoint, and mounts zFS data sets.

You can choose to create a new file system for this product installation by copying, editing, and submitting the JCL below. Add a job card and change all occurrences of the following lowercase variables to values suitable for your installation before submitting.

#zfsdsn - The dsname of your zFS directory.
#volser - The volume serial number for the DASD that will contain the new file system.
#zfsdir - The zFS directory where this product will be installed.

The zFS directory tree is case sensitive. Ensure #zfsdir is an absolute path name and begins with a slash (/).

```
///c5197 ALLOCZ This step allocates your zFS data set. /c5197
///c5197 EXEC PGM=IDCAMS
///c5197 SYSPRINT DD SYSOUT=/c5197
///c5197 SYSPRINT DD SYSOUT=/c5197
///c5197 DEFINE CLUSTER(NAME(#zfsdsn) -
///c5197 LINEAR CYLINDERS(15 5) SHAREOPTIONS(3) VOLUMES(#volser))
///c5197 FORMAT This step formats your newly created zFS data set. /c5197
///c5197 EXEC PGM=IOEAGFMT,REGION=/zerodotM,
///c5197 PARM=('-aggregate #zfsdsn -compat')
///c5197 SYSPRINT DD SYSOUT=/c5197
///c5197 SYSTSPRT DD SYSOUT=/c5197
///c5197 SYSTSIN DD /c5197
PROFILE WTPMSG MSGID MKDIR '#zfsdir' MODE(7,5,5)
PROFILE
///c5197 MOUNT This step MOUNTS your newly created zFS File System /c5197
///c5197 EXEC PGM=IKJEFT01
///c5197 SYSTSPRT DD SYSOUT=*
///c5197 SYSTSIN DD *
```

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6.2.10 Allocate File System Paths

If you are installing the IBM InfoSphere Optim Data Tools Runtime Client component, edit and submit the generated job KCIJGBDI to define the file system paths.

If you are not using the generated job, select the sample job KDBX6BDI. Edit and submit it after making appropriate changes for your environment. Consult the instructions in the sample job for more information. Consider the following items before submitting the job.

Important Notes:

1. The Relfile containing the EIWMKDIR exec must be available prior to running this job. The Relfile needed is HPMZ530.F2 and should be available after running the Receive job.
2. This job must be run before the Apply job.
3. This job must be run by a user ID that has superuser authority (UID=0) or read access to resource BPX.SUPERUSER under the FACILITY profile and superuser authority must be activated.
4. The user ID must have read access to the BPX.FILEATTR.APF resource profile in the RACF FACILITY class.
5. If you plan to create a new file system for this product, ensure it is created before submitting this job to define file system paths.
6. The file system must be in read/write mode before this job is run.
7. If you create a new file system for OMEGAMON XE for DB2 PE, consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This action can be helpful if an IPL occurs before the installation is completed.

Expected Return Codes and Messages: 0
6.2.11 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 DB2 PE.

If you are not using the generated job, select the sample job KDBX7APP 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.

Important Notes:

1. If the IBM InfoSphere Optim Data Tools Runtime Client component is being installed, the APPLY job must be run by a user ID that has superuser authority (UID=0) or read access to resource BPX.SUPERUSER under the FACILITY profile and superuser authority must be activated.

2. The user ID must also have read access to the BPX.FILEATTR.APF resource profile in the RACF FACILITY class. This is required for the script to execute successfully and maintain the APF-authorized attributes for all executables and DLLs during unpax.

3. The file system must be in read/write mode before this job is run.

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 $($mid, $mid,...) CHECK
   FORFMID($mid, $mid,...)
   SOURCEID(RSU+*)
   FIXCAT(IBM.ProductInstall-RequiredService)
   GROUPEXTEND .

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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,fmid,...) CHECK FORFMID(fmid,fmid,...) SOURCEID(RSU/c5197) FIXCAT(IBM/ProductInstall-RequiredService) GROUPEXTEND BYPASS(HOLDCLASS(HIPER)).

   ..any other parameters documented in the program directory

This method is 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 you process a PTF with a ++HOLD statement, you will receive a return code of 4 and the following message when the BYPASS operand is used.

   GIM42001W THE FOLLOWING CONDITIONS FOR SYSMOD sysmod
   WERE NOT SATISIFIED, BUT WERE IGNORED BECAUSE THE
   BYPASS OPERAND WAS SPECIFIED. PROCESSING CONTINUES.

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 aaaaaa
WAS SUCCESSFUL FOR MODULE bbbbbbb IN
LMOD cccccc IN THE ddddddd 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.

Figure 34 contains a list of elements that might be marked as not selected during the APPLY and ACCEPT processes. This might occur because a VERSION parameter was supplied in an FMID indicating that it contained a higher level version of the same element provided by another FMID being processed at the same time. The higher version element is selected for processing and the lower version is not selected for processing. It might also occur because maintenance is being installed at the same time as the FMIDs.

<table>
<thead>
<tr>
<th>Figure 34 (Page 1 of 2). SMP/E Elements Not Selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>KCCDGN      KCCENV     KCCIDC     KCCMSG     KCCRTR     KCCTAB</td>
</tr>
<tr>
<td>KCCTD       KCCTIM     KCCTR      KCCUCB4    KCCVCT</td>
</tr>
<tr>
<td>KCNCPIYRM   KCNMAINM   KCNUILIM   KOBAG2     KOBASEM    KOBATTC</td>
</tr>
<tr>
<td>KOBCLK$     KOBCLK@    KOBCLKQ    KOBENV$    KOBENV@    KOBENVG</td>
</tr>
<tr>
<td>KOBENVV     KOBIOE     KOBIOST    KOBLOCK    KOBMAP$    KOBMAP@</td>
</tr>
<tr>
<td>KOBCMAPI    KOBCTRACF  KOBSCOC$   KOBSCOC@   KOBSCOCK   KOBSTIO</td>
</tr>
<tr>
<td>KOBCTHR$    KOBCTHR@   KOBCTHRD   KOBCTIME   KOBCTRAC    KOBCTREE</td>
</tr>
<tr>
<td>KOBCEUNIS   KOBUXIO    KOBVSTG    KOBWTOL    KOBZDIO     KOBENUS</td>
</tr>
<tr>
<td>KOBGATWO    KOBGWCOND  KOBGWCV$   KOBGWCV#   KOBGWCV@   KOBGWAV</td>
</tr>
<tr>
<td>KOBGWLP$    KOBGWOBV   KOBGWRE$   KOBGWRE@   KOBGWREG   KOBWHISTC</td>
</tr>
<tr>
<td>KOBHLAUTF   KOBHLREF   KOBHTTP$   KOBHTTP#   KOBHTTP@   KOBHTTPL</td>
</tr>
<tr>
<td>KOBHTTPS    KOBHTTPP   KOBINMT    KOBMC0     KOBJG0      KOBGINI</td>
</tr>
<tr>
<td>KOBLSND     KOBLSRV    KOBFLTL     KOBLOFLT   KOBBOAV$    KOBBOBVA$</td>
</tr>
<tr>
<td>KOBODVAT    KOBODVAP   KOBODIL$   KOBODIL@   KOBODILD    KOBODISC</td>
</tr>
<tr>
<td>KOBODUL     KOBOMIOM   KOBPDHST    KOBPRFAU   KOBRRUI$   KOBRRUI@</td>
</tr>
<tr>
<td>KOBRRUIA    KOBRRWK$   KOBRRWK@   KOBRRWKR    KOBRSMG1    KOBZFN1</td>
</tr>
<tr>
<td>KOBZHHST    KOBSUB#M    KOBTCBFA   KOBTCCL$   KOBTCCLA    KOBTHRM</td>
</tr>
</tbody>
</table>

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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.

6.2.12 Perform SMP/E ACCEPT

Edit and submit the generated job KCIJGACC to perform an SMP/E ACCEPT CHECK for OMEGAMON XE for DB2 PE.

If you are not using the generated job, select the sample job KDBX8ACC 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 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 you process a PTF with a ++HOLD statement, you will receive a return code of 4 and the following
message when the BYPASS operand is used.

```
GIM42001W THE FOLLOWING CONDITIONS FOR SYSMOD sysmod
    WERE NOT SATISFIED, BUT WERE IGNORED BECAUSE THE
    BYPASS OPERAND WAS SPECIFIED. PROCESSING CONTINUES.
```

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: 4**

Figure 34 on page 54 contains a list of elements that might be marked as not selected during the APPLY
and ACCEPT processes. This might occur because a VERSION parameter was supplied in an FMID
indicating that it contained a higher level version of the same element provided by another FMID being
processed at the same time. The higher version element is selected for processing and the lower version
is not selected for processing. It might also occur because maintenance is being installed at the same
time as the FMIDs.

**6.2.13 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs**

The following file system paths, which were created and used by previous releases of this product, are no
longer used in this release. You can delete these obsolete file system paths after you delete the previous
release from your system.

- `#hfsdir/usr/lpp/opmei/v520/lib/IBM`
- `#hfsdir/usr/lpp/opmei/v520/lib`
- `#hfsdir/usr/lpp/opmei/v520`
- `#hfsdir/usr/lpp/opmei/v511/lib/IBM`
- `#hfsdir/usr/lpp/opmei/v511/lib`
- `#hfsdir/usr/lpp/opmei/v511`
However, in order to keep the existing configuration file (pdq.properties) you might want to copy this file into the new "/usr/lpp/opmei/v530/lib/IBM" path before you delete the obsolete file system paths. The alternative is to create the same configuration again in the new path.

6.3 Activating DB2 Performance Solution Pack

6.3.1 File System Execution

For DB2 Query Monitor

If you mount the file system in which you have installed DB2 Query Monitor in read-only mode during execution, then you do not have to take further actions to activate DB2 Query Monitor.

For OMEGAMON XE for DB2 PE:

If you mount the file system in which you have installed the IBM InfoSphere Optim Data Tools Runtime Client component in read-only mode during execution, then you do not have to take further actions.

6.3.2 Product Customization

The publication IBM DB2 Performance Solution Pack for z/OS Customization and Overview Guide. (SC27-6774) contains the necessary information to customize and use DB2 Performance Solution Pack.

For OMEGAMON XE for DB2 PE:

Prior to activating OMEGAMON XE for DB2 PE, IBM recommends you review the Quick Start guide, the PARMGEN reference manual 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 Configuration and Customization documentation contains the step-by-step procedures to activate the functions of OMEGAMON XE for DB2 PE.

This documentation can be found online at:

http://www.ibm.com/support/knowledgecenter/OMXEDB2PE530/com.ibm.omegamon.xe.pe_db2.doc_5.3.0/ko2welcome_pe.htm
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