Program Directory for
IBM Tools Base for z/OS

V01.05.00
Program Number 5655-V93

FMIDs HAHN150, HTCZ110, HAKP150, H30S240

for Use with
z/OS

FMID HTCZ110 Service Updated 18 August 2014

Document Date: October 2014
Note

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 43.
Contents

1.0 Introduction ................................................................................. 1
  1.1 Tools Base Description ......................................................... 2
  1.2 Tools Base FMIDs .................................................................... 4

2.0 Program Materials ..................................................................... 5
  2.1 Basic Machine-Readable Material .......................................... 5
  2.2 Optional Machine-Readable Material ..................................... 7
  2.3 Program Publications .......................................................... 8
    2.3.1 Optional Program Publications ...................................... 8
  2.4 Program Source Materials .................................................. 9
  2.5 Publications Useful During Installation ................................. 9

3.0 Program Support ...................................................................... 10
  3.1 Program Services .................................................................. 10
  3.2 Preventive Service Planning ................................................ 10
  3.3 Statement of Support Procedures ....................................... 11

4.0 Program and Service Level Information .................................. 12
  4.1 Program Level Information ................................................ 12
  4.2 Service Level Information .................................................. 13

5.0 Installation Requirements and Considerations ...................... 15
  5.1 Driving System Requirements .............................................. 15
    5.1.1 Machine Requirements .................................................. 15
    5.1.2 Programming Requirements ......................................... 15
  5.2 Target System Requirements ............................................... 16
    5.2.1 Machine Requirements .................................................. 16
    5.2.2 Programming Requirements ......................................... 16
      5.2.2.1 Installation Requisites .................................................. 16
      5.2.2.2 Operational Requisites ................................................. 17
      5.2.2.3 Tolerance/Coexistence Requisites ................................. 18
      5.2.2.4 Incompatibility (Negative) Requisites ......................... 18
    5.2.3 DASD Storage Requirements .......................................... 18
  5.3 FMIDs Deleted ................................................................. 23
  5.4 Special Considerations ....................................................... 24

6.0 Installation Instructions .......................................................... 27
  6.1 Installing Tools Base .......................................................... 27
    6.1.1 SMP/E Considerations for Installing Tools Base .......... 27
    6.1.2 SMP/E Options Subentry Values .................................... 27
    6.1.3 SMP/E CALLLIBS Processing ....................................... 28
    6.1.4 Sample Jobs ............................................................... 28

© Copyright IBM Corp. 1994, 2014
23. Sample Installation Jobs for HAKP150 - Autonomics Director for DB2 ................................ 29
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 Tools Base for z/OS. This publication refers to IBM Tools Base for z/OS as Tools Base, IBM Tools Customizer for z/OS as Tools Customizer, IBM Autonomics Director for DB2 for z/OS as Autonomics Director for DB2, and IBM Functional Support Library Server as Functional Support Library Server.

The Program Directory contains the following sections:

- **2.0, “Program Materials” on page 5** identifies the basic program materials and documentation for Tools Base.
- **3.0, “Program Support” on page 10** describes the IBM support available for Tools Base.
- **4.0, “Program and Service Level Information” on page 12** lists the APARs (program level) and PTFs (service level) that have been incorporated into Tools Base.
- **5.0, “Installation Requirements and Considerations” on page 15** identifies the resources and considerations that are required for installing and using Tools Base.
- **6.0, “Installation Instructions” on page 27** provides detailed installation instructions for Tools Base. It also describes the procedures for activating the functions of Tools Base, or refers to appropriate publications.

Before installing Tools Base, 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 10](#) tells you how to find any updates to the information and procedures in this program directory.

Tools Base 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 Tools Base are included on the CBPDO tape.

Do not use this program directory if you install Tools Base 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 Tools Base Description

IBM TOOLS BASE FOR Z/OS, V1.5 (5655-V93) is part of the Information Management Tools portfolio, providing common infrastructure used by various IBM DB2 and IMS Tools product offerings. Tools Base for z/OS consists of various components supporting key strategic architectures, technologies, and services utilized by DB2 and IMS tools.

Tools Base for z/OS offers:

- **Autonomics for IMS**
  - Automates recurring database monitoring and maintenance tasks, including on-demand scheduling of database sensor and evaluation. The Tools Base Autonomics Director for z/OS component offers much needed automation in the area of ongoing IMS database monitoring and maintenance. Sensor-enabled IMS tools capture the state of ongoing IMS database monitoring and maintenance. The Tools Base Autonomics Director uses the Policy Services component (a core IMS Tools technology that supports certain IBM tools in providing conditional autonomic database health management functionality that may execute based on a specific IMS system status) to evaluate this data and to make recommendations, such as indicating when performing database reorganization might be desirable.

  Tools Base Autonomics Director is used by IBM IMS Database Solution Pack for z/OS and IBM IMS Fast Path Solution Pack for z/OS (both separately licensed) to help identify and administer the normal functions that are associated with maintaining the health and performance of IMS. Sensor data that is collected by Tools Base Autonomics Director is interchangeable with sensor data that is collected by IBM IMS Database Reorganization Expert for z/OS. Sensor data represents the state of a database and includes information about the organization of the data in the database, system catalog, VSAM catalog, and disk Volume Table of Contents (VTOC).

  - Provides a centralized information management environment through the Tools Base IMS Tools Knowledge Base for z/OS (IMS Tools KB) component for storing and viewing resources, such as reports, sensor data, policies, rules, notification lists, database state (sensor) data, exceptions, recommendations, and evaluation schedules, that are generated or used by certain IBM tools.

- **Autonomics for DB2**
  - IBM Autonomics Director for DB2 for z/OS, a new component delivered with Tools Base for z/OS, V1.5, provides an open framework upon which any number of individual tools can participate, collectively providing the autonomic functions to allow the system to help manage itself.

    The Autonomics Director for DB2 consists of:
    - A collection of tables that maintain the current and historical state of the system
    - A number of stored procedures for managing those tables and acting upon their data

- **Common services**
  - Tools Base Distributed Access Infrastructure for z/OS, a component of Tools Base, enables authorized access to configured IMS Tools from authenticated TCP/IP clients. It acts as a gateway for communication between distributed platforms and z/OS.
– Tools Base IMS Tools Generic Exits for z/OS is a collection of exit routines that provide the ability
to call multiple exit routines from a single exit point in an IMS environment. IMS Tools Generic
Exits can be used by separately licensed IBM IMS Tools to manage various interfaces, including
the managing of IMS exits and commands.

– The Tools Base IMS Tools Online System Interface for z/OS component is a command interface
that allows separately licensed IBM IMS Tools to interface with all supported versions of IMS.

• Supplementary tools

– IBM Tools Customizer for z/OS is provided for use in tailoring IBM DB2 Tools product offerings
that are enabled to the Tools Customizer to assist in post-installation customization. It offers a
process that allows customization and recustomization of the tools and their maintenance in an
efficient manner.

– The Tools Base IMS Hardware Data (HD) Compression Extended for z/OS component offers
functions for compressing IMS data by using the z/OS hardware data compression (HDC) that is
available on IBM processors. It allows the creation, monitoring, and management of compressed
databases and the evaluation of compression impact through an ISPF user interface.

Tools Base for z/OS, V1.5 contains the following new functionality, support, and changes:

• Autonomics Director for IMS

– Support is added for passive and active reorganizations and extensions (IOVF and SDEP) of Fast
Path DEDB areas. Users can get recommendations for reorganizations and extensions (IOVF and
SDEP) of Fast Path DEDB areas. They can also enable automatic reorganizations and
extensions (IOVF and SDEP) of Fast Path DEDB areas.

– The Director Policy Services Exception Reporting utility (IAVXTRC0) is introduced to produce
reports of the Policy Services exception messages that are generated during Phase 1 of one or
more policy evaluations. This utility retrieves the exceptions from the Autonomics Director
Repository in the IMS Tools Knowledge Base.

• IBM Autonomics Director for DB2 for z/OS

The Autonomics Director for DB2 for z/OS component delivered with Tools Base, V1.5 employs two
classes of pluggable functions:

– Evaluators: Analyze the state of the system and identify symptoms they register in the
SYMPTOMS table and make recommendations by registering them in the ACTIONS table.

– Enactors: Perform a specified action out of the ACTIONS table as instructed by the Autonomics
Director for DB2. Enactors are also responsible for providing projections of time and CPU for
actions.

The external evaluators and enactors communicate and interact by manipulating the various tables
provided and managed by the Autonomics Director for DB2. The set of tables created by Autonomics
Director for DB2 include registered evaluators and enactors, discovered symptoms and their
corresponding recommended actions, maintenance window definitions, and historical records of
autonomic actions, utility runs, and Real Time Statistics (RTS).
Autonomics Director for DB2 for z/OS includes an RTS snapshot stored procedure that can be regularly scheduled to provide a historical view of DB2 RTS.

The Active Autonomics Director Stored Procedure is in charge of projecting and executing a maintenance window. It runs in a stored procedure with support to be called by the DB2 Administrative Task Scheduler, an external Batch Scheduler, or directly from the user. When called, it examines the actions list and drives the registered enactor to run the highest priority actions that fit within the maintenance window. Priority is determined by the individual tools registering the action and can be customized by the user.

Active Autonomics Director is called through a stored procedure and is passed in the maintenance window it is supposed to run. Active Autonomics Director could be invoked at any time throughout a maintenance window. Active Autonomics Director determines how much time is remaining in the current window (if any at all) and begins to execute Actions from the Actions list in priority order.

- Maintenance roll-up.
- The Administration Console component of Tools Base for z/OS, V1.4 is no longer delivered as part of Tools Base for z/OS, V1.5. Customers are asked to order its replacement.

The component Tools Base Administration Console for z/OS is replaced by IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC), a no-charge, separately licensed product.

Management Console for IMS and DB2 provides a single, holistic easier to use web-based interface for DB2 and IMS management leveraging the latest web technologies for a richer user experience. Together with Tools Base, V1.5, Management Console for IMS and DB2 helps to automate collection and analysis of data on IMS and DB2 engines, prompting decisions and appropriate actions.

1.2 Tools Base FMIDs

Tools Base consists of the following FMIDs:

- HAHN150 - IBM Tools Base for z/OS
- HTCZ110 - IBM Tools Customizer for z/OS
- HAKP150 - IBM Autonomics Director for DB2 for z/OS
- H30S240 - IBM Functional Support Library Server
2.0 Program Materials

An IBM program is identified by a program number. The program number for Tools Base is 5655-V93.

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 Tools Base. 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 27 for more information about how to install the program.

You can find information about the physical media for the basic machine-readable materials for Tools Base in the CBPDO Memo To Users Extension.

Figure 1 describes the program file content for Tools Base.
Figure 2 on page 6 describes the program file content for Tools Customizer.
Figure 3 on page 7 describes the program file content for Autonomics Director for DB2.
Figure 4 on page 7 describes the program file content for Functional Support Library Server.

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

Notes:
1. The data set attributes in this table must be used in the JCL of jobs that read the data sets. However, because the data sets are in IEBCOPY unloaded format, their actual attributes might be different.
2. If any RELFILEs are identified as PDSEs, ensure that SMPTLIB data sets are allocated as PDSEs.

<table>
<thead>
<tr>
<th>Name</th>
<th>R</th>
<th>L</th>
<th>BLK SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMPMCS</td>
<td>SEQ</td>
<td>FB</td>
<td>80</td>
</tr>
<tr>
<td>IBM.HAHN150.F1</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
</tr>
<tr>
<td>IBM.HAHN150.F2</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
</tr>
<tr>
<td>IBM.HAHN150.F3</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
</tr>
<tr>
<td>IBM.HAHN150.F4</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
</tr>
</tbody>
</table>
**Figure 1 (Page 2 of 2). Program File Content for Tools Base, FMID HAHN150**

<table>
<thead>
<tr>
<th>Name</th>
<th>ORG</th>
<th>REC</th>
<th>LREC</th>
<th>BLK SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM.HAHN150.F5</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F6</td>
<td>PDS</td>
<td>VB</td>
<td>255</td>
<td>27998</td>
</tr>
<tr>
<td>IBM.HAHN150.F7</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F8</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F9</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F10</td>
<td>PDS</td>
<td>FB</td>
<td>4096</td>
<td>28672</td>
</tr>
<tr>
<td>IBM.HAHN150.F11</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F12</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F13</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F14</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F15</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F16</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F17</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F18</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F19</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F20</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAHN150.F21</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
</tbody>
</table>

**Figure 2 (Page 1 of 2). Program File Content for Tools Customizer, FMID HTCZ110**

<table>
<thead>
<tr>
<th>Name</th>
<th>ORG</th>
<th>REC</th>
<th>LREC</th>
<th>BLK SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMPMCS</td>
<td>SEQ</td>
<td>FB</td>
<td>80</td>
<td>6400</td>
</tr>
<tr>
<td>IBM.HTCZ110.F1</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HTCZ110.F2</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HTCZ110.F3</td>
<td>PDS</td>
<td>VBA</td>
<td>16384</td>
<td>16388</td>
</tr>
<tr>
<td>IBM.HTCZ110.F4</td>
<td>PDS</td>
<td>VB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HTCZ110.F5</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>6144</td>
</tr>
<tr>
<td>IBM.HTCZ110.F6</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
</tbody>
</table>
### Figure 2 (Page 2 of 2). Program File Content for Tools Customizer, FMID HTCZ110

<table>
<thead>
<tr>
<th>Name</th>
<th>ORG</th>
<th>REC</th>
<th>RCL</th>
<th>BLK SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM.HTCZ110.F7</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HTCZ110.F8</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HTCZ110.F9</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
</tbody>
</table>

### Figure 3. Program File Content for Autonomics Director for DB2, FMID HAKP150

<table>
<thead>
<tr>
<th>Name</th>
<th>ORG</th>
<th>REC</th>
<th>RCL</th>
<th>BLK SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMPMCS</td>
<td>SEQ</td>
<td>FB</td>
<td>80</td>
<td>6400</td>
</tr>
<tr>
<td>IBM.HAKP150.F1</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAKP150.F2</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAKP150.F3</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>6144</td>
</tr>
<tr>
<td>IBM.HAKP150.F4</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.HAKP150.F5</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
</tbody>
</table>

### Figure 4. Program File Content for Functional Support Library Server, FMID H30S240

<table>
<thead>
<tr>
<th>Name</th>
<th>ORG</th>
<th>REC</th>
<th>RCL</th>
<th>BLK SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMPMCS</td>
<td>SEQ</td>
<td>FB</td>
<td>80</td>
<td>6400</td>
</tr>
<tr>
<td>IBM.H30S240.F1</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
<tr>
<td>IBM.H30S240.F2</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>6144</td>
</tr>
<tr>
<td>IBM.H30S240.F3</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>8800</td>
</tr>
</tbody>
</table>

### 2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for Tools Base.
2.3 Program Publications

The following sections identify the basic publications for Tools Base.

Figure 5 on page 8 identifies the basic unlicensed publications for Tools Base. 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>
</table>

2.3.1 Optional Program Publications

No optional publications are provided for Tools Base.
2.4 Program Source Materials

No program source materials or viewable program listings are provided for Tools Base.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 6 during the installation of Tools Base.

<table>
<thead>
<tr>
<th>Publication Title</th>
<th>Form Number</th>
<th>Media Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</td>
<td>GA22-7770</td>
<td><a href="http://www.ibm.com/shop/publications/order/">http://www.ibm.com/shop/publications/order/</a></td>
</tr>
</tbody>
</table>
3.0 Program Support

This section describes the IBM support available for Tools Base.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install Tools Base, 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 6.1.10, “Perform SMP/E APPLY” on page 37 for a sample APPLY command.

If you obtained Tools Base as part of a CBPDO, HOLDDATA is included.

If the CBPDO for Tools Base 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 Tools Base are included in Figure 7

<table>
<thead>
<tr>
<th>UPGRADE</th>
<th>SUBSET</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5655V93</td>
<td>HAHN150</td>
<td>Tools Base</td>
</tr>
<tr>
<td>5655V93</td>
<td>HTCZ110/1434</td>
<td>Tools Customizer</td>
</tr>
<tr>
<td>5655V93</td>
<td>HAKP150</td>
<td>Autonomics Director for DB2</td>
</tr>
<tr>
<td>5655S56</td>
<td>H30S240</td>
<td>Functional Support Library Server</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 8 on page 11 identifies the component IDs (COMPID) for Tools Base.

<table>
<thead>
<tr>
<th>FMID</th>
<th>COMPID</th>
<th>Component Name</th>
<th>RETAIN Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>HAHN150</td>
<td>5655V9300</td>
<td>Tools Base</td>
<td>150</td>
</tr>
<tr>
<td>HTCZ110</td>
<td>5655TCZ00</td>
<td>Tools Customizer</td>
<td>110</td>
</tr>
<tr>
<td>HAKP150</td>
<td>5655V9301</td>
<td>Autonomics Director for DB2</td>
<td>150</td>
</tr>
<tr>
<td>H30S240</td>
<td>5655K4801</td>
<td>Functional Support Library Server</td>
<td>240</td>
</tr>
</tbody>
</table>
4.0 Program and Service Level Information

This section identifies the program and relevant service levels of Tools Base. 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 Tools Base have been incorporated into this release. They are listed by FMID.

- FMID HAHN140

<table>
<thead>
<tr>
<th>FMID</th>
<th>APAR Fixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM82181</td>
<td>PM95749</td>
</tr>
<tr>
<td>PM88611</td>
<td>PM96450</td>
</tr>
<tr>
<td>PM88751</td>
<td>PM96587</td>
</tr>
<tr>
<td>PM88720</td>
<td>PM96934</td>
</tr>
<tr>
<td>PM88973</td>
<td>PM98856</td>
</tr>
<tr>
<td>PM90881</td>
<td>PM99015</td>
</tr>
<tr>
<td>PM88975</td>
<td>PM99498</td>
</tr>
<tr>
<td>PM91141</td>
<td>PI04989</td>
</tr>
<tr>
<td>PM91603</td>
<td>PI05934</td>
</tr>
<tr>
<td>PM91903</td>
<td>PI05929</td>
</tr>
<tr>
<td>PM93889</td>
<td>PI06537</td>
</tr>
<tr>
<td>PM94292</td>
<td>PI07250</td>
</tr>
<tr>
<td>PM94764</td>
<td>PI07734</td>
</tr>
<tr>
<td>PM94863</td>
<td>PI08302</td>
</tr>
<tr>
<td>PM95004</td>
<td>PI09072</td>
</tr>
</tbody>
</table>

- FMID H30S230

<table>
<thead>
<tr>
<th>FMID</th>
<th>APAR Fixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM67051</td>
<td>PM88073</td>
</tr>
<tr>
<td>PM72155</td>
<td>PM96856</td>
</tr>
<tr>
<td>PM79685</td>
<td>PM98844</td>
</tr>
<tr>
<td>PM82767</td>
<td></td>
</tr>
</tbody>
</table>
4.2 Service Level Information

The following PTFs containing APAR fixes against IBM Tools Customizer for z/OS delivered as part of this release of IBM Tools Base for z/OS have been integrated into this release.

NOTE: COR-CLOSED PTFs are available for 'Corrective Service' and will be placed on the next available ESO Tape (Expanded Service Option, formerly known as PUT Tapes). The following sub-categories for COR-CLOSED PTFs have been provided by Software Delivery and Fulfillment (SDF), Poughkeepsie:

PUTyymm COR-CLOSED PTFs that are available on an ESO Tape, where 'yynn' indicates the year and the month that the ESO tape became available.

RSUyymm RSU (Recommended Service Upgrade) is a preventive service philosophy for all S/390 products that are serviced by IBM for the OS/390 and MVS platforms. RSU reduces the volume of PTFs customers need to apply for preventive maintenance. RSU became available at OS/390 Release 2 GA (9/96), and is identified via an additional SOURCEID of RSUyymm, where 'yymm' indicates the year and the month the PTF was assigned this SOURCEID.

SMCCOR COR-CLOSED PTFs that are not yet available on an ESO Tape and have no special recommendation for installation.

- FMID HTCZ110
  UI13645
  UI115789
  UI19610
  UK62988
  UK64722
  UK66501
  UK67391
  UK68950
  UK69930
  UK70686
  UK71723
  UK72680
  UK74030
  UK76025
  UK78016
  UK80200
  UK81126
  UK82967
  UK90092
  UK90484
  UK91582
  UK92419
  UK93623
  UK94924

Frequently check the Tools Base 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-REQUERDSERVICE)** 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 Tools Base. 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 Tools Base.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements
5.2 Target System Requirements

This section describes the environment of the target system required to install and use Tools Base.

Tools Base installs in the DBS (P115) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: 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.

Tools Base has no mandatory installation requisites.

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.

Tools Base has no conditional installation requisites.

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.
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.

Tools Base has no mandatory operational requisites.

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](image)

<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>5635-A03</td>
<td>IBM IMS, V12.01.00</td>
<td>See Note (1) below</td>
</tr>
<tr>
<td>5655-DSQ</td>
<td>IBM IMS Database Value Unit Edition, V12.01.00 with PTF UK93908</td>
<td>See Note (1) below</td>
</tr>
<tr>
<td>5655-TM1</td>
<td>IBM IMS Transaction Manager Value Unit Edition, V12.01.00</td>
<td>See Note (1) below</td>
</tr>
<tr>
<td>5635-A04</td>
<td>IBM IMS, V13.01.00</td>
<td>See Note (1) below</td>
</tr>
<tr>
<td>5655-DSM</td>
<td>IBM IMS Database Value Unit Edition, V13.01.00</td>
<td>See Note (1) below</td>
</tr>
<tr>
<td>5655-TM2</td>
<td>IBM IMS Transaction Manager Value Unit Edition, V13.01.00</td>
<td>See Note (1) below</td>
</tr>
<tr>
<td>Any one of the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5605-DB2</td>
<td>IBM DB2 for z/OS, V10.01.00</td>
<td>See Note (2) below</td>
</tr>
<tr>
<td>5697-P31</td>
<td>IBM DB2 for z/OS Value Unit Edition, V10.01.00</td>
<td>See Note (2) below</td>
</tr>
<tr>
<td>5615-DB2</td>
<td>IBM DB2 for z/OS, V11.01.00</td>
<td>See Note (2) below</td>
</tr>
<tr>
<td>5697-P43</td>
<td>IBM DB2 for z/OS Value Unit Edition, V11.01.00</td>
<td>See Note (2) below</td>
</tr>
</tbody>
</table>

**Note:**

1. Any one of the IMS versions mentioned in Figure 10 is required for the following Tools Base components:
   - Tools Base IMS Hardware Data Compression Extended for z/OS
   - Tools Base Generic Exits for z/OS
   - Tools Base IMS Tools Online System Interface for z/OS
   - Tools Base Autonomics Director for z/OS

2. Any one of the DB2 versions mentioned in Figure 10 is required for the following Tools Base components:
- Tools Customizer, FMID HAKP150.
- Autonomics Director for DB2, FMID HTCZ110 (Only if you are tailoring IBM DB2 Tools product offerings that are enabled to the Tools Customizer to assist in post-installation customization).

Refer to 5.4, “Special Considerations” on page 24 for further information regarding each FMID.

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.

Tools Base 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.

Tools Base has no negative requisites.

5.2.3 DASD Storage Requirements

Tools Base libraries can reside on all supported DASD types.

Figure 11 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>1463 tracks for Tools Base</td>
</tr>
<tr>
<td></td>
<td>397 tracks for Tools Customizer</td>
</tr>
<tr>
<td></td>
<td>97 tracks for Autonomics Director for DB2</td>
</tr>
<tr>
<td></td>
<td>86 tracks for Functional Support Library Server</td>
</tr>
<tr>
<td>Distribution</td>
<td>1155 tracks for Tools Base</td>
</tr>
<tr>
<td></td>
<td>397 tracks for Tools Customizer</td>
</tr>
<tr>
<td></td>
<td>97 tracks for Autonomics Director for DB2</td>
</tr>
<tr>
<td></td>
<td>86 tracks for Functional Support Library Server</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.
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.

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.

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 36.

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

4. All target libraries listed have the following attributes:
   - These data sets can be SMS-managed, but they are not required to be SMS-managed.
   - These data sets are not required to reside on the IPL volume.
   - The values in the “Member Type” column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.

5. All target libraries that are listed and contain load modules have the following attributes:
   - These data sets can be in the LPA, but they are not required to be in the LPA.
   - These data sets can be in the LNKLST.
   - Target libraries SAILINK, SFOILOAD, SGLXLOAD, SDYXLOAD, and SHKTLOAD must be APF-authorized.

The following figures describe the target and distribution libraries required to install Tools Base. The storage requirements of Tools Base must be added to the storage required by other programs that have data in the same library.

Note: Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.
<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Type</th>
<th>Target Volume</th>
<th>REC</th>
<th>LRE</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAIIBASE</td>
<td>SAMPLE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>17</td>
<td>2</td>
</tr>
<tr>
<td>SAIIEEXEC</td>
<td>EXEC</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>SAIIGENU</td>
<td>DATA</td>
<td>Any</td>
<td>U PDS</td>
<td>VB</td>
<td>255</td>
<td>210</td>
<td>5</td>
</tr>
<tr>
<td>SAILINK</td>
<td>LMOD</td>
<td>Any</td>
<td>U PDS</td>
<td>U</td>
<td>0</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>SAIISAMP</td>
<td>SAMPLE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>SFOLOAD</td>
<td>LMOD</td>
<td>Any</td>
<td>U PDS</td>
<td>U</td>
<td>0</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>SGLXLOAD</td>
<td>LMOD</td>
<td>Any</td>
<td>U PDS</td>
<td>U</td>
<td>0</td>
<td>38</td>
<td>20</td>
</tr>
<tr>
<td>SGLXMACS</td>
<td>MACRO</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SGLXSAMP</td>
<td>SAMPLE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SHCOCEXE</td>
<td>EXEC</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>SHCODATA</td>
<td>DATA</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>4096</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>SHCOLMOD</td>
<td>LMOD</td>
<td>Any</td>
<td>U PDS</td>
<td>U</td>
<td>0</td>
<td>76</td>
<td>10</td>
</tr>
<tr>
<td>SHCOMENU</td>
<td>MESSAGE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SHCOPENU</td>
<td>PANEL</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>SHCOSAMP</td>
<td>SAMPLE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>SHCOSENU</td>
<td>SKEL</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>SHKTCEXE</td>
<td>EXEC</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>SHKTCLIB</td>
<td>CLIST</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>SHKTLOAD</td>
<td>LMOD</td>
<td>Any</td>
<td>U PDS</td>
<td>U</td>
<td>0</td>
<td>753</td>
<td>125</td>
</tr>
<tr>
<td>SHKTMENU</td>
<td>MESSAGE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>29</td>
<td>15</td>
</tr>
<tr>
<td>SHKTPENU</td>
<td>PANEL</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>151</td>
<td>40</td>
</tr>
<tr>
<td>SHKTSAMP</td>
<td>SAMPLE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>SHKTTEMP</td>
<td>TABLE</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SHKTTEMP</td>
<td>DATA</td>
<td>Any</td>
<td>U PDS</td>
<td>FB</td>
<td>80</td>
<td>26</td>
<td>3</td>
</tr>
</tbody>
</table>
### Figure 13. Storage Requirements for Tools Customizer Target Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>R E L</th>
<th>T Y O P R F C</th>
<th>No. of Trks</th>
<th>No. of Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCCQBASE</td>
<td>SAMPLE</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>6</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SCCQDENU</td>
<td>MESSAGE</td>
<td>Any S PDS VBA</td>
<td>16384</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SCCQEXEC</td>
<td>SAMPLE</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SCCQLOAD</td>
<td>LMOD</td>
<td>Any S PDS U</td>
<td>0</td>
<td>313</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>SCCQMENU</td>
<td>MESSAGE</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>26</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>SCCQPENU</td>
<td>PANEL</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>38</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>SCCQSAMP</td>
<td>SAMPLE</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SCCQTENU</td>
<td>TABLE</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

### Figure 14. Storage Requirements for Autonomics Director for DB2 Target Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>R E L</th>
<th>T Y O P R F C</th>
<th>No. of Trks</th>
<th>No. of Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SDYXBASE</td>
<td>SAMPLE</td>
<td>Any U PDS FB</td>
<td>80</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>SDYXDBRM</td>
<td>MACRO</td>
<td>Any U PDS FB</td>
<td>80</td>
<td>21</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SDYXDENU</td>
<td>DATA</td>
<td>Any U PDS FB</td>
<td>80</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SDYXLOAD</td>
<td>LMOD</td>
<td>Any U PDS U</td>
<td>0</td>
<td>65</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

### Figure 15. Storage Requirements for Functional Support Library Server Target Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>R E L</th>
<th>T Y O P R F C</th>
<th>No. of Trks</th>
<th>No. of Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFUNLINK</td>
<td>LMOD</td>
<td>Any S PDS U</td>
<td>0</td>
<td>77</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>SFUNSAMP</td>
<td>SAMPLE</td>
<td>Any S PDS FB</td>
<td>80</td>
<td>9</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>
### Figure 16. Storage Requirements for Tools Base Distribution Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>P</th>
<th>R</th>
<th>E</th>
<th>G</th>
<th>M</th>
<th>L</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAIIBASE</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>17</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAIEXEC</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>7</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAIGENU</td>
<td>U</td>
<td>PDS</td>
<td>VB</td>
<td>255</td>
<td>180</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAILINK</td>
<td>U</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>675</td>
<td>250</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AAISAMP</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGLXMACS</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGLXSAMP</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHCOCEXE</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHCODATA</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>4096</td>
<td>3</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHCOMENU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHCOPENU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>5</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHCOSAMP</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>9</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHCOSNU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTCEXE</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>11</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTCLIB</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>3</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTMENU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>29</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTPENU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>151</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTSAMP</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>14</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTTFNU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AHKTTFMPL</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>26</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Figure 17 (Page 1 of 2). Storage Requirements for Tools Customizer Distribution Libraries

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>P</th>
<th>R</th>
<th>E</th>
<th>G</th>
<th>M</th>
<th>L</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCQBASE</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>6</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCQDENU</td>
<td>S</td>
<td>PDS</td>
<td>VBA</td>
<td>16384</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCQEXEC</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCQMENU</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>26</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 5.3 FMIDs Deleted

Installing Tools Base 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 Tools Base into separate SMP/E target and distribution zones.

---

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>C</th>
<th>E</th>
<th>R</th>
<th>L</th>
<th>No. of Trks</th>
<th>No. of Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCQNCAL</td>
<td>S</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>313</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCQPENU</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>38</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCQSAMP</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCQTENNU</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>C</th>
<th>E</th>
<th>R</th>
<th>L</th>
<th>No. of Trks</th>
<th>No. of Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADYXBASE</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADYXDBRM</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>21</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADYXDENU</td>
<td>U</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>7</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADYXLOAD</td>
<td>U</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>65</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>C</th>
<th>E</th>
<th>R</th>
<th>L</th>
<th>No. of Trks</th>
<th>No. of Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFUNLINK</td>
<td>S</td>
<td>PDS</td>
<td>U</td>
<td>0</td>
<td>77</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFUNSAMP</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>9</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

5.4 Special Considerations

IBM Tools Base for z/OS provides a variety of infrastructure-related functionality. The product consists of various components and delivers multiple FMIDs.

Note

Depending on which products and functions you intend to use with Tools Base, it might be possible to bypass installing one or more of the delivered FMIDs.

1. FMID HAHN150 - IBM Tools Base for z/OS:
Provides common infrastructure used by various IMS Tools product offerings. Tools Base offers the following components:

- Tools Base Autonomics Director for z/OS automates recurring database monitoring and maintenance tasks, including on-demand scheduling of database sensor and evaluation.
- Tools Base Distributed Access Infrastructure for z/OS enables authorized access to configured IMS Tools from authenticated TCP/IP clients.
- Tools Base IMS Hardware Data Compression Extended for z/OS provides functions for compressing IMS data by using the z/OS hardware data compression that is available on IBM processors.
- Tools Base IMS Tools Common Services for z/OS is a collection of support modules that provide common functionality.
- Tools Base IMS Tools Knowledge Base for z/OS is the foundational infrastructure that provides a centralized information management environment for IMS Tools offerings.
- Policy Services is a core IMS Tools technology that supports conditional autonomic database health management functionality for participating IMS Tools offerings.
- IMS Batch Terminal Simulator plug-in for Eclipse.

You can install FMID HAHN150 independently from the other FMIDs that are delivered with this software offering.

2. HAKP150 - IBM Autonomics Director for DB2 for z/OS:
Provides the common required framework for DB2 Autonomics. It is required by DB2 Tools offerings, for example, the separately licensed IBM DB2 Utility Solution Pack for z/OS, V2.1 (5697-DUP) to enable utility autonomies. It is also required to enable the autonomies reporting features built into the separately licensed IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC). Management Console is a no-charge product capable of consolidating system health information and
autonomics capabilities from various tools (including Autonomics Director for DB2) into a single graphical interface.

You are only required to install Autonomics Director for DB2 if you are working with a tool requiring the framework for autonomics.

You can install FMID HAKP150 independently from the other FMIDs that are delivered with this software offering.

3. **HTCZ110 - IBM Tools Customizer for z/OS:**
Simplifies and consolidates many of the customization processes that are required to customize DB2 Tools offerings. Tools Customizer must be used to customize DB2 Tools offerings that are enabled to Tools Customizer. To determine whether a DB2 Tools offering is enabled to Tools Customizer, refer to the DB2 Tools offering's User's Guide.

If you have previously received and installed FMID HTCZ1110, there is no need to install the newly received Tools Customizer, FMID HTCZ110.

Before you install any tool that requires Tools Customizer, ensure that required enabling APARs are applied before any attempt is made to use the Tools Customizer.

Refer to the PSP Bucket for a current list of any recommended or required service for the installation of HTCZ110.

Refer to the individual program directories and user's guides of tools that utilize Tools Customizer.

You are only required to install FMID HTCZ110 if you install DB2 Tools offerings that require Tools Customizer for their post-SMP/E customization.

You can install FMID HTCZ110 independently from the other FMIDs delivered with Tools Base.

4. **H30S240 - IBM Functional Support Library Server:**
The IBM Tools Base Connection Server for z/OS component delivered with the previous release of Tools Base (V1.4) is no longer part of the new release (V1.5). It has been replaced by the Functional Support Library Server - FMID H30S240.

In order to provide the required environment for the Eclipse-based GUI Plug-in delivered with the (separately licensed) IBM IMS Configuration Manager for z/OS, V2.1 (5655-WR2) and IBM Transaction Analysis Workbench for z/OS, V1.2 (5697-P37), Tools Base, V1.5 delivers FMID H30S240. This FMID is also delivered as part of the separately licensed IBM IMS Connect Extensions for z/OS, V2.4 (5655-S56).

You only need to install Functional Support Library Server, FMID H30S240, if you install Tools Base, V1.5 (FMID HAHN150) and

- You want to install and utilize the Eclipse-based GUI Plug-in for IMS Configuration Manager for z/OS, V2.1 or for Transaction Analysis Workbench for z/OS, V1.2.
- IBM IMS Connect Extensions for z/OS, V2.4 (separately licensed) and its FMIDs (H28S240 and H30S240) are not already installed.

Otherwise there is no need to install FMID H30S240.

You can install FMID H30S240 independently from the other FMIDs delivered with Tools Base.
Considerations for IBM Tools Base Administration Console for z/OS:
This component was delivered with the previous release of Tools Base and is no longer included and delivered with the new release. It is replaced by a new software offering, IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC). Management Console is no-charge and separately licensed.

Users of the Administration Console are asked to order Management Console. Contact your IBM Representative for detailed information.
6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of Tools Base.

Please note the following points:

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

6.1 Installing Tools Base

6.1.1 SMP/E Considerations for Installing Tools Base

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of Tools Base.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 20. 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>(200,200,500)</td>
<td>For HAHN150 - Tools Base in 3390 DASD tracks</td>
</tr>
<tr>
<td></td>
<td>(200,200,500)</td>
<td>For HTCZ110 - Tools Customizer in 3390 DASD tracks</td>
</tr>
<tr>
<td></td>
<td>(200,200,500)</td>
<td>For HAKP150 - Autonomics Director for DB2 in 3390 DASD tracks</td>
</tr>
<tr>
<td></td>
<td>(7000,200,500)</td>
<td>For H30S240 - Functional Support Library Server in 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

Tools Base, FMID HAHN150, uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When Tools Base is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB

Tools Customizer, FMID HTCZ110, uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When Tools Customizer is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEELKED
- SISPLOAD

Autonomics Director for DB2, FMID HAKP150, uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When Autonomics Director for DB2 is installed, ensure that DDDEFs exist for the following libraries:

- CSSLIB
- SCEELKED
- SISPLOAD
- SDSNLOAD

Functional Support Library Server, FMID H30S240, uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When Functional Support Library Server is installed, ensure that DDDEFs exist for the following libraries:

- SCEELKED

Note: CALLLIBS uses the previous DDDEFs only to resolve the link-edit for Tools Base. These data sets are not updated during the installation of Tools Base.

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install Tools Base:

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIIALA</td>
<td>SMP/E</td>
<td>Sample job to allocate and initialize a new SMP/E CSI data set (Optional)</td>
<td>IBM.HAHN150.F2</td>
</tr>
<tr>
<td>AIIALB</td>
<td>SMP/E</td>
<td>Sample job to allocate SMP/E data sets (Optional)</td>
<td>IBM.HAHN150.F2</td>
</tr>
<tr>
<td>AIIRECEV</td>
<td>RECEIVE</td>
<td>Sample RECEIVE job</td>
<td>IBM.HAHN150.F2</td>
</tr>
</tbody>
</table>
### Figure 21. Sample Installation Jobs for HAHN150 - Tools Base

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIIALLOC</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution libraries</td>
<td>IBM.HAHN150.F2</td>
</tr>
<tr>
<td>AIIDDDEF</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.HAHN150.F2</td>
</tr>
<tr>
<td>AIIAPPLY</td>
<td>APPLY</td>
<td>Sample APPLY job</td>
<td>IBM.HAHN150.F2</td>
</tr>
<tr>
<td>AIIACCEP</td>
<td>ACCEPT</td>
<td>Sample ACCEPT job</td>
<td>IBM.HAHN150.F2</td>
</tr>
</tbody>
</table>

### Figure 22. Sample Installation Jobs for HTCZ110 - Tools Customizer

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCQALA</td>
<td>SMP/E</td>
<td>Sample job to allocate and initialize a new SMP/E CSI data set (Optional)</td>
<td>IBM.HTCZ110.F2</td>
</tr>
<tr>
<td>CCQALB</td>
<td>SMP/E</td>
<td>Sample job to allocate SMP/E data sets (Optional)</td>
<td>IBM.HTCZ110.F2</td>
</tr>
<tr>
<td>CCQRECEV</td>
<td>RECEIVE</td>
<td>Sample RECEIVE job</td>
<td>IBM.HTCZ110.F2</td>
</tr>
<tr>
<td>CCQALLOC</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution libraries</td>
<td>IBM.HTCZ110.F2</td>
</tr>
<tr>
<td>CCQDDDEF</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.HTCZ110.F2</td>
</tr>
<tr>
<td>CCQAPPLY</td>
<td>APPLY</td>
<td>Sample APPLY job</td>
<td>IBM.HTCZ110.F2</td>
</tr>
<tr>
<td>CCQACCEP</td>
<td>ACCEPT</td>
<td>Sample ACCEPT job</td>
<td>IBM.HTCZ110.F2</td>
</tr>
</tbody>
</table>

### Figure 23. Sample Installation Jobs for HAKP150 - Autonomics Director for DB2

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DYXALA</td>
<td>SMP/E</td>
<td>Sample job to allocate and initialize a new SMP/E CSI data set (Optional)</td>
<td>IBM.HAKP150.F2</td>
</tr>
<tr>
<td>DYXALB</td>
<td>SMP/E</td>
<td>Sample job to allocate SMP/E data sets (Optional)</td>
<td>IBM.HAKP150.F2</td>
</tr>
<tr>
<td>DYXRECEV</td>
<td>RECEIVE</td>
<td>Sample RECEIVE job</td>
<td>IBM.HAKP150.F2</td>
</tr>
<tr>
<td>DYXALLOC</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution libraries</td>
<td>IBM.HAKP150.F2</td>
</tr>
<tr>
<td>DYXDDDEF</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.HAKP150.F2</td>
</tr>
<tr>
<td>DYXAPPLY</td>
<td>APPLY</td>
<td>Sample APPLY job</td>
<td>IBM.HAKP150.F2</td>
</tr>
<tr>
<td>DYXACCEP</td>
<td>ACCEPT</td>
<td>Sample ACCEPT job</td>
<td>IBM.HAKP150.F2</td>
</tr>
</tbody>
</table>
You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.7, “Perform SMP/E RECEIVE” on page 35) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 21 on page 28, Figure 22 on page 29, Figure 23 on page 29, and Figure 24, to find the appropriate relfile data sets.

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.

1. **IEBCOPY Job for Tools Base, FMID HAHN150:**

   //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.HAHN150.F2,UNIT=tunit,
   /*
   VOL=SER=volser,LABEL=(x,SL),
   /*
   DISP=(OLD,KEEP)
   //************************************************************************
   // Make the //FILEIN 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.HAHN150.F2,UNIT=tunit,
   /*
   VOL=SER=AHN150,LABEL=(3,SL),
   /*
   DISP=(OLD,KEEP)
   //************************************************************************
   // Make the //FILEIN DD statement below active for

---

**Figure 24. Sample Installation Jobs for H30S240 - Functional Support Library Server**

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUNIALA</td>
<td>SMP/E</td>
<td>Sample job to allocate and initialize a new SMP/E CSI data set <em>(Optional)</em></td>
<td>IBM.H30S240.F3</td>
</tr>
<tr>
<td>FUNIALB</td>
<td>SMP/E</td>
<td>Sample job to allocate SMP/E data sets <em>(Optional)</em></td>
<td>IBM.H30S240.F3</td>
</tr>
<tr>
<td>FUNIRECV</td>
<td>RECEIVE</td>
<td>Sample RECEIVE job</td>
<td>IBM.H30S240.F3</td>
</tr>
<tr>
<td>FUNIALLO</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution libraries</td>
<td>IBM.H30S240.F3</td>
</tr>
<tr>
<td>FUNIDDEF</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.H30S240.F3</td>
</tr>
<tr>
<td>FUNIAPLY</td>
<td>APPLY</td>
<td>Sample APPLY job</td>
<td>IBM.H30S240.F3</td>
</tr>
<tr>
<td>FUNIACEP</td>
<td>ACCEPT</td>
<td>Sample ACCEPT job</td>
<td>IBM.H30S240.F3</td>
</tr>
</tbody>
</table>
// * downloaded DASD files. *
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
FLICTEIN DD DSN=IBM.HAHN150.F2,UNIT=SYSALLDA,DISP=SHR,
/* Make the //FILEIN DD statement below active for downloaded DASD files. */
/* ***************************************************************
/* FILEIN DD DSN=IBM.HTCZ110.F2,UNIT=SYSALLDA,DISP=SHR,
/* VOL=SER=filevol
/* OUT DD DSNNAME=jcl-library-name,
/* DISP=(NEW,CATLG,DELETE),
/* VOL=SER=dasdvol,UNIT=SYSALLDA,
/* SPACE=(TRK,(20,10,5))
/* SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
/* SYSIN DD *
/* COPY INDD=xxxxIN,OUTDD=OUT */

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.HTCZ110.F2, on the tape.

**FILEIN:**
- `filevol` is the volume serial of the DASD device where the downloaded files reside.

**OUT:**
- `jcl-library-name` is the name of the output data set where the sample jobs are stored.
- `dasdvol` is the volume serial of the DASD device where the output data set resides.

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

3. **IEBCOPY Job for Autonomics Director for DB2, FMID HAKP150:**

```plaintext
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSSOUT=* 
/* ***************************************************************
/* Make the //TAPEIN DD statement below active if you install from a CBPDO tape by uncommenting the DD statement below. */
/* ***************************************************************
/* TAPEIN DD DSN=IBM.HAKP150.F2,UNIT=tunit,
/* VOL=SER=volser,LABEL=(x,SL),
/* DISP=(OLD,KEEP)

/* Make the //TAPEIN DD statement below active if you install from a product tape received outside the CBPDO process (using the optional SMP/E RECEIVE job) by uncommenting the DD statement below. */
/* ***************************************************************
/* TAPEIN DD DSN=IBM.HAKP150.F2,UNIT=tunit,
/* VOL=SER=AKP150,LABEL=(3,SL),
/* DISP=(OLD,KEEP)
```

32 Tools Base Program Directory
FILEIN DD DSN=IBM.HAKP150.F2,UNIT=SYSALLDA,DISP=SHR, * 
   VOL=SER=filevol 
OUT DD DSN=jcl-library-name, 
   DISP=(NEW,CATLG,DELETE), 
   VOL=SER=dasdvol,UNIT=SYSALLDA, 
   SPACE=(TRK,(20,10,5)) 
SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1)) 
SYSIN DD * 
COPY INDD=xxxxIN,OUTDD=OUT 
* 
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.HAKP150.F2, on the tape.

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

OUT:
- jcl-library-name is the name of the output data set where the sample jobs are stored.
- dasdvol is the volume serial of the DASD device where the output data set resides.

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

4. IEBCOPY Job for Functional Support Library Server, FMID H30S240:

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. * 
/* 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.H30S240.F3,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.H30S240.F3,UNIT=tunit, 
   VOL=SER=30S240,LABEL=(4,SL), 
*/
Make the //FILEIN DD statement below active for downloaded DASD files.

FILEIN DD DSN=IBM.H30S240.F3,UNIT=SYSALLDA,DISP=SHR,
// VOL=SER=filevol
//OUT DD DSNAME=jcl-library-name,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=adasdvol,UNIT=SYSALLDA,
// SPACE=(TRK,(20,10,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
SELECT MEMBER=(FUNIACEP,FUNIALA,FUNIALB,FUNIALLO)
SELECT MEMBER=(FUNIAPLY,FUNIDDEF,FUNIRECV)
*/

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.

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.
- **adasdvol** 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 any of these jobs.
If you are installing all of the FMIDs simultaneously, into the same CSI, you can choose anyone of the jobs listed below, to allocate the SMP/E data set.

If you are allocating new SMP/E data sets for this install:

1. **ALA Job for Tools Base, FMID HAHN150:**
   - If you are allocating a new SMP/E data set for this FMID, edit and submit AIIALA. Consult the instructions in the sample job for more information.

2. **ALA Job for Tools Customizer, FMID HTCZ110:**
   - If you are allocating a new SMP/E data set for this FMID, edit and submit CCQALA. Consult the instructions in the sample job for more information.
3. **ALA Job for Autonomics Director for DB2, FMID HAKP150:**
   If you are allocating a new SMP/E data set for this FMID, edit and submit DYXALA. Consult the instructions in the sample job for more information.

4. **ALA Job for Functional Support Library Server, FMID H30S240:**
   If you are allocating a new SMP/E data set for this FMID, edit and submit FUNIALA. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0, from any of these jobs, if they run correctly.

### 6.1.6 Initialize CSI zones (Optional)

If you are using an existing CSI, do not execute any of these jobs.

**Note:** If you choose to use one of these jobs to initialize SMP/E zones for this install, and intend to install all of these FMIDs into the one CSI, update the DSSPACE parameter to 7000,200,500, before running.

If you are initialize SMP/E zones for this install:

1. **ALB Job for Tools Base, FMID HAHN150:**
   If you are initialize SMP/E zones for this FMID, edit and submit AIIALB. Consult the instructions in the sample job for more information.

2. **ALB Job for Tools Customizer, FMID HTCZ110:**
   If you are initialize SMP/E zones for this FMID, edit and submit CCQALB. Consult the instructions in the sample job for more information.

3. **ALB Job for Autonomics Director for DB2, FMID HAKP150:**
   If you are initialize SMP/E zones for this FMID, edit and submit DYXALB. Consult the instructions in the sample job for more information.

4. **ALB Job for Functional Support Library Server, FMID H30S240:**
   If you are initialize SMP/E zones for this FMID, edit and submit FUNIALB. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0, from any of these jobs, if they run correctly.

### 6.1.7 Perform SMP/E RECEIVE

If you have obtained Tools Base as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the Tools Base 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 sample SMP/E RECEIVE jobs.

1. **Receive Job for Tools Base, FMID HAHN150:**
If you are performing the SMP/E RECEIVE for this FMID, edit and submit sample job AIIRECEV. Consult the instructions in the sample job for more information.

2. **Receive Job for Tools Customizer, FMID HTCZ110:**
   If you are performing the SMP/E RECEIVE for this FMID, edit and submit sample job CCQRECEV. Consult the instructions in the sample job for more information.

3. **Receive Job for Autonomics Director for DB2, FMID HAKP150:**
   If you are performing the SMP/E RECEIVE for this FMID, edit and submit sample job DYXRECEV. Consult the instructions in the sample job for more information.

4. **Receive Job for Functional Support Library Server, FMID H30S240:**
   If you are performing the SMP/E RECEIVE for this FMID, edit and submit sample job FUNIRECV. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0, from any of these jobs, if they run correctly.

### 6.1.8 Allocate SMP/E Target and Distribution Libraries

To allocate the SMP/E target and distribution libraries for this install:

1. **Allocate Job for Tools Base, FMID HAHN150:**
   If you are allocating the SMP/E target and distribution libraries for this FMID, edit and submit sample job AIIALLOC. Consult the instructions in the sample job for more information.

2. **Allocate Job for Tools Customizer, FMID HTCZ110:**
   If you are allocating the SMP/E target and distribution libraries for this FMID, edit and submit sample job CCQALLOC. Consult the instructions in the sample job for more information.

3. **Allocate Job for Autonomics Director for DB2, FMID HAKP150:**
   If you are allocating the SMP/E target and distribution libraries for this FMID, edit and submit sample job DYXALLOC. Consult the instructions in the sample job for more information.

4. **Allocate Job for Functional Support Library Server, FMID H30S240:**
   If you are allocating the SMP/E target and distribution libraries for this FMID, edit and submit sample job FUNIALLO. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0, from any of these jobs, if they run correctly.

### 6.1.9 Create DDDEF Entries

To create the SMP/E DDEF entries for this install:

1. **DDDEF Job for Tools Base, FMID HAHN150:**
   If you are creating the DDDEF entries for the SMP/E target and distribution libraries for this FMID, edit and submit sample job AIIDDDEF. Consult the instructions in the sample job for more information.

2. **DDDEF Job for Tools Customizer, FMID HTCZ110:**
If you are creating the DDDEF entries for the SMP/E target and distribution libraries for this FMID, edit and submit sample job CCQDDDEF. Consult the instructions in the sample job for more information.

3. **DDDEF Job for Autonomics Director for DB2, FMID HAKP150:**
   If you are creating the DDDEF entries for the SMP/E target and distribution libraries for this FMID, edit and submit sample job DYXDDDEF. Consult the instructions in the sample job for more information.

4. **DDDEF Job for Functional Support Library Server, FMID H30S240:**
   If you are creating the DDDEF entries for the SMP/E target and distribution libraries for this FMID, edit and submit sample job FUNIDDEF. Consult the instructions in the sample job for more information.

**Expected Return Codes and Messages:** You will receive a return code of 0, from any of these jobs, if they run correctly.

### 6.1.10 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA.
   To performing an SMP/E APPLY CHECK for this install:

   a. **APPLY Job for Tools Base, FMID HAHN150:**
      If you are performing an SMP/E APPLY CHECK for this FMID, edit and submit sample job AIIAPPLY. Consult the instructions in the sample job for more information.

   b. **APPLY Job for Tools Customizer, FMID HTCZ110:**
      If you are performing an SMP/E APPLY CHECK for this FMID, edit and submit sample job CCQAPPLY. Consult the instructions in the sample job for more information.

   c. **APPLY Job for Autonomics Director for DB2, FMID HAKP150:**
      If you are performing an SMP/E APPLY CHECK for this FMID, edit and submit sample job DYXAPPLY. Consult the instructions in the sample job for more information.

   d. **APPLY Job for Functional Support Library Server, FMID H30S240:**
      If you are performing an SMP/E APPLY CHECK for this FMID, edit and submit sample job FUNIAPPLY. Consult the instructions in the sample job for more information.

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

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

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

Here are sample APPLY commands:

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(fmidx,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(fmidx,fmid,...) CHECK FORFMID(fmid,fmid,...)
SOURCEID(RSU*) FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER),HOLDFIXCAT).
```

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

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

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run the job(s) 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, from any of these jobs, if they run correctly.

**Expected Return Codes and Messages from APPLY:** You will receive a return code of 0, from any of these jobs, if they run correctly.

### 6.1.11 Perform SMP/E ACCEPT

To perform an SMP/E ACCEPT CHECK for this install:

1. **ACCEPT Job for Tools Base, FMID HAHN150:**
   If you are performing an SMP/E ACCEPT CHECK for this FMID, edit and submit sample job AIIACCEP. Consult the instructions in the sample job for more information.

2. **ACCEPT Job for Tools Customizer, FMID HTCZ110:**
   If you are performing an SMP/E ACCEPT CHECK for this FMID, edit and submit sample job CQIAACCEP. Consult the instructions in the sample job for more information.

3. **ACCEPT Job for Autonomics Director for DB2, FMID HAKP150:**
   If you are performing an SMP/E ACCEPT CHECK for this FMID, edit and submit sample job DYXACCEP. Consult the instructions in the sample job for more information.

4. **ACCEPT Job for Functional Support Library Server, FMID H30S240:**
   If you are performing an SMP/E ACCEPT CHECK for this FMID, edit and submit sample job FUNIACEP. 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, from any of these jobs, if they run 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, from any of these jobs, if they run correctly.

6.1.12 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 Tools Base, 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.

6.1.13 Cleaning Up Obsolete Data Sets, Paths, and DDDEFs

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

- SAIINOTC
- AAIINOTC
- SFUDGENU
- AFUDGENU
- SHCOCOPY
- AHCOCOPY
- AAIIHFS

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.

- /usr/lpp/toolsbase
- /usr/lpp/InstallationManagerRepository/HAHN140

The following DDDEF entries, which were created and used by previous releases of this product, are no longer used in this release. You can delete these obsolete DDDEF entries after you delete the previous release from your system.
6.2 Activating Tools Base

6.2.1 Product Customization

For customization and use of the various components of Tools Base refer to the following publications:

1. SC19-4376 - IBM Tools Base Autonomics Director for z/OS User's Guide
2. SC19-4389 - IBM Autonomics Director for DB2 for z/OS User's Guide
5. SC19-4373 - IBM Tools Base IMS Hardware Data Compression Extended for z/OS User's Guide
7. SC19-4375 - IBM Tools Base Distributed Access Infrastructure for z/OS User's Guide
8. SC19-4370 - IBM Tools Base for z/OS Configuration Guide

6.2.2 Additional Information

1. IMS Batch Terminal Simulator Plug-in for Eclipse:
The IMS Batch Terminal Simulator Plug-in for Eclipse delivered with Tools Base for z/OS (FMID HAHN150) can be used with an Eclipse development environment, such as IBM Rational Developer for System z and Debug Tool. By using Eclipse, application developers can run and test IMS applications from the Eclipse development environment, which helps reduce the amount of z/OS specific knowledge that an application developer requires to test IMS applications.

2. IBM Tools Customizer for z/OS:
IBM Tools Customizer for z/OS is provided for use in tailoring IBM DB2 Tools product offerings that are enabled to the Tools Customizer to assist in post-installation customization of these tools. It offers a process that allows customization and recustomization of the tools and their maintenance in an efficient manner. To utilize Tools Customizer for z/OS for a particular enabled tool, refer to the User's
Guide of the tool for detailed requirements, description and information on how the IBM Tools Customizer will assist you during the customization of your product.

3. **IBM Management Console for IMS and DB2 for z/OS:**
   The IBM Management Console for IMS and DB2 for z/OS, V1.1 replaces IBM Tools Administration Console for z/OS delivered with Tools Base for z/OS, V1.4.
   The Administration Console component of Tools Base for z/OS, V1.4 is no longer delivered as part of Tools Base for z/OS, V1.5. This component is replaced by IBM Management Console for IMS and DB2 for z/OS, V1.1 (5655-TAC), a no-charge, separately licensed product. Refer to Announcement Letter of Management Console for details on how to order the product.
   The Management Console for IMS and DB2 for z/OS, V1.1 provides a single, holistic easier to use web-based interface for DB2 and IMS management leveraging the latest web technologies for a richer user experience. Together with Tools Base, V1.5, Management Console for z/OS helps to automate collection and analysis of data on IMS and DB2 engines, prompting decisions and appropriate actions.
7.0 Notices

This information was developed for products and services offered in the U.S.A. IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

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

IBM may have patents or pending patent applications covering subject matter in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to the

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, New York 10504-1785
USA

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan, Ltd.
19-21, Nihonbashi-Hakozakicho, Chuo-ku
Tokyo 103-8510, Japan

7.1 Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at www.ibm.com/legal/copytrade.shtml.
Reader's Comments

Program Directory for IBM Tools Base for z/OS, October 2014

We appreciate your input on this publication. Feel free to comment on the clarity, accuracy, and completeness of the information or give us any other feedback that you might have.

Use one of the following methods to send us your comments:

1. Send an email to comments@us.ibm.com
2. Use the form on the Web at:
   www.ibm.com/software/data/rcf/

When you send information to IBM, you grant IBM a nonexclusive right to use or distribute the information in any way it believes appropriate without incurring any obligation to you.

IBM or any other organizations will only use the personal information that you supply to contact you about the issues that you submit.

Thank you for your participation.