Program Directory for
IBM 64-bit SDK for z/OS, Java Technology Edition
V6

V6.0.0
Program Number 5655-R32

FMIDs HJVB600

for Use with
z/OS V1.7 or higher

Document Date: April, 2008

GI11-2867-01
Note!

Before using this information and the product it supports, be sure to read the general information under 7.0, “Notices” on page 21.

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1.0 Introduction

This Program Directory is intended for the system programmer responsible for program installation and maintenance. It contains information concerning the material and procedures associated with the installation of IBM 64-bit SDK for z/OS, Java Technology Edition, V6. This publication refers to IBM 64-bit SDK for z/OS, Java Technology Edition, V6 as IBM 64-bit SDK for z/OS, V6.

The Program Directory contains the following sections:

- **2.0, “Program Materials” on page 3** identifies the basic and optional program materials and documentation for IBM 64-bit SDK for z/OS, V6.
- **3.0, “Program Support” on page 5** describes the IBM support available for IBM 64-bit SDK for z/OS, V6.
- **4.0, “Program and Service Level Information” on page 7** lists the APARs (program level) and PTFs (service level) incorporated into IBM 64-bit SDK for z/OS, V6.
- **5.0, “Installation Requirements and Considerations” on page 9** identifies the resources and considerations required for installing and using IBM 64-bit SDK for z/OS, V6.
- **6.0, “Installation Instructions” on page 15** provides detailed installation instructions for IBM 64-bit SDK for z/OS, V6. It also describes the procedures for activating the functions of IBM 64-bit SDK for z/OS, V6, or refers to appropriate publications.

Before installing IBM 64-bit SDK for z/OS, V6, read the **CBPDO Memo To Users** and the **CBPDO Memo To Users Extension** that were supplied with this program in softcopy form as well as this Program Directory and then keep them for future reference. Section **3.2, “Preventive Service Planning” on page 5** tells you how to find any updates to the information and procedures in this Program Directory.

IBM 64-bit SDK for z/OS, V6 is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The Program Directory is provided in softcopy form on the CBPDO tape which is identical to the hardcopy form provided with your order. All service and HOLDDATA for IBM 64-bit SDK for z/OS, V6 are included on the CBPDO tape.

Do not use this Program Directory if you are installing IBM 64-bit SDK for z/OS, V6 with a SystemPac or ServerPac. When using these offerings, use the jobs and documentation supplied with the offering. This documentation may point you to specific sections of the Program Directory as required.

1.1 IBM 64-bit SDK for z/OS, V6 Description

The IBM 64-bit SDK for z/OS, Java Technology Edition, V6 product is IBM's port of Sun Microsystems' Java Software Development Kit (SDK) to the z/OS zSeries platform. The IBM 64-bit SDK for z/OS, Java Technology Edition, V6 product at the SDK 6 level is certified as a fully compliant Java product. IBM has successfully executed the Java Certification Kit (JCK) provided by Sun Microsystems, Inc.
The IBM 64-bit SDK for z/OS, Java Technology Edition, V6 is operational within the z/OS Version 1 Release 7 operating system or later. It provides a Java execution environment equivalent to that available on any other server platform.

For more information about the IBM 64-bit SDK for z/OS, Java Technology Edition, V6 product, as well as general information about Java, visit our web site at:


1.2 IBM 64-bit SDK for z/OS, V6 FMIDs

IBM 64-bit SDK for z/OS, V6 consists of the following FMIDs:

HJVBB600
2.0 Program Materials

An IBM program is identified by a program number. The program number for IBM 64-bit SDK for z/OS, V6 is 5655-R32.

Basic Machine-Readable Materials are materials that are supplied under the base license and feature numbers, and are required for the use of the product. Optional Machine-Readable Materials are orderable under separate feature numbers, and are not required for the product to function.

The program announcement material describes the features supported by IBM 64-bit SDK for z/OS, V6. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

The distribution medium for this program is magnetic tape or downloadable files. It is installed using SMP/E, and is in SMP/E RELFILE format. See 6.0, "Installation Instructions on page 15" for more information about how to install the program.

Information about the physical tape for the Basic Machine-Readable Materials for IBM 64-bit SDK for z/OS, V6 can be found in the CBPDO Memo To Users Extension.

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for IBM 64-bit SDK for z/OS, V6.

2.3 Program Publications

The following sections identify the basic and optional publications for IBM 64-bit SDK for z/OS, V6.

2.3.1 Basic Program Publications

No basic publications are provided for IBM 64-bit SDK for z/OS, V6. Information about the IBM 64-bit SDK for z/OS, V6 product is available at our web site:


In addition to the product media, each order will be supplied with one copy of:

- IBM 64-bit SDK for z/OS, V6 Program Directory (GI11-2866)
- IBM 64-bit SDK for z/OS, V6 License Information (GA76-0416)
2.3.2 Optional Program Publications

No optional publications are provided for IBM 64-bit SDK for z/OS, V6.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for IBM 64-bit SDK for z/OS, V6.

2.5 Publications Useful During Installation

The publications listed in Figure 1 may be useful during the installation of IBM 64-bit SDK for z/OS, V6. To order copies, contact your IBM representative or visit the IBM Publications Center on the World Wide Web at:
http://www.ibm.com/shop/publications/order

<table>
<thead>
<tr>
<th>Publication Title</th>
<th>Form Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM SMP/E for z/OS User's Guide</td>
<td>SA22-7773</td>
</tr>
<tr>
<td>IBM SMP/E for z/OS Commands</td>
<td>SA22-7771</td>
</tr>
<tr>
<td>IBM SMP/E for z/OS Reference</td>
<td>SA22-7772</td>
</tr>
<tr>
<td>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</td>
<td>GA22-7770</td>
</tr>
<tr>
<td>IBM eServer zSeries Online Library: z/OS Software Products Collection (CD ROM)</td>
<td>SK3T-4270</td>
</tr>
<tr>
<td>z/OS Information Roadmap</td>
<td>SA22-7500</td>
</tr>
</tbody>
</table>
3.0 Program Support

This section describes the IBM support available for IBM 64-bit SDK for z/OS, V6.

3.1 Program Services

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

3.2 Preventive Service Planning

Before installing IBM 64-bit SDK for z/OS, V6, it is VERY IMPORTANT that you review the current Preventive Service Planning (PSP) information. The PSP buckets maintain current lists (which have been identified since the package was created) of any recommended or required service for this package's installation. This includes software PSP information that contains HIPER, and/or required PTFs against the base release.

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

If you obtained IBM 64-bit SDK for z/OS, V6 as part of a CBPDO, there is HOLDDATA included on the PDO.

If the CBPDO for IBM 64-bit SDK for z/OS, V6 is more than two weeks old when you install it, you should contact the IBM Support Center, use S/390 SoftwareXcel to obtain the current "PSP Bucket" or obtain the current PSP from the Web at https://techsupport.services.ibm.com/server/390.psp390

For program support, access the Software Support Web site at http://www-3.ibm.com/software/support/

PSP Buckets are identified by UPGRADEs, which specify product levels, and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for IBM 64-bit SDK for z/OS, V6 are:

<table>
<thead>
<tr>
<th>UPGRADE</th>
<th>SUBSET</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAVAOS390</td>
<td>HJVB600</td>
<td>IBM 64-bit SDK for z/OS, V6</td>
</tr>
</tbody>
</table>
3.3 Statement of Support Procedures

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

Figure 3 on page 6 identifies the component IDs (COMPID) for IBM 64-bit SDK for z/OS, V6.

<table>
<thead>
<tr>
<th>FMID</th>
<th>COMPID</th>
<th>Component Name</th>
<th>RETAIN Release</th>
</tr>
</thead>
<tbody>
<tr>
<td>HJV8600</td>
<td>620700104</td>
<td>IBM 64-bit SDK for z/OS, V6</td>
<td>600</td>
</tr>
</tbody>
</table>
4.0 Program and Service Level Information

This section identifies the program and any relevant service levels of IBM 64-bit SDK for z/OS, V6. The program level refers to the APAR fixes incorporated into the program. The service level refers to the PTFs incorporated into the program.

4.1 Program Level Information

No APARs have been incorporated into IBM 64-bit SDK for z/OS, V6.

4.2 Service Level Information

No PTFs against this release of IBM 64-bit SDK for z/OS, V6 have been incorporated into the product tape.

Over time it is HIGHLY recommended that you frequently check the IBM 64-bit SDK for z/OS, V6 PSP bucket for HIPER and SPECIAL Attention PTFs against all FMID(s) which should be installed.
5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating IBM 64-bit SDK for z/OS, V6. The following terminology is used:

- **Driving system**: the system used to install the program.
  - The program may have specific operating system or product level requirements for utilizing processes such as binder or assembly utilities during the install.

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

In many cases, the same system can be used as both a driving system and a target system. However, you may want to set up a clone of your system to use as a target system by making a separate IPL-able copy of the running system. The clone should include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

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

- When installing a new level of a product that is already installed, the new product will delete the old one. By installing onto a separate target system, you can test the new product while still keeping the old one in production.

- When installing a product that shares libraries or load modules with other products, the installation can disrupt the other products. Installing onto a test system or clone will allow you to assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system required to install IBM 64-bit SDK for z/OS, V6.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements
IBM 64-bit SDK for z/OS, V6 invokes UNIX shell scripts during installation. The userid under which the job executes, must have the following:

- UID(0) or READ access or higher to the BPX.SUPERUSER facility class
- be connected to a group that has a GID
- have READ access or higher to the BPX.FILEATTR.PROGCTL and BPX.FILEATTR.APF and BPX.FILEATTR.SHARELIB facility classes
- have WRITE access to the "usr/lpp/java/J6.0_64" and "usr/lpp/java/J6.0_64/IBM" paths

### 5.2 Target System Requirements

This section describes the environment of the target system required to install and use IBM 64-bit SDK for z/OS, V6.

IBM 64-bit SDK for z/OS, V6 installs in the z/OS (Z038) SREL.

#### 5.2.1 Machine Requirements

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

#### 5.2.2 Programming Requirements

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

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

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5694-A01</td>
<td>z/OS Version 1 Release 7 or higher</td>
</tr>
<tr>
<td>5655-G44</td>
<td>IBM SMP/E for z/OS Version 3 Release 4 or higher</td>
</tr>
</tbody>
</table>

**Figure 4. Driving System Software Requirements**

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any one of the following:</td>
<td></td>
</tr>
<tr>
<td>5694-A01</td>
<td>z/OS Version 1 Release 7 or higher</td>
</tr>
<tr>
<td>5655-G44</td>
<td>IBM SMP/E for z/OS Version 3 Release 4 or higher</td>
</tr>
</tbody>
</table>

**Figure 5. Mandatory Installation Requisites**

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5694-A01</td>
<td>z/OS Version 1 Release 7 or higher</td>
</tr>
</tbody>
</table>
A conditional installation requisite identifies products that are not required for successful install but may resolve such things as certain warning messages at installation time. They include products that are specified as IF REqs.

IBM 64-bit SDK for z/OS, V6 has no conditional installation requisites.

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

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

<table>
<thead>
<tr>
<th>Program Number</th>
<th>Product Name and Minimum VRM/Service Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>5694-A01</td>
<td>z/OS Version 1 Release 7 or higher</td>
</tr>
</tbody>
</table>

IBM 64-bit SDK for z/OS, V6 has no conditional operational requisites.

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

IBM 64-bit SDK for z/OS, V6 has no toleration/coexistence requisites.

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

IBM 64-bit SDK for z/OS, V6 has no negative requisites.

5.2.3 DASD Storage Requirements

IBM 64-bit SDK for z/OS, V6 libraries can reside on all supported DASD types.

Figure 7 lists the total space required for each type of library.
Notes:

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

2. Abbreviations used for the data set type are:

   U Unique data set, allocated by this product and used only by this product. To determine the correct storage needed for this data set, this table provides all required information; no other tables (or Program Directories) need to be referenced for the data set size.

   S Shared data set, allocated by this product and used by this product and others. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other Program Directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   E Existing shared data set, used by this product and others. This data set is NOT allocated by this product. To determine the correct storage needed for this data set, the storage size given in this table needs to be added to other tables (perhaps in other program directories). This existing data set must have enough free space to accommodate the storage size given in this table.

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

For more information on the names and sizes of the required data sets, please refer to 6.1.5, “Allocate SMP/E Target and Distribution Libraries” on page 16.

3. Abbreviations used for the HFS or zFS Path type are:

   N New path, created by this product.

   X Path created by this product, but may already exist from a previous release.

   P Previously existing path, created by another product.

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

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

---

<table>
<thead>
<tr>
<th>Library Type</th>
<th>Total Space Required in 3390 Trks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target</td>
<td>14</td>
</tr>
<tr>
<td>Distribution</td>
<td>2915</td>
</tr>
<tr>
<td>HFS or zFS</td>
<td>7763</td>
</tr>
</tbody>
</table>

---

**Figure 7. Total DASD Space Required by IBM 64-bit SDK for z/OS, V6**
5. All target libraries listed have the following attributes:
   - The data set may be either a PDS or a PDSE.
   - The data set may be SMS-managed.
   - It is not required for the data set to be SMS-managed.
   - It is not required for the data set to reside on the IPL volume.
   - The values in the “Member Type” column are not necessarily the actual SMP/E element types identified in the SMPMCS.

6. All target libraries listed which contain load modules have the following attributes:
   - The data set may be in the LPA.
   - It is not required for the data set to be in the LPA.
   - The data set may be in the LNKLST.
   - It is not required for the data set to be APF-authorized.

The following figures describe the target and distribution libraries and HFS or zFS paths required to install IBM 64-bit SDK for z/OS, V6. The storage requirements of IBM 64-bit SDK for z/OS, V6 must be added to the storage required by other programs having data in the same library or path.

**Note:** The data in these tables should be used when determining which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

**Figure 8. Storage Requirements for IBM 64-bit SDK for z/OS, V6 Target Libraries**

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>Member Type</th>
<th>Target Volume</th>
<th>T Y O P R E L</th>
<th>No. of 3390 Trks</th>
<th>No. of DIR Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROCLIB</td>
<td>PROC</td>
<td>TVOL1 E</td>
<td>PDS FB 80</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SAJVSMP1</td>
<td>Sample</td>
<td>TVOL2 S</td>
<td>PDS FB 80</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SAMPLIB</td>
<td>Sample</td>
<td>TVOL2 E</td>
<td>PDS FB 80</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>SIEALNKE</td>
<td>LMOD</td>
<td>TVOL1 E</td>
<td>PDSE U 0</td>
<td>8</td>
<td>-</td>
</tr>
</tbody>
</table>

**Figure 9. IBM 64-bit SDK for z/OS, V6 HFS or zFS Paths**

<table>
<thead>
<tr>
<th>DDNAME</th>
<th>Path Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAJV16F</td>
<td>/usr/lpp/java/J6.0_64/IBM</td>
</tr>
</tbody>
</table>
Note: If you are installing into a zone other than the z/OS zone, you will need to allocate separate libraries for PROCLIB, SAMPLIB, SIEALNKE, APROCLIB, ASAMPLIB, and AIEALNKE. You will need to define new DDDEFs for these libraries also. You can model the libraries and DDDEFs after the ones in the z/OS zone.

### 5.3 FMIDs Deleted

No FMIDs are deleted by this product.

### 5.4 Special Considerations

IBM 64-bit SDK for z/OS, V6 has no special considerations for the target system.

---

**Figure 10. Storage Requirements for IBM 64-bit SDK for z/OS, V6 Distribution Libraries**

<table>
<thead>
<tr>
<th>Library DDNAME</th>
<th>T</th>
<th>Y</th>
<th>O</th>
<th>R</th>
<th>E</th>
<th>C</th>
<th>L</th>
<th>No. of Trks</th>
<th>No. of Dir Blks</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAJVSMP1</td>
<td>S</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>2</td>
<td>No. of 3390</td>
<td>Trks</td>
<td></td>
</tr>
<tr>
<td>AAJVHFS</td>
<td>S</td>
<td>PDS</td>
<td>VB</td>
<td>256</td>
<td>2900</td>
<td>2</td>
<td>No. of Trks</td>
<td>Dir Blks</td>
<td></td>
</tr>
<tr>
<td>APROCLIB</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>2</td>
<td>No. of Trks</td>
<td>Dir Blks</td>
<td></td>
</tr>
<tr>
<td>ASAMPLIB</td>
<td>E</td>
<td>PDS</td>
<td>FB</td>
<td>80</td>
<td>2</td>
<td>2</td>
<td>No. of Trks</td>
<td>Dir Blks</td>
<td></td>
</tr>
<tr>
<td>AIEALNKE</td>
<td>E</td>
<td>PDSE</td>
<td>U</td>
<td>0</td>
<td>9</td>
<td>-</td>
<td>No. of Trks</td>
<td>Dir Blks</td>
<td></td>
</tr>
</tbody>
</table>
6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of IBM 64-bit SDK for z/OS, V6.

Please note the following:

- If you want to install IBM 64-bit SDK for z/OS, V6 into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets.
- Sample jobs have been provided to help perform some or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries required for SMP/E execution have been defined in the appropriate zones.
- The SMP/E dialogs may be used instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing IBM 64-bit SDK for z/OS, V6

6.1.1 SMP/E Considerations for Installing IBM 64-bit SDK for z/OS, V6

This release of IBM 64-bit SDK for z/OS, V6 is installed using the SMP/E RECEIVE, APPLY, and ACCEPT commands. The SMP/E dialogs may be used to accomplish the SMP/E installation steps.

6.1.2 SMP/E Options Subentry Values

The recommended values for some SMP/E CSI subentries are shown in Figure 11. Use of values lower than these may result in failures in the installation process. DSSPACE is a subentry in the GLOBAL options entry. PEMAX is a subentry of the GENERAL entry in the GLOBAL options entry. Refer to the SMP/E manuals for instructions on updating the global zone.

Figure 11. SMP/E Options Subentry Values

<table>
<thead>
<tr>
<th>SUB-ENTRY</th>
<th>Value</th>
<th>Comment</th>
</tr>
</thead>
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<tr>
<td>DSSPACE</td>
<td>800,500,100</td>
<td></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 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install IBM 64-bit SDK for z/OS, V6:
6.1.4 Perform SMP/E RECEIVE

Having obtained IBM 64-bit SDK for z/OS, V6 as part of a CBPDO, use the RCVPDO job found in the CBPDO RIMLIB data set to RECEIVE the IBM 64-bit SDK for z/OS, V6 FMIDs as well as any service, HOLDDATA, included on the CBPDO tape. For more information, refer to the documentation included with the CBPDO.

6.1.5 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job AJVFALC to allocate the SMP/E target and distribution libraries for IBM 64-bit SDK for z/OS, V6. Consult the instructions in the sample job for more information.

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

6.1.6 Allocate HFS or zFS Paths

The target system HFS or zFS data set must be mounted on the driving system when running the sample AJVFMDK job since the job will create paths in the HFS or zFS.

Before running the sample job to create the paths in the file system, you must ensure that OMVS is active on the driving system, and that the target system’s HFS or zFS file system is mounted to the driving system. zFS must be active on the driving system if you are installing IBM 64-bit SDK for z/OS, V6 into a file system that is zFS.

If you plan to install IBM 64-bit SDK for z/OS, V6 into a new HFS or zFS file system, you must create the mountpoint and mount the new file system to the driving system. For IBM 64-bit SDK for z/OS, V6, the recommended mountpoint is: /usr/lpp/java/J6.0_64.

---

**Figure 12. Sample Installation Jobs**

<table>
<thead>
<tr>
<th>Job Name</th>
<th>Job Type</th>
<th>Description</th>
<th>RELFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AJVFALC</td>
<td>ALLOCATE</td>
<td>Sample job to allocate target and distribution</td>
<td>IBM.HJVB600.F2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>libraries</td>
<td></td>
</tr>
<tr>
<td>AJVFMDK</td>
<td>MKDIR</td>
<td>Sample job to invoke the supplied AJVFMDKDR</td>
<td>IBM.HJVB600.F2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EXEC to allocate HFS or zFS paths</td>
<td></td>
</tr>
<tr>
<td>AJVFDDD</td>
<td>DDDEF</td>
<td>Sample job to define SMP/E DDDEFs</td>
<td>IBM.HJVB600.F2</td>
</tr>
<tr>
<td>AJVFHFS</td>
<td>HFS</td>
<td>Sample APPLY job</td>
<td>IBM.HJVB600.F2</td>
</tr>
<tr>
<td></td>
<td>ALLOCATE</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

You can access the sample installation jobs by performing an SMP/E RECEIVE and then copying the jobs from the relfiles to a work data set for editing and submission. See Figure 12 on page 15 to find the appropriate relfile data set.
Edit and submit sample job AJVFHFS to allocate the HFS or zFS paths for IBM 64-bit SDK for z/OS, V6. Consult the instructions in the sample job for more information.

If you create a new HFS or zFS for this product, you should consider updating the BPXPRMxx PARMLIB member to mount the new file system at IPL time. This may be helpful if an IPL occurs before the installation is complete.

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

### 6.1.7 Create DDDEF Entries

Edit and submit sample job AJVFDDD to create DDDEF entries for the SMP/E target and distribution libraries for IBM 64-bit SDK for z/OS, V6. Consult the instructions in the sample job for more information.

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

### 6.1.8 Perform SMP/E APPLY

1. Perform an SMP/E APPLY CHECK for IBM 64-bit SDK for z/OS, V6.

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

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

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

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

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

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

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

APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU+)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER))

..any other parameters documented in the program directory

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

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

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

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

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

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

6.1.9 Perform SMP/E ACCEPT

Perform an SMP/E ACCEPT CHECK for IBM 64-bit SDK for z/OS, V6.

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

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

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

Note: The GROUPEXTEND operand indicates that SMP/E accept all requisite SYSMODs. The requisite SYSMODS might be applicable to other functions.
**Expected Return Codes and Messages from ACCEPT CHECK:** You will receive a return code of 0 if this job runs correctly.

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

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

### 6.1.10 Run REPORT CROSSZONE

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

After you have installed IBM 64-bit SDK for z/OS, V6, it is recommended that you run REPORT CROSSZONE against the new or updated target and distribution zones. REPORT CROSSZONE requires a global zone with ZONEINDEX entries describing all the target and distribution libraries to be reported on.

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

### 6.2 Activating IBM 64-bit SDK for z/OS, V6

IBM 64-bit SDK for z/OS, V6 is fully operational once the SMP/E installation is complete. No further customization is required to activate this function.
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| very satisfied  | <=----------------->= | very dissatisfied |
| 1                | 2                | 3                |
| 4                | 5                | N                |

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<td></td>
<td></td>
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<tr>
<td>Contents of Program Directory</td>
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<td>Installation Verification Programs</td>
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<tr>
<td>Time to install the product</td>
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<td>Readability and organization of Program Directory tasks</td>
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<td>Necessity of all installation tasks</td>
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<td>Accuracy of the definition of the installation tasks</td>
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<td>Technical level of the installation tasks</td>
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<tr>
<td>Ease of getting the system into production after installation</td>
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<td></td>
<td></td>
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</tbody>
</table>

How did you order this product?

___ CBPDO
___ CustomPac
___ ServerPac
___ Independent
___ Other

Is this the first time your organization has installed this product?

___ Yes
___ No

Were the people who did the installation experienced with the installation of z/OS products?

___ Yes
___ No

If yes, how many years? ___
If you have any comments to make about your ratings above, or any other aspect of the product installation, please list them below:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Please provide the following contact information:

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________________________________________________________________________
Organization
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