IBM

Program Directory for

IBM Application Performance Analyzer for z/OS

V10.1.0

Program Number 5697-P36

FMIDs HAD0A10, JAD0A1J, and JAD0A1K

for use with
z/OS V1.9.0 or later

Document Date: December 2009

GI11-9132-01

> **Note**
>
> Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 33.

Contents

Figures

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 Application Performance Analyzer for z/OS. This publication refers to IBM Application Performance Analyzer for z/OS as Application Performance Analyzer.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for Application Performance Analyzer.

- 3.0, "Program Support" on page 7 describes the IBM support available for Application Performance Analyzer.

- 4.0, "Program and Service Level Information" on page 9 lists the APARs (program level) and PTFs (service level) that have been incorporated into Application Performance Analyzer.

- 5.0, "Installation Requirements and Considerations" on page 11 identifies the resources and considerations that are required for installing and using Application Performance Analyzer.

- 6.0, "Installation Instructions" on page 22 provides detailed installation instructions for Application Performance Analyzer. It also describes the procedures for activating the functions of Application Performance Analyzer, or refers to appropriate publications.

Before installing Application Performance Analyzer, read the *CBPDO Memo To Users* and the *CBPDO Memo To Users Extension* that are supplied with this program in softcopy format and this Program Directory; then keep them for future reference. Section 3.2, "Preventive Service Planning" on page 7 tells you how to find any updates to the information and procedures in this Program Directory.

Application Performance Analyzer 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 that is provided with your order. All service and HOLDDATA for Application Performance Analyzer are included on the CBPDO tape.

Do not use this program directory if you install Application Performance Analyzer with a SystemPac or ServerPac. When you use these offerings, use the jobs and documentation supplied with the offering. This program directory can point you to specific sections of it as required.

1.1 Application Performance Analyzer Description

Application Performance Analyzer V10.1 helps developers and systems personnel tune applications and resolve performance constraints. Version 10 includes the following new features and enhancements:

- An initial release of a Windows GUI is included that provides for a workstation interface to create sample requests and view reports like those previously available via the host ISPF interface.

- Support is provided for multiple DB2 address spaces specific stored procedure requests. Multiple DB2 address spaces are now supported for collateral DB2 activity.

- Sampling support for multiple IMS address spaces is added.

- Support for multiple instances of CICS address spaces for sampling requests is included.

- For IMS region measurements, repeating program attributes in the S02 (Load module attributes) report are eliminated.

- Additional System z Integrated Information Processor (zIIP) and System z Application Assist Processor (zAAP) reporting is added to permit users to determine the utilization of these processors for the sampled applications.

- Support for Java virtual machine V5 is added.

- Currency support for IBM IMS V11 and IBM CICS Transaction Server (CICS TS) V4.1 is provided.

- The Application Performance Analyzer sample file size is reduced. When the sample file exceeds its limit, sampling terminates and users get a notification.

- An installation option is added to make the sampling request description a mandatory field.

- Setup is enhanced to make optional the step field to default to all steps.

- The user import of sample files is now externalized so that users can move sample files from one machine to another.

1.2 Application Performance Analyzer FMIDs

Application Performance Analyzer consists of the following FMIDs:

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HAD0A10
JAD0A1J
JAD0A1K
```

2.0 Program Materials

An IBM program is identified by a program number and orderable supply IDs. The program number for Application Performance Analyzer is 5697-P36, and its orderable supply IDs are S015RBD (English), S015RBF (Japanese), and S015RBG (Korean).

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 Application Performance Analyzer. 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. This program is in SMP/E RELFILE format and is installed by using SMP/E. See 6.0, "Installation Instructions" on page 22 for more information about how to install the program.

You can find information about the physical tape for the basic machine-readable materials for Application Performance Analyzer in the *CBPDO Memo To Users Extension*.

Figure 1, Figure 2 on page 4, and Figure 3 on page 4 describe the program file contents for Application Performance Analyzer. 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.

Figure 1 (Page 1 of 2). Program File Content -- Base				
Name	**ORG**	**RECFM**	**LRECL**	**BLK SIZE**
SMPMCS	SEQ	FB	80	6400
IBM.HAD0A10.F1	PDSE	U	0	6144
IBM.HAD0A10.F2	PDS	FB	80	8800
IBM.HAD0A10.F3	PDS	FB	80	8800

Figure 1 (Page 2 of 2). Program File Content -- Base				
Name	ORG	RECFM	LRECL	BLK SIZE
IBM.HAD0A10.F4	PDS	FB	80	8800
IBM.HAD0A10.F5	PDS	FB	80	8800
IBM.HAD0A10.F6	PDS	FB	80	8800
IBM.HAD0A10.F7	PDS	FB	80	8800
IBM.HAD0A10.F8	PDS	VB	256	27998
IBM.HAD0A10.F9	PDS	VB	1028	27998

Figure 2. Program File Content -- Japanese				
Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JAD0A1J.F1	PDS	FB	80	8800
IBM.JAD0A1J.F2	PDS	FB	80	8800
IBM.JAD0A1J.F3	PDS	FB	80	8800
IBM.JAD0A1J.F4	PDS	FB	80	8800
IBM.JAD0A1J.F5	PDS	FB	80	8800
IBM.JAD0A1J.F6	PDSE	U	0	6144

Figure 3 (Page 1 of 2). Program File Content -- Korean				
Name	ORG	RECFM	LRECL	BLK SIZE
SMPMCS	SEQ	FB	80	6400
IBM.JAD0A1K.F1	PDS	FB	80	8800
IBM.JAD0A1K.F2	PDS	FB	80	8800
IBM.JAD0A1K.F3	PDS	FB	80	8800
IBM.JAD0A1K.F4	PDS	FB	80	8800

Figure 3 (Page 2 of 2). Program File Content -- Korean				
Name	**ORG**	**RECFM**	**LRECL**	**BLK SIZE**
IBM.JAD0A1K.F5	PDS	FB	80	8800
IBM.JAD0A1K.F6	PDSE	U	0	6144

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for Application Performance Analyzer.

2.3 Program Publications

The following sections identify the basic and optional publications for Application Performance Analyzer.

2.3.1 Basic Program Publications

Figure 4 identifies the basic unlicensed program publications for Application Performance Analyzer. One copy of each of these publications is included when you order the basic materials for Application Performance Analyzer. For additional copies, contact your IBM representative.

Figure 4. Basic Material: Unlicensed Publications	
Publication Title	**Form Number**
License Information	GI11-9133

2.3.2 Optional Program Publications

Figure 5 identifies the optional unlicensed program publications for Application Performance Analyzer. These publications will be available after product availability. They are also available in displayable softcopy format (BookManager, PDF) from the Application Performance Analyzer Web site at http://www.ibm.com/software/awdtools/apa/

Figure 5 (Page 1 of 2). Optional Material: Unlicensed Publications	
Publication Title	**Form Number**
Messages Guide	SC14-7259

Figure 5 (Page 2 of 2). Optional Material: Unlicensed Publications	
Publication Title	**Form Number**
Customization Guide	SC14-7260
User's Guide	SC14-7261

2.4 Program Source Materials

No program source materials or viewable program listings are provided for Application Performance Analyzer.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 6 during the installation of Application Performance Analyzer. To order copies, contact your IBM representative or visit the IBM Publications Center at http://www.ibm.com/shop/publications/order.

Figure 6. Publications Useful During Installation	
Publication Title	**Form Number**
IBM SMP/E for z/OS User's Guide	SA22-7773
IBM SMP/E for z/OS Commands	SA22-7771
IBM SMP/E for z/OS Reference	SA22-7772
IBM SMP/E for z/OS Messages, Codes, and Diagnosis	GA22-7770
z/OS UNIX System Services Planning	GA22-7800
z/OS UNIX System Services User's Guide	SA22-7801
z/OS UNIX System Services Command Reference	SA22-7802
z/OS UNIX System Services Messages and Codes	SA22-7807

3.0 Program Support

This section describes the IBM support available for Application Performance Analyzer.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install Application Performance Analyzer, make sure that you have reviewed 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 the installation of this package. This service includes software PSP information (APAA10) that contains HIPER and required PTFs against the base release.

If you obtained Application Performance Analyzer as part of a CBPDO, HOLDDATA is included.

If the CBPDO for Application Performance Analyzer is older than two weeks old by the time you install the product materials, you should contact the IBM Support Center or use S/390 SoftwareXcel to obtain the latest PSP Bucket information. You can also obtain the l atest PSP Bucket information by going to the following Web site:
https://techsupport.services.ibm.com/server/390.psp390

For program support, access the Software Support Web site at http://www.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 Application Performance Analyzer are shown as follows:

Figure 7. PSP Upgrade and Subset ID		
UPGRADE	**SUBSET**	**Description**
APAA10	HAD0A10	Application Performance Analyzer Base
	JAD0A1J	Application Performance Analyzer JPN
	JAD0A1K	Application Performance Analyzer KOR

3.3 Statement of Support Procedures

If you have a problem with Application Performance Analyzer, you can first check to see whether the resolution to your problem is already documented in http://www.ibm.com/software/awdtools/apa/support/. If you cannot find an answer, you can report any difficulties to your IBM Support Center. If an APAR is required, the Support Center will provide the address to which any needed documentation can be sent.

Figure 8 identifies the component IDs (COMPID) for Application Performance Analyzer.

FMID	COMPID	Component Name	RETAIN Release
Figure 8. Component IDs			
HAD0A10	5697P3600	Application Performance Analyzer Base	A10
JAD0A1J	5697P3600	Application Performance Analyzer JPN	A1J
JAD0A1K	5697P3600	Application Performance Analyzer KOR	A1K

4.0 Program and Service Level Information

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

- FMID HAD0A10

PK09257	PK48842	PK74828
PK09718	PK50933	PK74840
PK10751	PK53861	PK77204
PK10866	PK53863	PK77205
PK12802	PK55830	PK77261
PK13151	PK56958	PK77731
PK14202	PK58411	PK79760
PK17898	PK58412	PK80910
PK18698	PK59236	PK81932
PK20741	PK61517	PK83624
PK24472	PK61518	PK83625
PK26164	PK61880	PK83626
PK29025	PK63259	PK85552
PK31684	PK63260	PK85553
PK32728	PK63950	PK87433
PK34099	PK66662	PK87612
PK35123	PK66663	PK90027
PK35492	PK67298	PK91574
PK36620	PK69392	PK94334
PK37054	PK70702	PK94976
PK38638	PK71247	PK95224
PK38640	PK72946	PK96329
PK40831	PK72954	PK97539
PK44980	PK72955	PK97543
PK44981	PK74827	

- FMID JAD0A1J

PK24911	PK40727	PK61517
PK32018	PK58412	PK61518
PK32225	PK59236	PK63259

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PK63260	PK72954	PK80910
PK66662	PK72955	PK81932
PK66663	PK74827	PK83625
PK69392	PK77205	PK85553
PK70702	PK77731	PK87612
PK72946	PK79760	PK90027

- FMID JAD0A1K

PK46712	PK66663	PK79760
PK55830	PK69392	PK80910
PK58412	PK70702	PK81932
PK59236	PK72946	PK83625
PK61517	PK72955	PK85553
PK61518	PK74827	PK87612
PK63259	PK77205	PK90027
PK63260	PK77731	

4.2 Service Level Information

No PTFs against this release of Application Performance Analyzer have been incorporated into the product tape.

It is highly recommended that you frequently check the Application Performance Analyzer PSP Bucket for HIPER and SPECIAL Attention PTFs against all FMIDs that you must install.

5.0 Installation Requirements and Considerations

The following sections identify the system requirements for installing and activating Application Performance Analyzer. The following terminology is used:

- *Driving system*: the system used to install the program; where SMP/E executes.

  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 udpates, 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 access these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system that is required to install Application Performance Analyzer.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

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Figure 9. Driving System Software Requirements				
Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in this product's shipment?
Any **one** of the following:				
5694-A01	z/OS	V1.9.0 or later	N/A	No
5655-G44	IBM SMP/E for z/OS	V3.4.0	N/A	No

Note: Installation may 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.

Application Performance Analyzer is installed into a file system, either HFS or zFS. Before installing Application Performance Analyzer, you must ensure that the target system file system data sets are available for processing on the driving system. OMVS must be active on the driving system and the target system file system data sets must be mounted on the driving system.

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

5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use Application Performance Analyzer.

Application Performance Analyzer installs in the z/OS (Z038) SREL.

5.2.1 Machine Requirements

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

5.2.2 Programming Requirements

5.2.2.1 Installation Requisites: Installation requisites identify products that are required by and *must* be present on the system or products that are not required by but *should* be present on the system for the successful installation of this product.

Mandatory installation requisites identify products that are required on the system for the successful installation of this product. These products are specified as PREs or REQs.

Figure 10. Target System Mandatory Installation Requisites				
Program Number	**Product Name**	**Minimum VRM**	**Minimum Service Level will satisfy these APARs**	**Included in this product's shipment?**
5694-A01	z/OS	V1.9.0 or later	N/A	No
Note:				
Application Performance Analyzer V10.1 is tested and supported only for use with the currently supported levels of IBM software and hardware.				
If your operating system is z/OS V1.7 or V1.8, IBM will undertake to fix any problems that you might encounter when running Application Performance Analyzer V10.1 on that level of unsupported product. However, IBM must be able to reproduce the problem using a supported level of the same product. If the problem can be reproduced and fixed, the fix will be developed and tested using the supported levels of IBM software. If a fix is made available, it is likely to work on the unsupported product level; however, IBM cannot guarantee that the fix will work in this case.				

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

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

Application Performance Analyzer has no conditional installation requisites.

5.2.2.2 Operational Requisites: Operational requisites are products that are required by and *must* be present on the system or products that are not required by but *should* be present on the system for this product to operate all or part of its functions.

Mandatory operational requisites identify products that are required for this product to operate its basic functions. These products are specified as PREs or REQs.

Application Performance Analyzer 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. These products are specified as IF REQs.

Figure 11 (Page 1 of 2). Target System Conditional Operational Requisites		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5696-234	High Level Assembler/MVS & VM VSE V1.5 or V1.6	Assembler applications

Figure 11 (Page 2 of 2). Target System Conditional Operational Requisites		
Program Number	**Product Name and Minimum VRM/Service Level**	**Function**
5655-L82	IBM WebSphere MQ for z/OS V6	Application Messaging Framework
5655-N98	IBM 31-bit SDK for z/OS, Java 2 Technology Edition, V5 with PTF UK48410	Java applications
Any **one** of the following:		
5625-DB2	DB2 UDB for z/OS Version 8	DB2 applications
5635-DB2	DB2 UDB for z/OS Version 9	DB2 applications
Any **one** of the following:		
5655-J38	IMS Version 9	IMS support
5635-A01	IMS Version 10	IMS support
5635-A02	IMS Version 11	IMS support
Any **one** of the following:		
5697-E93	CICS TS for z/OS V2.3	CICS applications
5655-M15	CICS TS for z/OS V3.1 or V3.2	CICS applications
5655-S97	CICS TS for z/OS V4.1	CICS applications
Any **one** of the following:		
5655-I35	IBM WebSphere Application Server for z/OS V5.1	Middleware infrastructure for Web applications
5655-N01	IBM WebSphere Application Server for z/OS V6.1	Middleware infrastructure for Web applications
Any **one** of the following:		
5655-G53	IBM Enterprise COBOL for z/OS V3.4	COBOL applications
5655-S71	IBM Enterprise COBOL for z/OS V4.1 or later	COBOL applications
Any **one** of the following:		
5688-235	IBM PL/I for MVS and VM V1.1.1	PL/I applications
5655-H31	IBM Enterprise PL/I for z/OS V3.6 or later	PL/I applications
Any **one** of the following:		
5688-216	AD/Cycle C/370 V1.2	C/370 applications
5655-121	C/C++ for MVS/ESA V3	C/C++ applications
5694-A01	z/OS V1.9, or later C/C++ Element	C/C++ applications

Figure 12 on page 15 lists the old releases of requisite products that are no longer in service.

IBM will undertake to fix any problems that you might encounter when running Application Performance Analyzer V10.1 with these unsupported levels. However, IBM must be able to reproduce the problem using a supported level of the same product. If the problem can be reproduced and fixed, the fix will be developed and tested using the supported levels of IBM software. If a fix is made available, it is likely to work on the unsupported product level; however, IBM cannot guarantee that the fix will work in this case.

Figure 12. Unsupported Old-levels of Requisite Products

Program Number	Product Name and Minimum VRM/Service Level	Function
5694-A01	z/OS V1.7 or V1.8	Operating system
5645-DB2	DB2 UDB for OS/390 Version 6	DB2 applications
5675-DB2	DB2 UDB for OS/390 Version 7	DB2 applications
5655-B01	IMS V7	IMS support
5655-C56	IMS V8	IMS support
5655-147	CICS TS for OS/390 V1.3	CICS support
5697-E93	CICS TS for z/OS V2.2	CICS support
5740-CB1	OS/VS COBOL V1.2.4	COBOL applications
5688-958, 5688-023	VS COBOL II V1.3 through V1.4	COBOL applications, with limitations
5688-197	COBOL for MVS & VM V1	COBOL applications
5648-A25	COBOL for OS/390 & VM V2.2	COBOL applications
5655-G53	Enterprise COBOL for z/OS V3.1 through V3.3	COBOL applications
5688-909, 5688-910	OS PL/I V2	PL/I applications, with limitations
5655-B22	IBM VisualAge PL/I for OS/390 V2	PL/I applications
5655-H31	Enterprise PL/I for z/OS V3.1 through V3.5	PL/I applications
5647-A01	IBM OS/390 V2.10 C/C++ Element	C/C++ applications
5694-A01	z/OS V1.6 to V1.8 C/C++ Element	C/C++ applications
5696-234	High Level Assembler/MVS & VM VSE V1.4	Assembler applications
5655-F10	IBM WebSphere MQ for z/OS V5.2 or V5.3	Application Messaging Framework
5655-I35	IBM WebSphere Application Server for z/OS V5.0	Middleware infrastructure for Web applications
5655-N01	IBM WebSphere Application Server for z/OS V6.0.1	Middleware infrastructure for Web applications

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.

Application Performance Analyzer 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.

Application Performance Analyzer has no negative requisites.

5.2.3 DASD Storage Requirements

Application Performance Analyzer libraries can reside on all supported DASD types. The values below are for a 3390 DASD.

Figure 13, Figure 14, and Figure 15 list the total space that is required for each type of library.

Figure 13. Total DASD Space Required by Application Performance Analyzer -- Base	
Library Type	**Total Space Required in 3390 Trks**
Target	946 Tracks
Distribution	951 Tracks
File System	15 Tracks

Figure 14. Total DASD Space Required by Application Performance Analyzer -- Japanese	
Library Type	**Total Space Required**
Target	92 Tracks
Distribution	92 Tracks

Figure 15. Total DASD Space Required by Application Performance Analyzer -- Korean	
Library Type	**Total Space Required**
Target	92 Tracks
Distribution	92 Tracks

Notes:

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

2. Abbreviations used for data set types are shown as follows.

   U   Unique data set, allocated by this product and used by only this product. This table provides all the required information to determine the correct storage for this data set. You do not need to refer to other tables or program directories for the data set size.

   S   Shared data set, allocated by this product and used by this product and other products. To determine the correct storage needed for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   E   Existing shared data set, used by this product and other products. This data set is *not* allocated by this product. To determine the correct storage for this data set, add the storage size given in this table to those given in other tables (perhaps in other program directories). If the data set already exists, it must have enough free space to accommodate the storage size given in this table.

   If you currently have a previous release of this product installed in these libraries, the installation of this release will delete the old release and reclaim the space that was used by the old release and any service that had been installed. You can determine whether these libraries have enough space by deleting the old release with a dummy function, compressing the libraries, and comparing the space requirements with the free space in the libraries.

   For more information about the names and sizes of the required data sets, see 6.1.7, "Allocate SMP/E Target and Distribution Libraries" on page 27.

3. Abbreviations used for the file system path type are as follows.

   N   New path, created by this product.
   X   Path created by this product, but 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.
   - The data set may be either a PDS or a PDSE; however, hlq.SCAZAUTH and ACAZMOD must be PDSE.

5. All target libraries listed have the following attributes:

   - These data sets can be SMS-managed, but they are not required to be SMS-managed.
   - These data sets are not required to reside on the IPL volume.
   - The values in the "Member Type" column are not necessarily the actual SMP/E element types that are identified in the SMPMCS.

6. All target libraries that are listed and contain load modules have the following attributes:

   - These data sets can be in the LPA, but they are not required to be in the LPA.

- These data sets can be in the LNKLST; however, hlq.SCAZLINK must be in the LNKLST.
- These data sets are required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install Application Performance Analyzer. The storage requirements of Application Performance Analyzer 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 16. Storage Requirements for Application Performance Analyzer Target Libraries -- Base								
Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SCAZLINK	LMOD	ANY	U	PDS	U	0	1	1
SCAZAUTH	LMOD	ANY	U	PDSE	U	0	301	N/A
SCAZEXEC	EXEC	ANY	U	PDS	FB	80	4	1
SCAZDBRM	Data	ANY	U	PDS	FB	80	1	1
SCAZSAMP	Sample	ANY	U	PDS	FB	80	11	2
SCAZZIP	Data	ANY	U	PDS	VB	256	534	1
SCAZMENU	Message	ANY	U	PDS	FB	80	3	2
SCAZPENU	Panel	ANY	U	PDS	FB	80	90	26
SCAZTENU	Table	ANY	U	PDS	FB	80	1	1

Figure 17. Storage Requirements for Application Performance Analyzer Target Libraries -- Japanese								
Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SCAZAUTH	LMOD	ANY	S	PDSE	U	0	1	N/A
SCAZSAMP	Sample	ANY	S	PDS	FB	80	1	1
SCAZEXEC	EXEC	ANY	S	PDS	FB	80	1	1
SCAZMJPN	Message	ANY	U	PDS	FB	80	3	2
SCAZPJPN	Panel	ANY	U	PDS	FB	80	85	25
SCAZTJPN	Table	ANY	U	PDS	FB	80	1	1

Figure 18. Storage Requirements for Application Performance Analyzer Target Libraries -- Korean								
Library DDNAME	Member Type	Target Volume	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
SCAZAUTH	LMOD	ANY	S	PDSE	U	0	1	N/A
SCAZSAMP	Sample	ANY	S	PDS	FB	80	1	1
SCAZEXEC	EXEC	ANY	S	PDS	FB	80	1	1
SCAZMKOR	Message	ANY	U	PDS	FB	80	3	2
SCAZPKOR	Panel	ANY	U	PDS	FB	80	85	25
SCAZTKOR	Table	ANY	U	PDS	FB	80	1	1

Figure 19. Application Performance Analyzer File System Paths		
DDNAME	TYPE	Path Name
SCAZPAX	N	/usr/lpp/apa/v10r1/IBM/

Figure 20. Storage Requirements for Application Performance Analyzer Distribution Libraries -- Base							
Library DDNAME	TYPE	ORG	RECFM	LRECL	No. of 3390 Trks	No. of DIR Blks
ACAZMOD	U	PDSE	U	0	301	N/A
ACAZEXEC	U	PDS	FB	80	4	1
ACAZDBRM	U	PDS	FB	80	1	1
ACAZSAMP	U	PDS	FB	80	11	2
ACAZPAX	U	PDS	VB	1028	6	1
ACAZZIP	U	PDS	VB	256	534	1
ACAZMENU	U	PDS	FB	80	3	2
ACAZPENU	U	PDS	FB	80	90	26
ACAZTENU	U	PDS	FB	80	1	1

Figure 21. Storage Requirements for Application Performance Analyzer Distribution Libraries -- Japanese						
Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ACAZMOD	S	PDSE	U	0	1	N/A
ACAZSAMP	S	PDS	FB	80	1	1
ACAZEXEC	S	PDS	FB	80	1	1
ACAZMJPN	U	PDS	FB	80	3	2
ACAZPJPN	U	PDS	FB	80	85	25
ACAZTJPN	U	PDS	FB	80	1	1

Figure 22. Storage Requirements for Application Performance Analyzer Distribution Libraries -- Korean						
Library DDNAME	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
ACAZMOD	S	PDSE	U	0	1	N/A
ACAZSAMP	S	PDS	FB	80	1	1
ACAZEXEC	S	PDS	FB	80	1	1
ACAZMKOR	U	PDS	FB	80	3	2
ACAZPKOR	U	PDS	FB	80	85	25
ACAZTKOR	U	PDS	FB	80	1	1

The following figure lists data sets that are not used by SMP/E, but are required for Application Performance Analyzer to run.

Figure 23. Storage Requirements for Application Performance Analyzer Non-SMP/E Data Sets						
Data Set Name	T Y P E	O R G	R E C F M	L R E C L	No. of 3390 Trks	No. of DIR Blks
CHECKPT	U	PS	F	2048	477	0
CAZLANGX[1]	U	PDS	VB	1562	10	10
Note:						
1. This data set is required only if you want Application Performance Analyzer to process a side file.						

5.3 FMIDs Deleted

Installing Application Performance Analyzer 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 Application Performance Analyzer into separate SMP/E target and distribution zones.

Note: These FMIDs are not automatically deleted from the Global Zone. If you want to delete these FMIDs from the Global Zone, see the SMP/E manuals for instructions.

5.4 Special Considerations

Application Performance Analyzer has the following special considerations for the target system:

- SCAZLINK must be in the link list and APF-authorized.

- SCAZAUTH must be APF-authorized.

- You must have a UID of 0 and READ access to the BPX.FILEATTR.APF facility class profile in order to successfully install the PAX file.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of Application Performance Analyzer.

Please note the following:

- You can install Application Performance Analyzer into existing SMP/E zones or, optionally, into its own unique SMP/E zones. If you want to install Application Performance Analyzer into its own SMP/E environment, a sample job, CAZWSMPE, is provided. This job creates and initializes the SMPCSI and the SMP/E control data sets. See Figure 25 on page 23 for more information.

- 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 Application Performance Analyzer

6.1.1 SMP/E Considerations for Installing Application Performance Analyzer

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of Application Performance Analyzer.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 24. 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.

Figure 24. SMP/E Options Subentry Values		
Subentry	**Value**	**Comment**
DSSPACE	300,150,250	Space allocation for SMPTLIB data sets
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install Application Performance Analyzer:

Figure 25. Sample Installation Jobs -- Base

Job Name	Job Type	Description	RELFILE
CAZWEDIT	MACRO	ISPF Editor macro to aid users in making changes to the sample jobs **(optional)**	IBM.HAD0A10.F6
CAZWSMPE	SMP/E	Sample job to define and prime a new SMP/E CSI **(optional)**	IBM.HAD0A10.F6
CAZWRECV	RECEIVE	Sample RECEIVE job	IBM.HAD0A10.F6
CAZWALOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HAD0A10.F6
CAZWISMK	MKDIR	Sample job to invoke the supplied CAZWMKDR EXEC to allocate HFS paths	IBM.HAD0A10.F6
CAZWDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HAD0A10.F6
CAZWAPLY	APPLY	Sample APPLY job	IBM.HAD0A10.F6
CAZWACPT	ACCEPT	Sample ACCEPT job	IBM.HAD0A10.F6

Figure 26. Sample Installation Jobs -- Japanese

Job Name	Job Type	Description	RELFILE
CAZWEDIJ	MACRO	ISPF Editor macro to aid users in making changes to the sample jobs **(optional)**	IBM.JAD0A1J.F4
CAZWRECJ	RECEIVE	Sample RECEIVE job	IBM.JAD0A1J.F4
CAZWALOJ	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.JAD0A1J.F4
CAZWDEFJ	DDDEF	Sample job to define SMP/E DDDEFs	IBM.JAD0A1J.F4
CAZWAPLJ	APPLY	Sample APPLY job	IBM.JAD0A1J.F4
CAZWACPJ	ACCEPT	Sample ACCEPT job	IBM.JAD0A1J.F4

Figure 27 (Page 1 of 2). Sample Installation Jobs -- Korean

Job Name	Job Type	Description	RELFILE
CAZWEDIK	MACRO	ISPF Editor macro to aid users in making changes to the sample jobs **(optional)**	IBM.JAD0A1K.F4
CAZWRECK	RECEIVE	Sample RECEIVE job	IBM.JAD0A1K.F4
CAZWALOK	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.JAD0A1K.F4

Figure 27 (Page 2 of 2). Sample Installation Jobs -- Korean			
Job Name	**Job Type**	**Description**	**RELFILE**
CAZWDEFK	DDDEF	Sample job to define SMP/E DDDEFs	IBM.JAD0A1K.F4
CAZWAPLK	APPLY	Sample APPLY job	IBM.JAD0A1K.F4
CAZWACPK	ACCEPT	Sample ACCEPT job	IBM.JAD0A1K.F4

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 25 on page 23, Figure 26 on page 23, and Figure 27 on page 23 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 jobs. 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 jobs, modify the JOB cards and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//BASEJOBS JOB <job paramters>
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN   DD DSN=IBM.HAD0A10.F6,UNIT=tunit,
//         VOL=SER=volser,LABEL=(x,SL),
//         DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.HAD0A10.F6,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name1,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(5,1,2))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
   COPY INDD=xxxxIN,OUTDD=OUT
  SELECT MEMBER=(CAZWEDIT,CAZWSMPE,CAZWALOC,CAZWISMK)
  SELECT MEMBER=(CAZWDDEF,CAZWRECV,CAZWAPLY,CAZWACPT)
/*

//JPNJOBS  JOB  <job parameters>
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN   DD DSN=IBM.JAD0A1J.F4,UNIT=tunit,
//         VOL=SER=volser,LABEL=(x,SL),
//         DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.JAD0A1J.F4,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name2,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(5,1,2))
```

```
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=xxxxIN,OUTDD=OUT
  SELECT MEMBER=(CAZWEDIJ,CAZWALOJ,CAZWDEFJ)
  SELECT MEMBER=(CAZWRECJ,CAZWAPLJ,CAZWACPJ)
/*

//KORJOBS  JOB  <job parameters>
//STEP1    EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN   DD DSN=IBM.JAD0A1K.F4,UNIT=tunit,
//         VOL=SER=volser,LABEL=(x,SL),
//         DISP=(OLD,KEEP)
//FILEIN   DD DSN=IBM.JAD0A1K.F4,UNIT=SYSALLDA,DISP=SHR,
//         VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name3,
//         DISP=(NEW,CATLG,DELETE),
//         VOL=SER=dasdvol,UNIT=SYSALLDA,
//         SPACE=(TRK,(5,1,2))
//SYSUT3   DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN    DD *
    COPY INDD=xxxxIN,OUTDD=OUT
  SELECT MEMBER=(CAZWEDIK,CAZWALOK,CAZWDEFK)
  SELECT MEMBER=(CAZWRECK,CAZWAPLK,CAZWACPK)
/*
```

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

TAPEIN:
    tunit is the unit value that matches the product tape.
    volser is the volume serial that matches the product tape.
    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 locations of IBM.HAD0A10.F6,
    IBM.JAD0A1J.F4, and IBM.JAD0A1K.F4 on the tape.

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

OUT
    jcl-library-name1, **jcl-library-name2**, and **jcl-library-name3** are the names of the output data
    sets where the sample jobs are stored.
    dasdvol is the volume serial of the DASD device where the output data set resides.

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

6.1.4 Set up ISPF Editor Macro (Optional)

To aid you in making changes to the SMP/E installation jobs:

- CAZWSMPE, CAZWRECV, CAZWALOC, CAZWISMK, CAZWDDEF, CAZWAPLY, and CAZWACPT for the base product
- CAZWRECJ, CAZWALOJ, CAZWDEFJ, CAZWAPLJ, and CAZWACPJ for the Japanese feature
- CAZWRECK, CAZWALOK, CAZWDEFK, CAZWAPLK, and CAZWACPK for the Korean feature

three ISPF editor macros called CAZWEDIT, CAZWEDIJ, and CAZWEDIK are copied to your output data sets **jcl-library-name1** in job BASEJOBS, **jcl-library-name2** in job JPNJOBS, and **jcl-library-name3** in job KORJOBS above.

Use CAZWEDIT in **jcl-library-name1** if you install only the base FMID. Use CAZWEDIJ in **jcl-library-name2** if you install both the base and the Japanese feature. Use CAZWEDIK in **jcl-library-name3** if you install both the base and the Korean feature.

These macros let you substitute proper values for all of the required variables in those jobs instead of having you make the changes repeatedly by hand.

Edit macro CAZWEDIT, CAZWEDIJ, or CAZWEDIK and provide the proper values. Consult the instructions in the macro for more information.

After making the changes, either copy CAZWEDIT, CAZWEDIJ, or CAZWEDIK to any data set in your TSO logon procedure SYSEXEC concatenation, or issue the commands below to make CAZWEDIT, CAZWEDIJ, or CAZWEDIK immediately accessible to your current ISPF session:

```
From ISPF option 6, issue:

ALLOCATE FI(SYSUEXEC) DA('dsn') SHR REU
   where dsn is jcl-library-name1, jcl-library-name2,
   or jcl-library-name3, depending on where your updated
   CAZWEDIT, CAZWEDIJ, or CAZWEDIK resides.
ALTLIB ACTIVATE USER(EXEC)

Then edit your installation jobs from this ISPF session.
```

Consult the instructions in the macro on how to invoke it.

6.1.5 Allocate and Initialize the SMP/E Data Sets (Optional)

You can install Application Performance Analyzer in the same SMP/E zone as z/OS V1.9.0 (or later), or in a different zone.

- If you install into existing SMP/E data sets, ensure that you have enough space.

- If you plan to install into an existing zone, the cluster should have already been allocated and primed. You can go on to the next step to perform an SMP/E RECEIVE.

- To install into a new zone, edit and submit sample job CAZWSMPE to define and prime a new SMP/E CSI cluster. Consult the instructions in the sample job for more information.

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

6.1.6 Perform SMP/E RECEIVE

If you have obtained Application Performance Analyzer as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the Application Performance Analyzer FMIDs, service, and HOLDDATA that are included on the CBPDO tape. For more information, see the documentation that is included in the CBPDO.

You can also choose to edit and submit sample job CAZWRECV to perform the SMP/E RECEIVE for Application Performance Analyzer. Consult the instructions in the sample job for more information.

If your order contains the Japanese feature, edit and submit sample job CAZWRECJ to perform the SMP/E RECEIVE for that feature. Consult the instructions in the sample job for more information.

If your order contains the Korean feature, edit and submit sample job CAZWRECK to perform the SMP/E RECEIVE for that feature. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive return codes of 0s if all jobs run correctly.

6.1.7 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job CAZWALOC to allocate the SMP/E target and distribution libraries for Application Performance Analyzer. Consult the instructions in the sample job for more information.

If your order contains the Japanese feature, edit and submit sample job CAZWALOJ to allocate the SMP/E target and distribution libraries for that feature. Consult the instructions in the sample job for more information.

If your order contains the Korean feature, edit and submit sample job CAZWALOK to allocate the SMP/E target and distribution libraries for that feature. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive return codes of 0s if all jobs run correctly.

6.1.8 Allocate File system Paths

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

Before you run the sample job to create the paths in the file system, ensure that OMVS is active on the driving system, and that the file system of the target system is mounted to the driving system. If you install Application Performance Analyzer into a zFS file system, zFS must be active on the driving system.

If you plan to install Application Performance Analyzer into a new file system, create the mountpoint and mount the new file system to the driving system. For Application Performance Analyzer, the recommended mountpoint is /usr/lpp/apa/v10r1.

Edit and submit sample job CAZWISMK to allocate the file system for Application Performance Analyzer. Ensure that you have a UID of 0 and READ access to the BPX.FILEATTR.APF facility class profile. Consult the instructions in the sample job for more information.

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

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

6.1.9 Create DDDEF Entries

Edit and submit sample job CAZWDDEF to create DDDEF entries for the SMP/E target and distribution libraries for Application Performance Analyzer. Consult the instructions in the sample job for more information.

If your order contains the Japanese feature, edit and submit sample job CAZWDEFJ to create DDDEF entries for that feature. Consult the instructions in the sample job for more information.

If your order contains the Korean feature, edit and submit sample job CAZWDEFK to create DDDEF entries for that feature. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: You will receive return codes of 0s if all jobs run correctly.

6.1.10 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job CAZWAPLY to perform an SMP/E APPLY CHECK for Application Performance Analyzer. Consult the instructions in the sample job for more information.

   If your order contains the Japanese feature, edit and submit sample job CAZWAPLJ to perform an SMP/E APPLY CHECK for that feature. Consult the instructions in the sample job for more information.

If your order contains the Korean feature, edit and submit sample job CAZWAPLK to perform an SMP/E APPLY CHECK for that feature. Consult the instructions in the sample job for more information.

HOLDDATA introduces ERROR HOLDs against FMIDs for HIPER APARs. Before the installation, ensure that you have the latest HOLDDATA, which is available through several different portals, including http://service.software.ibm.com/holddata/390holddata.html. Install the FMIDs regardless of the status of unresolved HIPERs. However, don't deploy the software until the unresolved HIPERs are analyzed to determine applicability.

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. This is because 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 two methods to install FMIDs when ++HOLDs for HIPERs exist for the FMIDs that you install:

a. To ensure that all recommended and critical service is installed with the FMIDs, if you are using SMP/E 3.5 or higher and have received the latest HOLDDATA, add the FIXCAT operand to the APPLY command as shown below. If you are using a prior release of SMP/E, add the SOURCEID(HIPER,RSU*) operand to the APPLY command.

```
If using SMP/E V3.5 or higher:
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall.RequiredService)
GROUPEXTEND .
If using SMP/E V3.4 or prior:
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(HIPER,RSU*)
GROUPEXTEND .
```

Some HIPER APARs might not have PTFs available yet. You have to analyze the symptom flags to determine if you want to bypass the specific ERROR HOLDs and continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixes 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 the HIPERs, you can add a BYPASS(HOLDCLASS(HIPER)) operand to the APPLY command. In this way, you can install FMIDs even though HIPER ERROR HOLDs against them still exist. Only the HIPER ERROR HOLDs are bypassed. After the FMIDs are installed, run the SMP/E REPORT ERRSYSMODS command to identify 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 are running SMP/E V3.5 or higher and have
received the latest HOLDDATA, you can also choose to run REPORT MISSINGFIX for Fix
Category IBM.ProductInstall.RequiredService to investigate missing recommended service.

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

2. After you take actions that are indicated by the APPLY CHECK, remove the CHECK operand and run
the job again to perform the APPLY.

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

Expected Return Codes and Messages from APPLY CHECK: You will receive return codes of 0s if
all jobs run correctly.

Expected Return Codes and Messages from APPLY: You will receive return codes of 0s if all jobs
run correctly.

6.1.11 Perform Post-installation Tasks for Application Performance Analyzer

After successfully installing Application Performance Analyzer, you need to do the following
post-installation tasks:

- Add hlq.SCAZLINK to the link list.

- APF-authorize hlq.SCAZLINK and hlq.SCAZAUTH.

- Modify your TSO/E logon procedure to include Application Performance Analyzer user interface.

- Make the CAZ0 started task available.

- Create the installation-level configuration settings load module CAZCNFG1.

- Customize Application Performance Analyzer for use with DB2 UDB (optional).

Refer to the *Application Performance Analyzer Customization Guide, SC14-7260*, for detailed instructions
on how to do the above tasks.

6.1.12 Run the Installation Verification Program (IVP)

After completing the post-installation tasks above, edit and submit sample IVP job CAZIVPJ in hlq.SCAZSAMP to verify that you have successfully installed Application Performance Analyzer.

Refer to the *Application Performance Analyzer Customization Guide, SC14-7260*, for detailed instructions on how to run the IVP.

6.1.13 Perform SMP/E ACCEPT

Edit and submit sample job CAZWACPT to perform an SMP/E ACCEPT CHECK for Application Performance Analyzer. Consult the instructions in the sample job for more information.

If your order contains the Japanese feature, edit and submit sample job CAZWACPJ to perform an SMP/E ACCEPT CHECK for that feature. Consult the instructions in the sample job for more information.

If your order contains the Korean feature, edit and submit sample job CAZWACPK to perform an SMP/E ACCEPT CHECK for that feature. 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. This is because 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).

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 return codes of 0s if all jobs run correctly.

Expected Return Codes and Messages from ACCEPT: You will receive return codes of 0s if all jobs run correctly.

6.1.14 Cleaning Up Obsolete Path

The following file system path, which was created and used by previous release of this product, is no longer used in this release. You can delete this obsolete file system path after you delete the previous release from your system.

- /usr/lpp/apa/v9r1

6.2 Activating Application Performance Analyzer

6.2.1 File System Execution

If you mount the file system in which you have installed Application Performance Analyzer in read-only mode during execution, then you do not have to take further actions to activate Application Performance Analyzer. The recommended mountpoint is /usr/lpp/apa/v10r1.

This concludes the installation of Application Performance Analyzer. See the publication *Customization Guide, SC14-7260*, for the step-by-step procedures to customize the functions of Application Performance Analyzer.

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Reader's Comments

Program Directory for IBM Application Performance Analyzer for z/OS, December 2009

You may use this form to comment about this document, its organization, or subject matter with the understanding that IBM may use or distribute whatever information you supply in any way it believes appropriate without incurring any obligation to you.

For each of the topics below please indicate your satisfaction level by circling your choice from the rating scale. If a statement does not apply, please circle N.

```
┌─ RATING SCALE ────────────────────────────────────────────────────────────────┐
│   very                              very         not                            │
│ satisfied  <====================>  dissatisfied  applicable                     │
│    1        2        3        4         5             N                          │
│                                                                                 │
└─────────────────────────────────────────────────────────────────────────────────┘
```

	Satisfaction					
Ease of product installation	1	2	3	4	5	N
Contents of Program Directory	1	2	3	4	5	N
Installation Verification Programs	1	2	3	4	5	N
Time to install the product	1	2	3	4	5	N
Readability and organization of Program Directory tasks	1	2	3	4	5	N
Necessity of all installation tasks	1	2	3	4	5	N
Accuracy of the definition of the installation tasks	1	2	3	4	5	N
Technical level of the installation tasks	1	2	3	4	5	N
Ease of getting the system into production after installation	1	2	3	4	5	N

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:

_____

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Please provide the following contact information:

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