



**Program Directory for
Application Performance Analyzer
Automation Assistant**

V1.02.03

Program Number 5799-HGC

FMID HHAC123

for Use with
z/OS

Document Date: October 2010

G110-3380-01

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 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 Automation Assistant. This publication refers to IBM Application Performance Analyzer Automation Assistant as APA Automation Assistant.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for APA Automation Assistant.
- 3.0, "Program Support" on page 5 describes the IBM support available for APA Automation Assistant.
- 4.0, "Program and Service Level Information" on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into APA Automation Assistant.
- 5.0, "Installation Requirements and Considerations" on page 8 identifies the resources and considerations that are required for installing and using APA Automation Assistant.
- 6.0, "Installation Instructions" on page 15 provides detailed installation instructions for APA Automation Assistant. It also describes the procedures for activating the functions of APA Automation Assistant, or refers to appropriate publications.

Before installing APA Automation Assistant, 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 5 tells you how to find any updates to the information and procedures in this Program Directory.

APA Automation Assistant 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 APA Automation Assistant are included on the CBPDO tape.

Do not use this program directory if you install APA Automation Assistant 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 APA Automation Assistant Description

APA Automation Assistant is an automated performance management solution for use with IBM Application Performance Analyzer 1.1 or higher. It interfaces seamlessly with IBM Application Performance Analyzer to automate the process of measuring applications, prioritizing your tuning efforts and filtering large volumes of data for quick identification of tuning opportunities. The Application Performance Analyzer Automation Assistant batch programs analyse your existing SMF and IMS performance records and store the filtered candidates into the Application Performance Analyzer

Automation Assistant DB2 Performance Data Warehouse. If required, the batch processing automatically schedules IBM Application Performance Analyzer observation requests.

1.2 APA Automation Assistant FMIDs

APA Automation Assistant consists of the following FMIDs:

HHAC123

2.0 Program Materials

An IBM program is identified by a program number. The program number for APA Automation Assistant is 5799-HGC.

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 APA Automation Assistant. 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 15 for more information about how to install the program.

You can find information about the physical tape for the basic machine-readable materials for APA Automation Assistant in the *CBPDO Memo To Users Extension*.

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for APA Automation Assistant.

2.3 Program Publications

The following sections identify the basic and optional publications for APA Automation Assistant.

2.3.1 Basic Program Publications

Figure 1 identifies the basic unlicensed program publications for APA Automation Assistant. One copy of each of these publications is included when you order the basic materials for APA Automation Assistant. You can print additional copies when electronic publications are available using the softcopy url provided in the Product Announcement letter or from:
<http://www.ibm.com/shop/publications/order>

Figure 1. Basic Material: Unlicensed Publications

Publication Title	Form Number
IBM Application Performance Analyzer Automation Assistant Installation Guide	SC23-8548
IBM Application Performance Analyzer Automation Assistant User Guide	SC23-8547
IBM Application Performance Analyzer Automation Assistant Message Guide	SC23-8546

2.3.2 Optional Program Publications

2.4 Program Source Materials

No program source materials or viewable program listings are provided for APA Automation Assistant.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 2 during the installation of APA Automation Assistant. To order copies, contact your IBM representative or visit the IBM Publications Center at <http://www.ibm.com/shop/publications/order>.

Figure 2. Publications Useful During Installation

Publication Title	Form Number
<i>IBM SMP/E for z/OS User's Guide</i>	SA22-7773
<i>IBM SMP/E for z/OS Commands</i>	SA22-7771
<i>IBM SMP/E for z/OS Reference</i>	SA22-7772
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA22-7770
<i>IBM Application Performance Analyzer User's Guide</i>	SC19-1066

3.0 Program Support

This section describes the IBM support available for APA Automation Assistant.

3.1 Program Services

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

3.2 Preventive Service Planning

Before installing APA Automation Assistant, you should review the current Preventive Service Planning (PSP) information. If you obtained APA Automation Assistant as part of a CBPDO, there is HOLDDATA and PSP information included on the CBPDO.

If the CBPDO for APA Automation Assistant 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 latest PSP Bucket information by going to the following Web site:

<http://www14.software.ibm.com/webapp/set2/psearch/search?domain=psp>

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 APA Automation Assistant are shown as follows:

Figure 3. PSP Upgrade and Subset ID

UPGRADE	SUBSET	Description
APAAA123	HHAC123	APA Automation Assistant

3.3 Statement of Support Procedures

Report any problems which you feel might be an error in the product materials to your IBM Support Center. You may be asked to gather and submit additional diagnostics to assist the IBM Support Center in their analysis.

Figure 4 identifies the component IDs (COMPID) for APA Automation Assistant.

Figure 4. Component IDs

FMID	COMPID	Component Name	RETAIN Release
HHAC123	5799HGC00	APA AUTO ASSIST	123

4.0 Program and Service Level Information

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

- FMID HHAC120.

SO00023
SO00029

PK49132

PK49133
PK52441

4.2 Service Level Information

No PTFs against this release of APA Automation Assistant have been incorporated into the product tape.

It is highly recommended that you frequently check the APA Automation Assistant 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 APA Automation Assistant. 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 updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

- When you install a new level of a product that is already installed, the new level of the product will replace the old one. By installing the new level onto a separate target system, you can test the new level and keep the old one in production at the same time.
- When you install a product that shares libraries or load modules with other products, the installation can disrupt the other products. By installing the product onto a separate target system, you can assess these impacts without disrupting your production system.

5.1 Driving System Requirements

This section describes the environment of the driving system that is required to install APA Automation Assistant.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

<i>Figure 5. Driving System Software Requirements</i>				
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	V01.10.00	N/A	No
5655-G44	IBM SMP/E for z/OS	V03.04.00	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.

Note: z/OS was tested on V1.4, but V1.10 is listed as the minimum requisite because z/OS V1.9 and below are now out of service..

5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use APA Automation Assistant.

APA Automation Assistant 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.

<i>Figure 6 (Page 1 of 2). Mandatory Installation Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
5694-A01	z/OS V1.10.0 or later with FMID HWJ9143 installed

<i>Figure 6 (Page 2 of 2). Mandatory Installation Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
5695-014	IBM Compiler for REXX on zSeries (instead of FMID HWJ9143)
Any one of the following:	
5635-DB2	IBM Database 2 V09.01.00
5605-DB2	IBM Database 2 V10.01.00
5697-P12	IBM DB2 Value Unit Edition V09.01.00
5697-P31	IBM DB2 Value Unit Edition V10.01.00

Note: z/OS was tested on V1.4, but V1.10 is listed as the minimum requisite because z/OS V1.9 and below are now out of service..

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.

APA Automation Assistant 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.

<i>Figure 7. Target System Mandatory Operational Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
Any one of the following:	
5695-014	IBM Compiler and Library for REXX on zSeries V1.4.0 or later
5799-HGC	Rexx Alternate Library V1.4.0 provided with this product

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.

<i>Figure 8. Target System Conditional Operational Requisites</i>		
Program Number	Product Name and Minimum VRM/Service Level	Function
5655-R36	IBM WebSphere MQ for z/OS Version 7.0.1 or later	Application Messaging Framework
Any one of the following:		
5655-J38	IMS Version 9.1 or later	IMS applications
5635-A01	IMS Version 10.1 or later	IMS applications
5635-A02	IMS Version 11.1 or later	IMS applications
Any one of the following:		
5655-M15	CICS Transaction Server for z/OS Version 3.1 or later	CICS applications
5655-S97	CICS Transaction Server for z/OS Version 4.1 or later	CICS 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.

APA Automation Assistant 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.

APA Automation Assistant has no negative requisites.

5.2.3 DASD Storage Requirements

APA Automation Assistant libraries can reside on all supported DASD types.

Figure 9 lists the total space that is required for each type of library.

<i>Figure 9. Total DASD Space Required by APA Automation Assistant</i>	
Library Type	Total Space Required in 3390 Trks
Target	944 Tracks
Distribution	944 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 6.1.5, "Allocate SMP/E Target and Distribution Libraries" on page 17.

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.

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 LNKLIST.
- These data sets are not required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install APA Automation Assistant. The storage requirements of APA Automation Assistant 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 10. Storage Requirements for APA Automation Assistant Target Libraries

Library DDNAME	Member Type	Target Volume	T Y P E	O R G	R E C O M	L R E C L	No. of 3390 Trks	No. of DIR Blks
SAOZBASE	SAMP	ANY	U	PDS	FB	80	3	2
SAOZEXEC	EXEC	ANY	U	PDS	FB	80	2	2
SAOZINST	SAMP	ANY	U	PDS	FB	80	854	7
SAOZLOAD	LMOD	TVOL1	U	PDS	U	0	53	26
SAOZLINK	LMOD	TVOL1	U	PDS	U	0	5	3
SAOZMLIB	Message	ANY	U	PDS	FB	80	2	2
SAOZPLIB	Panel	ANY	U	PDS	FB	80	14	9
SAOZSAMP	SAMP	ANY	U	PDS	FB	80	11	3

Figure 11. Storage Requirements for APA Automation Assistant Distribution Libraries

Library DDNAME	T Y P E	O R G	R E C O M	L R E C L	No. of 3390 Trks	No. of DIR Blks
AAOZBASE	U	PDS	FB	80	3	2
AAOZEXEC	U	PDS	FB	80	2	2
AAOZINST	U	PDS	FB	80	854	7
AAOZLOAD	U	PDS	U	0	53	26
AAOZLINK	U	PDS	U	0	5	3
AAOZMLIB	U	PDS	FB	80	2	2
AAOZPLIB	U	PDS	FB	80	14	9
AAOZSAMP	U	PDS	FB	80	11	3

5.3 FMIDs Deleted

Installing APA Automation Assistant 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 APA Automation Assistant 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

APA Automation Assistant has the following special consideration for the target system.

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

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of APA Automation Assistant.

Please note the following:

- If you want to install APA Automation Assistant into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMPCSI and the SMP/E control data sets. Additionally, to assist you in doing this, IBM has provided samples to help you create an SMP/E environment at the following url:
<http://www-1.ibm.com/support/docview.wss?rs=660&context=SSZJDU&uid=swg21066230>
- You can use the sample jobs that are provided to perform part or all of the installation tasks. The SMP/E jobs assume that all DDDEF entries that are required for SMP/E execution have been defined in appropriate zones.
- You can use the SMP/E dialogs instead of the sample jobs to accomplish the SMP/E installation steps.

6.1 Installing APA Automation Assistant

6.1.1 SMP/E Considerations for Installing APA Automation Assistant

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of APA Automation Assistant.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 12. 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.

<i>Figure 12. SMP/E Options Subentry Values</i>		
Subentry	Value	Comment
DSSPACE	200,200,35	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 APA Automation Assistant:

Figure 13. Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
AOZRECVE	RECEIVE	Sample RECEIVE job	IBM.HHAC123.F1
AOZALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HHAC123.F1
AOZDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HHAC123.F1
AOZAPPLY	APPLY	Sample APPLY job	IBM.HHAC123.F1
AOZACCP	ACCEPT	Sample ACCEPT job	IBM.HHAC123.F1

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 13 to find the appropriate relfile data set.

You can also copy the sample installation jobs from the tape or product files by submitting the following job. Depending on your distribution medium, Use either the //TAPEIN or the //FILEIN DD statement and comment out or delete the other statement. Before you submit the job, add a job card and change the lowercase parameters to uppercase values to meet the requirements of your site.

```
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//TAPEIN DD DSN=IBM.HHAC123.F1,UNIT=tunit,
// VOL=SER=volser,LABEL=(x,SL),
// DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.HHAC123.F1,UNIT=SYSALLDA,DISP=SHR,
// VOL=SER=filevol
//OUT DD DSNAME=jc1-library-name,
// DISP=(NEW,CATLG,DELETE),
// VOL=SER=dasdvol,UNIT=SYSALLDA,
// SPACE=(TRK,(5,5,5))
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSIN DD *
COPY INDD=xxxxIN,OUTDD=OUT
/*
```

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

TAPEIN:

tunit is the unit value that matches the product 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 location of IBM.fmid.Fy on the tape.

FILEIN:

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

OUT

jcl-library-name is the name of the output data set where the sample jobs are stored.

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

SYSD

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

6.1.4 Perform SMP/E RECEIVE

If you have obtained APA Automation Assistant as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the APA Automation Assistant 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 AOZRECVE to perform the SMP/E RECEIVE for APA Automation Assistant. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: The job is considered successful if a return code of 0 is received.

6.1.5 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job AOZALLOC to allocate the SMP/E target and distribution libraries for APA Automation Assistant. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: The job is considered successful if a return code of 0 is received.

6.1.6 Create DDDEF Entries

Edit and submit sample job AOZDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for APA Automation Assistant. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: The job is considered successful if a return code of 0 is received.

6.1.7 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job AOZAPPLY to perform an SMP/E APPLY CHECK for APA Automation Assistant. 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/holdata/390holdata.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 HOLDDs 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 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.

6.1.8 Perform Post-installation Tasks

Refer to the IBM APA Automation Assistant Installation Guide for detailed instructions on the post-installation tasks.

6.1.9 Perform SMP/E ACCEPT

Edit and submit sample job AOZACCP to perform an SMP/E ACCEPT CHECK for APA Automation Assistant. 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).

Before you use SMP/E to load new distribution libraries, it is recommended that you set the ACCJCLIN indicator in the distribution zone. In this way, you can save the entries that are produced from JCLIN in the distribution zone whenever a SYSMOD that contains inline JCLIN is accepted. For more information about the ACCJCLIN indicator, see the description of inline JCLIN in the SMP/E manuals.

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: The job is considered successful if a return code of 0 is received.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-edits or binds the modules into the distribution libraries. During this processing, the Linkage Editor or Binder might issue messages that indicate unresolved external references, which will result in a return code of 4 during the ACCEPT phase. You can ignore these messages, because the distribution libraries are not executable and the unresolved external references do not affect the executable system libraries.

Expected Return Codes and Messages from ACCEPT: The job is considered successful if a return code of 0 is received.

6.2 Activating APA Automation Assistant

The publication SC23-8548 IBM Application Performance Analyzer Automation Assistant Installation Guide contains the step-by-step procedures to activate and customize the functions of APA Automation Assistant.

7.0 Notices

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

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Printed in USA

G110-3380-01

