



Program Directory for IBM Multi-site Workload Lifeline

V1.1.0

Program Number 5655-U24

FMID HAQS110

for Use with
z/OS

Document Date: April 2011

GI11-9842-00

Note

Before using this information and the product it supports, be sure to read the general information under 7.0, "Notices" on page 20.

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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 Multi-site Workload Lifeline. This publication refers to IBM Multi-site Workload Lifeline as Multi-site Workload Lifeline.

The Program Directory contains the following sections:

- 2.0, "Program Materials" on page 3 identifies the basic and optional program materials and documentation for Multi-site Workload Lifeline.
- 3.0, "Program Support" on page 5 describes the IBM support available for Multi-site Workload Lifeline.
- 4.0, "Program and Service Level Information" on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into Multi-site Workload Lifeline.
- 5.0, "Installation Requirements and Considerations" on page 8 identifies the resources and considerations that are required for installing and using Multi-site Workload Lifeline.
- 6.0, "Installation Instructions" on page 14 provides detailed installation instructions for Multi-site Workload Lifeline. It also describes the procedures for activating the functions of Multi-site Workload Lifeline, or refers to appropriate publications.

Before installing Multi-site Workload Lifeline, 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.

Multi-site Workload Lifeline 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 Multi-site Workload Lifeline are included on the CBPDO tape.

Do not use this program directory if you install Multi-site Workload Lifeline 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 Multi-site Workload Lifeline Description

Multi-site Workload Lifeline provides the ability to load balance TCP/IP workload requests across two sites at unlimited distances, when both sites are running the same server applications and have the same data sources. Multi-site Workload Lifeline defines two tiers of load balancing.

1.2 Multi-site Workload Lifeline FMID

Multi-site Workload Lifeline consists of the following FMID:

HAQS110

2.0 Program Materials

An IBM program is identified by a program number. The program number for Multi-site Workload Lifeline is 5655-U24.

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 Multi-site Workload Lifeline. 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 14 for more information about how to install the program.

Figure 1 describes the program file content for Multi-site Workload Lifeline.

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. Program File Content

Name	O R G	R E C F M	L R E C L	BLK SIZE
SMPMCS	SEQ	FB	80	8800
IBM.HAQS110.F1	PDSE	FB	80	8800
IBM.HAQS110.F2	PDSE	VB	231	27998
IBM.HAQS110.F3	PDSE	U	0	6144

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for Multi-site Workload Lifeline.

2.3 Program Publications

The following sections identify the basic and optional publications for Multi-site Workload Lifeline.

2.3.1 Basic Program Publications

Figure 2 identifies the basic unlicensed program publications for Multi-site Workload Lifeline. A copy can be obtained at URL: ftp://public.dhe.ibm.com/software/network/lifeline/publications/lifeline_1_1/AQSA0110.pdf . For additional information contact your IBM representative.

<i>Figure 2. Basic Material: Unlicensed Publications</i>	
Publication Title	Form Number
IBM Multi-site Workload Lifeline V1.1 User's Guide	SC23-8600-00

2.3.2 Optional Program Publications

No optional publications are provided for Multi-site Workload Lifeline.

2.4 Program Source Materials

No program source materials or viewable program listings are provided for Multi-site Workload Lifeline.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 3 during the installation of Multi-site Workload Lifeline. To order copies, contact your IBM representative or visit the IBM Publications Center at <http://www-05.ibm.com/e-business/linkweb/publications/servlet/pbi.wss>

<i>Figure 3. Publications Useful During Installation</i>	
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

3.0 Program Support

This section describes the IBM support available for Multi-site Workload Lifeline.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install Multi-site Workload Lifeline, 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 that contains HIPER and required PTFs against the base release.

If you obtained Multi-site Workload Lifeline as part of a CBPDO, HOLDDATA is included.

If the CBPDO for Multi-site Workload Lifeline is older than two weeks old by the time you install the product materials, you should obtain the latest PSP Bucket information by going to the following Web site:

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

You can also use S/390 SoftwareXcel or contact the IBM Support Center to obtain the latest PSP Bucket information.

For program support, access the Software Support Web site at <http://www-01.ibm.com/software/support/>.

PSP Buckets are identified by UPGRADEs, which specify product levels; and SUBSETs, which specify the FMIDs for a product level. The UPGRADE and SUBSET values for Multi-site Workload Lifeline are shown as follows:

UPGRADE	SUBSET	Description
LIFELN110	HAQS110	Multi-site Workload Lifeline V1.1

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 5 on page 6 identifies the component IDs (COMPID) for Multi-site Workload Lifeline.

<i>Figure 5. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
HAQS110	5655U2400	Multi-site Workload Lifeline V1.1	110

4.0 Program and Service Level Information

This section identifies the program and relevant service levels of Multi-site Workload Lifeline. 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

No APARs have been incorporated into Multi-site Workload Lifeline.

4.2 Service Level Information

No PTFs against this release of Multi-site Workload Lifeline have been incorporated into the product tape.

It is highly recommended that you frequently check the Multi-site Workload Lifeline 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 Multi-site Workload Lifeline. 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 Multi-site Workload Lifeline.

5.1.1 Machine Requirements

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

5.1.2 Programming Requirements

Figure 6. 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	V1.10.0	N/A	No
5655-G44	IBM SMP/E for z/OS	V3.5.0	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.

5.2 Target System Requirements

This section describes the environment of the target system that is required to install and use Multi-site Workload Lifeline.

Multi-site Workload Lifeline 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 7. 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	V1.11.0 or higher	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.

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.

Multi-site Workload Lifeline 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.

Figure 8. Target System Mandatory Operational Requisites

Program Number	Product Name and Minimum VRM/Service Level
5694-A01	z/OS V1.11.0 or higher
5694-A01	z/OS Communications Server V1.11.0 or higher

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.

Multi-site Workload Lifeline has no conditional operational requisites.

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.

Multi-site Workload Lifeline 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.

Multi-site Workload Lifeline has no negative requisites.

5.2.3 DASD Storage Requirements

Multi-site Workload Lifeline libraries can reside on all supported DASD types.

Figure 9 on page 11 lists the total space that is required for each type of library.

Library Type	Total Space Required in 3390 Trks
Target	45
Distribution	50
File System	15

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 6.1.6, "Allocate SMP/E Target and Distribution Libraries" on page 16.

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.

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:

- The data set can be in the LNKLIST.
- The data set is required to be APF-authorized.

The following figures describe the target and distribution libraries and file system paths required to install Multi-site Workload Lifeline. The storage requirements of Multi-site Workload Lifeline 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 Multi-site Workload Lifeline 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
SAQSSAMP	SAMP	TVOL2	U	PDS	FB	80	4	1
SIEALNKE	LMOD	TVOL1	E	PDSE	U	0	50	n/a

Figure 11. Multi-site Workload Lifeline File System Paths

DDNAME	T Y P E	Path Name
SAQSMMSG	N	/usr/lpp/lifeline/lib/nls/msg/C/IBM

Figure 12. Storage Requirements for Multi-site Workload Lifeline Distribution Libraries

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
AAQSMODS	U	PDSE	U	0	45	n/a
AAQSSAMP	U	PDS	FB	80	5	1
AAQSUSS	U	PDS	VB	231	15	1

5.3 FMIDs Deleted

No FMIDs are deleted by this version of Multi-site Workload Lifeline.

5.4 Special Considerations

Multi-site Workload Lifeline has no special considerations for the target system.

6.0 Installation Instructions

This chapter describes the installation method and the step-by-step procedures to install and to activate the functions of Multi-site Workload Lifeline.

Please note the following:

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

6.1 Installing Multi-site Workload Lifeline

6.1.1 SMP/E Considerations for Installing Multi-site Workload Lifeline

Use the SMP/E RECEIVE, APPLY, and ACCEPT commands to install this release of Multi-site Workload Lifeline.

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 13. 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 13. SMP/E Options Subentry Values

Subentry	Value	Comment
DSSPACE	200,50,75	
PEMAX	SMP/E Default	IBM recommends using the SMP/E default for PEMAX.

6.1.3 SMP/E CALLLIBS Processing

Multi-site Workload Lifeline uses the CALLLIBS function that is provided in SMP/E to resolve external references during installation. When Multi-site Workload Lifeline is installed, ensure that DDDEFs exist for the following libraries:

- SYS1.CSSLIB
- SYS1.SCEELKED
- SYS1.SCEELKEX
- SYS1.SCEE OBJ

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

6.1.4 Sample Jobs

The following sample installation jobs are provided as part of the product to help you install Multi-site Workload Lifeline:

<i>Figure 14. Sample Installation Jobs</i>			
Job Name	Job Type	Description	RELFILE
AQSRECV	RECEIVE	Sample RECEIVE job	IBM.HAQS110.F1
AQSALLOC	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HAQS110.F1
AQSISMKD	MKDIR	Sample job to invoke the supplied AQSMKDIR EXEC to allocate file system paths	IBM.HAQS110.F1
AQSDDDEF	DDDEF	Sample job to define SMP/E DDDEFs	IBM.HAQS110.F1
AQSAPPLY	APPLY	Sample APPLY job	IBM.HAQS110.F1
AQSACCP	ACCEPT	Sample ACCEPT job	IBM.HAQS110.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 14 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.HAQS110.F1,UNIT=tunit,
// VOL=SER=volser,LABEL=(x,SL),
// DISP=(OLD,KEEP)
//FILEIN DD DSN=IBM.HAQS110.F1,UNIT=SYSALLDA,DISP=SHR,
```

```

//          VOL=SER=filevol
//OUT      DD DSNAME=jcl-library-name,
//          DISP=(NEW,CATLG,DELETE),
//          VOL=SER=dasdvol,UNIT=SYSALLDA,
//          SPACE=(TRK,(15,5,2))
//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.

SYSIN:

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

6.1.5 Perform SMP/E RECEIVE

If you have obtained Multi-site Workload Lifeline as part of a CBPDO, use the RCVPDO job in the CBPDO RIMLIB data set to receive the Multi-site Workload Lifeline 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 AQSRECV to perform the SMP/E RECEIVE for Multi-site Workload Lifeline. Consult the instructions in the sample job for more information.

6.1.6 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job AQSALLOC to allocate the SMP/E target and distribution libraries for Multi-site Workload Lifeline. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: RC=00

6.1.7 Allocate File system Paths

Mount the file system data set of the target system on the driving system before you run the sample AQSISMKD 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 Multi-site Workload Lifeline into a zFS file system, zFS must be active on the driving system.

If you plan to install Multi-site Workload Lifeline into a new file system, create the mountpoint and mount the new file system to the driving system. For Multi-site Workload Lifeline, the recommended mountpoint is `/usr/lpp/lifeline`.

Edit and submit sample job AQSISMKD to allocate the file system for Multi-site Workload Lifeline. 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: RC=00

6.1.8 Create DDDEF Entries

Edit and submit sample job AQSDDDEF to create DDDEF entries for the SMP/E target and distribution libraries for Multi-site Workload Lifeline. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages: RC=00

6.1.9 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job AQSAPPLY to perform an SMP/E APPLY CHECK for Multi-site Workload Lifeline. 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/390holddata.html>. Install the FMIDs regardless of the status of unresolved HIPERs. However, do not 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 is a sample 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 have received the latest HOLDDATA, add the FIXCAT operand to the APPLY command as shown below.

b. SMP/E V3.5 or higher:

```
APPLY S(fmid,fmid,...)
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
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.

c. 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 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 be 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.

6.1.10 Perform SMP/E ACCEPT

Edit and submit sample job AQSACCT to perform an SMP/E ACCEPT CHECK for Multi-site Workload Lifeline. 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: You will receive a return code of 0 if this job runs correctly.

If PTFs that contain replacement modules are accepted, SMP/E ACCEPT processing will link-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: You will receive a return code of 0 if this job runs correctly.

6.2 Activating Multi-site Workload Lifeline

The publication, IBM Multi-site Workload Lifeline V1.1 User's Guide SC23-8600, contains the step-by-step procedures to activate the functions of Multi-site Workload Lifeline.

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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Program Directory for IBM Multi-site Workload Lifeline, April 2011

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Printed in USA

G111-9842-00

