



**Program Directory for
IBM CL/SuperSession for z/OS**

V02.01.00

Program Number 5601-B28

FMID HKLS210

for Use with
z/OS

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GI13-2935-01

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 CL/SuperSession for z/OS. This publication refers to IBM CL/SuperSession for z/OS as CLSS.

The Program Directory contains the following sections:

- 2.0, “Program Materials” on page 3 identifies the basic program materials and documentation for CLSS.
- 3.0, “Program Support” on page 6 describes the IBM support available for CLSS.
- 4.0, “Program and Service Level Information” on page 7 lists the APARs (program level) and PTFs (service level) that have been incorporated into CLSS.
- 5.0, “Installation Requirements and Considerations” on page 8 identifies the resources and considerations that are required for installing and using CLSS.
- 6.0, “Installation Instructions” on page 15 provides detailed installation instructions for CLSS. It also describes the procedures for activating the functions of CLSS, or refers to appropriate publications.

Before installing CLSS, 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 6 tells you how to find any updates to the information and procedures in this program directory.

CLSS is supplied in a Custom-Built Product Delivery Offering (CBPDO, 5751-CS3). The program directory that is provided in softcopy format on the CBPDO tape is identical to the hardcopy format if one was included with your order. All service and HOLDDATA for CLSS are included on the CBPDO tape.

Do not use this program directory if you install CLSS with a SystemPac or ServerPac. When you use one of those offerings, use the jobs and documentation supplied with the offering. The offering will point you to specific sections of this program directory as needed.

1.1 CLSS Description

CL/SuperSession for z/OS is a session management tool that enables multiple users to have a single point of access to all VTAM applications.

1.2 CLSS FMIDs

CLSS consists of the following FMIDs:

HKLS210

2.0 Program Materials

An IBM program is identified by a program number. The program number for CLSS is 5601-B28.

Basic Machine-Readable Materials are materials that are supplied under the base license and are required for the use of the product.

The program announcement material describes the features supported by CLSS. Ask your IBM representative for this information if you have not already received a copy.

2.1 Basic Machine-Readable Material

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

Figure 1. Program File Content

Name	O R G	R E C M	L R E C L	BLK SIZE
SMPMCS	PDS	FB	80	8800
IBM.HKLS210.F1	PDS	FB	80	8800
IBM.HKLS210.F2	PDS	U	0	6144
IBM.HKLS210.F3	PDS	FB	80	8800
IBM.HKLS210.F4	PDS	FB	80	8800
IBM.HKLS210.F5	PDS	FB	80	8800
IBM.HKLS210.F6	PDS	FB	80	8800
IBM.HKLS210.F7	PDS	FB	80	8800
IBM.HKLS210.F8	PDS	FB	80	8800
IBM.HKLS210.F9	PDS	FB	80	8800
IBM.HKLS210.F10	PDS	U	0	6144
IBM.HKLS210.F11	PDS	FB	80	8800
IBM.HKLS210.F12	PDS	FB	80	8800
IBM.HKLS210.F13	PDS	FB	80	8800
IBM.HKLS210.F14	PDS	FB	80	8800
IBM.HKLS210.F15	PDS	FB	80	8800

2.2 Optional Machine-Readable Material

No optional machine-readable materials are provided for CLSS.

2.3 Program Publications

The following sections identify the basic publications for CLSS.

Figure 2 identifies the basic unlicensed publications for CLSS. Those that are in softcopy format can be obtained from the IBM Publications Center website at <http://www.ibm.com/shop/publications/order/>.

Figure 2. Basic Material: Unlicensed

Publication Title	Form Number	Media Format
IBM CL/SuperSession for z/OS, V2.1 Configuration Guide	SC27-4583	PDF
IBM CL/SuperSession for z/OS, V2.1 Customization Guide	SC27-4584	PDF
IBM CL/SuperSession for z/OS, V2.1 SSPL Reference Manual	SC27-4585	PDF
IBM CL/SuperSession for z/OS, V2.1 Messages	SC27-4586	PDF
IBM CL/SuperSession for z/OS, V2.1 Operator's Guide	SC27-4587	PDF
IBM CL/SuperSession for z/OS, V2.1 Problem Determination Guide	SC27-4588	PDF
IBM CL/SuperSession for z/OS, V2.1 SSPL Programming Guide	SC27-4589	PDF
IBM CL/SuperSession for z/OS, V2.1 User's Guide	SC27-4590	PDF
IBM CL/SuperSession for z/OS, V2.1 Program Directory	GI13-2935	PDF
IBM CL/SuperSession for z/OS, V2.1 License information	GI13-2934	PDF

2.4 Program Source Materials

No program source materials or viewable program listings are provided for CLSS.

2.5 Publications Useful During Installation

You might want to use the publications listed in Figure 3 during the installation of CLSS.

Figure 3. Publications Useful During Installation

Publication Title	Form Number	Media Format
<i>IBM SMP/E for z/OS User's Guide</i>	SA23-2277	http://www.ibm.com/shop/publications/order/
<i>IBM SMP/E for z/OS Commands</i>	SA23-2275	http://www.ibm.com/shop/publications/order/
<i>IBM SMP/E for z/OS Reference</i>	SA23-2276	http://www.ibm.com/shop/publications/order/
<i>IBM SMP/E for z/OS Messages, Codes, and Diagnosis</i>	GA32-0883	http://www.ibm.com/shop/publications/order/

3.0 Program Support

This section describes the IBM support available for CLSS.

3.1 Program Services

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

3.2 Preventive Service Planning

Before you install CLSS, make sure that you have reviewed the current Preventive Service Planning (PSP) information. Review the PSP Bucket for General Information, Installation Documentation, and the Cross Product Dependencies sections. For the Recommended Service section, instead of reviewing the PSP Bucket, it is recommended you use the IBM.ProductInstall-RequiredService fix category in SMP/E to ensure you have all the recommended service installed. Use the **FIXCAT(IBM.ProductInstall-RequiredService)** operand on the **APPLY CHECK** command. See 6.1.8, "Perform SMP/E APPLY" on page 17 for a sample APPLY command.

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 CLSS.

<i>Figure 4. Component IDs</i>			
FMID	COMPID	Component Name	RETAIN Release
HKLS210	5601B2800	IBM CL/SuperSession for z/OS	210

4.0 Program and Service Level Information

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

- FMID HKLS210

OA09497	OA15551	OA23953
OA09498	OA16500	OA29301
OA09499	OA16599	OA30103
OA09500	OA18991	OA31169
OA09501	OA19263	OA33616
OA09502	OA20537	OA41959
OA10079	OA21051	OA44497
OA11091	OA21697	OA44509
OA11225	OA22063	OA46120
OA14361	OA23091	OA47960

4.2 Service Level Information

No PTFs against this release of CLSS have been incorporated into the product package.

Frequently check the CLSS PSP Bucket for HIPER and SPECIAL attention PTFs against all FMIDs that you must install. You can also receive the latest HOLDDATA, then add the **FIXCAT(IBM.PRODUCTINSTALL-REQUIRESERVICE)** operand on your APPLY CHECK command. This will allow you to review the recommended and critical service that should be installed with your FMIDs.

5.0 Installation Requirements and Considerations

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

- *Driving system*: the system on which SMP/E is executed to install the program.
The program might have specific operating system or product level requirements for using processes, such as binder or assembly utilities during the installation.
- *Target system*: the system on which the program is configured and run.
The program might have specific product level requirements, such as needing access to the library of another product for link-edits. These requirements, either mandatory or optional, might directly affect the element during the installation or in its basic or enhanced operation.

In many cases, you can use a system as both a driving system and a target system. However, you can make a separate IPL-able clone of the running system to use as a target system. The clone must include copies of all system libraries that SMP/E updates, copies of the SMP/E CSI data sets that describe the system libraries, and your PARMLIB and PROCLIB.

Use separate driving and target systems in the following situations:

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

5.1 Driving System Requirements

This section describes the environment of the driving system required to install CLSS.

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 5. Driving System Software Requirements

Program Number	Product Name	Minimum VRM	Minimum Service Level will satisfy these APARs	Included in the shipped product?
Any one of the following:				
5650-ZOS	z/OS	V02.01.00	N/A	No
5650-ZOS	z/OS	V02.02.00	N/A	No

Note: SMP/E is a requirement for Installation and is an element of z/OS but can also be ordered as a separate product, 5655-G44, minimally V03.06.00.

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

5.2 Target System Requirements

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

CLSS 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 and *must* be present on the system or products that are not required but *should* be present on the system for the successful installation of this product.

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

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.

CLSS has no conditional installation requisites.

5.2.2.2 Operational Requisites

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

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

<i>Figure 6. Target System Mandatory Operational Requisites</i>	
Program Number	Product Name and Minimum VRM/Service Level
5650-ZOS	z/OS V02.1 or higher

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.

CLSS 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.

CLSS has no negative requisites.

5.2.3 DASD Storage Requirements

CLSS libraries can reside on all supported DASD types.

Figure 7 lists the total space that is required for each type of library.

<i>Figure 7. Total DASD Space Required by CLSS</i>		
Library Type	Total Space Required in 3390 Trks	File System Description
Target	1390	
Distribution	1390	

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 might 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 can be changed.
- The default block size of the data set can be changed.
- The data set can be merged with another data set that has equivalent characteristics.
- The data set can be either a PDS or a PDSE.

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 required to be APF-authorized.

The following table provides an estimate of the storage needed in the SMP/E data sets for CLSS. You must add the estimates to those of any other programs and service that you install to determine the total additional storage requirements.

If the table indicates that the SMPLTS data set must be a PDSE and your existing SMPLTS is a PDS, you must allocate a new PDSE and copy your SMPLTS into it; then change the SMPLTS DDDEF entry to indicate the new PDSE data set.

Figure 8. Storage Requirements for SMP/E Data Sets

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
SMPLTS	E	PDSE	U	0	400	NA
SMPMTS	E	PDSE	FB	80	90	NA
SMPPTS	E	PDSE	FB	80	80	NA
SMPSCDS	E	PDSE	FB	80	90	NA
SMPSTS	E	PDSE	FB	80	90	NA
SMPLOG	E	PDS	VB	510	90	20

The following figures describe the target and distribution libraries and file system paths required to install CLSS. The storage requirements of CLSS must be added to the storage required by other programs that have data in the same library or path.

Note: Use the data in these tables to determine which libraries can be merged into common data sets. In addition, since some ALIAS names may not be unique, ensure that no naming conflicts will be introduced before merging libraries.

Figure 9 (Page 1 of 2). Storage Requirements for CLSS Target Libraries

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
SKLSINST	Sample	Any	U	PDSE	FB	80	10	NA
SKLSCMDS	Clist	Any	U	PDSE	FB	80	15	NA
SKLSGMAC	Macro	Any	U	PDSE	FB	80	15	NA
SKLSHAOP	Panels	Any	U	PDSE	FB	80	75	NA
SKLSHHLP	Help lib	Any	U	PDSE	FB	80	15	NA

Figure 9 (Page 2 of 2). Storage Requirements for CLSS Target Libraries

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
SKLSLOAD	Program	Any	U	PDS	U	0	10	25
SKLSPARM	Parmlib	Any	U	PDSE	FB	80	15	NA
SKLSPNLS	Panels	Any	U	PDS	FB	80	725	NA
SKLSSAMP	Sample	Any	U	PDSE	FB	80	100	NA
SKLVCMDS	Clists	Any	U	PDSE	FB	80	15	NA
SKLVHHP	Helplib	Any	U	PDSE	FB	80	75	NA
SKLVLOAD	Program	Any	U	PDS	U	0	75	150
SKLVPARM	Parmlib	Any	U	PDSE	FB	80	15	NA
SKLVPNLS	Panels	Any	U	PDSE	FB	80	200	NA
SKLVSAMP	Sample	Any	U	PDSE	FB	80	30	NA

Figure 10 (Page 1 of 2). Storage Requirements for CLSS 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
AKLSINST	U	PDSE	FB	80	10	NA
AKLSCMDS	U	PDSE	FB	80	15	NA
AKLSGMAC	U	PDSE	FB	80	15	NA
AKLSHAOP	U	PDSE	FB	80	75	NA
AKLSHHP	U	PDSE	FB	80	15	NA
AKLSLOAD	U	PDS	U	0	10	25
AKLSPARM	U	PDSE	FB	80	15	NA
AKLSPNLS	U	PDSE	FB	80	725	NA
AKLSSAMP	U	PDSE	FB	80	100	NA
AKLVCMDS	U	PDSE	FB	80	15	NA
AKLVHHP	U	PDSE	FB	80	75	NA
AKLVLOAD	U	PDS	U	0	75	150
AKLVPARM	U	PDSE	FB	80	15	NA
AKLVPNLS	U	PDSE	FB	80	200	NA

Figure 10 (Page 2 of 2). Storage Requirements for CLSS 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
AKLVSAMP	U	PDSE	FB	80	30	NA

5.3 FMIDs Deleted

Installing CLSS 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 CLSS 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, use the SMP/E REJECT NOFMID DELETEFMID command. See the SMP/E Commands book for details.

5.4 Special Considerations

CLSS 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 CLSS.

Please note the following points:

- If you want to install CLSS into its own SMP/E environment, consult the SMP/E manuals for instructions on creating and initializing the SMP/CSI 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 CLSS

6.1.1 SMP/E Considerations for Installing CLSS

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

6.1.2 SMP/E Options Subentry Values

The recommended values for certain SMP/E CSI subentries are shown in Figure 11. 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 11. SMP/E Options Subentry Values</i>		
Subentry	Value	Comment
DSSPACE	300,500,900	
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 CLSS. KLS0CUST is used to populate the remaining installation JCLs with environmental settings and parameters. KLS0CUST and KLS9CUST are needed to create the basic configuration and run time datasets, the remaining installation jobs are optional samples.

Figure 12. Sample Installation Jobs

Job Name	Job Type	Description	RELFILE
\$README\$	PREP	Installation instructions for the product.	IBM.HKLS210.F1
KLS\$INST	PREP	Installation instructions for the product.	IBM.HKLS210.F1
KLS\$WIPE	EXEC	Sample file to delete files used only during installation and not needed after the install.	IBM.HKLS210.F1
KLS#EMAC	EXEC	Sample ISPF EDIT macro used to update installation JCLs with values specified by the installer.	IBM.HKLS210.F1
KLS#EXEC	EXEC	Sample ISPF EDIT Exec to update all customized source members with customer's installation parameters.	IBM.HKLS210.F1
KLS#MEMS	EXEC	Sample job to define arrays of customized source members.	IBM.HKLS210.F1
KLS0CUST	EXEC	Sample job to initialize the runtime installation JCL library	IBM.HKLS210.F1
KLS1ALCZ	DEFCSI	Optional sample job to setup separate Global Zone CSI	IBM.HKLS210.F1
KLS2ALCS	CSIALLOC	Optional sample job to allocate temporary SMP/E libraries	IBM.HKLS210.F1
KLS3ALCL	ALLOCATE	Sample job to allocate target and distribution libraries	IBM.HKLS210.F1
KLS4DEFZ	DDDEFZ	Optional sample job to define SMP/E DDDEFs	IBM.HKLS210.F1
KLS5DEFL	DDDEF	Optional sample job to define SMP/E DDDEFs	IBM.HKLS210.F1
KLS6RECV	RECEIVE	Optional sample RECEIVE job	IBM.HKLS210.F1
KLS7APLY	APPLY	Optional sample APPLY job	IBM.HKLS210.F1
KLS8ACPT	ACCEPT	Optional sample ACCEPT job	IBM.HKLS210.F1
KLS9CUST	CUST	Sample job to update the runtime control members after installation.	IBM.HKLS210.F1

You can access the sample installation jobs by performing an SMP/E RECEIVE (refer to 6.1.7, "Perform SMP/E RECEIVE" on page 17) then copy the jobs from the RELFILES to a work data set for editing and submission. See Figure 12 on page 15 to find the appropriate relfile data set.

6.1.4 Create new SMP/E CSI - OPTIONAL

If you do not want to install into an existing environment, you can create a new environment. To allocate a new SMP/E CSI and prime it for CLSS installation, edit and submit sample jobs KLS1DEFZ, KLS2ALCS and KLS4DEFZ. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages:0

6.1.5 Allocate SMP/E Target and Distribution Libraries

Edit and submit sample job KLS3ALCL to allocate the SMP/E target and distribution libraries for CLSS. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages:0

6.1.6 Create DDDEF Entries

Edit and submit sample job KLS5DEFL to create DDDEF entries for the SMP/E target and distribution libraries for CLSS. Consult the instructions in the sample job for more information.

Expected Return Codes and Messages:0

6.1.7 Perform SMP/E RECEIVE

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

Installation instructions are in the Sample job KLS\$INST found in IBM.HKLS210.F1.

You can submit sample job KLS6RECV to perform the SMP/E RECEIVE for CLSS. Consult the instructions in the sample job for more information.

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

6.1.8 Perform SMP/E APPLY

1. Ensure that you have the latest HOLDDATA; then edit and submit sample job KLS7APLY to perform an SMP/E APPLY CHECK for CLSS. Consult the instructions in the sample job for more information.

Perform an SMP/E APPLY CHECK for CLSS.

The latest HOLDDATA is available through several different portals, including <http://service.software.ibm.com/holdata/390holddata.html>. The latest HOLDDATA may identify HIPER and FIXCAT APARs for the FMIDs you will be installing. An APPLY CHECK will help you determine if

any HIPER or FIXCAT APARs are applicable to the FMIDs you are installing. If there are any applicable HIPER or FIXCAT APARs, the APPLY CHECK will also identify fixing PTFs that will resolve the APARs, if a fixing PTF is available.

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

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

Here are sample APPLY commands:

- a. To ensure that all recommended and critical service is installed with the FMIDs, receive the latest HOLDDATA and use the APPLY CHECK command as follows

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

Some HIPER APARs might not have fixing PTFs available yet. You should analyze the symptom flags for the unresolved HIPER APARs to determine if the reported problem is applicable to your environment and if you should bypass the specific ERROR HOLDS in order to continue the installation of the FMIDs.

This method requires more initial research, but can provide resolution for all HIPERs that have fixing PTFs available and are not in a PE chain. Unresolved PEs or HIPERs might still exist and require the use of BYPASS.

- b. To install the FMIDs without regard for unresolved HIPER APARs, you can add the BYPASS(HOLDCLASS(HIPER)) operand to the APPLY CHECK command. This will allow you to install FMIDs even though one or more unresolved HIPER APARs exist. After the FMIDs are installed, use the SMP/E REPORT ERRSYSMODS command to identify unresolved HIPER APARs and any fixing PTFs.

```
APPLY S(fmid,fmid,...) CHECK
FORFMID(fmid,fmid,...)
SOURCEID(RSU*)
FIXCAT(IBM.ProductInstall-RequiredService)
GROUPEXTEND
BYPASS(HOLDCLASS(HIPER)) .
..any other parameters documented in the program directory
```

This method is quicker, but requires subsequent review of the Exception SYSMOD report produced by the REPORT ERRSYSMODS command to investigate any unresolved HIPERs. If you have received the latest HOLDDATA, you can also choose to use the REPORT MISSINGFIX

command and specify Fix Category IBM.ProductInstall-RequiredService to investigate missing recommended service.

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

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

6.1.9 Perform SMP/E ACCEPT

Edit and submit sample job KLS8ACPT to perform an SMP/E ACCEPT CHECK for CLSS. Consult the instructions in the sample job for more information.

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

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

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

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

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

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

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

6.2 Activating CLSS

Environmental preparation steps to complete installation are included in the file \$README\$ in IBM.HKLS210.F1, also the publication *IBM CL/SuperSession V2.1 Customization Guide* (SC27458400) contains the necessary information to customize and use CLSS before it can be activated.

6.3 Product Customization

The publication *IBM CL/SuperSession V2.1 Customization Guide* (SC27458400) contains the necessary information to customize and use CLSS.

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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Reader's Comments

Program Directory for IBM CL/SuperSession for z/OS, January 2016

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