

CA SOLVE:Access™ Session Management

Installation Guide

r5



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CA Technologies Product References

This document references the following CA Technologies products:

- CA Auditor for z/OS (CA Auditor)
- CA NetSpy™ Network Performance (CA NetSpy)
- CA SOLVE:Access™ Session Management (CA SOLVE:Access)

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Chapter 1: Overview

This guide describes how to install and implement CA SOLVE:Access.

This section contains the following topics:

[Audience Qualifications](#) (see page 11)

[How the Installation Process Works](#) (see page 12)

[Product Overview](#) (see page 12)

Audience Qualifications

Readers of this book require knowledge in the following areas:

- Job control language (JCL)
- TSO/ISPF
- z/OS environment and installing software in this environment
- Your organization's IT environment, enterprise structure, and region structure

You work with the following personnel:

- Systems programmer for z/OS, VTAM, and TCP/IP definitions
- Security administrator, for library and started task access authority
- Storage Management Subsystem (SMS) or storage administrator, for direct access storage device (DASD) allocations

How the Installation Process Works

The following steps describe the installation process:

1. Prepare for the installation by confirming that your site meets all installation requirements.
2. Acquire the product using one of the following methods:
 - CA MSM
Note: If you do not have CA MSM, you can download it from the Download Center at CA Support Online. Follow the installation instructions in the *CA Mainframe Software Manager Product Guide*, available at <https://support.ca.com/>.
 - Pax-Enhanced Electronic Software Delivery (ESD)
 - Tape
3. Install your product based on your acquisition method.
4. Apply maintenance, if applicable.
5. Deploy your product.
6. Start your product.
7. Configure the minimum settings for your product.

Product Overview

CA SOLVE:Access is a session manager that provides a secure logon screen and enables you to access multiple mainframe applications concurrently.

CA SOLVE:Access comprises the following components:

Enhanced Access and Security Interface (EASINET)

Provides a user-friendly and secure logon screen, and the facility to control idle terminals, broadcast messages to network users and simplify access to applications.

Multiple Application Interface (MAI)

Provides easy access to applications and the ability to operate multiple applications concurrently.

Chapter 2: Preparing for Installation

This section contains the following topics:

- [Software Requirements](#) (see page 13)
- [CA Common Services Requirements](#) (see page 13)
- [Security Requirements](#) (see page 14)
- [Storage Requirements](#) (see page 15)
- [VTAM Generic Resource Support](#) (see page 16)
- [How CA LMP Statements Are Coded](#) (see page 17)
- [Preparation Worksheets](#) (see page 20)
- [Post-installation Worksheet](#) (see page 30)
- [Migration Preparation](#) (see page 31)

Software Requirements

Ensure that you have the appropriate operating environment. Your system must have a currently-supported version of z/OS.

CA Common Services Requirements

Your system must have a currently supported version of CA Common Services for z/OS. The CA Common Services load library must be accessible to your product's address space and, if used, the SOLVE SSI address space, through the JCL STEPLIB or system LNKLIST.

Note: The latest version of CA Common Services for z/OS is included in your package.

The following CA Common Services are used with CA SOLVE:Access:

- CAIRIM
- CA LMP

Note: If other CA products are installed at your site, some of these services may already be installed.

Security Requirements

While you are preparing your product for startup, you need access to the following security-controlled data sets or libraries on your system:

1. Ensure that you have READ authority to data sets with a prefix of CAI.*. All tape data sets use this prefix.
2. Ensure that you have UPDATE authority to the following data sets or libraries:
 - Started task PROCLIB that stores the run-time JCL, for example, SYS1.PROCLIB
 - SYS1.PARMLIB
 - SYS1.VTAMLST or the library that stores VTAM application definitions and VTAM initialization parameters
 - SYS1.VTAMLIB for terminal mode table definitions
 - Master catalog, a requirement if you intend to define alias entries for data set prefixes
3. Update the following initialization parameter data set members if necessary:
 - SYS1.PARMLIB(IEFSSNxx) to add subsystem IDs
 - SYS1.PARMLIB(IEAAPFxx) to APF-authorize your load libraries
4. Ensure that the user IDs associated with your started tasks can access the run-time data sets created by the installation and setup processes (UPDATE authority required).

Storage Requirements

CA SOLVE:Access has the following 3390 DASD space requirements:

- If you are using ESD, the following spaces are required:
 - 225 MB of z/OS UNIX file system space for downloading files
 - 440 cylinders for the unpacked files
- For installation and setup, the following spaces are required:
 - Installation = 910 cylinders
 - IBM System Modification Program Extended (SMP/E) libraries = 280 cylinders
 - Region setup = 710 cylinders
 - Setup temporary work area = 1400 cylinders

VTAM Generic Resource Support

If you want to use VTAM generic resource support, ensure that your system is configured correctly. Check the following:

- You are running a full parallel sysplex coupling facility.
- All VTAM environments in the sysplex are V4R2 or later.
- A Coupling Facility Resource Management (CFRM) policy is active and it includes the structure ISTGENERIC.

Note: For more information, see IBM's *SNA Network Implementation Guide*.

- The CA SOLVE:Access database is:
 - SMS managed and defined as nonrecoverable. The Log (None) parameter must be specified on the Define Cluster command. This parameter is coded automatically if you specify a VTAM generic resource name when you set up your product.
 - Set up with the appropriate CF structures for VSAM resource-level sharing (RLS) support.

Note: For more information, see IBM's *DFSMSdfp Storage Administration Reference* guide.

Note: The CA SOLVE:Access database is configured for VSAM RLS support when you set up your region as a generic resource. Do not change this setting.

Note: For more information about configuring your CA SOLVE:Access region for VTAM generic resource support, see the *Administration Guide*.

How CA LMP Statements Are Coded

Before starting this product, you must code CA LMP statements for product license authorization.

To code CA LMP statements, do the following:

1. Install CAIRIM.
2. Activate LMP.
3. Add your product license codes to the LMP statements.
4. Place the LMP statements in the KEYS member of the PPOPTION data set.

Note: The KEYS member of the PPOPTION data set is specified in the CAS9 JCL procedure. For more information, see the *CA Common Services Administration Guide*.

KEYS Member—Add Execution Key

You must add the CA LMP execution key, provided on your product key certificate, to the CAIRIM parameters to ensure proper initialization. To define a CA LMP execution key to the CAIRIM parameters, modify the KEYS member in CAI.PPOPTION (CA Common Services for z/OS r11) or CAI.CAIOPTN (CA Common Services for z/OS r12).

This sample parameter structure for KEYS member has the following format:

```
PROD(pp) DATE(ddmmyy) CPU(ddd-mmm/sss)
LMPCODE(kkkkkkkkkkkkkkk)
```

Parameter definitions are as follows:

PROD(pp)

Specifies the two-character product code. This code agrees with the product code already in use by the CAIRIM initialization parameters for any earlier releases of this product (if applicable).

ZB is the value for your product.

DATE(ddmmyy)

Specifies the CA LMP licensing agreement expiration date, for example, 13MAR12.

CPU(*tttt-mmmm/sssss*)

tttt

Specifies the CPU type on which CA LMP is to run, for example, 3090.

-mmm

Specifies the CPU model on which CA LMP is to run, for example, 600.

Note: If the CPU type and or model require fewer than four characters, blank spaces are inserted for the unused characters.

/sssss

Specifies the serial number of the CPU on which CA LMP is to run.

LMPCODE(*kkkkkkkkkkkkkkkk*)

Specifies the execution key (*kkkkkkkkkkkkkkkk*) needed to run CA LMP. The key certificate shipped with each CA LMP software solution provides this CA LMP execution key.

Example: Add CA LMP Execution Key

This example shows a control statement for the CA LMP execution software parameter.

```
PROD(ZB) DATE(27JUN12) CPU(3090-600/370623)
LMPCODE(52H2K06130Z7RZD6)
```

In this example, with your product running on the specified CPU, the CA LMP licensing agreement will expire on June 27, 2012. The product code and execution key values are different when you install your product at your site.

Note: For a full description of the procedure for defining the CA LMP execution key to the CAIRIM parameters and further details about the features and associated utilities of CAIRIM, see the *CA Common Services for z/OS Administrator Guide*.

CA LMP Key Certificate

Examine the CA License Managed Program (CA LMP) key certificate. Your certificate contains the following information:

Product Name

Defines the trademarked or registered name of your product as licensed for the designated site and CPUs.

Product Code

Defines a two-character code that corresponds to the product.

Supplement

Defines the reference number of your license for a particular facility and has the following format:

nnnnnn-nnn

This format differs slightly inside and outside North America and, in some cases, the reference number may not be provided at all.

CPU ID

Defines the code that identifies the specific CPU for which installation of this product is valid.

Execution Key

Defines an encrypted code required by CA LMP for installing your product. During installation, it is referred to as the LMP code.

Expiration Date

Defines the date your license expires and has the following format:

ddmmmyy

Example: 21Mar12

Technical Contact

Defines the name of the designated technical contact at your site who is responsible for the installation and maintenance of your product. CA addresses all CA LMP correspondence to this person.

MIS Director

Defines the name of the Director of MIS or the person who performs such a function at your site. If the title but not the name of the individual is indicated on the certificate, supply the actual name when correcting and verifying the certificate.

CPU Location

Defines the address of the building in which the CPU is installed.

Preparation Worksheets

During the installation and setup process, you enter values that are used to do the following:

- Allocate data sets.
- Set initial parameters.
- Prepare for the use of your product.

You can print out the worksheets in this section to record the values needed for your site when installing the product.

Note: For information about data sets, see the *Reference Guide*.

Installation

Gather the installation information in the following worksheet:

JOB CARD Information

Gather the following JOB CARD information:

Batch job class

Record the value that your site uses here:

Class = _____

Default: A

Batch job class for tape mounts

(Not required for ESD) Record the value that your site uses here:

Class = _____

Instructions to operator

Record any instructions here:

Unload Tape

(Optional) If you are installing from tape, gather the following information related to tape unloading:

Tape unit

Record the value that your site uses here:

?device-in = _____

Unload DASD

Gather the following information related to unload DASD:

Data set prefix

Do not include the name of your planned product region.

Limits: Maximum 29 characters

Record the value that your site uses here:

?dsnpref = _____

DASD unit

Record the value that your site uses here:

?device-out = _____

DASD volume serial number

Record the value that your site uses here:

?volser = _____

Installation Parameters

Gather the following information related to installation parameters:

Prefix used for ESD Unzipped Data Sets

(Optional) If your product or maintenance was delivered using ESD, record the data set prefix that your site uses here:

Data set prefix= _____

Tape information

(Optional) If you are installing from tape, record the values that your site uses here:

Unit = _____

Default: CART

Expiry Date = _____

Default: 98000

Allocation Parameters

Use these prefixes for high-level qualifiers for the different data set groups.

Record the values that your site uses here:

SMP/E Target

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

Unit = _____

SMP/E Distribution

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

Unit = _____

SMP/E Libraries

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

Unit = _____

SMP/E CSI

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

SMPTLIB

Data Set Prefix = _____

Volume serial number = _____

Unit = _____

Language Environment Parameters

Record these language environment values:

Language Environment library

Record the value that your site uses here:

SCEELKED = _____

Default: CEE.SCEELKED

Language Environment link-edit input

Record the value that your site uses here:

SCEELIB = _____

Default: CEE.SCEELIB

Language Environment link-edit input 2

Record the value that your site uses here:

SCEEBND2 = _____

Default: CEE.SCEEBND2

IBM Macros

Record the value that your site uses here:

MODGEN=_____

Default: SYS1.MODGEN

Data set that contains the GIMZPOOL member

Record the value that your site uses here:

Default: SYS1.MACLIB

Region Setup

Gather the region setup information in the following worksheet:

Note: If you have a sysplex environment and want to use VTAM generic resource support or the ATTACH command, you must specify a SOLVE subsystem interface.

SOLVE Subsystem Interface Region

Gather the following information related to the SOLVE Subsystem Interface region:

Name of the SOLVE SSI started task (*ssiname*)

Record the value that your site uses here:

Default: SOLVESSI

Name of the SOLVE SSI SYSIN member

This member contains control statements for starting the SOLVE SSI.

Record the value that your site uses here:

SYSIN = _____

Default: SSISYSIN

Name of the optional SOLVE SSI parameter member

This member contains startup parameters for the SOLVE SSI. If omitted, startup parameters are included in the SOLVE SSI SYSIN member previously described.

Record the value that your site uses here:

PARAMETER = _____

Subsystem ID for a SOLVE SSI started task

Record the value that your site uses here:

SSID = _____

Default: SOLV

Prefix for SOLVE SSI data sets

Record the value that your site uses here:

Default: *dsnpref*

Product Region

Gather the following information related to the product region:

Product region started task name (*rname*)

Record the value that your site uses here:

Default: NM

Product region SYSIN member name

Record the value that your site uses here:

SYSIN = _____

Default: RUNSYSIN

Primary VTAM ACB name for the product region

Record the value that your site uses here:

PRI = _____

Default: NM

Mixed case passwords

Specifies whether case is preserved (YES) or forced to uppercase (NO):

XOPT = ____

Default: NO

Security exit setting (NO | PARTSAF | NMSAF | *Imname*)

Record the value that your site uses here:

SEC = _____

Default: NO

Note: For more information about setting your security exit, see the *Security Guide*.

Prefix for VSAM data sets local to the product region

Record the value that your site uses here:

Default: *dsnpref.rname*

Prefix for sequential data sets local to the product region

Record the value that your site uses here:

Default: *dsnpref.rname*

Prefix for TESTEXEC

Record the value that your site uses here:

Default: *dsnpref.rname*

Prefix for UAMS or full name of existing UAMS

Record the value that your site uses here:

Default: *dsnpref*

Prefix for shareable VSAM data sets

Record the value that your site uses here:

Default: *dsnpref.SM50*

Prefix for shareable PARMLIB data sets

Record the value that your site uses here:

Default: *dsnpref.SM50.PARMLIB*

External application ACB pool names

Full-screen terminal prefix

Record the value that your site uses here:

Default: NMMAF

LU1 terminal prefix

Record the value that your site uses here:

Default: NMMAV

Name of old VFS or MAIFILE if migrating from a previous release

Record the value that your site uses here:

Prefix for SOLVE:Access database (ACDB)

Record the value that your site uses here:

Default: *dsnpref*

Name of old EASIUDB

Record the value that your site uses here:

Name of old session trace file (TRFILE)

Record the value that your site uses here:

Name of old NETINFO

Record the value that your site uses here:

Name of old Print Service Manager (PSM) spool file (PSPOOL)

Record the value that your site uses here:

Name of VTAM generic resource

Record the value that your site uses here:

VTAM Definitions

Gather the following information related to VTAM definitions:

VTAM major node name

Record the value that your site uses here:

Default: VTAMAPPL

System macro library

Record the value that your site uses here:

Default: SYS1.MACLIB

VTAM network definitions library

Record the value that your site uses here:

Default: SYS1.VTAMLST

VTAM macro library

Record the value that your site uses here:

Default: SYS1.SISTMAC1

VTAM load library

Record the value that your site uses here:

Default: SYS1.VTAMLIB

Startup Tasks

Gather information related to the startup tasks in the following worksheet:

Initial administrator user ID

Record the value that your site uses here:

Initial administrator password

Record the value that your site uses here:

Post-installation Worksheet

After you have completed the installation and setup processes, you can record the data set names generated by the Install Utility for future reference.

You can print out the following worksheet now, and record this information as you progress through this guide.

Installation data set

Record the value generated by the Install Utility here:

Default: *dsnpref.SM50.CAIJCL*

Installation JCL data set

Record the value generated by the Install Utility here:

Default: *dsnpref.SM50.INSTALL.JCL*

SOLVE SSI setup JCL data set

Record the value generated by the Install Utility here:

Default: *dsnpref.SM50.ssiname.JCL*

Product region setup JCL data set

Record the value generated by the Install Utility here:

Default: *dsnpref.SM50.rname.JCL*

More information:

[Specify the Product Region](#) (see page 184)

VTAM JCL data set

Record the value generated by the Install Utility here:

Default: *dsnpref.SM50.VTAM.JCL*

More information:

[Create VTAM Definitions and Tables](#) (see page 189)

Migration Preparation

Some migration tasks require actions on the region that you are migrating from. If you are planning to reuse resources for your new product region, such as access control block (ACB) name and started task name, make sure that you perform these tasks before you shut down your existing region for the last time.

More information:

[Completing Migration](#) (see page 223)

[Performing Initial Migration](#) (see page 199)

Parameter Group Values

If you do not use a region initialization (INI) file and want to migrate your previous parameter group values to your r5 product region, record these values now because you will need them to customize the product region.

Chapter 3: Installing Your Product Using CA MSM

Use the procedures in this section to manage your product using CA MSM. Managing includes acquiring, installing, maintaining, and deploying products, setting system registries, and managing your CSIs. These procedures assume that you have already installed and configured CA MSM.

Note: If you do not have CA MSM, you can download it from the Download Center at CA Support Online. Follow the installation instructions in the *CA Mainframe Software Manager Product Guide*, available at <https://support.ca.com/>.

When you have completed the procedures in this section, go to *Configuring Your Product*.

This section contains the following topics:

- [CA MSM Documentation](#) (see page 33)
- [Getting Started Using CA MSM](#) (see page 34)
- [Acquiring Products](#) (see page 45)
- [Installing Products](#) (see page 51)
- [Maintaining Products](#) (see page 57)
- [Setting System Registry](#) (see page 71)
- [Deploying Products](#) (see page 96)

Important! During installation, use the CAIT67 target zone and the CAID67 distribution zone. The setup process requires that these zone names have been used.

Note: The following procedures are for CA MSM r3. If you are using CA MSM r2, see the *CA Mainframe Software Manager r2 Product Guide*.

CA MSM Documentation

This chapter includes the required procedures to install your product using CA MSM. If you want to learn more about the full functionality of CA MSM, see the CA Mainframe Software Manager bookshelf on the CA MSM product page on <https://support.ca.com/>.

Note: To ensure you have the latest version of these procedures, go to the CA Mainframe Software Manager product page on Customer Support Online and click the Bookshelves link.

Getting Started Using CA MSM

This section includes information about how to get started using CA MSM.

How to Use CA MSM: A Scenario

Your organization recently deployed CA MSM to simplify the installation of CA products and unify their management. The organization has also licensed a new CA product. In addition, you have a number of existing CSIs from previously installed products. The first scenario shows how you can use CA MSM to acquire and install the new product; The second scenario shows how you can use CA MSM to deploy the product to your target systems; and the third scenario shows how you can use CA MSM to maintain products already installed in your environment.

Acquire and Install a New Product

You want to use CA MSM to acquire and install the new CA product.

1. To use CA MSM to acquire or download a product, you must have a CA Support Online account. If you do not have an account, you can create one on the CA Support [website](#).
2. To [access CA MSM](#) (see page 44), you require its URL. You can get the URL from your site's CA MSM administrator and log in using your z/OS credentials. When you log in for the first time, you are prompted to create a CA MSM account with your credentials for the CA Support [website](#). This account enables you to download product packages.
3. After you log in to CA MSM, you can see the products to which your organization is entitled on the Software Catalog tab. If you cannot find the product you want to acquire, [update the catalog](#) (see page 45). CA MSM refreshes the catalog through the CA Support [website](#) using the site IDs associated with your credentials for the CA Support [website](#).
4. After you find your product in the catalog, you can [download the product installation packages](#) (see page 46). CA MSM downloads (acquires) the packages (including any maintenance packages) from the CA FTP site.

5. After you acquire the product installation packages, you can find the packages at the product gen level you want. From there, you can [install your product](#) (see page 51). A wizard guides you through the installation process. A CSI is created for the installed product as part of the installation process. You also can install a product to an existing CSI.

Deploy a Product

CA MSM Deployment Services takes installed software in combination with other software and deploys it to systems in your enterprise. That is, deployments copy data on disk from one place to another. It takes the data (the *what*) from here (the *source*) and moves it to there (the *target*). The CA MSM Deployment Service is the means (the *way*).

You can use the following steps to build you first deployment:

1. Determine the systems you have at your enterprise.
2. Add systems to system registry and validate them.
3. [Create remote credentials](#) (see page 93) for those systems in CA MSM.
4. [Add FTP](#) (see page 84) information along with data destination information to each system registry entry.
5. [Create a methodology](#) (see page 123).
6. Use the [deployment wizard](#) (see page 97) to build a deployment.

Note: If you need to deploy other products to the previously-defined systems using the same methodologies, repeat this step.

System Registration

Each system in the enterprise that you are deploying products to needs to be added to the CA MSM system registry and then validated. A deployment can only be sent to a validated system. This process is called registering your system and applies to each system in your enterprise. For example, if you have five systems at your enterprise, you will need to perform this procedure five times.

Note: After a system is registered, it does not need to be registered again, but you can update the data in the different registration fields and re-register your system.

The system registration process contains the following high-level steps:

1. Set up your remote credentials.

This is where you provide a user ID and password to the remote target system where the deployment will copy the installed software to. Remote credentials are validated during the deployment process. You will need the following information:

- Remote user ID
- Remote system name
- Password
- Authenticated authorization before creating a remote credential.

Your system administrator can help you with setting up your remote credentials.

2. Set up your system registry.

The CA MSM system registry is a CA MSM database, where CA MSM records information about your systems that you want to participate in the deployment process. There is one entry for each system that you register. Each entry consists of three categories of information: general, FTP locations, and data destinations.

Each system registry entry is one of four different system types. Two reflect real systems, and two are CA MSM-defined constructs used to facilitate the deployment process. The two real system types are Non-Sysplex System and Sysplex Systems. The two CA MSM-defined system types are Shared DASD Clusters and Staging Systems.

Non-Sysplex Systems

Specifies a stand-alone z/OS system that is not part of a sysplex system.

Note: During system validation, if it is found to be part of a Sysplex, you will be notified and then given the opportunity to have that system automatically be added to the Sysplex which it is a member of. This may cause the creation of a new Sysplex system. If you do not select the automatic movement to the proper Sysplex, this system will be validated and cannot be deployed.

Sysplex or Monoplex Systems

Specifies a *Sysplex* (SYSTEM comPLEX), which is the IBM mainframe system complex that is a single logic system running on one or more physical systems. Each of the physical systems that make up a Sysplex is often referred to as a *member* system.

A *Monoplex system* is a sysplex system with only one system assigned.

Note: Monoplexes are stored in the Sysplex registry tree but with the name of the Monoplex System and not the Monoplex Sysplex Name. For example, a system XX16 defined as a Monoplex, with a Sysplex name of LOCAL. It will be depicted in the System Registry as a Sysplex with the name of XX16. This sysplex will contain one system: XX16.

This system type can help you if you have Monoplexes with the same Sysplex name (for example: LOCAL). Instead of showing multiple LOCAL Sysplex entries that would need to be expanded to select the correct Monoplex system, the CA MSM System Registry shows the actual Monoplex System name at the top-level Sysplex Name.

Shared DASD Clusters

Specifies a *Shared DASD Clusters* system, which is a CA MSM deployment services term that defines a set of systems that share DASD and it can be composed of Sysplex systems, Non-Sysplex systems, or both. A Staging system cannot be part of a Shared DASD Cluster.

Staging Systems

Specifies a *Staging system*, which is a CA MSM deployment services term that defines a virtual system. A Staging system deploys the deployment to the computer where the CA MSM driving system is located. To use a Staging system, the CA MSM driving system must be registered in the CA MSM System Registry.

Note: A Staging system can be useful in testing your deployments, and learning deployment in general. It can also be used if your target systems are outside a firewall. For example, deploy to a Staging system and then manually copy the deployment to tape.

3. Define the FTP location information for every system.

FTP locations are used to retrieve the results of the deployment on the target system (regardless if the deployment was transmitted through FTP or using Shared DASD). They are also used if you are moving your deployments through FTP.

To define the FTP location, you need to provide the following:

URI

Specifies the host system name.

Port Number

Specifies the port number.

Default: 21)

Directory Path

Specifies the landing directory, which is location that the data is temporarily placed during a deployment.

4. Define a data destination for every system.

The data destination is how you tell CA MSM which technique to use to transport the deployment data to the remote system. The following choices are available:

FTP

When FTP is selected as the transport mechanism, the deployment data is shipped to the target system through FTP. It is temporarily placed on the target system at the landing directory specified in the FTP Location information section of the system Registry.

Shared DASD

When you specify shared DASD, CA MSM uses a virtual transport technique. That is, it does not actually copy the data from one system to the other. Because the two systems share DASD, there is no need to do this. All of the deployment data is kept in USS file systems managed by CA MSM.

Even though the DASD is shared, the remote system may not be able to find the deployment data in the USS file system. Therefore, CA MSM temporarily unmounts the file system from the CA MSM driving system and mounts it in read-only mode on the remote system.

For CA MSM to determine where to mount the file system on the remote system, you must specify a mount point location in the data destination. In addition, you can provide allocation information for the creation of the deployment file system, so that when the file system is created on the CA MSM driving system, it will be on the DASD that is shared.

Data destinations are assigned to Non-Sysplex and Sysplex systems, and Shared DASD Clusters. Data destinations are named objects, and may be assigned to multiple entities in the system registry and have their own independent maintenance dialogs.

The remote allocation information is used by the deployment process on the remote system, letting you control where the deployed software is placed. By specifying the GIMUNZIP volser, CA MSM adds a “volume=” parameter to the GIMUNZIP instructions on the remote system. The list of zFs volsers is only needed if (1) the software you are deploying contains USS parts, and (2) you select a “container” copy option during the deployment process.

Note: After you have created your systems, you will need to validate them.

5. Register each system by validating that it exists.

Note: You should validate your Non-Sysplex Systems first, and then your Sysplex or Shared Cluster Systems.

You start the validation process when you select the Validate button in the Actions drop down for a Sysplex System, Non-Sysplex System, and Shared DASD Cluster on that system's System Registry Page. This starts a background process using the CCI validation services to validate this system.

Note: Staging Systems are not validated. However, you will need to create and validate a system registry entry for the CA MSM driving system if you are going to utilize Staging systems.

Note: If the validation is in error, review the message log, update your system registry-entered information, and validate again.

You are now ready to set up your products to be deployed.

Deploying Products

After you install software using CA MSM, you still need to deploy it. You can use the deployment wizard to guide you through the deployment process. In the wizard, you can deploy one product at a time. You can also save a deployment at any step in the wizard, and then manually edit and deploy later.

Note: You must have at least one product, one system, and one methodology defined and selected to deploy.

You must complete the following steps in the Deployment wizard before you deploy:

Deployment Name and Description

Enter the deployment name and description using the wizard. The name must be a meaningful deployment name.

Note: Each deployment name must be unique. Deployment names are not case-sensitive. For example DEPL1 and depl1 are the same deployment name.

We recommend that you enter an accurate and brief description of this deployment.

CSI Selection

Select a CSI. A CSI is created for the installed product as part of the installation process.

Product Selection

Displays the products that are installed in the CSI you selected.

Custom Data Set

Custom data sets let you add other data sets along with the deployment. They contain either a z/OS data set or USS paths.

- For a z/OS data set, you need to provide a data set name that is the actual existing z/OS data set and a mask that names the data set on the target system. This mask may be set up using [symbolic qualifiers](#) (see page 125) and must be available to CA MSM. During the deployment process, the custom data set is accessed and copied to the target system the same way a target library is accessed and copied.
- For USS paths, you need to provide a local path, a remote path which may be set up using [symbolic qualifiers](#) (see page 125) and type of copy. Type of copy can be either a container copy or a file-by-file copy.

You can [add a custom data set](#) (see page 116).

Methodology

Methodology is the process by which data sets are named on the target system. A methodology provides the *how* of a deployment, that is, what you want to call your data sets. It is the named objects with a description that are assigned to an individual deployment.

To [create a methodology](#) (see page 123), specify the following:

Data set name mask

Lets you choose symbolic variables that get resolved during deployment)

Disposition of the target data sets

If you select Create, ensure that the target data sets do not exist, otherwise, the deployment fails.

If you select *Create or Replace* and the target data sets do not exist, they will be created. If the target data sets exist, *Create or Replace* indicates that data in the existing data set, file, or directory will be replaced, as follows:

Partitioned data set

Create or Replace indicates that existing members in a partitioned data set will be replaced by members with the same name from the source file. Any currently existing member that is not in the source file will remain in the PDS. Any member from the source that does not already exist in the target PDS will be added to the target PDS.

The amount of free space in the PDS should be sufficient to hold the additional content, because no automatic compress is performed.

Directory in a UNIX file system

Create or Replace indicates files in a directory will be replaced by files with same name from the source. Any currently existing directory in a UNIX file system that is not in the source will remain in the UNIX file system.

Sequential data set or a file in the UNIX file system

Create or Replace indicates the existing data set or file and its attributes will be replaced with the data from the source file.

For a VSAM data set (cluster)

Create or Replace indicates that an existing VSAM cluster should be populated with the data from the source file. The existing VSAM cluster must be of the same type as the source cluster (ESDS, KSDS, LDS, or RRDS). In addition, the existing VSAM cluster must have characteristics that are compatible with the source cluster (such as, record size, key size, and key offset). Replace does not verify the compatibility of these characteristics!

Note: You can replace the contents of an existing cluster using the IDCAMS ALTER command to alter the cluster to a reusable state. You must do this before the data from the VSAM source is copied into the cluster using an IDCAMS REPRO command. The REPRO command will use both the REPLACE and REUSE operands, and after you use it, the cluster is altered back to a non-reusable state if that was its state to begin with.

System Selection

Select the system for this deployment.

Preview

Preview identifies the deployment by name and briefly states the products, systems, means of transport, target libraries including source, target and resolution, as well as SMP/E environment and snapshot information. It shows the translated symbolic qualifiers.

Use this option to review your deployment before deploying.

Deploy

Deploy combines the snapshot, transmit, and deploy action into one action. Deploy enables you to copy your CA MSM-installed software onto systems across your enterprise. For example, you can send one or many products to one or many systems. Deploy can send the software by copying it to a shared DASD or through FTP.

Summary

After your products have successfully deployed, you can review your deployment summary and then confirm your deployment. You can also delete a completed deployment.

Confirm

Confirms that the deployment is complete. A deployment is not completed until it is confirmed. After it is confirmed, the deployment moves to the Confirmed deployment list.

Maintain Existing Products

You also have a number of existing CSIs. You can bring those CSIs into CA MSM so that you can maintain all your installed CA products in a unified way from a single web-based interface.

1. To maintain an existing CSI in CA MSM, migrate the CSI to CA MSM. During the migration, CA MSM stores information about the CSI in the database.
2. After the CSI is migrated, you can [download the latest maintenance](#) (see page 58) for the installed product releases from the Software Catalog tab. If you cannot find a release (for example, because the release is old), you can add the release to the catalog manually and then update the release to [download the maintenance](#) (see page 59).
3. After you download the latest maintenance, you can [apply the maintenance](#) (see page 62).

Note: You can also install maintenance to a particular CSI from the SMP/E Environments tab.

Access CA MSM Using the Web-Based Interface

You access CA MSM using the web-based interface. You must have at least *one* of the following web browsers: Microsoft Internet Explorer 6.0, 7.0, or 8.0, or Mozilla Firefox 3.5.

You need the URL of CA MSM from the CA MSM administrator.

To access CA MSM using the web-based interface

1. Start your web browser, and enter the access URL.

The login page appears.

Note: If the Notice and Consent Banner appears, read the information provided, and click the link to confirm it.

2. Enter your z/OS login user name and password, and click the Log In button.

The initial page appears. If you log in for the first time, you are prompted to define your account on the CA Support [website](#).

Note: For more information about the interface, click the Help link at the top right corner of the page.

3. Click New.

You are prompted for the credentials to use on the CA Support [website](#).

Important! The account to which the credentials apply *must* have the Product Display Options set to BRANDED PRODUCTS. You can view and update your account preferences by logging into the CA Support [website](#) and clicking My Account. If you do not have the correct setting, you are not able to use CA MSM to download product information and packages.

4. Specify the credentials, click OK, and then click Next.

You are prompted to review your user settings.

Note: These settings are available on the User Settings page.

5. Change the settings or keep the defaults, and then click Finish.

A dialog opens that shows the progress of the configuration task. You can click Show Results to view the details of the actions in a finished task.

Important! If your site uses proxies, review your proxy credentials on the User Settings, Software Acquisition page.

Acquiring Products

This section includes information about how to use CA MSM to acquire products.

Update Software Catalog

Initially, the CA MSM software catalog is empty. To see available products at your site, update the catalog. As new releases become available, update the catalog again to refresh the information. The available products are updated using the site ID associated with your credentials on the CA Support [website](#).

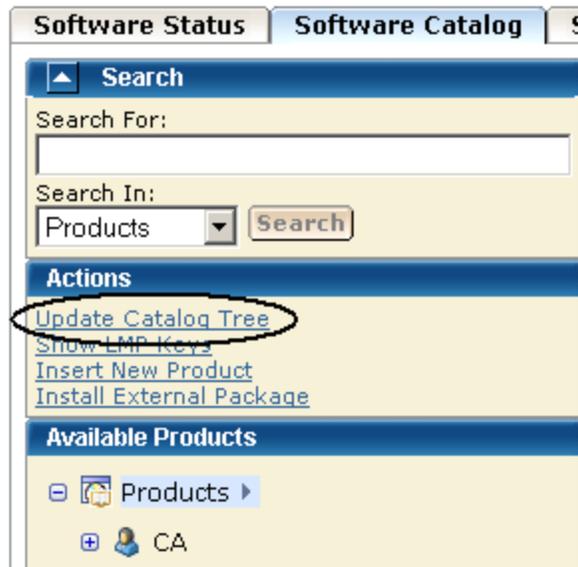
If you update the catalog tree and some changes are missing, check your user settings on the CA Support [website](#).

To update your software catalog

1. Click the Software Catalog tab.

Note: The information on the Software Status tab for HIPERs and new maintenance is based on the current information in your software catalog. We recommend that you update the catalog on a daily or weekly basis to keep it current.

2. Click the Update Catalog Tree link in the Actions section at the left.



You are prompted to confirm the update.

3. Click OK.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

Download Product Installation Package

You can download product packages through the Software Catalog tab. The Update Catalog action retrieves information about the products for your site.

To download a product installation package

1. Verify that your CA MSM login user name is associated with a registered user of the CA Support [website](#) on the Software Acquisition Settings page.
CA MSM uses the credentials to access the CA Support [website](#).

2. Locate and select the product you want to download by using the Search For field or expanding the Available Products tree at the left.

The product releases are listed.

Note: If the product does not appear on the product tree, click the Update Catalog Tree link in the Actions section at the left. The available products are updated using the site ID associated with your credentials for the CA Support [website](#). If you update the catalog tree and some changes are missing, check your user settings on the CA Support [website](#).

3. Click Update Catalog Release in the Actions column in the right pane for the product release you want to download.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

The product packages are downloaded.

Note: You can expand the tree in the right panel by selecting a product and clicking the vendor link in the right panel, but if you use this method and select multiple products, be aware that if one of the selected products cannot be downloaded, the remaining products will not be processed. If this happens, remove the checks from the ones that were processed and repeat the update catalog request.

Migrate Installation Packages Downloaded External to CA MSM

If you have acquired product pax files by means other than through CA MSM, you can add information about these product installation packages to CA MSM from the Software Catalog tab.

Migrating these packages to CA MSM provides a complete view of all your product releases. After a package is migrated, you can use CA MSM to [install the product](#) (see page 51).

To migrate information about a product installation package downloaded by other means

1. Click the Software Catalog tab, and click Insert New Product.

Note: A product not acquired from the CA Support [website](#) does not appear in Software Catalog until you perform this step.

An entry is added for the product.

2. Select the product gen level (for example, SP0 or 0110) for which the package applies.

The packages for the gen level are listed.

3. Click the Add External Package button.

You are prompted to enter a path for the package.

4. Specify the USS path to the package you want to migrate, and click OK.

Information about the package is saved in the CA MSM database.

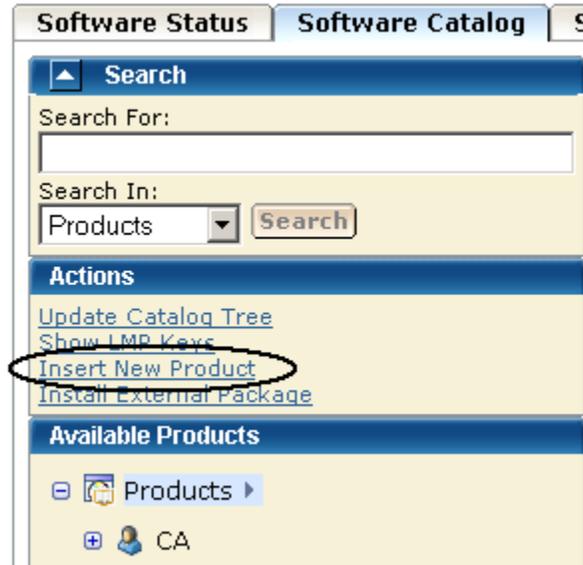
Note: To see the added package, refresh the page.

Add a Product

Sometimes, a product is not currently available from the CA Support [website](#). For example, if you are testing a beta version of a product, the version is delivered to you by other means. You can add these types of product packages to CA MSM using the Insert New Product action.

To add a product package to CA MSM

1. Click the Software Catalog tab, and click the Insert New Product link in the Actions section at the left.



You are prompted to supply information about the product.

2. Specify the name, release, and gen level of the product, and click OK.
The product is added to the software catalog.
3. Click the gen level of the product you want to install on the product tree at the left.
The Base Install Packages section appears at the right.
4. Click the Add External Package button.
You are prompted to identify the package.
5. Specify the USS path to the package you want to add, and click OK.

Note: If you need to add several packages from the same location, you can use [masking](#) (see page 50).

Information about the package is saved in the CA MSM database.

Note: To see the added package, refresh the page.

Masking for External Packages

Masking lets you to add more than one package (or set of maintenance files) from the same location based on a pattern (mask). You can use masking for components, maintenance in USS, and maintenance in data sets. You can use masking for files only, not for directories.

Masking: Use the asterisk symbol (*).

- For PDS and PDSE, you can mask members using asterisks.
- For sequential data sets, use the following characters:

?

Match on a single character.

*

Match on any number of characters within a qualifier of a data set name or any number of characters within a member name or file system name.

**

Match on any number of characters including any number of .qualifier within a data set name.

You can use as many asterisks as you need in one mask. After you enter the mask, a list of files corresponding to the mask pattern appears.

Note: By default, all files in the list are selected. Make sure you review the list and check what files need to be added.

Example 1

The following example displays all PDF files that are located in the `/a/update/packages` directory:

```
/a/update/packages/*.pdf
```

Example 2

The following example displays all files located in the `/a/update/packages` directory whose names contain `p0`:

```
/a/update/packages/*p0*
```

Example 3

The following example displays all sequential data sets whose name starts with *PUBLIC.DATA.PTFS*:

```
PUBLIC.DATA.PTFS.**
```

Example 4

The following example displays all members in the PDS/PDSE data set *PUBLIC.DATA.PTFLIB* whose name starts with *RO*:

```
PUBLIC.DATA.PTFLIB(RO*)
```

Installing Products

This section includes information about how to use CA MSM to install products.

Install a Product

You can install a downloaded product through the Software Catalog, Base Install Packages section. The process starts a wizard that guides you through the installation. At the end of the wizard, a task dynamically invokes the SMP/E and other utilities required to install the product.

Note: If your site uses only one file system (for example, only zFS or only HFS), you can configure CA MSM to use this file system for all installed products regardless of the file system that the product metadata specifies. The settings are available on the System Settings, Software Installation page. The file system type that you specify will override the file system type that the product uses.

Any USS file system created and mounted by CA MSM during a product installation is added in CA MSM as a managed product USS file system. CA MSM lets you enable and configure verification policy that should be applied to these file systems when starting CA MSM. For verification results, review CA MSM output.

These settings are available on the System Settings, Mount Point Management page.

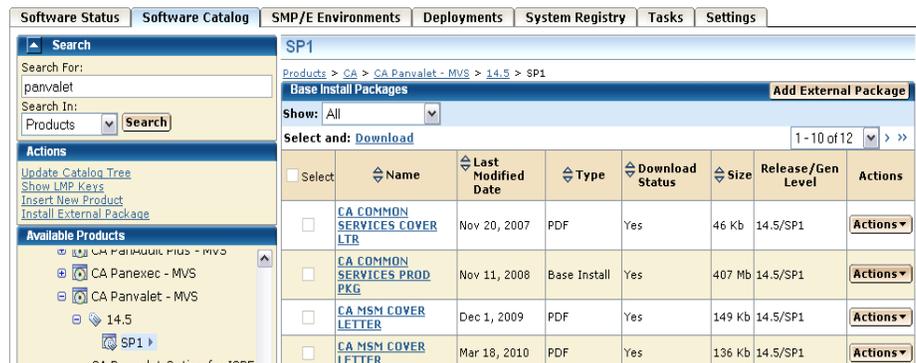
During installation, you select the CSI where the product is to be installed, and specify its zones. You can either specify target and distribution zones to be in the existing CSI data sets, or create new data sets for each zone.

Note: While you are working with a particular CSI, the CSI is locked and other CA MSM users cannot perform any action against it. The lock is released when the task is finished, you log out of CA MSM, or your CA MSM session has been inactive for more than ten minutes.

To install a product

1. Click the Software Catalog tab, and select the product gen level (for example, SP0 or 0110) you want to install on the product tree at the left.

Information about the product appears in the Base Install Packages section at the right, for example:



Note: If a product is acquired external to CA MSM, you can install the product using the Install External Package link. The process starts the wizard.

2. Do one of the following:
 - If the package was acquired using CA MSM, locate the product package that you want to install, click the Actions drop-down list to the right of the package, and select Install.
 - or
 - If the package was acquired external to CA MSM, click the Install External Packages link under the Actions section in the left pane, enter the location of the package, and click OK.

The Introduction tab of the wizard appears.

Note: An information text area can appear at the bottom of the wizard. The area provides information that helps you progress through the wizard. For example, if a field is highlighted (indicating an error), the information text area identifies the error.

3. Review the information about the installation, and click Next.

Note: If the license agreement appears for the product that you are installing, scroll down to review it, and accept it.

You are prompted to select the type of installation.

4. Click the type of installation, and then click Next.

(Optional) If you select Custom Installation, you are prompted to select the features to install. Select the features, and click Next.

A summary of the features to install appears, with any prerequisites.

5. Review the summary to check that any prerequisites are satisfied.

- If no prerequisites exist, click Next.

You are prompted for the CSI to use for this installation.

- If prerequisites exist, and they are all satisfied, click Next.

You are prompted to locate the installed prerequisites. If an installed prerequisite is in more than one CSI or zone, the CSI and Zone drop-down lists let you select the specific instance. After you make the selections, click Next.

You are prompted for the CSI to use for this installation.

- If prerequisites are not satisfied, click Cancel to exit the wizard. Install the prerequisites, and then install this product.

Note: You can click Custom Installation to select only those features that have the required prerequisites. You can click Back to return to previous dialogs.

6. Select an existing CSI, or click the Create a New SMP/E CSI option button, and click Next.

If you select Create a New SMP/E CSI, you are prompted to [specify the CSI parameters](#) (see page 55).

If you select an existing CSI, the wizard guides you through the same steps. Allocation parameters that you specify for work DDDEFs are applied only to new DDDEFs that might be created during the installation. The existing DDDEFs if any remain intact.

Note: Only CSIs for the SMP/E environments in your working set are listed. You can configure your working set from the SMP/E Environments tab.

- If you select a CSI that has incomplete information, the wizard prompts you for extra parameters.
- If you select a CSI that is being used in CA MSM by another user, a notification message appears, and you are prevented from performing any actions on the CSI. You can either wait until the notification message disappears and the CSI is available, or click Cancel to select another CSI.

After you select a CSI or specify a new CSI, you are prompted for the target zone to use.

7. Select an existing zone, or click the Create a New SMP/E Target Zone option button. Click Next.

Note: If you select Create a New SMP/E Target Zone, you perform additional steps similar to the steps for the Create a New SMP/E CSI option. The target zone parameters are pre-populated with the values that are entered for the CSI. You can change them.

If you want the target zone to be created in a new data set, select the Create New CSI Data Set check box and fill in the appropriate fields.

After you select or specify a target zone, you are prompted for the distribution zone to use.

8. Select an existing zone, or click the Create a New SMP/E Distribution Zone option button. Click Next.

Note: If you selected to use an existing target zone, the related distribution zone is automatically selected, and you cannot select other distribution zone. If you selected to create a new target zone, you create a new distribution zone, and you cannot select existing distribution zone.

After a distribution zone is selected or specified, a summary of the installation task appears.

Note: If you select Create a New SMP/E Distribution Zone, you perform additional steps similar to the steps for the Create a New SMP/E CSI option. The distribution zone parameters are prepopulated with the values that are entered for the target zone. You can change them.

- If you want the distribution zone to be created in a new data set, select the Create New CSI Data Set check box and fill in the appropriate fields.
- If you want to use the same data set that you have already specified to be created for the target zone, the data set will be allocated using the parameters you have defined when specifying the target zone.

9. Review the summary, and click Install.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

Create a CSI

You can create a CSI while you are [installing a product](#) (see page 51). During the process, you are asked to specify the following:

- Data set allocation parameters, which you can then customize for each data set
- Parameters for DDDEF allocation

To create a CSI

1. Click Create a New SMP/E CSI from the product installation wizard.

You are prompted to define a CSI.

2. Specify a name for the environment represented by the CSI, and the following VSAM and data set allocation parameters:
 - Specify the prefix for the name of the CSI VSAM data set.
 - Specify the prefix for the names of the SMP/E data sets.
 - Select whether to use SMS, and complete the appropriate fields.

You can leave the other parameters at their defaults.

Note: An information text area can appear at the bottom of the wizard. The area provides information that helps you progress through the wizard. For example, if a field is highlighted (indicating an error), the information text area identifies the error.

3. Click Next.

Work DDDEF allocation parameters and a list of the data sets to be created for the CSI appear.

4. Specify whether to use SMS or Unit parameters for allocating work DDDEFs for the CSI, and complete the appropriate fields.

Note: The settings for allocating work DDDEFs are globally defined on the System Settings, Software Installation tab. You must have the appropriate access rights to be able to modify these settings.

5. Review the data set names. Click the Override link to change allocation parameters, and then click Next.

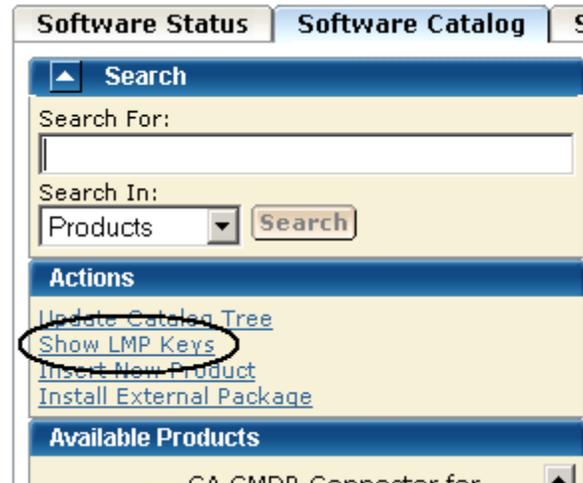
You are prompted to specify any additional parameters. A new CSI is specified.

Download LMP Keys

When you install a CA product on z/OS systems, you must license the product on each system that uses the product. You do this by entering CA Common Services for z/OS CA License Management Program (LMP) statements. You can download LMP keys through the Software Catalog tab so that the keys are available for you to enter manually. The Show LMP Keys action retrieves the keys for the products to which your site is entitled.

To retrieve and list the LMP keys for your products

1. Click the Software Catalog tab, and click the Show LMP Keys link in the Actions section at the left.



A list of LMP keys retrieved for the indicated site ID appears.

2. Select the site ID for which you want to list the LMP keys from the Site IDs drop-down list.

The list is refreshed for the selected site ID.

If the list is empty or if you want to update the lists, proceed to the next step.

3. Click Update Keys.

You are prompted to confirm the update.

4. Click OK.

The LMP keys are retrieved. On completion of the retrieval process, the LMP keys are listed for the selected site.

Note: You can use the Refresh Site IDs button to refresh the information on the page.

Maintaining Products

This section includes information about how to use CA MSM to download and apply product maintenance packages.

How to Apply Maintenance Packages

Use this process to download and apply product maintenance packages.

1. Identify your download method. This section details the steps to use the following download methods:
 - [Download Product Maintenance Packages](#) (see page 58)
 - [Download Product Maintenance Packages for Old Product Releases and Service Packs](#) (see page 59)
 - [Manage Maintenance Downloaded External to CA MSM](#) (see page 60)

Contact your system administrator, if necessary.

2. Apply the product maintenance package. This section also details the role of USERMODs.

Note: This section also describes how to back out maintenance that has been applied but not yet accepted.

Download Product Maintenance Packages

You can download maintenance packages for installed products through the Software Catalog tab.

To download product maintenance packages

1. Verify that your CA MSM login user name is associated with a registered user of the CA Support [website](#) on the Software Acquisition Settings page.
CA MSM uses the credentials to access the CA Support [website](#).
2. Click the name of the product for which you want to download maintenance on the product tree at the left.

Maintenance information about the product appears in the Releases section at the right.

3. Click the Update Catalog Release button for the product release for which you want to download maintenance.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

The maintenance packages are downloaded.

More information:

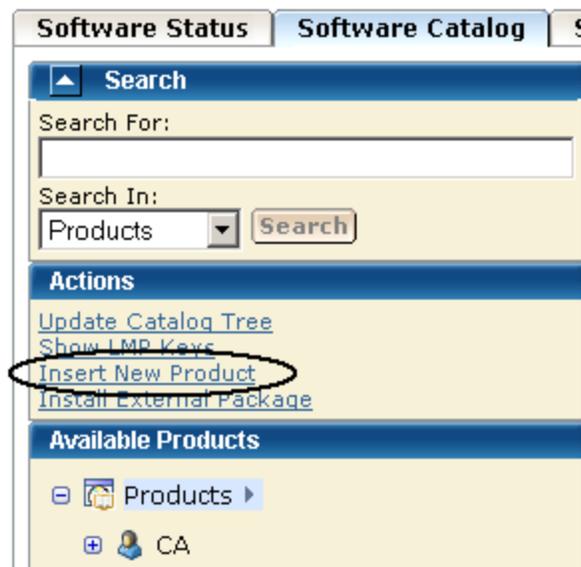
[Download Maintenance Packages for Old Product Releases and Service Packs](#)
(see page 59)

Download Maintenance Packages for Old Product Releases and Service Packs

CA MSM does not retrieve information about old product releases and service packs. If you need maintenance from those releases and service packs, you must add them to the software catalog before you can download the maintenance.

To download maintenance packages for a product release not in the software catalog

1. Click the Software Catalog tab, and click the Insert New Product link in the Actions section at the left.



You are prompted to supply information about the product release.

2. Specify the name, release, and gen level of the product, and click OK.

Note: Use the same product name that appears on the product tree, and use the release and gen level values as they appear for Published Solutions on the CA Support [website](#).

The product release is added to the software catalog.

3. From the product tree at the left, click the name of the product for which you want to download maintenance.

Maintenance information about the product appears in the Releases section at the right.

4. Click Update Catalog Release for the added product release.

Maintenance packages are downloaded. A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

Manage Maintenance Downloaded External to CA MSM

Some maintenance packages, such as unpublished maintenance, APARs, and USERMODs, may be acquired externally to CA MSM. You can add information about these maintenance packages to CA MSM from the Software Catalog tab. The process starts a wizard that guides you through the migration.

Adding these maintenance packages to CA MSM provides you with a complete view of all the maintenance for a product release. After a package is migrated, you can use CA MSM to [apply the maintenance](#) (see page 62).

The maintenance package must be located in a z/OS data set or a USS directory. If you use a z/OS data set, it must have an LRECL of 80. If you place the maintenance in a USS directory, copy it in binary mode.

The maintenance is placed as either a single package or an aggregated package that is a single file comprised of multiple maintenance packages. An *aggregated package* is a file comprised of several single maintenance packages (nested packages). When you add an aggregated package, CA MSM inserts all nested packages that the aggregated package includes and the aggregated package itself. In the list of maintenance packages, the aggregated package is identified by the CUMULATIVE type.

When you insert an aggregated package, CA MSM assigns a fix number to it. The fix number is unique and contains eight characters, starting with AM (for Aggregated Maintenance) followed by a unique 6-digit number whose value increases by 1 with each added aggregated package.

Note: If the aggregated maintenance package has the same fix number as one of its nested packages, only the nested packages are added. The aggregated package itself will not be available in the list of maintenance packages.

To add a maintenance package acquired externally

1. Click the Software Catalog tab, and select the product release for which the maintenance applies.

The maintenance packages for the release are listed.

2. Click the Add External Maintenance button.

You are prompted to specify the package type and location.

3. Specify the package type and either the data set name or the USS path.

Note: If you need to add several packages from the same location, you can use [masking](#) (see page 50).

4. Click OK.

The maintenance package with the related information is saved in the CA MSM database.

Note: To see the added package, refresh the page.

More information:

[Manage Maintenance](#) (see page 62)

View Aggregated Package Details

You can view which nested packages are included in the aggregated package. The information includes the fix number, package type, and package description.

To view aggregated package details

1. Click the Software Catalog tab, and select the product release that has the aggregated package whose details you want to view.

The maintenance packages for the release are listed.

2. Click the Fix # link for the aggregated package.
The Maintenance Package Details dialog opens.
3. Click the Nested Packages tab.
A list of nested packages contained in the aggregated package appears.

Manage Maintenance

After maintenance has been downloaded for a product, you can manage the maintenance in an existing SMP/E product installation environment.

Note: While you are working with a particular CSI, the CSI is locked and other CA MSM users cannot perform any action against it. The lock is released when the task is finished, you log out of CA MSM, or your CA MSM session has been inactive for more than ten minutes.

The following installation modes are available:

Receive and Apply

Receives the maintenance and applies it to the selected SMP/E environment.

Receive and Apply Check

Receives the maintenance and checks if the maintenance can be applied to the selected SMP/E environment.

Receive, Apply Check, and Apply

Receives the maintenance, checks if the maintenance can be applied to the selected SMP/E environment, and applied it if it can be applied.

Receive Only

Receives the maintenance.

The process starts a wizard that guides you through the maintenance steps. At the end of the wizard, a task dynamically invokes the SMP/E and other utilities required to apply the maintenance.

Note: You can also manage maintenance to an SMP/E environment using the SMP/E Environments, Maintenance tab.

To manage maintenance for a product

1. Click the Software Catalog tab, and select the product from the tree at the left.

Maintenance information appears at the right for the releases you have.

2. Click Update Catalog Release for the release on which you want to apply maintenance.

The maintenance information is updated.

3. If the information indicates that maintenance is available, click the Release Name link.

The maintenance packages are listed, for example:

Software Status		Software Catalog	SMP/E Environments	Deployments	System Registry	Tasks	Settings																																																																													
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Update Catalog Tree		<table border="1"> <thead> <tr> <th>Select</th> <th>Fix #</th> <th>Description</th> <th>Confirmed Date</th> <th>Type</th> <th>Installed</th> <th>Actions</th> </tr> </thead> <tbody> <tr> <td><input type="checkbox"/></td> <td>Q185660</td> <td>* PRODUCT DOCUMENTATION CHANGE</td> <td>Jan 29, 2007</td> <td>PEA/PDC</td> <td>Not installable</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q089243</td> <td>* PRODUCT ERROR ALERT *</td> <td>Jun 20, 2007</td> <td>PEA/PDC</td> <td>Not installable</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>R012055</td> <td>0607: MSM INST. ADD SUPPORT FOR SAMPJCL UNDER SMP/E</td> <td>Oct 7, 2009</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q088256</td> <td>14.5-SP00 : PANO/PAN#1 INPUT STREAM INVALID COMMAND</td> <td>May 11, 2007</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q088259</td> <td>14.5-SP01 : PANO/PAN#1 INPUT STREAM INVALID COMMAND</td> <td>May 11, 2007</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q086490</td> <td>14.5-SP00 : DOING ++WRITE, LNG FMT CHANGED AFTER</td> <td>Mar 6, 2007</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q090975</td> <td>14.5-SP00/SP01: PAM DIRECTORY AVERAGE BYTES</td> <td>Sep 4, 2007</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q081764</td> <td>14.5-SP00: PAN#1 ++CONTROL WITH NO CODE GIVES ERROR</td> <td>Aug 25, 2006</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q081765</td> <td>14.5-SP00: PV071 DOING ++SCANS OF ZTYPE1-8 MEMBERS</td> <td>Aug 25, 2006</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Q086868</td> <td>14.5-SP00: ZTYPE7 NOT FORMATTED CORRECTLY ON TSO</td> <td>Mar 19, 2007</td> <td>PTF</td> <td>No (0/1)</td> <td>Actions</td> </tr> </tbody> </table>						Select	Fix #	Description	Confirmed Date	Type	Installed	Actions	<input type="checkbox"/>	Q185660	* PRODUCT DOCUMENTATION CHANGE	Jan 29, 2007	PEA/PDC	Not installable	Actions	<input type="checkbox"/>	Q089243	* PRODUCT ERROR ALERT *	Jun 20, 2007	PEA/PDC	Not installable	Actions	<input type="checkbox"/>	R012055	0607: MSM INST. ADD SUPPORT FOR SAMPJCL UNDER SMP/E	Oct 7, 2009	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q088256	14.5-SP00 : PANO/PAN#1 INPUT STREAM INVALID COMMAND	May 11, 2007	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q088259	14.5-SP01 : PANO/PAN#1 INPUT STREAM INVALID COMMAND	May 11, 2007	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q086490	14.5-SP00 : DOING ++WRITE, LNG FMT CHANGED AFTER	Mar 6, 2007	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q090975	14.5-SP00/SP01: PAM DIRECTORY AVERAGE BYTES	Sep 4, 2007	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q081764	14.5-SP00: PAN#1 ++CONTROL WITH NO CODE GIVES ERROR	Aug 25, 2006	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q081765	14.5-SP00: PV071 DOING ++SCANS OF ZTYPE1-8 MEMBERS	Aug 25, 2006	PTF	No (0/1)	Actions	<input type="checkbox"/>	Q086868	14.5-SP00: ZTYPE7 NOT FORMATTED CORRECTLY ON TSO	Mar 19, 2007	PTF	No (0/1)	Actions
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Red asterisks identify HIPER maintenance packages.

4. Click the Fix # link for each maintenance package you want to install.

The Maintenance Package Details dialog appears, identifying any prerequisites.

5. Review the information on this dialog, and click Close to return to the Maintenance Packages section.

6. Select the maintenance packages you want to install, and click the Install link.

Note: The Installed column indicates whether a package is installed.

The Introduction tab of the wizard appears.

7. Review the information about the maintenance, and click Next.

The packages to install are listed.

8. Review and adjust the list selections as required, and click Next.

The SMP/E environments that contain the product to maintain are listed. Only environments in your working set are listed.

9. Select the environments in which you want to install the packages.
10. Click Select Zones to review and adjust the zones where the maintenance will be installed, click OK to confirm the selection and return to the wizard, and click Next.

Note: If you select a CSI that is being used in CA MSM by another user, a notification message appears, and you are prevented from performing any actions on the CSI. You can either wait until the notification message disappears and the CSI is available, or click Cancel to select another CSI.

11. Select the installation mode for the selected maintenance, and click Next.
 - If prerequisites exist and are available, review them and click Next. CA MSM installs these prerequisites as part of the process. If a prerequisite is *not* available, the wizard cannot continue. You must acquire the prerequisite and restart the process.
 - If [HOLDDATA](#) (see page 166) entries exist, review and select them, and click Next.

A summary of the task appears.

12. Review the summary, and click Install.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

The task applies the maintenance. You can accept the maintenance (except USERMODs) using the SMP/E Environments, Maintenance tab. As a best practice, CA MSM prevents you from accepting USERMODs.

More information:

[Download Product Maintenance Packages](#) (see page 58)

[Download Maintenance Packages for Old Product Releases and Service Packs](#)

(see page 59)

View Installation Status of Maintenance Package

You can view installation status details of each maintenance package, including a list of CSIs where the package is installed, the CSI data sets, and the installation status of the package for each CSI zone. For example, a maintenance package can be received in the global zone, applied in a target zone, and accepted in a distribution zone.

Note: The installation status is not available for aggregated maintenance packages as well as for those maintenance packages that are not installable or do not have available CSIs to be installed to.

Depending on the package status for each zone, you can see available actions for the package. For example, if the package is not received in a CSI zone, the Install action is available.

To view installation status of a maintenance package

1. Click the Software Catalog tab, and select the product release that has the maintenance package whose installation status you want to view.

The maintenance packages for the release are listed.

2. Click the status link in the Installed column for the maintenance package.

The Maintenance Package Details dialog opens to the Installation Status tab. A list of CSIs with package status per zone appears.

Note: Click the Actions drop-down list to start the Installation wizard (for packages that are not yet installed in at least one CSI zone) or the Accept wizard (for packages that are not accepted in at least one CSI zone). Click Install to More Environments to install the maintenance package in one or more CSIs available for the package.

USERMODs

A product USERMOD can be provided as a published maintenance package downloaded by CA MSM during the Update Catalog process. When CA MSM downloads a package that includes a ++USERMOD statement, it is loaded under the product with a USERMOD type. You can install these packages using CA MSM but cannot accept them because they are not intended to be permanent.

You can create a USERMOD manually, or we can provide an unpublished maintenance package as a USERMOD. In this case, the USERMOD file, which contains the ++USERMOD statement and the body of the USERMOD, must be [managed as an externally downloaded package](#) (see page 60).

GROUPEXTEND Mode

CA MSM lets you invoke the SMP/E utility with the GROUPEXTEND option enabled for managing (applying and accepting) maintenance.

For some maintenance packages, before you install them, you must first install other maintenance packages (SYSMODs).

If a SYSMOD that is defined as a prerequisite for the product maintenance package that you want to install has not been applied or cannot be processed (for example, the SYSMOD is held for an error, a system, or a user reason ID; it is applied in error; it is not available), you can install the maintenance package in GROUPEXTEND mode, and the SMP/E environment where the product is installed automatically includes a superseding SYSMOD.

Note: For applying maintenance in GROUPEXTEND mode, the SMP/E environment *must* have all SYSMODs received to be included by the GROUPEXTEND option.

When you apply maintenance in GROUPEXTEND mode, the following installation modes are available:

Apply Check

Checks if the maintenance can be applied to the selected SMP/E environment in GROUPEXTEND mode.

Apply

Applies the maintenance to the selected SMP/E environment in GROUPEXTEND mode.

Apply Check and Apply

Checks if the maintenance can be applied to the selected SMP/E environment in GROUPEXTEND mode, and applies it if it can be applied.

For the GROUPEXTEND option, CA MSM does not automatically receive and display prerequisites for maintenance or HOLDDATA that needs to be bypassed when applying the maintenance. Apply check mode lets you check if any prerequisites or HOLDDATA exist and report them in the task output.

How Maintenance in GROUPEXTEND Mode Works

We recommend that you apply maintenance in GROUPEXTEND mode in the following sequence:

1. Receive all SYSMODs that you want to include by the GROUPEXTEND option.
2. Run the maintenance in Apply check mode.
 - If the task fails, review SMPOUT in the task output to check if there are missing (not received) SYSMODs or HOLDDATA that need to be resolved or bypassed.
 - If the task succeeds, review SMPRPT in the task output to check what SYSMODs were found and applied.
3. Run the maintenance in Apply mode, and specify SYSMODs that you want to exclude and HOLDDATA that you want to bypass, if any exist.

The followings options are available for bypassing HOLDDATA:

- HOLDSYSTEM
- HOLDCLASS
- HOLDERROR
- HOLDUSER

Note: For more information about the BYPASS options, see the *IBM SMP/E V3Rx.0 Commands*. *x* is the SMP/E release and needs to correspond to the version of SMP/E that you use.

When you run the maintenance in Apply mode in the same CA MSM session after Apply check mode is completed, the values that you entered for Apply check mode are prepopulated on the wizard dialogs.

Manage Maintenance in GROUPEXTEND Mode

CA MSM lets you invoke the SMP/E utility with the GROUPEXTEND option enabled for managing (applying and accepting) maintenance.

Note: While you are working with a particular CSI, the CSI is locked and other CA MSM users cannot perform any action against it. The lock is released when the task is finished, you log out of CA MSM, or your CA MSM session has been inactive for more than ten minutes.

To manage maintenance for a product in GROUPEXTEND mode

1. Click the SMP/E Environments tab, and select the SMP/E environment from the tree at the left.

A list of products installed in the SMP/E environment appears.

Note: If you select a CSI that is being used in CA MSM by another user, a notification message appears, and you are prevented from performing any actions on the CSI. You can either wait until the notification message disappears and the CSI is available, or click Cancel to select another CSI.

2. Click the Maintenance link.

A list of maintenance packages for the products installed in the SMP/E environment appears.

3. Select the maintenance packages you want to apply in GROUPEXTEND mode, and click the Apply GROUPEXTEND link.

The Introduction tab of the wizard appears.

4. Review the information about the maintenance, and click Next.

The packages to be applied are listed.

Note: If a link in the Status column for a maintenance package is available, you can click it to review a list of zones where the maintenance package is already received, applied, or accepted. Click Close to return to the wizard.

5. Review the packages, and click Next.

The Prerequisites tab of the wizard appears.

Important! For the GROUPEXTEND option, CA MSM does not automatically receive and display prerequisites for maintenance or HOLDDATA to be bypassed when applying the maintenance. Apply check mode lets you check if any prerequisites or HOLDDATA exist and report them in the task output. We recommend that you run the maintenance in Apply check mode first.

6. Read the information on this tab, and click Next.

Installation options appear.

7. Specify installation options as follows, and click Next:
 - a. Select the installation mode for the selected maintenance.
 - b. Review the GROUPEXTEND options and select those you want to apply to the maintenance:

NOAPARS

Excludes APARs that resolve error reason ID.

NOUSERMODS

Exclude USERMODs that resolve error user ID.

- c. (Optional) Enter SYSMODs that should be excluded in the Excluded SYSMODs field. You can enter several SYSMODs separated by a comma.

The Bypass HOLDDATA tab of the wizard appears.

- c. (Optional) Enter the BYPASS options for the HOLDDATA that you want to bypass during the maintenance installation. You can enter several BYPASS options separated by a comma.

9. Click Next.

A summary of the task appears.

10. Review the summary, and click Apply GROUPEXTEND.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

- If you run the maintenance installation in Apply check mode and the task succeeds, review SMPRPT in the task output to check what SYSMODs were found and applied.
- If you run the maintenance installation in Apply check mode and the task fails, review SMPOUT in the task output to check if there are missing (not received) SYSMODs or HOLDDATA that need to be resolved or bypassed.

You can accept the maintenance (except USERMODs) in the GROUPEXTEND mode using the SMP/E Environments, Maintenance tab. As a best practice, CA MSM prevents you from accepting USERMODs.

Note: Although you cannot accept USERMODs in GROUPEXTEND mode, you can install them if they are prerequisites for the maintenance package being installed, unless you have enabled the NOUSERMODS option.

Back Out Maintenance

You can back out applied (but not accepted) maintenance packages through the SMP/E Environments tab. The process starts a wizard that guides you through the backout.

Note: While you are working with a particular CSI, the CSI is locked and other CA MSM users cannot perform any action against it. The lock is released when the task is finished, you log out of CA MSM, or your CA MSM session has been inactive for more than ten minutes.

To back out a maintenance package from a product release

1. Click the SMP/E Environments tab, and select the SMP/E environment from which you want to back out maintenance on the tree at the left.

Products installed in the environment are listed.

2. Select the product component from which you want to back out maintenance.

The features in the component are listed.

Note: If you want to back out maintenance from all the products in the environment, you can click the Maintenance tab to list all the maintenance packages for the environment.

3. Select the function from which you want to back out maintenance.

The maintenance packages for the feature are listed.

Note: You can use the Show drop-down list to show only applied packages.

4. Select the packages you want to back out, and click the Restore link.

The Introduction tab of the wizard appears.

Note: If you select a CSI that is being used in CA MSM by another user, a notification message appears, and you are prevented from performing any actions on the CSI. You can either wait until the notification message disappears and the CSI is available, or click Cancel to select another CSI.

5. Review the information about the backout, and click Next.

The packages to back out are listed.

- Review and adjust the list selections as required, and click Next.

Note: Click Select Zones to review and adjust a list of zones from where the maintenance will be restored, and click OK to confirm the selection and return to the wizard.

The Prerequisite tab of the wizard appears.

- Review the prerequisites if they exist, and click Next. CA MSM restores these prerequisites as part of the maintenance backout process.

A summary of the task appears.

- Review the summary, and click Restore.

A dialog opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to view the details of the actions. Click Close to return to the previous page.

Note: While a task is in progress, you can perform other work. You can click Hide to exit the dialog and view the task status later at the Tasks tab.

Setting System Registry

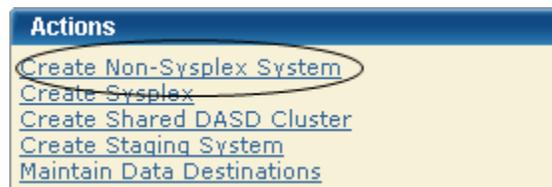
This section includes information about how to use CA MSM to set the system registry. The *system registry* contains all systems that can be selected as a target for a deployment. You can create Non-SYSPLEX, SYSPLEX, Shared DASD Cluster, and Staging systems as well as maintain, validate, view, and delete a system register, and investigate a failed validation.

Create a Non-Sysplex System

You can create a Non-Sysplex System Registry.

To create a Non-Sysplex system registry

- Click the System Registry tab, and in the Actions section click the Create Non-Sysplex link.



The New Non-Sysplex System dialog appears.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following and click Save:

Non-Sysplex System Name

Enter the Non-Sysplex System Name.

Limits: Maximum 8 characters.

Note: Sysplex and Non-Sysplex systems can have the same name. Use the Description field to differentiate between these systems.

Description

Enter the Description.

Limits: Maximum 255 characters.

CCI System ID

Enter the CCI System ID.

Limits: Maximum 8 characters.

The Non-Sysplex System is saved and its name appears as the last entry in the Non-Sysplex Systems Registry List on the right.

Note: Click Cancel to withdraw this create request.

Note: z/OS systems running under VM are treated as being in basic mode and not LPAR mode. As result, the LPAR number is null in the z/OS control block. When this is the case, the system validation output will show the following:

Property Name: z/OS LPAR Name, Value: ** Not Applicable **.

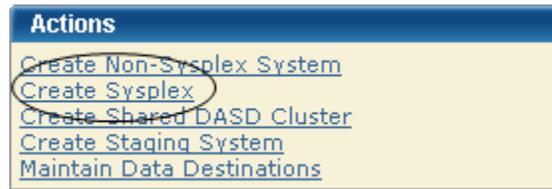
Create a Sysplex or Monoplex

You can create a Sysplex or Monoplex system registry if you have Monoplexes with the same Sysplex name (for example: LOCAL). Instead of showing multiple LOCAL Sysplex entries which would need to be expanded to select the correct Monoplex system, the CA MSM System Registry shows the actual Monoplex system name at the top level Sysplex name.

The FTP and DATA Destinations at the system level are not used when the Sysplex is a Monoplex. The only FTP Location and Data Destinations that are referenced are those defined at the Sysplex Level.

To create a Sysplex or Monoplex system registry

1. Click the System Registry tab, and in the Actions section click the Create Sysplex link.



The Sysplex System dialog appears.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following and click Save.

Name

Enter the Sysplex System Name.

Limits: Maximum 8 characters.

Description

Enter the Description.

Limits: Maximum 255 characters.

Sysplex and Non-Sysplex system can have the same name. Use the Description field to differentiate these systems.

Note: Monoplexes are stored in the Sysplex registry tree but with the name of the Sysplex system and not the Monoplex Sysplex Name. For example, a system XX16 defined as a Monoplex, with a Sysplex name of LOCAL. It will be depicted in the System Registry as a Sysplex with the name of XX16. This Sysplex will contain one system: XX16.

The Sysplex System is saved and its name appears as the last entry in the Sysplex Systems Registry List on the right.

Note: Click Cancel to withdraw this create request.

Note: z/OS systems running under VM are treated as being in basic mode and not LPAR mode. As result, the LPAR number is null in the z/OS control block. When this is the case, the system validation output will show the following

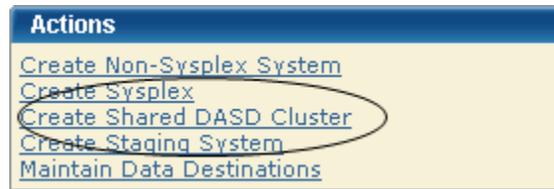
Property Name: z/OS LPAR Name, Value: ** Not Applicable **.

Create a Shared DASD Cluster

You can create a Shared DASD Cluster.

To create a Shared DASD Cluster

1. Click the System Registry tab, and in the Actions section click the Shared DASD Cluster link.



The New Shared DASD Cluster dialog appears.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following and click Save:

Name

Enter the Shared DASD Cluster Name.

Limits: Maximum 8 characters.

Note: Each Shared DASD Cluster name must be unique and it is not case-sensitive. For example DASD1 and dasd1 are the same Shared DASD Cluster name. A Staging System may have the same name as a Non-Sysplex, Sysplex, or Shared DASD Cluster.

Description

Enter the Description.

Limits: Maximum 255 characters.

The Shared DASD Cluster is saved and its name appears as the last entry in the Systems Registry Cluster List on the right.

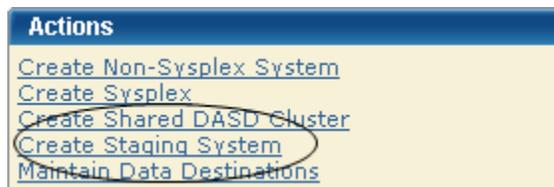
Note: Click Cancel to withdraw this create request.

Create a Staging System

You can create a Staging System.

To create a Staging System

1. Click the System Registry tab, and in the Actions section click the Create Staging System link.



The New Staging System dialog appears.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following and click Save:

Name

Enter the Staging System Name.

Limits: Maximum 8 characters.

Note: Each Staging System name must be unique and is not case-sensitive. For example STAGE1 and stage1 are the same Staging System name. A Staging System may have the same name as a Non-Sysplex, Sysplex, or Shared DASD Cluster.

Description

Enter the Description.

Limits: Maximum 255 characters.

The Staging System is saved and its appears as the last entry in the Staging Systems Registry on the right.

Note: Click Cancel to withdraw this create request.

Authorization

CA MSM supports the following authorization modes for the Systems Registry.

Edit Mode

Lets you update and change System Registry information.

Note: Once the information is changed you must click save to save the information or cancel to cancel the changed information.

View Mode

Lets you view System Registry information, but not make any changes.

Change a System Registry

You can change the system registry if you have Monoplexes with the same sysplex name (for example: LOCAL). Instead of showing multiple LOCAL sysplex entries which would need to be expanded to select the correct Monoplex system, the CA MSM System Registry shows the actual Monoplex System name at the top level Sysplex Name.

To change a system registry

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Select the system to change.

Detailed information about the system appears on the right side.

3. Update the following information as needed. The information that you update is dependent on whether you are changing a [Non-Sysplex System](#) (see page 71), [Sysplex](#) (see page 73), [Shared DASD Cluster](#) (see page 75), or [Staging System](#) (see page 76).

4. Depending on the type of system, do one of the following:

- For Shared DASD or SYSPLEX system only, select the contact system, which is the system where the Shared DASD or FTP is located. The FTP location should be set to the contact system URI. The contact system is used for remote credentials.

For example, if the contact system is set to CO11, FTP location URI is set to XX61 and the remote credentials are set up for CO11, the deployment could fail because your remote credentials might not be the same on both systems (CO11 and XX61) and, because you set the Contact System to CO11 but you are contacting to XX61, a spawn will be started on CO11 but CA MSM will look for the output on XX61 because that is where the FTP location was set.

Note: Monplexes are stored in the Sysplex registry tree but with the name of the Monoplex System and not the Monoplex Sysplex Name. For example, a system XX16 defined as a Monoplex, with a sysplex name of LOCAL. It will be depicted in the System Registry as a Sysplex with the name of XX16. This sysplex will contain one system: XX16.

The FTP and DATA Destinations at the system level are not used when the Sysplex is a Monoplex. The only FTP Location and Data Destinations that are referenced are those defined at the Sysplex Level.

- For Staging systems, enter the GIMUNZIP volume and/or zFS candidate volumes.

The zFS candidate volumes let you specify an optional list of VOLSERS used during the allocation of zFS container data sets for USS parts.

5. Select one of the following actions from the Actions drop-down list in the General bar:

Cancel

Cancel this maintenance.

Save

Save the changes to this maintenance.

Validate

Validate authenticates this entry.

Note: The validation process is done in steps; each system in this request is validated with the last step summarizing, verifying, and confirming the validation. If the validation fails this step shows how the validation failed. You can [investigate the failed validation](#) (see page 80).

Validation Rules

- For a Non-Sysplex system, that single system is validated and the last step summarizes, verifies, and confirms the validation.
- For a Sysplex system, each system within the Sysplex is validated as an individual step and the last step summarizes, verifies, and confirms the validation.
- For Shared DASD Cluster each Non-Sysplex system is validated, each Sysplex system is validated as described in the Sysplex Rule and the last step summarizes, verifies, and confirms the validation.

Note: A Staging system is not validated.

When a system is validated, the status appears in the Status field.

The following are the system validation results:

Validated

Indicates that the system is available, status is updated as valid, and system registry is updated with results from validation.

Validation in Progress

Indicates that the system status is updated to in progress.

Validation Error

Indicates that the system status is updated to error, and you can [investigate the failed validation](#) (see page 80).

Not Validated

Indicates that this system has not been validated yet.

Not Accessible

Indicates that the system has not been validated because it is no longer available or was not found in the CCI Network.

Validation Conflict

Indicates that the system has been contacted but the information entered then different than the information retrieved.

Error details

When there is a validation conflict, the Error details button appears. Click this button to find the reason for this conflict. You can [investigate the failed validation](#) (see page 80).

Note: The error reason resides in local memory. If the message *Please validate the system again* appears, the local memory has been refreshed and the error has been lost. To find the conflict again, validate this system again.

Conflict details

When a validation is in conflict, the Error details button appears. Click this button to find the reason for this conflict. You can [investigate the failed validation](#) (see page 80).

Note: The conflict reason is kept in local memory. If the "Please validate the system again." message appears, the local memory has been refreshed and the conflict has been lost. To find the conflict again, validate this system again.

Failed Validations

When a validation fails, you can investigate it, make corrections, and validate it again. Use the following procedures in this section:

- [Investigate a Failed Validation using the Tasks Page](#) (see page 80)
- [Investigate a Failed Validation Immediately After a Validation](#) (see page 81)
- [Download a Message Log](#) (see page 82)
- [Save a Message Log as a Data Set](#) (see page 82)
- [View Complete Message Log](#) (see page 83)

Note: The CA MSM screen samples in these topics use a Non-Sysplex system as an example, but the method also works for a Sysplex or a Shared DASD Cluster.

Investigate a Failed Validation Using Tasks Page

When a validation fails, you can investigate it, make corrections, and validate it again.

To investigate a failed validation using the Tasks Page

1. On the System Registry Page, in the left hand column find the system with a validation status error and make a note of it.
2. Click the Tasks tab and then click Task History.

- At the Show bar, select All task, or My task to list the tasks by Owner.
Note: You can refine the task list by entering USER ID, types, and status.
- Find the failed validation and click the link in the Name column.

The screenshot shows the 'Task History' window with a search bar at the top. Below the search bar, there are filters for 'Show: USER456', 'All types', and 'All status'. A table lists tasks with columns for Owner, Name, Type, Status, Start Time, Stop Time, and Task ID. One task is highlighted with a red box around the name 'Validating System: XX60'.

Owner	Name	Type	Status	Start Time	Stop Time	Task ID
USER456	Validating System: XX60	System Registry	Failed	1/12/2010 02:26:01PM	1/12/2010 02:26:09PM	432

The Validate System window appears.

The screenshot shows the 'Validate System: XX60' window. It has a 'General' tab and a 'Steps' tab. The 'General' tab shows details like Name, Task ID, User ID, Status, and Status message. The 'Steps' tab shows a table of task steps.

#	Name	Description	Status
1	Validating System: XX60	Validating system and retrieving values.	Succeeded
2	Validation Results	Validation results for all the systems that were validated.	Failed

- Click the Validation Results link to view the results.
- Click the messages log to review the details for each error.
Note: You can analyze the error results and determine the steps required to troubleshoot them.
- Correct the issue and validate again.

Investigate a Failed Validation After Validation

When a validation fails, you can investigate it, make corrections, and validate it again.

To investigate a failed validation immediately after Validation

- On the System Registry Page, in the left hand column, find the system with a validation status error, and make note of it.
- Click Details to see the error details.
- If the Message states *Please validate the system again*, click Validate. The system validates again.
- Click the Progress tab.
- Click Show Results to view the results.

The validation results appear.

6. Click the messages logs to review the details for each error.

Note: You can analyze the error results and determine the steps required to troubleshoot them.

7. Correct the issue and validate again.

Download a Message Log

You can save the message log in the following ways:

- To download a zipped file of all the text messages for this validation, click the Deployment Name on the top left tree and click Download zipped out button on the General menu bar. You will be requested to save this file.
- To download as TXT, click the Deployment Name or the Deployment Results on the left tree, click the Action button on the MessageLog bar and click the Download as TXT. You will be requested to save this file.
- To download as ZIP, click the Deployment Name or the Deployment Results on the left tree, click the Action button on the MessageLog bar and click the Download as ZIP. You will be requested to save this file.

Save a Message Log as a Data Set

You can save a message log as a data set.

To save as a data set

1. Click the Deployment Name or the Deployment Results on the left tree, click the Action button on the MessageLog bar, and click the Save as data set.

The Save output as a data set dialog appears.

Note: This information is sent to CA Support to analyze the failed deployment.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following and click OK:

Data Set Name

Enter a data set name. CA MSM generates a value.

Volser

For Non-SMS data, enter the Volser.

Example:

Volsers: SYSP01 and SYSP02

Storage Class

For SMS Allocation data, enter the Storage Class.

The message log is saved as a data set.

View Complete Message Log

To view the complete message log for a failed validation, click Show All.

Note: To close the message log, click Close.

Delete a System Registry

You can delete a system registry.

To delete a system registry

1. Click the System Registry tab and on the right, in the System Registry panel, select Non-Sysplex Systems, Sysplexes, Clusters, or Staging Systems.

The system list appears.

2. Click the Select box for each system registry you want to delete, click Delete, and then click OK to confirm.

The system is deleted.

FTP Locations

The FTP Locations lists the current FTP locations for this system. You can [add](#) (see page 84), [edit](#) (see page 85), [set default](#) (see page 86), or [remove](#) (see page 87) FTP locations.

An FTP location must be defined for every system. They are used to retrieve the results of the deployment on the target system regardless if the deployment was transmitted through FTP or using Shared DASD. They are also used if you are moving your deployments through FTP. You will need the URI (host system name), port number (default is 21), and the directory path, which is the landing directory. The landing directory is where the data is temporarily placed during a deployment.

Add FTP Locations

You can add FTP locations.

To add FTP locations

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Click the system name link you want to create FTP locations.

Detailed information about the system appears on the right side.

3. Click the FTP Locations tab.

The FTP Locations window appears.

4. Click Add.

The New FTP Location window appears.

Note: The asterisk indicates that the field is mandatory.

5. Enter the following and click Save:

URI

Enter the URI.

Limits: Maximum length is 255.

Port

Enter the Port.

Limits: Maximum Port number is 65535 and must be numeric.

Default: 21

Directory Path

Enter the Directory Path.

Limits: Most start with a root directory, that is /.

The new FTP location appears as the last entry on the list.

Note: Click Cancel to withdraw this create request.

More information:

[Edit FTP Locations](#) (see page 85)

[Set FTP Location Default](#) (see page 86)

[Delete FTP Locations](#) (see page 87)

Edit FTP Locations

You can edit FTP locations.

Note: The asterisk indicates that the field is mandatory.

To edit FTP locations

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Click the system link where you want to create FTP locations.

Detailed information about the system appears on the right side.

3. Click the FTP Location tab. The FTP Locations window appears.

4. Select the FTP location and select Edit on the Actions drop down. The Edit FTP Location window appears.

5. Update the following and click Save:

URI

Enter the URI.

Limits: Maximum length is 255.

Port

Enter the Port.

Limits: Maximum Port number is 65535 and must be numeric.

Default: 21

Directory Path

Enter the Directory Path.

Limits: Most start with a root directory, that is /.

The new FTP location appears as the last entry on the list.

Note: Click Cancel to withdraw this create request.

Set FTP Location Default

You can set an FTP location default.

To set an FTP location default

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Select the system link you want to set the FTP location default to.

Detailed information about the system appears on the right side.

3. Click the FTP Locations tab.

The FTP Locations window appears.

4. Select the FTP locations and select Default on the Actions drop down.

The word *Default* appears in the Default column.

Delete FTP Locations

You can remove FTP locations.

To remove FTP locations

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Select the system where you want to delete FTP locations.

Detailed information about the system appears on the right side.

3. Click the FTP Locations tab.

The FTP Locations window appears.

4. Click the Select box for each FTP location you want to remove, click Remove, and then click OK to confirm.

The FTP location is deleted from this system.

Data Destinations

The Data Destinations page lists the current data destinations for this system.

Create Data Destinations

You can create data destinations.

To create a data destination

1. Click the System Registry tab, and in the Actions section click the Maintain Data destinations link.

The Maintains Data Destinations dialog appears.

2. Click Create.

The New Data Destination dialog appears.

Note: The asterisk indicates that the field is mandatory.

3. Enter the following and click Save:

Name

Enter a meaningful Name.

Limits: Maximum 64 characters.

Note: Each data destination name must be a unique name and it is not case-sensitive. For example DATAD1 and datad1 are the same data destination name.

Description

Enter the description.

Limits: Maximum 255 characters.

Transmission Method

Select the transmission method.

Default: Shared DASD.

Mount Point

(Shared DASD only) Enter the mount point directory path, which is a directory path that must exist on the target system. The user that is doing the deployment must have write permission to this directory, as well as mount authorization on the target system.

Note: A mount user must have UID(0) or at least have READ access to the SUPERUSER.FILESYS.MOUNT resource found in the UNIXPRIV class.

Limits: Maximum 120 characters

Note: SMS is not mutually exclusive with non-SMS. They can both be specified (usually one or the other is specified though). This is where you specify allocation parameters for the deployment on a target system.

Storage Class

(Shared DASD only) Enter the Storage Class.

Limits: Maximum 8 characters

Example: SYSPRG

VOLSER

(Shared DASD only) Enter the Volser.

Limits: Maximum 6 characters

Example: SYSP01 and SYSP02

GIMUNZIP Volume

Enter the GIMUNZIP volume.

Limits: Maximum 6 characters

zFS Candidate volumes

Enter zFS Candidate volumes.

Limits: Maximum 6 characters

The zFS candidate volumes allow the specification of an optional list of VOLSERS used during the allocation of zFS container data sets for USS parts.

The new data destination appears as the last entry on the Pick data destination list.

Note: Click Cancel to withdraw this create request.

Add a Data Destination

You can add a current data destinations to an existing system.

To add a current data destination to an existing system

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Select the system you want to add data destinations.

Detailed information about the system appears on the right side.

3. Click the Data Destination tab.

The Data Destination window appears.

4. Click Add.

The Pick data destination window appears.

5. Select the data destinations you want to add and click Select.

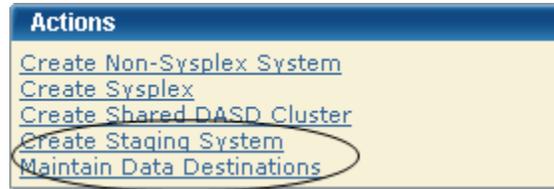
The data destination is added to the system.

Maintain Data Destinations

You can maintain, [delete](#) (see page 92), or [create](#) (see page 87) data destinations.

To maintain existing data destinations

1. Click the System Registry tab, and in the Actions section click the Maintain Data destinations link.



The Maintains Data Destinations dialog appears.

Note: A grayed select box indicates that the data destinations is assigned and cannot be removed. It can be edited.

2. Select Edit from the Actions drop down for the data destination you want to change.

The Edit Data Destinations dialog appears.

Note: The asterisk indicates that the field is mandatory.

Important! The only valid fields in the Edit Data Destinations dialog are Name, Comments, VOLSER, and the Data Destination is shared check box.

3. Update the following and click Save:

Name

Enter a meaningful Name.

Limits: Maximum 64 characters.

Note: Each data destination name must be a unique name and it is not case-sensitive. For example DATAD1 and datad1 are the same data destination name.

Description

Enter the description.

Limits: Maximum 255 characters.

Transmission Method

Select the transmission method.

Default: Shared DASD.

Mount Point

(Shared DASD only) Enter the mount point directory path, which is a directory path that must exist on the target system. The user that is doing the deployment must have write permission to this directory, as well as mount authorization on the target system.

Note: A mount user must have UID(0) or at least have READ access to the SUPERUSER.FILESYS.MOUNT resource found in the UNIXPRIV class.

Limits: Maximum 120 characters

Note: SMS is not mutually exclusive with non-SMS. They can both be specified (usually one or the other is specified though). This is where you specify allocation parameters for the deployment on a target system.

Storage Class

(Shared DASD only) Enter the Storage Class.

Limits: Maximum 8 characters

Example: SYSPRG

VOLSER

(Shared DASD only) Enter the Volser.

Limits: Maximum 6 characters

Example: SYSP01 and SYSP02

GIMUNZIP Volume

Enter the GIMUNZIP volume.

Limits: Maximum 6 characters

zFS Candidate volumes

Enter zFS Candidate volumes.

Limits: Maximum 6 characters

The zFS candidate volumes allow the specification of an optional list of VOLSERs used during the allocation of zFS container data sets for USS parts.

The updated data destination appears as the last entry on the Pick data destination list.

Note: Click Cancel to withdraw this change request.

Set a Default Data Destination

You can set a default for a current data destination.

To set a default for a current data destination

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Select the system link you want to set the data destination default to.

Detailed information about the system appears on the right side.

3. Click the Data Destination tab.

The Data Destination window appears.

4. Select the data destination that you want as the default.

5. In the Action box select Set as Default.

The word *Default* appears in the Default column.

Delete Data Destinations

You can delete current data destinations that have *not* been assigned.

Important: A grayed select box indicates that the data destination is assigned and it cannot be deleted. It can be edited.

To delete a data destinations

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree at the left.

Information about the systems related to the type you selected appears on the right side.

2. Select the system where you want to delete a data destination.

Detailed information about the system appears on the right side.

3. Click the Data Destination tab.

The Data Destination window appears.

4. Click the Select box for each data destination you want to remove, click Remove, and then click OK to confirm.

The data destination is deleted from this system.

Remote Credentials

The Remote Credentials page sets up remote credentials accounts by owner, remote user ID, and remote system name. You must use the Apply button to apply and save your changes.

Important! Remote Credentials are validated during the deployment process. It is the responsibility of the user to have the correct Owner, Remote User ID, Remote System Name, password, and authenticated authorization before creating a new remote credential.

You can [add](#) (see page 93), [edit](#) (see page 95), or [delete](#) (see page 96) remote credentials.

Add Remote Credentials

You can add remote credentials.

Important! Remote Credentials are validated during the deployment process. It is the responsibility of the user to have the correct Owner, Remote User ID, Remote System Name, password, and authenticated authorization before creating a new remote credential.

To add remote credentials

1. Click the Settings tab, and select Remote Credentials from the tree at the left.

Detailed information appears on the right side.

2. In the Remote Credentials Accounts panel, click New.

The New Remote Credential dialog appears.

3. Enter the following and click OK:

Note: The asterisk indicates that the field is mandatory.

Remote User ID

Enter a correct remote user ID.

Limits: Maximum 64 characters.

Remote System Name

Enter a correct remote system name.

Limits: Maximum 8 characters.

Example: RMinPlex

Note: A remote credential default can be set up by creating a remote credential without the system name. This default would be for the user creating this remote credentials only.

Password

Enter a correct password.

Limits: Minimum 2 characters and Maximum 63 characters.

Note: Password is case sensitive, make sure that your password follows the correct case sensitive rules for your remote system.

Confirm Password

Enter the correct confirm password.

Limits: Minimum 2 characters and Maximum 63 characters.

Note: Password is case sensitive, make sure that your password follows the correct case sensitive rules for your remote system.

The remote credential entry appears on Remote Credentials list.

4. Click Apply

Your changes are applied.

Edit Remote Credentials

You can edit remote credentials.

Important! Remote Credentials are validated during the deployment process. It is the responsibility of the user to have the correct Owner, Remote User ID, Remote System Name, password, and authenticated authorization before creating a new remote credential.

To edit remote credentials

1. Click the Setting tab, and select Remote Credentials from the tree at the left.

Detailed information appears at the right.

2. In the Actions drop down list, click Edit for the remote credential you want to edit.

The Edit Remote Credential window appears.

3. Update the following and click OK:

Note: The asterisk indicates that the field is mandatory.

Remote User ID

Enter a correct remote user ID.

Limits: Maximum 64 characters.

Remote System Name

Enter a correct remote system name.

Limits: Maximum 8 characters.

Example: RMinPlex

Note: A remote credential default can be set up by creating a remote credential without the system name. This default would be for the user creating this remote credentials only.

Password

Enter a correct password.

Limits: Minimum 2 characters and Maximum 63 characters.

Note: Password is case sensitive, make sure that your password follows the correct case sensitive rules for your remote system.

Confirm Password

Enter the correct confirm password.

Limits: Minimum 2 characters and Maximum 63 characters.

Note: Password is case sensitive, make sure that your password follows the correct case sensitive rules for your remote system.

The remote credential entry appears on Remote Credentials list.

4. Click Apply

Your changes are applied.

Delete Remote Credentials

You can delete remote credentials.

To delete remote credentials

1. Click the Setting tab, and select Remote Credentials from the tree at the left.

Detailed information appears at the right.

2. In the Actions drop down list, click Delete for the remote credential you want to delete.

A Delete Confirmation window appears.

3. Click OK.

The remote credential is deleted.

Deploying Products

This section includes information about how to use CA MSM to deploy products.

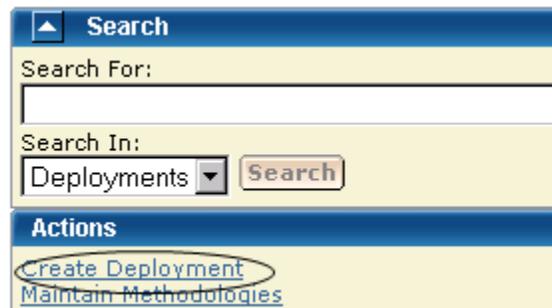
Deployments let you deploy system objects across the enterprise. These services enable deployment across both Shared DASD environments and networked environments. The objects to be deployed include target libraries defined to SMP/E and user-selected data sets.

Create a Deployment using the Product Wizard

You can create a new deployment by using the New Deployment wizard.

To create a deployment

1. Click the Deployments tab, and then in the Actions section, Create Deployment link.



The Deployment of Products wizard appears.

Enter Name and Description

Note: The asterisk indicates that the field is mandatory.

Do the following

1. Enter a meaningful deployment name.

Limits: Maximum 64 characters.

Note: Each deployment name must be unique and it is not case-sensitive. For example, DEPL1 and depl1 are the same deployment name.

2. Enter the description of this deployment.

Limits: Maximum 255 characters.

3. Click Next.

The CSI Selection window appears.

Note: When creating a deployment, you can save this deployment at any step in this wizard. This "under construction" deployment is added to the current deployments list. You can [maintain this deployment](#) (see page 105) until a successful snapshot has been created.

CSI Selection

The CSI selections listed were preselected from the SMP/E Environments window. You can select a CSI.

To select a CSI

1. Select a CSI, and click Next.

The Product Selection window appears.

Note: When creating a deployment, you can save this deployment at any step in this wizard. This "under construction" deployment is added to the current deployments list. You can [maintain this deployment](#) (see page 105) until a successful snapshot has been created.

Product Selection

To select a product

1. Select a product from the list.

Note: If you cannot select the product or product feature from the list, it is for one of the following reasons:

- The product or feature is not deployable for the selected CSI.
- The product feature is part of a product that you must select first.

If a feature is mandatory for the selected product, the corresponding check box is also selected and disabled, and you cannot deselect the feature from the list.

2. If there is a  text icon in Text column, click the text icon to read the instructions supplied by CA Support for product, data sets, and other necessary information.
3. Click the "I have read the associated text by selecting the text icon from the list about" box. This box appears only if there is a text icon.

Note: You will not be able to click Next until you click this box.

4. Click Next.

Note: If you do not see any products showing up to select that means the appropriate PTF which enables your products deployment through metadata has not been installed.

Note: When creating a deployment, you can save this deployment at any step in this wizard. This "under construction" deployment is added to the current deployments list. You can [maintain this deployment](#) (see page 105) until a successful snapshot has been created.

Custom Data Sets Selection window appears.

Custom Data Sets

A *custom data set* contains either an z/OS data set or USS parts paths. For an z/OS data set you need to provide a data set name that is the actual existing z/OS data set and a mask that names the data set on the target system. This mask may be set up using [symbolic qualifiers](#) (see page 125) and must be available to CA MSM. During the deployment process, the custom data set is accessed and copied to the target system the same way a target library is accessed and copied.

For USS parts you need to provide a local path, a remote path which may be set up using [symbolic qualifiers](#) (see page 125) and type of copy. Type of copy can be either a container copy or a file-by-file copy.

To select a custom data set

1. Select a custom data set from the list. Click Select and then Next.

Note: To add a new custom data set click the Add Data Set button and [enter the custom data set information](#) (see page 116).

The Methodology Selection window appears.

More information:

[Add a Custom Data Set](#) (see page 116)

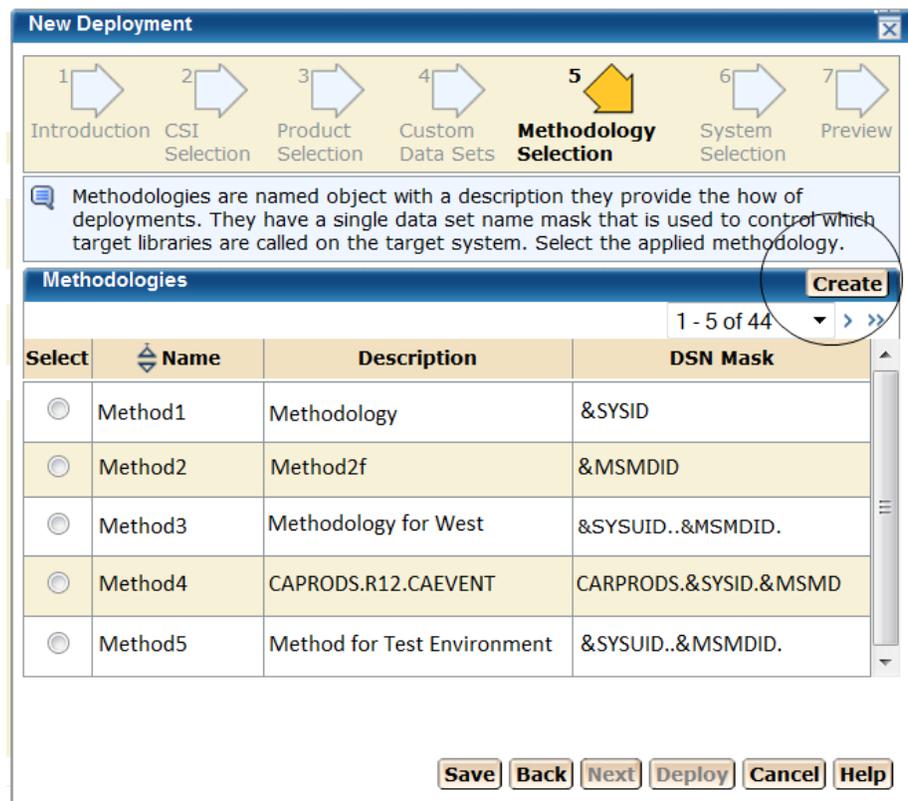
Methodology Selection

The methodology lets you provide a single data set name mask that is used to control the target library names on the target system.

To select a Methodology

1. Select a Methodology from the list and click Next.

Note: To create a new methodology click the Create button and [enter the new methodology information](#) (see page 123).



System Selection window appears.

Note: When creating a deployment, you can save this deployment at any step in this wizard. This "under construction" deployment is added to the current deployments list. You can [maintain this deployment](#) (see page 105) until a successful snapshot has been created.

More information:

[Create a Methodology](#) (see page 123)

System Selection

1. Select the systems to be deployed

Note: When two system have the same name use the description to differentiate between these systems.

Note: Sysplex systems are denoted by Sysplex System:System Name. For example PLEX1:CO11 where PLEX1 is Sysplex name and CO11 is the system name.

2. Click Next.

The Preview window appears.

Note: When creating a deployment, you can save this deployment at any step in this wizard. This "under construction" deployment is added to the current deployments list. You can [maintain this deployment](#) (see page 105) until a successful snapshot has been created.

Preview

1. Click Save to save the deployment

or

2. Click Deploy to set up this deployment.

Note: Click Cancel to exit this procedure without saving.

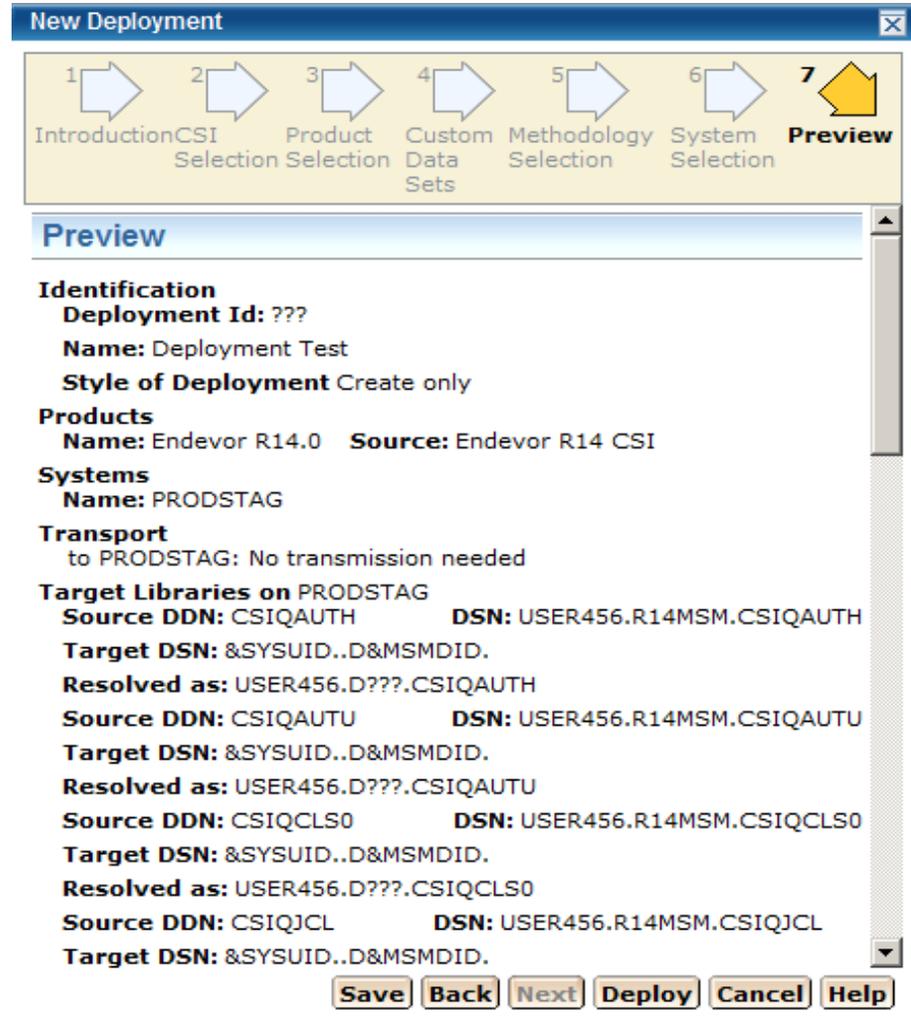
The Preview identifies the deployment by name and briefly states the products, systems, means of transport, target libraries including source, target and resolution, as well as SMP/E environment and snapshot information.

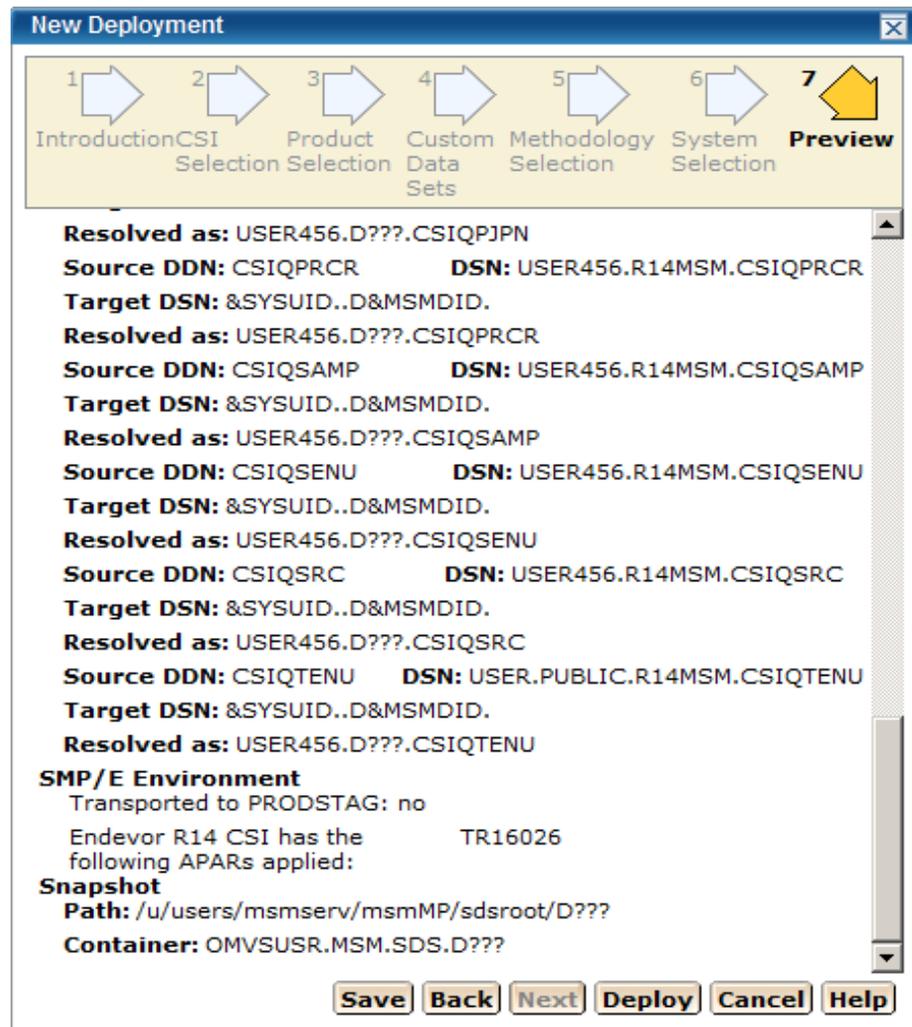
Important! Data sets may need to be APF Authorized and/or added to the Link List and/or Link Pack Area. These data sets are identified in this dialog.

Note: Any ??? in the Preview means that CA MSM has not assigned this value yet. For example, before a Product Deployment is deployed the MSMDID shows as ???. After deployment the Automatic ID is assigned by CA MSM and this is the MSMDID.

Deployment Preview Sample

The following samples show a deployment ready to be deployed.





View a Deployment

You can view a deployment by using the CA MSM.

To view a deployment, click the Deployments tab, and select the current or completed deployment from the tree at the left. The detailed deployment information appears at the right.

Change Deployments

You can change deployments any time before you snapshot the deployment.

Important! Each deployment must have at least one product defined, at least one system defined, and a methodology defined.

To change deployments

1. Click the Deployments tab. The Deployment window appears.
2. On the right, in the Deployments panel click the current deployment link.
The detailed deployment information appears.
3. Click the Deployment Name link for the Deployment you want to change.
This deployment's window appears.

Change the information on this window as needed. Each deployment name must be unique and it is not case-sensitive. For example DEPL1 and depl1 are the same deployment name.

Note: The methodology provides the means for deployment. It is used to control the target library names on the target system.

There are actions that you can perform based on Deployment State.

4. To change a methodology, select a methodology from the drop down list and click Edit.

The [Edit Methodology window](#) (see page 135) appears. The Deployment ID is the value of the MSMID variable.

Note: You can perform the following actions:

- You can select, [add](#) (see page 114), or [remove](#) (see page 115) a product, and .
 - You can select, [add](#) (see page 138), or [remove](#) (see page 139) a system.
 - You can select, [add](#) (see page 116), or [remove](#) (see page 122) a custom data set.
5. Click Save on the Deployment Details window.

6. Click Actions drop-down list to do one of the following:

Preview (Summary)

Note: This action button changes to Summary after a successful deploy.

Generates a list of the following current information:

- Deployment's ID
- Name
- Products
- Systems
- Transport information
- Target libraries including: source, target, and resolved data set names.
- SMP/E environment
- Snapshot path and container

Snapshot

Takes a snapshot of the current deployment.

A *snapshot* of the set of target libraries is taken by CA MSM, by utilizing the IBM supplied utility GIMZIP to create a compressed archive of these libraries, along with a list of applied maintenance. The SMP/E environment is "locked" during this archive creation process to insure the integrity of the archived data.

Transmit

Transmit enables a customer to take their CA MSM installed software and copy it onto systems across the enterprise through FTP, in preparation for a subsequent deployment.

Deploy

Combines the snapshot, transmit, and deploy action into one action.

Confirm (see page 112)

Confirms that the deployment is complete. This is the final action by the user.

Note: A deployment is not completed until it is confirmed. Once it is confirmed the deployment moves to the Confirmed deployment list.

Delete

Deletes deployment and its associated containers, folders, and files. This does not including the deployed target libraries on the end systems. See delete a deployment for a list of deleted files.

Note: A deployment's deletion does not start until it is confirmed.

Reset Status

You can reset a deployment status when the deployment has a status of *snapshot in progress*, *transmitting*, or *deploying*. See reset status for a list of deleted files.

7. Click Save on the Deployment Details window.

Your changes are saved.

More information:

[Edit a Methodology](#) (see page 135)

[Add a Product](#) (see page 114)

[Remove a Product](#) (see page 115)

[Add a System](#) (see page 138)

[Remove a System](#) (see page 139)

[Confirm a Deployment](#) (see page 112)

Failed Deployments

When a deployment fails, you investigate, correct, and deploy again. Use the following procedures in this section:

- [Investigate a Failed Deployment Using the Tasks Page](#) (see page 108)
- [Download a Message Log](#) (see page 82)
- [Save a Message Log as a Data Set](#) (see page 82)
- [View Complete Message Log](#) (see page 83)

Note: A deployment is processed in steps and in order as listed in the Deployment window. Each step must pass successfully before the next step is started. If a step fails, the deployment fails at that step, and all steps after the failed step are not processed.

More information:

[Download a Message Log](#) (see page 82)

[Save a Message Log as a Data Set](#) (see page 82)

[View Complete Message Log](#) (see page 83)

Investigate a Failed Deployment

When a deployment fails, you investigate, correct, and deploy again.

To investigate a failed deployment using the Tasks page

1. On the Deployments Page, in the left hand column, find the deployment with an error and note its name.
2. Click the Tasks tab and then click Task History.

Note: Click Refresh on the right hand side of the Task History bar to refresh the Task History display.

3. At the Show bar, select All tasks, or select My tasks to list the tasks by Owner.

Note: You can refine the task list by entering USER ID, types, and status, and then sort by Task ID.

4. Find the failed deployment step and click the link in the Name column.

The Task Manager window appears.

#	Name	Description	Status
1	Validate deployable state	Validate that the deployment is in a state that can be deployed	Succeeded
2	Deployment Update Status: Snapshot In Progress	Update the deployment status of the deployment	Succeeded
3	Validate remote systems	Validate that the remote systems are valid, including contact systems	Succeeded
4	Lock CSIs in deployment	Serialize access to the CSIs in this deployment	Failed
5	Validate deployment	Validate the deployment settings	Not Started
6	Archive creation	Creating archives for products	Not Started
7	SYSMODS Extraction	Extracting SYSMODS from CSIs	Not Started
8	Freeze deployment	Creating a permanent location for this deployment	Not Started
9	Record target library names	Record the target libraries used by the deployment	Not Started
10	Unlock CSIs in this deployment	Release the serialization of CSIs in this deployment	Not Started
11	Deployment Update Status: Snapshot Completed	Update the deployment status of the deployment	Not Started
12	Deployment Update Status: Deploying	Update the deployment status of the deployment	Not Started
13	Deploy Products	Deploy the product libraries on the target systems	Not Started
14	Deployment Update Status: Deployed	Update the deployment status of the deployment	Not Started

5. Click the link in the Name column to view the results, and click on the messages logs to review the details for each error.

Note: You can analyze the error results and determine the steps required to troubleshoot them.

6. Correct the issue and deploy again.

More information:

[Download a Message Log](#) (see page 82)

[Save a Message Log as a Data Set](#) (see page 82)

[View Complete Message Log](#) (see page 83)

Download a Message Log

You can save the message log in the following ways:

- To download a zipped file of all the text messages for this validation, click the Deployment Name on the top left tree and click Download zipped out button on the General menu bar. You will be requested to save this file.
- To download as TXT, click the Deployment Name or the Deployment Results on the left tree, click the Action button on the MessageLog bar and click the Download as TXT. You will be requested to save this file.
- To download as ZIP, click the Deployment Name or the Deployment Results on the left tree, click the Action button on the MessageLog bar and click the Download as ZIP. You will be requested to save this file.

Save a Message Log as a Data Set

You can save a message log as a data set.

To save as a data set

1. Click the Deployment Name or the Deployment Results on the left tree, click the Action button on the MessageLog bar, and click the Save as data set.

The Save output as a data set dialog appears.

Note: This information is sent to CA Support to analyze the failed deployment.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following and click OK:

Data Set Name

Enter a data set name. CA MSM generates a value.

Volser

For Non-SMS data, enter the Volser.

Example:

Volsers: SYSP01 and SYSP02

Storage Class

For SMS Allocation data, enter the Storage Class.

The message log is saved as a data set.

View Complete Message Log

To view the complete message log for a failed validation, click Show All.

Note: To close the message log, click Close.

Delete a Deployment

You can delete deployments. A deployment's deletion must be confirmed before a deletion starts.

Note: If system information was changed, not all files may be deleted. In this case you may need to delete these files manually. For example, if an FTP transmission was changed to an Shared DASD Cluster or if the remote credentials are incorrect or changed.

The message log explains which containers, folders, and files were deleted during processing and which ones were not deleted. See how to [investigate a failed deployment](#) (see page 80) for details on finding the message log.

Note: Target libraries are never deleted.

The following artifacts are deleted by status.

Under Construction

All applicable database records

Snapshot in Error

All applicable database records

Snapshot Completed

Archive located at Application Root/sdsroot/Dnnnn where *n* = Deployment ID automatic number. Application Root is defined in settings under mount point management.

All applicable database records.

Transmit in Error

Same as Snapshot Completed, plus attempts to delete any transmitted snapshots on target systems.

Transmitted

Same as Transmit in Error.

Deploy in Error

Same as Transmitted.

Deployed

Same as Snapshot Completed.

Complete

Same as Snapshot Completed.

To delete a deployment

1. Click the Deployments tab.
The Deployment window appears.
2. On the right, in the Deployments panel, click the current deployment link.
The detailed deployment information appears.
3. Click the deployment name link, and from the Actions drop down list, select Delete, and then click OK to confirm.
The deployment is deleted.

Delete a Completed Deployment

You can delete a completed deployment.

To delete a completed deployment

1. Click the Deployments tab.

The Deployment window appears.

2. On the right, in the Deployments panel click the Completed Deployments link.

A list of completed deployments appears.

3. Select the completed deployment you want to delete, click Delete, and then OK to the Delete confirmation window.

The completed deployment is deleted.

Confirm a Deployment

You can use this procedure to confirm that the deployment is complete.

Note: A deployment is not completed until it is confirmed. After it is confirmed, the deployment moves to the Completed deployment list.

Important! Data sets may need to be APF Authorized and/or added to the Link List and/or Link Pack Area. These data sets are identified in this dialog.

To confirm a deployment

1. Click Confirm and Confirmation Dialog window appears.

Review the confirmation.

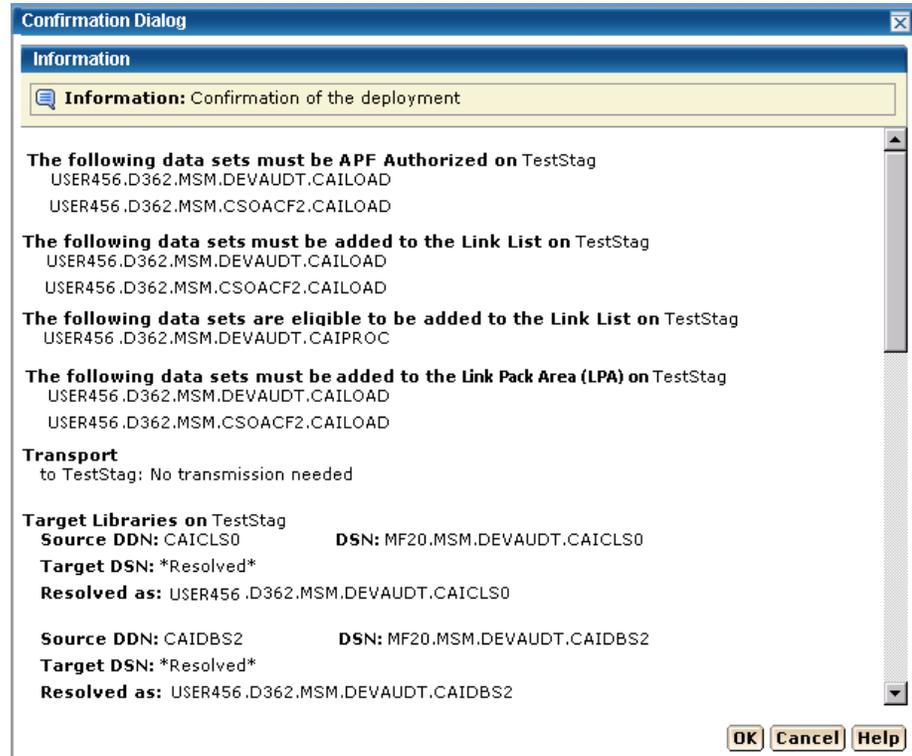
2. Click OK when the deployment is correct.

Note: Click Cancel to exit this procedure without confirming.

The Deployment Summary window contains none or any of the following:

- Deployment's ID
- Name
- Products
- Systems
- Data Sets actions
- Transport information
- Target libraries including: source, target, and resolved data set names.
- SMP/E environment
- Snapshot path and container

The following example shows the Data Sets actions, Transport, and Target libraries information.



Products

You can view, add, and remove products from a deployment.

Add a Product

You can add a product to a deployment.

To add a product to a deployment

1. Click the Deployments tab. The Deployments window appears.
2. On the right, in the Deployments panel click the Current Deployment link.
A list of current deployments appears.
3. Click the deployment name link.
4. In the Product List panel click Add Products.
The Add Products wizard appears.

5. Select a CSI and click Next.
The Product Selection appears.
6. Select a Product.
7. If there is a  text icon in Text column, click the text icon to read the instructions supplied by CA Support for product, data sets, and other necessary information.
8. Click the "I have read the associated text by selecting the text icon from the list about" box. This box appears only if there is a text icon.
Note: You will not be able to click Next until you click this box.
9. Click Next.
The Custom Data Set Selection appears
10. If needed, select or [add a custom data set](#) (see page 116).
11. Click Add Products.
The Product is added.

Remove a Product

You can remove a product from a deployment.

Note: This product will no longer be associated with the current deployment.

To remove a product from a deployment

1. Click the Deployments tab. The Deployment window appears.
2. On the right, in the Deployments panel click the Current Deployment link.
A list of current deployments appears.
3. Select the deployment that you want to remove the product from.
4. In the Product List panel, select a product to remove.
5. Click the Remove link.
6. Click OK to the Remove Products confirmation window.
The product is removed.

Custom Data Sets

You can view, [add](#) (see page 116), [edit](#) (see page 119), and [remove](#) (see page 122) custom data sets from a deployment.

Add a Custom Data Set

You can add custom data sets to a deployment.

To add custom data sets to a deployment

1. Click the Deployments tab.

The Deployments window appears.

2. On the right, in the Deployments panel, click the Current Deployment link.

A list of current deployments appears.

3. Click the deployment name link.

4. In the Custom Data Sets List panel, click Add Data Sets.

The Add Custom Data Sets dialog appears.

Note: The asterisk indicates that the field is mandatory.

5. Select a Product from the drop down list.

Note: When there are instructions, they are required and supplied by CA Support.

6. Select the Data Set Type, either data set (step 7) or USS (step 10).

Default: data set

7. For data set, enter the Data Set Name.

Limits: Maximum 44 characters.

Note: This is the existing z/OS data set name that you want CA MSM to include in the deployment when it is deployed on the target systems.

8. Enter the Data Set Name Mask and/or click the file icon and select a [symbolic name](#) (see page 125).

Mask

This is the mask that will be used to name the data sets that are being deployed. They can contain [symbolic qualifiers](#) (see page 125). For example, if you enter CAPRODS.&SYSID, the &SYSID is replaced by its values, and if the SYSID that is being deployed to is XX16, the dsn mask will be CAPRODS.XX16

Limits: Maximum 64 characters.

Each deployed target data set is named using the resolved content of the Data Set Name Mask followed by the low level qualifier of the source data set. Appending the low level qualifier from the source data set insures uniqueness of the final data set name.

Note: Two consecutive periods are required to separate the two masks.

It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When it is translated it has a maximum length of 44 characters including the periods.

9. Enter the Mask and click OK.
10. For USS data set type, enter the Local Path. The local path is the directory where files are to be copied from.
Limit: Maximum 255 characters.
Note: The asterisk indicates that the field is mandatory.
11. Enter the Remote Path and/or click the file icon and select a [symbolic name](#) (see page 125). The remote path is the path where the files are to be copied to.

Limit: Maximum 255 characters.

12. Select the Type of Copy:
 - If you select Container Copy, proceed to step 14.
 - If you select File-by-file Copy, proceed to step 15, and ensure that the USS path exists on all of the remote systems of this deployment, and that there is sufficient space to hold these target libraries.

Default: File-by-file Copy

13. Click OK.

14. For Container Copy, enter the container name and/or click the file icon and select a [symbolic name](#) (see page 125).

Limit: Maximum 64 characters.

Note: It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When it is translated, it has a maximum length of 44 characters, including the periods.

Note: For Container Copy, the following occurs during the deployment process:

- a. A file system of the requested type is created.
- b. The size of the file system is computed as follows:
 - The size of all of the constituent files and directories in the local path are added up as bytes.
 - These bytes are converted to tracks and used as the primary allocation value.
 - If there is a non-zero percent of free space entered, it is used to calculate the secondary allocation.
- c. All of the directories in the mount point are dynamically created.
- d. The file system is mounted at the requested mount point.

Note: The mount is not permanent. You will need to update your BPXPARMS to make this mount point permanent.
- e. The content from the local path is copied into the newly created and mounted file system.

Note: The asterisk indicates that the field is mandatory.

15. Select the Type of Container from the drop-down list.

16. Enter the Mount Point and/or click the file icon and select a [symbolic name](#) (see page 125).

Limit: Maximum 255 characters.

Note: The container is created and it is mounted at a position in the USS file system hierarchy. The place in the hierarchy where it is mounted is known as that container's mount point. Most leaves in the USS file system can be mount points, for any one container.

17. Enter the percentage of Free Space needed.

The percentage of free space is the amount of space to leave in the file system, after the size has been computed. This is done by specifying secondary space on the allocation. For example, the computed space was determined to be 100 tracks. Then 35 would be 35% free space and the space allocations would be in tracks, 100 primary 35 secondary. While 125 would be 125% over and allocation would be in tracks, 100 primary 125 secondary.

Limit: 0 to 1000.

18. Click OK.

The custom data set is added.

Edit a Custom Data Set

You can edit a custom data set.

To edit a custom data set

1. Click the Deployments tab.

The Deployments window appears.

2. On the right, in the Deployments panel, click the Current Deployment link.

A list of current deployments appears.

3. Click the deployment name link.

4. In the Custom Data Sets List panel, click the Actions drop-down list and click Edit.

The Edit Custom Data Sets dialog appears.

Note: The asterisk indicates that the field is mandatory.

5. Select a Product from the drop down list.

Note: When there are instructions, they are required and supplied by CA Support.

6. Select the Data Set Type, either data set (step 7) or USS (step 10).

Default: data set

7. For data set, enter the Data Set Name.

Limits: Maximum 44 characters.

Note: This is the existing z/OS data set name that you want MSM to include in the deployment when it is deployed on the target systems.

8. Enter the Data Set Name Mask and/or click the file icon and select a [symbolic name](#) (see page 125).

Mask

This is the mask that will be used to name the data sets that are being deployed. They can contain [symbolic qualifiers](#) (see page 125). For example, if you enter CAPRODS.&SYSID, the &SYSID is replaced by its values, and if the SYSID that is being deployed to is XX16, the dsn mask will be CAPRODS.XX16

Limits: Maximum 64 characters.

Each deployed target data set is named using the resolved content of the Data Set Name Mask followed by the low level qualifier of the source data set. Appending the low level qualifier from the source data set insures uniqueness of the final data set name.

Note: Two consecutive periods are required to separate the two masks.

It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When it is translated it has a maximum length of 44 characters including the periods.

9. Enter the Mask and click OK.
10. For USS data set type, enter the Local Path. The local path is the directory where files are to be copied from.
Limit: Maximum 255 characters.
Note: The asterisk indicates that the field is mandatory.
11. Enter the Remote Path and/or click the file icon and select a [symbolic name](#) (see page 125). The remote path is the path where the files are to be copied to.

Limit: Maximum 255 characters.

12. Select the Type of Copy:
 - If you select Container Copy, proceed to step 14.
 - If you select File-by-file Copy, proceed to step 15, and ensure that the USS path exists on all of the remote systems of this deployment, and that there is sufficient space to hold these target libraries.

Default: File-by-file Copy

13. Click OK.

14. For Container Copy, enter the container name and/or click the file icon and select a [symbolic name](#) (see page 125).

Limit: Maximum 64 characters.

It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When it is translated it has a maximum length of 44 characters including the periods.

For container copy the following occurs during the deployment process:

- a. A file system of the requested type is created
- b. The size of the file system is computed as follows:
 - The size of all of the constituent files and directories in the local path are added up as bytes.
 - These bytes are converted to tracks and used as the primary allocation value
 - If there is a non-zero percent of free space entered, it is used to calculate the secondary allocation.
- c. All of the directories in the mount point will be dynamically created.
- d. The file system will be mounted at the requested mount point

Note: The mount is not permanent. You will need to update your BPXPARMS to make this mount point permanent.
- e. The content from the local path will be copied into the newly created and mounted file system.

Note: The asterisk indicates that the field is mandatory.

15. Select the Type of Container from the drop down list.

16. Enter the Mount Point and/or click the file icon and select a [symbolic name](#) (see page 125).

Limit: Maximum 255 characters.

Note: The container is created and it is mounted at a position in the USS file system hierarchy. The place in the hierarchy where it is mounted is known as that container's mount point. Most leaves in the USS file system can be mount points, for any one container.

17. Enter the percentage of Free Space needed.

The percentage of free space is the amount of space to leave in the file system, after the size has been computed. This is done by specifying secondary space on the allocation. For example, the computed space was determined to be 100 tracks. Then 35 would be 35% free space and the space allocations would be in tracks, 100 primary 35 secondary. While 125 would be 125% over and allocation would be in tracks, 100 primary 125 secondary.

Limit: 0 to 1000.

18. Click OK.

The custom data set is changed.

Remove a Custom Data Set

You can remove a custom data set from a deployment.

Note: This data set will no longer be associated with the current deployment.

To remove a custom data set

1. Click the Deployments tab.

The Deployment window appears.

2. On the right, in the Deployments panel click the Current Deployment link.

A list of current deployments appears.

Product Name Sort Arrows

Click the up arrow to place the product names in alphabetic order or click the down arrow to place them in reverse alphabetic order.

3. Select the custom data set that you want to remove from this deployment.
4. Click the Remove link.
5. Click OK to the Remove Custom Data Set confirmation window.

The custom data set is removed.

Methodologies

You can [create](#) (see page 123), maintain, [edit](#) (see page 135), and [delete](#) (see page 138) methodologies from a deployment.

Create a Methodology

You can create a methodology.

Note: The asterisk indicates that the field is mandatory.

To create a methodology

1. Click the Create button, in the Methodology Selection in the New Deployment wizard.

The Create a New Methodology dialog appears.

2. Enter the methodology name.

Limits: Maximum 64 characters.

Note: Each methodology name must be unique and it is not case-sensitive. For example Meth1 and meth1 are the same methodology name.

3. Enter the description of this methodology.

Limits: Maximum 255 characters.

4. Enter the data mask name and/or click the file icon and select a [symbolic name](#) (see page 125).

Data Set Name Mask

This is the mask that will be used to name the data sets that are deployed. They can contain [symbolic qualifiers](#) (see page 125). For example, assume you enter, CAPRODS.&SYSID. In this case, the &SYSID will be replaced by its values. If the SYSID that is being deployed to is X16, the dsn mask will be: CAPRODS.X16

Limits: Maximum 64 characters.

Note: Each deployed target data set will be named using the resolved content of the Data Set Name Mask followed by the low-level qualifier of the source data set. Appending the low-level qualifier from the source data set help ensures uniqueness of the final data set name.

It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When it is translated, it has a maximum length of 44 characters including the periods.

5. Select a style of Deployment.

Create only

Creates new data sets.

Note: Prior to creating any data sets on the remote system, a check is made, to see if the data sets already exist. The deployment is not allowed to continue if this occurs.

Create or Replace

If you select *Create or Replace* and the target data sets do not exist, they will be created. If the target data sets exist, *Create or Replace* indicates that data in the existing data set, file or directory will be replaced.

Partitioned data set

Create or Replace indicates that existing members in a partitioned data set will be replaced by members with the same name from the source file. Any currently existing member that is not in the source file will remain in the PDS. Any member from the source that does not already exist in the target PDS will be added to the target PDS.

The amount of free space in the PDS will need to be sufficient to hold the additional content, since no automatic compress will be done.

Directory in a UNIX file system

Create or Replace indicates files in a directory will be replaced by files with same name from the source. Any currently existing directory in a UNIX file system that is not in the source will remain in the UNIX file system.

Sequential data set or a file in the UNIX file system

Create or Replace indicates the existing data set or file and its attributes will be replaced with the data from the source file.

For a VSAM data set (cluster)

Create or Replace indicates that an existing VSAM cluster should be populated with the data from the source file.

Note: The existing VSAM cluster must be of the same type as the source cluster (ESDS, KSDS, LDS, or RRDS), and it must have characteristics that are compatible with the source cluster (such as, record size, key size, and key offset). Replace does not verify the compatibility of these characteristics!

To replace the contents of an existing cluster, the cluster is altered to a reusable state by using an IDCAMS ALTER command, if necessary, before the data from the VSAM source is copied into the cluster by using an IDCAMS REPRO command. The REPRO command will use both the REPLACE and REUSE operands. Following the REPRO operation, the cluster is altered back to a non-reusable state if that was its state to begin with.

6. Click Save.

The methodology is saved.

Note: Click Cancel to close this dialog without saving.

Symbolic Qualifiers

The symbolic qualifiers with description for the Data Set Name Mask and the Directory Path follow.

Data Set Name Mask

Data Set Name Mask is a unique name that identifies each data set. It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When the Data Set Name Mask is translated it has a maximum length of 44 characters including the periods.

Directory Path

Directory Path is a USS path name, it consists of one or more directory leaves separated by forward slashes, and has a maximum input length of 255 characters including slashes. When the Directory Path is translated it has a maximum length of 255 characters.

Symbolic Substitution

Symbolic substitution, or translation, is a process performed by CA MSM to resolve the mask values specified in the Data Set Name Mask and Directory Path, into real names based upon the contents of the symbolic variables at translation time. A CA MSM symbol is defined in the list of symbols. Each symbol begins with an ampersand (&) and ends with a period (.). For example, the symbol &LYMMDD. would be completely replaced with its value at translation time, including the ampersand and trailing period. The trailing period is important and is considered part of the symbolic name.

Symbolic Variables

You can use symbolic variables in the construction of a data set name with the value of the symbolic variable to end a dataset name segment.

Example: Assume MSMDID is 255.

SYSWORK.D&MSMDID..DATASET

Note: The double periods are necessary because the first period is part of the symbolic name, and therefore does not appear in the translated value.

The final data set name is SYSWORK.D255.DATASET.

Numeric Values

Some CA MSM symbolic names translate to numeric values. In the case where you want to use one of these symbolic variables in your data set name, you may have to precede it with an alpha constant. This is because z/OS data set naming rules do not allow a data set name segment to start with a numeric.

If you wanted to use a date value in your translated data set name, you could use one of the CA MSM defined date symbolic qualifiers such as &LYYMMDD. You must be careful how you construct the data set mask value.

Example: Assume that you want to have a middle level qualifier to have a unique value based upon the date of April 1, 2010.

Mask = SYSWORK.D&LYYMMDD..DATASET, translates to
SYSWORK.D100401.DATASET

An incorrect specification of the mask would be:

SYSWORK.&LYYMMDD..DATASET, translates to
SYSWORK.100401.DATASET. Because the middle-level qualifier starts with a numeric it is an invalid data set name.

Directory Paths

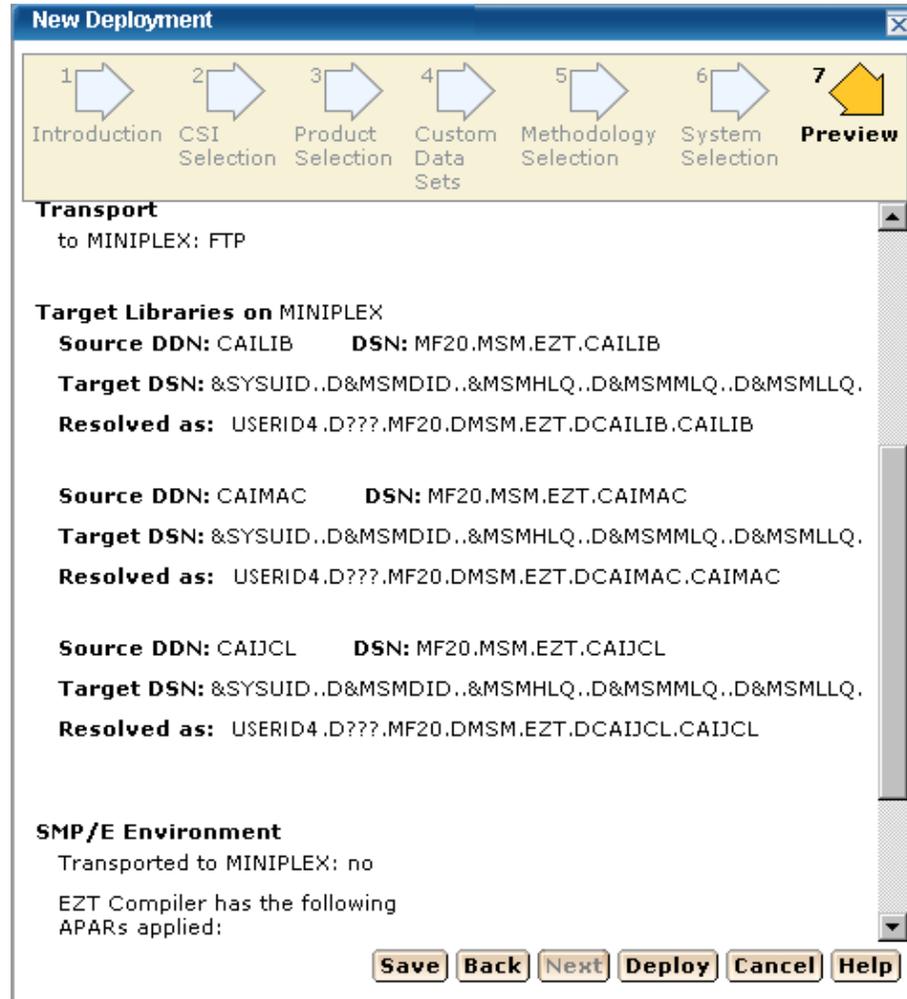
Symbolic substitution works in the same logical way for directory paths. However, directory paths do not typically have periods in them, so you will typically not see the double dots in directory paths.

Example: Assume the target system is SYSZ.

/u/usr/&MSMSYSNM./deployments translates to
/u/usr/SYSZ/deployments.

Preview Example

Note: Before a Product Deployment is deployed, the MSMDID shows as ???. After deployment, the Automatic ID is assigned and this is the MSMDID.



Symbolic Qualifiers

ID and System Information

MSMDID

This is the MSM Deployment ID.

Limits: This is automatically assigned by MSM when the Deploy button is clicked or when a deployment is saved.

MSMMPN

This is the MSM Mount Point Name. The value is entered into the mount point name field when [adding a custom data set](#) (see page 116) with both the USS radio button and the Container copy radio button set. It is of primary value in remote path.

Note: The Mount Point Name field can contain symbols when it is translated first, the value of the MSMMPN. variable is resolved.

Example: Assume the value of MSMDID is 253 and the user entered the following information.

Mount point name: /u/users/deptest/R&MSMDID./leaf

Remote path: &MSMMPN.

The translated value of &MSMMPN is /u/users/deptest/R253/leaf

MSMSYSNM

This is the MSM system object name.

SYSCLONE

This is the shorthand name of the system.

Limits: Maximum 2 characters.

SYSNAME

This is the system name entered when a Non-Sysplex System, Sysplex, Shared DASD Cluster, or Staging System is created.

SYSPLEX

This is the system name entered when a Sysplex is created.

Note: This symbolic may not be used for a Non-SYSPLEX system.

SYSUID

The current user ID.

Target Libraries**MSMHLQ**

MSMHLQ is the high-level qualifier for the target library.

Limits: It is the characters before the first period in a fully qualified data set name. The high-level qualifier can be from 1 to 8 characters.

Example: For the data set johnson.finance.division.script, the high-level qualifier is johnson.

MSMMLQ

MSMMLQ is the middle-level qualifier for the target library.

Limits: It is the characters after the first period and before the last period in a fully qualified data set name. The middle-level qualifier size can vary based on the number of qualifiers defined.

Example: For the data set johnson.finance.division.script, the middle-level qualifier is finance.division.

MSMLLQ

MSMLLQ is the low-level qualifier for the target library.

Limits: It is the characters after the last period in a fully qualified data set name. The low-level qualifier can be from 1 to 8 characters.

Example: For the data set johnson.finance.script, the low-level qualifier is script.

MSMSLQ

This is the secondary low-level qualifier for the target library and it is the "segment" of the data set name just before the low-level qualifier (MSMLLQ).

Limits: It is the characters after the last period in a fully qualified data set name. The low-level qualifier can be from 1 to 8 characters.

Example: For the data set johnson.finance.second.script, the low-level qualifier is second.

MSMPREF

This is the target library prefix. The target library prefix is the entire data set name to the left of the last the MSMLLQ.

Example: For the data set johnson.finance.division.script the prefix is johnson.finance.division

MSMDLIBN

The deployed library number is a unique number, for each deployed library, within a deployment.

Example: Assume 3 target libraries in a deployment.

DSN = USER456.LIBR473.CAIPROC

DSN = USER456.LIBR473.CAILOAD

DSN = USER456.LIBR473.CAIEEXEC

Assume the methodology specified a mask of:

&SYSUID..D&MSMDID..LIB&MSMDLIBN

Assume USERID is USER789, and the deployment ID is 877, then the resolved DSNs would be,

Deployed Library = USER789.D877.LIB1.CAIPROC

Deployed Library = USER789.D877.LIB2.CAILOAD

Deployed Library = USER789.D877.LIB3.CAIEEXEC

Local Date and Time**LYYMMDD**

This is the local two-digit year.

YY two-digit year

MM two-digit month (01=January)

DD two-digit day of month (01 through 31)

Example: 100311

LYR2

This is the local two-digit year.

LYR2 two-digit year

Example: 10

LYR4

This is the local four-digit year.

LYR4 four-digit year

Example: 2010

LMON

This is the local month.

LMON two-digit month (01=January)

Example: 03

LDAY

This is the local day of the month.

LDAY two-digit day of month (01 through 31)

Example: 11

LJDAY

This is the local Julian day.

LJDAY three-digit day (001 through 366)

Example: The Julian day for January 11th is 011.

LWDAY

This is the local day of the week.

LWDAY is three characters in length. The days are MON, TUE, WED, THR, FRI, SAT, and SUN.

Example: MON

LHHMMSS

This is the local time in hours, minutes, and seconds.

HH two digits of hour (00 through 23) (am/pm NOT allowed)

MM two digits of minute (00 through 59)

SS two digits of second (00 through 59)

Example: 165148

LHR

This is the local time in hours.

LHR two-digits of hour (00 through 23) (am/pm NOT allowed)

Example: 16

LMIN

This is the local time in minutes.

LMIN two-digits of minute (00 through 59)

Example: 51

LSEC

This is the local time in seconds.

LSEC two-digits of second (00 through 59)

Example: 48

UTC Date and Time

Coordinated Universal Time is abbreviated UTC.

YYMMDD

This is the UTC date.

YY two-digit year

MM two-digit month (01=January)

DD two-digit day of month (01 through 31)

Example: 100311

YR2

This is the UTC two digit year.

YR2 two-digit year

Example: 10

YR4

This is the UTC four digit year.

YR4 four-digit year

Example: 2010

MON

This is the UTC month.

MON two-digit month (01=January)

Example: 03

DAY

This is the UTC day of the month.

DAY two-digit day of month (01 through 31)

Example: 11

JDAY

This is the UTC Julian day.

JDAY three-digit day (001 through 366)

Example: The Julian day for January 11th is 011.

WDAY

This is the UTC day of the week.

WDAY is three characters in length. The days are MON, TUE, WED, THR, FRI, SAT, and SUN.

Example: MON

HHMMSS

This is the UTC time in hours, minutes, and seconds.

HH two-digits of hour (00 through 23) (am/pm NOT allowed)

MM two-digits of minute (00 through 59)

SS two-digits of second (00 through 59)

Example: 044811

HR

This is the UTC time in hours.

HR two digits of hour (00 through 23) (am/pm NOT allowed)

Example: 04

MIN

This is the UTC time in minutes.

MIN two-digits of minute (00 through 59)

Example: 48

SEC

This is the UTC time in seconds.

SEC two-digits of second (00 through 59)

Example: 11

Edit a Methodology

You can edit a methodology by updating or modifying any of the fields on the Edit Methodology window.

To edit a methodology

1. Click the Deployments tab, and in the Actions section click the Maintain Methodologies link.
2. Select the methodology that you want to edit and click Edit.

The Edit Methodologies dialog appears.

Note: The asterisk indicates that the field is mandatory.

As with Add a Methodology, all fields are available to be edited and the details for each field are listed.

3. Enter the Methodology Name.

Limits: Maximum 64 characters.

Note: Each methodology name must be unique and it is not case-sensitive. For example Meth1 and meth1 are the same methodology name..

4. Enter the Description of this Methodology.

Limits: Maximum 255 characters.

5. Enter the Data Set Name Mask and/or click the file icon and select a [symbolic name](#) (see page 125).

Data Set Name Mask

This is the mask that will be used to name the data sets that are deployed. They can contain [symbolic qualifiers](#) (see page 125).

Example: CAPRODS.&SYSID - in this case the &SYSID will be replaced by its values. If the SYSID that is being deployed to is XX16 the dsn mask will be: CAPRODS.XX16

Limits: Maximum 64 characters.

Note: Each deployed target data set will be named using the resolved content of the Data Set Name Mask followed by the low level qualifier of the source data set. Appending the low level qualifier from the source data set insures uniqueness of the final data set name.

It consists of one or more qualifiers separated by periods, and has a maximum input length of 64 characters, including the periods. When it is translated it has a maximum length of 44 characters including the periods.

6. Select a Style of Deployment.

Create only

Creates new data sets.

Note: Prior to creating any data sets on the remote system, a check is made, to see if the data sets already exist. The deployment is not allowed to continue if this occurs.

Create or Replace

If you select *Create or Replace* and the target data sets do not exist, they will be created. If the target data sets exist, *Create or Replace* indicates that data in the existing data set, file or directory will be replaced.

Partitioned data set

Create or Replace indicates that existing members in a partitioned data set will be replaced by members with the same name from the source file. Any currently existing member that is not in the source file will remain in the PDS. Any member from the source that does not already exist in the target PDS will be added to the target PDS.

The amount of free space in the PDS will need to be sufficient to hold the additional content, since no automatic compress will be done.

Directory in a UNIX file system

Create or Replace indicates files in a directory will be replaced by files with same name from the source. Any currently existing directory in a UNIX file system that is not in the source will remain in the UNIX file system.

Sequential data set or a file in the UNIX file system

Create or Replace indicates the existing data set or file and its attributes will be replaced with the data from the source file.

For a VSAM data set (cluster)

Create or Replace indicates that an existing VSAM cluster should be populated with the data from the source file.

Note: The existing VSAM cluster must be of the same type as the source cluster (ESDS, KSDS, LDS, or RRDS), and it must have characteristics that are compatible with the source cluster (such as, record size, key size, and key offset). Replace does not verify the compatibility of these characteristics!

To replace the contents of an existing cluster, the cluster is altered to a reusable state by using an IDCAMS ALTER command, if necessary, before the data from the VSAM source is copied into the cluster by using an IDCAMS REPRO command. The REPRO command will use both the REPLACE and REUSE operands. Following the REPRO operation, the cluster is altered back to a non-reusable state if that was its state to begin with.

7. Click Save.

Your changes are saved.

Note: Click Cancel to close this dialog without saving your changes.

More information:

[Symbolic Qualifiers](#) (see page 125)

Delete Methodologies

To delete methodologies

1. Click the Deployments tab, and in the Actions section click the Maintain Methodologies link.

The Maintain Methodologies select window appears.



2. Select the methodology that you want to delete.

Note: A grayed select box indicates that the methodology is assigned and cannot be deleted. It can be edited.

3. Click Delete and then OK to the Delete Methodologies confirmation window.

The methodology is deleted.

Systems

You can view, add, and remove systems from a deployment.

Add a System

You can add a system to a deployment.

To add a system

1. Click the Deployments tab.
The Deployment window appears.
2. On the right, in the Deployments panel click the Current Deployment link.
A list of current deployments appears.
3. Click the deployment name link.

4. In the System List panel, click Add Systems.

The Add Systems window appears.

5. Select a system to add and click OK.

Note: When two systems have the same name, use the description to differentiate between the systems.

The Preview window appears, and the system is added.

Note: Sysplex systems are denoted by Sysplex System:System Name. For example, PLEX1:CO11, where PLEX1 is Sysplex name and CO11 is the system name.

Remove a System

You can remove a system from a deployment.

To remove a system

1. Click the Deployments tab.

The Deployment window appears.

2. On the right, in the Deployments panel click the Current Deployment link.

A list of current deployments appears.

3. Select the deployment that you want to remove the product from.

System Name Sort Arrows

Click the up arrow to place the system names in alphabetic order or click the down arrow to place them in reverse alphabetic order.

Type Sort Arrows

Click the up arrow to place the types in alphabetic order or click the down arrow to place them in reverse alphabetic order.

Description Sort Arrows

Click the up arrow to place the descriptions in alphabetic order or click the down arrow to place them in reverse alphabetic order.

4. In the System List panel, select a system you want to remove.
5. Click Remove and then OK to the Remove Products confirmation window.

The system is removed.

Deployment Summary

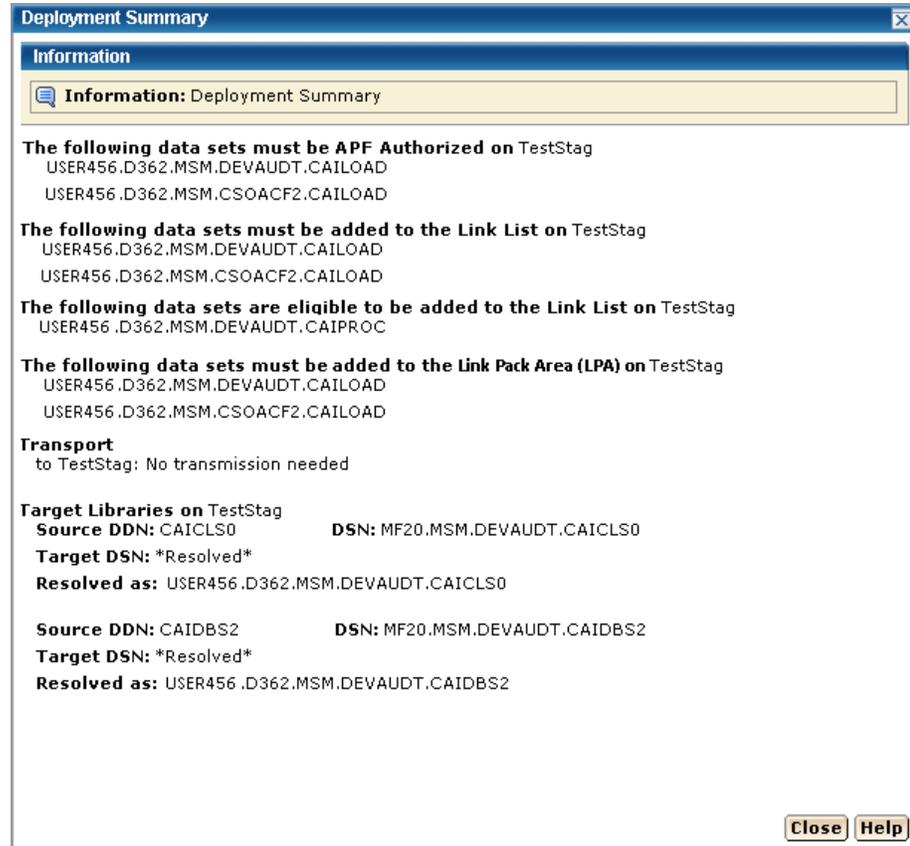
This Action button is available after a successful deployment.

Important! Data sets may need to be APF Authorized and/or added to the Link List and/or Link Pack Area. These data sets are identified in this dialog.

The Deployment Summary window contains none or any of the following:

- Deployment's ID
- Name
- Products
- Systems
- Data Sets actions
- Transport information
- Target libraries including: source, target, and resolved data set names.
- SMP/E environment
- Snapshot path and container

The following example shows the Data Sets actions, Transport, and Target libraries information.



Note: When you have completed the procedures in this section, go to Configuring Your Product.

Chapter 4: Installing Your Product From Pax-Enhanced ESD

Use the procedures in this section to acquire and install your product using Pax-Enhanced Electronic Software Delivery (ESD).

When you have completed the procedures in this section, go to [Configuring Your Product](#).

This section contains the following topics:

[How to Install a Product Using Pax-Enhanced ESD](#) (see page 143)

[Allocate and Mount a File System](#) (see page 149)

[Copy the Product Pax Files into Your USS Directory](#) (see page 151)

[Create a Product Directory from the Pax File](#) (see page 156)

[Copy Installation Files to z/OS Data Sets](#) (see page 157)

[Unload the Install Utility](#) (see page 159)

[Installation JCL](#) (see page 159)

[Clean Up the USS Directory](#) (see page 162)

[Maintenance](#) (see page 163)

How to Install a Product Using Pax-Enhanced ESD

This section describes the Pax-Enhanced ESD process. We recommend that you read this overview and follow the entire procedure the first time you complete a Pax-Enhanced ESD installation. Experienced UNIX users may find the *Pax-Enhanced ESD Quick Reference Guide* or this overview sufficient for subsequent installations.

Important! Downloading pax files for the SMP/E installation as part of the Pax-Enhanced ESD process requires write authority to the UNIX System Services (USS) directories used for the ESD process.

Important! If you prefer not to involve all CA product installers with z/OS UNIX System Services, assign a group familiar with USS to perform steps 1 through 4 and provide the list of the unpacked MVS data sets to the product installer. USS is not required for the actual SMP/E RECEIVE of the product or for any of the remaining installation steps.

To install files using Pax-Enhanced ESD, use the following process:

1. Allocate and mount the file system. This process requires a USS directory to receive the pax file and to perform the unpack steps. We recommend that you allocate and mount a file system dedicated to Pax-Enhanced ESD and create the directory in this file system. Ensure that all users who will be working with pax files have write authority to the directory.
2. Copy the product pax files into your USS directory. To download files, choose one of the following options:
 - Download a zip file from CA Support Online to your PC, unzip the file, and then upload the product pax files to your USS file system.
 - FTP the pax files from CA Support Online directly to your USS directory.

Note: Perform steps 3 through 6 for each pax file that you upload to your USS directory.

3. Create a product directory from the pax file. Set the current working directory to the directory containing the pax file, and create a new directory in your USS directory by entering the following command:

```
pax -rvf pax-file-name
```

4. Use the SMP/E GIMUNZIP utility to create z/OS installation data sets. The file UNZIPJCL in the directory created by the pax command in Step 3 contains a sample job to GIMUNZIP the installation package. Edit and submit the UNZIPJCL job.
5. Proceed with product installation. Consult product-specific documentation, including AREADME files and installation notes to complete the product installation.
6. (Optional) Clean up the USS directory. Delete the pax file, the directory created by the pax command, all of the files in it, and the SMP/E RELFILES, SMPMCS, and HOLDDATA data sets.

More Information:

[USS Environment Setup](#) (see page 148)

[Allocate and Mount a File System](#) (see page 149)

[Copy the Product Pax Files into Your USS Directory](#) (see page 151)

[Create a Product Directory from the Pax File](#) (see page 156)

[Copy Installation Files to z/OS Data Sets](#) (see page 157)

How the Pax-Enhanced ESD Download Works

Important! To download pax files for the SMP/E installation as part of the Pax-Enhanced ESD process, you must have write authority to the UNIX System Services (USS) directories used for the ESD process and available USS file space before you start the procedures in this guide. For additional ESD information, go to <http://www.ca.com/mainframe>. Under Events, we offer an ESD webcast to further explain the Pax-Enhanced ESD process.

Use the following process to download files using Pax-Enhanced ESD:

1. Log in to <https://support.ca.com/>, and click Download Center.
The CA Support Online web page appears.
2. Under Download Center, select Products from the first drop-down list, and specify the product, release, and genlevel (if applicable), and click Go.

The CA Product Download window appears.

3. Download an entire CA product software package or individual pax files to your PC or mainframe. If you download a zip file, you must unzip it before continuing.

For both options, [The ESD Product Download Window](#) (see page 145) topic explains how the download interface works.

Note: For traditional installation downloads, see the *Traditional ESD User Guide*. Go to <https://support.ca.com/>, log in, and click Download Center. A link to the guide appears under the Download Help heading.

4. Perform the steps to install the product based on the product-specific steps.
The product is installed on the mainframe.

ESD Product Download Window

CA product ESD packages can be downloaded multiple ways. Your choices depend on the size of the individual files and the number of files you want to download. You can download the complete product with all components or you can select individual pax and documentation files for your product or component.

The following illustration shows sample product files. It lists all components of the product. You can use the Download Cart by checking one or more components that you need or check the box for Add All to cart. If you prefer to immediately download a component, click the Download link.

Equation 1: This figure shows a sample Product Component sample from CA Support online.

CA Earl - MVS

- » [Pax Enhanced Electronic Software Delivery \(ESD\) Guide](#)
- » [Pax Enhanced Electronic Software Delivery \(ESD\) Quick Reference Guide](#)
- » [Traditional Electronic Software Delivery \(ESD\) Guide](#)
- » [Learn more about Using pkzip with your Downloaded Mainframe Products](#)
- » [Learn more about downloading components of CA product](#)

If you have comments or suggestions about CA product documentation, send a message to techpubs@ca.com.

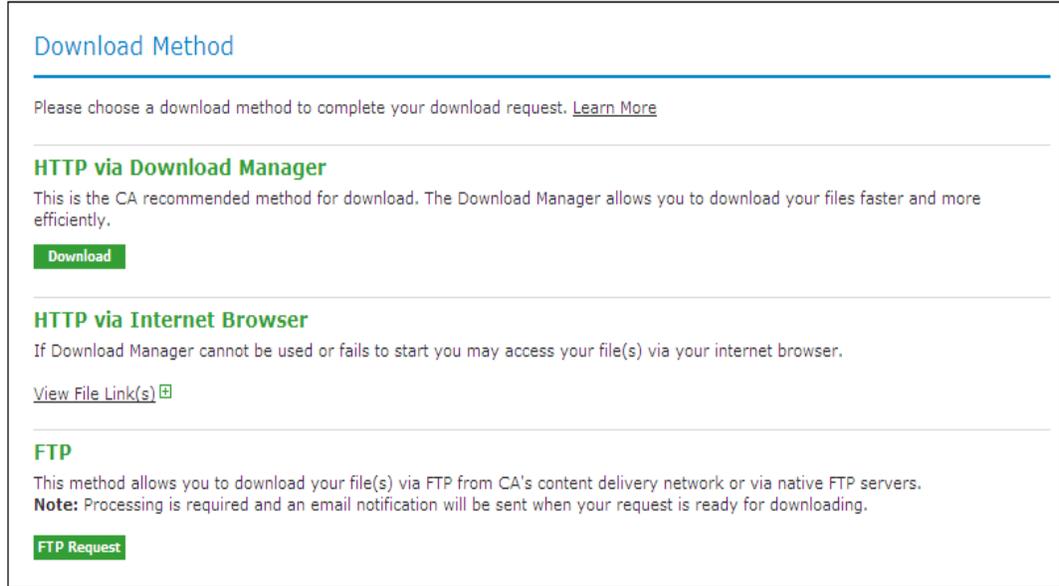
[View Download Cart](#)

Add All to cart

Product Components				Add to cart	Download
CA COMMON SERVICES PROD PKG 11SP08AW000.pax.Z	11.0 /SP08	03/31/2010	407MB	<input type="checkbox"/>	Download
CA EARL PRODUCT PACKAGE 610106AEO00.pax.Z	6.1 /0106	03/31/2010	1MB	<input type="checkbox"/>	Download
EARL PIPPACK AEO61010600.pdf	6.1 /0106	03/31/2010	93KB	<input type="checkbox"/>	Download
EARL INSTALL GUIDE MANUAL I2J2ED610NE.pdf	6.1 /0000	03/31/2010	361KB	<input type="checkbox"/>	Download
CA COMMON SERVICES COVER LTR QI92742.pdf	11.0 /SP08	03/31/2010	46KB	<input type="checkbox"/>	Download

Clicking the link for an individual component takes you to the Download Method page.

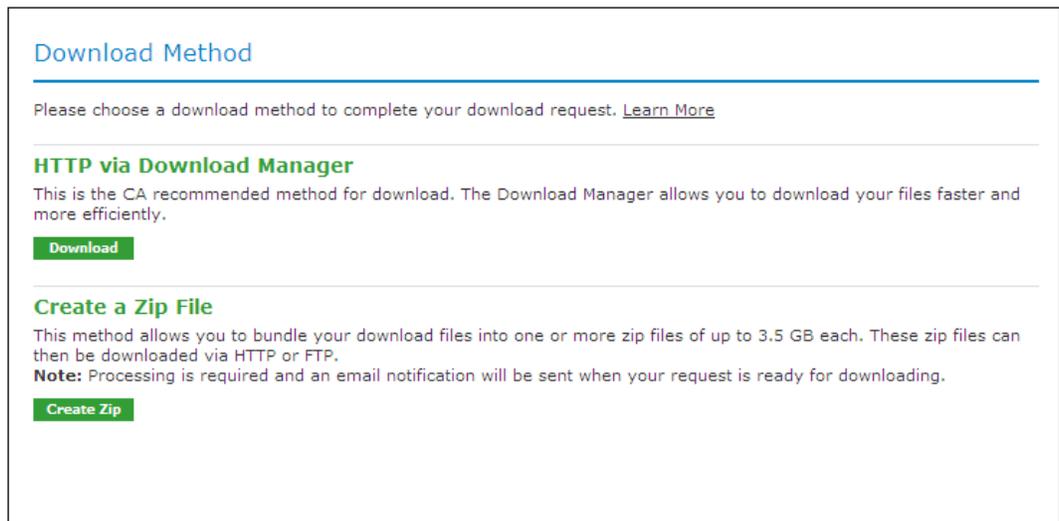
Equation 2: This figure shows a sample Download Method window from CA Support online.



Depending on the size and quantity of product files ordered, the Download Method screen could also have these options:

Note: For mainframe downloads using this HTTP method, click the Learn More link.

Equation 3: This figure shows a sample Download Method window from CA Support online.



The HTTP methods let you start downloading immediately. The FTP method takes you to the Review Orders page that displays your order, first in a Pending status changing to Ready when your order has been processed.

Preferred FTP uses the new content delivery network (CDN). Alternate FTP uses the CA, New York-based FTP servers.

The Create a Zip File option first creates the zip and when ready, offers the options shown by the Zip Download Request examples in the next screen.

Equation 4: This figure shows a sample Review Download Requests window from CA Support online.

Review Download Requests

Below is a list of the FTP and large HTTP downloads that have been requested by your site. When status is set to **'Ready'** a link will appear.

- For FTP requests, click on the FTP link to view the path information for your download. For more information view our [FTP Help document](#)
- For HTTP requests, click on the HTTP link to initiate your download.
- To view the details of your request, click on the desired order number.

Today's Downloads

Order #	Status	Description	Date Placed	Download Options
10000961	Ready	FTP Download Request	04/30/2010	Preferred FTP ▼ Alternate FTP ▼

Previous 6 day Download History

Order #	Status	Description	Date Placed	Download Options
10000949	Ready	ZIP Download Request	04/29/2010	HTTP via DLM Preferred FTP ▼ Alternate FTP ▼
10000948	Ready	ZIP Download Request	04/29/2010	HTTP via DLM Preferred FTP ▼ Alternate FTP ▼

USS Environment Setup

You need a UNIX System Services (USS) directory and a file system with adequate space to perform the following tasks:

- Receive product pax files from CA Support Online.
- Perform utility functions to unpack the pax file into MVS data sets that you can use to complete the product installation.

We recommend that you allocate and mount a file system dedicated to Pax-Enhanced ESD. The amount of space that you need for the file system depends on the following variables:

- The size of the pax files that you intend to download.
- Whether you plan to keep the pax files after unpacking them. We do not recommend this practice.

We recommend that you use one directory for downloading and unpacking pax files. Reusing the same directory minimizes USS set up. You need to complete the USS setup only one time. You reuse the same directory for subsequent downloads. Alternatively, you can create a new directory for each pax download.

Important! Downloading pax files for the SMP/E installation as part of the Pax-Enhanced ESD process requires write authority to the UNIX System Services (USS) directories used for the ESD process. In the file system that contains the ESD directories, you also need free space approximately 3.5 times the pax file size to download the pax file and unpack its contents. For example, to download and unpack a 14 MB pax file, you need approximately 49 MB of free space in the file system hosting your ESD directory.

Allocate and Mount a File System

You can use the zSeries File System (zFS) or hierarchical file system (HFS) for Pax-Enhanced ESD downloads.

This procedure details how to perform the following tasks:

- Allocate an HFS file system
- Create a new mount point in an existing maintenance directory
- Mount the file system on the newly created mount point
- Optionally permit write access to anyone in the same group as the person who created the directory

Important! USS commands are case-sensitive.

To allocate and mount the file system

1. Allocate the HFS. For example:

```
//ALCHFS EXEC PGM=IEFBRI4
//CAESD DD DSN=yourHFS dataset name,
// DISP=(NEW,CATLG,DELETE),UNIT=3390,
// DSNTYPE=HFS,SPACE=(CYL,(primary,secondary,1))
```

The HFS is allocated.

2. Create a mount point for the file system. This example shows how to create a /CA/CAESD directory in an existing directory, /u/maint. From the TSO OMVS shell, enter the following commands:

```
cd /u/maint/
mkdir CA
cd CA
mkdir CAESD
```

Note: This document refers to this structure as *yourUSSESDdirectory*.

The mount point is created.

3. Mount the file system. For example, from TSO, enter the following command:

```
MOUNT      FILESYSTEM('yourHFS dataset name')
           MOUNTPOINT('yourUSSESDdirectory')
           TYPE(HFS)  MODE(RDWR)
```

The file system is mounted.

4. (Optional) Set security permissions for the directory. You can use the chmod command to let other users access the ESD directory and its files. For example, to allow write access to the ESD directory for other users in your USS group, from the TSO OMVS shell, enter the following command:

```
chmod-R 775 /yourUSSESDdirectory/
```

Write access is granted.

Note: For more information about the chmod command, see the *z/OS UNIX System Services User Guide (SA22-7802)*.

Copy the Product Pax Files into Your USS Directory

To begin the CA product installation procedure, copy the product's pax file into the USS directory you set up. Use one of the following methods:

- Download the product pax files directly from the CA Support Online FTP server to your z/OS system.
- Download the product pax file from the CA Support Online FTP server to your PC, and upload it to your z/OS system.
- Download the product file from CA Support Online to your PC. If your download included a zip file, unzip the file, and upload the unzipped pax files to your z/OS system.

This section includes a sample batch job to download a product pax file from the CA Support Online FTP server directly to a USS directory on your z/OS system and sample commands to upload a pax file from your PC to a USS directory on your z/OS system.

Important! Your FTP procedures may vary due to your local firewall and other security settings. Consult your local network administrators to determine the appropriate FTP procedure to use at your site.

Important! Ensure that sufficient free space is available in the USS file system you are using for Pax-Enhanced ESD to hold the product pax file. If you do not have sufficient free space, error messages similar to the following appear:

```
EZA1490I Error writing to data set  
EZA2606W File I/O error 133
```

When the download finishes, the pax file size in your USS directory should match the value in the Size column for the corresponding pax file on the CA Products Download window.

More Information:

[How the Pax-Enhanced ESD Download Works](#) (see page 145)
[ESD Product Download Window](#) (see page 145)

Download Using Batch JCL

Use this process to download a pax file from the CA Support Product Downloads window by running batch JCL on the mainframe. Use the sample JCL attached to the PDF file as CAtoMainframe.txt, to perform the download.

Important! To simplify the Pax-Enhanced ESD process, the PDF version of this guide includes a sample JCL job that you can copy directly to the mainframe. To access this job, click the paper clip icon in the lower left corner of the PDF reader. This opens a window displaying attachments. Double-click the file to view the sample JCL.

Note: We recommend that you follow the preferred method as described on CA Support Online. This procedure is our preferred download method; however, we do include the procedure to download to the mainframe through a PC in the next section.

To download files using batch JCL

1. Supply a valid JOB statement.
2. Replace *yourTCPIP.PROFILE.dataset* with the name of the TCPIP profile data set for your system. Consult your local network administrators, if necessary.
The job points to your profile.
3. Replace *YourEmailAddress* with your email address.
The job points to your email address.
4. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.
The job points to your USS directory.
5. Locate the product component to download on the CA Support Product Download window.
You have identified the product component to download.
6. Click Download for the applicable file.
Note: You may also add files to a cart for multiple downloads.
The Download Method window opens.

7. Click FTP Request.

The Review Download Requests window opens and displays any files that you have requested to download.

Note: We send you an email when the file is ready to download or a link appears in this window when the file is available.

8. Select one of the following methods:

Preferred FTP

Uses CA's world-wide content delivery network (CDN). If you are not able to download using the Preferred FTP method, your company may have security restrictions that require knowledge of and configuration for all servers that company employees can download from that are outside of your corporate network.

Host Name: ftp://ftpdnloads.ca.com

Alternate FTP

Uses the original download servers that are based on Long Island, New York.

Host Name: ftp://scftpd.ca.com for product files and download cart files and ftp://ftp.ca.com for individual solution files.

Both methods display the host, user name, password, and FTP location, which you then can copy into the sample JCL.

Note: For details regarding FTP, see the FTP Help document link in the Review Download Requests window and the Learn More link available in the Download Methods window.

9. Submit the job.

Important! If your FTP commands are incorrect, this job may fail and still return a zero condition code. You must read the messages in the job DDNAME SYSPRINT to verify the FTP succeeded.

After running the JCL, the pax file resides in the mainframe USS directory that you supplied.

Example: CAtoMainframe.txt, JCL

The following text appears in the attached CAtoMainframe.txt JCL file:

```
//GETPAX JOB (ACCOUNTNO),'FTP GET ESD PACKAGE',
//          MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID
//*****
//* This sample job can be used to download a pax file directly from *
//* CA Support OnLine to a USS directory on your z/OS system.      *
//*                                                                *
//* This job must be customized as follows:                        *
//* 1. Supply a valid JOB statement.                               *
//* 2. Replace "yourTCPIP.PROFILE.dataset" with the name if the TCPIP *
//*    profile data set for your system.                           *
//* 3. Replace "Host" based on the type of download method.       *
//* 4. Replace "YourEmailAddress" with your email address.        *
//* 5. Replace "yourUSSESDdirectory" with the name of the USS     *
//*    directory used on your system for ESD downloads.           *
//* 6. Replace "FTP Location" with the complete path              *
//*    and name of the pax file obtained from the FTP location   *
//*    of the product download page.                              *
//*****
//GETPAX EXEC PGM=FTP,REGION=0K
//SYSTCPD DD DSN=yourTCPIP.PROFILE.dataset,DISP=SHR
//SYSPRINT DD SYSOUT=*
//OUTPUT DD SYSOUT=*
//INPUT DD *
Host
anonymous YourEmailAddress
lcd yourUSSESDdirectory
binary
get FTP location
quit
```

Download Files to Mainframe through a PC

If you download pax or zip files from CA Support Online to your PC, use this procedure to upload the pax file from your PC to your z/OS USS directory.

To upload files to the mainframe through a PC

1. Follow the procedures in [How the Pax-Enhanced ESD Download Works](#) (see page 12) to download the product pax or zip file to your PC. If you download a zip file, first unzip the file to use the product pax files.

The pax or zip file resides on your PC.

2. Open a Windows command prompt.

The command prompt appears.

3. Customize and enter the FTP commands with the following changes:
 - a. Replace *mainframe* with the z/OS system's IP address or DNS name.
 - b. Replace *userid* with your z/OS user ID.
 - c. Replace *password* with your z/OS password.
 - d. Replace *C:\PC\folder\for\thePAXfile* with the location of the pax file on your PC.
 - e. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.
 - f. Replace *paxfile.pax.Z* with the name of the pax file to upload.

The pax file is transferred to the mainframe.

Example: FTP Commands

This list is a sample of FTP commands to upload the pax file from your PC to your USS Pax-Enhanced ESD directory:

```
FTP mainframe
userid
password
bin
lcd C:\PC\folder\for\thePAXfile
cd /yourUSSESDdirectory/
put paxfile.pax.Z
quit
exit
```

Create a Product Directory from the Pax File

Use the sample job attached to the PDF file as Unpackage.txt to extract the product pax file into a product installation directory.

Important! To simplify the Pax-Enhanced ESD process, the PDF version of this guide includes sample a JCL job that you can copy directly to the mainframe. To access this job, click the paper clip icon in the lower left corner of the PDF reader. This opens a window displaying attachments. Double-click the file to view the sample JCL.

To create a product installation directory using the Unpackage.txt sample job

1. Supply a valid JOB statement.
2. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.

The job points to your specific directory.

3. Replace *paxfile.pax.Z* with the name of the pax file.

The job points to your specific pax file.

4. Submit the job.

The job runs and creates the product directory.

Note: After making the changes noted in the job, if the PARM= statement exceeds 71 characters, uncomment and use the second form of UNPAXDIR instead. This sample job uses an X in column 72 to continue the PARM= parameters to a second line.

Example Job to Execute the Pax Command (Unpackage.txt)

The following text appears in the attached Unpackage.txt JCL file:

```
//ESDUNPAX JOB (ACCOUNTNO),'UNPAX ESD PACKAGE ',
// MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID
//*****
//* This sample job can be used to invoke the pax command to create  *
//* the product-specific installation directory.                       *
//*                                                                    *
//* This job must be customized as follows:                           *
//* 1. Supply a valid JOB statement.                                   *
//* 2. Replace "yourUSSESDdirectory" with the name of the USS        *
//*    directory used on your system for ESD downloads.              *
//* 3. Replace "paxfile.pax.Z" with the name of the pax file.       *
//* NOTE: If you continue the PARM= statement on a second line, make *
//*    sure the 'X' continuation character is in column 72.         *
//*****
//UNPAXDIR EXEC PGM=BPXBATCH,
// PARM='sh cd /yourUSSESDdirectory/; pax -rvf paxfile.pax.Z'
//*UNPAXDIR EXEC PGM=BPXBATCH,
//* PARM='sh cd /yourUSSESDdirectory/; pax                               X
//*          -rvf paxfile.pax.Z'
//STDOUT DD SYSOUT=*
//STDERR DD SYSOUT=*
```

Copy Installation Files to z/OS Data Sets

Use this procedure to invoke the SMP/E GIMUNZIP utility to create MVS data sets from the files in the product-specific directory.

To copy the Pax-Enhanced ESD installation files to z/OS data sets

1. Locate and read the product readme file or installation notes, if applicable, which resides in the product-specific directory that the pax command created. This file contains product-specific details you need to complete the installation procedure.

You have identified product-specific installation details.

2. Use ISPF EDIT or TSO ISHELL to edit the UNZIPJCL sample job. You can perform this step in one of the following ways:
 - Use ISPF EDIT. Specify the full path name of the UNZIPJCL file.
 - Use TSO ISHELL. Navigate to the UNZIPJCL file and use the E line command to edit the file.

The job is edited.

3. Change the SMPDIR DD PATH to the product-specific directory created by the pax command.

Your view is of the product-specific directory.

4. If ICSF is not active, perform the following steps:
 - a. Change the SMPJHOME DD PATH to your Java runtime directory. This directory varies from system to system.
 - b. Perform one of the following steps:
 - Change the SMPCPATH DD PATH to your SMP/E Java application classes directory, usually `/usr/lpp/smp/classes/`.
 - Change HASH=YES to HASH=NO on the GIMUNZIP parameter.

One of the following occurs: ICSF is active or you are using Java.

5. Change all occurrences of *YourHLQ* to the high-level qualifier for z/OS data sets used by the installation process. We suggest that you use a unique HLQ for each expanded pax file to uniquely identify the package. Do not use the same value for *yourHLQ* as you will use for the SMP/E RELFILES.

All occurrences of *YourHLQ* are set to your high-level qualifier for z/OS data sets.

6. Submit the UNZIPJCL job.

The UNZIPJCL job should complete with a zero return code. Messages GIM69158I and GIM48101I in the output and IKJ56228I in the JES log are acceptable.

GIMUNZIP creates z/OS data sets with the high-level qualifier you specified in the UNZIPJCL job. You use these data sets to perform the product installation. The pax file and product-specific directory are no longer needed at this point.

Note: For more information, see the IBM Reference Manual, *SMP/E for z/OS Reference (SA22-7772)*.

Unload the Install Utility

The installation utility software lets you generate and run the JCL required to install your product. The installation utility software is delivered electronically with ESD.

The installation software unloads into the *dsnpref.CAI.SM50.CAIJCL* data set; *dsnpref* is a prefix you specify for your product data sets.

After you unzip the data sets, do *one* of the following:

- Rename *dsnpref.CAI.SM50.CAIJCL* to *dsnpref.SM50.CAIJCL*
- Copy the members in *dsnpref.CAI.SM50.CAIJCL* into *dsnpref.SM50.CAIJCL*

Installation JCL

The installation process creates the *dsnpref.SM50.INSTDB* database to store details of each installation that you perform. These details include the products you install and the installation values that you specify.

Note: During this task, the INSTALLATION JCL Library Creation panel lets you specify your installation JCL library. The default library name is *dsnpref.SM50.INSTALL.JCL*, where *dsnpref* is the same data set prefix you used for the *dsnpref.SM50.CAIJCL* data set.

If your installation JCL library exists, do *one* of the following:

- Specify a new data set name at that panel.
- Delete the existing library by issuing a TSO DELETE command.

Note: If you leave the Install Utility at any stage, you can return to it from the ISPF/PDF TSO Command Shell prompt. Execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

Generate the Installation JCL

During the installation process, you provide the [site-specific installation information that you previously collected](#) (see page 20). This information is used to generate the installation JCL.

To generate the installation JCL

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility panel appears.

Note: On each of the Install Utility panels, you can use the following keys:

- Enter to proceed to the next panel
- F1 to display help
- F3 to return to the previous panel
- F4 to exit and return to the main menu

2. Press Enter.

The Install Utility Primary Menu panel appears.

3. Enter **1** (Set Installation Parameters).

The Software Delivery Method panel appears.

4. Complete each of the panels as they open. Press Enter at the completion of each panel. You must complete all five parameter panels before you can install the product. You can take the default options or specify site-specific values.

Note: For information about the fields, press F1 (Help).

5. Enter **2** (Install Products).

The INSTALLATION Primary Menu panel appears.

6. Enter **1** (Select Products to Install).

The INSTALLATION Product Selection panel appears with previously installed products unavailable.

7. Enter **S** next to the product name and press Enter.

The INSTALLATION Product Confirmation panel appears, confirming your selections.

8. Press Enter to confirm your selection and complete each of the INSTALLATION panels as they open. You must complete all the panels before you can set up your regions. You can take the default options or specify site-specific values. For information about the fields, press F1 (Help).
9. Record the data set name into which the JCL was generated in your [post-installation worksheet](#) (see page 30). Jobs can be submitted from the panel or directly from this data set after exiting the panel.
10. Submit and run the following installation jobs in sequence. Do not proceed with any job until the previous job has completed successfully. Each job should complete with return code 0 unless otherwise indicated.

I01ALLOC

Allocates the data sets.

The I01ALLOC member allocates CC2DLOAD as a load library of the PDS type. Do not change it to a PDS/E type because the type is not supported.

I02INSMP

Initializes the SMP/E data sets.

I03RCSMP

Performs an SMP/E RECEIVE.

I04AKSMP

Performs an SMP/E APPLY CHECK. This job is listed only if maintenance exists for previously installed products.

I05RSSMP

Performs an SMP/E RESTORE. This job is listed only if maintenance exists for previously installed products.

I06APSMP

Performs an SMP/E APPLY.

I07ACSMP

Performs an SMP/E ACCEPT.

11. Press F3.
You are returned to the Primary Menu panel.

Clean Up the USS Directory

Important! This procedure is optional. Do not use this procedure until you complete the entire installation process.

To free file system disk space for subsequent downloads after downloading and processing the pax files for your CA product, we recommend removing the files from your USS directory and deleting unnecessary MVS data sets. You can delete the following items:

- Pax file
- Product-specific directory created by the pax command and all of the files in it
- SMP/E RELFILEs, SMPMCS, and HOLDDATA MVS data sets

These data sets have the HLQ that you assigned in the UNZIPJCL job.

Note: Retain non-SMP/E installation data sets such as *yourhlq*.INSTALL.NOTES for future reference.

To delete the pax files and product-specific directories

1. Navigate to your Pax-Enhanced ESD USS directory.

Your view is of the applicable USS directory.

2. Delete the pax file by entering the following command:

```
rm paxfile
```

paxfile

Specifies the name of the CA Product pax file that you downloaded.

The pax file is deleted.

3. Delete the product-specific directory by entering the following command:

```
rm -r product-specific-directory
```

product-specific-directory

Specifies the product-specific directory created by the pax command.

The product-specific directory is deleted.

Note: You can also use TSO ISHELL to navigate to the pax file and product-specific directory, and delete them using the D line command.

Maintenance

Maintenance includes program temporary fixes (PTFs) that supersede all authorized program analysis reports (APARs) that were created up to that time. Details of the superseded APARs are available as comments within the PTFs.

Product Maintenance

Important! The *dsnpref.SM50.CAILINK* data set must be in your system linklist before you start maintenance. You can also create a STEPLIB to the data set name (DSN) in your TSOPROC (that is, allocate it to ISPLLIB). If you installed the product using CA MSM, you must use CA MSM to apply maintenance.

Product maintenance is provided as system modification program (SMP) fixes. The fixes consist of PTFs applied using the IBM System Modification Program Extended (SMP/E) tool.

Note: If an installed SMP fix contains maintenance for the VSAM data sets, you must update those data sets for each region you have set up.

Apply Maintenance

This section describes how to apply individual SMP fixes using the Install Utility.

Note: Individual SMP fixes are only available from the [CA Technical Support site](#) (see page iii).

When you receive SMP fixes, unload them into one of the following:

- A sequential data set
- A member of a partitioned data set

Multiple SMP fixes can be appended into a single data set or member.

To apply SMP fixes

1. Access the ISPF/PDF Primary Menu.
2. Select the COMMAND option.
The ISPF Command Shell panel appears.
3. At the command prompt, enter the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

4. At the Install Utility title panel, press Enter.
The Install Utility Primary Menu panel appears.
5. At the Install Utility Primary Menu panel, enter **8** (Maintain Products).
The MAINTENANCE Primary Menu panel appears.
6. Enter **3** (Apply individual SMP fixes from a DASD data set).
The MAINTENANCE DASD Fixes Dataset Name panel appears.
7. Enter the data set name that contains the SMP fixes to be applied and press Enter.
8. Complete the fields on the following MAINTENANCE panels as they open.
9. At the MAINTENANCE JCL Library Creation panel, review your fix JCL library.
The default library name is:

`dsnpref.SM50.FIX.DASD.JCL`

dsnpref

The same data set prefix you used for the `dsnpref.SM50.CAIJCL` data set.

Note: Each time you apply maintenance, use a new output data set. A new data set ensures that the only jobs in your maintenance JCL library are the jobs required for the maintenance you are installing now. To use a new data set:
 - Delete the library by issuing a TSO DELETE command and the library name, at the command prompt.
 - Specify a new data set name.
10. Press Enter to proceed with the generation of the maintenance JCL.
When the JCL generation is complete, a list of generated jobs and a description of what each member does appears.
11. Note the name of the data set into which the JCL was generated.

12. Submit and run the following jobs in sequence. Do not proceed with any job until the previous job has completed successfully. Each job should complete with return code 0 unless otherwise indicated.

F11RCSMP

SMP/E receives maintenance and lists existing HOLDDATA and SOURCEIDs that are already applied. If a job step returns condition code 04, there is no HOLDDATA present.

Review the information. For any held APARs that you want to apply, add the correct BYPASS HOLDx operands to the corresponding APPLY control statement for those APARs. Add the operands by manually editing the F12APSMP job that contains the SMP control statements.

Note: For information about the BYPASS HOLDx operands, see IBM's *SMP/E Commands* guide.

F12APSMP

SMP/E applies maintenance.

13. Press F3.

The Install Utility Primary Menu panel appears.

14. If the installed SMP fix contains maintenance for the VSAM data sets, select maintenance option **V** (Update MODS, PANELS and OSCNTL data sets with installed maintenance).

The VSAM data sets for the regions you set up are updated.

15. Press F4 to exit the Install Utility Primary Menu panel and return to the ISPF Command Shell panel, or continue with the other options.

HOLDDATA

When you apply maintenance, you typically encounter SMP/E HOLDDATA. We use HOLDDATA to notify your SMP/E system of SYSMODs that have errors or special conditions. We support two types of HOLDDATA:

System HOLDDATA

Indicates data that is an in-stream part of the SYSMOD instructing you of special conditions. Examples of system HOLDDATA are as follows:

ACTION

Indicates that you must perform special processing before or after you apply this SYSMOD.

DEP

Indicates a dependency for this SYSMOD that you must externally verify.

DELETE

Deletes the SYSMOD load module. You cannot reverse this type of SYSMOD with the SMP/E RESTORE command.

DOC

Indicates a documentation change with this SYSMOD.

EC

Indicates that this SYSMOD requires a hardware engineering change. An EC hold SYSMOD usually does not affect the product unless the EC is present on the hardware device.

Code a bypass operand on your APPLY command to install SYSMODs that have internal holds. Only code the bypass operand after you have performed the required action, or if you are performing the action after the APPLY, if that is appropriate.

External HOLDDATA

External HOLDDATA is not part of the PTF. It resides in a separate file. It is commonly used for SYSMODs that have been distributed and later are discovered to cause problems.

Download the external HOLDDATA from CA Support Online to a DASD file, and allocate the file to the SMPHOLD DD statement. To take CA of the external HOLDDATA, receive it into your SMP/E environment. If you use the jobs supplied by CA, SMP/E receives the HOLDDATA.

If a SYSMOD has an unresolved hold error, SMP/E does not install it unless you add a bypass to your APPLY command. You can bypass an error hold in situations that are not applicable to you. Error holds that are not applicable to you can include a problem that happens only with a hardware device that you do not have or in a product feature that you do not use.

When you issue the SYSMOD that resolves the hold, the resolving SYSMOD supersedes the hold error. This action lets you apply the original SYSMOD in conjunction with the fixing SYSMOD.

A special HOLDDATA class called ERREL exists. We have determined that the problem fixed by the SYSMOD is more important than the one that it causes. We recommend that you apply these SYSMODs.

To reliably manage external HOLDDATA, allow SMP/E to manage it automatically. The only manual task is running a REPORT ERRSYSMODS. This report identifies any held SYSMODs already applied to your system. If the resolving SYSMOD is in receive status, SMP/E identifies the SYSMOD to apply to correct the situation.

Update VSAM Data Sets

If an installed SMP fix contains maintenance for the VSAM data sets, maintenance option V of the Install Utility becomes available. To complete maintenance, select the option to update the data sets for the regions you have set up.

To update the VSAM data sets

1. Access the ISPF/PDF Primary Menu, and select the COMMAND option.

The ISPF Command Shell panel appears.

2. At the command prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility title panel appears.

3. Press Enter.

The Install Utility Primary Menu panel appears.

4. Enter **8** (Maintain Products).

The MAINTENANCE Primary Menu panel appears.

5. Enter **V** (Update MODS, PANELS, OSCNTL and NETINFO data sets with installed maintenance).

The MAINTENANCE Shared Region Data Sets panel appears.

6. Review the information, and press Enter.

7. At the MAINTENANCE JOBCARD Information panel, specify your JOBCARD details and press Enter.

8. At the MAINTENANCE JCL Library Creation panel, review your fix JCL library. The default library name is:

dsnpref.SM50.FIX.VSAMUPD.JCL

dsnpref

The same data set prefix used for the *dsnpref*.SM50.CAIJCL data set.

Note: Each time you apply maintenance, use a new output data set. The new data set ensures that the only jobs in your maintenance JCL library are the jobs required for the maintenance you are installing. To use a new data set:

- Delete the library by issuing a TSO DELETE command and the library name, at the command prompt.
- Specify a new data set name.

9. Press Enter to proceed with the generation of the maintenance JCL.

10. Submit and run the job F21RFRSH to update the VSAM data sets.

11. Press F3.

The Install Utility Primary Menu panel appears.

12. Press F4 to exit the Install Utility Primary Menu panel and return to the ISPF Command Shell panel, or continue with the other options.

Note: When you have completed the procedures in this section, go to Configuring Your Product.

Chapter 5: Installing Your Product From Tape

This section contains the following topics:

[Unload the Install Utility](#) (see page 169)

[Installation JCL](#) (see page 172)

[Maintenance](#) (see page 174)

Unload the Install Utility

The installation utility software lets you generate and run the JCL required to install your product. The installation utility software is delivered on tape.

The installation software unloads into the *dsnpref.SM50.CAIJCL* data set; *dsnpref* is a prefix you specify for your product data sets.

To unload the install utility, do *one* of the following:

- If *dsnpref.SM50.CAIJCL* does not exist and you are installing from tape, [unload into a new data set from tape](#) (see page 169).
- If *dsnpref.SM50.CAIJCL* exists from a previous installation and you are installing from tape at the current release level, [unload into an existing data set from tape](#) (see page 171).

Unload into a New Data Set from Tape

If *dsnpref.SM50.CAIJCL* does not exist and you are installing from tape, you must unload the installation software from tape on to your DASD and into a new data set.

To unload the software into a new data set

1. Create an unload job by copying the following JCL:

```
//jobname JOB .....  
//STEP1 EXEC PGM=IEBCOPY  
//SYSPRINT DD SYSOUT=*  
//SYSUT1 DD DSN=CAI.SAMPJCL,  
//          DISP=OLD,UNIT=?device-in,VOL=SER=?tapeser,  
//          LABEL=(1,SL,EXPDT=98000)  
//SYSUT2 DD DSN=?dsnpref.SM50.CAIJCL,  
//          DISP=(NEW,CATLG,DELETE),  
//          UNIT=?device-out,VOL=SER=?volser,  
//          SPACE=(CYL,(10,1,120)),  
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=0)  
//SYSIN DD DUMMY
```

Important! The SYSUT2 data set name must end with SM50.CAIJCL.

2. Replace the statements prefixed with a question mark (?) with your own values as follows:

?device-in

Specifies the tape drive unit to mount the tape.

?tapeser

Specifies the tape volume serial number in the form C2D67x. The value for this release is C2D67A.

?dsnpref

Specifies the data set prefix that will be used for the installation, maintenance, and Install Utility data sets. Do not include the name of your planned product region in the prefix; *?dsnpref* can be up to 29 characters long. If the data set high level qualifiers you are using do not exist, define an alias entry in the master catalog.

?device-out

Specifies the type of the DASD device where you want to place the installation software.

?volser

Specifies the volume serial number of the DASD.

If allocation is controlled by SMS, replace UNIT= and VOL=SER= with *STORCLAS=?storclass*.

3. Submit and run the job.
4. Check that the job successfully completed.

Unload into an Existing Data Set from Tape

If *dsnpref.SM50.CAIJCL* exists from a previous installation at the current release level and you are installing from tape, unload the installation software from tape into the existing data set.

To unload the software into an existing data set

1. Create an unload job by copying the following JCL:

```
//jobname JOB .....
//STEP1 EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=CAI.SAMPJCL,
//          DISP=OLD,UNIT=?device-in,VOL=SER=?tapeser,
//          LABEL=(1,SL,EXPDT=98000)
//SYSUT2 DD DSN=?dsnpref.SM50.CAIJCL,
//          DISP=OLD
//SYSIN DD *
        COPY I=((SYSUT1,R)),O=SYSUT2
        COPY I=((SYSUT2,R)),O=SYSUT2
/*
```

2. Replace the statements prefixed with a question mark (?) with your own values as follows:

?device-in

Specifies the tape drive unit to mount the tape.

?tapeser

Specifies the tape volume serial number in the form C2D67x. The value for this release is C2D67A.

?dsnpref

Specifies the data set prefix in the previous installation.

3. Submit and run the job.
4. Check that the job successfully completed.

Installation JCL

The installation process creates the *dsnpref*.SM50.INSTDB database to store details of each installation that you perform. These details include the products you install and the installation values that you specify.

Note: During this task, the INSTALLATION JCL Library Creation panel lets you specify your installation JCL library. The default library name is *dsnpref*.SM50.INSTALL.JCL, where *dsnpref* is the same data set prefix you used for the *dsnpref*.SM50.CAIJCL data set.

If your installation JCL library exists, do *one* of the following:

- Specify a new data set name at that panel.
- Delete the existing library by issuing a TSO DELETE command.

Note: If you leave the Install Utility at any stage, you can return to it from the ISPF/PDF TSO Command Shell prompt. Execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

Generate the Installation JCL

During the installation process, you provide the [site-specific installation information that you previously collected](#) (see page 20). This information is used to generate the installation JCL.

To generate the installation JCL

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility panel appears.

Note: On each of the Install Utility panels, you can use the following keys:

- Enter to proceed to the next panel
 - F1 to display help
 - F3 to return to the previous panel
 - F4 to exit and return to the main menu
2. Press Enter.
The Install Utility Primary Menu panel appears.

3. Enter **1** (Set Installation Parameters).

The Software Delivery Method panel appears.

4. Complete each of the panels as they open. Press Enter at the completion of each panel. You must complete all five parameter panels before you can install the product. You can take the default options or specify site-specific values.

Note: For information about the fields, press F1 (Help).

5. Enter **2** (Install Products).

The INSTALLATION Primary Menu panel appears.

6. Enter **1** (Select Products to Install).

The INSTALLATION Product Selection panel appears with previously installed products unavailable.

7. Enter **S** next to the product name and press Enter.

The INSTALLATION Product Confirmation panel appears, confirming your selections.

8. Press Enter to confirm your selection and complete each of the INSTALLATION panels as they open. You must complete all the panels before you can set up your regions. You can take the default options or specify site-specific values. For information about the fields, press F1 (Help).
9. Record the data set name into which the JCL was generated in your [post-installation worksheet](#) (see page 30). Jobs can be submitted from the panel or directly from this data set after exiting the panel.

10. Submit and run the following installation jobs in sequence. Do not proceed with any job until the previous job has completed successfully. Each job should complete with return code 0 unless otherwise indicated.

I01ALLOC

Allocates the data sets.

The I01ALLOC member allocates CC2DLOAD as a load library of the PDS type. Do not change it to a PDS/E type because the type is not supported.

I02INSMP

Initializes the SMP/E data sets.

I03RCSMP

Performs an SMP/E RECEIVE.

I04AKSMP

Performs an SMP/E APPLY CHECK. This job is listed only if maintenance exists for previously installed products.

I05RSSMP

Performs an SMP/E RESTORE. This job is listed only if maintenance exists for previously installed products.

I06APSMP

Performs an SMP/E APPLY.

I07ACSMP

Performs an SMP/E ACCEPT.

11. Press F3.

You are returned to the Primary Menu panel.

Maintenance

Maintenance includes program temporary fixes (PTFs) that supersede all authorized program analysis reports (APARs) that were created up to that time. Details of the superseded APARs are available as comments within the PTFs.

Product Maintenance

Important! The *dsnpref.SM50.CAILINK* data set must be in your system linklist before you start maintenance. You can also create a STEPLIB to the data set name (DSN) in your TSOPROC (that is, allocate it to ISPLLIB). If you installed the product using CA MSM, you must use CA MSM to apply maintenance.

Product maintenance is provided as system modification program (SMP) fixes. The fixes consist of PTFs applied using the IBM System Modification Program Extended (SMP/E) tool.

Note: If an installed SMP fix contains maintenance for the VSAM data sets, you must update those data sets for each region you have set up.

Apply Maintenance

This section describes how to apply individual SMP fixes using the Install Utility.

Note: Individual SMP fixes are only available from the [CA Technical Support site](#) (see page iii).

When you receive SMP fixes, unload them into one of the following:

- A sequential data set
- A member of a partitioned data set

Multiple SMP fixes can be appended into a single data set or member.

To apply SMP fixes

1. Access the ISPF/PDF Primary Menu.
2. Select the COMMAND option.
The ISPF Command Shell panel appears.
3. At the command prompt, enter the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```
4. At the Install Utility title panel, press Enter.
The Install Utility Primary Menu panel appears.
5. At the Install Utility Primary Menu panel, enter **8** (Maintain Products).
The MAINTENANCE Primary Menu panel appears.

6. Enter **3** (Apply individual SMP fixes from a DASD data set).

The MAINTENANCE DASD Fixes Dataset Name panel appears.

7. Enter the data set name that contains the SMP fixes to be applied and press Enter.
8. Complete the fields on the following MAINTENANCE panels as they open.
9. At the MAINTENANCE JCL Library Creation panel, review your fix JCL library. The default library name is:

dsnpref.SM50.FIX.DASD.JCL

dsnpref

The same data set prefix you used for the *dsnpref.SM50.CAIJCL* data set.

Note: Each time you apply maintenance, use a new output data set. A new data set ensures that the only jobs in your maintenance JCL library are the jobs required for the maintenance you are installing now. To use a new data set:

- Delete the library by issuing a TSO DELETE command and the library name, at the command prompt.
- Specify a new data set name.

10. Press Enter to proceed with the generation of the maintenance JCL.

When the JCL generation is complete, a list of generated jobs and a description of what each member does appears.

11. Note the name of the data set into which the JCL was generated.

12. Submit and run the following jobs in sequence. Do not proceed with any job until the previous job has completed successfully. Each job should complete with return code 0 unless otherwise indicated.

F11RCSMP

SMP/E receives maintenance and lists existing HOLDDATA and SOURCEIDs that are already applied. If a job step returns condition code 04, there is no HOLDDATA present.

Review the information. For any held APARs that you want to apply, add the correct BYPASS HOLDx operands to the corresponding APPLY control statement for those APARs. Add the operands by manually editing the F12APSMP job that contains the SMP control statements.

Note: For information about the BYPASS HOLDx operands, see IBM's *SMP/E Commands* guide.

F12APSMP

SMP/E applies maintenance.

13. Press F3.

The Install Utility Primary Menu panel appears.

14. If the installed SMP fix contains maintenance for the VSAM data sets, select maintenance option **V** (Update MODS, PANELS and OSCNTL data sets with installed maintenance).

The VSAM data sets for the regions you set up are updated.

15. Press F4 to exit the Install Utility Primary Menu panel and return to the ISPF Command Shell panel, or continue with the other options.

HOLDDATA

When you apply maintenance, you typically encounter SMP/E HOLDDATA. We use HOLDDATA to notify your SMP/E system of SYSMODs that have errors or special conditions. We support two types of HOLDDATA:

System HOLDDATA

Indicates data that is an in-stream part of the SYSMOD instructing you of special conditions. Examples of system HOLDDATA are as follows:

ACTION

Indicates that you must perform special processing before or after you apply this SYSMOD.

DEP

Indicates a dependency for this SYSMOD that you must externally verify.

DELETE

Deletes the SYSMOD load module. You cannot reverse this type of SYSMOD with the SMP/E RESTORE command.

DOC

Indicates a documentation change with this SYSMOD.

EC

Indicates that this SYSMOD requires a hardware engineering change. An EC hold SYSMOD usually does not affect the product unless the EC is present on the hardware device.

Code a bypass operand on your APPLY command to install SYSMODs that have internal holds. Only code the bypass operand after you have performed the required action, or if you are performing the action after the APPLY, if that is appropriate.

External HOLDDATA

External HOLDDATA is not part of the PTF. It resides in a separate file. It is commonly used for SYSMODs that have been distributed and later are discovered to cause problems.

Download the external HOLDDATA from CA Support Online to a DASD file, and allocate the file to the SMPHOLD DD statement. To take CA of the external HOLDDATA, receive it into your SMP/E environment. If you use the jobs supplied by CA, SMP/E receives the HOLDDATA.

If a SYSMOD has an unresolved hold error, SMP/E does not install it unless you add a bypass to your APPLY command. You can bypass an error hold in situations that are not applicable to you. Error holds that are not applicable to you can include a problem that happens only with a hardware device that you do not have or in a product feature that you do not use.

When you issue the SYSMOD that resolves the hold, the resolving SYSMOD supersedes the hold error. This action lets you apply the original SYSMOD in conjunction with the fixing SYSMOD.

A special HOLDDATA class called ERREL exists. We have determined that the problem fixed by the SYSMOD is more important than the one that it causes. We recommend that you apply these SYSMODs.

To reliably manage external HOLDDATA, allow SMP/E to manage it automatically. The only manual task is running a REPORT ERRSYSMODS. This report identifies any held SYSMODs already applied to your system. If the resolving SYSMOD is in receive status, SMP/E identifies the SYSMOD to apply to correct the situation.

Update VSAM Data Sets

If an installed SMP fix contains maintenance for the VSAM data sets, maintenance option V of the Install Utility becomes available. To complete maintenance, select the option to update the data sets for the regions you have set up.

To update the VSAM data sets

1. Access the ISPF/PDF Primary Menu, and select the COMMAND option.

The ISPF Command Shell panel appears.

2. At the command prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility title panel appears.

3. Press Enter.

The Install Utility Primary Menu panel appears.

4. Enter **8** (Maintain Products).

The MAINTENANCE Primary Menu panel appears.

5. Enter **V** (Update MODS, PANELS, OSCNTL and NETINFO data sets with installed maintenance).

The MAINTENANCE Shared Region Data Sets panel appears.

6. Review the information, and press Enter.

7. At the MAINTENANCE JOBCARD Information panel, specify your JOBCARD details and press Enter.

8. At the MAINTENANCE JCL Library Creation panel, review your fix JCL library. The default library name is:

dsnpref.SM50.FIX.VSAMUPD.JCL

dsnpref

The same data set prefix used for the *dsnpref*.SM50.CAIJCL data set.

Note: Each time you apply maintenance, use a new output data set. The new data set ensures that the only jobs in your maintenance JCL library are the jobs required for the maintenance you are installing. To use a new data set:

- Delete the library by issuing a TSO DELETE command and the library name, at the command prompt.
- Specify a new data set name.

9. Press Enter to proceed with the generation of the maintenance JCL.

10. Submit and run the job F21RFRSH to update the VSAM data sets.

11. Press F3.

The Install Utility Primary Menu panel appears.

12. Press F4 to exit the Install Utility Primary Menu panel and return to the ISPF Command Shell panel, or continue with the other options.

Note: When you have completed the procedures in this section, go to Configuring Your Product.

Chapter 6: Configuring Your Product

You use the Install Utility to set up the regions required by this product.

Important! You must put the *dsnpref.SM50.CAILINK* data set in your system linklist before you start setting up regions. You can also create a STEPLIB to the data set name (DSN) in your TSOPROC (that is, allocate it to ISPLLIB).

This section contains the following topics:

[How Region Setup Works](#) (see page 181)

[Region Contents](#) (see page 182)

[SOLVE SSI as Common Component](#) (see page 182)

[Specify the SOLVE SSI Region](#) (see page 183)

[Specify the Product Region](#) (see page 184)

How Region Setup Works

You can have more than one region on a system. Each region runs as a started task.

The Install Utility uses the [site-specific information you collected during preinstallation](#) (see page 20) to generate the jobs that build the regions. If you need additional regions, you can reuse the Install Utility to create them.

Important! After you have run a setup job, you cannot alter the results using the setup software. You can use the setup software to create a region, or you can manually customize the JCL for the existing region.

Region Contents

Your product is comprised of the following regions:

SOLVE Subsystem Interface (SOLVE SSI) Region

Provides communication between the product region and other software on a system. One SOLVE SSI can serve multiple product regions.

Note: If you have a sysplex environment and want to use VTAM generic resource support or the ATTACH command, you must have a SOLVE SSI region. For more information about VTAM generic resource support, see the *Administration Guide*.

Product Region

Specifies where you sign on and use your product. You can have more than one product region on a system.

SOLVE SSI as Common Component

The SOLVE SSI is a common component for multiple CA product families and can serve multiple product regions on a system. The following methods are available:

- One shared SSI to serve all product families.
- A separate SSI for each product family (CA Mainframe Network Management, CA SOLVE:Operations Automation, and CA SOLVE:Access).
- A mix of the first two methods, for example, CA SOLVE:Access has its own SSI and CA Mainframe Network Management and CA SOLVE:Operations Automation share an SSI.

Note: If you have already installed another SOLVE:Access Session Management product and set up a SOLVE SSI, you do not need to set up another SOLVE SSI. You must, however, ensure that the SOLVE SSI parameters suit your product and site requirements.

Specify the SOLVE SSI Region

Note: You only have to perform this task if you are using VTAM generic resource support or the ATTACH command.

Use this procedure to provide communication between the product region and other software on a system.

To specify a SOLVE SSI region

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility panel appears.

Note: On each of the Install Utility panels, you can use the following keys:

- Enter to proceed to the next panel
- F1 to display the online help
- F3 to return to the previous panel
- F4 to exit and return to the main menu

2. Press Enter.

The Install Utility Primary Menu panel appears.

3. (Optional) If you have installed the product using CA MSM, perform the following steps:

- a. Enter **1**.

The Software Delivery Method panel appears.

- b. Complete the panel:

- Enter **S** next to CA MSM.
- Specify the name of the CSI data set used during product installation in the SMP/E CSI Used field.

- c. Press Enter.

4. Enter **4**.

A panel appears listing several approaches to implement your SOLVE SSI environment.

Note: For more information, press F1 (Help).

5. Press Enter.

The SETUP SOLVE SSI Primary Menu panel appears.

6. Enter **1** (Add a Region).

The SETUP Specify SOLVE SSI Name panel appears.

7. Enter the name (*ssiname*) and description of the SOLVE Subsystem Interface region you are setting up. The initial value is SOLVESSI.

The setup software uses the name to generate the started task JCL. For example, if the name is SOLVESSI, your started task JCL is named SOLVESSI.

8. Complete each of the SETUP panels as they appear. You can accept the default values or specify site-specific values. For information about the fields, press F1 (Help).

The Install Utility generates a series of setup jobs into the *dsnpref.SM50.ssiname.JCL* library.

9. Record the name of the data set into which the JCL was generated in your [post-installation worksheet](#) (see page 30).

Note: If you want to set up a new SSI, continue with these steps. Otherwise, skip the remaining steps in this procedure, verify that the required SSI parameters are present in your existing shared SSI, and update them as necessary.

10. Submit and run the following:

S01SSIAL

Allocates the SOLVE SSI data sets.

S02SSILD

Copies the PDS members to *dsnpref.SM50.SSIPARM*.

S03MIGRT

Copies data from earlier releases.

11. Press F3.

The Install Utility Primary Menu panel appears.

Specify the Product Region

The Install Utility lets you set up a region with the products you installed. If you need additional product regions, you can reuse the Install Utility to create them.

To specify a product region

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility panel appears.

Note: On each of the Install Utility panels, you can use the following keys:

- Enter to proceed to the next panel
- F1 to display online help
- F3 to return to the previous panel
- F4 to exit and return to the main menu

2. Press Enter.

The Install Utility Primary Menu panel appears.

3. (Optional) If you have installed the product using CA MSM, perform the following steps.

- a. Enter **1**.

The Software Delivery Method panel appears.

- b. Complete the panel:

- Enter **S** next to CA MSM.
- Specify the name of the CSI data set used during product installation in the SMP/E CSI Used field.

- c. Press Enter.

4. Enter **5** (Setup a NetMaster/SOLVE Product Region).

The SETUP Product Region Primary Menu panel appears.

5. Enter **1** (Add a Region).

The SETUP Specify Product Region Name panel appears.

Note: If you want to add this product to an existing region, enter **4** (Add Products and Additional Features to a Region) and select the appropriate region.

6. Enter the name (*rname*) and description of the region you are setting up. The initial value is NM.

The Install Utility uses the name that you entered to generate local data set names and the started task JCL. For example, if you enter REGION01 as the region name, your started task JCL is REGION01 and a local region file, such as the Virtual File System (VFS), is *dsnpref*.REGION01.VFS.

The SETUP Product Selection panel appears.

7. Enter **S** next to the products you are licensed to include in the region.
8. Complete each of the SETUP panels as they open. You can accept the default values or specify site-specific values.

Note: For information about the fields, press F1 (Help).

9. Enter **5** (Setup a NetMaster/SOLVE Product Region).

The SETUP Product Region Primary Menu panel appears.

10. Enter **1** (Add a Region).

The SETUP Specify Product Region Name panel appears.

11. Enter the name (*rname*) and description of the region you are setting up. The initial value is NM.

The Install Utility uses the name that you entered to generate local data set names and the started task JCL. For example, if you enter REGION01 as the region name, your started task JCL is REGION01 and a local region file, such as the Virtual File System (VFS), is *dsnpref*.REGION01.VFS.

The SETUP Product Selection panel appears.

12. Enter **S** next to the product.

13. Complete each of the SETUP panels as they open. You can accept the default values or specify site-specific values.

Note: For information about the fields, press F1 (Help).

The setup software generates a series of setup jobs in the *dsnpref*.SM50.*rname*.JCL library.

14. Record the name of the data set into which the JCL was generated in your [post-installation worksheet](#) (see page 30).

15. Submit and run the following jobs in sequence. Do not proceed with any job until the previous job has completed successfully. Each job should complete return code 0 unless otherwise indicated.

S01LCALC

Allocates the region-specific (local) data sets. If you are upgrading and have increased the size of a particular file, modify the JCL to increase the space allocation as required.

S02SHALC

Allocates the shared run-time data sets.

S03LDVIP

Populates the MODS, PANELS, and OSCNTL files.

S04LDVSM

Populates the other VSAM files.

S05LDPDS

Copies some PDS members to *dsnpref.rname*.TESTEXEC or *dsnpref*.PARMLIB for use by the product region. If this product is being added to an existing region, the RUNSYSIN and IIAPARMS are overwritten.

Note: The member names for IIAPARMS and SXPARMS include the domain ID, so they appear as *IIAdmid* and *SXPdmid*.

S06MIGRT

Copies site-specific VSAM data from an earlier release.

Note: The utility also generates the following two jobs to help you deploy the configuration files for your region to a target system if a shared DASD is not available: S10DUMP and S11REST. The S10DUMP job creates a backup data set that includes the configuration files for the region, which you deploy to the target system. The S11REST job, when submitted on the target system, restores the configuration files from the backup data set. In addition to deploying the configuration files, you also need to deploy the target libraries. CA MSM can help you with this deployment.

16. Press F3.

The Install Utility Primary Menu panel appears.

Note: If you want to replicate this product region on another system, certain data sets are required. Copy the data sets listed in *dsnpref*.SM50.*rname*.JCL(DSLIST) to your target system.

Chapter 7: Creating VTAM Definitions and Tables

You create VTAM definitions and tables to set up your VTAM major node.

This section contains the following topics:

[Create VTAM Definitions and Tables](#) (see page 189)

Create VTAM Definitions and Tables

The Create VTAM Definitions and Tables facility builds the VTAM major node, which contains application definition statements for all ACBs required by your product regions. Perform this task initially when all product regions have been set up. If changes are made to any regions or if additional regions are added later, perform the task again.

Note: You use the major node that you create in this procedure to [activate your VTAM applications](#) (see page 196).

To create VTAM definitions and tables

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

```
EXEC 'dsnpref.SM50.CAIJCL(INSTALL)'
```

The Install Utility Primary Menu panel appears.

2. Enter **7** (Create VTAM Definitions and Tables).

The VTAM Primary Menu panel appears.

3. Enter **1** (Create VTAM Definitions and Tables).

The VTAM Data Sets panel appears.

4. Enter the VTAM major node name (*vtamname*) and data set names of the requested IBM data sets.

The VTAM NetMaster/SOLVE ACBs panel appears and displays the prefix for External Interface Package (EIP) ACBs and the names of all product regions and the ACBs associated with them.

Note: If >>> appears, you can use F10 (right) to display all ACBs.

5. Enter the prefix for EIP ACBs.

6. Complete each of the remaining panels as they appear. You can accept the default values or specify site-specific values. For information about the fields, press F1 (Help).

The Install Utility generates a series of jobs in the *dsnpref.SM50.VTAM.JCL* library.

7. Record the name of the data set into which the JCL was generated in your [post-installation worksheet](#) (see page 30).
8. Submit and run the following jobs in sequence:

V01LDVTM

Copies major node into SYS1.VTAMLST.

V02ASMOD

Assembles VTAM MODE table.

This job is required only if you want to provide users with access to external applications. Your product uses VTAM mode tables that are assembled and linked into a load library available to VTAM, and the tables lets users access external applications.

Each job should return condition code 0 unless otherwise indicated.

9. Press F3.

The Install Utility Primary Menu panel appears.

10. Enter **X**.

The Install Utility closes.

Note: Press F1 (Help) for information about any panel.

Chapter 8: Preparing to Start Your Product

Before CA SOLVE:Access can be started and used, preparation tasks are required.

Note: The Install Utility places SYSIN members and parameter members in a default data set. If you move these members to a more secure data set, update the started task JCL to point to the new data set.

This section contains the following topics:

[Started Task JCL Setup](#) (see page 191)

[Load Library](#) (see page 195)

[Optimize Response Times](#) (see page 196)

[Activate VTAM Applications](#) (see page 196)

[Enable Auditing by CA Auditor](#) (see page 197)

The Install Utility places RUNSYSIN (for the product region) in a default data set. If you move this member to a more secure data set, you must update the started task JCL to point to the new data set.

Started Task JCL Setup

The Install Utility places the following SYSIN and parameter members into default data sets:

- SSIPARMS and SSISYSIN—for SOLVE SSI
- RUNSYSIN—for the product region

If you move these members into a more secure data set, update the started task JCL and SYSIN members to point to the new data set.

TESTEXEC Data Set

The install utility populates the TESTEXEC data set based on the values entered during the installation and setup process.

Review the members in TESTEXEC to:

- Ensure that they meet your site-specific requirements
- Reapply any previous customization that is still required

Review the following members in *dsnpref.rname*.TESTEXEC:

NMREADY

Is the NCL procedure that is executed as part of system initialization after the VTAM ACBs have been opened successfully.

NMINIT

Is the NCL procedure that is executed as part of system initialization before the VTAM ACBs are opened.

\$ACINIT

Is the NCL procedure that contains your application definitions (for example, DEFLOGON and REPLOGON commands).

\$EASINET

Is the NCL procedure that displays EASINET logon panels and processes logon requests.

Customizer sets the region parameters. Adhere to the following guidelines:

- Do not code any SYSPARMS commands in the NMINIT or NMREADY procedures.
- Do not activate or modify links, or use commands such as DEFLINK and DEFTRANS in NMINIT.
- If you intend to have multiple regions using INMC links, activate the INMC links in NMREADY.
- If you are migrating from releases earlier than r4, do not execute the following procedures from NMINIT or NMREADY: \$EASINIT and \$MAINIT.

Started Task Product Region Parameter Member

The Install Utility generates the RUNSYSIN member based on the values entered during the installation and setup process.

RUNSYSIN specifies the product region parameters.

Review RUNSYSIN to:

- Ensure that it meets your site-specific requirements
- Reapply any previous customization that is still required

If you have set SUBS=YES in the member, you can update the RUNSYSIN started task members to use z/OS static system symbols. This assists in planning future deployment.

Review the following parameters in *dsnpref.rname*.TESTEXEC(RUNSYSIN):

PPREF='XOPT=SDUMP'

Specifies that ABEND dumps are written to the SYS1.DUMP data set.

If you do not want SYS1.DUMP data sets for dumps, remove the parameter and add the SYSMDUMP DD statement to the generated task in *dsnpref.SM50.rname.JCL(rname)*.

PPREF='INIFILE=???????'

Specifies the INI file used for parameter customizations.

To use a migrated INI file, uncomment the parameter and replace the question marks with the name of the INI file.

SOLVE SSI Started Task Parameter Member

The Install Utility generates the SSIPARM member based on the values entered during the installation and setup process.

SSIPARM specifies the SOLVE SSI started task parameters.

Review the SSIPARM member:

- Ensure that the member meets your site-specific requirements
- Reapply any previous customization that is still required

Review the following members in *dsnpref.SM50.SSIPARM*:

SSISYSIN

(Optional) (If you are using an existing shared SOLVE SSI region, you do not have to review this member.)

If SUBS=YES is set, you can update the SSISYSIN started task member to use z/OS static system symbols. System symbols assist in planning future deployment.

SSIPARMS

(Optional) (If you are using an existing shared SOLVE SSI region, you do not have to review this member.)

This member is present only if you created it when you specified the SOLVE SSI region.

Parameters can be shared with any other products using this SOLVE SSI. Review these parameters, and ensure that they are set correctly for the products (these parameters can be in SSISYSIN or SSIPARMS).

Note: For more information about sharing a SOLVE SSI, see the *SOLVE Subsystem Interface Guide*.

Review and Copy the SOLVE SSI Started Task

The Install Utility generates a SOLVE SSI started task that you must review to ensure that it meets your site-specific requirements; if necessary, reapply any previous customization that is still required.

Note: If you are using an existing shared SOLVE SSI region, skip this procedure.

Use this procedure to review, update, and copy the SOLVE SSI started task to a procedure library.

Note: To assist you in planning future deployment, you can update the SOLVE SSI started task to use z/OS static system symbols.

To review and copy the SOLVE SSI started task

1. In the SOLVE SSI started task member *dsnpref.SM50.ssiname.JCL(ssiname)*, review and update the DD statements for your site-specific requirements.
2. Copy the reviewed member to SYSx.PROCLIB.

Review and Copy the Product Region Started Task

The Install Utility generates a product region started task that you must review to ensure that it meets your site-specific requirements; if necessary, reapply any previous customization that is still required.

Use this procedure to review, update, and copy the started task to a procedure library.

Note: To assist you in planning future deployment, you can update the product region started task to use z/OS static system symbols.

To review and copy the product region started task

1. In the product region started task member *dsnpref.SM50.rname.JCL(rname)*, review and update the DD statements for your site-specific requirements.
2. Copy the reviewed member to SYSx.PROCLIB.

Load Library

This product has the following load library that must be APF-authorized:
CC2DLOAD.

Authorization of the Load Libraries

To APF-authorize your load libraries, add the run-time load libraries to the SYS1.PARMLIB(IEAAPFxx) APF list.

To dynamically APF-authorize the load libraries, issue the following z/OS command:

```
SETPROG APF,ADD,DSNAME=?loadLib,VOLUME=?volser
```

?loadlib

Specifies the name of the load library.

?volser

Specifies its volume serial number.

Optimize Response Times

To optimize the response time of CA SOLVE:Access, set the dispatching priority of the CA SOLVE:Access region to be lower than VTAM and higher than all other applications.

Activate VTAM Applications

You must activate VTAM applications for your regions. The Create VTAM Definitions and Tables facility builds a VTAM major node that contains APPL definitions for all product regions. The member V01LDVMT copies *vtamname* to SYS1.VTAMLST, which is the VTAM library that contains all the major node and application definitions used by your product.

To activate the VTAM applications

1. Add *vtamname* to the startup list in SYS1.VTAMLST(ATCCONxx).
2. Activate the VTAM major node by entering the following VTAM command:

```
V NET,ACT,ID=vtamname
```

3. Check that all of the applications are defined to VTAM after the activation. To do this, display the major node by entering the following VTAM command:

```
D NET,ID=vtamname,E
```

Enable Auditing by CA Auditor

If your auditors require CA Auditor or CA Common Inventory Service to have knowledge of this product running on your system, you must put a load module in your system link list.

To define the load module to the system link list, include the library *dsnpref.SM50.CAILINK* in the system link list SYS1.PARMLIB(PROGxx), for example:

```
LNKLST ADD NAME(LNKLST00) DSNAME(dsnpref.SM50.CAILINK)
```


Chapter 9: Performing Initial Migration

You perform some migration tasks before you start your product region.

Important! The NetMaster® Database (NDB) format has changed since Version 4.0. If you are migrating from earlier releases, back up any user-written NDBs before you migrate so that you can retrieve them if necessary.

This section contains the following topics:

[User Security Requirements](#) (see page 200)

[SYSPARMS Usage](#) (see page 201)

[RUNSYSIN Compatibility](#) (see page 203)

[Specify VTAM Generic Resource Support](#) (see page 204)

[Review User NCL Procedures](#) (see page 204)

[Review the Session RTM Management Interface](#) (see page 205)

[Review and Recompile Your MAIEX02 Exit](#) (see page 205)

[Check Log File Compatibility and Procedures](#) (see page 206)

[\\$CACALL Changes](#) (see page 206)

More information:

[Migration Preparation](#) (see page 31)

User Security Requirements

UAMS attributes and related structured fields (SFs) are changed.

Access control to Multiple Application Interface (MAI) Stored Definition Maintenance (MSDM) is simplified:

- The Userid Access Maintenance Subsystem (UAMS) MAI Details panel contains a new field, MSDM Access.
- The following structured field is added: X'0204'.

Control using command authority level remains valid until overridden by the new facilities.

Note: For more information, see the *Security Guide*.

If you are migrating from releases earlier than r4, review the following changes also:

- The UAMS structured field (SF X'0511') has changed so that users that require access to administration functions, including Customizer, now require Administration and Definition authority.
- Users of CA SOLVE:Access that require access to the Session Replay Facility now require Network Management authority (SF X'0022').
- Users of CA SOLVE:Access can have an MAI-FS session limit applied using a new UAMS attribute, Active Session Limit (SF X'0203').

Obsolete Structured Fields

The following structured fields have been removed:

- 0024 CAS Panel Maintenance
- 0602 MODS application register access
- 0603 MODS administration function access
- 0606 Object Class Specifications
- 0607 Mapping Services access
- 0610 CAS menu maintenance access
- 0611 CAS list maintenance access
- 0612 CAS panel domain maintenance access
- 0613 CAS help maintenance access
- 0614 CAS message maintenance access
- 0615 CAS table maintenance access
- 0616 CAS criteria maintenance access
- 0617 CAS command maintenance access

Important! If you have any security exits or NCL procedures issuing `&SECCALL`, ensure that these fields are not used. Replace them with structured field SF0601 Managed Object Development Services.

SYSPARMS Usage

Consider the changes to the SYSPARMS command when you migrate your product.

New Commands that Replace SYSPARMS Operands

The following SYSPARMS operands were replaced. You need to search for usage in your NCL procedures, including NMINIT and NMREADY, and replace as described in the following table.

Old Command	New Command
SYSPARMS APPLSTAT=xxxx	APPLSTAT APPL=xxxx
SHOW SYSPARMS APPLSTAT=xxxx	SHOW APPLSTAT APPL=xxxx
SYSPARMS MAIFPREF=xxxx	MAIFPREF POOL=xxxx
SHOW SYSPARMS=MAIFPREF	SHOW MAIFPREF=xxxx
	Note: MAI-FS pool names are set using the EXTAPPLPOOLS Customizer parameter group.
SYSPARMS MAPLOAD=xxxx	LOAD MAP=xxxx
SYSPARMS MAPDEL=xxxx	UNLOAD MAP=xxxx
SYSPARMS MAPRESET=xxxx	This command is obsolete. Use LOAD MAP=xxxx.
SYSPARMS MODLOAD=xxxx	LOAD MOD=xxxx
SYSPARMS MODDEL=xxxx	UNLOAD MOD=xxxx
SYSPARMS PRELOAD=xxxx	LOAD PROC=xxxx
SYSPARMS UNLOAD=xxxx	UNLOAD PROC=xxxx

Note: You must make these changes in NCL procedures that use these commands either natively, or by way of &INTCMD.

More information:

[Migrate Initialization Commands](#) (see page 229)

Revised SHOW SYSPARMS Output

SHOW SYSPARMS output includes additional columns. Review any user NCL procedures that execute SHOW SYSPARMS using &INTCMD to take the additional columns into account.

Amended SYSPARMS Operand Processing

By default, when a SYSPARMS operand is set by a Customizer parameter group, it can only be updated subsequently using Customizer and cannot be set using OCS, Command Entry, or an NCL procedure.

If your site uses NCL procedures that execute SYSPARMS commands (either natively or using &INTCMD), note them, and after you initialize a region, you can use the SHOW SYSPARMS command to display all SYSPARMS operand origins. Locate the SYSPARMS you previously noted and, if they are set by Customizer, remove these SYSPARMS operands from the NCL procedures.

Note: For more information, see the online help for message N12810.

RUNSYSIN Compatibility

Note: This section applies only if you are migrating from releases earlier than r4.

Note: Before June 1997, the RUNSYSIN member was named U28SYSIN.

Review your old RUNSYSIN member and update the new *dsnpref.rname*.TESTEXEC(RUNSYSIN) member to suit your specific requirements.

Important! Allocate new names for ACB and high-level qualifier (HLQ) names during the installation process.

The RUNSYSIN member has changed as follows:

- The member now uses new initialization parameters (INIFILE, INIRESET, INIDEBUG, and INIWTO).
- The member now uses the PROD= parameter to include licensed products in your region.
- Customizer now performs the allocation of many VSAM data sets.

Specify VTAM Generic Resource Support

If you are migrating a region that is registered as a VTAM generic resource, consider the following:

- (For releases earlier than r4) The generic resource name is now specified in the RUNSYSIN member using a JCL parameter. Remove any SYSPARM GENRSRC command from your NMINIT member.
- You must install and set up a SOLVE SSI region using the latest release. If you have other product regions in the same LPAR, the latest release of the SOLVE SSI supports these product regions.

Review User NCL Procedures

Note: This section applies only if you are migrating from releases earlier than r4.

Review your user NCL procedures for the following changes:

- Changed storage location for MAI session definitions
- Changed LUTRACE command

Session Definitions

If you have user NCL procedures that reference MAI session definition records, review them because MAI session definition records are now stored on the ACDB and the internal format has changed.

If you used the NCL procedures to provide mass edit facilities, you should now use the MSDM Global Edit facility. If your NCL procedures perform other functions, [contact Technical Support](#) (see page iii).

When you [set up your region](#) (see page 184), you run a job named S06MIGRT, which uses the IDCAMS REPRO command to copy the records to the ACDB. The IDCAMS REPRO command does not change the format of the existing records. Records are converted automatically to the new format when a user's definition set is updated in the CA SOLVE:Access region using the following:

- The MAI Menu session update commands
- MAI Session Definition Maintenance (MSDM)

Important! If you use your existing NCL procedures without modification, you can corrupt session definition records.

LU Tracing

The format of the LUTRACE command, used to initiate and terminate LU tracing, has changed.

To initiate an LU trace, you use the START= operand. You can now only specify this operand once on each command.

If you have any NCL procedures that execute the LUTRACE command where the START= operand is specified multiple times, change the NCL procedure to execute multiple LUTRACE commands.

Review the Session RTM Management Interface

Note: This section applies only if you are migrating from releases earlier than r4.

The SPYMEX02 and SPYMEX03 exits used to pass virtual session correlation data to CA NetSpy are no longer required because the interface is now implemented using the NETSPYRTM parameter group in Customizer. If your existing CA SOLVE:Access region implemented these exits, remove the following statements from your NMINIT or NMREADY members:

- SYSPARM MAIEX02=SPYMEX02
- SYSPARM MAIEX03=SPYMEX03

Note: For more information, see the *Administration Guide*.

Review and Recompile Your MAIEX02 Exit

Note: This section applies only if you are migrating from releases earlier than r4.

If your existing CA SOLVE:Access region has implemented an MAIEX02 exit, reassemble and link edit the exit. The layout of the exit communication area, mapped by the \$NMMAEX2 macro, has changed and some field offsets are different.

Note: Review the new functions in the r4 *Release Summary* because these functions can duplicate functions provided by your exit, for example:

- Session limits by user or application
- Increased MAI ACB pools

Check Log File Compatibility and Procedures

Note: This section applies only if you are migrating from releases earlier than r4.

You can no longer use your old log file formats because the physical format of the activity log files has changed.

\$LOGPROC and \$LOGBROW are now \$LOPROC and \$LOBROW respectively. You cannot customize \$LOPROC or \$LOBROW because they are not written in Network Control Language (NCL). These procedures have been revised to improve logging performance.

If you have modified \$LOGPROC, write a log exit routine incorporating your changes.

Note: For more information about log exits, see the *Administration Guide*.

Note: No conversion utilities are available for converting old-format log files to the new format.

\$CACALL Changes

The following functions were removed:

- ACTION=BUILD,CLASS=CFPATH
- MODE=BROWSE is not supported for ACTION=DISPLAY,CLASS=HELP

If you have any NCL procedures issuing \$CACALL, ensure that these functions are not used.

Chapter 10: Starting Up

This section contains the following topics:

[Start the SOLVE SSI Region](#) (see page 207)

[Restart the SOLVE SSI Region](#) (see page 208)

[Start the Product Region](#) (see page 208)

[Perform the Initial Logon](#) (see page 209)

[Add the Initial Administrator User ID](#) (see page 209)

[Perform Subsequent Logon](#) (see page 210)

Start the SOLVE SSI Region

You only need to perform this procedure if you use a new SOLVE SSI region.

Notes:

- If you are using an existing shared SOLVE SSI region and did not make any changes when specifying the SOLVE SSI region, skip this procedure.
- If you are using an existing shared SOLVE SSI region and have made changes, skip this procedure and proceed to [restarting the SOLVE SSI region](#) (see page 208).

To start the SOLVE SSI region, issue the following command from the MVS console:

```
S ssiname
```

ssiname is the name you specified for the SOLVE SSI during the setup process.

To stop the SOLVE SSI started task, issue the following command from the MVS console:

```
F ssiname,FSTOP
```

Note: If you are using cross-memory services and the SOLVE SSI is terminated, the address space ID is not available until after the next IPL.

Restart the SOLVE SSI Region

You only need to perform this procedure if you are using an existing shared SOLVE SSI region and made changes when specifying the SOLVE SSI region.

To restart the SOLVE SSI region

1. Stop the SOLVE SSI started task, issue the following command from the MVS console:

```
F ssiname,FSTOP
```

2. Start the SOLVE SSI region, issue the following command from the MVS console:

```
S ssiname
```

Start the Product Region

To start the product region, issue the following command:

```
S rname
```

rname is the name you specified for the region during the setup process.

Note: To stop the started task, issue the following command from the MVS console:

```
F rname,FSTOP
```

Perform the Initial Logon

Note: If your region is using an existing UAMS data set, you will already have an administrator user ID available for the region. You can use that ID to log on to the region.

To perform the initial logon

1. Log on to the product region. You can use the VTAM logon command:

```
LOGON APPLID(priacbnm)
```

priacbnm is the name of the primary VTAM ACB application nominated in the PPREF='PRI=*priacbnm*' command in *dsnpref.rname*.TESTEXEC(RUNSYSIN).

The UAMS : Primary Menu appears.

2. When the region logon panel appears, enter the user ID **INSTALL** and password **99999999**, and then press F7 (NM). The UAMS : Primary Menu appears.

The INSTALL 99999999 is a special user ID and password combination that can be used once only, and is accepted if the USERID data set is empty. The only functions that the INSTALL user ID can perform are those associated with user ID maintenance.

Note: The default function key allocated to CA SOLVE:Access is F7. For information about customizing EASINET, see the *Administration Guide*.

Add the Initial Administrator User ID

Note: You do not need to perform this procedure if your region is using an existing UAMS data set and already has an administrator user ID.

The only functions that the INSTALL user ID can perform are those associated with user ID maintenance. Therefore, you must add an initial administrator user ID.

Note: If you are using a full security exit, user authorities are not specified through UAMS. You must specify these authorities as structured fields in your security exit. For more information, see the *Security Guide*.

To define an initial user with full authority to UAMS

1. At the UAMS : Primary Menu, type the initial administrator user ID in the User field, **USER** in the Definition Type field, and select the **A – Add User Definition** option.

The UAMS : User Details panel appears.

2. Type the initial password and user details for this initial user ID.

Important! The user must change the password again at first logon.

3. Go to the UAMS definition panels and ensure that you give full authority to this initial user to perform future administration tasks. Set the following minimum values:

User Authorities panel, page 2

Authority Level: 255

APPC Access Key: ALL

APPC Access Lock: ALL

Access Authorities panel, page 3

Set all fields to Y.

MAI Details panel, page 8

Privilege Class: A

Print Services Manager Details panel, page 12

For all fields, set the maximum authority (1 through 4).

Report Writer Details panel, page 13

For all fields, set the maximum authority (1 through 4).

4. Press F3.

The user definition is saved.

Perform Subsequent Logon

You are now ready to log on to your product and begin using it as an authorized user.

Note: You do not need to perform this procedure if your region is using an existing UAMS data set and already has an administrator user ID.

To log on to your product

1. Press F3 to log off the product region.
2. Log on using your new initial administrator user ID and password.
3. If necessary, change your password by typing **U.P**, confirm your change, and press F3 (File) to save the change.

Notes:

- If you set SEC=PARTSAF or SEC=NMSAF in the RUNSYSIN member, you are not required to change your password.
- (Optional) To enable users to logon to the product from TSO, add the:
 - *dsprefix*.SM50.CC2DLMD0 data set to LINKLIST or STEPLIB concatenation for the appropriate TSO procedure
 - *dsprefix*.SM50.CC2DSAMP data set to the SYSHELP concatenation for the appropriate TSO procedure

Chapter 11: Customizing Your Product

Note: After completing customization, you can use product system variables and z/OS static system symbols to help you plan future deployment to multiple regions. You generate an initialization (INI) file where you can use these variables and symbols. For information about setting up the INI file, see the *Administration Guide*.

This section contains the following topics:

[Initial Customization Requirements](#) (see page 213)

[Additional Parameter Groups](#) (see page 217)

[Initialization Failures](#) (see page 219)

Initial Customization Requirements

You must set various parameters for your site-specific requirements. Use Customizer to review and update the parameter groups in your product region.

Note: Customizer is used to set the majority of your region parameters. If you need to permanently change any SYSPARMS values that are not handled by Customizer, [contact Technical Support](#) (see page iii).

Important! Setting certain SYSPARMS to values other than the defaults can render certain product features inoperable.

Customization can only be performed by a user with [UAMS maintenance authority](#) (see page 209). That user's UAMS definition should have an APPC Access Key and Lock value of ALL.

Customizer Setup Types

From the Customizer : System Parameters panel, you can select the following options:

Fast Setup

Customizes the required parameter groups and quickly implements your region. It provides default values wherever possible, but lets you review all the required parameter groups to ensure that they match your installation standards. You can customize other parameters at a later time.

Note: You must review all the parameter groups in this option for the region to become operational.

Custom Setup

Customizes the required parameter groups and additional file and data set names, to bring the system operation closer to your installation standards. This option quickly implements your region and still lets you perform some extra customization. It provides some default values, lets you specify names for certain files and data sets, and lets you review the required parameter groups (which are highlighted).

Complete Setup

Customizes all initialization and customization parameters.

Customize Parameter Values

You can use the provided default values or customize the parameter values to suit your site's needs.

Note: All parameters have default values.

To customize parameter values

1. Enter **U** beside the parameter group that you want to review, and make the necessary changes for your site.
2. Press F6 (Action) to apply the change immediately. You can view the results by pressing F5 (ILog).

Note: The F6 option is not available for some parameters.

3. Press F3 (File) to save your changes and indicate that you have reviewed the group.

The value you assign to a parameter is associated with one or more actions, such as setting SYSPARMS or allocating data sets. You can action some parameter groups as soon as you enter appropriate values on the parameter panel. However, when you change the value of some parameters, for example, MODS file names, these parameter values can only be actioned by restarting the product region.

Note: If you change a parameter, perform an action, and then cancel that action, the new value will be in effect for that action; but when you restart, the value will return to the last saved value. In addition, you can change a value and save it without actioning it to have it take effect on the next startup.

Interrupted Customization

If you exit the customization process before reviewing all required parameter groups, you are presented with a confirmation panel. You can choose to log off and continue with the customization later. Alternatively, another authorized user can log on and complete the customization process. Users cannot access the region until all the required parameter groups have been reviewed.

Update and Review the Fast Setup Customization Parameters

To begin the process of updating and reviewing the Fast Setup Customization parameters, select the Fast Setup Customization Parameters option. The Customizer : Fast Setup panel appears.

Implement System Identification Parameters

Use this procedure to implement system identification parameters.

To implement system identification parameters

1. Enter **U** next to the System Identifications parameter group.
The SYSTEMID - System Identifications panel appears. The parameter group has two panels.
2. Complete the fields on the panels. For information about the fields, press F1 (Help).
3. Press F6 (Action) to action the entries.
4. Press F3 (File) to save your settings.

The Customizer : Fast Setup panel appears with the Reviewed column marked Yes for the system identification parameters.

Note: The system ID does not take effect until the next system initialization.

Implement Initialization Parameters

The CA SOLVE:Access initialization parameters specify the following settings:

- EASINET processing options
- Generic resource support
- Application definition procedure
- Session definition audit support

To implement the CA SOLVE:Access initialization parameters

1. Enter **U** next to the \$AC ACINIT parameter group.
The ACINIT - SOLVE:Access Init Process panel appears.
2. Enter the EASINET and general processing options to suit your requirements.

Note: For information about the fields, press F1 (Help).

Note: This step installs EASINET. For more information about placing terminals under EASINET control, see the *Administration Guide*.

3. Press F6 (Action).
4. The settings are applied.
5. Press F3 (File).

The settings are saved, and the Customizer: Fast Setup panel appears.

Additional Parameter Groups

Depending on which product features you want to implement, you may want to review other parameter groups and add any values that you saved from your old product region.

You can review these parameter groups now or later, as follows:

- **Now**—Select the Complete Setup Customization Parameters option to list all parameter groups and review the relevant groups. When you complete the review, exit the list and the Customizer : System Parameters panel.
- **Later**—Exit the Customizer : System Parameters panel. (When you are ready to review these parameter groups, enter **/PARMS** to list the groups.)

Define the SOLVE:Access Session Management Database

The CA SOLVE:Access database stores session definitions and screen image data.

To specify the file options for the CA SOLVE:Access database

1. Enter **U** next to the \$AC ACDB parameter group.
The ACDB - SOLVE:Access Database panel appears.
 2. Specify the file options for the database. For information, press F1 (Help).
 3. Press F6 (Action).
The settings are applied.
 4. Press F3 (File).
The settings are saved and the Customizer: Complete Setup panel appears.
 5. Press F3 (Exit).
The Customizer : System Parameters panel appears.
- Note:** If you are using generic resource support, do *not* delete the RLS option.

Define External Application ACB Pools

When communicating with external applications, you define ACB pool names for the external applications.

Note: For more information about ACB pool names, see the *Administration Guide*.

To define external application ACB pool names

1. Enter **U** next to the \$NM EXTAPPLPOOLS parameter group.
The EXTAPPLPOOLS - External Application ACB Pools panel appears.
2. Specify the ACB pool names of the external applications. For information about these fields, press F1 (Help).
Note: You defined ACB pool names when you [prepared your product for startup](#) (see page 196).
3. Press F6 (Action).
The settings are applied.
4. Press F3 (File).
The settings are saved and the Customizer: Complete Setup panel appears.

Initialization Failures

Fatal errors occur (for example, you are unable to log on) if either or both of the following are unavailable:

- Panel libraries
- MODS control files

Resolve Initialization Failures

If you log on to a region where the initialization of a parameter group has failed, Customizer displays the System Initialization In Progress dialog. This dialog indicates progress and assists you with identifying and rectifying any problems by displaying the current initialization status and whether actions associated with parameter groups have failed.

To resolve initialization failures

1. Enter **S** next to List Only Failed Parameters.
2. Enter **L** next to a failed parameter group to view its log and look for error messages.
3. Use the message help and the full activity log to determine the cause of the failure.
4. Make the necessary changes to the parameter group and press F6.
The parameter group changes are applied.
5. Press F3 to save the changes.

Parameter Group Actions

You can apply the following actions to listed parameter groups:

- **S** or **B** (Browse) to browse parameter group details.
- **H** (Help) to view the help for a parameter group.
- **U** (Update) to update parameter group details.
- **AC** (Action) to action a parameter group.
- **L** (Log) to view the associated initialization and customization log.
- **I** (Ignore) to indicate to the system that it should ignore a failed parameter group, and proceed to run dependent parameter groups. This action is not available when initializing for the first time.

Important! Ignoring parameter groups is not recommended. Consider carefully before applying this action.

- **SD** (Set Default) to reset the parameter group values to the default values.

Note: Press F1 (Help) for more information.

An action can only be performed against an already completed parameter group or a failed parameter group.

When you correct an error by updating an incorrect parameter group record, you must action that parameter group before processing can continue (unless you apply the Ignore action). To action the parameter group, do *one* of the following:

- Press F6 (Action) when you finish updating the parameter group.
- Apply **AC** (Action) to the listed parameter group.

Chapter 12: Completing Migration

The process to complete the migration includes tasks that you perform after you start your r5 product region.

This section contains the following topics:

[MODS Migration](#) (see page 223)

[Panel Migration](#) (see page 224)

[OSCNTL File Migration](#) (see page 226)

[PSM Default Values Migration](#) (see page 227)

[Changes to Text Editor](#) (see page 227)

[Implement the Time-out Facility](#) (see page 228)

[Migrate Initialization Commands](#) (see page 229)

[Review ACB Pool Settings](#) (see page 230)

MODS Migration

Note: If you have not created your own MODS file, or individual MODS entities, do not perform this step.

MODS File

The format of the MODS file is unchanged. If you have a MODS file containing only user-defined MODS entities that you want to keep, copy the entire file to the r5 file using the IDCAMS REPRO command.

Note: The allocation of MODS data sets is controlled by the MODSFILES parameter group in Customizer. For more information, enter **/PARMS** on any panel, select \$NM MODSFILES, and press F1 (Help).

Copy MODS Definitions

The following entities are stored in the MODS file:

- Application definitions
- Command definitions
- Criteria definitions
- Help definitions
- List definitions
- Menu definitions
- Message definitions
- Print Services definitions
- Report definitions
- Table definitions

Note: Help alias entities are no longer supported. If you have installation-defined help aliases, convert them to a help page, and code the .cp macro to copy the original member. For more information about help macros, see the *Managed Object Development Services Programmer and Administrator Guide*.

To copy MODS entities from your previous MODS file to your current one

Important! Copy only installation-defined entities. Do not copy distributed entities.

1. Enter **/MODSADE** from any panel.
The MODS : Entity Administration Menu appears.
2. Type **C** at the prompt, specify the information to copy your entities from the MODSUSR data set used by the old region to the MODSUSR data set used by this region, and press Enter.
The MODS : Entity List panel appears.
3. Select the entities that you want to copy, and press Enter.

Panel Migration

Note: If you have not created your own panel file, or individual panel entities, do not perform this step.

Installation-Defined Panel Library

The format of the panel library is unchanged. If you have a panel library that contains only user-defined panel definitions that you want to keep, copy the entire file to the r5 file using the IDCAMS REPRO command.

Note: The allocation of panel data sets is controlled by the PANELLIBS parameter group in Customizer. For more information, enter **/PARMS** on any panel, select \$NM PANELLIBS, and press F1 (Help).

Individual Panels

If you have installation-defined panel definitions in the same panel library as distributed panel definitions, you can copy the individual panel definitions to an r5 panel library.

Important! You should only copy installation-defined panel definitions. Do not copy distributed panel definitions.

Copy Panel Definitions

You must copy the required panel definitions to the panel library in your r5 product region.

To copy panel definitions

1. Define a temporary panel library for your old panels using the following steps:
 - a. Enter **/MODSAD.P**.
The MODS : Panel Library Maintenance Menu appears.
 - b. Select **L - Library Definitions**.
The MODS : Library Definition Menu appears.
 - c. Select **A - Allocate, Open, and Define Library** and specify a library name (for example, OLDPANLS) and the data set name where your old panels are located. Optionally, specify a description.
A temporary panels library is defined.
 - d. Press F3 (Exit) to return to the MODS : Panel Library Maintenance Menu.

2. Copy the panels using the following steps:
 - a. Select **C - Copy Panel(s)** and specify the From library as the library name you just defined (for example OLDPANLS), and the To library as the target panels library name.

If you leave the Panel Name field empty, the MODS : Panel Copy List appears, showing the panels in the From library.
 - b. Use the **C** (Copy) or **R** (Replace) action against the panels you want to copy. Press F1 (Help) for additional information.
 - c. When all requested panels have been copied, press F3 (Exit) to return to the MODS : Panel Library Maintenance Menu.
3. Delete the temporary panel library definition using the following steps:
 - a. Select **L - Library Definitions**.

The MODS : Library Definition Menu appears.
 - b. Select **U - Remove Library Definition, Close and Unallocate** and specify the library name (for example OLDPANLS).

The temporary panels library definition is removed.

Note: For more information about the MODS Panel Library Maintenance facility, see the *Managed Object Development Services Programming and Administrator Guide*.

OSCNTL File Migration

The format of the OSCNTL file is unchanged. If your installation's existing OSCNTL file contains installation-defined ASN.1 maps, you must recompile them in the r5 product region.

Ensure the data set containing the map source is added to the COMMANDS concatenation in your new region. To compile a map, use the Compile Map option of Mapping Services. To access the Mapping Services Primary Menu, enter **/MAPMENU** from any panel.

Note: For more information about Mapping Services, see the *Managed Object Development Services Programming and Administration Guide*.

PSM Default Values Migration

When PSM Printer or Form definitions are added, some fields are primed from defaults stored in a Defaults record. PSM Defaults are customized using the PSMDEFAULTS Customizer parameter group.

If you did not amend the default values, there is no migration action. However, if you changed these values, review them in the PSMDEFAULTS parameter group and update as required.

Defaults that were previously set using /PSMADMN.UD are now set in Customizer. If you have changed your defaults using /PSMADMN.UD in previous releases, update your changes in the PSMDEFAULTS parameter group.

Changes to Text Editor

Note: This section applies only if you are migrating from releases earlier than r4.

In the Common Application Services (CAS) text editor, the number of digits in the line number field is increased from four to six, to make extra lines available for text editing. As a result, each text line visible on a panel is two characters shorter:

```
000001 This is a line of text in the new Text Editor.
```

```
0001 This is a line of text in the old Text Editor.
```

If you are running any automatic procedures in the text editor, ensure that the length of each text line does not exceed 72 characters.

Implement the Time-out Facility

Note: This section applies only if you are migrating from releases earlier than r4.

Your product includes a terminal time-out facility, which is used to reduce the security risk if terminals are logged on but unattended. This facility is implemented using the following SYSPARMS commands:

- **TOTIME1** and **TOTIME2**—First-level and second-level time-out periods
- **TOACT1** and **TOACT2**—First-level and second-level timeout actions and repeat intervals
- **TODISC**—Disconnected user time-out period
- **TOLOCK**—Actions apply to locked sessions
- **TOALARM**—Alarm repeat count

Note: Specify these SYSPARMS commands using the TIMEOUT parameter group in Customizer.

To tailor the terminal time-out facility

1. Enter **/PARMS** on any panel.
2. Enter **U** next to \$NM TIMEOUT in the Security category.
3. Enter the values for the time-out control.
4. Press F6 (Action) to action.
5. Press F3 (File) to save the settings.

Note: You must remove any SYSPARMS commands for these parameters from your NMINIT and NMREADY procedures.

Migrate Initialization Commands

Note: This section applies only if you are migrating from releases earlier than r4.

CA SOLVE:Access uses DEFLOGON statements to define your user applications. The status of applications is monitored using SYSPARM APPLSTAT commands. Previously, the DEFLOGON and SYSPARM APPLSTAT commands were defined in the NMREADY procedure, or another procedure executed from NMREADY. These commands are now defined in the CA SOLVE:Access initialization procedure. Furthermore, the APPLSTAT APPL=xxxx command has replaced the SYSPARM APPLSTAT command.

A default initialization procedure, \$ACINIT is installed with CA SOLVE:Access and copied to *dsnpref.rname*.TESTEXEC(\$ACINIT).

Previous versions included another procedure, \$MAINIT, which is now obsolete because the ACINIT parameter group performs all MAI initialization.

To migrate initialization commands

1. Customize the \$ACINIT procedure to include your own application definitions procedure (or equivalent).
2. Specify the procedure name in the ACINIT parameter group in Customizer:
 - a. Enter **/PARMS** on any panel.
 - b. Enter **U** next to \$AC ACINIT in the Names category.
 - c. Enter the name of the user initialization procedure. Press F1 (Help) for online help.
 - d. Press F6 (Action) to action.
 - e. Press F3 (File) to save the settings.
3. Remove the commands from the NMREADY procedure.

More information:

[New Commands that Replace SYSPARMS Operands](#) (see page 202)

Review ACB Pool Settings

Note: This section applies only if you are migrating from releases earlier than r4.

CA SOLVE:Access uses virtual LU (ACB) pools to construct LU names for MAI-FS and MAI-OC sessions. To define LU names for MAI-FS sessions, you used the SYSPARM MAIFPREF; to define LU names for MAI-OC, you used the SYSPARM MAIOPREF command. In previous versions, these commands were defined in the NMREADY procedure or another procedure executed from NMREADY.

These pool prefixes are now defined in the EXTAPPLPOOLS parameter group in Customizer. Review the EXTAPPLPOOLS parameter group, and remove the commands from the NMREADY procedure.

Note: The Install Utility generates the VTAM application definition statements for MAI. The prefix used defines the default NMMAV and NMMAF ACBs. If you change these prefixes in VTAMAPPL, update the EXTAPPLPOOLS parameter group to match your VTAM application.

To review the parameter group

1. Enter **/PARMS** on any panel.
2. Enter **U** next to \$NM EXTAPPLPOOLS in the Interfaces category.
3. Enter the values for the External Application ACB Pool Names. Press F1 (Help) for online help.
4. Press F6 (Action) to action.
5. Press F3 (File) to save the settings.

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