

CA Chorus™ Software Manager

User Guide

Release 5.1



First Edition

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CA Technologies Product References

This document references the following CA Technologies products:

- CA Chorus™ Software Manager (CA CSM)
- CA Chorus™
- CA ACF2™ for z/OS
- CA Datacom®/DB
- CA Datacom/MSM
- CA Distributed Security Integration for z/OS (CA DSI Server)
- CA Top Secret® for z/OS
- CA Common Services for z/OS
- CA Allocate™ DASD Space and Placement (CA Allocate)
- CA Database Management Solutions for DB2 for z/OS
- CA Disk Backup and Restore (CA Disk)
- CA Easytrieve® Simplified Design System (CA Easytrieve)
- CA Panvalet® (CA Panvalet)
- CA Auditor for z/OS
- CA SMF Director
- CA View®
- CA PDSMAN® PDS Library Management (PDSMAN)
- CA SYSVIEW

Contact CA Technologies

Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At <http://ca.com/support>, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

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Documentation Changes

The following documentation updates have been made since the last release of this documentation:

- Getting Started Using CA CSM > How to Use CA CSM: Scenarios > [How to Install a Product](#) (see page 29): added a step about configuring a working set of SMP/E environments
- Getting Started Using CA CSM > [Character Sets in the CA CSM User Interface](#) (see page 40): added the topic
- Setting Up Vendors > [Delete a Vendor](#) (see page 42): added the topic
- Acquiring Products > [Hide Products from the Product List](#) (see page 50): added the topic
- Acquiring Products > [Show Hidden Products in the Product List](#) (see page 51): added the topic
- Acquiring Products > [Delete a Product](#) (see page 52): updated with a note about deleting from different vendors
- Installing Products > [How the Installation Process Works](#) (see page 54): updated the process and the graphic with a new step for configuring a working set of SMP/E environments
- Installing Products > Installation Execution Details > [USS Paths in a Failed Installation](#) (see page 59): added the topic
- Installing Products > [Review Installation Prerequisites](#) (see page 63): updated instructions for satisfied and not satisfied prerequisites
- Installing Products > [Select an SMP/E Environment](#) (see page 64): updated step 1 to include information on selecting an SMP/E environment when a product has prerequisites
- Installing Products > Select an SMP/E Environment > [Select a Target Zone](#) (see page 70): updated the note at step 1
- Maintaining Products > FIXCAT Maintenance > [Manage FIXCAT Maintenance](#) (see page 109): updated the topic with offline mode information
- Setting Up System Registry > [Change System Registry](#) (see page 138): added information about changing the system registry
- Setting Up System Registry > Change System Registry > [Delete a System Registry](#) (see page 145): added information about the SCS address space
- Deploying Products > Change Deployments > Custom Data Sets > [Add a Custom Data Set](#) (see page 178): updated the step about selecting the Override Path Naming Standard check box

- Deploying Products > Change Deployments > Custom Data Sets > [Edit a Custom Data Set](#) (see page 181): updated the step about selecting the Override Path Naming Standard check box
- Deploying Products > Change Deployments > Custom Data Sets > [Override the Path Naming Standard for Deployment](#) (see page 184): added the topic (was previously located in the Administration Guide)
- Deploying Products > Delete a Deployment > [Clean Up Deployment Snapshots](#) (see page 205): added the topic
- Working with Tasks > [Task Management Policies](#): (see page 259) added a section
- User Interface > [Software Status Tab](#) (see page 265): added a section for CA Technologies product news
- User Interface > [Software Status Tab](#) (see page 265): added a link for CA Chorus Information
- User Interface > [Products Tab](#) (see page 266): renamed the topic from Software Catalog tab to Products tab; added information about how to hide or show products in the product list
- User Interface > Products Tab > [Products, Releases Section](#) (see page 268): added information about the Clean Up and Hide menu action; added a note to the Delete Release menu action
- User Interface > [Tasks Tab](#) (see page 299): added information about the Manage History subtab
- User Interface > [Settings Tab](#) (see page 302): added information about the Clean Up Deployment Snapshots link
- User Interface > Settings Tab > [System Settings, Software Acquisition Page](#) (see page 304): removed information about the Temporary Download Directory field
- User Interface > Settings Tab > [System Settings, Software Installation Page](#) (see page 311): removed information about the Server Unpax Temporary Directory field; updated information about GIMUNZIP Temporary Prefix
- User Interface > Settings Tab > [System Settings, Software Installation Page](#) (see page 311): added an option to Use HTTPS for Downloads
- User Interface > Settings Tab > [User Settings, Software Installation Page](#) (see page 317): removed information about the User Unpax Temporary Directory field; updated information about GIMUNZIP Temporary Prefix
- User Interface > Settings Tab > [User Settings, User Preferences Page](#): (see page 318) changed the maximum number of table rows that can display on a page to 750
- User Interface > Settings Tab > [User Settings, Software Acquisition Page](#) (see page 319): removed information about the Temporary Download Directory field

- External Interfaces > Performing Tasks Outside of CA CSM > [MVS MODIFY Command](#) (see page 323): restructured the section; added a task management policy command
- Troubleshooting > [CA CSM Application Server Timeout](#) (see page 333): added a new section
- Troubleshooting > Software Configuration Service Address Space Encounters an ABEND under z/OS V1.11 RSU 1106: removed the section as out-of-date
- Environment Profiles > CA Products > [CA Chorus Profile](#) (see page 354): updated the section with new variables and descriptions of the existing variables

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Chapter 1: Introduction

This section contains the following topics:

- [Overview](#) (see page 19)
- [How CA CSM Works](#) (see page 19)
- [Network Flows](#) (see page 22)
- [Web-based Interface](#) (see page 23)
- [How You Use CA CSM](#) (see page 24)

Overview

CA Chorus™ Software Manager (CA CSM) is an application that simplifies and unifies the management of your CA Technologies mainframe products on z/OS systems. As products adopt the CA CSM services, you can acquire, install, maintain, deploy, and configure your products in a common way according to industry best practices.

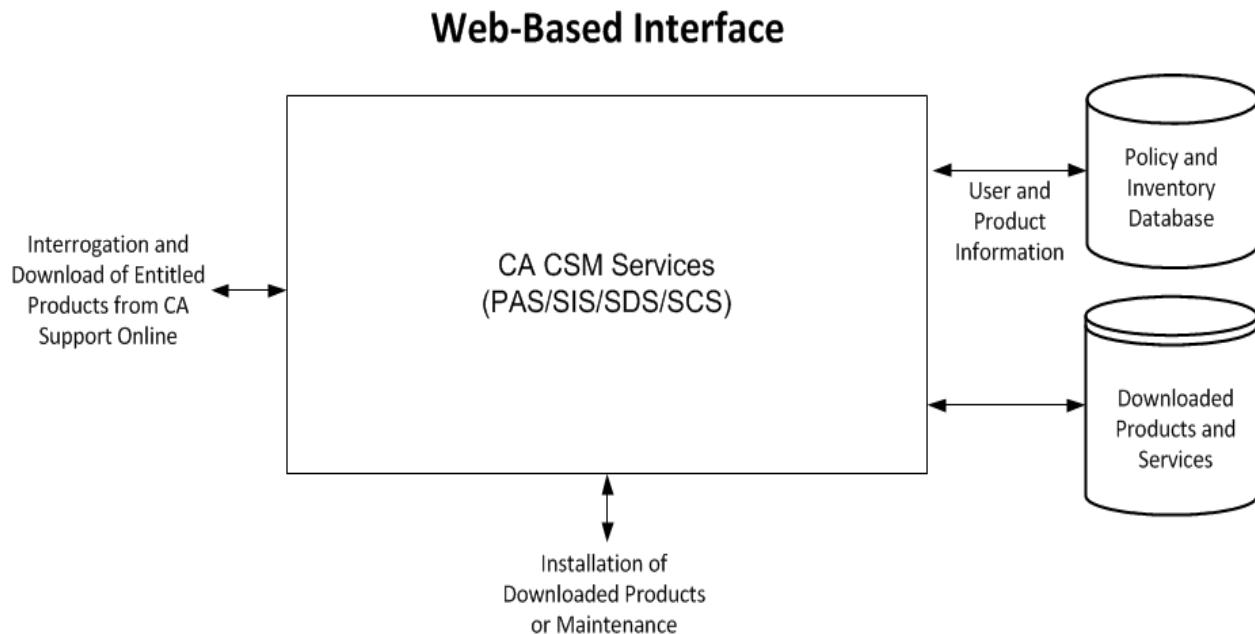
The CA CSM services simplify acquiring, installing, deploying, and configuring products. These services also make obtaining and applying corrective and recommended maintenance easier. A web-based interface enables you to install and maintain your products faster and with less chance of error.

Note: CA CSM is provided free to licensees of any CA Technologies mainframe product for z/OS who are active on maintenance. CA CSM is provided under the same licensing terms that apply for the CA Technologies product. Thereafter, you also receive free CA CSM maintenance for the duration of your maintenance contract for the related CA Technologies mainframe product.

How CA CSM Works

CA CSM is a program that runs in the address space of an application server environment hosted on a z/OS system. Typically, this system is where you use SMP/E to install and maintain your products. The system is known as the SMP/E driving system. The CA CSM web-based interface enables you to perform SMP/E processing dynamically without having to code and submit the batch jobs manually.

The following illustration shows the main components and data flows:



CA CSM has the following main components:

CA CSM Services

Provides the following services:

Product Acquisition Service (PAS)

Facilitates the acquisition of CA Technologies mainframe products and the service for those products, such as program temporary fixes (PTFs). The service retrieves information about the products to which your site is entitled and records these entitlements in a software inventory. The inventory is maintained on your driving system. The service can also download the LMP keys (licenses) for those products. The web-based interface enables you to browse the software inventory for available software and fixes, and makes them available within the driving system.

Software Installation Service (SIS)

Facilitates the installation and maintenance of CA Technologies mainframe products in the software inventory of the driving system. The web-based interface enables you to browse and manage the software inventory, and automate installation tasks. You can browse downloaded software packages, and can browse and manage SMP/E environments on the driving system.

Software Deployment Service (SDS)

Facilitates the deployment of CA Technologies mainframe products from the software inventory of the driving system. This service enables you to deploy installed products that are policy-driven with a set of appropriate transport mechanisms across a known topology. The enterprise system topology can include shared DASD environments, networked environments, and z/OS systems. Policies represent a combination of metadata input and user-supplied input. Metadata input identifies the component parts of a product. User-supplied input identifies the deployment criteria, such as where it goes and what it is named.

Software Configuration Service (SCS)

Facilitates the mainframe products configuration from the software inventory of the driving system to the targeted z/OS mainframe operating system. The SCS guides you through the configuration creation process, and through the manual steps to implement the configuration. In addition, the SCS includes an address space communications service running on each targeted z/OS system.

Database

Stores information for use by CA CSM.

Policy

Stores site and user information for downloading and processing CA Technologies mainframe products.

Inventory

Stores information about the CA Technologies mainframe products to which you are entitled.

The web-based Interface

Enables you to acquire, install, maintain, deploy, and configure your CA Technologies mainframe products from the CA CSM catalog, and manage your SMP/E environments. The web-based interface includes online help that provides information about how to use CA CSM.

Network Flows

CA CSM uses the following process to connect you directly to the appropriate CA Technologies website, where they can manage your CA Technologies software:

1. You connect to CA CSM from within your corporate Intranet (locally connected or tunneled in through VPN) using the HTTP protocol such as <http://yourmainframe:yourport/CSM>.
 - Your systems programmers initiate all actions.
 - No port is exposed to the Internet.
 - No communication is initiated from outside your Intranet.
2. The CA CSM Product Acquisition Service communicates with CA Technologies using the same methods that you previously used when manually accessing the website, as follows:

HTTPS

Passes credentials to, and obtains product information from the appropriate CA Technologies website.

FTP

Downloads software packages from CA FTP Services to your mainframe system using an anonymous FTP, with no credentials passed. CA CSM accesses one of the following locations:

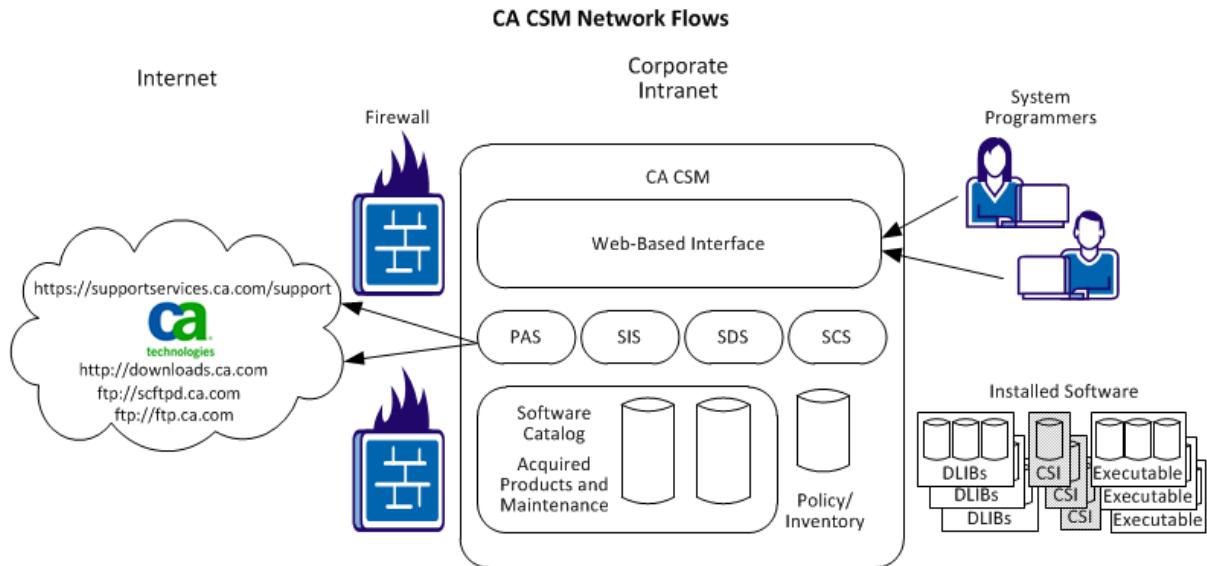
- <ftp://scftp.ca.com>
- <ftp://ftp.ca.com>

Note: The following information is the only unencrypted data sent to and from CA Technologies:

- Your email address for anonymous FTP (no password)
- The CA Technologies product information, either base install packages or solutions.

None of this data is part of any privacy or encryption standards.

This process is depicted in the following illustration:



Web-based Interface

You access and use CA CSM from a web browser. The web-based interface has online help that provides information about acquiring, installing, maintaining, deploying, and configuring products.

When you first log in, the initial page appears showing the following functions in tabs:

[Software Status \(see page 265\)](#)

Warns you of maintenance and task issues.

[Products \(see page 266\)](#)

Helps you manage CA Technologies products, including downloading and installing of product packages and applying maintenance.

[SMP/E Environments \(see page 273\)](#)

Helps you manage your SMP/E environments and installed products.

[Deployments \(see page 283\)](#)

Lets you create deployments, manage existing deployments, and create configurations.

[Configurations \(see page 289\)](#)

Lets you manage and implement existing configurations.

[System Registry \(see page 291\)](#)

Lets you create a system registry and maintain data destinations.

Tasks (see page 299)

Helps you manage CA CSM tasks in support of your activities (for example, installation tasks).

Settings (see page 302)

Defines settings for CA CSM (for example, software acquisition).

How You Use CA CSM

From the web-based interface, you can perform the following tasks:

- Specify user credentials to log in to [the CA Support Online website](#). From the website, you can update the software inventory with entitled CA Technologies mainframe products.
- Download products, associated product files, and product maintenance.
- Install products.
- Apply maintenance to installed products.
- Accept installed maintenance.
- Back out maintenance.
- Migrate existing SMP/E environments to the inventory database.
- Add installation and maintenance packages that are not downloaded using CA CSM.
- Manage SMP/E environments (for example, remove an SMP/E environments).
- Create your remote credentials.
- Create system registry entries for non-sysplex, sysplex, shared DASD clusters, or staging systems.
- Set data destinations for these systems.
- Set FTP locations for these systems.
- Create, maintain, or delete a deployment for products.
 - Add or remove systems.
 - Add or remove products.
 - Add, edit, or remove custom data sets.
 - Add, edit, or delete methodologies.
- Create, build, delete, and implement configurations.

- View status of requested tasks.
- View the execution details of requested tasks.

Note: For more information about the web-based interface, see the online help.

Chapter 2: Getting Started Using CA CSM

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

This section contains the following topics:

- [How to Use CA CSM: Scenarios](#) (see page 27)
- [Access CA CSM Using the Web-Based Interface](#) (see page 36)
- [Configure CA CSM](#) (see page 37)
- [Configure Product Filters Based on Site ID](#) (see page 38)
- [Searching in CA CSM](#) (see page 39)
- [Visual Cues about Mandatory Fields and Areas](#) (see page 40)
- [Refreshing CA CSM Web Displays](#) (see page 40)
- [Character Sets in the CA CSM User Interface](#) (see page 40)

How to Use CA CSM: Scenarios

Imagine that your organization has started using CA CSM to simplify the installation of CA Technologies products and unify their management. You have also licensed a new CA Technologies product. In addition, you have a number of existing SMP/E environments from previously installed CA Technologies products.

You can use the following scenarios to guide you through the process:

1. [Acquire the new product](#) (see page 27).
2. [Install the new product](#) (see page 29).
3. [Maintain products already installed in your environment](#) (see page 31).
4. [Set up the CA CSM system registry](#) (see page 32).
5. [Deploy the product to your target systems](#) (see page 34).
6. [Configure the deployed product to your target systems](#) (see page 35).

How to Acquire a Product

The *Product Acquisition Service (PAS)* facilitates the acquisition of mainframe products and the service for those products, such as program temporary fixes (PTFs). The PAS retrieves information about products to which your site is entitled. Then it records these entitlements in a software inventory that is maintained on your driving system.

You can use the PAS component of CA CSM to acquire a CA Technologies product.

You perform the following high-level tasks to acquire a product using CA CSM:

1. Set up a CA Support Online account.

To use CA CSM 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 Online website](#).

2. Determine the CA CSM URL for your site.

To [access CA CSM](#) (see page 36), you require its URL. You can get the URL from your site CA CSM administrator and log in using your z/OS credentials. When you log in for the first time, you are prompted to create a CA CSM account with your credentials for [the CA Support Online website](#). This account enables you to download product packages.

3. Log in to CA CSM and go to the Products page to locate the product that you want to manage.

After you log in to CA CSM, you can see the products to which your organization is entitled on the Products tab.

If you cannot find the product that you want to acquire, [update the catalog](#) (see page 43). CA CSM refreshes the catalog through [the CA Support Online website](#) using the site IDs associated with your credentials for [the CA Support Online website](#).

4. [Download the product installation packages](#) (see page 44).

After you find your product in the catalog, you can [download the product installation packages](#) (see page 44).

CA CSM downloads (acquires) the packages (including any maintenance packages) from the CA FTP site.

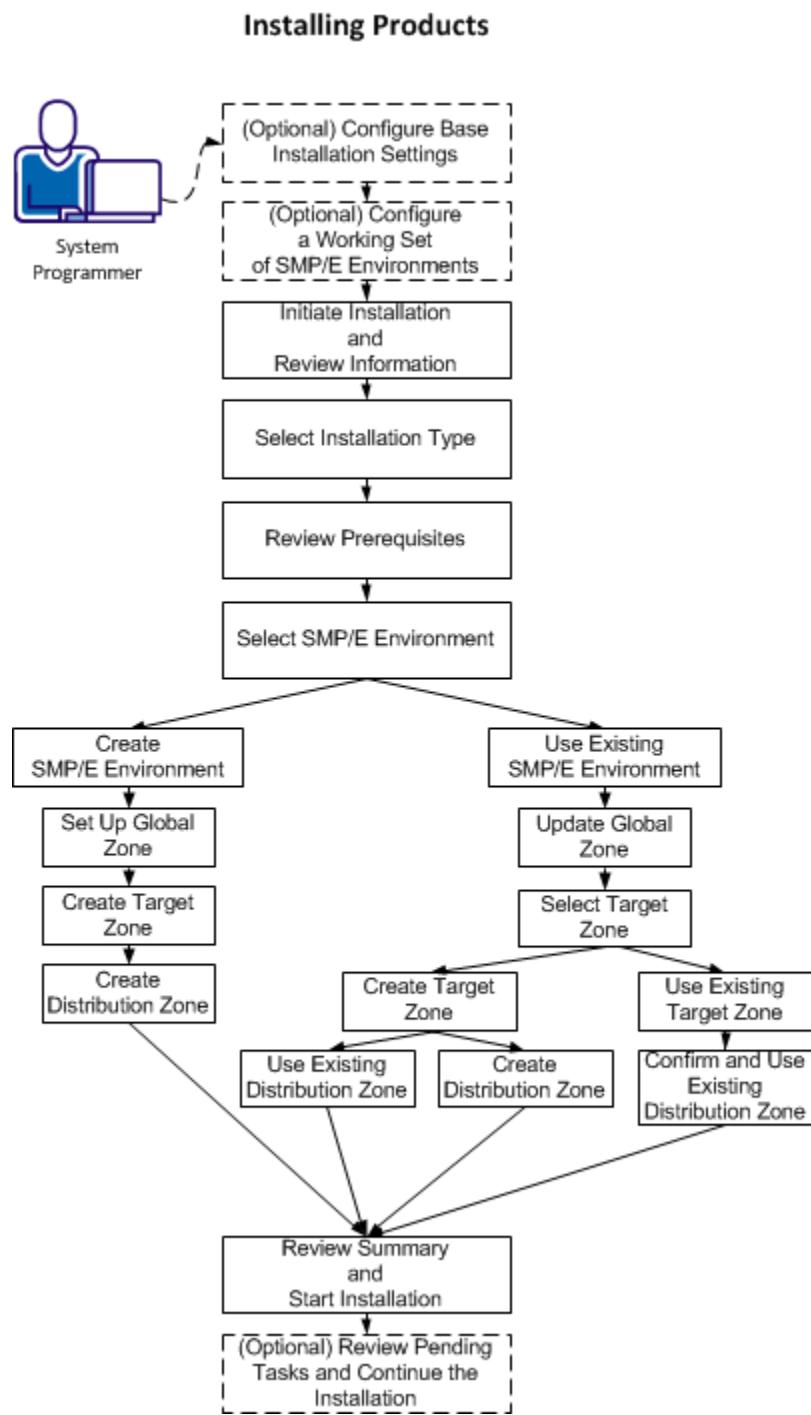
After the acquisition process completes, the product is ready for you to install or maintain.

How to Install a Product

The *Software Installation Service (SIS)* facilitates the installation and maintenance of mainframe products in the software inventory of the driving system. This facilitation includes browsing downloaded software packages, managing SMP/E consolidated software inventories on the driving system, and automating installation tasks.

You can use the SIS component of CA CSM to install a CA Technologies product.

You perform the following high-level tasks to install a product using CA CSM:



1. (Optional) [Configure base installation settings](#) (see page 60).
2. (Optional) [Configure a working set of SMP/E environments](#) (see page 118).
3. [Initiate product installation](#) (see page 61) and [review product information](#) (see page 62).
4. [Select an installation type](#) (see page 62).
5. [Review installation prerequisites](#) (see page 63) if any are presented.
6. Take *one* of the following steps to [select an SMP/E environment](#) (see page 64):
 - Create an SMP/E environment:
 - a. [Set up the global zone](#) (see page 65).
 - b. [Create a target zone](#) (see page 70).
 - c. [Create a distribution zone](#) (see page 75).
 - Use an existing SMP/E environment from your working set:
 - a. [Update the global zone](#) (see page 67).
 - b. Set up the target zone: Either [create a target zone](#) (see page 70) or [use an existing target zone](#) (see page 72).
 - c. Set up the distribution zone: Either [create a distribution zone](#) (see page 75) or [use an existing distribution zone](#) (see page 77).
7. [Review the installation summary and start the installation](#) (see page 79).
8. (Optional) [Review pending tasks](#) (see page 80) for the SMP/E environment where you are installing your product. Continue the installation, if applicable.

After the installation process completes, check for and install available product maintenance. The product is ready for you to deploy. Sometimes there are other steps to perform manually outside of CA CSM before beginning the deployment process.

How to Maintain Existing Products

You can migrate existing SMP/E environments into CA CSM to maintain all your installed products in a unified way from a single web-based interface.

You can use CA CSM to maintain a CA Technologies product.

You perform the following high-level tasks to maintain a product using CA CSM:

1. [Migrate the SMP/E environment to CA CSM](#) (see page 113) to maintain an existing SMP/E environment in CA CSM.

During the migration, CA CSM stores information about the SMP/E environment in the database.

2. [Download the latest maintenance](#) (see page 87) for the installed product releases from the Products tab.

If you cannot find the required release, you can perform the following steps to [download the maintenance](#) (see page 88):

- a. Add the release to the catalog manually.
- b. Update the release.

3. [Apply the maintenance](#) (see page 91).

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

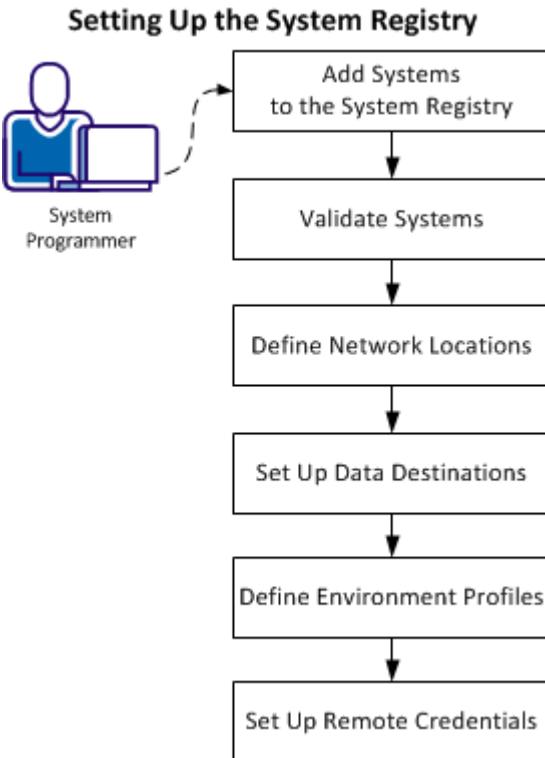
After the maintenance process completes, the product is ready for you to deploy. Sometimes there are other steps to perform manually outside of CA CSM before beginning the deployment process.

How to Set Up the System Registry

The *system registry* is a repository of variable data that all CA CSM managed products share. The system registry repository contains information about the systems that have been defined to CA CSM and selected as a target for deployments and configurations. You can create non-sysplex, sysplex, shared DASD cluster, and staging systems. You can maintain, validate, view, and delete a registered system and you can investigate a failed validation.

For each system that you register, there is one entry. Each entry consists of three categories of information: general, network locations, and data destinations.

You perform the following tasks to set up the system registry in CA CSM:



1. [Add systems to the system registry](#) (see page 132).
2. [Validate systems](#) (see page 159).
3. [Define network locations](#) (see page 148).
4. [Set up data destinations](#) (see page 153).
5. [Define environment profiles](#) (see page 146).
6. [Set up remote credentials](#) (see page 127).

Add and then validate each nonstaging system in the enterprise that you are deploying to, to the CA CSM system registry. You can only send a deployment to a validated system.

This process applies to each nonstaging system in your enterprise. For example, if you have five systems at your enterprise, then perform this process five times.

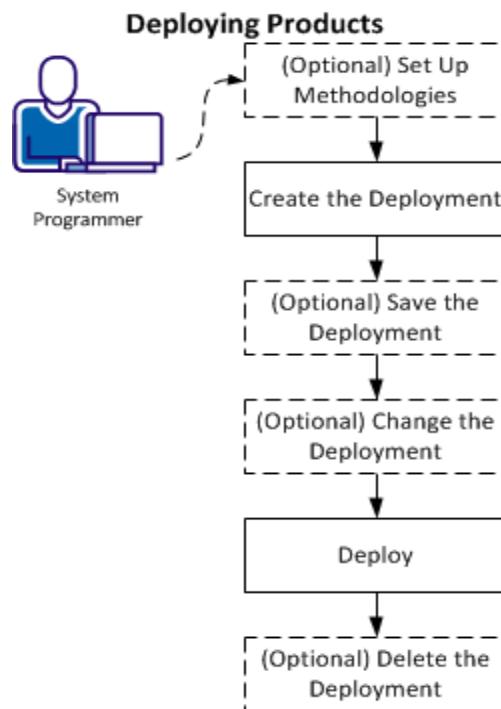
Note: After a system is validated, there is no need to validate it again. However, you can revalidate a system any time.

How to Deploy a Product

The *Software Deployment Service (SDS)* facilitates the mainframe product deployment from the software inventory of the driving system to the target system. This facilitation includes deploying installed products that are policy-driven with a set of appropriate transport mechanisms across a known topology.

You can use the SDS component of CA CSM to deploy a CA Technologies product that you have already acquired and installed.

You perform the following high-level tasks to deploy your products using CA CSM:



1. (Optional) Set up [methodologies](#) (see page 185).
Note: You can also [set up methodologies](#) (see page 167) when creating a deployment.
2. [Create the deployment](#) (see page 164).
3. (Optional) [Save the deployment](#) (see page 169) for editing and deploying later.
4. (Optional) [Change the deployment](#) (see page 170): Add and edit [systems](#) (see page 173), [products](#) (see page 176), [custom data sets](#) (see page 177), and [methodologies](#) (see page 185).

5. Deploy:
 - a. [Take a snapshot](#) (see page 200).
 - b. [Transmit](#) (see page 201) to target.
 - c. [Deploy](#) (see page 202) (unpack) to mainframe environment.
6. (Optional) [Delete the deployment](#) (see page 203).

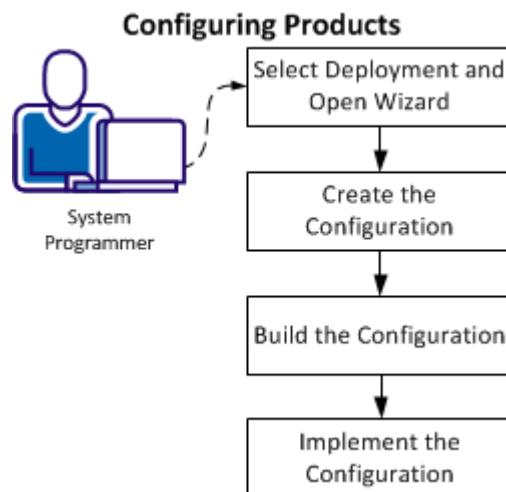
After the deployment process completes, the product is ready for you to configure. Sometimes there are other steps to perform manually outside of CA CSM before beginning the configuration process.

How to Configure a Product

The *Software Configuration Service (SCS)* facilitates the mainframe product configuration from the software inventory of the driving system to targeted z/OS operating systems.

You can use the SCS component of CA CSM to configure a CA Technologies product that you have already acquired, installed, and deployed.

You perform the following high-level tasks to configure your products using CA CSM:



1. From the [Deployments tab](#) (see page 283), select a configurable deployment, select the associated product, and click Create Configuration to open the [Configuration](#) (see page 212) wizard.
2. Create the configuration by completing all the steps in the wizard:
 - a. [Define a configuration name and select a target system](#) (see page 217).
 - b. [Select configuration functions and options](#) (see page 218).
 - c. [Define system preferences](#) (see page 219).
 - d. [Create target settings](#) (see page 222).
 - e. [Select and edit resources](#) (see page 225).
3. [Build the configuration](#) (see page 231). The last step of the Configuration wizard lets you build the configuration. If needed, you can edit the configuration and can build [the configuration](#) (see page 235) again.
4. [Implement the configuration](#) (see page 243). The implementation process in CA CSM guides you and provides detailed instructions to start, stop, and manage the steps of the implementation process.

After the configuration process completes, the product is ready for you to use. Sometimes there are other steps to perform manually outside of CA CSM.

Note: You cannot use CA CSM to configure a product to a staging system.

Access CA CSM Using the Web-Based Interface

You access CA CSM using the web-based interface.

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

Follow these steps:

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

The login page appears.

Note: If the Notice and Consent Banner appears, read and confirm the provided information.

2. Enter your z/OS login user name and password.

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

Note: For more information about the interface, click the online 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 Online website](#).

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](#) (see page 318).
5. Change the settings or keep the defaults, and then click Finish.
A dialog opens, which shows the progress of the configuration task. You can click Show Results [to view the details of the actions in a finished task](#) (see page 301).

Important! If your site uses proxies, review your proxy credentials on the [User Settings, Software Acquisition page](#) (see page 319).

More information:

[No Ticket Error Message When Accessing CA CSM](#) (see page 342)

Configure CA CSM

After you set up and install CA CSM, you configure it so that it can access [the CA Support Online website](#) for you to acquire products. You are prompted to configure CA CSM on the first login.

Follow these steps:

1. Start your web browser, and enter the access URL.
The login page appears.
Note: If the Notice and Consent Banner appears, read and confirm the provided information.
2. Enter your z/OS login user name and password, and log in.
The initial page appears, and you are prompted to configure CA CSM.
Note: For more information about the interface, click the online help link at the top right corner of the page.

3. Configure the following settings:

- Proxies that CA CSM uses to communicate with [the CA Support Online website](#)

If proxies are not used, CA CSM uses HTTPS Port Number 443 and FTP Port Number 21.

Important! If your site uses proxies, review your proxy credentials on the [User Settings, Software Acquisition page](#) (see page 319).

- USS path to the temporary directory for downloaded software packages

If you do not specify the directory, CA CSM sets it up using default settings that you can change later.

Note: These settings are also available on the [System Settings, Software Acquisition page](#) (see page 304).

Click Next.

You are prompted to define your account on [the CA Support Online website](#).

4. Click New.

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

5. 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](#) (see page 318).

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

A dialog opens, which shows the progress of the configuration task. You can click Show Results [to view the details of the actions in a finished task](#) (see page 301).

7. Click the Settings tab, and review other configuration settings.

You have configured CA CSM. Users can log in and can begin downloading mainframe products.

Configure Product Filters Based on Site ID

You can have more than one site ID, and each site ID can have different sets of products. The product list on the left side of the Products tab by default displays the whole set of the products for all site IDs.

To display only products that belong to specific site IDs, configure product filters. You can add one or more site IDs to a filter. The product list then displays only the products that belong to the site IDs added to a selected filter.

Note: To update the product list for a selected filter, right-click the Products link in the catalog tree, and click Update Filtered Product List.

The All filter option is available by default. You can add, edit, and delete filters.

Follow these steps:

1. Click the Products tab.
2. Click Edit in the Filter section on the left side.
The filter window opens.
3. Add a filter:
 - a. Click New.
A pop-up window appears.
 - b. Enter a unique filter name, and click OK.
The pop-up window closes, and the filter appears in the list on the left side.
 - c. From the list of site IDs on the right side, select the site IDs whose products you want to be displayed for this filter.
Note: Select at least one site ID for the filter.
4. Change or remove existing filters. Select a filter in the list on the left side, and perform the required actions:
 - Click Edit to change the filter name, and click OK.
Note: The new name must be unique.
 - Click Delete to delete the filter, and confirm the action.
The filter is changed or deleted.
Note: You cannot edit or delete the All option.
5. Click OK.
The filter window closes. The filters are configured and appear in the drop-down list.

Searching in CA CSM

Most of the pages in CA CSM have a Search area on the left side that you can use to search for products, deployments, or configurations. The search results appear in the tree view in the left pane, and you can perform actions on them by right-clicking.

Note: The Search functionality in CA CSM only finds the first occurrence of the text string you are searching for. To find other occurrences, click Search again.

Visual Cues about Mandatory Fields and Areas

The CA CSM web-based interface uses an asterisk (*) to tell you that a field or area is mandatory.

- Mandatory fields are marked with an asterisk after the field name. Provide information for these fields before you proceed.
- Mandatory areas are marked with an asterisk before the area name. Make a selection or complete the fields in these areas. Otherwise you cannot move to the next step of the wizard, or cannot save your changes.

Refreshing CA CSM Web Displays

You can use Refresh buttons on many of the Web displays to update the display manually.

Character Sets in the CA CSM User Interface

CA CSM only supports the US-ASCII characters for user input. CA CSM does not support any other characters, unless the user interface instructions explicitly say so.

Chapter 3: Setting Up Vendors

This section includes information about how to set up vendors in CA CSM.

Note: If you are using CA CSM to manage CA Technologies products, you can skip this section.

This section contains the following topics:

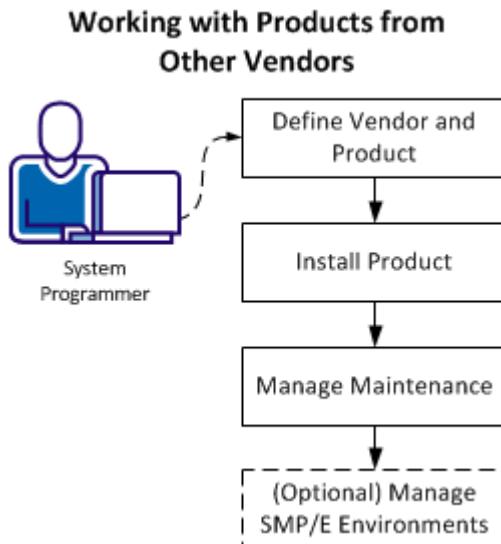
[How CA CSM Works with Other Vendors](#) (see page 41)

[Define Vendor and Product Information](#) (see page 42)

[Delete a Vendor](#) (see page 42)

How CA CSM Works with Other Vendors

If you are using CA CSM to install and maintain software from vendors other than CA Technologies, perform the following high-level tasks:



1. [Define the vendor and product information in CA CSM](#) (see page 42).
2. [Install your product using CA CSM](#) (see page 54).
3. When maintenance becomes available, [manage the downloaded maintenance](#) (see page 88).
4. (Optional) [Manage your SMP/E environments](#) (see page 113) as needed at your site.

Define Vendor and Product Information

CA CSM can be used to install and maintain software from vendors other than CA Technologies. Use this procedure to define other software vendors and their product information in CA CSM.

Follow these steps:

1. Click the Products tab, and click the Add Product link in the Actions section on the left side.
You are prompted to supply information about the product.
2. In the Vendor drop-down field, type the name of the vendor that released the product.
3. Specify the name, release, and gen level for a product that this vendor released, and click OK.

The vendor is added to the software catalog, with the product. When you add future products from this vendor, you can select them from the Vendor drop-down field.

Delete a Vendor

You can delete a vendor from CA CSM. Deleting a vendor deletes all products with their releases and gen levels from your system.

Note: You cannot delete the CA vendor. It is the default vendor.

Follow these steps:

1. Click the Products tab, and locate the vendor that you want to delete from the tree on the left side.
2. Right-click the vendor, and select Delete Vendor.
You are prompted to confirm the action.
3. Click OK.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The page is refreshed, and the vendor is deleted.

Chapter 4: Acquiring Products

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

This section contains the following topics:

- [Update Complete Product List](#) (see page 43)
- [Download a Product Installation Package](#) (see page 44)
- [Download Multiple Product Installation Packages](#) (see page 45)
- [Migrate Installation Packages Downloaded External to CA CSM](#) (see page 46)
- [Add a Product](#) (see page 47)
- [Hide a Product from the Product List](#) (see page 50)
- [Show a Hidden Product in the Product List](#) (see page 51)
- [Delete a Product](#) (see page 52)

Update Complete Product List

Initially, the CA CSM software catalog is empty. To see available products at your site, update the Products tree. As new releases become available, update the Products tree again to refresh the information. Any additions within a product are reflected within the Software Summary page. The available products are updated using the available site IDs associated with your credentials on [the CA Support Online website](#).

Follow these steps:

1. Click the Products tab.
2. Click the Update Complete Product List link in the Actions section on the left side.

You are prompted to confirm the update.

Note: If you filter products in the product list for specific [site IDs](#) (see page 38), you can update the product list only for the selected filter. To do so, right-click the Products link at the top of the catalog tree on the left side, and select Update Filtered Product List.

3. Click OK.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

All products for all site IDs are updated.

Download a Product Installation Package

You can download product packages through the [Products tab](#) (see page 266). The Update Product action retrieves information about the products for your site.

Follow these steps:

1. Verify that your CA CSM login user name is associated with a registered user of [the CA Support Online website](#) on the [Software Acquisition Settings page](#) (see page 304).

CA CSM uses the credentials to access [the CA Support Online website](#).

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

The product releases are listed.

Note: If the product does not appear in the product list, click the Update Complete Product List link in the Actions section on the left side. The available products are updated using the site ID associated with your credentials for [the CA Support Online website](#).

3. For the product release you want to download, click the Actions drop-down list to the right of the release, and select Update Product Release.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The product packages are downloaded.

Note: You can expand the tree in the right panel by selecting the Products link from the product list. Then, click the vendor link in the right panel. If you select and download multiple products using this method and one of the products cannot be downloaded, the remaining products are not downloaded either. Remove the checks from the products that were processed and repeat the update product request.

Download Multiple Product Installation Packages

Use this procedure to download product packages using the [Products tab](#) (see page 266). The Update Products action retrieves information about the products to which your site is entitled.

Follow these steps:

1. Verify that your CA CSM login user name is associated with a registered user [the CA Support Online website](#) on the [Software Acquisition Settings page](#) (see page 304).

CA CSM uses the credentials to access [the CA Support Online website](#).

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

The product releases are listed.

Note: If the product does not appear in the product list, click the Update Complete Product List link in the Actions section on the left side. The available products are updated using the site ID associated with your credentials for [the CA Support Online website](#).

3. Right-click the product from the tree on the left side, and click Update Product.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The product packages are downloaded.

Note: You can expand the tree in the right panel by selecting the Products link from the product list. Then, click the vendor link in the right panel. If you select and download multiple products using this method and one of the products cannot be downloaded, the remaining products are not downloaded either. Remove the checks from the products that were processed and repeat the update product request.

Migrate Installation Packages Downloaded External to CA CSM

Sometimes you have product installation packages that you downloaded outside of CA CSM. For example, you are testing a beta version of a product, and you acquired external product pax files. You can add information about the external product packages to CA CSM from the [Products tab](#) (see page 266).

Migrating these packages to CA CSM provides a complete view of all your product releases. After a package is migrated, you can use CA CSM to [install the product](#) (see page 54).

Follow these steps:

1. Click the Products tab, and click Add Product.

Note: A product that is not acquired from [the CA Support Online website](#) appears in the Software Catalog only after 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 identify the package.

4. Specify one of the following package types and package details, and click OK.

UNIX File

Adds an installation package located in a USS directory in binary mode.

Note: To add several packages from the same location, use [masking](#) (see page 49).

FTP File

Adds an installation package that is not published on [the CA Support Online website](#). This option is intended for downloading a beta product to validate it.

FTP Location

Defines the FTP path where the installation package is located. Start the path with a forward slash (/). Enter only a forward slash to specify the root directory.

Example: /outgoing/

Note: CA CSM automatically supplies ftp.ca.com at the beginning of the path.

Package Name

Defines the maintenance package name.

Example: 0111.pax.Z

Note: You can use an asterisk (*) for the package name.

User Name

Defines a valid user name to access the FTP location.

Password

Defines a valid password to access the FTP location.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

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

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

Add a Product

Sometimes, a product is not currently available from [the CA Support Online 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 CSM using the Add Product action.

Follow these steps:

1. Click the Products tab, and click the Add Product link in the Actions section on the left side.
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 in the product list on the left side.
The Base Install Packages section appears on the right side.
4. Click the Add External Package button.
You are prompted to identify the package.
5. Specify one of the following package types and package details, and click OK.

UNIX File

Adds an installation package located in a USS directory in binary mode.

Note: To add several packages from the same location, use [masking](#) (see page 49).

FTP File

Adds an installation package that is not published on [the CA Support Online website](#). This option is intended for downloading a beta product to validate it.

FTP Location

Defines the FTP path where the installation package is located. Start the path with a forward slash (/). Enter only a forward slash to specify the root directory.

Example: /outgoing/

Note: CA CSM automatically supplies ftp.ca.com at the beginning of the path.

Package Name

Defines the maintenance package name.

Example: 0111.pax.Z

Note: You can use an asterisk (*) for the package name.

User Name

Defines a valid user name to access the FTP location.

Password

Defines a valid password to access the FTP location.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

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

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

Masking for External Packages

Masking lets you add more than one [package](#) (see page 47) (or set of [maintenance files](#) (see page 88)) from the same location using 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 data set name qualifier or any number of characters within a member name or file system name.

**

Match on any number of characters including any number of qualifiers 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. Verify what files you want to add.

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(R0*)
```

Hide a Product from the Product List

If you do not need a product, release, or gen level, you can hide it from the product list and can remove associated packages from your system. Removing the packages lets you free up DASD space on your system.

Note: You can hide a product, release, or gen level for the CA vendor only. For any other vendor, you can only [delete a product, release, or gen level](#) (see page 52).

Hiding a product, a release, or a gen level does not remove an entry from the product list. You can [restore its visibility](#) (see page 51) at any time.

Hiding a product, release, or gen level removes packages from the product list. Removing the packages does *not* affect the associated products or maintenance installed in SMP/E environments, or the SMP/E environments themselves.

CA CSM excludes hidden products, releases, and gen levels from processing when updating the product list. No packages are downloaded for hidden products, releases, and gen levels.

Follow these steps:

1. Click the Products tab, and locate the product, product release, or the product gen level that you want to hide from the tree.
2. Right-click the product, product release, or the product gen level, and select Clean Up and Hide.
You are prompted to confirm the action.
3. Click OK.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The product, product release, or gen level is hidden from the product list. The associated packages are deleted from the system.

Show a Hidden Product in the Product List

You can restore visibility of a product, release, or gen level that [you previously hid from the product list](#) (see page 50).

Restoring visibility of a product, release, or gen level does not automatically restore associated packages to your system. You have to download them again.

Follow these steps:

1. Click the Products tab, and click the Show Hidden Products link in the Actions section on the left side.

The Hidden Products window appears.

2. Select the product, release, or gen level that you want to be displayed in the product list, and click Show Products.

The Hidden Products window closes. A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

3. Click Refresh at the top right corner of the page.

The product, product release, or gen level appears in the product list.

Delete a Product

If you do not need a product, product release, or product gen level anymore, you can delete them from the CA CSM [Products tab](#) (see page 266).

Note: You can only delete a product, product release, or product gen level for vendors other than CA. For the CA vendor, you can [hide products, product releases, or product gen levels](#) (see page 50) from the product tree.

Follow these steps:

1. Click the Products tab, and locate the product, product release, or the product gen level in the product list.
2. Right-click the product, product release, or the product gen level and select the applicable action.
You are prompted to confirm the action.
3. Click OK.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Chapter 5: Installing Products

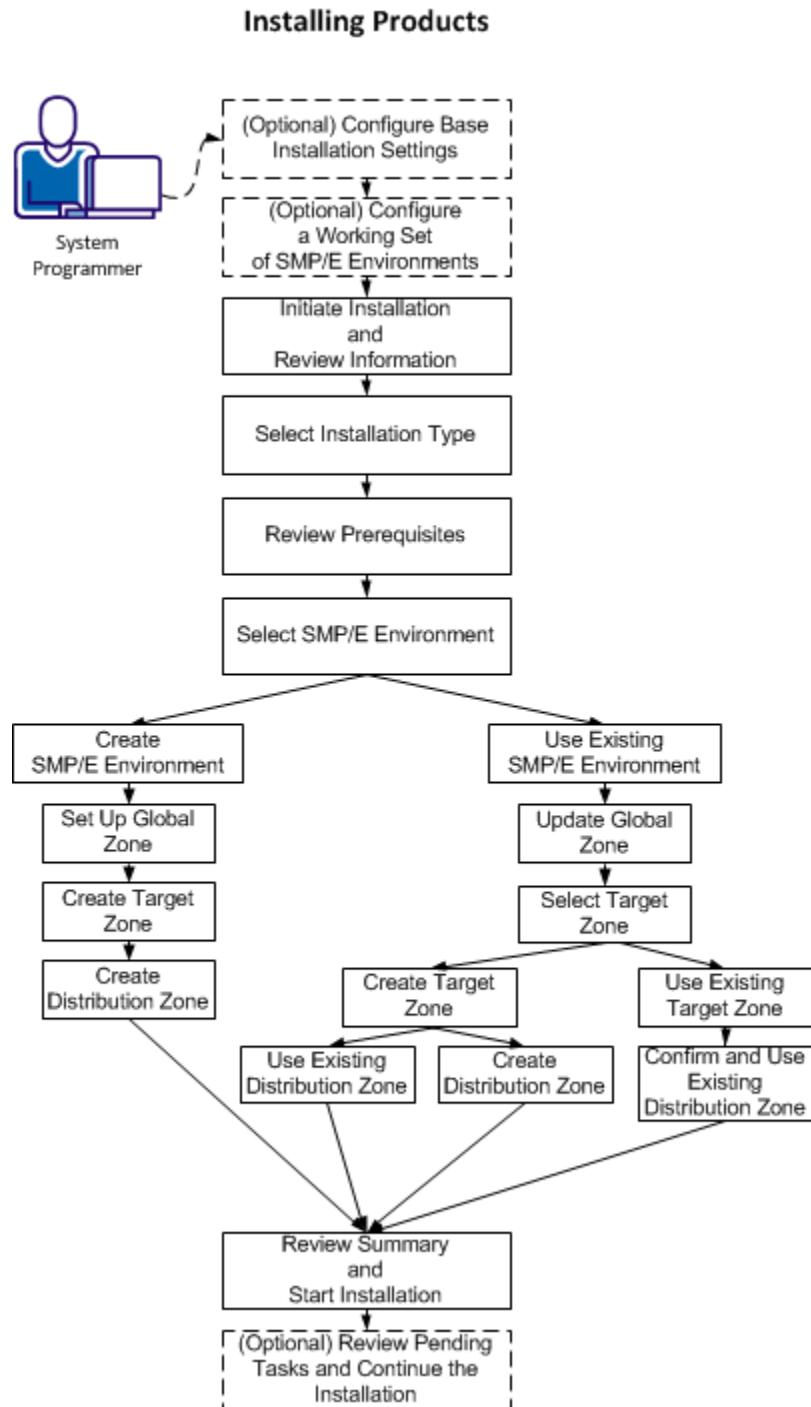
This section includes information about how to use CA CSM to install products.

This section contains the following topics:

- [How the Installation Process Works](#) (see page 54)
- [Installation Execution Details](#) (see page 56)
- [Configure Base Installation Settings](#) (see page 60)
- [Initiate Product Installation](#) (see page 61)
- [Review Product Information](#) (see page 62)
- [Select an Installation Type](#) (see page 62)
- [Review Installation Prerequisites](#) (see page 63)
- [Select an SMP/E Environment](#) (see page 64)
- [Start the Installation](#) (see page 79)
- [Review Pending Tasks and Continue the Installation](#) (see page 80)
- [Download LMP Keys](#) (see page 84)

How the Installation Process Works

You perform the following high-level tasks to install a product using CA CSM:



1. (Optional) [Configure base installation settings](#) (see page 60).
2. (Optional) [Configure a working set of SMP/E environments](#) (see page 118).
3. [Initiate product installation](#) (see page 61) and [review product information](#) (see page 62).
4. [Select an installation type](#) (see page 62).
5. [Review installation prerequisites](#) (see page 63) if any are presented.
6. Take *one* of the following steps to [select an SMP/E environment](#) (see page 64):
 - Create an SMP/E environment:
 - a. [Set up the global zone](#) (see page 65).
 - b. [Create a target zone](#) (see page 70).
 - c. [Create a distribution zone](#) (see page 75).
 - Use an existing SMP/E environment from your working set:
 - a. [Update the global zone](#) (see page 67).
 - b. Set up the target zone: Either [create a target zone](#) (see page 70) or [use an existing target zone](#) (see page 72).
 - c. Set up the distribution zone: Either [create a distribution zone](#) (see page 75) or [use an existing distribution zone](#) (see page 77).
7. [Review the installation summary and start the installation](#) (see page 79).
8. (Optional) [Review pending tasks](#) (see page 80) for the SMP/E environment where you are installing your product. Continue the installation, if applicable.

Installation Execution Details

This section provides information about processes that take place during product installation.

This section contains the following topics:

[USS File Systems](#) (see page 56)

[Execute Apply Check and Accept Check During Base Installation](#) (see page 56)

[Pending Installations](#) (see page 57)

[PDS Directory Block Increase Percentage](#) (see page 58)

[USS Paths in a Failed Installation](#) (see page 59)

USS File Systems

USS file systems that are created and mounted during a product installation are added to CA CSM as managed product USS file systems. CA CSM lets you enable and configure verification policy that applies to these file systems when starting CA CSM. For verification results, review CA CSM output. These settings are available on the [System Settings, Mount Point Management page](#) (see page 315).

If your site uses only one file system, for example, zFS, you can [configure CA CSM to use this file system](#) (see page 60) for all installed products. You can then disregard the file system that the product metadata specifies. The settings are available on the [System Settings, Software Installation page](#) (see page 311). The file system type that you specify overrides the file system type that the product uses.

Execute Apply Check and Accept Check During Base Installation

You can [add additional verifications](#) (see page 60) before the Apply step and the Accept step execute during a base installation. CA CSM verifies that all of the requirements for the Apply step and the Accept step are satisfied before each step executes. If either the Apply Check step or the Accept Check step fails, the installation stops and all of the previous steps are undone. For example, all allocated data sets for the installation are deallocated.

Pending Installations

You can configure CA CSM to suspend the installation after the [Apply Check or Accept Check step](#) (see page 56) is performed. When the installation is suspended, CA CSM generates a [series of pending installation actions](#) (see page 281).

When you configure CA CSM to suspend the installation after the Apply Check and Accept Check step is performed, the following process takes place:

1. You start the installation process.
2. During the installation, CA CSM executes Apply Check and suspends the installation.
3. CA CSM creates a pending installation action waiting for your input.
4. You review the detailed output of the Apply Check step and perform *one* of the following actions:
 - If Apply Check does not complete successfully, you take corrective actions and you rerun the step.

Note: You can roll back the installation. Rollback undoes the previous installation action. CA CSM restores the SMP/E environment to the state before the previous installation action started executing. Any output that the pending installation process created is deleted.

- If Apply Check completed successfully, you continue the installation.
5. CA CSM continues the installation, executes Accept Check and suspends the installation.
 6. CA CSM creates a pending installation action waiting for your input.
 7. You review the detailed output of the Accept Check step and perform one of the following actions:
 - If Accept Check does not complete successfully, you take corrective actions and you rerun the step.

Note: You can roll back the installation. Rollback undoes the previous installation action. CA CSM restores the SMP/E environment to the state before the previous installation action started executing. Any output that the pending installation process created is deleted.

- If Accept Check completed successfully, you continue the installation. CA CSM runs the remaining installation commands and completes the installation.

Note: As part of completing the installation, CA CSM runs Accept Check before accepting to help ensure data integrity.

The settings are available on the [System Settings, Software Installation page](#) (see page 311).

Pending Installation Considerations

Pending installation affects the SMP/E environment where it is executed in the following ways:

- If there are pending installations in the SMP/E environment, CA CSM prevents you from installing other products to that environment. To install other products to the environment, complete or roll back the pending installation first.
- If you [configured CA CSM to suspend installation](#) (see page 60) after the Apply Check finishes, the product data is populated to the global zone. No data is populated to the target zones yet. At that stage, the product does not appear under the corresponding SMP/E environment in the catalog tree on the left side, and on the [SMP/E Environments, Installed Products tab](#) (see page 276). You cannot apply any maintenance to the product.
- After the product is applied in the target zone, the product appears in the catalog tree and on the [SMP/E Environments, Installed Products tab](#) (see page 276). You cannot apply any maintenance to this product until you complete the pending installation.

PDS Directory Block Increase Percentage

In CA CSM, information about how to allocate data sets to house a product (including directory block specifications) is part of metadata files. Metadata files are included in the product pax file. The number of directory blocks can be insufficient to accommodate the expected number of members at your site. Then, failures can occur as the PDSs are populated during the SMP/E APPLY or ACCEPT steps. This failure can cause the entire CA CSM task (product and maintenance installation) to fail.

CA CSM allows you to provide a generic multiplier for PDS directory block allocation specifications. This multiplier is applied consistently across all PDS data set allocations for all products that are installed with CA CSM. You specify this generic multiplier in the shell script for the Java JVM environment variable that is processed during MSMTC address space startup. STDENV DDNAME in the MSMTC STC procedure points to this script.

By default, this variable is not present in the STDENV startup script, and the increase percentage is 0 percent. This value means that product-supplied directory block specifications are used without modification.

If you rarely encounter STOW errors, we recommend that you leave the default value.

If you routinely must adjust directory block specifications or you frequently encounter STOW errors, you can specify an increase percentage. We recommend that you start with a relatively modest number (for example, 25 percent) and increase it, if necessary. Once you have a value set that works, do not change it going forward.

You can change the PDS directory block increase percentage.

Follow these steps:

1. Shut down the MSMTC address space using the command:

P MSMTC

2. In the STDENV startup script, specify the variable for `msm.pds.dirblk.percentage` in the data set that the STDENV DDNAME points to in the MSMTC STC procedure. Alternatively you can increase the value of the variable:

`IJO="$IJO -Dmsm.pds.dirblk.percentage=25"`

3. Start the MSMTC address space using the command:

S MSMTC

4. Retry the task that failed.

USS Paths in a Failed Installation

If you install a product that has a USS path as a target zone parameter specified during the installation and the installation fails, the newly created USS path may not be undone and removed correctly. It happens when the USS path consists of two or more subdirectories (nodes). Only the last subdirectory (node) is undone and removed, and all the other upper level directories are not undone and remain in the system. You need to manually remove them.

For example, the following USS path exists in your system:

`/u/users/test`

When installing a product, you specify the following path:

`/u/users/test/product/dir`

If the installation fails, the `/dir` subdirectory is removed and the `/product` subdirectory remains in the system.

Configure Base Installation Settings

You can configure [base installation settings](#) (see page 56) on the [System Settings, Software Installation page](#) (see page 311).

Follow these steps:

1. Click the Settings tab, and click the Software Installation link under System Settings in the Settings section on the left side.
The Software Installation page opens.
2. In the SIS Base Install – File System section, select the file system type that is used when installing a product that allocates file systems. You select one of the following options:
 - Product Specific File System
 - Hierarchical File System (HFS)
 - z/OS Distributed File Service zSeries File System

Note: If you select Product Specific File System, the file system that is used for installing a product is defined according to the product metadata. Otherwise, the product metadata is overwritten.

3. In the Execute Checks During Base Installation section, configure the following settings by selecting or clearing corresponding check boxes:

Execute Apply Check During Base Installation

Verifies that all of the requirements for the Apply step are satisfied before the Apply step executes. If the Apply Check step fails, installation stops and all of the previous steps are undone.

Suspend Base Installation After Apply Check

Suspends the base installation process after Apply Check is completed and generates [pending installation actions](#) (see page 281) for the SMP/E environment where the product is being installed.

Note: This check box is enabled if you enable the Execute Apply Check During Base Installation check box.

Execute Accept Check During Base Installation

Verifies that all of the requirements for the Accept step are satisfied before the Accept step executes. If the Accept Check step fails, installation stops and all of the previous steps are undone.

Suspend Base Installation After Accept Check

Suspends the base installation process after Accept Check is completed and generates [pending installation actions](#) (see page 281) for the SMP/E environment where the product is being installed.

Note: This check box is enabled if you enable the Execute Accept Check During Base Installation check box.

4. Click Apply.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The base installation settings are configured.

Initiate Product Installation

You can install a downloaded product from the Products tab. 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 that are required to install the product.

Follow these steps:

1. Click the Products tab.
2. Perform *one* of the following steps:
 - If the package was acquired using CA CSM, select the required product gen level (for example, SPO or 0110) in the product list on the left side. Then, locate the product package, and select Install from the Actions drop-down list to the right of the package.
 - If the package was acquired outside of CA CSM, click the Install External Package link under the Actions section in the left pane. Enter the location of the package, and click OK.

[The Introduction step of the wizard appears](#) (see page 62).

Review Product Information

Review the information about the product that you are installing.

Follow these steps:

1. On the Introduction step, review the information about the installation.

Note: If the product license agreement appears, review it. If you agree, accept it. If you do not accept the license agreement, you cannot proceed with the installation.

2. Click Next.

You are prompted to [select the type of installation](#) (see page 62).

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.

Select an Installation Type

When you install a product, you select an installation type. There can be one or more installation types, according to the product.

When you select the custom installation type, you are prompted to select the features that you want to install. If your selected features require installation of other features, the installation wizard includes the required features to the installation process. If your selected features are mutually exclusive, the installation wizard excludes any features conflicting with the features you selected last from the installation process. For example, you select feature 1 and then select feature 2 that is mutually exclusive with feature 1. The wizard then automatically excludes feature 1.

Follow these steps:

1. On the Features step, select the type of installation, and then click Next.
2. (Optional) If you select the custom installation type, select the features to install, and click Next.

A summary of the features to install appears, with [any prerequisites](#) (see page 63).

Review Installation Prerequisites

Some products require an installation of other products first.

Review the summary of installation prerequisites to verify that all prerequisites are satisfied on the Prerequisites step.

- If no prerequisites exist, click Next.

You are prompted to [select an SMP/E environment for the installation](#) (see page 64).

- If all prerequisites exist and are satisfied, you are prompted to locate the installed prerequisites.

You must install the product to the same SMP/E environment and the target zone where the product prerequisites are installed.

- a. From the SMP/E environment drop-down list, select an SMP/E environment with the installed prerequisites. This drop-down list represents all CA CSM-managed SMP/E environments where the prerequisites are installed.

A list of target zones for the selected SMP/E environment where the prerequisites are installed is populated.

- b. From the target zone drop-down list, select a target zone within the selected SMP/E environment where the prerequisites are installed.
- c. Click Next.

You are prompted to [confirm the selected SMP/E environment for the installation](#) (see page 64).

- If prerequisites are not satisfied, do one of the following:

- Click Cancel to exit the wizard. Install the prerequisites or migrate an SMP/E environment to CA CSM where the prerequisites are installed. [Restart the installation.](#) (see page 61)
- Open CA CSM in another browser window and install the prerequisites, or migrate an SMP/E environment to CA CSM where the prerequisites are installed. After you complete, click Refresh on the Prerequisites step of the wizard and select the SMP/E environment and a target zone where the prerequisites are installed. Then, click Next to continue the product installation.

You are prompted to [confirm the selected SMP/E environment for the installation](#) (see page 64).

Select an SMP/E Environment

You select the SMP/E environment where you want to install your product in. You can create an SMP/E environment, or select an existing SMP/E environment from your working set. You can [configure your working set](#) (see page 118) from the [SMP/E Environments tab](#) (see page 273).

While you are working with a particular SMP/E environment, the SMP/E environment is locked and other CA CSM users cannot perform any action against it. When the task finishes, or when you log out from CA CSM, or when your CA CSM session is inactive for more than 10 minutes, the lock releases.

If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.

Follow these steps:

1. On the SMP/E Environment step, substep 1, take one of the following steps:
 - Click Create a New SMP/E Environment to create an SMP/E environment.
 - Select an existing SMP/E environment from your working set.
 - If no existing SMP/E environment appears, exit the wizard, [configure your working set](#) (see page 118), and [restart the wizard](#) (see page 61).
 - If your product has the [installed prerequisites](#) (see page 63), the SMP/E environment with the installed prerequisites that you selected at the Prerequisites step of the wizard is preselected for you. You cannot select another SMP/E environment or create a new SMP/E environment.
2. Click Next.

You are prompted to set up the SMP/E environment.

More information:

- [Create an SMP/E Environment](#) (see page 65)
[Use an Existing SMP/E Environment](#) (see page 67)

Create an SMP/E Environment

You can create an SMP/E environment while you are installing a product. During the process, you are asked to specify the following information:

- The SMP/E environment name and the prefix of the CSI data set in CA CSM
- Data set allocation parameters

You can specify data set allocation parameters collectively for all SMP/E data sets, target libraries, and distribution libraries that are allocated during product installation. You allocate data sets using one of the following methods:

- Allocate data sets using SMS parameters.
- Allocate cataloged data sets using UNIT and optionally VOLSER.
- Allocate uncataloged data sets using UNIT and VOLSER.

If you allocate uncataloged data sets, specify a VOLSER. Based on the value that you enter, CA CSM performs the following validations to ensure integrity of the installation:

- The value of VOLSER must specify a mounted volume.
- You must have ALTER permissions for the data sets with the entered high-level qualifier (HLQ) on the volume that VOLSER defines.
- To test allocation, CA CSM temporarily allocates one of the uncataloged data sets that are allocated during the installation.
 1. The data set is allocated with one track for both primary and secondary space.
 2. CA CSM verifies that the data set has been allocated on the specified volume.
 3. The data set is deleted.

If the data set allocation fails or the data set cannot be found on the specified volume, you cannot proceed with the product installation wizard.

Follow these steps:

1. On the SMP/E Environment step, substep 2, review and specify the following parameters as applicable:

SMP/E Environment Name

Defines the SMP/E environment name.

Data Set Name Prefix

Defines the prefix for the name of the CSI VSAM data set.

Catalog

Defines the name of the SMP/E CSI catalog.

Cross-Region

Identifies the cross-region sharing option for SMP/E data sets.

Note: This parameter is set to its default value, and you cannot edit it.

Cross-System

Identifies the cross-system sharing option for SMP/E data sets.

Note: This parameter is set to its default value, and you cannot edit it.

High-Level Qualifier

Specifies the high-level qualifier (HLQ) for all SMP/E data sets that are allocated during installation. Product packaging defines the low-level qualifiers (LLQ). The low-level qualifiers cannot be changed.

DSN Type

Specifies the DSN type for allocating SMP/E data sets.

SMS Parameters / Data Set Parameters

Specifies if this SMP/E environment is using SMS or data set parameters.

Storage Class (SMS Parameters only)

Defines the SMS storage class for SMP/E data sets.

Management Class (SMS Parameters only)

Defines the management class for SMP/E data sets.

Data Class (SMS Parameters only)

Defines the data class for SMP/E data sets.

VOLSER (Data Set Parameters only)

Defines the volume serial number on which to place data sets. The volume must have enough space for allocating the data sets.

Note: This field is mandatory if you set Catalog to No.

Unit (Data Set Parameters only)

Defines the type of the DASD on which to place data sets.

Catalog (Data Set Parameters only)

Specifies if you want SMP/E data set to be cataloged.

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.

2. Click Next.

[Work DDDEF allocation parameters and a list of the data sets to be created for the SMP/E environment appear](#) (see page 69).

Use an Existing SMP/E Environment

When you use an existing SMP/E environment to install your product, you review the SMP/E environment parameters. If applicable, you also specify parameters for any new data sets to be allocated while installing a product. During the process, you are asked to review allocation parameters for new data sets, which you can customize for each data set. The existing data sets remain intact.

The Software Installation Service (SIS) determines which data sets exist and which need to be allocated for the installation using an existing SMP/E environment. If the SIS determines that new data sets must be allocated, you are prompted to specify the data set allocation parameters. The data set allocation parameters are prepopulated with the values from the existing data set that was found first.

Follow these steps:

1. On the SMP/E Environment step, substep 2, review the current SMP/E environment parameters and allocation parameters for data sets that must be added to the SMP/E environment. Update the information as applicable:

Note: You cannot change the current SMP/E environment parameters.

SMP/E Environment Name

Identifies the name for the SMP/E environment.

Data Set Name Prefix

Identifies the prefix for the name of the CSI VSAM data set.

Catalog

Identifies the name of the SMP/E CSI catalog.

Cross-Region

Identifies the cross-region sharing option for SMP/E data sets.

Cross-System

Identifies the cross-system sharing option for SMP/E data sets.

High-Level Qualifier

Specifies the high-level qualifier (HLQ) for all SMP/E data sets that are allocated during installation. Product packaging defines the low-level qualifiers (LLQ). The low-level qualifiers cannot be changed.

DSN Type

Specifies the DSN type for allocating SMP/E data sets.

SMS Parameters / Data Set Parameters

Specifies if this SMP/E environment is using SMS or data set parameters.

Storage Class (SMS Parameters only)

Defines the SMS storage class for SMP/E data sets.

Management Class (SMS Parameters only)

Defines the management class for SMP/E data sets.

Data Class (SMS Parameters only)

Defines the data class for SMP/E data sets.

VOLSER (Data Set Parameters only)

Defines the volume serial number on which to place data sets. The volume must have enough space for allocating the data sets.

Note: This field is mandatory if you set Catalog to No.

Unit (Data Set Parameters only)

Defines the type of the DASD on which to place data sets.

Catalog (Data Set Parameters only)

Specifies if you want SMP/E data set to be cataloged.

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.

2. Click Next.

[Work DDDEF allocation parameters and a list of the data sets to be created for the SMP/E environment, if any, appear \(see page 69\).](#)

Set Up SMP/E Environment Parameters

When creating an SMP/E environment for your product installation, you specify SMP/E environment parameters. When using an existing SMP/E environment for installing your product, you review and, if necessary, update its SMP/E environment parameters.

You can assign different prefixes to each newly allocated data set during the installation process.

Follow these steps:

1. On the SMP/E Environment step, substep 3, specify whether to use SMS or Unit parameters for allocating work DDDEFs for the SMP/E environment. Complete the appropriate fields. The following fields are available depending on your selection:

Storage Class (SMS only)

Defines the SMS storage class for work DDDEFs.

Management Class (SMS only)

Defines the management class for work DDDEFs.

Data Class (SMS only)

Defines the data class for work DDDEFs.

Unit (Unit only)

Defines the type of the DASD on which to place work DDDEFs.

Allocation parameters that you specify for work DDDEFs are applied only to new work DDDEFs that are created during the installation. The existing work DDDEFs, if any, remain intact.

Note: The settings for allocating work DDDEFs are globally defined on the [System Settings, Software Installation tab](#) (see page 311). You must have the appropriate access rights to be able to modify these settings.

2. Review the data set names if any appear. Click the Override link to change the high-level qualifier of the data set name and the allocation parameters, and then click OK.
3. (Optional) If any additional parameters appear, review the parameters that already have the default values assigned. Edit the parameters if necessary and specify any missing parameters.
4. Click Next.

You are prompted to [select a target zone to use](#) (see page 70).

Select a Target Zone

You select a target zone in the SMP/E environment where you want to install your product. You either create a target zone or select an existing target zone in the SMP/E environment (if you use an existing SMP/E environment).

Follow these steps:

1. On the Target Zone step, substep 1, perform one of the following actions:
 - Click Create a New Target Zone to create a target zone.
 - Select an existing target zone in the SMP/E environment.

Note: This option is available only if you selected to use an existing SMP/E environment.

 - If you install a product or its components into an existing target or distribution zone, older versions are deleted from the zone and associated data sets. We recommend that you use new target and distribution zones for this installation so that you can apply maintenance to your current version, if necessary.
 - If your product has the [installed prerequisites](#) (see page 63), the target zone of the SMP/E environment with the installed prerequisites that you selected at the Prerequisites step of the wizard is preselected for you. You cannot select another target zone or create a new target zone.
2. Click Next.

You are prompted to set up the target zone.

More information:

- [Create a Target Zone](#) (see page 70)
[Use an Existing Target Zone](#) (see page 72)

Create a Target Zone

You can create a target zone in a new or an existing SMP/E environment where you install your product. The target zone parameters are prepopulated with the values that are entered for the SMP/E environment. You can change data set allocation parameters.

You can specify a different SMP/E environment data set to be used for a new target zone.

Follow these steps:

1. On the Target Zone step, substep 2, review and specify the following parameters as applicable:

Target Zone Name

Defines the name for the target zone.

Create New CSI Data Set

Specifies that a new CSI data set will be created for the target zone.

Data Set Name Prefix

Defines the prefix for the name of the target zone data set.

Note: This field is only enabled when you have the Create New CSI Data Set check box selected.

Catalog

Defines the name of the SMP/E target zone catalog.

Note: This field is only enabled when you have the Create New CSI Data Set check box selected.

Cross-Region

Identifies the cross-region sharing option for SMP/E data sets.

Note: This parameter is set to its default value, and you cannot edit it.

Cross-System

Identifies the cross-system sharing option for SMP/E data sets.

Note: This parameter is set to its default value, and you cannot edit it.

High-Level Qualifier

Specifies the high-level qualifier (HLQ) for all target zone data sets that are allocated during installation. Product packaging defines the low-level qualifiers (LLQ) and they cannot be changed.

DSN Type

Specifies the DSN type for allocating target zone data sets.

SMS Parameters / Data Set Parameters

Specifies if this target zone uses SMS or data set parameters.

Storage Class (SMS Parameters only)

Defines the SMS storage class for target zone data sets.

Management Class (SMS Parameters only)

Defines the management class for target zone data sets.

Data Class (SMS Parameters only)

Defines the data class for target zone data sets.

VOLSER (Data Set Parameters only)

Defines the volume serial number on which to place data sets. The volume must have enough space for allocating the data sets.

Note: This field is mandatory if you set Catalog to No.

Unit (Data Set Parameters only)

Defines the type of the DASD on which to place data sets.

Catalog (Data Set Parameters only)

Specifies if you want SMP/E data set to be cataloged.

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.

2. Click Next.

[A list of the data sets to be created for the target zone appears](#) (see page 74).

Use an Existing Target Zone

When using an existing target zone for installing your product, you review and, if necessary, update its parameters.

Follow these steps:

1. On the Target Zone step, substep 2, review the current target zone parameters and allocation parameters for data sets that must be added. Update as applicable:

Note: You cannot change the current SMP/E environment parameters.

Target Zone Name

Identifies the name for the target zone.

Data Set Name Prefix

Identifies the prefix for the name of the target zone data set.

Catalog

Identifies the name of the SMP/E target zone catalog.

Cross-Region

Identifies the cross-region sharing option for SMP/E data sets.

Cross-System

Identifies the cross-system sharing option for SMP/E data sets.

High-Level Qualifier

Specifies the high-level qualifier (HLQ) for all target zone data sets that are allocated during installation. Product packaging defines the low-level qualifiers (LLQ) and they cannot be changed.

DSN Type

Specifies the DSN type for allocating target zone data sets.

SMS Parameters / Data Set Parameters

Specifies if this target zone uses SMS or data set parameters.

Storage Class (SMS Parameters only)

Defines the SMS storage class for target zone data sets.

Management Class (SMS Parameters only)

Defines the management class for target zone data sets.

Data Class (SMS Parameters only)

Defines the data class for target zone data sets.

VOLSER (Data Set Parameters only)

Defines the volume serial number on which to place data sets. The volume must have enough space for allocating the data sets.

Note: This field is mandatory if you set Catalog to No.

Unit (Data Set Parameters only)

Defines the type of the DASD on which to place data sets.

Catalog (Data Set Parameters only)

Specifies if you want SMP/E data set to be cataloged.

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.

2. Click Next.

If there are any data sets to be created for the target zone, [a list of data sets appears](#) (see page 74). If the list is empty, no new data sets are going to be allocated.

Set Up Target Zone Parameters

When creating a target zone in the SMP/E environment for your product installation, specify target zone parameters.

Follow these steps:

1. On the Target Zone step, substep 3, review the data set names if any appear. Click the Override link to change the high-level qualifier of the data set name and the allocation parameters, and then click OK.
2. (Optional) If any additional parameters appear, review the parameters that already have the default values assigned. Edit the parameters if necessary and specify any missing parameters.
3. Click Next.

You are prompted to [confirm the distribution zone](#) (see page 74).

Confirm a Distribution Zone

On this step, you confirm a distribution zone of the SMP/E environment where you want to install your product to. Depending on whether you created a new target zone or selected an existing target zone, you either create a new distribution zone or select an existing distribution zone in the SMP/E environment.

Follow these steps:

1. On the Distribution Zone step, substep 1, review the selected option for the distribution zone.
 - If you are using an existing target zone, the related distribution zone is automatically selected. You cannot select other distribution zones or cannot create a new one.

Note: If you install a product or its components into an existing target or distribution zone, older versions are deleted from the zone and associated data sets. We recommend that you use new target and distribution zones for this installation so that you can apply maintenance to your current version, if necessary.

- If you are creating a target zone, you can create a distribution zone or you can select an existing distribution zone.

Note: Using an existing distribution zone with a new target zone relates the existing distribution zone to the new target zone. This action breaks the relationship from the previous target zone that was related to this distribution zone. You cannot accept maintenance packages from the previous target zone to this distribution zone using CA CSM.

2. Click Next.

You are prompted to set up the distribution zone.

More information:

[Create a Distribution Zone](#) (see page 75)

[Use an Existing Distribution Zone](#) (see page 77)

Create a Distribution Zone

You can create a distribution zone that is related to the newly created target zone. The distribution zone parameters are prepopulated with the values that are entered for the SMP/E environment. You can change data set allocation parameters.

You can specify a different SMP/E environment data set to be used for the new distribution zone.

You can also specify the same SMP/E environment data set as the one that you specified for the target zone. In that case, the target and distribution zones share the SMP/E environment data set. The SMP/E environment data set will be allocated using the parameters that you have defined when specifying the target zone.

Follow these steps:

1. On the Distribution Zone step, substep 2, review and specify the following parameters as applicable:

Distribution Zone Name

Defines the name for the distribution zone.

Create New CSI Data Set

Specifies that a new CSI data set will be created for the distribution zone.

Data Set Name Prefix

Defines the prefix for the name of the distribution zone data set.

Note: This field is only enabled when you have the Create New CSI Data Set check box selected.

Catalog

Defines the name of the SMP/E distribution zone catalog.

Note: This field is only enabled when you have the Create New CSI Data Set check box selected.

Cross-Region

Identifies the cross-region sharing option for SMP/E data sets.

Note: This parameter is set to its default value, and you cannot edit it.

Cross-System

Identifies the cross-system sharing option for SMP/E data sets.

Note: This parameter is set to its default value, and you cannot edit it.

High-Level Qualifier

Specifies the high-level qualifier (HLQ) for all distribution zone data sets that are allocated during installation. Product packaging defines the low-level qualifiers (LLQ) that cannot be changed.

DSN Type

Specifies the DSN type for allocating distribution zone data sets.

SMS Parameters / Data Set Parameters

Specify if this distribution zone is to use SMS or data set parameters. Complete the applicable fields.

Storage Class (SMS Parameters only)

Defines the SMS storage class for distribution zone data sets.

Management Class (SMS Parameters only)

Defines the management class for distribution zone data sets.

Data Class (SMS Parameters only)

Defines the data class for distribution zone data sets.

VOLSER (Data Set Parameters only)

Defines the volume serial number on which to place data sets. The volume must have enough space for allocating the data sets.

Note: This field is mandatory if you set Catalog to No.

Unit (Data Set Parameters only)

Defines the type of the DASD on which to place data sets.

Catalog (Data Set Parameters only)

Specifies if you want SMP/E data set to be cataloged.

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.

2. Click Next.

[A list of the data sets to be created for the distribution zone appears](#) (see page 79).

Use an Existing Distribution Zone

You can use an existing distribution zone that is related to the existing target zone you selected, or with a new target zone. The distribution zone parameters are prepopulated with the values that are entered for the SMP/E environment. You can change data set allocation parameters.

Note: Using an existing distribution zone with a new target zone relates the existing distribution zone to the new target zone. This action breaks the relationship from the previous target zone that was related to this distribution zone. You cannot accept maintenance packages from the previous target zone to this distribution zone using CA CSM.

Follow these steps:

1. On the Distribution Zone step, substep 2, review the current distribution zone parameters and allocation parameters for data sets that you want to add. Update as applicable:

Note: You cannot change the current SMP/E environment parameters.

Distribution Zone Name

Identifies the name for the distribution zone.

Data Set Name Prefix

Identifies the prefix for the name of the distribution zone data set.

Catalog

Identifies the name of the SMP/E distribution zone catalog.

Cross-Region

Identifies the cross-region sharing option for SMP/E data sets.

Cross-System

Identifies the cross-system sharing option for SMP/E data sets.

High-Level Qualifier

Specifies the high-level qualifier (HLQ) for all distribution zone data sets that are allocated during installation. Product packaging defines the low-level qualifiers (LLQ) that cannot be changed.

DSN Type

Specifies the DSN type for allocating distribution zone data sets.

SMS Parameters / Data Set Parameters

Specify if this distribution zone is to use SMS or data set parameters. Complete the applicable fields.

Storage Class (SMS Parameters only)

Defines the SMS storage class for distribution zone data sets.

Management Class (SMS Parameters only)

Defines the management class for distribution zone data sets.

Data Class (SMS Parameters only)

Defines the data class for distribution zone data sets.

VOLSER (Data Set Parameters only)

Defines the volume serial number on which to place data sets. The volume must have enough space for allocating the data sets.

Note: This field is mandatory if you set Catalog to No.

Unit (Data Set Parameters only)

Defines the type of the DASD on which to place data sets.

Catalog (Data Set Parameters only)

Specifies if you want SMP/E data set to be cataloged.

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.

2. Click Next.

If there are any data sets to be created for the distribution zone, [a list of data sets appears](#) (see page 79). If the list is empty, no new data sets are going to be allocated.

Set Up Distribution Zone Parameters

When creating a distribution zone in the SMP/E environment where you want to install your product, specify distribution zone parameters.

Follow these steps:

1. On the Distribution Zone step, substep 3, review the data set names if any appear. Click the Override link to change the high-level qualifier of the data set name and the allocation parameters, and then click OK.
2. (Optional) If any additional parameters appear, review the parameters that already have the default values assigned. Edit the parameters if necessary and specify any missing parameters.
3. Click Next.

The Summary step appears, and you see a [summary of the installation task](#) (see page 79).

Start the Installation

After you completed setting up the SMP/E environment and its zones, you are ready to start the installation.

To start the installation, review the summary on the Summary step, and click Install.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

If you [configured CA CSM to suspend the installation](#) (see page 60) after executing Apply Check or Accept Check, [review pending tasks and continue the installation](#) (see page 80).

Review Pending Tasks and Continue the Installation

You can [configure CA CSM to execute Apply Check and Accept Check](#) (see page 60) during base installation and suspend the installation after the checks are completed.

After the installation starts, you review the detailed output of the Apply Check and Accept Check steps. Then, you decide how you want to continue the installation. You can perform one of the following actions:

- If the Apply Check and Accept Check step complete successfully, continue the installation.
- If the Apply Check or Accept Check step fails, review detailed output. Correct the situation that caused the action to fail. [Rerun the failed step](#) (see page 81).
- If the Apply Check or Accept Check step fails and you cannot correct the situation, [roll back the installation](#) (see page 83). Rollback undoes the previous installation action. CA CSM restores the SMP/E environment to the state before the previous installation action started executing. Any output that the pending installation process created is deleted.

Follow these steps:

1. Click the SMP/E Environments tab, and click the SMP/E environment on the tree on the left side.

The Installed Products, Products section appears.

Note: SMP/E environments that have pending installation tasks are marked with the icon .

2. Click the Pending Installations subtab.

Information about the SMP/E environment pending installation task appears.

Note: If you [configured CA CSM to execute both Apply Check and Accept Check](#) (see page 60), the subtab displays two pending actions. The Execute SMP/E APPLY, SMP/E ACCEPT CHECK action has a status of Pending and has available actions. The Execute SMP/E ACCEPT CHECK, SMP/E ACCEPT action has a status of Not run. This action does not have any available actions.

3. (Optional) In the Pending Installation for *task_name* section, click Show Results to review the detailed output (see definition on page 254). Click Close on the top right corner to close the [task output browser](#) (see page 301) and return to the Pending Installations subtab.
4. In the Available Actions section, locate the Execute SMP/E APPLY, SMP/E ACCEPT CHECK action. Click the Actions drop-down list to the right of the action, and take one of the following steps:
 - If the action failed, review the detailed output and [rerun the action](#) (see page 81) or [roll back the installation](#) (see page 83).
 - If the action completed successfully, select Continue.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

5. On the Pending Installations subtab, click Refresh to update the list of pending tasks.

The Execute SMP/E APPLY, SMP/E ACCEPT CHECK action has a status of Executed. The SMP/E ACCEPT CHECK, SMP/E ACCEPT action has the Actions drop-down list to the right listing available actions.

6. In the Available Actions section, locate the Execute SMP/E ACCEPT CHECK, SMP/E ACCEPT action. Click the Actions drop-down list to the right of the action, and take one of the following steps:
 - If the action failed, review the detailed output and [rerun the action](#) (see page 81) or [roll back the installation](#) (see page 83).
 - If the action completed successfully, select Continue.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

7. On the Pending Installations subtab, click Refresh to update the list of pending tasks.

The Available Actions section is refreshed and does not list any pending actions. The information message identifies there are no pending tasks for this SMP/E environment.

The product installation is completed.

You can verify the installed product on the [Installed Products subtab](#) (see page 276). You can verify the status of the installation task on the [Tasks tab](#) (see page 299).

Rerun a Failed Installation Action

If a pending action fails during the installation process, you can review the detailed output to discover possible failure reasons and correct the situation. Then, you can rerun the failed step and can continue the installation.

If you cannot correct the situation, you can [roll back the installation](#) (see page 83).

Follow these steps:

1. In the Available Actions section, click the Actions drop-down list to the right of the failed action, and select Show Results.

The [task output browser](#) (see page 301) opens where you can review detailed output of the failed action.

2. Review and analyze the task details. You can search for particular instances in the output. If the output contains more than one page of data, you can browse the output using the page counter in the top right corner. Click Close on the top right corner to close the task output browser and return to the Pending Installations subtab.

3. Correct the situation that caused the action to fail.

4. Navigate to the Pending Installations subtab, and locate the failed action. Click the Actions drop-down list to the right of the action, and select Rerun.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

5. On the Pending Installations subtab, click Refresh to update the list of pending tasks.

- If you reran the SMP/E ACCEPT CHECK, SMP/E ACCEPT action, the Available Actions section does not list any pending actions. The information message identifies there are no pending tasks for this SMP/E environment. The product installation is completed.
- If you reran the Execute SMP/E APPLY, SMP/E ACCEPT CHECK action, the action has a status of Executed. The SMP/E ACCEPT CHECK, SMP/E ACCEPT action has the Actions drop-down list to the right listing available actions.

Note: If rerunning the action fails again and you cannot correct the situation, [roll back the installation](#) (see page 83).

6. After rerunning the Execute SMP/E APPLY, SMP/E ACCEPT CHECK action, take one of the following steps:

- If rerunning the action completes successfully, [continue with the pending product installation](#) (see page 80).
- If rerunning the action fails again and you cannot correct the situation, [roll back the installation](#) (see page 83).

7. On the Pending Installations subtab, click Refresh to update the list of pending tasks.

The Available Actions section is refreshed and does not list any pending actions. The information message identifies there are no pending tasks for this SMP/E environment.

More information:

[Review Pending Tasks and Continue the Installation](#) (see page 80)

Roll Back the Installation

If you cannot correct the situation, you can roll back the installation.

Rollback undoes the previous installation action. CA CSM restores the SMP/E environment to the state before the previous installation action started executing. Any output that the pending installation process created is deleted. The whole installation process stops. You can [rerun the installation](#) (see page 61) later.

To roll back the installation, locate the failed action, click the Actions drop-down list to the right of the action, and select Rollback.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

More information:

[Rerun a Failed Installation Action](#) (see page 81)

[Review Pending Tasks and Continue the Installation](#) (see page 80)

Download LMP Keys

When you install a CA Technologies product on z/OS systems, license the product on each system using the product. License the product by entering CA Common Services for z/OS CA License Management Program (LMP) statements. You can download LMP keys through the [Products tab](#) (see page 266) so that the keys are available for you to enter manually. The Show License Keys action retrieves the keys from CA Support Online for the products to which your site is entitled, based on the requesting user ID and its associated site IDs.

Follow these steps:

1. Click the Products tab, and click the Show License Keys link in the Actions section on the left side.

A list of LMP keys 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.

Proceed to the next step if no LMP keys have been acquired or if you want to update the list.
3. Click Update Keys.

You are prompted to confirm the update.
4. Click OK.

The LMP keys for all known site IDs 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 list of site IDs used within CA CSM. Do so if you have recently added or removed a site ID, or if this list is invalid for any reason.

Chapter 6: Maintaining Products

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

This section contains the following topics:

- [Configure Automatic HOLDDATA Download](#) (see page 85)
- [Download Product Maintenance Packages](#) (see page 87)
- [Download Maintenance Packages for Old Product Releases and Service Packs](#) (see page 88)
- [Manage Maintenance Downloaded Outside of CA CSM](#) (see page 88)
- [Manage Maintenance](#) (see page 91)
- [GROUPEXTEND Mode](#) (see page 95)
- [CA RS Maintenance](#) (see page 99)
- [FIXCAT Maintenance](#) (see page 107)
- [Back Out Maintenance](#) (see page 110)

Note: You have deployed and configured a product across your enterprise. Now you are applying maintenance to this product. Create a deployment and a configuration for this product to get this maintenance to your target systems.

Configure Automatic HOLDDATA Download

You can configure CA CSM to download automatically the available HOLDDATA that it uses for each maintenance installation. Then you have up-to-date information about what maintenance packages are marked as PE (PTF in Error).

Follow these steps:

1. Click the Settings tab, and click the Software Catalog link under System Settings in the Settings section on the left side.
The Software Catalog page opens.
2. In the HOLDDATA Settings section, select the Enable Automatic Updates check box.
The fields in the section become available.

3. Set up values for the following fields, and click **Apply**:

Owner of Update Task

Specifies the TSO user ID under which the update task is run.

Recurrence

Specifies how often the task recurs.

Update Software Catalog Every *number of Days*

or

Update Software Catalog On *day of week* Every *number of Weeks*

Specifies the frequency of downloading HOLDDATA to your software catalog, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when an automatic update occurs. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Note: Local time is calculated based on the system time that you set.

Note: To download available HOLDDATA to the software catalog immediately, click **Update Immediately**.

The automatic HOLDDATA download is configured.

More information:

[Manage CA RS Maintenance](#) (see page 103)

[Manage Maintenance](#) (see page 91)

Download Product Maintenance Packages

You can download maintenance packages for installed products through the [Products tab](#) (see page 266). You can download:

- All maintenance packages for a product
- Only maintenance packages that have been released from the time the product release was updated last

Note: The information for HIPERs and new maintenance on the Software Status tab is based on the current information in your software catalog. We recommend that you [update the product list](#) (see page 43) on a daily or weekly basis to keep it current.

Follow these steps:

1. Verify that your CA CSM login user name is associated with a registered user of [the CA Support Online website](#) on the [Software Acquisition Settings page](#) (see page 304).
CA CSM uses the credentials to access [the CA Support Online website](#).
2. Click the name of the product for which you want to download maintenance in the product list on the left side.
Maintenance information about the product appears in the Releases section on the right side.
3. For the product release for which you want to download maintenance, click the Actions drop-down list to the right of the release. Take one of the following steps:
 - Select Update Product Release to download all maintenance packages for the product release.
 - Select Get Latest Maintenance to download only maintenance packages that have been released from the time the product release was updated last.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The maintenance packages are downloaded.

Download Maintenance Packages for Old Product Releases and Service Packs

CA CSM 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.

Follow these steps:

1. Click the Products tab, and click the Add Product link in the Actions section on the left side.

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 in the product list, and use the release and gen level values as they appear for Published Solutions on [the CA Support Online website](#).

The product release is added to the software catalog.

3. From the product list on the left side, click the name of the product for which you want to download maintenance.

Maintenance information about the product appears in the Releases section on the right side.

4. For the added product release, click the Actions drop-down list to the right of the release, and select Update Product Release.

Maintenance packages are downloaded. A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Manage Maintenance Downloaded Outside of CA CSM

Sometimes you acquire maintenance packages, such as unpublished maintenance, PTF, APARs, and USERMODs, outside of CA CSM. For example, you are validating a test PTF released for a product. You can add information about these maintenance packages to CA CSM from the [Products tab](#) (see page 266). The process starts a wizard that guides you through the migration.

Adding these maintenance packages to CA CSM provides you with a complete view of all the maintenance for a product release. After a package is migrated, you can use CA CSM to [apply the maintenance](#) (see page 91).

The maintenance is placed as either a single package or an aggregated package. An *aggregated package* is a file that comprises several single maintenance packages (nested packages). When you add an aggregated package, CA CSM inserts all the nested packages and the aggregated package itself. In the list of maintenance packages, the aggregated package is marked with the CUMULATIVE type.

When you insert an aggregated package, CA CSM assigns a fix number to it. The fix number is unique and contains eight characters. The first two characters are AM (for Aggregated Maintenance) and a unique six-digit number follows. The number 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 package is added. The aggregated package itself is not available in the list of maintenance packages.

Follow these steps:

1. Click the Products 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.
3. Specify one of the following package types and package details:

Data Set

Adds a maintenance package located in a z/OS data set with an LRECL of 80 and RECFM of FB.

UNIX File

Adds a maintenance package located in a USS directory in binary mode.

FTP File

Adds a maintenance package that is not published on [the CA Support Online website](#). This option is intended for downloading a PTF to validate it.

FTP Location

Defines the FTP path where the maintenance package is located. Start the path with a forward slash (/). Enter only a forward slash to specify the root directory.

Example: /outgoing/

Note: CA CSM automatically supplies ftp.ca.com at the beginning of the path.

Maintenance Name

Defines the maintenance package name.

Example: RO0111.pax.Z

User Name

Defines a valid user name to access the FTP location.

Password

Defines a valid password to access the FTP location.

Solution

Adds a published solution on [the CA Support Online website](#).

Note: To add several data sets or UNIX file packages from the same location, use [masking](#) (see page 49).

4. Click OK.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

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

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

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.

Follow these steps:

1. Click the Products 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.

Important! Before you start, update the HOLDDATA in your software catalog. To do so, click **Update HOLDDATA** in the Actions section on the Software Catalog page. You can also set up the [automatic HOLDDATA download](#) (see page 85).

Note: While you are working with a particular SMP/E environment, the SMP/E environment is locked and other CA CSM users cannot perform any action against it. When the task finishes, or when you log out from CA CSM, or when your CA CSM session is inactive for more than 10 minutes, the lock releases.

The following installation modes are available:

Receive and Apply

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

Receive and Apply Check

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

Receive, Apply Check, and Apply

Receives the maintenance, checks if the maintenance can be applied to the selected target zone of the SMP/E environment. Then applies it, if possible.

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 that are required to apply the maintenance.

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

Follow these steps:

1. Click the Products tab, and select the product from the tree on the left side.
Maintenance information appears on the right side for the releases you have.
2. Click the Release Name link.
The maintenance packages are listed.
3. Click the Fix # link for each maintenance package you want to install to review details.
The Maintenance Package Details dialog appears, identifying any prerequisites.
4. Review the information in this dialog, including any HOLDDATA information about this fix, and click Close to return to the Maintenance Packages section.
5. Select the maintenance packages that 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.
6. Review the information about the maintenance, and click Next.
The packages to install are listed.
7. 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 (see definition on page 388) are listed.
8. Select the environments in which you want to install the packages.

9. Click Select Zones to review and adjust the zones where the maintenance is installed. You can only perform maintenance actions on zones you select here. Click OK to confirm the selection and return to the wizard, and click Next.

If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.

10. Select the installation mode for the selected maintenance, and click Next.

- If prerequisites exist and are available, review them and click Next. The prerequisites are installed as part of the process. If a prerequisite is *not* available, the wizard cannot continue. Acquire the prerequisite and restart the process.
- Review HOLDDATA entries, if they exist, and click Next.
 - Clear check boxes for the HOLDDATA entries that you want to bypass during processing. CA CSM ignores these HOLDDATA entries and applies the related SYSMODs.
 - Click Export Table to open all HOLDDATA information for all selected maintenance in a separate browser window. Clicking Export Table is similar to running the LIST SYSMODS HOLDDATA command within your SMP/E environment.

SMP/E work DDDEFs of SMPWRKx and SYSUTx, with their allocation parameters, are listed.

Note: For more information about SMPWRKx and SYSUTx data sets, see the IBM SMP/E for z/OS Reference.

11. Review the work DDDEF allocation parameters, and edit them, if necessary, to verify that sufficient space is allocated for them during the maintenance installation:

Note: Changes in the allocation parameters apply to the current maintenance installation only.

- a. Click Override for a DDDEF to edit its allocation parameters.
A pop-up window opens.
- b. Make the necessary changes, and click OK to confirm.

The pop-up window closes, and the DDDEF entry is selected in the list indicating that the allocation parameters have been overridden.

Note: To update allocation parameters for all DDDEFs automatically, click Retrieve DDDEF. CA CSM provides values for all DDDEFs based on the total size of the selected maintenance packages being installed. All DDDEF entries are selected in the list indicating that the allocation parameters have been overridden.

- If you want to cancel a parameter update for any DDDEF, clear its check box.
- If you want to edit the allocation parameters for a particular DDDEF after you automatically updated them using the Retrieve DDDEF button, click Override. Make the necessary changes, and click OK to confirm and return to the wizard.

12. (Optional) Review SMP/E work DDDEF and their allocation parameters for the selected SMP/E zones, and click Close to return to the wizard.

Note: Sometimes the allocation parameters differ from the allocation parameters that you obtained using the Retrieve DDDEF button.

Click Next.

A summary of the task appears.

13. Review the summary, and click Install.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The task applies the maintenance. You can accept the maintenance (except USERMODs) using the SMP/E Environments, Maintenance tab.

Note: CA CSM prevents you from accepting USERMODs.

View Installation Status of Maintenance Package

You can view installation status details of each maintenance package, including a list of SMP/E environments where the package is installed. You can also see the SMP/E environment data sets, and the installation status of the package for each SMP/E environment zone. For example, a maintenance package can be received in the global zone, but applied in a target zone, and accepted in a distribution zone.

Note: The installation status is not available for aggregated maintenance packages, for packages that are uninstallable, and for packages that do not have available SMP/E environments for installation.

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 an SMP/E environment zone, the Install action is available.

Follow these steps:

1. Click the Products 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 SMP/E environments 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 SMP/E environment zone, or the accept wizard for packages that are not accepted in at least one SMP/E environment zone. Click Install to More Environments to install the maintenance package in one or more SMP/E environments available for the package.

USERMODs

A product USERMOD can be provided as a published maintenance package downloaded during the Update Product process. When CA CSM downloads a package including a `++USERMOD` statement, it is loaded under the product with a USERMOD type. You can install these packages using CA CSM 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 88).

GROUPEXTEND Mode

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

Sometimes before you install a maintenance package, you install other maintenance packages first (SYSMODs).

If a SYSMOD - prerequisite for the required maintenance package, has not been applied or cannot be processed, you can install the maintenance package in GROUPEXTEND mode. (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.) The SMP/E environment where the product is installed automatically includes a superseding SYSMOD.

Note: When applying maintenance in GROUPEXTEND mode, the SMP/E environment *must* receive all SYSMODs that are included in 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. Then applies it if possible.

For the GROUPEXTEND option, CA CSM does not automatically receive and display maintenance or HOLDDATA prerequisites that must 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.

You can also use the following similar installation modes to accept maintenance in GROUPEXTEND mode:

- Accept Check
- Accept
- Accept Check and Accept

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. Review if there are missing (not received) SYSMODs or HOLDDATA that must be resolved or bypassed.
 - If the task succeeds, review SMPRPT in the task output. Review 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 following 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 corresponds to the SMP/E version that you use.

You can run the maintenance in Apply mode in the same CA CSM session after Apply check mode is completed. The values that you entered for Apply check mode are then prepopulated on the wizard dialogs.

Manage Maintenance in GROUPEXTEND Mode

CA CSM 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 SMP/E environment, the SMP/E environment is locked and other CA CSM users cannot perform any action against it. When the task finishes, or when you log out from CA CSM, or when your CA CSM session is inactive for more than 10 minutes, the lock releases.

Follow these steps:

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

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

Note: If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.

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 that 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 that you want to apply are listed.

Note: Click a link in the Status column for a maintenance package, if available, to review a list of zones. The zones indicate, 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 CSM does not automatically receive and display maintenance or HOLDDATA prerequisites that must be bypassed when applying the maintenance. Apply check mode lets you review 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 that is displayed on this tab, and click Next.

Installation options appear.

7. Specify installation options as follows, and click Next:

- Select the installation mode for the selected maintenance.
- Review the GROUPEXTEND options and select the ones that you want to apply to the maintenance:

NOAPARS

Excludes APARs that resolve error reason ID.

NOUSERMODS

Exclude USERMODs that resolve error user ID.

- (Optional) Enter SYSMODs that you want to exclude in the Excluded SYSMODs field. You can enter several SYSMODs, separate them by a comma.

The Bypass HOLDDATA tab of the wizard appears.

8. (Optional) Enter the BYPASS options for the HOLDDATA that you want to bypass during the maintenance installation. You can enter several BYPASS options, separate them by a comma.

9. Click Next.

A summary of the task appears.

10. Review the summary, and click Apply GROUPEXTEND.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

- If you run the maintenance installation in Apply check mode and the task succeeds, review SMPRPT in the task output. Review 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. Review if there are missing (not received) SYSMODs or HOLDDATA that must 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 CSM prevents you from accepting USERMODS.

Note: You cannot accept USERMODS in GROUPEXTEND mode. Providing you have not enabled NOUSERMODS option, you can install USERMODS that are prerequisites for the maintenance package being installed.

CA RS Maintenance

CA CSM lets you track and install CA Recommended Services (CA RS) maintenance for your products.

CA Recommended Service (CA RS) is a set of maintenance packages that have been tested in a mainframe integrated system test environment. We recommend that you install CA RS maintenance to keep your products up-to-date. To keep yourself informed about new CA RS maintenance available, you must download (either manually or automatically) all CA RS files that list published maintenance for that CA RS level.

CA Technologies releases CA RS maintenance on a regular basis. The release date determines the CA RS maintenance level.

To be informed about new CA RS maintenance available, download the CA RS files listed for published CA RS maintenance. You can configure CA CSM to download CA RS files [automatically](#) (see page 100), or [add CA RS files manually](#) (see page 101).

Based on information in CA RS files, you can filter CA RS maintenance in the [SMP/E Environments, Maintenance section](#) (see page 279), and can select the packages that are applicable for within the CA RS level you want to install.

You can install particular CA RS maintenance packages, or update all products in a particular SMP/E environment.

Note: A CA RS file may list a maintenance package that has been marked as PE (PTF in Error) by the HOLDDATA and reflect a corrective maintenance package not listed in this CA RS file. This situation can occur if a maintenance package is found in error after the CA RS file is published. The CA RS processing continues as expected, and the maintenance package marked as PE is not applied. However, the CA RS level for the product is not updated to the current level until you apply the corrective maintenance package to the SMP/E environment.

Configure Automatic CA RS File Download

You can configure CA CSM to download available CA RS files automatically. After download, the CA RS files are stored in a USS directory under the software catalog.

Follow these steps:

1. Click the Settings tab, and click the Software Catalog link under System Settings in the Settings section on the left side.
The Software Catalog page opens.
2. In the CA RS Settings section, select the Enable Automatic Updates check box.
The fields in the section become available.
3. Set up values for the following fields, and click Apply:

Owner of Update Task

Specifies the TSO user ID under which the update task is run.

Recurrence

Specifies how often the task recurs.

Update Software Catalog Every *number of Days*

or

Update Software Catalog On *day of week* Every *number of Weeks*

Specifies the frequency of downloading CA RS files to your software catalog, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when an automatic update occurs. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Note: Local time is calculated based on the system time that you set.

Note: To download available CA RS files to the software catalog immediately, click Update Immediately.

The automatic CA RS download is configured.

Add a CA RS File

If for any reason you cannot automatically download available CA RS files, you can add them to the software catalog manually. Use the Add CA RS File link. The CA RS files added manually are stored in the same USS directory as any other CA RS files.

Follow these steps:

1. Download the CA RS file using FTP from the CA Technologies file server directly to your USS directory.
 - a. Connect to the FTP site at the following location:
`ftp://ftp.ca.com`
 - b. Log in to `ftp.ca.com` as follows:
`user name: anonymous`
`password: your-email-address`
 - c. Change to the following directory:
`/pub/ASSIGNS`
 - d. Change your download mode to ASCII.
 - e. Download the CA RS file. CA RS files appear in the format:
`CARyymm.TXT`
 2. In the CA CSM web-based interface, click the Products tab, and click the Add CA RS File link in the Actions section on the left side.
You are prompted to identify the CA RS file.
 3. Specify the USS path to the CA RS file you want to add, and click OK.
- Information about the CA RS file is saved in the CA CSM Software Catalog USS database.

Configure Automatic CA RS Maintenance Download

You can configure CA CSM to download CA RS maintenance packages automatically for products installed in your SMP/E environments. CA CSM downloads CA RS maintenance packages according to information in CA RS files.

After download, the CA RS maintenance packages are stored and displayed on the Products page.

Note: Only CA RS maintenance packages that are applicable to the SMP/E environment are evaluated. Those packages that are not yet installed and are not present within the software catalog are downloaded.

Follow these steps:

1. Click the SMP/E Environments tab, and locate the SMP/E environment that you want to set up automatic CA RS maintenance download for.
2. Click the Actions drop-down list to the right of the SMP/E environment, and select Set Automatic Update.

The pop-up window appears, and you are prompted to configure CA RS maintenance download settings.

Note: You can also configure automatic CA RS maintenance download using the SMP/E Environments, [SMP/E Environment Information tab](#) (see page 276).

3. Set up values for the following fields, and click Apply:

User ID

Specifies the user who runs the automatic download.

Note: You can only select the ID of the user who is currently logged in to CA CSM. CA CSM saves the user password in an encrypted form in the CA CSM database.

CSO Credentials

Specifies credentials of the user ID on [the CA Support Online website](#).

Recurrence

Defines the frequency of downloading CA RS maintenance packages for SMP/E environment installed products.

Update Software Catalog Every *number of Days*

or

Update Software Catalog On *day of week* Every *number of Weeks*

Defines the frequency of downloading CA RS maintenance packages for SMP/E environment installed products, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when a download process for CA RS maintenance packages for SMP/E environment installed products starts. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Note: Local time is calculated based on the system time that you set.

The automatic CA RS download is configured.

Note: To remove the automatic CA RS maintenance download from an SMP/E environment, navigate to the [SMP/E Environments, SMP/E Environment Information tab](#) (see page 276), and click Clear Automatic Update.

Manage CA RS Maintenance

After CA RS maintenance packages have been downloaded, you can manage the maintenance in an existing SMP/E product installation environment.

Important! Before you start, update the HOLDDATA in your software catalog. To do so, click Update HOLDDATA in the Actions section on the Products page. You can also set up the [automatic HOLDDATA download](#) (see page 85).

Note: While you are working with a particular SMP/E environment, the SMP/E environment is locked and other CA CSM users cannot perform any action against it. When the task finishes, or when you log out from CA CSM, or when your CA CSM session is inactive for more than 10 minutes, the lock releases.

The following installation modes are available:

Receive and Apply

Receives the CA RS maintenance and applies it to the selected target zone of the SMP/E environment.

Receive and Apply Check

Receives the CA RS maintenance and checks if the maintenance can be applied to the selected target zone of the SMP/E environment.

Receive, Apply Check, and Apply

Receives the CA RS maintenance, checks if the maintenance can be applied to the selected target zone of the SMP/E environment. Then applies the maintenance, if possible.

Receive Only

Receives the CA RS maintenance.

Note: You can also manage CA RS maintenance to an SMP/E environment using the SMP/E Environments, [SMP/E Environment Information section](#) (see page 276). You can manage CA RS maintenance for any products in an SMP/E environment using the SMP/E Environments, [Installed Product section](#) (see page 276).

Follow these steps:

1. Click the SMP/E Environments tab.

A list of SMP/E environments existing in CA CSM appears.

Note: If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.

2. Locate the SMP/E environment for the products whose CA RS maintenance you want to manage. Click the Actions drop-down list to the right of the SMP/E environment, and select Upgrade CA RS Level.

The CA RS Processing wizard opens to the Introduction step.

3. Review the information that is displayed on this step, and click Next.

A list of CA RS maintenance level appears.

4. Select the CA RS maintenance level that you want to upgrade the SMP/E environment to, and click Next.

The SMP/E environment and its products and FMIDs are listed in the tree form. Those products and FMIDs that are ready to be upgraded are selected. The current CA RS level is identified for each product and FMID.

Note: FMIDs that are not related to any product within the SMP/E environment are also listed. These FMIDs are marked as not having ++FEATURE defined. You can select them for upgrading their CA RS level. If any products found do not have FMIDs related (no ++PRODUCT defined), they are listed and disabled by default.

5. Review and adjust the tree selections if necessary, and click Next.

You are prompted to select SMP/E zones where you want to install the CA RS maintenance packages.

6. Click Select Zones to review and adjust the zones for the CA RS maintenance installation. Click OK to confirm the selection and return to the wizard, and click Next.

The wizard displays a list of any CA RS maintenance packages missing from Software Catalog. These packages must be downloaded before proceeding with installation.

Note: If a maintenance package is being applied to multiple zones, the package appears multiple times (once for each zone). Although there are multiple entries, the package is downloaded once, but it is applied to all of the necessary zones.

7. Take one of the following steps:

- If there are no missing packages, click Next.
- If there are missing packages, review them and click Download to start downloading them into Software Catalog. When the download is finished, click Next.

Note: If there are many missing packages, you can cancel the wizard. Either download the maintenance packages manually on the [Products page](#) (see page 268), or [configure the automatic download](#) (see page 102) using the [SMP/E Environments page](#) (see page 273). After the download is completed, restart the wizard.

The CA RS maintenance packages to install are listed.

8. Review and adjust the list if necessary, and click Next.

You are prompted to select the installation mode.

9. Select the installation mode for the selected maintenance, and click Next.
 - If prerequisites exist and are available, review them and click Next. These prerequisites are installed as part of the process. If a prerequisite is *not* available, the wizard cannot continue. Acquire the prerequisite and restart the process.
 - Review HOLDDATA entries, if any exist, and click Next.

Within the HOLDDATA displayed, error HOLDDATA can be reflected for those maintenance packages that CA Technologies has marked as PE (PTF in Error). These packages are automatically removed from the list that is passed to SMP/E for APPLY processing.

GROUP statement processing handles dependencies automatically. If the corrective SYSMOD resolving the HOLDREASON of the PE is being processed, GROUP statement processing can pull in PE SYSMOD from the GLOBAL zone.

Note: Click Export Table to open all HOLDDATA information for all selected maintenance in a separate browser window. This action is similar to running the LIST SYSMODS HOLDDATA command within your SMP/E environment.

SMP/E work DDDEFs of SMPWRKx and SYSUTx, with their allocation parameters, are listed.

Note: For more information about SMPWRKx and SYSUTx data sets, see the *IBM SMP/E for z/OS Reference*.
10. Review the allocation parameters of work DDDEFs, and edit them if necessary to verify, that sufficient space is allocated for them during the maintenance installation:

Note: Changes in the allocation parameters apply to the current maintenance installation only.

 - a. Click Override for a DDDEF to edit its allocation parameters.

A pop-up window opens.
 - b. Make the necessary changes, and click OK to confirm.The pop-up window closes, and the DDDEF entry is selected in the list indicating that the allocation parameters have been overridden.

Note: To update allocation parameters for all DDDEFs automatically, click Retrieve DDDEF. CA CSM provides values for all DDDEFs based on the total size of the selected maintenance packages that you want to install. All DDDEF entries are selected in the list indicating that the allocation parameters have been overridden.

 - If you want to cancel a parameter update for any DDDEF, clear its check box.
 - If you want to edit the allocation parameters for a particular DDDEF after you automatically updated them using the Retrieve DDDEF button, click Override. Make the necessary changes and click OK to confirm, and return to the wizard.

11. (Optional) Review SMP/E work DDDEF and their allocation parameters for the selected SMP/E zones, and click Close to return to the wizard.

Note: The allocation parameters can differ from the allocation parameters that you obtained using the Retrieve DDDEF button.

Click Next.

A summary of the task appears.

12. Review the summary, and click Install.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The task applies the CA RS maintenance. You can accept the applied maintenance (except USERMODs) using the SMP/E Environments, Maintenance tab.

Note: CA CSM prevents you from accepting USERMODs.

FIXCAT Maintenance

CA CSM lets you select and install maintenance for your products according to FIXCAT.

FIXCAT (fix category) associates a maintenance package to one or more categories of PTFs (for example, installation, function, z/OS version, or communication).

FIXCAT data is provided in the same file as error HOLDDATA. Error HOLDDATA contains FIXCAT HOLDDATA statements that assign a maintenance package to a category. You select a category, and CA CSM determines and applies associated maintenance packages to the selected products installed in an SMP/E environment.

This section contains the following topics:

[Masking Maintenance Categories](#) (see page 108)

[Unresolved HOLDDATA Processing](#) (see page 108)

[Installation Modes](#) (see page 109)

[Manage FIXCAT Maintenance](#) (see page 109)

Masking Maintenance Categories

When you select maintenance categories in the wizard, you can use masking.

Use an asterisk (*), or a percent sign (%), or both to specify naming masks. An asterisk substitutes for any number of symbols. A percent sign substitutes for one symbol.

For example:

CA.System.z/OS.* selects all the categories whose names start with CA.System.z/OS.

CA.System.z/OS.%% selects all the categories under CA.System.z/OS whose last segment consists of two symbols.

Unresolved HOLDDATA Processing

When you install FIXCAT maintenance, review, and process any unresolved HOLDDATA for the installed maintenance and its prerequisites. The Finalize FIXCAT step of the wizard displays all unresolved HOLDDATA and lets you review the HOLDDATA and details about the HELD maintenance. You can then either bypass the HOLDDATA or exclude the HELD maintenance. CA CSM determines unresolved HOLDDATA by running SMP/E APPLY GROUPEXTEND CHECK.

In the Finalize FIXCAT step, you can perform the following actions:

- You can select HOLDDATA (HOLDDATA TYPE, REASON, or maintenance) to bypass it.
- You can leave HOLDDATA unselected to exclude it. If you do not select a particular HOLDDATA entry check box, CA CSM excludes the HELD maintenance from the installation.

If you decide to exclude at least one HELD maintenance package, CA CSM runs an appropriate SMP/E APPLY GROUPEXTEND CHECK command to verify the installation. CA CSM verifies whether any other maintenance requires the excluded maintenance. If so, CA CSM also excludes it from processing.

If the SMP/E APPLY GROUPEXTEND CHECK command discovers further unresolved HOLDDATA, the Finalize FIXCAT step reports all unresolved HOLDDATA again. Select what HOLDDATA to bypass and what HELD maintenance to exclude.

This iterative process repeats until all HOLDDATA is either resolved or bypassed. You can then proceed to the next step.

A list of FIXCAT maintenance that is excluded during the processing of unresolved HOLDDATA is displayed in the Summary step.

Installation Modes

When you install maintenance according to FIXCAT, the following installation modes are available:

APPLY GROUPEXTEND CHECK and APPLY GROUPEXTEND

Checks, if the FIXCAT maintenance can be installed to the selected SMP/E environment zones. Then performs the installation, if possible.

APPLY GROUPEXTEND CHECK only

Checks if the FIXCAT maintenance can be installed to the selected SMP/E environment zones.

APPLY GROUPEXTEND only

Performs the FIXCAT maintenance installation to the selected SMP/E environment zones.

Note: CA CSM internally executes APPLY GROUPEXTEND CHECK in different steps of the wizard to verify the installation.

After the task finishes, task output is available for your review on the [Tasks page](#) (see page 299).

If the task fails, review the task output. The SMPOUT output contains the reason for the failure that CA CSM could not handle automatically, and error messages that indicate the reason for the unhandled exception. You can find additional information about the failure in SMPHRPT (if created) and SMRPT.

After you review the task output, take appropriate actions to correct the situation and rerun the wizard, if necessary.

Manage FIXCAT Maintenance

You can select and install maintenance for your products based on FIXCAT using CA CSM.

You can run FIXCAT processing in one of the following modes:

- Online – CA CSM connects to [the CA Support Online website](#) and uses data available online to install FIXCAT maintenance. This is the default mode.
Note: Before you start, verify that you have a CA Support Online account to be able to download HOLDDATA. You can verify it on the [System Settings, Software Acquisition page](#) (see page 304).
- Offline – CA CSM does not connect to [the CA Support Online website](#). CA CSM uses data that is already in the software catalog and in the SMP/E environment.

Follow these steps:

1. Click the SMP/E Environments tab.
A list of SMP/E environments in CA CSM appears.
2. Locate the SMP/E environment whose products you want to apply FIXCAT maintenance to. Click the Actions drop-down list to the right of the SMP/E environment, and select Update Using Fix Categories.

The Fix Category wizard opens to the Introduction step.

Note: If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.

3. Follow the instructions on the wizard to navigate through the wizard steps.
4. When you are on the Summary step, review the summary and click Execute.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The FIXCAT maintenance task completes.

Back Out Maintenance

You can back out an applied maintenance package (but not an accepted maintenance package) through the [SMP/E Environments tab](#) (see page 273). The process starts a wizard that guides you through the backout.

Note: While you are working with a particular SMP/E environment, the SMP/E environment is locked and other CA CSM users cannot perform any action against it. When the task finishes, or when you log out from CA CSM, or when your CA CSM session is inactive for more than 10 minutes, the lock releases.

Follow these steps:

1. Click the SMP/E Environments tab, and select the SMP/E environment from which you want to back out maintenance on the tree on the left side.
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: You can back out maintenance from all the products in the environment. 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 that you want to back out, and click the Restore link.
The Introduction tab of the wizard appears.
Note: If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.
5. Review the information about the backout, and click Next.
The packages to back out are listed.
6. Review and adjust the list selections as required, and click Next.
Note: To review and adjust a list of zones from where you want to restore the maintenance, click Select Zones. Click OK to confirm the selection and return to the wizard.
The Prerequisite tab of the wizard appears.
7. Review the prerequisites if they exist, and click Next. CA CSM restores these prerequisites as part of the maintenance backout process.
A summary of the task appears.
8. Review the summary, and click Restore.
A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Chapter 7: Managing SMP/E Environments

This section includes information about how to use CA CSM to manage SMP/E environments.

This section contains the following topics:

- [Migrate an SMP/E Environment](#) (see page 113)
- [Generate an Exception SYSMOD Report for an SMP/E Environment](#) (see page 116)
- [Group SMP/E Environments by Tags](#) (see page 117)
- [Configure a Working Set of SMP/E Environments](#) (see page 118)
- [Remove or Delete an SMP/E Environment](#) (see page 119)
- [Update a Working Set](#) (see page 120)
- [Change the SMP/E Environment Name](#) (see page 121)
- [Select Maintenance View Criteria](#) (see page 121)

Migrate an SMP/E Environment

You can use CA CSM to maintain products that were installed previously using SMP/E by placing the relevant SMP/E environments under CA CSM management.

You can add to CA CSM information about an SMP/E environment that is created outside of CA CSM from the [SMP/E Environments tab](#) (see page 273). The process starts a wizard that guides you through the migration.

Migrating an existing SMP/E environment to CA CSM enables you to use CA CSM to manage the products that are installed using that SMP/E environment (for example, applying maintenance).

Some zones of the migrated SMP/E environment can have missing or partially populated DDDEF entries. CA CSM requires DDDEFs to maintain previously installed products successfully. For those SMP/E environment zones, you obtain the missing DDDEFs from the original product SMP/E installation JCL during SMP/E environment migration. This JCL is the member that is used to install the SMP/E product using the Receive (or Apply) and Accept) functions.

Note: We recommend that you use your product installation JCL when migrating an SMP/E environment to CA CSM to ensure product SMP/E environment integrity.

Follow these steps:

1. Click the SMP/E Environments tab, and click the Migrate SMP/E Environment link in the Actions section on the left side.

You are prompted to identify the SMP/E environment.

2. Define a meaningful name for the environment, specify the data set name of the SMP/E environment you want to migrate, and click Next.

The functions in the SMP/E environment are listed.

3. Review the information, and click Next.

A list of zones with DDDEF associations appears.

4. (Optional) For zones that do not have DDDEFs or have them partially populated, obtain them from your product installation JCL.

Note: We recommend that you use your product installation JCL and verify that *all* SMP/E environment zones have required DDDEFs.

- a. Specify the required JCL data set and member in the DDDEF JCL field and click Get DDDEFs from JCL.

Note: If the used JCL contains cataloged procedures specify, in which data set they are stored in the PROCLIB Data Set field.

A pop-up window appears displaying obtained DDDEFs and the zones.

- b. Select the zone that you want to associate DDDEFs with.

A list of DDDEFs appears. All DDDEFs are selected by default.

- c. Clear the check boxes for those DDDEFs that you do not want to add to the zone. Repeat for each zone that you want to add DDDEFs to. Click OK.

The selected DDDEFs are associated with the zones, and the pop-up window closes.

- If some DDDEFs from the list cannot be added to the zone or they exist in the zone, the corresponding check boxes are disabled. Also, you cannot select the DDDEFs from the list.
- If you want to resolve the associations between the zones and DDDEFs automatically, click Discover. CA CSM scans the zones and associates appropriate DDDEFs with the zones found in JCL. The associated DDDEFs are selected in the list, and the check boxes are disabled. Once you added DDDEFs using the Discover button, you can remove them only by canceling the whole process of migrating the SMP/E environment.

Note: You can sequentially use several JCLs for adding DDDEFs to zones.

5. (Optional) Review and update the DDDEFs obtained from JCL for each zone individually:

- a. Click Manage DDDEFs for the zone whose DDDEFs you want to review individually or change.

A pop-up window appears displaying a list of DDDEFs for the zone.

- b. Review the list of DDDEFs and select (to add to a zone) or clear (to remove from a zone) the corresponding check boxes.

Note: If some DDDEFs from the list cannot be added to the zone or they exist in the zone, the corresponding check boxes are disabled. Also you cannot select the DDDEFs from the list.

- c. Click Close to save changes and return to the wizard.

6. Click Next.

If any file systems mounted to the path specified in the DDDEFs are found, a list of the file systems is displayed.

7. Review the file systems. If there are file systems that you want to add as managed product USS file systems, select them. Click Next.

Zones of the migrated SMP/E environment are listed.

Note: Only the existing zones, and the zones to which you have access, appear.

8. Specify a prefix for each zone and click Next. Prefixes are only used as HLQ defaults during future base installations into the same SMP/E environment. If necessary, these defaults can be overridden during the base installation.

A list of advanced options appears.

Note: The prefix for the global zone is defined automatically, and you cannot change it.

9. Review the list of options available and select the ones that you want to apply to the migrated SMP/E environment:

Add SMP/E Environment to Working Set

Adds the migrated SMP/E environment to your working set (see definition on page 388).

10. Click Next.

The summary page appears.

11. Review the information, and click Migrate.

Note: To see UCLIN statements for the zone DDDEFs, click Show UCLIN at the bottom.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

After the migration is successfully completed, information about the SMP/E environment and associated products is saved in the CA CSM database. The migrated environment appears on the tree in the SMP/E Environments section on the left side.

Generate an Exception SYSMOD Report for an SMP/E Environment

You can generate an exception SYSMOD report for your SMP/E environments using the REPORT ERRSYSMODS command. Use this report to determine whether any processed SYSMODs are now exception SYSMODs, or whether any resolving SYSMODs are available for held SYSMODs. You must have write access to the SMP/E environment that you issue the command for.

Note: For more information about the REPORT ERRSYSMODS command, see the *IBM SMP/E V3R4.0 Commands*.

When you generate an exception SYSMOD report, CA CSM starts a task. This task has the following results:

- The task updates HOLDDATA from [the CA Support Online website](#).
- The task receives HOLDDATA into the global zone of each SMP/E environment in which you run the REPORT ERRSYSMODS command.
- The task runs the REPORT ERRSYSMODS NOPUNCH SMP/E statement for the global zone and all target zones of each SMP/E environment.

After the task completes, you can find the exception SYSMOD report in task details.

Follow these steps:

1. Click the SMP/E Environments tab, and locate the SMP/E environment that you want to generate an exception SYSMOD report for.
Note: You can also generate an exception SYSMOD report using the [SMP/E Environments, SMP/E Environment Information tab](#) (see page 276).
2. Click the Actions drop-down list to the right of the SMP/E environment, and select Exception SYSMOD Report.
A dialog appears that shows the progress of the task. Completing the task can take several minutes.
3. When the task completes, click Show Results on the Progress tab.
The dialog closes. The [task output browser](#) (see page 301) opens.
4. In the tree on the left side, click the task step named 'Exception SYSMODs report for *your_environment_name*', and then click SMPRPT under it.
The exception SYSMOD report appears on the right side.
5. Review, and optionally [download the report](#) (see page 255), searching for particular instances in the output. If the output contains more than one page of data, you can browse the output using the page counter in the top right corner.
6. Click Close on the top right corner.
The task output browser closes, and the Tasks page appears.

Group SMP/E Environments by Tags

Putting your SMP/E environments into logical groups can make them easier to manage. An SMP/E environment can belong to multiple groups. You use tags to group the SMP/E environments. For example, you can create a Test tag to group SMP/E environments that are used for testing. You can also create a USER01 tag to group SMP/E environments that are looked after by USER01. After you assign the tags, you can use the Show drop-down list to list the SMP/E environments selectively by tags.

To group SMP/E environments by tags, you assign tags to the SMP/E environments as appropriate through the [SMP/E Environments tab](#) (see page 273).

Follow these steps:

1. Click the SMP/E Environments tab. Click the Actions drop-down list to the right of the SMP/E environment you want to assign to a group, and select Edit Tags.

The tagging dialog appears.

2. (Optional) If a suitable tag is not listed, click New.

You are prompted for the name of the tag.

Insert Name

Specifies the name of the tag.

Limits: 24 alphanumeric, #, \$, ., and – characters

Specify the name, and click OK.

A new tag is added to the list.

3. Select the tags that you want to assign to the SMP/E environment, and click Apply.

The confirmation dialog appears. The SMP/E environment is grouped with other SMP/E environments with the same tags.

4. Click OK.

The confirmation dialog closes.

5. Click Close.

The tagging dialog closes.

Configure a Working Set of SMP/E Environments

You can organize SMP/E environments into a working set (see definition on page 388). For example, if you plan to install a product in an existing SMP/E environment, add this SMP/E environment to your working set. If you do not have the SMP/E environment in your working set, you will only have the option to create a new SMP/E environment during [product installation](#) (see page 64). In this case, exit the installation wizard, configure your working set and then [restart the wizard](#) (see page 61).

Although you can have only one working set, you can have as many SMP/E environments in it as you need.

Note: CA CSM does not have a default working set.

Follow these steps:

1. Click the SMP/E Environments tab, and select the SMP/E environments that you want to include in a working set.

An information text area under the list of SMP/E environments displays the number of environments you selected.

2. Click Use as Working Set.
3. Click OK.

The working set is configured.

The new working set replaces a previously defined working set.

You can display only those SMP/E environments that are in your working set by clicking Show Working Set Only.

More information:

[How the Installation Process Works](#) (see page 54)

Remove or Delete an SMP/E Environment

You can remove an SMP/E environment so that CA CSM no longer manages the SMP/E environment through the [SMP/E Environments tab](#) (see page 273). You can also delete an SMP/E environment and its data sets from the system.

Note: While you are working with a particular SMP/E environment, the SMP/E environment is locked and other CA CSM users cannot perform any action against it. When the task finishes, or when you log out from CA CSM, or when your CA CSM session is inactive for more than 10 minutes, the lock releases.

Follow these steps:

1. Click the SMP/E environment on the tree on the left side.
The Installed Products, Products section appears.
2. Click the [SMP/E Environment Information subtab](#) (see page 276).
Information such as the SMP/E environment data set name and zones appears.
3. Perform the required actions:
 - Click Remove SMP/E Environment from CA CSM to remove knowledge about the SMP/E environment from CA CSM. Then, click OK in response to the confirmation dialog.

Note: If you select an SMP/E environment being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the SMP/E environment. You can either wait until the notification message disappears and the SMP/E environment becomes available, or click Cancel to select another SMP/E environment.

- Click Delete SMP/E Environment to remove knowledge about the SMP/E environment from CA CSM and delete the SMP/E environment data sets from the system. Click OK in response to the dialog listing data sets to be removed. Then, click OK to confirm the SMP/E environment deletion.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The task completes. The required action is performed.

Update a Working Set

The [Maintenance Packages section](#) (see page 269), Products tab, displays a list of SMP/E environments for product release maintenance packages that you are working with. The selected environments are the ones that are in your working set (see definition on page 388). You can add other environments to your working set or can delete environments from your working set. The remaining SMP/E environments in your working set that are not displayed in the list are unaffected.

Follow these steps:

1. Click the Products tab, and select the product from the tree on the left side.
Maintenance information appears on the right side for the releases you have.
2. Click the release name.
The maintenance packages are listed, including a list of SMP/E environments where the release package is installed.
3. Update the list of SMP/E environments by selecting and clearing corresponding check boxes, and click Update Working Set.
4. Click OK.
The working set is updated.

Change the SMP/E Environment Name

You can edit the name of an SMP/E environment.

Follow these steps:

1. Click the SMP/E Environments tab, click the Actions drop-down list to the right of the SMP/E environment you want to rename, and select Change Name.

The Change Name dialog appears.

Note: You can also click the Change Name button on the SMP/E Environment Information tab to open the Change Name dialog.

2. Enter the new name in the Name field, and click OK.

The Change Name dialog closes. A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The SMP/E environment name is changed.

Select Maintenance View Criteria

The Maintenance View Criteria wizard filters the maintenance in an SMP/E environment that is displayed on the Maintenance tab by zone and by function. When you first select the maintenance tab for an SMP/E environment, all of the maintenance packages appear. After you click Save or Finish, your settings are saved for that SMP/E environment.

Note: When you first select the maintenance tab for an SMP/E environment, all of the maintenance packages appear if that SMP/E environment contains only one zone pairing. If an SMP/E environment contains multiple zones, no maintenance packages are displayed until you select zones to filter on.

Follow these steps:

1. Click the SMP/E Environments tab, select the SMP/E environment that you want to filter, and click the Maintenance tab.

All of the maintenance packages for that SMP/E environment appear in the Maintenance table.

2. Click Edit in the Maintenance View Criteria section.

The Maintenance View Criteria wizard opens, and you are prompted to [select zones](#) (see page 122).

More information:

[Select Zones](#) (see page 122)

[Select Functions](#) (see page 122)

Select Zones

You can filter maintenance packages within an SMP/E environment by target zone and distribution zone.

To filter based on zones, select the zones that you want to filter on. Click Next to go to the next page of the wizard and [select functions](#) (see page 122) to filter on.

Select Functions

After you select zones, you can filter maintenance packages within a zone by functions.

Follow these steps:

1. Select functions that you want to filter on and click one of the following links:
 - Click Back to go to the previous page of the wizard and [select zones](#) (see page 122) to filter on.
 - Click Save to save the changes and close the Maintenance Filter Wizard.
 - Click Finish to save the changes, close the Maintenance Filter Wizard and apply your filter selections to the Maintenance table.
2. (Optional) If you clicked Save, then click Show Maintenance on the Maintenance tab to apply your filter selections to the Maintenance table.

Chapter 8: Setting Up System Registry

This section includes information about how to use CA CSM to set the system registry. The *system registry* is a repository of variable data that all CA CSM managed products share. The system registry repository contains information about the systems that have been defined to CA CSM and selected as a target for deployments and configurations. You can create non-sysplex, sysplex, shared DASD cluster, and staging systems. You can maintain, validate, view, and delete a registered system and you can investigate a failed validation.

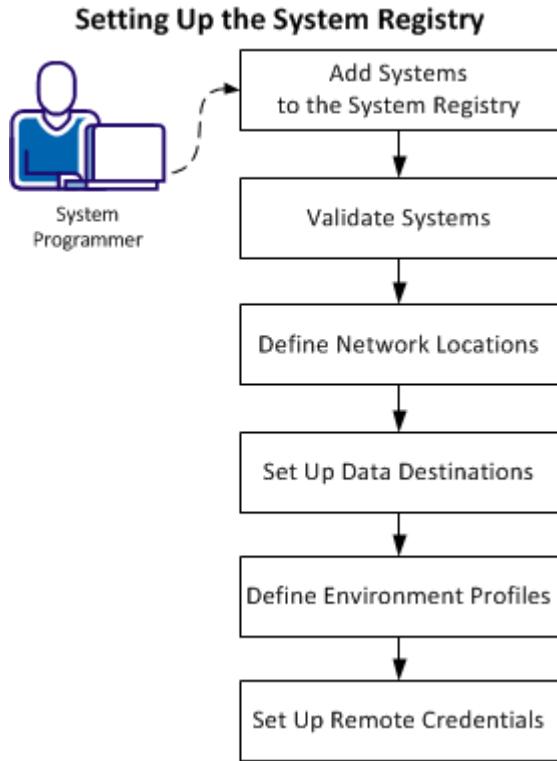
For each system that you register, there is one entry. Each entry consists of three categories of information: general, network locations, and data destinations.

This section contains the following topics:

- [How the System Registration Process Works](#) (see page 124)
- [System Types](#) (see page 125)
- [System Registry Nodes](#) (see page 126)
- [Remote Credentials](#) (see page 127)
- [Adding Systems to the System Registry](#) (see page 132)
- [Detail a Nonstaging System](#) (see page 136)
- [Authorization](#) (see page 137)
- [View System Registry Details](#) (see page 137)
- [Change System Registry](#) (see page 138)
- [Network Locations](#) (see page 148)
- [Data Destinations](#) (see page 153)
- [Validate Systems](#) (see page 159)

How the System Registration Process Works

You perform the following tasks to set up the system registry in CA CSM:



1. [Add systems to the system registry](#) (see page 132).
2. [Validate systems](#) (see page 159).
3. [Define network locations](#) (see page 148).
4. [Set up data destinations](#) (see page 153).
5. [Define environment profiles](#) (see page 146).
6. [Set up remote credentials](#) (see page 127).

Add and then validate each nonstaging system in the enterprise that you are deploying to, to the CA CSM system registry. You can only send a deployment to a validated system.

This process applies to each nonstaging system in your enterprise. For example, if you have five systems at your enterprise, then perform this process five times.

Note: After a system is validated, there is no need to validate it again. However, you can revalidate a system any time.

System Types

Each system registry entry is one of four different system types. Two reflect real systems, and two are CA CSM-defined constructs used to facilitate the deployment process. The two real system types are non-sysplex system and sysplex systems. The two CA CSM-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, a non-sysplex system can be found to be part of a sysplex. You are notified and you can have the system automatically added to the sysplex that it is a part of. This action can cause the creation of a new sysplex system. If you do not select the automatic addition to the appropriate sysplex, this system is 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. Every physical system that makes 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, you have a system XX16 defined as a monoplex, with a sysplex name of LOCAL. The system is depicted in the system registry as a sysplex with the XX16 name. This sysplex contains one system: XX16.

This system type can help you if you have monoplexes with the same sysplex name, for example, LOCAL. The system registry shows the actual monoplex system name at the top-level sysplex name.

Shared DASD Clusters

Specifies a *shared DASD clusters* system, which defines a set of systems that share DASD. This system 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 an SDS term that defines a virtual system. A staging system deploys the deployment to the computer where the CA CSM driving system is located. To use a staging system, the CA CSM driving system must be registered in the CA CSM system registry.

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

Note: You cannot use CA CSM to configure a product to a staging system.

System Registry Nodes

The left pane of the System Registry contains the following levels of nodes:

System Types

The following predefined system types appear at this level:

- Non-sysplex systems
- Sysplexes
- Shared DASD clusters
- Staging systems

When you select a system type in the left pane, a list of all systems with this system type appear in the right pane.

Systems

The names of each system for this system type appear at this level. When you select a system in the left pane, details about that system appear in the right pane. There can be multiple levels of systems.

Categories

The categories of profiles for the system appear at this level. When you select a category in the left pane, the profiles that are associated with that category appear in the right pane.

Profiles

The profiles that have been defined for each category appear at this level. A *profile* is a grouping of variables that belong to a subsystem or a component. A *profile occurrence* is a version of that profile that has been tailored for a specific system. You can have multiple profile occurrences for the same profile on one system. When you select a profile in the left pane, one of the following lists appears in the right pane:

- For nonrepeatable profiles, a list of the variables for this profile appears in the right pane, including the current values that have been set. You can [change these values](#) (see page 145).
- For repeatable profiles, a list of the occurrences of each profile appears in the right pane. You can create an occurrence of a profile, or can delete [an existing occurrence of a profile](#) (see page 147).

Profile Occurrences

For repeatable profiles, the occurrences of each profile appear at this level. When you select a profile occurrence in the left pane, a list of variables for this profile occurrence appears in the right pane. The list includes the current values that have been set. You can [change these values](#) (see page 145).

Variables

The variables for nonrepeatable profiles and profile occurrences appear at this level. When you select a variable in the left pane, details about that variable appear in the right pane. The details include the current values that have been set. You can change these values.

Remote Credentials

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

Important! Remote Credentials are validated during the deployment process when deploying to a nonstaging system. The user is responsible for having the correct owner, remote user ID, remote system name, password, and authenticated authorization before creating a new remote credential.

You can [add](#) (see page 127), [edit](#) (see page 129), or [delete](#) (see page 130) remote credentials.

Add Remote Credentials

You can add remote credentials.

Follow these steps:

1. Click the **Settings** tab, and select **Remote Credentials** from the tree on the left side.
Detailed information appears on the right side.
2. In the **Remote Credentials Accounts** panel, click **New**.
The **New Remote Credential** dialog appears.

Note: If the **New** button is disabled, contact your administrator and verify your settings on the [Settings, Software Deployment page](#) (see page 314).

3. Enter the following information and click OK:

Note: The asterisk indicates that the field is mandatory.

Remote User ID

Enter a remote user ID.

Limits: 64 characters

Remote System Name

Enter a remote system name.

Limits: Eight 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 these remote credentials only.

Password

Enter a password.

Limits: 2 to 63 characters

Note: The password is case-sensitive. Verify that your password follows the correct case-sensitive rules for your remote system.

Confirm Password

Re-enter the password that you have entered in the Password field.

Limits: 2 to 63 characters

Note: The password is case-sensitive. Verify that your password follows the correct case-sensitive rules for your remote system.

The remote credential entry appears on the 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 when deploying to a nonstaging system. The user is responsible for having the correct owner, remote user ID, remote system name, password, and authenticated authorization before creating a new remote credential.

Follow these steps:

1. Click the Setting tab, and select Remote Credentials from the tree on the left side.
Detailed information appears on the right side.
2. In the Actions drop-down list, click Edit for the remote credential you want to edit.
The Edit Remote Credential window appears.
Note: If the Edit option is disabled, contact your system administrator and verify your settings on the [Settings, Software Deployment page](#) (see page 314).
3. Update the following information and click OK:
Note: The asterisk indicates that the field is mandatory.

Remote User ID

Enter a correct remote user ID.

Limits: 64 characters

Remote System Name

Enter a correct remote system name.

Limits: Eight 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 credential only.

Password

Enter a correct password.

Limits: 2 to 63 characters

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

Confirm Password

Enter the correct confirm password.

Limits: 2 to 63 characters

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

The remote credential entry appears on the Remote Credentials list.

4. Click Apply

Your changes are applied.

Delete Remote Credentials

You can delete remote credentials.

Follow these steps:

1. Click the Setting tab, and select Remote Credentials from the tree on the left side.
Detailed information appears on the right side.
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.

Configure a Remote Credentials Prompt

Every time that you access the target systems in your deployment (for example, when transmitting or deleting a deployment), CA CSM validates your remote credentials. If you do not set up remote credentials for the target systems, the [Remote Credentials Properties dialog](#) (see page 288) opens. CA CSM prompts you to define remote credentials.

You can configure the way the Remote Credentials Properties dialog opens and looks.

Follow these steps:

1. Click the Settings tab, and click the Software Deployment link under System Settings in the Settings section on the left side.
The Software Deployment page opens.

2. In the Remote Credentials Administration section, select *one* of the following options:

Always Prompt to Set Up Remote Credentials

Displays the [Remote Credentials Properties dialog](#) (see page 288) every time you access remote systems (for example, when you transmit or delete a deployment).

Prompt to Set Up Only Missing Remote Credentials

Displays the [Remote Credentials Properties dialog](#) (see page 288) when you access remote systems and you did not set up remote credentials for one or more remote systems. For example, when you transmit or delete a deployment.

3. Review the current setting for the check box Allow Saving Remote Credentials in the Database and change it if necessary:

Allow Saving Remote Credentials in the Database

Enables the following options:

- The Save to Database column in the [Remote Credentials Properties dialog](#) (see page 288) that lets you save remote credentials in the database. Saved remote credentials appear in the list of remote credentials on the [Settings, Remote Credentials page](#) (see page 319).
- The New button and the Edit option in the Actions drop-down list for remote credentials on the [Settings, Remote Credentials page](#) (see page 319).

Default: Selected.

4. Click Apply.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Your changes are applied.

Adding Systems to the System Registry

You can set up a system registry definition for the following types of systems:

- [Non-sysplex system](#) (see page 132)
- [Sysplex \(or monoplex\)](#) (see page 133)
- [Shared DASD cluster](#) (see page 135)
- [Staging system](#) (see page 136)

Create a Non-sysplex System

You can create a non-sysplex system registry.

Follow these steps:

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

The New Non-Sysplex System dialog appears.

Note: The asterisk indicates that the field is mandatory.

2. Enter the following information, and click Save:

Name

Enter the non-sysplex system name.

Limits: Eight 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: 255 characters

CAICCI System ID

(Optional) Enter the CAICCI [system ID](#) (see page 381).

Limits: Eight characters

Note: The *CAICCI system ID* is a unique name for a system that is part of a CAICCI network. If you do not specify one, CA CSM obtains it using a validate action.

The non-sysplex system is saved, and its name appears in the non-sysplex system list on the left.

Note: To withdraw this create request, click Cancel.

3. [Detail the nonstaging system](#) (see page 136).

Important! z/OS systems running under VM are treated as being in BASIC mode and not LPAR mode. As a result, the LPAR number is null in the z/OS control block. When the LPAR number is null, the system validation output shows the following message:

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

Create a Sysplex or Monoplex

If you have monplexes with the same sysplex name, you can create a [sysplex](#) (see page 387) or [monoplex](#) (see page 383) system registry. Monplexes are stored in the sysplex registry tree but with the name of the sysplex system and not the monplex sysplex name. For example, you have a system XX16 defined as a monplex, with a sysplex name of LOCAL. The system registry displays the system as a sysplex, with the name LOCAL. This sysplex contains one system: XX16.

Note: If you create a system in the wrong group, it is determined during validation and the system is moved to the right group automatically. For example, if you add a monoplex to a non-sysplex category, a new sysplex group is created and the monoplex is moved to that sysplex group.

Follow these steps:

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

The New Sysplex 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: Eight characters

Description

Enter the description.

Limits: 255 characters

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

The sysplex system is saved, and its name appears in the sysplex list on the right.

Note: Click Cancel to withdraw this create request.

Important! z/OS systems running under VM are treated as being in BASIC mode and not LPAR mode. As a result, the LPAR number is null in the z/OS control block. In this case, the system validation output includes the following message:

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

3. Right-click the newly added sysplex and select Create Sysplex System to add a system to a sysplex. Repeat this process for each system belonging to this sysplex.
4. Enter the following data items for each system:

Non-Sysplex System Name

Enter the non-sysplex system name.

Limits: Eight 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: 255 characters

CAICCI System ID

(Optional) Enter the CAICCI system ID.

Limits: Eight characters

Note: The *CAICCI system ID* is a unique name for a system that is part of a CAICCI network. If you do not specify one, CA CSM obtains it using a validate action.

The non-sysplex system is saved, and its name appears in the non-sysplex system list on the left.

Note: To withdraw this create request, click Cancel.

5. [Detail the nonstaging system](#) (see page 136).

Create a Shared DASD Cluster

You can create a shared DASD cluster.

Follow these steps:

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 information, and click Save:

Name

Enter the shared DASD cluster name.

Limits: Eight 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 shared DASD cluster can have the same name as a non-sysplex, sysplex, or staging system.

Description

Enter the description.

Limits: 255 characters

The shared DASD cluster is saved, and its name appears in the Shared DASD Clusters section on the right.

Note: Click Cancel to withdraw this create request.

3. Right-click the newly added DASD cluster name and select Add System or Sysplex to this Shared DASD Cluster. Select the systems or sysplexes that you want to add to the DASD cluster.

Create a Staging System

You can create a staging system.

Follow these steps:

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 information, and click Save:

Name

Enter the staging system name.

Limits: Eight 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 can have the same name as a non-sysplex, sysplex, or a shared DASD cluster.

Description

Enter the description.

Limits: 255 characters

The staging system is saved, and it appears in the Staging System Registry on the right.

Note: Click Cancel to withdraw this create request.

Detail a Nonstaging System

You detail each system that is defined as a non-sysplex system and those systems added to a sysplex.

Follow these steps:

1. Select a system in the tree view.

The details of the selected system are displayed in the information pane on the right side of the display. The General tab for the selected system is displayed by default.

2. [Validate the system](#) (see page 159).

3. (Optional) If you plan to deploy your installation to the selected system, define one or more [deployment FTP locations](#) (see page 148).
4. (Optional) If you plan to configure your deployment on the selected system, [specify the SCS address space location](#) (see page 149) for the system.

Authorization

CA CSM supports the following authorization modes for the system registry.

Edit Mode

Lets you update and change system registry information.

Note: After 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.

Note: You cannot edit information in this mode.

View System Registry Details

You can view the system registry details using the CA CSM.

To view the system registry details using the CA CSM, click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree on the left side.

Information about the systems that you selected appears on the right side.

Change System Registry

You can change the system registry. Edit system properties, for example, a name and a description. You must be authorized to edit profiles, which are part of a system. To change your authorization level, update the SYSREG.@PROFILE resource profile.

Note: For more information about the SYSREG.@PROFILE resource profile, see the *Best Practices Guide*.

Follow these steps:

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree on the left side.
Information about the systems that 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 depends on whether you are changing a [non-sysplex system](#) (see page 132), [sysplex](#) (see page 133), [shared DASD cluster](#) (see page 135), or [staging system](#) (see page 136).
4. Depending on the system type, perform one of the following actions:
 - For shared DASD or sysplex system only, select the [contact system](#) (see page 143), which is the system where the shared DASD or FTP is located. The FTP location must be set to the contact system URI. The contact system is used for remote credentials.

Note: Monplexes are displayed in the sysplex registry tree with the name of the monplex system and not the monplex sysplex name. For example, a monplex XX16, with a sysplex name of LOCAL, is displayed as a sysplex with the name XX16. This sysplex contains one system: XX16.

The FTP locations and data destinations at the system level are not used when the sysplex is a monplex. The FTP locations and data destinations are only defined at the sysplex level.

- For staging systems, enter the [GIMUNZIP volume](#) (see page 383), [zFS candidate volumes](#) (see page 143), or both.

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

Cancels the changes that you made for the system and restores the original values.

Save

Saves the changes that you made for the system.

Validate (see page 388)

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 the reason for the failure. You can [investigate the failed validation](#) (see page 141).

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 a shared DASD cluster, each non-sysplex system is validated, and each sysplex system is validated as described in the sysplex validation rule. 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 validation can have the following 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 141).

Not Validated

Indicates that this system has not yet been validated.

Not Accessible

Indicates that the system has not been validated. The reasons are that it is unavailable or it was not found in the CAICCI network.

Validation Conflict

Indicates that the system has been contacted but the information that was entered is different from 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 141).

Note: The error reason resides in local memory. If the message *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 141).

Note: The conflict reason is kept in local memory. If the *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

Use the following procedures in this section to investigate a failed validation, make corrections, and revalidate:

- [Investigate a Failed Validation using the Tasks Page](#) (see page 141)
- [Investigate a Failed Validation Immediately After a Validation](#) (see page 141)
- [Download a Message Log](#) (see page 142)
- [Save a Message Log as a Data Set](#) (see page 142)
- [View Complete Message Log](#) (see page 143)

Note: The CA CSM screen samples in these topics use a non-sysplex system as an example. The method also works for a sysplex or a shared DASD cluster.

Investigate a Failed Validation Using Task Output Browser

You can investigate a failed validation, make corrections, and validate it again.

Follow these steps:

1. On the System Registry tab, in the column on the left, find the system with a validation status error and make a note of it.
2. Click the Tasks tab and then click Task History.
3. 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.
4. Find the failed validation and click the link in the Name column.
The Validate System Task Output Browser appears.
5. Click the Validation Results link to view the results.
6. Click the messages log to review the details for each error.
Note: You can analyze the error results and can determine the steps that are required to troubleshoot them.
7. Correct the issue and validate again.

Investigate a Failed Validation After Validation

You can investigate a failed validation, make corrections, and validate it again.

Follow these steps:

1. On the System Registry tab, in the column on the left, find the system with a validation status error, and make a note of it.
2. Click Details to see the error details.

3. If the error message prompts you to revalidate the system, click Validate.
4. Click the Progress tab.
5. 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 can determine the steps that are 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. Click the Download Zipped Output button on the General menu bar. 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 Message Log bar and click the Download as TXT. 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 Message Log bar and click the Download as ZIP. Save this file.

Save a Message Log as a Data Set

You can save a message log as a data set.

Follow these steps:

1. Click the Deployment Name or the Deployment Results on the left tree. Click the Action button on the Message Log bar, and click the Save as Data Set.

The Save Output as 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 information and click OK:

Data Set Name

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

VOLSER

For non-SMS data, enter the [Volser](#) (see page 388).

Example:

Volser: SYSP01 and SYSP02

Storage Class

For SMS Allocation data, enter the [Storage Class](#) (see page 386).

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.

[Contact System](#)

The *contact system* defines which system the deployment is unpackaged on. That is, which system CAICCI is spawned to run the unpackaging.

When deploying to a shared DASD cluster, sysplex, or both, the deployment is sent to only one system in that configuration, where it is unpackaged. The expectation is that all other systems within that configuration have access to the unpackaged deployment.

For a shared DASD cluster or sysplex, the URI must be the URI of the Contact System. Also, set up Remote Credentials for the contact system, because they are used to retrieve the deployment results.

[zFS Candidate Volumes](#)

You can use a *zFS candidate volume* when your environmental setup dictates that zFS container data sets are directed to the specified volume.

When your environmental setup dictates that zFS container data sets are directed to specified zFS candidate volumes, use one or more of the candidate volumes. CA CSM uses the candidate volumes in the IDCAMS statement to create the zFS container VSAM data set.

The zFS candidate volumes are only required if the following statements are true:

- Your deployment has USS parts.
- You are doing a container copy.
- You selected zFS as the container type.
- The remote system requires it.

Note: Remote system requirement is customer defined.

To allocate and maintain your disk, the following products are recommended:

CA Allocate

CA Allocate is a powerful and flexible allocation management system that lets the Storage Administrator control the allocation of all z/OS data sets.

CA Disk Backup and Restore

CA Disk is a flexible, full-featured hierachal storage management system.

You can also use the following standard IBM techniques:

- Allocation exits
- ACS routines

If you do not implement any of these options, z/OS needs a candidate list of volumes for placing the zFS archive.

Maintain a System Registry using the List Option

Follow these steps:

1. Click the System Registry tab.
The System Registry window appears.
2. In the System Registry panel on the right, click the System Type link, and then click the system name.
The detailed system entry information appears.

Delete a System Registry

You can delete a system that you do not need anymore.

If a system has been selected as the target for a configuration or a deployment, you cannot delete the system from the system registry.

If you want to delete the system where the SCS address space is running, first stop the SCS address space, then delete the system. If you [add the system](#) (see page 132) back again, [set up the SCS address space location](#) (see page 149) and restart the SCS address space.

Follow these steps:

1. Click the System Registry tab and on the right, in the System Registry panel, select Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems.
The system list appears.
2. Select each system registry that you want to delete, click Delete, and then click OK to confirm.
The system is deleted.

Set Values for Multiple Variables

When you set variable values (see definition on page 347) in the Configuration wizard, click Set Value after each value that you enter before progressing to the next variable. As an alternative, you can set all values for every variable in a profile successively, then click Save only once.

Follow these steps:

1. Click the System Registry tab and select a system type.
A list of systems appears for the type you selected.
2. Select a system.
Information about the system appears in the right pane.
Note: There can be systems within systems. Therefore, continue drilling down until you see the profile whose variable values you want to set.
You can use the links in the left pane tree, or the links in the right pane. Also, there are breadcrumb links along the top.
3. In the left pane, select the profile whose variable values you want to set.
The variables for this profile appear in the right pane with some of the values already set.

4. Change the values for the variables, click the Actions button on the right side, and select Save.

Your changes are saved.

More information:

[Environment Profiles](#) (see page 347)

Set Variable Values in System Registry

You can set individual variable values (see definition on page 347) in the Configuration wizard, and those values are saved in the system registry. You can also set these values directly in the system registry, and those values are used in the Configuration wizard.

Follow these steps:

1. Click the System Registry tab and select a system type.

A list of systems appears for the type you selected.

2. Select a system.

Information about the system appears in the right pane.

Note: There can be systems within systems. Therefore, continue drilling down until you see the profile whose variable values you want to set.

You can use the links in the left pane tree, or the links in the right pane.

3. In the left pane, select the profile that contains the variable you want to set, and then select the variable.

Controls to set the value of this variable appear in the right pane.

Note: Clicking the profile name shows all the environment variables that are defined for the profile. Clicking the name of an environment variable in the tree shows only the variable.

4. Change the value for each environment variable you want to define. Click the Actions button on the right side and select Save.

Your changes are saved.

More information:

[Environment Profiles](#) (see page 347)

Create Configuration Profile Occurrence in System Registry

You can create occurrences of repeatable configuration profiles from the Configuration wizard. You can also create occurrences of these profiles in the system registry.

Follow these steps:

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, or Shared DASD Clusters from the tree at the left.
Information about the systems that are related to the type you selected appears on the right side.
2. Select the system that you want to create a profile occurrence for.
Detailed information about the system appears on the right side.
3. Expand the category for the profile containing the environment variable.
4. In the right pane, click a profile name.
A list of profile occurrences that are already created and based on this profile appears.
5. Click Create Occurrence.
A dialog opens for you to enter a value for this profile occurrence.
6. Enter a value and click Save.
The configuration profile occurrence is added to the list.

Delete Configuration Profile Occurrences

You can delete occurrences of a configuration profile from the system registry.

Follow these steps:

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, or Shared DASD Clusters from the tree at the left.
Information about the systems that you selected appears on the right side.
2. Select the system that you want to delete a profile occurrence from.
Detailed information about the system appears on the right side.
3. In the right pane, select the repeatable profile that this profile occurrence is based on.
A list of profile occurrences that are already created and that are based on this profile appears.

4. Select the profile occurrences that you want to delete and click Delete.
A confirmation dialog opens.
5. Click OK in response to the confirmation.
The configuration profile occurrences are deleted from the system.

Network Locations

You can define network locations for a sysplex, for individual systems within a sysplex, and for non-sysplex systems. When defining a sysplex, you can only define FTP locations. The sysplex FTP locations allow a default FTP location to be established for the systems that are defined to the sysplex when specified for a system.

Note: The FTP and data destinations at the system level are not used when the sysplex is a monoplex. The only FTP locations and data destinations that are referenced are defined at the sysplex level.

You can set up the following network locations:

- [Deployment FTP locations](#) (see page 148), which define the current FTP locations for this system. You can [add](#) (see page 148), [edit](#) (see page 151), [set a default](#) (see page 152), or [remove](#) (see page 152) [FTP](#) (see page 148) locations.
- The SCS address space location. The location lets you set the host name and port of the SCS address space that is associated with the system being defined.
Note: You can only define an address space location for non-sysplex systems and systems that are defined to a sysplex.

Deployment FTP Locations

File Transfer Protocol (FTP) is a protocol for transfer of files from one computer to another over the network.

Define an FTP location for every system if you deploy to specified systems within a sysplex. They are used to retrieve the deployment results on the target system regardless of whether the deployment was transmitted through FTP or using shared DASD. They are also used when you are moving your deployments through FTP. You 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.

Set SCS Address Space Location

You can set the SCS address space location from the System Registry tab.

Follow these steps:

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, or Shared DASD Clusters from the tree on the left side.
Information about the systems that you selected appears on the right side.
2. Select the system that you want to set the address location for.
Detailed information about the system appears on the right side.
3. Click the Network Locations subtab, and in the SCS Address Space Location area, complete the following fields and click Save:

Host Name

Specify the TCP/IP host name or IP address of the target system.

Note: The TCP/IP host name is not the SMF ID.

Limits: 255 characters

TCP Port Number

Specify the [port number for the SCS address space](#) (see page 385).

Limits: 65535

Default: 49152

TCP Connection Retry Count

Specify the number of times an operation is retried when the initial attempt is unsuccessful. These operations are send/receive transactions that target the SCS address space. Not all types of transactions can be retried, and those transactions that can, are determined on a case-by-case basis as they are implemented. Setting this field to 0 means that no retries are performed.

Limits: 0 to 99

Default: 15

TCP Connection Timeout Value in Seconds

Specify the maximum number of seconds to wait for a response on each send of a transaction request. If a communication attempt times out, the transaction can be retried. Until the maximum number of retries has not been reached, a retry occurs. If no more retries are possible, a message appears indicating a network timeout has occurred. Each retry uses the same timeout value as the initial transaction.

Limits: 1 to 999

Default: 10

The new SCS address space location information is saved.

4. Click Status to display information about the SCS address space and verify that it is working.

Note: This step does not apply to staging systems.

The SCS Address Space dialog for this system opens.

An error message can appear, when you click Status. Follow the instructions in the message.

Click Close to close this dialog.

Add FTP Locations

You can add [FTP](#) (see page 148) locations.

Follow these steps:

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

Information about the systems that you selected appears on the right side.

2. Select the system that you want to create FTP locations for.

Detailed information about the system appears on the right side.

3. Click the Network Locations subtab, and in the FTP Locations area, click Add.

The New FTP Location dialog appears.

Note: The asterisk indicates that the field is mandatory.

4. Enter the following information, and click Save:

URI

Enter the [URI](#) (see page 387).

Limits: 255 characters

Port

Enter the [port number](#) (see page 382).

Limits: 65535

Default: 21

Directory Path

Enter the [directory path](#) (see page 382).

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

The new FTP location appears on the list.

Note: Click Cancel to withdraw this create request.

Edit FTP Locations

You can edit [FTP](#) (see page 148) locations.

Note: The asterisk indicates that the field is mandatory.

Follow these steps:

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

Information about the systems that you selected appears on the right side.

2. Select the system for which you want to change FTP locations.

Detailed information about the system appears on the right side.

3. Click the Network Locations subtab, and in the FTP Locations area, select the FTP location, click the Actions drop-down list, and select Edit.

The Edit FTP Location dialog appears.

4. Update the following information and click Save:

URI

Enter the [URI](#) (see page 387).

Limits: Maximum length is 255.

Port

Enter the [Port](#) (see page 382).

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

Default: 21

Directory Path

Enter the [Directory Path](#) (see page 382).

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

Your changes are saved.

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

Set FTP Location Default

You can set an [FTP](#) (see page 148) location default.

Follow these steps:

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

Information about the systems that you selected appears on the right side.

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

Detailed information about the system appears on the right side.

3. Click the Network Locations subtab. In the FTP Locations area, select the FTP location that you want to set as the default. Then select Default from the Actions drop-down list.

Default appears in the Default column, and this location becomes the default FTP location.

Note: If only one FTP location is defined, the Default action is not available.

Delete FTP Locations

You can delete [FTP](#) (see page 148) locations.

Follow these steps:

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

Information about the systems that you selected appears on the right side.

2. Select the system from which you want to delete FTP locations.

Detailed information about the system appears on the right side.

3. Click the FTP Locations tab.

4. Click the Network Locations subtab. In the FTP Locations area, select each FTP location that you want to delete, click Remove, and confirm.

The FTP location is deleted from this system.

Data Destinations

The [Data Destinations](#) (see page 382) page lists the current data destinations for this 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. The data 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 CSM 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 copy the data. All of the deployment data is kept in the USS file systems that CA CSM manages.

Even though the DASD is shared, it is possible that the remote system does not find the deployment data in the USS file system. Therefore, CA CSM temporarily unmounts the file system from the CA CSM driving system and mounts it in read-only mode on the remote system.

For CA CSM to determine where to mount the file system on the remote system, specify a mount point location in the data destination. In addition, you can provide allocation information for the creation of the deployment file system. The file system is created on the shared DASD, on the CA CSM driving system.

Data destinations are assigned to non-sysplex and sysplex systems, and shared DASD clusters. Data destinations are named objects, and can be assigned to multiple entities in the system registry. Data destinations can have their own independent maintenance dialogs.

The deployment process on the remote system uses the remote allocation information and lets you control, where the deployed software is placed. By specifying the GIMUNZIP VOLSER, CA CSM adds a volume= parameter to the GIMUNZIP instructions on the remote system. The list of zFS VOLSERs is needed only if both of the following situations occur:

- The software that you are deploying contains USS parts.
- You select a container copy option during the deployment process.

Note: The FTP and data destinations at the system level are not used when the sysplex is a monplex. The only FTP locations and data destinations that are referenced are defined at the sysplex level.

Create Data Destinations

You can create [data destinations](#) (see page 382) that define the method that CA CSM uses to transfer the deployment data to the target systems.

Follow these steps:

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 information, and click Save:

Name

Enter a meaningful name.

Limits: 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: 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, and 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: 120 characters

Note: SMS is not mutually exclusive with non-SMS. They can both be specified (usually one or the other is specified, though).

Storage Class

(Shared DASD only) Enter the [storage class](#) (see page 386).

Limits: Eight characters

Example: SYSPRG

VOLSER

(Shared DASD only) Enter the [VOLSER](#) (see page 388).

Limits: Six characters

Example: SYSP01 and SYSP02

GIMUNZIP Volume

Enter the [GIMUNZIP volume](#) (see page 383).

Limits: Six characters

Catalog Data Sets

Specify if deployed data sets are cataloged on the target system.

Note: If you set this field to YES, fill in the GIMUNZIP Volume field.

Unit

Enter the unit where the deployed data sets are allocated.

- If you set the Catalog Data Sets field to YES, the specified unit is used for allocating all deployed data sets.
- If you set the Catalog Data Sets field to NO, the specified unit is used for allocating empty data sets only.
- If you do not define Unit, SYSALLDA is used.

zFS Candidate Volumes

Enter [zFS candidate volumes](#) (see page 143).

Limits: Six 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 on the Data Destination list.

Note: Click Cancel to withdraw this create request.

Add a Data Destination

You can add current [data destinations](#) (see page 382) to an existing system.

Follow these steps:

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, or Shared DASD Clusters from the tree at the left.
Information about the systems that is related to the type you selected appears on the right side.
2. Select the system that 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 Select Data Destinations dialog appears.
5. Select the data destinations that you want to add, and click Select.
The data destinations are added to the system.

Maintain Data Destinations

You can maintain, [delete](#) (see page 159), or [create](#) (see page 154) [data destinations](#) (see page 382).

Follow these steps:

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 field indicates that the data destinations are assigned and cannot be removed. The field can be edited.
2. Select Edit from the Actions drop-down list for the data destination you want to change.
The Edit Data Destinations dialog appears.
Note: The asterisk indicates that the field is mandatory.

-
3. Update the following information 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, and 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).

Storage Class

(Shared DASD only) Enter the [Storage Class](#) (see page 386).

Limits: Maximum eight characters

Example: SYSPRG

VOLSER

(Shared DASD only) Enter the [Volser](#) (see page 388).

Limits: Maximum six characters

Example: SYSP01 and SYSP02

GIMUNZIP Volume

Enter the [GIMUNZIP volume](#) (see page 383).

Limits: Maximum six characters

Catalog Data Sets

Specify if deployed data sets are cataloged on the target system.

Note: If you set this field to YES, fill in the GIMUNZIP Volume field.

Unit

Enter the unit where the deployed data sets are allocated.

- If you set the Catalog Data Sets field to YES, the specified unit is used for allocating all deployed data sets.
- If you set the Catalog Data Sets field to NO, the specified unit is used for allocating empty data sets only.
- If you do not define Unit, SYSALLDA is used.

zFS Candidate Volumes

Enter [zFS Candidate volumes](#) (see page 143).

Limits: Maximum six characters

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

The updated data destination appears on the list of data destinations.

Note: Click Cancel to withdraw this change request.

Set a Default Data Destination

You can set a default for a current [data destination](#) (see page 382).

Follow these steps:

1. Click the System Registry tab, and select Non-Sysplex Systems, Sysplexes, or Shared DASD Clusters from the tree on the left side.
Information about the systems you selected appears on the right side.
2. Select the system link to which you want to set the data destination default.
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 field, select Set as Default.
The word *Default* appears in the Default column.

Delete Data Destinations

You can delete current [data destinations](#) (see page 382) that have *not* been assigned.

Important: A grayed selection field indicates that the data destination is assigned and it cannot be deleted. The field can be edited.

Follow these steps:

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

Information about the systems that 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 field for each data destination you want to remove, click Remove, and then click OK to confirm.

The data destination is deleted from this system.

Validate Systems

After you have created your systems, validate that they exist. You cannot validate staging systems.

Note: Validate your non-sysplex systems first, and then your sysplex or shared DASD cluster systems.

Follow these steps:

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

Note: Even though you cannot validate staging systems, create and validate a system registry entry for the CA CSM driving system of the staging system.

Information about the systems that you selected appears on the right side.

2. Select the system that you want to validate and, from the Actions drop-down list, select Validate.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

3. (Optional) If the validation is in error, review the message log, update your system registry-entered information, and validate again.

You are now ready to deploy your products to this system.

Chapter 9: Deploying Products

This section includes information about how to use CA CSM to deploy products. A *deployment* is a CA CSM object that you create to deploy libraries and data sets using a process that copies target libraries defined to SMP/E and user data sets across both shared DASD and networked environments.

This section contains the following topics:

- [How the Deployment Process Works](#) (see page 161)
- [Deployment Status](#) (see page 163)
- [View a Deployment](#) (see page 164)
- [Creating Deployments](#) (see page 164)
- [Change Deployments](#) (see page 170)
- [Take Snapshot of a Deployment](#) (see page 200)
- [Transmit a Deployment](#) (see page 201)
- [Deploy a Product](#) (see page 202)
- [Clone a Deployment](#) (see page 203)
- [Delete a Deployment](#) (see page 203)
- [Failed Deployments](#) (see page 206)
- [Deployment Summary](#) (see page 209)

How the Deployment Process Works

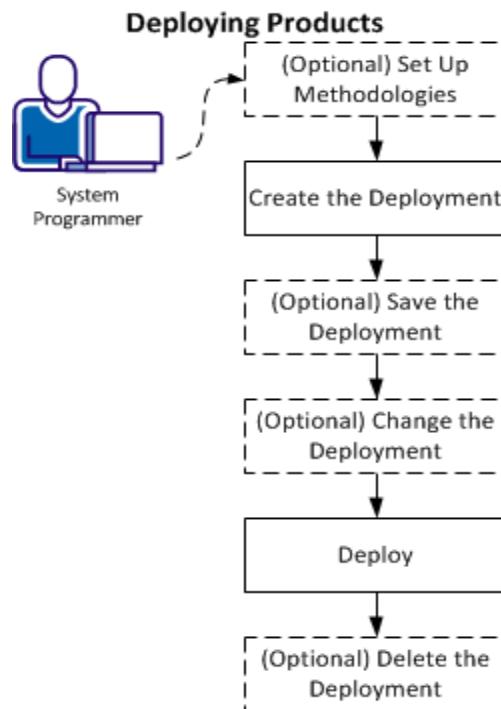
The *Software Deployment Service (SDS)* facilitates the mainframe product deployment from the software inventory of the driving system to the target system. This facilitation includes deploying installed products that are policy-driven with a set of appropriate transport mechanisms across a known topology.

Before you can deploy a product, complete the following tasks:

- [Acquire](#) (see page 43) and [install the product](#) (see page 54) (including [setting up SMP/E environments](#) (see page 113))
- [Set up the target systems](#) (see page 132) and [remote credentials](#) (see page 127) in the system registry

Note: If you do not set up remote credentials for target systems, CA CSM prompts you to [define remote credentials](#) (see page 288) before it performs actions that require access to the systems.

You perform the following high-level tasks to deploy your products using CA CSM:



1. (Optional) Set up [methodologies](#) (see page 185).
Note: You can also [set up methodologies](#) (see page 167) when creating a deployment.
2. [Create the deployment](#) (see page 164).
3. (Optional) [Save the deployment](#) (see page 169) for editing and deploying later.
4. (Optional) [Change the deployment](#) (see page 170): Add and edit [systems](#) (see page 173), [products](#) (see page 176), [custom data sets](#) (see page 177), and [methodologies](#) (see page 185).
5. Deploy:
 - a. [Take a snapshot](#) (see page 200).
 - b. [Transmit](#) (see page 201) to target.
 - c. [Deploy](#) (see page 202) (unpack) to mainframe environment.
6. (Optional) [Delete the deployment](#) (see page 203).

Deployment Status

Deployments exist in different statuses. Actions move deployments from one status to another. You can use the following available actions for each of the following deployment statuses.

Under Construction

The user is constructing the deployment.

Available Actions: All

Snapshot in Progress

Snapshot is in Progress

Available Actions: Reset Status

Snapshot in Error

Snapshot failed

Available Actions: All

Snapshot Completed

Snapshot Succeeded

Available Actions: Delete, Preview, Transmit, Deploy

Note: At this point, no editing, adding, or removing of products or systems is allowed.

Transmitting

The deployment archives are being transmitted using the FTP procedure.

Available Actions: Reset Status

Transmission Error

Transmission Failed

Available Actions: Delete, Preview, Transmit, Deploy

Transmitted

The deployment archives have been transmitted.

Available Actions: Delete, Preview, Deploy

Deploying

The deployment archives are being deployed.

Available Actions: Reset Status

Deploying Error

Deployment failed

Available Actions: Delete, Preview, Deploy

Deployed

The target libraries were deployed.

Available Actions: Delete, Summary

Complete

The deployment is complete.

Available Actions: Delete, Summary

View a Deployment

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

Creating Deployments

The deployment creation process consists of the following steps:

1. [Initiate deployment creation](#) (see page 165).
2. [Define a name and description](#) (see page 165).
3. [Select an SMP/E environment](#) (see page 166).
4. [Select a product](#) (see page 166).
5. [Select a custom data set](#) (see page 167).
6. [Select a methodology](#) (see page 167).
7. [Select a system](#) (see page 168).
8. [Preview and save](#) (see page 169).

Initiate Deployment Creation

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

To initiate deployment creation, click the Deployments tab, and then in the Actions section, click the Create Deployment link.

The New Deployment wizard opens to the Introduction step.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

Define Name and Description

When you create a deployment, you begin by defining the name and description so that it will be known and accessible within CA CSM.

Note: The asterisk indicates that the field is mandatory.

Follow these steps:

1. On the Introduction step, 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 dep1 are the same deployment name.

2. Enter the description of this deployment.

Limits: Maximum 255 characters.

3. Click Next.

The SMP/E Environment Selection step appears.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

Select an SMP/E Environment

After you define the name and description, you select an SMP/E environment for the deployment.

Follow these steps:

1. On the SMP/E Environment Selection step, in SMP/E Environments to Deploy, click the SMP/E environment you want to select.

The SMP/E environment selections listed are preselected from the SMP/E Environments page.

2. Click Next.

The Product Selection step appears.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

Select a Product

After you select an SMP/E environment, you select a product and optionally its features for the deployment.

You can only deploy a product when all its FMIDs (product features) are installed in the selected SMP/E environment. If not all product FMIDs are installed, the product is not deployable and you cannot select it from the list for deployment.

Follow these steps:

1. On the Product Selection step, select a product from the list.
2. (Optional) Select product features to deploy together with the selected product.

You can only select a product feature for the product that it belongs to and that is already selected in the list.

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.

3. If there is a  text icon in the Text column, click it to read the instructions that CA Support supplied for the product, data set, and other necessary information.

4. Click the check box *I have read the associated text*, and click Next. The Next button is disabled until you click the check box.

Note: If there are no products displayed, the appropriate PTF that enables your product deployment through metadata has not been installed.

The Custom Data Sets step appears.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

Select a Custom Data Set

A *custom data set* is a data set that contains either a z/OS data set or USS parts path.

Follow these steps:

1. On the Custom Data Sets step, select a custom data set from the list and click Select.

Note: To add a custom data set, click Add Data Set and [enter the custom data set information](#) (see page 178).

2. Click Next.

The Methodology Selection step appears.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

More information:

[Add a Custom Data Set](#) (see page 178)

Select a Methodology

After you select a custom data set, you select a [methodology](#) (see page 383), which lets you provide a single data set name mask that is used to control the target library names on the target system.

Follow these steps:

1. On the Methodology Selection step, select a Methodology from the list.
2. (Optional) Click the Create button and [enter the new methodology information](#) (see page 186).

3. (Optional) Click the Actions drop-down list to the right of the methodology, and select Edit to [edit the methodology](#) (see page 197), or Delete to [delete the methodology](#) (see page 200).

Note: You cannot delete methodologies that are used in any deployment.

4. Click Next.

The System Selection step appears.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

Select a System

After you select a methodology, you select a system.

Follow these steps:

1. On the System Selection step, select the systems to be deployed.

Note: If systems have the same name, see the description to differentiate between them.

Sysplex systems are denoted by *sysplex system:system name*. For example: PLEX1:CO11, where PLEX1 is the sysplex system, and CO11 is the system name.

2. (Optional) Review the data destinations for the selected system:

- a. Click Change to review available data destinations.

The [Select Data Destinations dialog](#) (see page 287) appears. The default data destination for the system is marked in the Default column.

- b. Select the data destination that you want the selected system to use for the current deployment, and click OK.

Note: Click Use Default if you want the selected system for the current deployment to use the data destination that is set as the default.

The dialog closes.

Note: Staging systems do not have data destinations.

3. Click Next.

The Preview step appears.

Note: While creating a deployment, you can save it at any step in the wizard to add it to the Under Construction list. You can [maintain the deployment](#) (see page 170) until a successful snapshot has been created.

Preview and Save the Deployment

After you select a system, you are ready to preview the deployment, and then save or deploy it.

- To save the deployment, click Save.
- To set up the deployment, click Deploy (see definition on page 382).

To successfully deploy products to remote systems, you must have remote credentials for the systems. If you do not have remote credentials for the systems where you want to deploy the product, or you do not have default remote credentials defined on the [User Settings, Remote Credentials page](#) (see page 319), the [Remote Credentials Properties dialog](#) (see page 288) appears. This dialog prompts you to define remote credentials for the systems.

Note: Click Cancel to exit the wizard without saving.

The Preview identifies the deployment and describes the products, systems, means of transport, and target libraries (including source, target, and resolution), as well as the SMP/E environment and snapshot information.

You can click Print in the top right corner to print this information, which you can then refer to when deploying the product. A standard Print dialog opens that uses the print capabilities of your browser and installed printers.

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

Note: ??? in the Preview indicates that CA CSM has yet to assign this value.

Change Deployments

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

If you select a deployment that is being used in CA CSM by another user, an error message appears. You are prevented from performing any actions on the deployment. Close the error message, and select another deployment.

Note: Verify that the deployment has at least one product, system, and methodology defined.

Follow these steps:

1. Click the Deployments tab.
The Deployment window appears.
2. On the right, in the Deployments panel, click the Under Construction link.
The detailed deployment information appears.
3. Click the Deployment Name link for the Deployment you want to change.
Details about this deployment appear.
4. Change the information about 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 and is used to control the target library names on the target system.

You can perform actions based on the [deployment status](#) (see page 163).

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

The [Edit Methodology window](#) (see page 197) appears. The Deployment ID is the value of the MSMID variable.

Note: You can perform the following actions:

- [Select](#) (see page 176), [add](#) (see page 176), or [remove](#) (see page 177) a product
- [Select](#) (see page 174), [add](#) (see page 174), or [remove](#) (see page 175) a system
- [Select](#) (see page 178), [add](#) (see page 178), or [remove](#) (see page 184) a custom data set.

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

Preview (Summary)

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

Generates a list of the following current information:

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

Snapshot (see definition on page 386)

Takes a snapshot of the current deployment.

Transmit (see definition on page 387)

Copies your CA CSM installed software onto systems across the enterprise through FTP, in preparation for a subsequent deployment.

Deploy (see definition on page 382)

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

Delete (see page 203)

Deletes deployment and its associated containers, folders, and files, not including the deployed target libraries on the end systems.

Note: The deletion process does not start until it is confirmed.

Clone (see page 203)

Clones a deployment. For example, if maintenance has been applied to the SMP/E environment, you can use this action to clone or redeploy.

Selecting this action displays the Clone dialog.

Reset Status (see page 208)

You can reset a deployment status when the deployment has a status of *snapshot in progress*, *transmitting*, or *deploying*. Resetting deployment status deletes some of the files.

7. Click Save in the Deployment Details window.

Your changes are saved.

More information:

- [View a System List](#) (see page 174)
- [View Custom Data Sets](#) (see page 178)
- [View the Product List](#) (see page 176)
- [Add a Product](#) (see page 176)
- [Remove a Product](#) (see page 177)
- [Add a System](#) (see page 174)
- [Remove a System](#) (see page 175)

Deployment Maintenance

You can maintain a deployment in the following ways:

- Adding
 - [System](#) (see page 174)
 - [Product](#) (see page 176)
 - [Custom data sets](#) (see page 178)
- Delete
 - [Deployment](#) (see page 203)
- Removing
 - [System](#) (see page 175)
 - [Product](#) (see page 177)
 - [Custom data sets](#) (see page 184)
- Editing
 - [Maintain deployments](#) (see page 170)
 - [Edit a custom data set](#) (see page 181)
 - [Edit a methodology](#) (see page 197)
- Viewing
 - [System](#) (see page 174)
 - [Product](#) (see page 176)
 - [Custom data sets](#) (see page 178)

More information:

[Failed Deployments](#) (see page 206)
[View Custom Data Sets](#) (see page 178)
[View the Product List](#) (see page 176)
[Add a Product](#) (see page 176)
[Remove a Product](#) (see page 177)
[View a System List](#) (see page 174)
[Add a System](#) (see page 174)
[Remove a System](#) (see page 175)
[Change Deployments](#) (see page 170)
[Add a Custom Data Set](#) (see page 178)
[Edit a Custom Data Set](#) (see page 181)

Systems

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

Target System Types

There are two types of *target systems*.

Test Environment

Test Environment target systems isolate untested deployment changes and outright experimentation from the production environment or repository. This environment is used a temporary work area where deployments can be tested, modified, overwritten, or deleted.

Production

Production target systems contain current working product deployments. When activating products in a production target system care must be taken, CA CSM recommends using the following procedure.

1. Copy the product to that target system with the data set names set to private. This allows only those assigned to this area to test these deployed products. The purpose of this first stage is to test or verify that the product is working.
2. Use intermediate test phases for products as they move through various levels of testing. For example you may want to let the application development group as a whole use the product in its test mode prior to moving to production.
3. Move the deployed products to production.

View a System List

You can view a system list.

Follow these steps:

1. Click the Deployments tab, and select the current deployment from the tree at the left.

The detailed deployment information appears at the right.

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.

Add a System

You can add a system to a deployment.

Follow these steps:

1. Click the Deployments tab.
The Deployment page appears.
2. On the right, in the Deployments panel, click the Under Construction link.
A list of 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.

Note: When two systems have the same name, use the description to differentiate between the systems. Sysplex systems are denoted by Sysplex System:System Name. For example, PLEX1:CO11, where PLEX1 is sysplex name and CO11 is the system name.

6. (Optional) Review the data destinations for the selected system:
 - a. Click Change to review available data destinations.

The [Select Data Destinations dialog](#) (see page 287) appears. The default data destination for the system is marked in the Default column.
 - b. Select the data destination that you want the selected system to use for the current deployment, and click OK.

Note: Click Use Default if you want the selected system for the current deployment to use the data destination that is set as the default.

The dialog closes.

Note: Staging systems do not have data destinations.
 7. Click OK.
- The system is added.

Remove a System

You can remove a system from a deployment.

Follow these steps:

1. Click the Deployments tab.

The Deployment page appears.
2. On the right, in the Deployments panel, click the Under Construction link.

A list of deployments appears.
3. Select the deployment that you want to remove the system 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.

Products

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

View the Product List

You can view a product.

Follow these steps:

1. Click the Deployments tab, click the Under Construction link, and select the deployment from the tree at the left.

The detailed deployment information appears at the right.

Add a Product

You can add a product to a deployment.

Follow these steps:

1. Click the Deployments tab. The Deployments window appears.
 2. On the right, in the Deployments panel click the Under Construction link.
A list of deployments appears.
 3. Click the deployment name link.
 4. In the Product List panel click Add Products.
The Add Products wizard appears.
 5. Select an SMP/E environment, 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 178).
 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 this deployment.

Follow these steps:

1. Click the Deployments tab. The Deployment window appears.
2. On the right, in the Deployments panel click the Under Construction link.
A list of 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 178), [edit](#) (see page 181), and [remove](#) (see page 184) custom data sets from a deployment.

A *custom data set* is a data set that contains either a z/OS data set or USS parts path.

- 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 188) and must be available to CA CSM. 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 188)), and a type of copy. The type of copy can be either a container copy or a file-by-file copy.

View Custom Data Sets

You can view custom data sets.

Follow these steps:

1. Click the Deployments tab, click the Under Construction link, and select the deployment from the tree at the left.

The detailed deployment information appears at the right.

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.

Add a Custom Data Set

You can add custom data sets to a deployment.

Follow these steps:

1. Click the Deployments tab.
The Deployments window appears.
2. On the left, click the Under Construction link.
A list of deployments that are under construction 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 11).

Default: Data Set

7. For the data set, enter the data set name.

Limits: 44 characters

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

-
8. Enter the data set name mask, click the file icon, and select a [symbolic name](#) (see page 188).

Mask

Specifies the mask that is used to name the deployed data sets. The data sets can contain [symbolic qualifiers](#) (see page 188). For example, if you enter CAPRODS.&SYSID, the &SYSID is replaced by its values. If the SYSID that is being deployed to is XX16, the DSN mask is CAPRODS.XX16.

Limits: 64 characters

Note: 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 helps ensure uniqueness of the final data set name. Verify that the mask that you entered does not exceed 35 characters when it is translated.

The mask consists of one or more qualifiers that are separated by periods. The maximum number of characters is 64, including the periods. While you are entering the mask, CA CSM validates the mask by replacing symbolics with the minimum possible values first, and then with the maximum values. If the validation with the minimum possible values fails, an error message appears at the top of the dialog, and you cannot proceed. If the validation with the maximum values fails, a warning message appears, and you can proceed.

When the mask is translated, it has a maximum length of 44 characters including the periods and the low-level qualifier from the source data set. The low-level qualifier from the source data set has a maximum length of nine characters including a period.

Two consecutive periods are required to separate the two masks.

9. Enter the mask, and click OK.
10. (Optional) Select the Override Path Naming Standard check box to [exclude the last directory leaf of the local path from the remote path](#) (see page 184).
11. For [USS](#) (see page 387) data set type, enter the local path. The local path is the directory where files are copied from.

Limit: 255 characters

Note: The asterisk indicates that the field is mandatory.

12. Enter the remote path, click the file icon, and select a [symbolic name](#) (see page 188). The remote path is the path where the files are copied to.

Limit: 255 characters

13. Select the type of copy:

- If you select Container Copy, proceed to step 15.
- If you select File-by-file Copy, proceed to step 16. Verify 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: Container Copy

14. Click OK.

15. For the container copy, enter the container name, click the file icon, and select a [symbolic name](#) (see page 188).

Limit: 64 characters

Note: The container copy 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: The following steps occur during the deployment process:

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

Note: The mount is not permanent. Update your BPXPARMS to make this mount point permanent.

- 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.

16. Select the type of container from the drop-down list.

17. Enter the mount point, click the file icon, and select a [symbolic name](#) (see page 188).

Limit: 255 characters

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

18. 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 calculation 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 percent free space. The space allocations would be in tracks, 100 primary, 35 secondary. While 125 would be 125 percent over, and allocation would be, in tracks, 100 primary, 125 secondary.

Limit: 0 to 1000

19. Click OK.

The custom data set is added.

Edit a Custom Data Set

You can edit a custom data set.

Follow these steps:

1. Click the Deployments tab.
The Deployments page appears.
2. On the left, click the Under Construction link.
A list of 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 11).

Default: Data Set

7. For the data set, enter the data set name.

Limits: 44 characters

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

8. Enter the data set name mask, click the file icon, and select a [symbolic name](#) (see page 188).

Mask

Specifies the mask that is used to name the data sets that are being deployed. The data sets can contain [symbolic qualifiers](#) (see page 188). For example, if you enter CAPRODS.&SYSID, the &SYSID is replaced by its values. If the SYSID that is being deployed to is XX16, the DSN mask is CAPRODS.XX16.

Limits: 64 characters

Note: 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 helps ensure uniqueness of the final data set name. Verify that the mask that you entered does not exceed 35 characters when it is translated.

The mask consists of one or more qualifiers that are separated by periods. The maximum number of characters is 64, including the periods. While you are entering the mask, CA CSM validates the mask by replacing symbolics with the minimum possible values first, and then with the maximum values. If the validation with the minimum possible values fails, an error message appears at the top of the dialog, and you cannot proceed. If the validation with the maximum values fails, a warning message appears, and you can proceed.

When the mask is translated, it has a maximum length of 44 characters including the periods and the low-level qualifier from the source data set. The low-level qualifier from the source data set has a maximum length of nine characters including a period.

Two consecutive periods are required to separate the two masks.

9. Enter the mask and click OK.
10. (Optional) Select the Override Path Naming Standard check box to [exclude the last directory leaf of the local path from the remote path](#) (see page 184).
11. For [USS](#) (see page 387) data set type, enter the local path. The local path is the directory where files are copied from.

Limit: 255 characters

Note: The asterisk indicates that the field is mandatory.

12. Enter the remote path, click the file icon, and select a [symbolic name](#) (see page 188). The remote path is the path where the files are copied to.

Limit: 255 characters

13. Select the type of copy:

- If you select Container Copy, proceed to step 15.
- If you select File-by-file Copy, proceed to step 16. Verify that the USS path exists on all of the remote systems of this deployment. Verify that there is sufficient space to hold these target libraries.

Default: Container Copy

14. Click OK.

15. For the container copy, enter the container name, click the file icon, and select a [symbolic name](#) (see page 188).

Limit: 64 characters

The container copy consists of one or more qualifiers that are separated by periods. The maximum number of characters is 64 , including the periods. When it is translated is has a maximum length of 44 characters including the periods.

The following steps occur during the deployment process:

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

Note: The mount is not permanent. Update your BPXPARMS to make this mount point permanent.

- 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.

16. Select the type of container from the drop down list.

17. Enter the mount point, click the file icon, and select a [symbolic name](#) (see page 188).

Limit: 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 the mount point of that container. Most nodes in the USS file system can be mount points, for any container.

18. 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 calculation 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 percent free space. The space allocations would be in tracks, 100 primary, 35 secondary. While 125 would be 125 percent over, and allocation would be, in tracks, 100 primary, 125 secondary.

Limit: 0 to 1000.

19. 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 this deployment.

Follow these steps:

1. Click the Deployments tab.
The Deployment page appears.
2. On the left, click the Under Construction link.
A list of 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.
A list of deployments appears.
5. Click OK to the Remove Custom Data Set confirmation window.

The custom data set is removed.

Override the Path Naming Standard for Deployment

By default, CA CSM sets up the remote path for custom data sets based on the local path.

For example, the local path is the following:

/u/users/sys/prod_install/r10/SYS1JAR/

Then, CA CSM sets up the remote path as follows:

/a/remote/New/SYS1JAR/

You can configure CA CSM to override the naming standard and not to include the last directory leaf of the local path to the remote path. In this case, CA CSM sets up the remote path as follows:

/a/remote/New

More information:

[Add a Custom Data Set](#) (see page 178)

[Edit a Custom Data Set](#) (see page 181)

Methodologies

You can [create](#) (see page 186), maintain, [edit](#) (see page 197), and [delete](#) (see page 200) [methodologies](#) (see page 383) from a deployment.

A [methodology](#) (see page 383) has the following attributes:

- A single data set name mask that is used to control what target libraries are to be called on the target systems and where these deployments will go.

z/OS data sets

z/OS data sets use a data set name mask. The data set name mask is a valid data set name comprised of constants and [symbolic qualifiers](#) (see page 188).

The minimum methodology data consists of a data set mask and a target action. The symbolics in the data set mask are either symbolics defined by CA CSM or z/OS system symbolics.

- Deployment Style information is used to *create only*, *create or update*, or *replace* a methodology.

Create Only

Use *Create Only* when you are creating a new methodology that does not have any target libraries already associated with a deployment.

Create or Update

Use *Create or Update* to:

- Create new data sets and/or files in a UNIX directory.
- Replace existing sequential data sets or files in a UNIX directory.
- For partitioned data sets, replace existing members, add new member without deletion of members that are not replaced.

Note: Using *Create or Update* would not cause the deployment to fail due to data set name conflicts.

Replace

Use *Replace* to delete any existing data sets associated with a deployment before creating new data sets.

The system first locks all target data sets and then deletes them. If any data set is used by another user or application, the data set cannot be deleted, and the whole deployment fails. In this case, no data sets are deleted.

Create a Methodology

You can create a [methodology](#) (see page 383).

Note: The asterisk indicates that the field is mandatory.

Follow these steps:

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: 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: 255 characters

-
4. Enter the data mask name, click the file icon, and select a [symbolic name](#) (see page 188).

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 188). 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: 64 characters

Note: 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 helps ensure uniqueness of the final data set name. Verify that the mask that you entered does not exceed 35 characters when it is translated.

The mask consists of one or more qualifiers that are separated by periods. The maximum number of characters is 64, including the periods. While you are entering the mask, CA CSM validates the mask by replacing symbolics with the minimum possible values first, and then with the maximum values. If the validation with the minimum possible values fails, an error message appears at the top of the dialog, and you cannot proceed. If the validation with the maximum values fails, a warning message appears, and you can proceed.

When the mask is translated, it has a maximum length of 44 characters including the periods and the low-level qualifier from the source data set. The low-level qualifier from the source data set has a maximum length of nine characters including a period.

5. Select a style of the deployment.

Create Only

Creates new data sets.

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 Update

Creates new data sets if they do not already exist, or replaces existing data sets.

Partitioned data set

Replaces existing members in a partitioned data set with members that have the same name as 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

Replaces files in a directory with files with the same name as 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

Replaces the existing data set or file and its attributes with the data from the source file.

For a VSAM data set (cluster)

Populates an existing VSAM cluster 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.

Replace

Removes any existing deployment data sets and creates new ones.

Prior to creating any data sets on the remote system, all existing data sets are removed: the system first allocates all target data sets and then deletes them. If any data set is used by another user or application, the data set cannot be deleted, and the whole deployment fails. In this case, no data sets are deleted.

6. Click Save.

The methodology is saved.

Note: Click Cancel to close this dialog without saving.

Symbolic Qualifiers

The data set name mask and the directory path contain the following symbolic qualifiers:

Data Set Name Mask

This 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

This 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 CSM 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 CSM symbol is defined in the list of symbols. Each symbol begins with an ampersand (&) and ends with a period (.). For example, the symbol &LYYMMDD. 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 data set 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 CSM 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 a 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 CSM 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

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 CA CSM deployment ID.

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

MSMMPN

This is the CA CSM Mount Point Name. The value is entered into the mount point name field when [adding a custom data set](#) (see page 178) 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 CA CSM 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, 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 second to last period and before the last period in a fully qualified data set name. The secondary 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 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
```

DLQUAL1

DLQUAL1 is the high-level qualifier for the target libraries.

Limits: It is the characters before the first period in the fully qualified data set name. This qualifier can be from 1 to 8 characters and is functionally equivalent to the symbolic qualifier MSMHQL.

Example: For the data set JOHNSON.FINANCE.DIVISION.SCRIPT, the high-level qualifier is JOHNSON.

DLQUAL2, ..., DLQUAL20

These represent the qualifier within the numbered position of the data set name. This means that DLQUAL2 represents the second qualifier and DLQUAL6 represents the sixth qualifier.

Limits: The individual qualifiers can be 1 to 8 characters.

Example: For the data set JOHNSON.FINANCE.DIV1.REPORT.SCRIPT, DLQUAL2 is FINANACE, and DLQUAL5 is SCRIPT.

Local Date and Time

YYMMDD

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

Maintain Methodologies

You can edit, replace, or [remove](#) (see page 200) methodologies.

Follow these steps:

1. Click the Deployments tab, and in the Actions section click the Maintain Methodologies link.
The Maintain Methodologies select window appears.
Note: A grayed check box indicates that the methodology is assigned and cannot be removed. You can edit it.
2. Select a methodology, click the Actions drop-down list, and select Edit.
[The Methodology window appears for editing](#) (see page 197).

More information:

[Delete Methodologies](#) (see page 200)

Edit a Methodology

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

Follow these steps:

1. Click the Deployments tab, and in the Actions section click the Maintain Methodologies link.
2. Select the methodology that you want to edit, click the Actions drop-down list, and then 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: 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: 255 characters

5. Enter the data set name mask, click the file icon, and select a [symbolic name](#) (see page 188).

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 188).

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 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 helps ensure uniqueness of the final data set name. Verify that the mask that you entered does not exceed 35 characters when it is translated.

The mask consists of one or more qualifiers that are separated by periods. The maximum number of characters is 64, including the periods. While you are entering the mask, CA CSM validates the mask by replacing symbolics with the minimum possible values first, and then with the maximum values. If the validation with the minimum possible values fails, an error message appears at the top of the dialog, and you cannot proceed. If the validation with the maximum values fails, a warning message appears, and you can proceed.

When the mask is translated, it has a maximum length of 44 characters including the periods and the low-level qualifier from the source data set. The low-level qualifier from the source data set has a maximum length of nine characters including a period.

6. Select a style of the 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 Update

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

Partitioned data set

Create or Update 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 Update 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 Update 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 Update 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.

Replace

Removes any existing deployment data sets and creates new ones.

Prior to creating any data sets on the remote system, all existing data sets are removed: the system first allocates all target data sets and then deletes them.

If any data set is used by another user or application, the data set cannot be deleted, and the whole deployment fails. In this case, no data sets are deleted.

7. Click Save.

Your changes are saved.

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

Delete Methodologies

You can delete a methodology.

Follow these steps:

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.

Take Snapshot of a Deployment

After you have completed all of your changes for the deployment, you can take a snapshot of the deployment.

Note: Verify that the deployment has at least one product, system, and methodology defined.

While you are working with a particular deployment, the deployment is locked and other CA CSM users cannot perform any action against it. The lock is released when the task is finished.

If you select a deployment that is being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the deployment. Click OK to close the notification message and select another deployment.

Follow these steps:

1. Click the Deployments tab, and on the right, in the Deployments panel, click the Under Construction link.
The Deployment Under Construction page appears.
2. Click the Deployment Name link for the deployment you want to take a snapshot of.
Details about this deployment window appear.
3. Click the Actions drop-down list and select Snapshot (see definition on page 386).
The target libraries are copied.

More information:

[Clean Up Deployment Snapshots](#) (see page 205)

Transmit a Deployment

After you have completed all of your changes for the deployment, you can transmit the deployment. Transmitting the deployment automatically takes a snapshot of the deployment.

Note: Verify that the deployment has at least one product, system, and methodology defined.

Transmitting a deployment uses FTP to copy the files to a remote system.

Note: If the deployment uses shared DASD, it is not necessary to transmit a deployment.

While you are working with a particular deployment, the deployment is locked and other CA CSM users cannot perform any action against it. The lock is released when the task is finished.

If you select a deployment that is being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the deployment. Click OK to close the notification message and select another deployment.

Follow these steps:

1. Click the Deployments tab, and on the right, in the Deployments panel, click the Under Construction link.
The Deployment Under Construction page appears.
2. Click the Deployment Name link for the deployment you want to transmit.
Details about this deployment window appear.

3. Click the Actions drop-down list and select Transmit (see definition on page 387).

The product is ready to be deployed.

Note: Performing this action automatically [takes a snapshot](#) (see page 200) of the deployment. If you do not have remote credentials for the systems where you want to deploy the product, or you do not have default remote credentials defined on the [User Settings, Remote Credentials page](#) (see page 319), the [Remote Credentials Properties dialog](#) (see page 288) appears. This dialog prompts you to define remote credentials for the systems.

Deploy a Product

After you have completed all of your changes for the deployment, you can deploy the product. Deploying the product automatically takes a snapshot of the deployment and transmits the deployment.

Note: Verify that the deployment has at least one product, system, and methodology defined.

While you are working with a particular deployment, the deployment is locked and other CA CSM users cannot perform any action against it. The lock is released when the task is finished.

If you select a deployment that is being used in CA CSM by another user, a notification message appears. You are prevented from performing any actions on the deployment. Click OK to close the notification message and select another deployment.

Follow these steps:

1. Click the Deployments tab, and on the right, in the Deployments panel click the Under Construction link.

The Deployment Under Construction page appears.

2. Click the Deployment Name link for the deployment you want to deploy.

Details about this deployment window appear.

3. Click the Actions drop-down list and select Deploy (see definition on page 382).

The product is deployed across your enterprise.

Note: Performing this action automatically [takes a snapshot](#) (see page 200) of the deployment and [transmits](#) (see page 201) the deployment. If you do not have remote credentials for the systems where you want to deploy the product, or you do not have default remote credentials defined on the [User Settings, Remote Credentials page](#) (see page 319), the [Remote Credentials Properties dialog](#) (see page 288) appears. This dialog prompts you to define remote credentials for the systems.

Clone a Deployment

You can clone a deployment. For example, if maintenance has been applied to the SMP/E environment, you can use this action to create a deployment that is modeled after a previously-created completed deployment.

If you select a deployment that is being used in CA CSM by another user, an error message appears. You are prevented from performing any actions on the deployment. Close the error message, and select another deployment.

Follow these steps:

1. Click the Deployments tab, and in the right panel, select a deployment that you want to clone.
Details about this deployment appear.
2. Click the Actions drop-down list and select Clone.
The Clone Deployment dialog appears, where you can enter a new name and description for this deployment.
3. Complete the fields on this dialog and click Clone to create an under construction deployment that you can deploy at a later time, or click Deploy to deploy the cloned deployment now.

Note: Clicking Deploy automatically [takes a snapshot](#) (see page 200) of the deployment and [transmits](#) (see page 201) the deployment. If you do not have remote credentials for the systems where you want to deploy the product, or you do not have default remote credentials defined on the [User Settings, Remote Credentials page](#) (see page 319), the [Remote Credentials Properties dialog](#) (see page 288) appears. This dialog prompts you to define remote credentials for the systems.

Delete a Deployment

You can [delete deployments](#) (see page 203). You cannot delete deployments in the following situations:

- The deployment is being used by a configuration. If you need to delete a deployment that is being used by configurations, you need to first delete the configurations that are associated with it.
- Another user has started creating a configuration using this deployment and has not advanced to the second step in the Configuration wizard.
- Another user is deploying, cloning, transmitting, deleting, or taking snapshot of the deployment.

A deployment 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 a 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 141) 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/D $nnnn$ where $nnnn$ = 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.

Follow these steps:

1. Click the Deployments tab.
The Deployment page appears.
2. On the right, in the Deployments panel, click one of the status links (Under Construction, Snapshot Completed, Deployed, or Configurable).
The detailed deployment information appears.
3. Click the deployment name link, select Delete from the Actions drop-down list, and then click OK to confirm.
The deployment is deleted.

Note: If you do not have remote credentials for the systems in your deployment that you want to delete, or you do not have default remote credentials defined on the [User Settings, Remote Credentials page](#) (see page 319), the [Remote Credentials Properties dialog](#) (see page 288) appears. You are prompted to define remote credentials for the systems.

Clean Up Deployment Snapshots

This procedure only applies if you migrated to CA CSM Release 5.1 from a previous version of CA CSM.

You can delete deployment snapshots that are associated with completed deployments made using a previous version of CA CSM. Deleting previously taken deployment snapshots helps free up DASD space on your system.

Deleting deployment snapshots does not delete the completed deployments that the snapshots are related to.

Follow these steps:

1. Click the Settings tab.
The Settings page appears.
2. On the left, in the Actions section, click the Clean Up Deployment Snapshots link.
You are prompted to confirm the snapshot cleanup.

3. Click OK.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The deployment snapshots are deleted. If there are no deployment snapshots to clean up, CA CSM indicates it in task output.

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 206)
- [Download a Message Log](#) (see page 142)
- [Save a Message Log as a Data Set](#) (see page 142)
- [View Complete Message Log](#) (see page 143)

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 142)
[Save a Message Log as a Data Set](#) (see page 142)
[View Complete Message Log](#) (see page 143)

Investigate a Failed Deployment

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

Follow these steps:

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 only see the tasks assigned to you.

Note: You can refine the task list further by selecting task and status types from the drop-down lists, and then sort by Task ID.

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

The Task Output Browser appears.

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 142)

[Save a Message Log as a Data Set](#) (see page 142)

[View Complete Message Log](#) (see page 143)

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. Click the Download Zipped Output button on the General menu bar. 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 Message Log bar and click the Download as TXT. 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 Message Log bar and click the Download as ZIP. Save this file.

Save a Message Log as a Data Set

You can save a message log as a data set.

Follow these steps:

1. Click the Deployment Name or the Deployment Results on the left tree. Click the Action button on the Message Log bar, and click the Save as Data Set.

The Save Output as 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 information and click OK:

Data Set Name

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

VOLSER

For non-SMS data, enter the [Volser](#) (see page 388).

Example:

Volser: SYSP01 and SYSP02

Storage Class

For SMS Allocation data, enter the [Storage Class](#) (see page 386).

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.

Reset Deployment Status

You can reset a deployment status when the deployment has a status of *snapshot in progress*, *transmitting*, or *deploying*. The message log explains if any containers, folders, and files were deleted during reset.

You can also [investigate a failed deployment](#) (see page 141) to see additional details in the message log.

The following statuses may be reset.

Snapshot in progress

Snapshot in progress is reset to *snapshot in error*.

Transmitting

Transmitting is reset to *transmit in error*.

Deploying

Deploying is reset to *deploy in error*.

The following artifacts are reset by status.

Snapshot in Progress

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

Temp files located at Application Root/sdsroot/Deployment_nnnn, where nnnn = Deployment ID automatic number.

Transmit in Progress

Nothing is reset.

Deploy in Progress

Nothing is reset.

Deployment Summary

The Action button is available after a successful deployment.

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

You can click Print in the top right corner to print this information, which you can then refer to when deploying the product. A standard Print dialog opens that uses the print capabilities of your browser and installed printers.

The Deployment Summary window may contain the following:

- Deployment 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

Chapter 10: Configuring Products

This section includes information about how to use CA CSM to configure products. A *configuration* is a CA CSM object that you create to tailor your deployed software and make it usable in your environment. It contains the profiles, variables and resources specific to your environment.

This section contains the following topics:

- [Software Configuration Service](#) (see page 211)
- [How the Configuration Process Works](#) (see page 212)
- [Configuration Status](#) (see page 214)
- [Managing Configurations](#) (see page 216)
- [Resume the Configuration Wizard](#) (see page 234)
- [Rename a Configuration](#) (see page 235)
- [Build a Configuration](#) (see page 235)
- [Edit an Existing Configuration](#) (see page 236)
- [Validate a Configuration](#) (see page 238)
- [Implementation](#) (see page 240)
- [Delete Configurations](#) (see page 251)
- [Reset Configuration Status](#) (see page 252)

Software Configuration Service

The *Software Configuration Service (SCS)* facilitates the mainframe product configuration from the software inventory of the driving system to targeted z/OS operating systems. You can use the SCS to create a new configuration.

The SCS does the following:

- Supports phased implementations, letting you separate the tasks of creating the configuration and implementing it.
- Transforms a deployment of software to the finished, executable configuration that can be saved and updated further at a later time.
- Catalogs and stores the information describing configurations.

However, the SCS is not intended to replace product administration and only performs the implementation of a configuration within a given environment. Therefore, the SCS does not perform the following administrative tasks:

- Tasks associated with the use of the product, including administration of operating databases using utilities or panels, and adding users or profiles to a product
- General product operation, including scheduling execution, running maintenance jobs, and performing backups.

SCS Components

The SCS consists of the following components:

System registry

Contains information about the systems that have been defined to CA CSM and can be selected as targets for configurations.

Note: You cannot use CA CSM to configure a product to a staging system.

Configuration wizard

Lets you set up the configuration and prepare it for implementation.

Implementation dialog

Lets you implement your configuration across targeted z/OS operating systems.

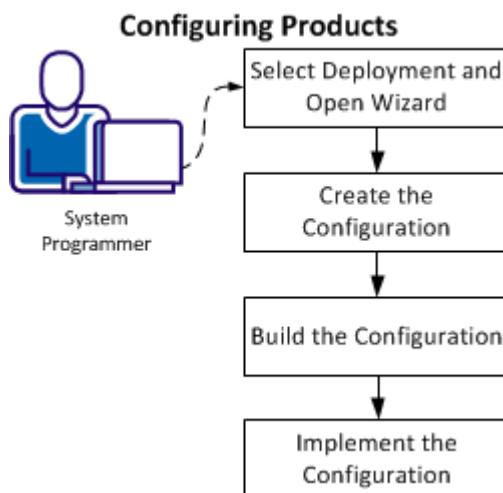
SCS address space

Provides the services and processing necessary to implement the configuration across your targeted z/OS systems. It interrogates output and console traffic to analyze the results of configuration.

How the Configuration Process Works

After you [acquire](#) (see page 43) and [install a product](#) (see page 54), [set up the system registry](#) (see page 124), and [deploy the product](#) (see page 161), you are ready to configure the product.

You perform the following high-level tasks to configure your products using CA CSM:



1. From the [Deployments tab](#) (see page 283), select a configurable deployment, select the associated product, and click Create Configuration to open the [Configuration](#) (see page 212) wizard.
2. Create the configuration by completing all the steps in the wizard:
 - a. [Define a configuration name and select a target system](#) (see page 217).
 - b. [Select configuration functions and options](#) (see page 218).
 - c. [Define system preferences](#) (see page 219).
 - d. [Create target settings](#) (see page 222).
 - e. [Select and edit resources](#) (see page 225).
3. [Build the configuration](#) (see page 231). The last step of the Configuration wizard lets you build the configuration. If needed, you can edit the configuration and can build [the configuration](#) (see page 235) again.
4. [Implement the configuration](#) (see page 243). The implementation process in CA CSM guides you and provides detailed instructions to start, stop, and manage the steps of the implementation process.

After the configuration process completes, the product is ready for you to use. Sometimes there are other steps to perform manually outside of CA CSM.

Note: You cannot use CA CSM to configure a product to a staging system.

Configuration Status

Configuration status information appears on the Configuration tab. Configurations can be one of the following statuses:

Under construction

Indicates the wizard has been started and saved at a certain point, but has not been completed. You can [resume](#) (see page 234), [rename](#) (see page 235), and [delete](#) (see page 251) configurations with this status. The number indicates on which of the following steps in the wizard the previous work was saved. The wizard opens to this step when you resume the configuration:

2

The wizard was saved at the [Select Functions and Options](#) (see page 218) step.

3

The wizard was saved at the [Define System Preferences](#) (see page 219) step.

4

The wizard was saved at the [Create Target Settings](#) (see page 222) step.

5

The wizard was saved at the [Select and Edit Resources](#) (see page 225) step.

6

The wizard was saved at the [Review and Build](#) (see page 231) step.

Build started

Indicates a build has started.

Build completed

Indicates a build has completed successfully and is ready for implementation. You can [validate](#) (see page 238), [rename](#) (see page 235), [edit](#) (see page 236), [implement](#) (see page 243), or [delete](#) (see page 251) configurations with this status.

Build failed

Indicates an unsuccessful build attempt. You can [build](#) (see page 235), [rename](#) (see page 235), [edit](#) (see page 236), or [delete](#) (see page 251) configurations with this status.

Validating

Indicates the configuration is being validated.

Validated

Indicates the configuration has been validated successfully. You can [validate](#) (see page 238), [rename](#) (see page 235), [edit](#) (see page 236), [implement](#) (see page 243), or [delete](#) (see page 251) configurations with this status.

Validation error

Indicates an unsuccessful validation attempt. You can [validate](#) (see page 238), [rename](#) (see page 235), [edit](#) (see page 236), [implement](#) (see page 243), or [delete](#) (see page 251) configurations with this status.

Implementing

Indicates the configuration is being processed to create an executable version of the product in the target environment. Configurations have this status as soon as the Implement dialog is opened.

Implemented

Indicates the configuration was successfully implemented and it is ready to execute in the target environment. You can [rename](#) (see page 235) or [delete](#) (see page 251) configurations with this status.

Implementation stopped

Indicates that a user or the SCS address space (see definition on page 385) has stopped the configuration processing, but no errors were encountered. You can [validate](#) (see page 238), [rename](#) (see page 235), [implement](#) (see page 243), or [delete](#) (see page 251) configurations with this status.

Implementation error

Indicates an unsuccessful implementation attempt. You can [rename](#) (see page 235), [implement](#) (see page 243) or [delete](#) (see page 251) configurations with this status.

Managing Configurations

Managing configurations in CA CSM consists of performing one of the following actions, each of which opens the Configuration wizard at different stages of the configuration process:

[Create Configuration \(see page 217\)](#)

Accessed from the Deployments tab at the product level, this action opens the Configuration wizard at step 1.

[Resume Configuration \(see page 234\)](#)

Accessed from the Configurations tab, this action opens the Configuration wizard at step 2. This action can only be performed on configurations that have not yet been built or implemented, with a status of Under Construction.

[Edit Configuration \(see page 236\)](#)

Accessed from the Configurations tab, this action opens the Configuration wizard at step 2. This action can only be performed on configurations that have been built and validated, but not implemented, with one of the following statuses:

- Build completed
- Build failed
- Validated
- Validation error

Note: You can perform other actions that do not open the Configuration wizard, such as [renaming](#) (see page 235), [validating](#) (see page 238), [implementing](#) (see page 240), and [deleting](#) (see page 251) a configuration.

The Configuration wizard consists of the following steps that let you set up your configuration as you prepare to implement it:

1. [Define a name and select a target system](#) (see page 217).
2. [Select configuration functions and options](#) (see page 218).
3. [Define system preferences](#) (see page 219).
4. [Create target settings](#) (see page 222).
5. [Select and edit resources](#) (see page 225).
6. [Review and build the configuration](#) (see page 231).

Create Configuration

After you have deployed your products, you create a configuration using the Configuration wizard.

Follow these steps:

1. From the Deployments tab, click Configurable.
A list of configurable deployments appears.
2. Click the deployment that contains the product you want to configure.
A list of the products included with this deployment appears.
3. Select the product that you want to configure then click Create Configuration.
The Configuration wizard opens to the Define and Target step.

More information:

[Edit an Existing Configuration](#) (see page 236)

Define and Target

When you create a configuration, you begin by defining the configuration and selecting a target system that is known and accessible within CA CSM.

Follow these steps:

1. On the Define and Target step, in the Define section, complete the following fields:

Name

Enter a unique name or click Generate Name to enter a system-generated name which can also be edited.

Limits: Up to 180 US-ASCII printable characters.

Description

Enter an optional description that explains your product name.

Limits: Up to 255 US-ASCII characters.

2. In the System List section, select a target system.

Note: Only systems that are accessible to the deployment you selected are available.

Show All

Show all of the accessible systems for your deployment, or select a page range from the Show All drop-down list.

Select

Select the check box in this column of the system you want to target.

3. Use the following buttons to control and navigate through the wizard:

Next

Continues to the next step and saves your selections.

Note: If the target deployment resources associated with this configuration changed after the product was deployed, a warning dialog appears. This dialog displays the changed deployment resources for you to confirm that you want to continue.

Cancel

Closes the wizard. The configuration is not saved and you are not able to resume this configuration.

Select Functions and Options

After you have defined your configuration, you select the functions and associated options you want to use for the configuration. Default options in this step are selected for you. You can clear options that are not required.

Follow these steps:

1. On the Select Functions and Options step, select the product functions and options for each function that you want to configure:

Functions

Select functions to use for your configuration, and the associated options are enabled. The selection of one function may disable other functions. A required function that is selected and disabled cannot be deselected. You can clear a default function that has been selected.

Options

Select the options you want to use for each selected function. The selection of other options may enable or disable other options.

Note: For disabled options, you can click the icon in the Details column for information about why this option is disabled.

2. Use the following buttons to control and navigate through the wizard:

Save

Saves your changes.

Note: This button saves your selections but does not close the wizard.

Next

Continues to the next step and saves your selections.

Note: This button is disabled in this step until at least one option is selected.

Exit

Exits the wizard without building the configuration.

Note: If you have not yet built the configuration, you can exit and [resume](#) (see page 234) the wizard at a later time. If you have built the configuration, you can [edit the configuration](#) (see page 236).

Define System Preferences

After you select your options, you define the system preferences you want to use for the configuration.

Some system preferences contain variables with values previously entered in the system registry (see definition on page 347). Variables with a value are prepopulated in the tree view.

Note: The system registry is a repository of variable data that is shared between all products managed by CA CSM. Changes that you make on this step update the content of the system registry. If a variable has a value and you configure products that target shared systems, any change you make affects other users of these shared systems.

Where allowed, the Software Configuration Service (SCS) uses a single space to indicate no value. Not all variables accept a blank as a valid value. When editing a variable value, delete any blank space and place the cursor at the beginning of the data entry field.

Each variable in the tree view has an [icon](#) (see page 221) that indicates its status. Selecting a variable in the tree view opens an input pane on the right.

Resolved variables set in this step are saved in the system registry.

System preference variables represent information about the system that is targeted for your configuration. The variables listed are those variables that are required based on the functions and options selected earlier. The values obtained for the system will be used to derive specific values for the product as it is configured. These product variables become the basis for the settings created in the [Create Target Settings](#) (see page 222) step. These values can be reviewed and changed as necessary in that step.

Note: All variables must be resolved before you can continue to the next step in the wizard. You must be authorized to update the environment variables associated with this system to change data on this step. If you do not have the correct authorizations, the controls on this step are not active. Contact your system administrator to provide the missing system preferences in the [system registry](#) (see page 138).

Follow these steps:

1. On the Define System Preferences step, click the arrow buttons (<< or >>) below the tree view to navigate through the unresolved variables. You can also select any variable in the tree view to open it in the input pane on the right.

The input pane appears that contains either information about a specific variable, or a table of profiles that contains variables that can be used.

- For a specific variable, enter a value and click Set Value. The variable is marked resolved and you are ready to continue to the next variable.
- For a table of profiles, select one or more profiles, and click Set Values. The variables associated with this profile are added to the tree view.

Note: You can also [create a profile](#) (see page 221). This profile is added to the table and is available for selection.

2. Click the arrow buttons (<< or >>) to navigate through the remaining unresolved variables until all required variables are marked resolved. An optional variable does not need a value to continue to the next step.
3. Use the following buttons to control and navigate through the wizard:

Auto Advance

Advances you to the next unresolved item as you confirm or set the value of an item.

Save

Saves your changes.

Note: This button is disabled in this step until at least one value is set.

Back

Returns to the previous step.

Note: If you change any data, you are prompted to save the changes.

Next

Continues to the next step and saves your selections.

Note: This button is disabled in this step until all required variables are resolved.

Exit

Exits the wizard without building the configuration.

Note: If you have not yet built the configuration, you can exit and [resume](#) (see page 234) the wizard at a later time. If you have built the configuration, you can [edit the configuration](#) (see page 236).

More information:

[Environment Profiles](#) (see page 347)

Variable Icons

The following icons appear in the tree view:



Indicates that this is resolved. A *resolved variable* contains a value and has been confirmed (if required). You can modify a variable that has been resolved.



Indicates that this is unresolved. An *unresolved variable* does not contain a value and must be resolved.

Create a Profile Occurrence in Wizard

You can create a profile occurrence as you are defining system preferences for a configuration.

A *profile* is a grouping of variables that belong to a subsystem or a component. A *profile occurrence* is a version of that profile that has been tailored for a specific system. You can have multiple profile occurrences for the same profile on one system.

Note: To create an occurrence of a profile, the profile must be available in the system registry.

Follow these steps:

1. Click a category in the tree view.

Information about this category appears in the profile table in the input pane on the right.

2. Click Create in the profiles table.

A dialog opens for you to enter a value for this profile occurrence.

3. Enter a value and click Save.

The new profile occurrence is added to the table.

Note: The new profile occurrence is also added to the system registry.

Create Target Settings

After you define your system preferences, you create the target settings that you want to use for the configuration.

Some target settings are prepopulated with product default values.

Where allowed, the Software Configuration Service (SCS) uses a single space to indicate no value. Not all variables accept a blank as a valid value. When editing a variable value, delete any blank space and place the cursor at the beginning of the data entry field.

Each variable and category (see definition on page 381) in the tree view has an [icon](#) (see page 223) to indicate its status.

Note: You can use the values defined for an [implemented configuration](#) (see page 224).

Follow these steps:

1. On the Create Target Settings step, click the arrow buttons (<< or >>) below the tree view to navigate through the unresolved variables. You can also select any variable in the tree view to open it in the input pane on the right.

The input pane appears that displays information about a specific variable.

2. Enter a value for the selected variable and click Set Value.

The variable is marked resolved and you are ready to continue to the next variable.

3. Click the arrow buttons (<< or >>) to navigate through the remaining unresolved variables until all required variables are marked resolved. An optional variable does not need a value to continue to the next step.

Note: If you have selected Auto Advance at the bottom, you do not need to click the arrow buttons to advance to the next unresolved variable.

4. Use the following controls to navigate through the wizard and control the behavior in this step:

Auto Advance

Advances you to the next unresolved item as you confirm or set the value of an item.

Save

Saves your changes.

Note: This button is disabled in this step until at least one value is changed.

Back

Returns to the previous step.

Note: If you change any data, you are prompted to save the changes.

Next

Continues to the next step and saves your selections.

Note: This button is disabled in this step until all required variables are resolved.

Exit

Exits the wizard without building the configuration.

Note: If you have not yet built the configuration, you can exit and [resume](#) (see page 234) the wizard at a later time. If you have built the configuration, you can [edit the configuration](#) (see page 236).

Variable Icons

The following icons appear in the tree view:



Indicates that this is resolved. A *resolved variable* contains a value and has been confirmed (if required). You can modify a variable that has been resolved.



Indicates that this is unresolved. An *unresolved variable* does not contain a value and must be resolved.



Indicates that this is a variable that has to be [confirmed](#) (see page 224) must be acknowledged by the user.



Indicates that this is optional. An *optional variable* does not require a value. Some optional variables must be confirmed.

Use Implemented Configuration Values

The Create Target Settings step lets you use values already defined for an existing implemented configuration.

Follow these steps:

1. Navigate to the Create Target Settings step in the wizard. You can do it either through the process of [creating a configuration](#) (see page 212), or by opening an existing configuration using the [resume configuration](#) (see page 234) process.
2. In the tree view, select a category. A *configuration category* is a group of variables for a configuration. The top root level is a category that encompasses all categories and variables.
The right pane displays controls to select an existing implemented configuration that you can use values from.
Note: If you select a category below the root level, only values within that category are affected.
3. Select a configuration name from the drop-down list and click Set Values.
If values exist, corresponding variables in the tree view are resolved with values from implemented configurations.
Note: Values obtained from an implemented configuration replace the values currently set.

Confirm Variables

You must review and confirm certain variables before proceeding to the next unresolved variable.

Follow these steps:

1. Click the arrow buttons (<< or >>) below the tree view to navigate through the variables marked with the [must confirm](#) (see page 222) icon, which indicates the variable must be confirmed.
Information about the variable appears in the input pane on the right.
2. Review this information to verify its accuracy, and click Confirm. If the information is inaccurate, correct it in the input pane on the right and click Set Value.
The variable is marked resolved with the [resolved](#) (see page 222) icon in the tree view, which indicates the variable is confirmed and resolved.

Select and Edit Resources

After you create your target settings, you can select and edit resources. A *resource* is a physical or virtual component of a system. Resources include data sets, parameter settings, libraries, files, and operator commands. Dummy resources are temporary resources used during the configuration build or implementation process, or that serve as place holders for tracking purposes.

Resources are [resolved](#) (see page 385) based on the [target settings](#) (see page 222), and will be created when the configuration is implemented.

You can review the resources that are not unique (☒), or [edit the content of a resource](#) (see page 228). In addition, for some of the resources, you must [confirm the resource content](#) (see page 227).

Note: For any resources that are not unique, return to the previous step and change a target setting to create a unique resource name. Do it before you can return to this step. When all resources have a unique name, and you have confirmed the ones that require confirmation, you can then proceed to the next step.

All resources that have been resolved in previous steps are displayed.

You can use the root-level category that encompasses all resources (labeled Resources) to identify implemented configurations for the same product. You can [review the configurations](#) (see page 255) that have been implemented from the Task tab.

Use the following controls to navigate through the wizard and control the behavior in this step:

Auto Advance

Specifies that as you confirm or set the value of an item, you are advanced to the next unresolved item.

Save

Saves your changes.

Note: This button is disabled in this step until at least one value is changed.

Back

Returns to the previous step.

Note: If you go back and modify previous steps, changes made in this step may be lost.

Next

Continues to the next step and saves your selections. Symbolic references within the configuration are resolved with variables you have entered as you begin the Review and Build step. If more than two users are making this transition at the same time, a message appears. Wait until processing completes for the users ahead of you.

Exit

Exits the wizard without building the configuration.

Note: If you have not yet built the configuration, you can exit and [resume](#) (see page 234) the wizard at a later time. If you have built the configuration, you can [edit the configuration](#) (see page 236).

Resource Icons

The following icons are used on the Select and Edit Resources step:



Indicates the root-level category that encompasses all resources, and all resources are resolved. This icon is always labeled Resources. You cannot progress to the next step unless this icon appears at the root level.



Indicates the root-level category that encompasses all resources, but one or more of them is unresolved. This icon is always labeled Resources. You cannot progress to the next step if this icon appears at the root level.



Indicates a resource that will be created when this configuration is implemented, but cannot be edited.



Indicates a resource that you can [edit the contents of](#) (see page 228).



Indicates an editable resource that has not been confirmed.



Indicates a resource whose contents have been edited or confirmed.



Indicates a resource that is not unique and cannot be created.

Confirm Editable Resources

You must review and confirm all editable resources before proceeding to the next step.

Follow these steps:

1. Click the arrow buttons (<< or >>) below the tree view to navigate through the resources marked with the [must confirm](#) (see page 227) icon, which indicates the resource must be confirmed.
Information about the resource appears in the input pane on the right.
2. Review this resource to determine if you need to edit it:
 - If so, click Launch Editor to edit this resource.
 - If not, click Confirm.

The resource is marked resolved with the [resolved](#) (see page 227) icon in the tree view, which indicates the resource is confirmed and resolved.

Edit Resource Content

You can edit the contents of some of the resources used in this configuration (with the  icon) using an Edit dialog.

Editable resources can be fixed or variable length.

The Edit dialog is structured as follows:

Checklist

The Checklist pane appears near the top of the dialog and lists the steps that you need to perform to complete your changes.

Note: Only some of the resources include the Checklist pane.

Editor

The Editor pane appears below the Checklist pane, and contains the text editor, which is further divided as follows:

Command Line Area

Located on the left side of the Editor pane, the command line area is where you can enter line edit commands.

Text Area

Locate in the main portion of the Editor pane, the text area is where you can edit the text.

Follow these steps:

1. On the Select and Edit Resources step, select an editable resource in the tree view in the left pane.

Controls to launch the editor appear in the right pane.

2. Click Launch Editor.

The Edit dialog opens with the cursor placed in the text area of the Editor pane, on line 1, position 1.

Note: If this line already has the maximum number of characters allowed, you cannot type text, unless you delete some of these characters, or click Overwrite Mode.

3. Edit the text using the following controls:

Moving Between Text and Command Line Areas

Press the arrow keys (<--, -->) to move the cursor between the text area and the command line area in the Editor pane, or click in these areas.

Moving Between Pages

If there are multiple pages, you can go to another page by clicking the arrows (<<, >>) around the Page, or entering a number in the Page field.

Line Edit Commands

Enter one of the following line edit commands in the command line area:

A

Inserts a blank line after the current line number.

B

Inserts a blank line before the current line number.

C

Copies a line.

CC

Copies a block of lines.

D

Deletes a line.

DD

Deletes a block of lines.

I

Inserts a blank line after the current line number.

M

Moves a line.

MM

Moves a block of lines.

R

Repeats a line.

RR

Repeats a block of lines.

Note: You can repeat the commands D, I, R, and RR by entering the number of repetitions immediately following the command. For example, D3 to delete three lines.

Save

Click to save your text entries in progress without closing the text editor.

Find/Replace

Click to open the Find/Replace dialog, which lets you find or find/replace text, and select options. These options are search directions, match case, whole word, or searching on the current page only.

Overwrite Mode

Select this check box to type over existing text.

Note: If you do not select this check box, make sure that there is space available on the line by deleting existing text.

If you get to the end of the line and continue to enter text in overwrite mode, the characters on the next line are overwritten. If Overwrite Mode is not selected, you can only insert characters until you reach the end of the line limit.

Close

Click to close the text editor. If you have not saved your changes, you are prompted to save and close the editor or to close without saving.

Editor Limits

The editor has the following limits:

- Record length (fixed): 80
- Record length (variable): 510
- Page size: 20 lines of text
- Editor width: 80 characters, scrollable for longer length records

4. After you have completed your changes, click Save, and then click Close.

Your changes are saved, you are returned to the wizard, and the icon for this resource changes to indicate it has been edited ().

Review and Build

After you edit target resources, you are ready to review the configuration details. The configuration details result from the selections and entries you have made in the previous steps. You can print or export these details for further analysis. If any of the information is incorrect, you can return to a previous step and make corrections.

After you have verified that everything is correct, you are ready to [build the configuration](#) (see page 235). After the build process successfully completes, the configuration is ready for [implementation](#) (see page 240).

Follow these steps:

1. On the Review and Build step, review the configuration summary, which includes the configuration settings, objects, preferences, and resources.

Notes:

- You can click Print to print this information, which you can then refer to when implementing the configuration. A standard Print dialog opens that uses the print capabilities of your browser and installed printers.
- You can [export this information to a TXT file or a data set](#) (see page 233).
- If any of the information is incorrect, you can return to a previous step and make corrections.

2. Click Build to prepare the configuration for implementation.

Note: After clicking Build, you can still edit the configuration before implementing it.

The wizard closes. A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

If you need to build your configuration again at a later time (for example, if there is a problem with the build), you can [build it again from the Configurations tab](#) (see page 235).

3. Use the following buttons to control and navigate through the wizard:

Back

Returns to the previous step. Click as necessary to return to any steps that require corrections.

Build

Closes the wizard in the final step and builds the configuration.

Note: After clicking Build, you can still edit the configuration before implementing it.

Exit

Exits the wizard without building the configuration.

Note: If you have not yet built the configuration, you can exit and [resume](#) (see page 234) the wizard at a later time. If you have built the configuration, you can [edit the configuration](#) (see page 236).

Export Configuration Summary

You can export the configuration summary, including all of the entries you made on the previous steps, and the operations that are planned for [implementation](#) (see page 240).

Follow these steps:

1. Navigate to the Review and Build step in the wizard.
2. Click the Export drop-down list and select one of the following options:

Download as TXT

Downloads the details as a TXT file. Follow the instructions in your browser to save or open the file. When printing the TXT file, you can reduce the font size and use landscape mode to minimize line wrapping problems.

Save as Data Set

Saves the details as a data set. Complete the following fields in this dialog and click OK:

Data Set Name

Specify the data set name.

VOLSER

(Optional) Specify the volume serial number.

Limits: 1-6 characters

Storage Class

(Optional) Specify the storage class.

Limits: 1-8 characters

The configuration summary is saved to the specified location.

Resume the Configuration Wizard

After you access the [Select Functions and Options](#) (see page 218) wizard step, you can click Exit to save your selections so far and close the wizard. You can resume creating your configuration at a later time.

You can only resume configurations with a status of Under Construction.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and locate the configuration you want to resume.

Note: You can click the Status column to sort by status and identify all Under Construction configurations. The number in parentheses indicates the step that the configuration was previously saved at.

2. Click the Actions drop-down list to the right of the configuration, and select Resume.

The wizard opens to the previously saved step.

- If more than two users are attempting to access this step at the same time, a message appears. Wait until processing completes for those users ahead of you.
- If the target deployment resources associated with this configuration changed after the product was deployed, a warning dialog appears. This dialog displays the changed deployment resources for you to confirm that you want to continue.

3. Continue [creating your configuration](#) (see page 212).

Note: You can only resume creating one configuration at a time.

Rename a Configuration

After you create a configuration, you can rename a configuration and update its description.

You cannot rename configurations with a status of Build started, Validating, or Implementing.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and select the configurations you want to rename.
 2. Click the Actions drop-down list to the right of the configuration, and select Rename.
- The rename dialog appears.
3. Update the following fields as necessary, and click OK:

Name

Enter a unique name.

Limits: Up to 180 US-ASCII printable characters.

Description

Enter an optional description that explains your product name.

Limits: Up to 255 US-ASCII characters.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Build a Configuration

You can [build a configuration from the wizard](#) (see page 231) or from the [Configurations tab](#) (see page 289).

You can only build configurations with a status of Ready to Build or Build Failed.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and locate the configuration you want to build.

2. Click the Actions drop-down list to the right of the configuration, and select Build.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Edit an Existing Configuration

You can edit configurations that you have previously created and built. You can edit a configuration if the build fails, or when validation fails because of an errant value.

You can only edit configurations with the following statuses:

- Build complete
- Build failed
- Validated
- Validation error

Note: You can only edit a configuration that has not started implementing yet. After a configuration has started implementing, you cannot edit it. For example, if a configuration failed during implementation and you validated it (the configuration got a status of Validated or Validation error), you cannot edit it.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and locate the configuration you want to edit.

Note: You can click the Status column to sort by status and identify all configurations that you can edit.

2. Click the Actions drop-down list to the right of the configuration, and select Edit.

The Configuration wizard opens to the [Select Functions and Options](#) (see page 218) step.

- If more than two users are attempting to access this step at the same time, a message appears. Wait until processing completes for those users ahead of you.
- If the target deployment resources associated with this configuration changed after the product was deployed, a warning dialog appears. This dialog displays the changed deployment resources for you to confirm that you want to continue.

3. Change data on this step as needed, and use the following controls to navigate and make edits to the remaining steps in the wizard:

Auto Advance

Advances you to the next unresolved item as you confirm or set the value of an item.

Save

Saves your changes.

Note: This button is disabled in this step until at least one value is set.

Back

Returns to the previous step.

Note: If you change any data, you are prompted to save the changes.

Next

Continues to the next step and saves your selections.

Exit

Exits the wizard without building the configuration.

Note: You can only edit one configuration at a time.

More information:

[Define System Preferences](#) (see page 219)

[Create Target Settings](#) (see page 222)

[Select and Edit Resources](#) (see page 225)

[Review and Build](#) (see page 231)

Validate a Configuration

Before you implement a configuration, you have the option to validate (or test) it.

Validation verifies access to resources that are going to be utilized when you [implement the configuration](#) (see page 243).

You can only validate configurations with a status of Build completed, Validated, Validation error, or Implementation error.

Note: While validation of a configuration is in progress, refrain from using the data sets specified by the configuration that are outside of CA CSM. This helps avoid data set contention and the errors associated with it.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and locate the configuration you want to validate.
2. Click the Actions drop-down list to the right of the configuration, and select Validate.

Note: If the target deployment resources associated with this configuration changed after the product was deployed, a warning dialog appears. This dialog displays the changed deployment resources for you to confirm that you want to continue.

The Validate Configuration dialog opens. This dialog contains information about the current status, and a table of operations containing the following columns:

Step

Contains a linked description of the operation to be validated in this step. Clicking the link [opens a separate dialog](#) (see page 250) that provides information about the actions associated with this step.

Mode

Indicates if this step will be performed by CA CSM or you.

Auto

An *automatic step* is a step that CA CSM performs automatically. This designation is either predefined by the product you are configuring, or may be set by you.

Note: You can change the mode of automatic steps so that they are not performed by CA CSM. Then, you will have to perform them manually outside of CA CSM.

Manual

A *manual step* is a step that CA CSM expects you to perform manually. This designation is either predefined by the product you are configuring, or may be set by you.

Note: You can change the mode of manual steps so that they are automatically performed by CA CSM.

External

An *external step* is a step that you must perform manually outside of CA CSM, and this designation is predefined by the product you are configuring.

Note: You cannot change the mode of external steps; they cannot be performed automatically by CA CSM.

Status

Contains the status of the step:

Waiting on Prereqs

This step is waiting for prerequisites to complete.

Ready

The step is not validating, but is eligible to be validated. There are no prerequisites, and it will validate as soon as the SCS address space becomes available.

Validating

This step is currently being validated by CA CSM.

Completed

This step was validated by CA CSM and is completed.

Failed

This step was supposed to be validated by CA CSM but failed.

Text

Contains an icon that you can click to see details about the processing associated with this step. If this is a manual step, you can use this information to perform the step manually.

Prereqs

Contains an icon if this step has prerequisites. Hold the mouse over the icon to see details about the prerequisites.

3. Use the following buttons to control the validation process:

Refresh

Updates the status that appears on this dialog as necessary. Although the display is updated automatically, this button lets you update manually.

Hide

Closes the Validate Configuration dialog without stopping the validation process. The process continues in the background and can be accessed from the Tasks page.

Export

Lets you [export the details of this validation to a TXT file or data set](#) (see page 257).

The validation process is started and continues until it has successfully completed or fails.

- If a step fails, you can click it to see more information.
- The steps in this dialog automatically update as operation data changes.

When the validation is completed, a message appears confirming that the validation succeeded or failed.

Implementation

You implement a configuration to make your deployed software fully functional. Implementation executes on the target system, applying the variables, resources and operations defined in the configuration.

When you start the implementation, CA CSM evaluates the defined operations and determines which of them need to execute. The selected operations are presented as a list of steps that you must release so that they can be eligible to execute after their prerequisite steps have completed.

Note: Validation and implementation of a configuration may require exclusive access to data sets specified by the configuration. Using data sets outside of CA CSM, such as ISPF edit and browse data sets, can introduce data set contention, which can result in validation and implementation errors. Therefore, while validation or implementation of a configuration is in progress, refrain from using the data sets specified by the configuration that are outside of CA CSM.

Stopping Implementation

After you start an implementation, you can stop it. Stopping an implementation prevents remaining steps that are not already executing from starting. Any steps that are already executing will complete processing, and then the status of the configuration changes to Implementation Stopped.

If you stop the implementation before it completes, you must make another request to implement the configuration, and CA CSM makes another evaluation of what operations need to execute. The list of operation steps may change because some operations may have already been completed and some changes in the target environment may make others no longer necessary. The list of steps only includes operations that are currently required.

Releasing Steps

When you open the Implementation dialog, the steps are all held. Steps are not executed until you release them. You can release all steps at once by clicking Release All, release the next step in sequence by clicking Release Next, release multiple steps by selecting them and clicking Release, or release any individual step by clicking the Release action in the Actions drop-down list for that step.

If you release all steps at once, the implementation process progresses automatically, except for manual steps performed outside of CA CSM. For any manual steps, you must confirm in CA CSM that you performed them.

After you release a step, it becomes eligible for execution when all of its prerequisite steps are complete. Releasing steps independently lets you control the release of each step.

Note: After you release a step, you cannot return it to held status unless you [stop the implementation](#) (see page 241) before that step begins executing.

A configuration has a status of Implementing as soon as you open the Implement Configuration dialog, even if you have not yet released any operation steps.

Manual Step Confirmation

Some configurations contain steps that you must perform manually, outside of CA CSM. You can also set automatic steps for manual execution if you want to perform them outside of CA CSM instead of letting CA CSM perform them.

For these steps, you must explicitly confirm that the described operation has been completed successfully. Doing so completes the operation for CA CSM and causes any of the prerequisites defined in other steps within the implementation to be satisfied.

Execution Sequence

Steps are numbered for reference purposes only. CA CSM supports concurrent execution of operations. The execution sequence is determined by the prerequisites associated with each step. Steps cannot execute until you release them *and* all of their prerequisite operations have executed successfully.

How to Address Implementation Failures

The process of addressing a failed implementation includes the following steps:

1. [Drill down into the step and action details](#) (see page 250) and analyze the details to determine the cause of the failure.
2. If the error is related to a problem in your environment, make the necessary changes to your environment to correct whatever is causing the failure, and [implement this configuration](#) (see page 243) again.

3. If the error is related to the configuration settings in CA CSM, do the following:
 - a. Go to the Deployments tab and [create a new configuration](#) (see page 212).
 - b. When you reach the fourth step of the wizard ([Create Target Settings](#) (see page 222)), import the values from the configuration that failed from the Use Configuration Values drop-down list, and then change any errant variables.
 - c. Do *one* of the following:
 - Save your progress, exit the wizard and delete the previous configuration. This will prevent duplicate resource problems if you did not change for things such as HLQs and PDS member names from their previous values.
 - Change values for things such as HLQs and PDS member names to prevent duplicate resources from being created, and optionally delete the old configuration now as well.
 - d. Complete the remaining steps of the wizard and [build the configuration](#) (see page 235).
 - e. Return to the Configuration tab and [implement that configuration](#) (see page 243).

Implement Configuration

You implement a configuration to make your deployed software fully functional. Implementation executes on the target system, applying the variables, resources and operations defined in the configuration.

Note: You can only implement configurations with a status of Build completed, Validated, Validation error, Implementation stopped, or Implementation error.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and locate the configuration you want to implement.
2. Click the Actions drop-down list to the right of the configuration, and select Implement.

Note: If the target deployment resources associated with this configuration changed after the product was deployed, a warning dialog appears. This dialog displays the changed deployment resources for you to confirm that you want to continue.

The Implement Configuration dialog opens. This dialog contains information about the current status, and a table of numbered operation steps containing the following columns:

Select

Contains a check box for each step that you can click to select this step to perform an action against. The actions are listed immediately above this column. Use this column to select multiple steps.

After selecting check boxes in this column, you can perform the following actions against multiple steps:

Set Automatic

Changes the mode of selected manual steps so that they are automatically performed by CA CSM as soon as they are released and all prerequisites have been satisfied.

Note: You cannot change the mode of external steps; they cannot be performed automatically by CA CSM.

Set Manual

Changes the mode of selected automatic steps so that they become manual steps that you must perform outside of CA CSM.

Release

Releases selected steps. The steps become eligible for execution when all of their prerequisite steps are complete.

Bypass

Skips these steps. When you click Release All, these steps are not released. If these steps are prerequisites for other steps, those prerequisite steps are satisfied and will be executed when they are released.

Confirm

For manual or external steps, [confirms](#) (see page 242) to CA CSM that the steps have been completed successfully, and satisfies any prerequisites defined in other steps within the implementation.

Note: Before confirming a step, click the icon in the Text column to review the details about the processing associated with this step and verify that these steps have been manually performed.

Step

Contains a linked description of the operation to be performed in this step. Clicking the link [opens a separate dialog](#) (see page 250) that provides information about the actions associated with this step.

Mode

Indicates if this step will be performed by CA CSM or you.

Auto

An *automatic step* is a step that CA CSM performs automatically. This designation is either predefined by the product you are configuring, or may be set by you.

Note: You can change the mode of automatic steps so that they are not performed by CA CSM. Then perform them manually outside of CA CSM.

Manual

A *manual step* is a step that CA CSM expects you to perform manually. This designation is either predefined by the product you are configuring, or may be set by you.

Note: You can change the mode of manual steps so that they are automatically performed by CA CSM.

External

An *external step* is a step that you must perform manually outside of CA CSM, and this designation is predefined by the product you are configuring.

Note: You cannot change the mode of external steps; they cannot be performed automatically by CA CSM.

Status

Indicates the status of the step.

Held

This step will not execute until you release it, and all of its prerequisites have completed.

Waiting on Prereqs

This step is waiting for prerequisites to complete.

Ready

The step is not executing, but is eligible to be executed. No prerequisites exist, and it will execute as soon as the SCS address space becomes available.

Executing

This step is currently being executed by CA CSM.

Awaiting Confirmation

This is an external or manual step that you must perform manually, external to CA CSM. Explicitly confirm that the described operation has been completed successfully. Doing so completes the operation for CA CSM and causes any of the prerequisites defined in other steps within the implementation to be satisfied.

Confirmed

This is an external or manual step that was performed manually outside of CA CSM and was confirmed as completed.

Completed

This step was performed by CA CSM and is completed.

Failed

This step was supposed to be performed by CA CSM but failed.

Text

Contains an icon that you can click to see details about the processing associated with this step. If this is a manual step, you can use this information to perform the step manually.

Prereqs

Contains an icon if this step has prerequisites. Hold the mouse over the icon to see details about the prerequisites.

Actions

Contains a drop-down list for each step that lets you perform the following actions:

Set Automatic

Changes the mode of a manual step so that it is automatically performed by CA CSM as soon as it is released and all prerequisites have been satisfied.

Note: You cannot change the mode of external steps; they cannot be performed automatically by CA CSM.

Set Manual

Changes the mode of an automatic step so that it becomes a manual step that you must perform outside of CA CSM.

Release

Releases this step, which makes it eligible for execution when all of its prerequisite steps are complete.

Bypass

Skips this step. When you click Release All, this step is not released. If this step is a prerequisite for other steps, those prerequisite steps are satisfied and will be executed when they are released.

Confirm

For manual or external steps, [confirms](#) (see page 242) to CA CSM that the step has been completed successfully, and satisfies any prerequisites defined in other steps within the implementation.

Note: Before confirming a step, click the icon in the Text column to review the details about the processing associated with this step and verify that these steps have been manually performed.

3. Do one of the following:
 - Click Release All to release all steps at once. You will still need to perform and confirm manual and external steps.
 - Click Release Next to release the next step in sequence. You will need to continue to click Release Next for each subsequent step, and confirm manual and external steps.
 - Click the Action drop-down list for a specific step. Select Release to release automatic steps, Bypass to skip automatic steps, Confirm to confirm manual or external steps, Set Automatic to change the mode of manual steps, or Set Manual to change the mode of the automatic steps.
 - Click the check boxes in the Select column to select multiple steps to perform actions against.

Note: While an implementation is in progress, you can perform other work. You can click Hide to exit the dialog and [view the status of the implementation task](#) (see page 255) later from the [Tasks tab](#) (see page 299).

4. Use the following buttons near the top of the dialog to control the implementation process:

Release All

[Releases all steps](#) (see page 241) so that they can execute. However, steps will not execute if they have prerequisite steps that have not completed.

Note: Processing continues until the implementation is complete, fails, or has been manually stopped.

Release Next

[Releases only the next step](#) (see page 241) so that it can execute. However, the step will not execute if it has prerequisite steps that have not completed.

Note: If you click this button, continue to click it to release subsequent steps.

Stop

[Stops the implementation process](#) (see page 241). If you click Stop, this run of the implementation is stopped, and no non-executing steps will be started. You can start another run of the implementation from the Configurations tab by selecting the configuration and clicking Implement.

Refresh

Updates the status that appears on this dialog as necessary. Although the display is updated automatically, this button lets you update manually.

5. (Optional) You can also use the following buttons near the bottom of the dialog:

Hide

Closes the Implement Configuration dialog without stopping the implementation process. The process continues in the background and can be accessed from the Tasks tab.

Export

Lets you [export the details of this implementation to a TXT file or data set](#) (see page 257).

The implementation process is started and continues until it has successfully completed, is stopped manually, or fails.

- If a step fails, you can click it to see more information.
- The steps in this dialog automatically update as data changes.

When the implementation is completed, a message appears confirming that the implementation succeeded or failed.

View Step and Action Details

The Validate Configuration and Implement Configuration dialogs contain links that let you drill down for more information about each step, and each action associated with each step.

Follow these steps:

1. On the Validate Configuration or Implement Configuration dialog, click the link for the step you want to view details for.

An Actions dialog opens that contains the actions associated with this step, as links if more information is available. This dialog contains the following columns:

Name

Identifies the name of an action.

Type

Identifies one of the following types for this action:

Action

This is actual action.

Backup

This action performs a backup operation if the action is recoverable.

Commit

This action makes the changes from previous actions permanent.

Rollback

This action reverts the changes from previous actions.

Group

Identifies one of the following groups associated with this action:

Operation action

Describes the set of actions that perform the function of the operation.

Preop recovery

Describes the set of actions to be performed before all other actions in the operation.

Postop recovery success

Describes the set of actions to be performed if all actions complete successfully.

Postop recovery failure

Describes the set of actions to be performed if any action completes unsuccessfully

Cleanup

Describes the set of actions to be performed after all other actions in the operation.

SRVC-CC

Identifies the CA CSM services completion code for this action.

Note: This is an internal CA CSM completion code returned from the executed service in the SCS address space (see definition on page 385).

SRVC-RC

Identifies the CA CSM services return code for this action.

Note: This is similar to the z/OS completion code.

Status

Identifies the status for this action.

2. Click the link for the action you want to view details for.
Another dialog opens that contains details about this action.

Delete Configurations

You can delete configurations that you have previously created if they become unnecessary.

You cannot delete configurations with a status of Build started, Validating, or Implementing. If a configuration has a task running, stop the task before deleting the configuration.

Note: Deleting a configuration in CA CSM only deletes it from CA CSM. Deleting does not reverse the configuration or change your mainframe environment.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and select the configurations you want to delete.
2. Click the Delete link near the top of the right pane.
A dialog appears confirming that you want to delete this configuration.

3. Click OK in response to the confirmation dialog.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

Reset Configuration Status

If there are interruptions in the implementation of a configuration, you can reset the status of the configuration to allow for further configuration processing. Examples of interruptions include IPL of the z/OS system or any stoppage of the SCS address space during the processing.

Note: Resetting the status also releases any locks placed on the configuration by the web-based interface. These locks are used to prevent multiple users from modifying the configuration concurrently.

Follow these steps:

1. Click the [Configurations tab](#) (see page 289) and locate the configuration you want to reset the status of.
2. Click the Actions drop-down list to the right of the configuration, and select Reset Status.
A dialog appears confirming that you want to reset the status of this configuration.
3. Click OK in response to the confirmation dialog.
A message appears confirming that the status was reset.

Chapter 11: Working with Tasks

A task is generated every time you perform a long running action or an action that contains several commands. For example, installing a product, migrating an SMP/E environment into CA CSM, or applying maintenance to a product starts a task.

You manage tasks on the [Tasks page](#) (see page 299).

When a task starts, it runs as a background task on the CA CSM application server. A [task details dialog](#) (see page 300) opens that shows the progress of the task. When the task completes, you can click Show Results on the Progress tab to close this dialog and open the [task output browser](#) (see page 301) to [view the details](#) (see page 254) of the actions, task commands and their output. You can click Hide to exit the dialog and view the task status later on the Tasks tab. While a task is in progress, you can perform other work or close the browser.

This section contains the following topics:

- [View Task Details](#) (see page 254)
- [View Implementation Task Details](#) (see page 255)
- [Download Task Details](#) (see page 255)
- [Export Implementation Details](#) (see page 257)
- [Delete a Task](#) (see page 258)
- [Task Management Policies](#) (see page 259)

Besides standard CA CSM tasks running on the CA CSM application server, there is a special task type: implementation tasks. Implementation tasks are run by SCS address spaces and performed when you manage product configurations. You manage implementation tasks on the Tasks tab using the implementation dialog that opens when you click the implementation task name.

View Task Details

You can view results of completed tasks. Reviewing tasks can help you recover from a failed task.

Follow these steps:

1. Click the Tasks tab, and do one of the following:
 - To view details of a completed task that has not been already viewed, click the Current Tasks subtab.
 - To view details of a completed task that has been viewed, click the Task History subtab.
 - To view details of an audit task, click the Audit Task History.A list of tasks appears.

Note: You can filter tasks using the Show drop-down lists.
2. Locate the task that you want to view, and click the Name link.

The [task output browser](#) (see page 301) opens.

Note: If you are viewing results of a completed task from the Current Tasks tab, a [task details dialog](#) (see page 300) appears first. Click Show Results on the Progress tab to close this dialog and open the task output browser.
3. Review task details navigating through the tree on the left side:
 - To review general information and a list of steps executed during task processing, click the task name.
 - To review general information about the step and detailed output, click the task step name.
 - To review detail information about actions performed during a step, click the detail output level. You can search for particular instances in the output. If the output contains more than one page of data, you can browse the output using the page counter in the top right corner.

Note: You can display diagnostic information for a task by configuring the [diagnostic log settings](#) (see page 302) or [save details of a task or a task step](#) (see page 255) for further analysis.
4. Click Close on the top right corner.

The task output browser closes. You are redirected to the Tasks page.

Note: A reviewed finished task moves to the Task History tab. (Click the Refresh button to see the task removed from the list.)

Note: This procedure does not apply to implementation tasks.

View Implementation Task Details

When you implement a configuration, the tasks associated with that implementation appear on the [Tasks tab](#) (see page 299). Implementation tasks run on the SCS address space (see definition on page 385), and are prefixed with *Impl* - in the Task ID column.

Note: Implementation tasks are created when you [validate](#) (see page 238) or [implement](#) (see page 243) a configuration.

Follow these steps:

1. Click the Tasks tab and locate the implementation task whose details you want to view.
2. Click the link in the Name column for the task.

The Implementation dialog opens, where you can start, monitor, and stop the execution of your configured software.

Download Task Details

You can save details of a task or a task step for further analysis. You can save details as a TXT file, a ZIP file, or a data set.

Follow these steps:

1. Click the Tasks tab, and do one of the following:
 - To save results of a completed task that has not been reviewed, click the Current Tasks subtab.
 - To save results of a completed task that has been viewed, click the Task History subtab.
 - To save results of an audit task, click the Audit Task History.A list of tasks appears.

Note: You can filter tasks using the Show drop-down lists.
2. Locate the task whose details you want to save, and click the Name link. The [task output browser](#) (see page 301) opens.

Note: If you are viewing results of a completed task from the Current Tasks tab, a [task details dialog](#) (see page 300) appears first. Click Show Results on the Progress tab to close this dialog and open the task output browser.

3. To save the task as a ZIP file, do the following:

- a. Click Download Zipped Output at the top right corner.

Note: To save a step of the task as a ZIP file, click the step from the tree on the left side, and click Download Zipped Output at the top right corner.

A file download window appears.

- b. Follow the instructions in your browser to save the file.

The task is saved in the selected format.

4. To save detailed output of a step, do the following:

- a. In the task tree on the left side, click the step that contains the detail output.

The step details appear on the right side.

- b. In the Detailed Output section, click the Actions drop-down list to the right of the detailed output that you want to save, and select one of the following options:

Download as TXT

Downloads the details as a TXT file. Follow the instructions in your browser to save or open the file. When printing the TXT file, you can reduce the font size and use landscape mode to minimize line wrapping problems.

Download as ZIP

Downloads the data as a ZIP file. Follow the instructions in your browser to save or open the file.

Save as Data Set

Saves the data as a data set. Enter the data set name, and click OK. VOLSER and storage class are optional.

The detailed output is saved to the specified location in the selected format.

Note: This procedure does not apply to implementation tasks.

Export Implementation Details

You can export details about the implementation of a configuration to a TXT file or a data set. These details include general information about the configuration, and its operations and actions.

Follow these steps:

1. Click the Tasks tab and locate the implementation task that you want to export details for.

Note: Implementation tasks are created when you [validate](#) (see page 238) or [implement](#) (see page 243) a configuration.

2. Click the link in the Name column for the task.

The Implementation dialog opens.

3. Click the Export drop-down list and select one of the following options:

Download as TXT

Downloads the details as a TXT file. Follow the instructions in your browser to save or open the file. When printing the TXT file, you can reduce the font size and use landscape mode to minimize line wrapping problems.

Save as Data Set

Saves the details as a data set. Complete the following fields in this dialog and click OK:

Data Set Name

Specify the data set name.

VOLSER

(Optional) Specify the volume serial number.

Limits: 1-6 characters

Storage Class

(Optional) Specify the storage class.

Limits: 1-8 characters

The implementation details are saved to the specified location.

Delete a Task

You can delete completed tasks if you do not need them anymore. Deleting a task also deletes any associated files from the file system.

Deleting a task does *not* affect task results. For example, if you delete a task representing a user setting change, the settings remain intact.

Note: You cannot delete an active task. You cannot delete a task that is associated with a [pending installation](#) (see page 57) in progress.

If you delete a task that is being viewed by another user, a notification message appears, and you are prevented from deleting the task. You can either wait until the notification message disappears (in this case, the task will be immediately deleted), or click Cancel to select another task.

When you delete a task, an audit task with the deleted task details is generated. You can view audit tasks on the Audit Task History page. Audit tasks cannot be deleted.

You can act on more than one task using the action link. You can select all listed tasks using the check box in the header row.

Follow these steps:

1. Click the Tasks tab, and do one of the following:
 - Click the Current Tasks subtab if you want to delete a completed task that has not been reviewed.
 - Click the Task History subtab if you want to delete a reviewed completed task.A list of tasks appears.

Note: You can filter tasks using the Show drop-down lists.
2. Locate the task that you want to delete, and click Delete Task from the Actions column.

Note: If the Delete Task button is disabled, [check your security settings](#) (see page 338).

A delete confirmation window appears.
3. Confirm the deletion.

A notification message is displayed while the deletion is in progress. The task is deleted from the list of tasks.

A new audit task is generated for the deleted task on the Audit Task History subtab. (Click the Refresh button to see the task created in the list.)

Task Management Policies

CA CSM can mass offload (move, copy, or delete) user task output kept within CA CSM by utilizing the policy wizard. Use this functionality with either the Move or Delete policy types to ensure that the file system being used for task output does not continue to grow and use excessive DASD space. Create site policies to ensure that the operational standards and goals are adhered to.

The policy types Copy and Move can send the existing task output that is selected by the executing policy to either JES or a sequential data set. You can execute a policy immediately after it is created or set a schedule for when you require the policy to execute.

You can select from the following types of tasks:

Product Tasks

Include tasks that are related to products. The following task types belong to product tasks:

- Base installation tasks
- Maintenance installation tasks
- Product SMP/E maintenance tasks
- Product acquisition tasks
- Deployment tasks
- Configuration tasks
- Implementation tasks
- FIXCAT update tasks

Housekeeping Tasks

Include tasks that are related to setting up and configuring CA CSM. The following task types belong to housekeeping tasks:

- System settings tasks
- Product catalog tasks
- System registry tasks

Audit Tasks

Include audit tasks that represent tasks deleted from CA CSM and task policy tasks that are created when a task management policy executes. The following task types belong to audit tasks:

- Task deletion tasks
- Policy management tasks

You can archive tasks into sequential data sets or onto a JES spool. The exported tasks are encoded in the code page IBM-1047/103 Latin 1 (Open Systems). You can create archives for all tasks run daily, weekly, individually for each task, or for all of the tasks specified in one policy.

You can store policies for future usage and can trigger them manually or automatically with a CA CSM scheduling mechanism or an external scheduler.

After the execution finishes, you can view several reports that are based on output of the task execution. You can [browse the reports in the output browser](#) (see page 301). The reports include the following:

Task Report

Provides details about tasks that were processed (copied or deleted) during policy execution. For copied tasks, the data set into which task output was copied to is also mentioned.

Locked Task Report

(Optional) Provides details about tasks that could not be processed (copied or deleted) because they were locked at the time of processing.

Data Sets Report

Provides details about data sets created during policy execution (copy or move) and contents of those data sets (tasks copied) not applicable for deletion.

Summary Report

Provides general statistics for the policy, including name, type, organization, data set symbolics, and details about the execution.

Execution Log

Provides a log of all actions which occurred during policy execution. To enable the execution log, [change the diagnostic log level to Debug](#) (see page 303).

This section contains the following topics:

[Create a Policy](#) (see page 261)

[Execute a Policy](#) (see page 262)

[Delete a Policy](#) (see page 263)

Create a Policy

Use the Policy wizard to create policies. The wizard guides you through steps to choose what actions the policy performs, criteria for the tasks to be processed, and scheduling information.

When you create a policy with the Policy wizard, you can enable scheduling. You can schedule policies to run daily or weekly. You schedule the policy to run based on the system time. The system time reflects your CA CSM application server time zone. Local time is calculated based on the system time that you set.

Daily

Allows you to schedule a policy to run daily or every x number of days. For example, every two days at 4pm.

Weekly

Allows you to schedule a policy to run on a specified day of the week every week or every x number of weeks. For example, on Monday at 7am every two weeks.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

Follow these steps:

1. Click the Tasks tab and then click the Manage History subtab.
The Manage History subtab opens showing cards for any policies that have been previously created.
2. Click Create a New Policy.
The Policy wizard opens to the Introduction step.
3. Follow the instructions on the wizard to navigate through the wizard steps.

Note: When using the JES Spool option, the Output Descriptor selections are only available when they are added to the CA CSM startup JCL. For more information, see the *Administration Guide*.

4. When you are on the Summary step, review the summary and click Save.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The policy is created and can be viewed on the Manage History subtab.

Execute a Policy

You can execute policies manually or with a scheduler. You can execute any policy manually, regardless if you have enabled scheduling.

Follow these steps:

1. Click the Tasks tab and then click the Manage History subtab.

The Manage History subtab opens showing cards for any policies that have been previously created.

2. Find the policy that you want to execute, click the Actions drop-down list to the right of the policy, and select Run.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The policy is executed.

Delete a Policy

You can manually delete policies if you do not need them anymore. You cannot delete a policy while it is running.

Follow these steps:

1. Click the Tasks tab and then click the Manage History subtab.

The Manage History subtab opens showing cards for any policies that have been previously created.

2. Locate the policy that you want to delete, and click Delete from the Actions drop-down list to the right of the policy.

A delete confirmation window appears.

3. Confirm the deletion.

A dialog that shows the progress of the task opens. When the task completes, you can click Show Results on the Progress tab to close this dialog. The [task output browser](#) (see page 301) opens and you can [view the action details](#) (see page 254). Click Close to close the task output browser.

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 on the [Tasks tab](#) (see page 299).

The policy is deleted.

Appendix A: User Interface

The topics in this section provide details for the pages that appear in CA CSM the web-based interface.

This section contains the following topics:

- [Software Status Tab](#) (see page 265)
- [Products Tab](#) (see page 266)
- [SMP/E Environments Tab](#) (see page 273)
- [Deployments Tab](#) (see page 283)
- [Configurations Tab](#) (see page 289)
- [System Registry Tab](#) (see page 291)
- [Tasks Tab](#) (see page 299)
- [Settings Tab](#) (see page 302)
- [Error Dialog](#) (see page 321)

Software Status Tab

The Software Status tab provides the following information:

- Relevant product news from CA Technologies. Click Refresh to update the product news.
- Notifications for:
 - New maintenance, including HIPERs available for updated products in Software Catalog
 - New products, new releases, and gen levels for the products in Software Catalog
 - New CA RS files downloaded in CA CSM
- Maintenance notices for managed SMP/E environments in your working set
- Status of any requested tasks

The tab contains the following buttons:

View Details

Displays a dialog that lists the products or SMP/E environments that are missing HIPER and other maintenance, or new products, releases, and gen levels in Software Catalog. Click the links in this dialog to close it and navigate directly to the applicable Products page.

View Tasks Status

Displays a dialog that lists your tasks that are in progress or require your attention.

The Quick Actions section on the right side gives you direct access to the following tasks:

CA CSM Actions

- Migrate information about an existing SMP/E environment to CA CSM. The process starts a wizard that guides you through the migration.
- View the list of users who can acquire software.

CA CSM Information

- Open [the CA Support Online website](#) for CA CSM.
- Open the web page for the CA CSM Resource Center.
- Open the web page for the CA CSM bookshelf.

General Information

- Open the web page for CA Chorus information.
- Open the web page for CA Recommended Service.
- Open the web page for CA Technologies product release and support lifecycle dates.
- Open the web page for the CA CSM compliant product matrix.

More information:

[Migrate an SMP/E Environment](#) (see page 113)

Products Tab

The Products tab lets you download products, and install product and maintenance packages. You select the products for which you are licensed from a tree on the left side:

- If you click the gen level (for example, SPO or 0110) of a product, the Base Install Packages section appears listing the packages for the product.
- If you click the release number of a product, the Maintenance Packages section appears listing the maintenance for the product.

The Related SMP/E Environments section lists the environments that are used for previous product installations. The selected environments are the ones that are in your working set (see definition on page 388), which you can [configure](#) (see page 118). You can find out more about an environment by clicking its Name link.

The following actions are available above the Available Products section on the left side:

- Search the catalog by product name or fix number.
- [Update the product list using all available site IDs](#) (see page 43).
- [List product license LMP keys](#) (see page 84).
- [Add an entry for a new product to Software Catalog manually](#) (see page 47).
- [Install a *.pax.Z package that is downloaded external to CA CSM](#) (see page 54).
- [Add a CA RS file to Software Catalog manually](#) (see page 101).
- Update HOLDDATA in your software catalog. HOLDDATA can contain both Error and FIXCAT HOLDDATA.
- Filter products and display those meeting the selected filter criteria, and [configure filter criteria](#) (see page 38).
- [Show products, releases, or gen levels that are hidden from the software catalog tree](#) (see page 51).

In addition, you can right-click a vendor, product, release number, or gen level in the left panel to perform the following available actions:

- [Delete a vendor](#) (see page 42).
- Update a catalog release or a product.
- Update a release with the maintenance that has been released since the last release update date.
- Review user documents available on [the CA Support Online website](#) for the selected release.
- Add external maintenance or add an external package.
- [Delete a product, delete a release, or delete a gen level](#) (see page 52).
- [Hide a product, release, or gen level](#) (see page 50), and deletes associated packages from your system.

For example, you can right-click a gen level and select Add External Package to add an external package to the gen level in CA CSM.

Note: If a filter is applied, you can right-click the Products link at the top of the catalog tree on the left side and select Update Filtered Product List. Clicking Update Filtered Product List updates only the software catalog tree that is currently displayed for the selected filter based on specific [site IDs](#) (see page 38). If no filter is applied, the right click link shows Update Complete Product List.

More information:

[Delete a Vendor](#) (see page 42)

Products, Releases Section

The Products, Releases section lists the available releases for a product that is selected from the product list. The section also shows the number of new maintenance packages available for a release.

You can list the maintenance for a release by clicking the Release Name link.

The Releases section contains the following actions:

Add External Maintenance

Adds an externally acquired package to the selected release.

Get Latest Maintenance

Downloads the maintenance packages that have been released since the selected release was updated last time.

Update Product Release

Downloads the packages for the selected releases.

Product Documentation

Opens a list of user documents available on [the CA Support Online website](#) for the selected release. Clicking a document link opens the document in a separate browser window.

Note: If you are not currently logged in [the CA Support Online website](#), you are prompted to log in.

Delete Release

Deletes the selected release and all its packages.

Note: This option is only available for releases belonging to vendors other than CA.

Clean Up and Hide

Hides the selected release from the product list, and deletes associated packages from your system.

Note: This option is only available for releases belonging to the CA vendor.

More information:

[Delete a Product \(see page 52\)](#)

[Hide a Product from the Product List \(see page 50\)](#)

Products, Maintenance Packages Section

The Products, Maintenance Packages section lists the software maintenance packages for the product release selected on the product list. You can use the Show drop-down lists to filter listed packages by SMP/E environments, products, and source IDs including [CA RS level](#) (see page 99).

The list provides summary information about a package, including the number of SMP/E environments where the package is installed. The selected environments are the ones that are in your working set (see definition on page 388), which you can [update](#) (see page 120).

Note: To find out more about a package, click its link in the Fix # or Installed column. The [Maintenance Package Details dialog](#) (see page 270) opens.

The Maintenance Packages section contains the following buttons:

Add External Maintenance

Adds information about maintenance packages acquired outside of CA CSM (for example, unpublished maintenance or USERMODs).

Actions

Lists the actions available for a package.

Delete

Deleting this maintenance package removes it from the software catalog and also deletes it from the file system. Deleting it does not remove the maintenance from any SMP/E environments where it was previously RECEIVED or APPLIED.

Install

Installs a downloaded package. This action represents SMP/E action RECEIVE and APPLY.

The Installed column indicates whether a package is installed, and the number of SMP/E environments in which it is installed. To determine which zones the maintenance package was installed to, click the Installed link for the package (where available).

Note: You can act on more than one package using the action links. You can select all listed packages using the check box in the header row.

Maintenance Package Details Dialog

The Maintenance Package Details dialog displays the package information on the following tabs:

Details

Displays general information about the maintenance package.

Requisites

Displays any requisites that connected to the maintenance package.

Installation Status

Displays [installation status details](#) (see page 94) of the maintenance package, including a list of SMP/E environments where the package is installed, the SMP/E environment data sets, and the installation status of the package for each SMP/E environment zone.

HOLDDATA

Displays HOLDDATA entries that are contained in the maintenance package.

Note: To open HOLDDATA information in a separate browser window, click Export Table. This action is similar to running the LIST SYSMODS HOLDDATA command within your SMP/E environment.

Maintenance Package Installation Status

Maintenance packages can have one of the following installation statuses displayed in the Installed column:

Pending...

Indicates that the status is being obtained from the SMP/E environment at the moment.

Not installable

Indicates that the package is not an SMP/E installable maintenance package.

No CSI available

Indicates that there is no SMP/E environment to install the maintenance package to.

No (0/n)

Indicates that the maintenance package was not installed to any of the SMP/E environments where it could be installed.

n

Indicates the number of SMP/E environments where the package can be installed.

Some (m/n)

Indicates that the maintenance package was only installed to some of the SMP/E environments where it can be installed.

n

Indicates the number of SMP/E environments where the package can be installed.

m

Indicates the number of SMP/E environments where the package was installed.

All CSIs (n)

Indicates that the maintenance package was installed to all n SMP/E environments where it could be installed but not to all zones of each SMP/E environment.

n

Indicates the number of SMP/E environments where the package can be installed.

All zones (n)

Indicates that the maintenance package was installed to each zone of all n SMP/E environments where it could be installed.

n

Indicates the number of SMP/E environments where the package can be installed.

Note: If you sort maintenance packages by installation status, they appear in this order.

Maintenance Package Types

Maintenance packages can be one of the following types displayed in the Type column:

APAR

Indicates an Authorized Program Analysis Report (APAR), which is a temporary solution to correct a defect in a software program that influences a particular customer.

CUMULATIVE

Indicates an aggregated package comprised of several single maintenance packages (nested packages).

PDC

Indicates a Product Documentation Change (PDC) that informs customers about changes, updates, or errors in product documentation.

PEA

Indicates a Product Error Alert (PEA) that notifies customers of a HIPER problem for which there is no solution available yet.

PTF

Indicates a Program Temporary Fix (PTF), which is a temporary correction or workaround of a defect that may affect all customers.

Products, Base Install Packages Section

The Products, Base Install Packages section lists the software packages for the product gen level (for example, SPO or 0110) selected in the product list. You can use the Show drop-down list to filter listed packages by their download status.

You can find out more about a package by clicking its Name link.

The Base Install Packages section contains the following actions:

Add External Package

Adds information about packages that are acquired outside of CA CSM (for example, if you have acquired a package using ESD).

Download

Acquires the selected package from [the CA Support Online website](#).

The Download Status column indicates whether a package is downloaded. If the process is in progress or encounters an error, a link appears to enable you to get more information.

Actions

Lists the actions available for a package.

Delete

Deleting this maintenance package removes it from the software catalog and also deletes it from the file system. Deleting it does not remove the maintenance from any SMP/E environments where it was previously RECEIVED or APPLIED.

Install

Installs a downloaded package. This action represents SMP/E action RECEIVE and APPLY.

SMP/E Environments Tab

The SMP/E Environments tab lets you manage the SMP/E environments on your system:

- You can identify the products installed in an SMP/E environment.
- You can accept or [back out applied maintenance](#) (see page 110).
- You can [add information about an existing environment to CA CSM](#) (see page 113).
- You can [delete an environment](#) (see page 119).

You can select your environment using the Search and SMP/E Environments sections on the left side:

- You can select the information you want from the tree on the left side.
- You can search for an environment or FMID.

The top level of the tree lists the environments on the right side. You can perform the following actions:

- You can select a number of environments as your [working set](#) (see page 118).
- You can display only those SMP/E environments that are in your working set by clicking Show Working Set Only.

The SMP/E Environments tab contains the following actions:

Add to Working Set or Remove from Working Set

Adds or removes the SMP/E environment to or from your working set (see definition on page 388).

Change Name

[Edits the name of an SMP/E environment](#) (see page 121).

Edit Tags

[Assigns one or more tags](#) (see page 117) to an SMP/E environment. You can then use the Show drop-down list to list the environments selectively by tag.

Set Automatic Update

[Configures settings for automatic downloading and receiving CA RS maintenance packages](#) (see page 102) based on information in downloaded CA RS files.

Note: Only CA RS maintenance packages that are applicable to the SMP/E environment are evaluated. Those packages that are not yet installed and are not present within the software catalog are downloaded.

User ID

Specifies the user who runs the automatic download.

Note: You can only select the ID of the user who is currently logged in to CA CSM. CA CSM saves the user password in an encrypted form in the CA CSM database.

CSO Credentials

Specifies credentials of the user ID on [the CA Support Online website](#).

Recurrence

Defines the frequency of downloading CA RS maintenance packages for SMP/E environment installed products.

Update Software Catalog Every *number of Days*

or

Update Software Catalog On *day of week* Every *number of Weeks*

Defines the frequency of downloading CA RS maintenance packages for SMP/E environment installed products, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when a download process for CA RS maintenance packages for SMP/E environment installed products starts. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Local Time

Identifies local time calculated based on the system time that you set.

Update Using Fix Categories

Starts the wizard for [applying maintenance to SMP/E environment products based on FIXCAT](#) (see page 109).

Upgrade CA RS Level

[Starts the CA RS maintenance wizard](#) (see page 103) for the selected SMP/E environments. The wizard helps you install CA RS maintenance packages for SMP/E environment installed products and update their CA RS level.

Delete SMP/E Environment

[Deletes all data sets related to the SMP/E environment](#) (see page 119) from the system.

Exception SYSMOD Report

[Issues the REPORT ERRSYSMODS command](#) (see page 116). This command helps you determine whether any SYSMODs you have already processed are now exception SYSMODs, and whether any resolving SYSMODs are available for held SYSMODs.

Note: You must have write access rights to the SMP/E environment that you issue the command for.

Remove SMP/E Environment from CA CSM

[Deletes the information about the SMP/E environment from CA CSM](#) (see page 119), enabling you to clean up your list of SMP/E environments without deleting them from the system.

Create Deployment

Starts the wizard for [creating a deployment](#) (see page 164).

Note: These actions are also available when you right-click an SMP/E environment in the left panel. For SMP/E environments whose data sets have been deleted, the only available option is Remove SMP/E Environment from CA CSM.

Selecting an environment displays its information in subtabs:

- Installed Products that lists the products that are installed in the environment
- SMP/E Environment Information that displays information such as the data set name and zones
- Maintenance that lists maintenance for products installed in the environment
- Pending Installations that lists pending tasks for products being installed in the environment

The tab contains the following links in the Actions section on the left side:

Migrate SMP/E Environment

[Migrates an existing SMP/E environment to CA CSM](#) (see page 113) so that CA CSM can manage the products installed using that SMP/E environment.

For example, you have an SMP/E environment created by other means. After you migrate that SMP/E environment to CA CSM, you can use CA CSM to apply maintenance on the installed products in that SMP/E environment.

More information:

- [Back Out Maintenance](#) (see page 110)
- [Migrate an SMP/E Environment](#) (see page 113)
- [Generate an Exception SYSMOD Report for an SMP/E Environment](#) (see page 116)
- [Remove or Delete an SMP/E Environment](#) (see page 119)
- [Change the SMP/E Environment Name](#) (see page 121)

SMP/E Environments, Installed Products Tab

The SMP/E Environments, Installed Products tab lists the products installed in the selected SMP/E environment.

You can find out more about a product by clicking its Product ID links. The information has the following hierarchy:

- Features and functions
- Maintenance for a function

The Installed Products section contains the following action:

Upgrade CA RS Level

Starts the CA RS maintenance wizard for the selected products installed in the SMP/E environment that helps you install CA RS maintenance packages for the installed products and update their CA RS level.

Note: If the SMP/E environment has [pending installations](#) (see page 58), CA CSM displays a warning message.

SMP/E Environments, SMP/E Environment Information Tab

The SMP/E Environments, SMP/E Environment Information tab identifies the SMP/E environment data set and zones. You can find out more about a zone by clicking its link.

The tab can contain the following buttons:

Change Name

[Edits the name of an SMP/E environment](#) (see page 121).

Delete SMP/E Environment

[Deletes all data sets related to the SMP/E environment](#) (see page 119) from the system.

Remove SMP/E Environment from CA CSM

[Deletes the information about the SMP/E environment from CA CSM](#) (see page 119), enabling you to clean up your list of SMP/E environments without deleting them from the system.

Create Deployment

Starts the wizard for [creating a deployment](#) (see page 164).

Exception SYSMOD Report

[Issues the REPORT ERRSYSMODS command](#) (see page 116). This command helps you determine whether any SYSMODs you have already processed are now exception SYSMODs, and whether any resolving SYSMODs are available for held SYSMODs.

Note: You must have write access rights to the SMP/E environment that you issue the command for.

Set Automatic Update

Configures settings for automatic downloading and receiving CA RS maintenance packages for products installed in the SMP/E environment.

Note: Only CA RS maintenance packages that are applicable to the SMP/E environment are evaluated. Those packages that are not yet installed and are not present within the software catalog are downloaded.

User ID

Specifies the user who runs the automatic download.

Note: You can only select the ID of the user who is currently logged in to CA CSM. CA CSM saves the user password in an encrypted form in the CA CSM database.

CSO Credentials

Specifies credentials of the user ID on [the CA Support Online website](#).

Recurrence

Defines the frequency of downloading CA RS maintenance packages for SMP/E environment installed products.

Update Software Catalog Every *number of Days*

or

Update Software Catalog On *day of week* Every *number of Weeks*

Defines the frequency of downloading CA RS maintenance packages for SMP/E environment installed products, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when a download process for CA RS maintenance packages for SMP/E environment installed products starts. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Local Time

Identifies local time calculated based on the system time that you set.

Clear Automatic Update

Cancels the automatic update feature and all its settings for the SMP/E environment.

Update Using Fix Categories

Starts the wizard for [applying maintenance to SMP/E environment products based on FIXCAT](#) (see page 109).

Upgrade CA RS Level

Starts the CA RS maintenance wizard for the selected SMP/E environments. The wizard helps you install CA RS maintenance packages for SMP/E environment installed products and update their CA RS level.

Add or Remove

Adds or removes the SMP/E environment to or from your working set (see definition on page 388).

SMP/E Environments, Maintenance Tab

The SMP/E Environments, Maintenance tab lists the software maintenance packages for the products in the selected environment. Within the environment, you can filter maintenance packages displayed on the Maintenance tab [by zone and by function](#). (see page 121)

Note: If the SMP/E environment has [pending installations](#) (see page 58), CA CSM displays a warning message. You cannot install any maintenance to a product that is partially installed until you complete the pending installation.

Additionally, you can filter the listed maintenance packages in the table by their [CA RS level](#) (see page 99) and by column. Use the Show drop-down list to filter the listed packages by their CA RS level. Select the Filter check box in the table header to enable column filters. Type in a filter text box or combo box or select an item from a filter drop-down list or combo box to define a filter. CA RS level, and column filters are applied automatically. You can apply multiple filters simultaneously.

Note: Clearing the Filter check box disables the column filters and refreshes the table. Reselecting the Filter check box enables the previously defined filters.

You can find out more about a package by clicking one of the following:

- The [Fix # link](#) (see page 270)
- The Status link, where available
- The description icon () in the Function column, where available

The Maintenance section contains the following actions:

Install

Installs a downloaded package.

Note: Installation of a maintenance package means receiving and applying the maintenance.

Receive

Receives a maintenance package.

Apply

Applies a received maintenance package.

You can select zones where the maintenance can be applied, and you can perform one of the following actions for the received maintenance:

- Apply
- Apply check and apply
- Apply check

Apply GROUPEXTEND

Applies a received maintenance package in GROUPEXTEND mode.

You can select zones where the maintenance can be applied, and you can perform one of the following actions for the received maintenance:

- Apply
- Apply check and apply
- Apply check

You can also define SYSMODs that you want to exclude during applying.

Accept

Accepts an applied maintenance package.

You can select zones where the maintenance can be accepted, and you can perform one of the following actions for the applied maintenance:

- Accept
- Accept check and accept
- Accept check

Note: As a best practice, CA CSM prevents you from accepting USERMODs.

Accept GROUPEXTEND

Accepts an applied maintenance package in GROUPEXTEND mode.

You can select zones where the maintenance can be accepted, and you can perform one of the following actions for the applied maintenance:

- Accept
- Accept check and accept
- Accept check

You can also specify SYSMODs that you want to exclude during accepting.

Note: As a best practice, CA CSM prevents you from accepting USERMODs.

However, the GROUPEXTEND mode can install USERMODs if they are prerequisites for the maintenance package being installed, unless you enable the NOUSERMODS option.

Reject

Removes the software that is the subject of this maintenance package. If there is conflict between the package and the software it maintains, you can perform the REJECT process and then install the package.

Restore

Removes an applied maintenance package. You can select zones where the maintenance can be restored.

If you change an SMP/E environment outside CA CSM (for example, if you have not used CA CSM to install a USERMOD), you can add that USERMOD to the list. To do so, click the Update button. However, we recommend that you [add a USERMOD to CA CSM](#) (see page 88) first and then use CA CSM to install it.

Note: You can act on more than one package using the action links. You can select all listed packages using the check box in the header row.

SMP/E Environments, Pending Installations Tab

The SMP/E Environments, Pending Installations tab displays [pending installations](#) (see page 57) for the products being installed to the selected SMP/E environment.

Note: An SMP/E environment can have only one pending installation at a time.

From the Pending Installations tab, you can find the details of the initial installation task including the name of the product being installed. You also review the task output details.

You can review the details for Apply Check and Accept Check and take appropriate actions: continue with the installation, rerun a failed step, or roll back the whole installation.

The Pending Installation for *task_name* section contains the following fields and buttons:

Refresh

Updates the list of pending actions.

Show Results

Opens the [task output browser](#) (see page 301) where you can review details for the installation action.

In the case when the CA CSM application server shut down while the pending installation was executing, the following button appears in the Pending Installation for *task_name* section:

Delete Pending Installation

Lets you delete the whole installation, remove installation details from the database, and unlock the SMP/E environment for future installations.

Note: After you delete the pending installation, you may need to perform maintenance of the SMP/E environment outside of CA CSM to completely remove any output created by the pending Installation.

The Available Actions section can contain the following buttons:

Actions

Lists the following actions available for a pending action.

Continue

Continues the installation process and executes a new installation action that follows the step where the installation was suspended.

This option is only available when the Apply Check or Accept Check step completed successfully.

Show Progress

Opens the [task details dialog](#) (see page 300) where you can review how the action is executing.

Show Results

Opens the [task output browser](#) (see page 301) where you can review details for the installation Apply Check or Accept Check step.

Rerun

Runs an installation action again.

This option is only available when the Apply Check or Accept Check step failed.

Rollback

Rolls back the installation. Rollback undoes the previous installation action. CA CSM restores the SMP/E environment to the state before the previous installation action started executing. Any output that the pending installation process created is deleted.

More information:

[Execute Apply Check and Accept Check During Base Installation](#) (see page 56)
[Review Pending Tasks and Continue the Installation](#) (see page 80)

Deployments Tab

The Deployments tab lets you select deployments you want to create, review, update, or remove. You also [create configurations](#) (see page 212) from this tab.

You also [create configurations](#) (see page 212) from this tab.

The tab includes the following sections in the left pane:

Search

Lets you search for a deployment by name.

Actions

Lets you perform the following actions related to setting up and creating deployments:

Create Deployment

Opens the New Deployment wizard, which helps you create a deployment.

Deployments

Lets you perform actions related to maintaining the deployments already created, including configuration. This section contains the following links that organize the deployments by their status:

Under Construction

Displays all deployments that are under construction.

Snapshot Completed

Displays all deployments that have had a snapshot taken, but are not deployed.

Deployed

Displays all deployments that have been deployed.

Configurable

Displays all deployments that are deployed and ready for configuration.

You can expand each of these links to display the deployments associated with each status. You can then expand each deployment to display the products associated with each deployment. At each step, there are actions that you can perform by right-clicking.

Actions at Deployment Level

You can perform the following actions by right-clicking the Deployment links:

Preview or Summary

Lists what has been assigned to this deployment including name, products, systems, transport, target libraries, SMP/E Environments, and snapshot information.

This action displays as Preview if you have not yet deployed this deployment, and as Summary if you have.

Snapshot

A *snapshot* is a copy of the set of target libraries that CA CSM makes using the IBM utility GIMZIP. CA CSM uses GIMZIP to create a compressed archive of these libraries, including a list of applied maintenance. The SMP/E environment is locked during this archive creation process to verify the integrity of the archived data.

This action is available only if you have not already taken a snapshot of the deployment.

Transmit

The *transmit* functionality lets you copy a product onto systems across the enterprise through FTP, in preparation for a subsequent deployment. After you perform this action, the deployment remains undeployed until you deploy it.

This action is available only if you have not already transmitted the deployment.

Deploy

The *deploy* functionality combines the snapshot, transmit, and deploy actions into one action, letting you copy your CA CSM product onto systems across your enterprise. For example, you can send one or many products to one or many systems by copying it to a shared DASD or through FTP.

This action is available only if you have not already deployed the deployment.

Clone (see page 203)

Clones a deployment. For example, if maintenance has been applied to the SMP/E environment, you can use this action to clone or redeploy.

Selecting this action displays the Clone dialog.

Delete

Deletes the selected deployment.

Actions at Product Level

You can perform the following actions by right-clicking the Product links within each deployment:

Remove Product

Removes the product from this deployment.

This action applies only to deployments that are under construction.

[Create Configuration](#) (see page 212)

Opens the Configuration wizard, where you can define settings for configuring this product.

This action applies only to configurable deployments.

The tab includes the following sections in the right pane:

Information

Displays information about whatever currently appears and what to do next.

Deployments

Displays a list of deployments with more details than the left pane. The label for this section changes if you select a status link in the left pane.

The Actions column contains drop-down menus that let you perform the same **Actions at Deployment Level** previously described in this topic.

Click a deployment link to display [details about this deployment](#) (see page 286).

More information:

[Deployment Maintenance](#) (see page 172)

[View a Deployment](#) (see page 164)

[Change Deployments](#) (see page 170)

[Initiate Deployment Creation](#) (see page 165)

[Maintain Methodologies](#) (see page 197)

[Delete Methodologies](#) (see page 200)

Deployment Details

The Deployment Details page lists the detail information for the selected deployment.

The page includes the following sections:

Deployments Details

Contains the detail information on the deployment.

Product List

Lists the products assigned to the deployment. You can perform the following actions after selecting a product:

Remove Product

Removes the product from this deployment. This action applies only to deployments that are under construction.

[Create Configuration \(see page 212\)](#)

Opens the Configuration wizard, where you can define settings for configuring this product. This action applies only to configurable deployments.

System List

Lists the systems assigned to the deployment. The Change button, if appears, opens the [Select Data Destinations dialog](#) (see page 287) that lets you review and manage system data destinations.

Custom Data Sets

Lists the custom data sets assigned to the deployment

Actions for a deployment

This is a drop down menu on the right in the deployment menu bar.

Preview

Lists what has been assigned to this deployment including name, products, systems, transport, target libraries, SMP/E Environments, and snapshot information.

Snapshot

A *snapshot* is a copy of the set of target libraries that CA CSM makes using the IBM utility GIMZIP. CA CSM uses GIMZIP to create a compressed archive of these libraries, including a list of applied maintenance. The SMP/E environment is locked during this archive creation process to verify the integrity of the archived data.

Transmit

The *transmit* functionality lets you copy a product onto systems across the enterprise through FTP, in preparation for a subsequent deployment.

Deploy

The *deploy* functionality combines the snapshot, transmit, and deploy actions into one action, letting you copy your CA CSM product onto systems across your enterprise. For example, you can send one or many products to one or many systems by copying it to a shared DASD or through FTP.

Clone (see page 203)

Clones a deployment. For example, if maintenance has been applied to the SMP/E environment, you can use this action to clone or redeploy.

Selecting this action displays the Clone dialog.

Delete

Deletes the selected deployment.

More information:

[Add a Product](#) (see page 176)

[Remove a Product](#) (see page 177)

[Add a System](#) (see page 174)

[Remove a System](#) (see page 175)

Select Data Destinations Dialog

The Select Data Destinations Dialog lists the data destinations assigned to a deployment system and lets you manage them.

The dialog includes the following buttons:

Create

Lets you [create a new data destination](#) (see page 154).

Add

Lets you [add a data destination to the selected system](#) (see page 156).

Actions

Lists the following actions available for data destinations.

Edit

Lets you [edit the data destination](#) (see page 156).

Remove

Lets you [remove the data destination](#) (see page 159).

Set as Default

Sets the selected data destination as default for the system.

The word *Default* appears in the Default column.

Use Default

For the current deployment, forces the selected system to use the data destination that is set as default.

Remote Credentials Properties Dialog

The Remote Credentials Properties dialog lists the systems that are used in your deployment, and lets you define any missing [remote credentials](#) (see page 127).

The dialog includes the following fields and buttons:

System

Indicates the system used in your deployment.

Note: For sysplexes and shared DASD clusters, this field displays the name of the corresponding contact system.

Remote User ID

Defines the remote user ID for the system.

Limits: 64 characters

Password

Defines the password for the remote user ID on the system.

Limits: 2 to 63 characters

Note: The password is case-sensitive. Verify that your password follows the correct case-sensitive rules for your remote system.

Save to Database

Specifies that the remote credentials are saved in the database and appear in the list of remote credentials on the [User Settings, Remote Credentials page](#) (see page 319).

Note: If you do not select the Save to Database check box, remote credentials that you define for the systems will be valid for the time the current action is running. If the check box is not displayed, check your settings on the [System Settings, Software Deployment page](#) (see page 314).

Default Credentials

Specifies credentials that you can define as default remote credentials and apply to all systems in the list that are missing remote credentials.

Remote User ID

Defines the remote user ID for the systems.

Limits: 64 characters

Password

Defines the password for the remote user ID on the systems.

Limits: 2 to 63 characters

Note: The password is case-sensitive. Verify that your password follows the correct case-sensitive rules for your remote system.

Save Default

Specifies that the remote user ID and password values that you define in the Default Credentials section are saved in the database and appear in the list of remote credentials on the [User Settings, Remote Credentials page](#) (see page 319).

Default: Not selected.

Note: If you do not select the Save Default check box, the default remote credentials that you define for the systems will be valid for the time the current action is running.

Configurations Tab

The Configurations tab lets you monitor the status of configurations, and perform actions against them.

The tab includes the following sections:

Search

Lets you search for a configuration by name. The Search controls are located near the top of the left pane.

Configurations

The following two Configurations sections are on the page:

- On the left side in the tree view, where you can see the products associated with each configuration
- On the right side in the main panel

The Configurations pane on the right side contains the following columns:

Select

Contains check boxes that you can click to select a configuration when using the links across the top of the right pane. You can only select multiple configurations if you are deleting configurations.

Name

Identifies the name of the configuration, as defined in the configuration wizard.

System

Identifies the system assigned to the configuration.

Status

Identifies the current [status](#) (see page 214) for the configuration.

Created

Identifies the date that the configuration was created.

Modified

Identifies the date that the configuration was last modified.

Actions

Contains a drop-down list of actions that can be performed against the configuration.

You can perform the following actions on the configurations:

Resume Configuration

Opens a previously saved configuration so that you can [resume](#) (see page 234) the Configuration wizard. You can only resume configurations with a status of Under Construction.

Delete

[Deletes configurations](#) (see page 251) that you have previously created if they become unnecessary.

Note: Deleting a configuration in CA CSM only deletes it from CA CSM. Deleting does not reverse the configuration or change your mainframe environment.

Build

[Builds a configuration](#) (see page 235) in preparation for the implementation. You can only build configurations with a status of Ready to Build or Build Failed.

Validate

Opens the [Validate Configuration dialog](#) (see page 238), where you can navigate through the implement configuration process without actually copying any files to the target system. You can only validate configurations with a status of Build completed, Validated, Validation error, or Implementation error.

Implement

Opens the [Implement Configuration dialog](#) (see page 243), where you can navigate through the implement configuration process and complete the configuration of the product on the target system. You can only implement configurations with a status of Build completed, Validated, Validation error, Implementation stopped, or Implementation error.

Rename

Lets you [rename the configuration](#) (see page 235) and update its description.

Edit

[Opens for editing](#) (see page 236) the configuration that you have previously created and built. You can only edit configurations with a status of Build completed, Build failed, Validated, or Validation error.

Reset Status

[Resets the status of a configuration](#) (see page 252) if there are interruptions in the implementation of a configuration. Examples of interruptions are IPL of the z/OS system or any stoppage of the SCS address space during the processing.

Note: Resetting the status also releases any locks placed on the configuration by the web-based interface. These locks are used to prevent multiple users from modifying the configuration concurrently.

System Registry Tab

The System Registry tab lets you create system registry entries, and maintain data destinations and network locations.

The System Registry tab provides the following information:

- System Registry
 - [Sysplex Systems](#) (see page 387)
 - [Non-Sysplex Systems](#) (see page 384)
 - [Shared DASD Clusters](#) (see page 386)
 - [Staging Systems](#) (see page 386)

- Create Non-Sysplex System
- Create Sysplex
- Create Staging System
- Create Shared DASD Cluster
- Maintain Data Destinations
- System Registry Search

More information:

- [Add a Data Destination](#) (see page 156)
- [Add FTP Locations](#) (see page 150)
- [Delete Data Destinations](#) (see page 159)
- [Delete FTP Locations](#) (see page 152)
- [Edit FTP Locations](#) (see page 151)
- [Set a Default Data Destination](#) (see page 158)
- [Set FTP Location Default](#) (see page 152)
- [System Registry Nodes](#) (see page 126)
- [Create a Non-sysplex System](#) (see page 132)
- [Create a Sysplex or Monoplex](#) (see page 133)
- [Create a Shared DASD Cluster](#) (see page 135)
- [Create a Staging System](#) (see page 136)
- [Maintain Methodologies](#) (see page 197)

System Registry

The System Registry page lists system types.

You can find out more about a system type by clicking its link. The page contains the following fields:

Non-Sysplex Systems

A *non-sysplex* is a stand-alone z/OS system that is not part of a sysplex or a monoplex system.

Sysplex

A *sysplex* (SYStem comPLEX) is the IBM mainframe system complex which 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.

Shared DASD Cluster

A *shared DASD clusters* system is a set of systems that shared DASD and it can be composed of sysplex and/or non-sysplex systems. Staging system cannot be part of a shared DASD cluster.

Staging System

A *staging system* is a virtual system that deploys the deployment to the computer where the CA CSM driving system is located. To use a staging system, the CA CSM driving system must be registered in the CA CSM system registry. 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.

Note: Right-click Non-Sysplex Systems, Sysplexes, Shared DASD Clusters, or Staging Systems from the tree on the left side, and you can create a new system registry entry.

Sysplex

The Sysplex page lists the current sysplex objects.

You can find out more about a current sysplex object by clicking its object name link. The page contains the following fields:

Sysplex List

Contains a list of current sysplex definitions. Click on the sysplex name link to see details of that sysplex.

Delete Link

Deletes a selected sysplex.

More information:

[Maintain a System Registry using the List Option](#) (see page 144)

[System Registry Nodes](#) (see page 126)

[Create a Sysplex or Monoplex](#) (see page 133)

[View System Registry Details](#) (see page 137)

[Delete a System Registry](#) (see page 145)

Staging System

The Staging Systems page lists the current staging systems objects.

You can find out more about a current staging systems object by clicking its object name link. The page contains the following fields:

Staging Systems List

Contains a list of current staging system definitions. Click on the staging system name link to see details of that staging system.

Delete Link

Deletes a selected staging system.

Note: You cannot use CA CSM to configure a product to a staging system.

More information:

[Maintain a System Registry using the List Option](#) (see page 144)

[Create a Staging System](#) (see page 136)

[View System Registry Details](#) (see page 137)

[Delete a System Registry](#) (see page 145)

System Cluster

The Shared DASD Cluster page lists the current shared DASD cluster objects.

You can find out more about a current shared DASD cluster object by clicking its object name link. The page contains the following fields:

Shared DASD Cluster List

This contains a list of current shared DASD cluster definitions. Click on the shared DASD cluster name link to see details of that shared DASD cluster.

Delete Link

Deletes a selected shared DASD cluster.

More information:

[Maintain a System Registry using the List Option](#) (see page 144)

[Create a Shared DASD Cluster](#) (see page 135)

[Web-based Interface](#) (see page 23)

[View System Registry Details](#) (see page 137)

[Delete a System Registry](#) (see page 145)

Non-Sysplex System

The Non-Sysplex page lists the current non-sysplex objects.

You can find out more about a current non-sysplex object by clicking its object name link. The page contains the following fields:

Non-Sysplex List

Contains a list of current non-sysplex system definitions. Click on the non-sysplex system name link to see details of that non-sysplex system.

Delete Link

Deletes a selected non-sysplex system.

More information:

[Maintain a System Registry using the List Option](#) (see page 144)

[System Registry Nodes](#) (see page 126)

[Create a Non-sysplex System](#) (see page 132)

[View System Registry Details](#) (see page 137)

[Delete a System Registry](#) (see page 145)

Data Destinations

The [Data Destinations](#) (see page 382) page lists the current data destinations for this system.

You can [create](#) (see page 154), [add](#) (see page 156), [maintain](#) (see page 156), [set a default](#) (see page 158), or [delete](#) (see page 159), a data destination for a system.

The page contains the following fields:

Data Destinations List

Contains a list of data destinations for this system

Name Sort Arrows

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

Add Button

Click to add a data destination to a system.

Actions Buttons

Delete

Deletes the selected data destination from this system.

Set as Default

Select the data destination to you want as a default.

In the Action box, select Set as Default. The word Default appears.

Delete Link

Deletes the selected data destinations from this system.

More information:

[Add a Data Destination](#) (see page 156)

[Delete Data Destinations](#) (see page 159)

[Set a Default Data Destination](#) (see page 158)

Network Locations

The Network Locations page contains the following areas:

- The SCS Address Space Location area lets you [set the host name and port](#) (see page 149).
- The [FTP](#) (see page 148) Locations area lists the current FTP locations for this system. You can [add](#) (see page 148), [edit](#) (see page 151), [set a default](#) (see page 152), or [remove](#) (see page 152), an FTP location for this system.

SCS Address Space Location

Use this area to set the SCS address space location.

Host Name

Specify the TCP/IP host name or IP address of the target system.

Note: The TCP/IP host name is not the SMF ID.

Limits: 255 characters

TCP Port Number

Specify the [port number for the SCS address space](#) (see page 385).

Limits: 65535

Default: 49152

TCP Connection Retry Count

Specify the number of times an operation is retried when the initial attempt is unsuccessful. These operations are send/receive transactions that target the SCS address space. Not all types of transactions can be retried, and those transactions that can, are determined on a case-by-case basis as they are implemented. Setting this field to 0 means that no retries are performed.

Limits: 0 to 99

Default: 15

TCP Connection Timeout Value in Seconds

Specify the maximum number of seconds to wait for a response on each send of a transaction request. If a communication attempt times out, the transaction can be retried. Until the maximum number of retries has not been reached, a retry occurs. If no more retries are possible, a message appears indicating a network timeout has occurred. Each retry uses the same timeout value as the initial transaction.

Limits: 1 to 999

Default: 10

Status

Click this button to display information about the SCS address space and verify that it is working. An error message can appear, when you click Status. Follow the instructions in the message.

Save

Click this button to save your changes.

FTP Locations

This area contains a list of FTP locations for this system.

URI Sort Arrows

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

Port Sort Arrows

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

Directory Path Sort Arrows

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

Default Sort Arrows

Do one of the following:

- Click the up arrow to place selected FTP location default at the top of the list.
- Click the down arrow to place it at the bottom of the list.

When Default appears in this column, it is default FTP location for this system.

Add Button

Click to add an FTP location to this system.

Actions Buttons

You can use the following actions by right-clicking the Actions button in the left column:

Edit

Edits the selected FTP location for this system.

Remove

Removes the selected FTP location from this system.

Set as Default

Select the FTP location and select Default on the Actions drop down. The word Default appears in the Default Column.

Remove Link

Removes the selected FTP location from this system.

More information:

- [Add FTP Locations](#) (see page 150)
- [Delete FTP Locations](#) (see page 152)
- [Edit FTP Locations](#) (see page 151)
- [File Transfer Protocol \(FTP\)](#) (see page 382)
- [Set FTP Location Default](#) (see page 152)

Tasks Tab

The Tasks tab shows the status of requested tasks. You can perform the following tasks:

- View the details of a task by clicking the task Name link, which opens the [Task Details dialog](#) (see page 300).
- Filter the tasks by using the Show drop-down lists.
- Delete completed tasks and all associated files.
- Update the list by using the Refresh button.
- Create task management policies to archive and delete tasks.

The tab lists the tasks in subtabs:

- Current Tasks lists active tasks and finished tasks that have not been reviewed. The tab provides further [filtering when you select the Start Time check box](#) (see page 302). When you clear a check box, the corresponding filter is removed.
You can click the Name link to review a finished task. A reviewed finished task moves to the Task History tab. (Click the Refresh button to see the task removed from the list.)

Note: If you perform a task and leave the task dialog open until the task finishes, the task is deemed to have been reviewed and appears in Task History.

- Task History lists all reviewed finished tasks. The tab provides further [filtering when you select the Start Time or Stop Time check box](#) (see page 302). When you clear a check box, the corresponding filter is removed.
- Audit Task History lists all deleted tasks represented by corresponding audit tasks. The tab provides further [filtering when you select the Start Time check box](#) (see page 302). When you clear a check box, the corresponding filter is removed.
 - If a single task is deleted, the Name column displays the description for the deleted task.
 - If multiple tasks are deleted, the Name column displays only task IDs for the deleted tasks.
- Manage History lists [task management policies](#) (see page 259). Policies are used to archive and delete tasks and can be run manually or scheduled. The tab provides you with the ability to create, edit, delete and execute policies.

The Current Tasks and Task History subtabs contain the following action:

Delete Task

Deleting a completed task removes it from the list of tasks, deletes any associated files from the file system, and creates an audit task with information about the deleted task. When you start the task deletion, all other users are prevented from viewing the task and its details.

If you delete a task that is being viewed by another user, a notification message appears, and you are prevented from deleting the task. You can either wait until the notification message disappears (in this case, the task will be immediately deleted), or click Cancel to select another task.

You can act on more than one task using the action link. You can select all listed tasks using the check box in the header row.

More information:

[Delete Task Button Disabled on the Tasks Tab](#) (see page 338)

Task Details Dialog

The Task Details dialog provides general information about a task and the status of the task actions.

This dialog contains the following buttons:

Help

Opens the online help for the dialog.

Hide

Closes the dialog.

The following buttons are on the Progress tab:

Prompting

(If displayed) Prompts for input. The task has progressed to a point where additional inputs are required.

Show Results

Opens [the task output browser](#) (see page 301) and enables you to display the details of the steps in a finished or canceled task.

A task tree appears on the left side, and information about the selection appears on the right side. You can drill down to the detailed output of the task. You can download the details to your computer or save them in a data set. The details can help you recover from a failed task.

Task Output Browser

The task output browser lets you review the detailed output of the task.

A task tree appears on the left side, and information about the selection appears on the right side.

- If you click the task name, general information and a list of steps executed during task processing appear. General information includes task name, task ID, ID of the user who executed the task, task status, and status message. Status information is displayed for each task step.
- If you click the task step name, general information about the step and detailed output appear.
- If you click the detail output level, detail information about actions performed during a step appears. You can search for particular instances in the output. If the output contains more than one page of data, you can browse the output using the page counter in the top right corner.

Note: To display diagnostic information for a task, configure the [diagnostic log settings](#) (see page 302).

The task output browser can contain the following buttons:

Download Zipped Output

Downloads the task or task step as a ZIP file.

Actions

Lists the following actions available for detailed output.

Download as TXT

Downloads the detailed output as a TXT file.

Download as ZIP

Downloads the detailed output as a ZIP file.

Save as Data Set

Saves the detailed output as a data set.

Close

Closes the task output browser and returns you to the previous page.

Start Time and Stop Time Dialogs

The Start Time and Stop Time dialogs specify the date and time range to filter on tasks. The range is for either the start time or the stop time.

These dialogs contain the following fields:

From

Specifies the beginning of the date and time range on which to filter tasks. You specify the range using the date and time picker. A blank field indicates beginning from the oldest task.

To

Specifies the end of the date and time range on which to filter tasks. You specify the range using the date and time picker. A blank field indicates ending with the newest task.

These dialogs contain the following buttons:

Cancel

Cancels the filter specification.

OK

Applies the specified filter.

Settings Tab

The Settings tab lets you select the settings that you want to configure from a tree on the left side. Before you start using CA CSM to manage your products, configure these settings. Enabled fields marked with an asterisk (*) must have values.

The tab includes the following sections:

Actions

Provides the following links:

Change Password

Lets you change your password.

Change Diagnostic Log Level

Opens the [Change Diagnostic Log Level dialog](#) (see page 303) that lets you configure logging settings for your tasks.

Clean Up Deployment Snapshots

[Deletes snapshots for completed deployments](#) (see page 205).

Settings

Displays a tree to select the type of settings you want to specify.

Change Diagnostic Log Level Dialog

The Change Diagnostic Log Level dialog lets you configure logging settings for your tasks.

Note: The logging settings, except the task logging directory, are reset to their defaults after the CA CSM application server is restarted.

This dialog contains the following fields and buttons:

Log Level

Specifies the level for task logging. You select from the following options:

NONE

Indicates that no log messages are recorded.

DEBUG

Indicates that log messages of severity levels Debug, Info, Warn, Error, and Fatal are recorded.

INFO

Indicates that log messages of severity levels Info, Warn, Error, and Fatal are recorded.

WARN

Indicates that log messages of severity levels Warn, Error, and Fatal are recorded.

Default: NONE.

Reset the Log Level After the First Task Is Started

Resets the logging level from any level that you specified to NONE after the first task is started.

Note: This check box is not enabled when the Log Level drop-down list is set to NONE.

Include Logs in the Task Output

Displays log information for a task in the [task output browser](#) (see page 301).

Note: This check box is not enabled when the Log Level drop-down list is set to NONE.

Task Logging Directory

Defines the USS directory where log information is stored. The directory should have sufficient space for saving log files. Otherwise, no log information is displayed for new tasks in the task output browser.

Note: This field is enabled only when the Include Logs in the Task Output check box is selected.

Purge Logs

Deletes all log files from the task logging directory. Log files have the following format:

task*taskID*-command*commandID*.gz

Example: task1234-command5678.gz

Note: This button is enabled only when the USS directory is defined in the Task Logging Directory field.

System Settings, Software Acquisition Page

The Software Acquisition Settings page sets up the configuration for acquiring your products or maintenance from [the CA Support Online website](#). You must use the Apply button to apply and save your changes.

This page contains the following fields:

HTTP Proxy

Specifies the values used by CA CSM to communicate with [the CA Support Online website](#).

Enable Proxy Settings

Specifies whether a proxy is used.

Note: If a proxy is not used, CA CSM uses HTTPS Port Number 443 to communicate with [the CA Support Online website](#).

Address and Port

Specify the URL of the proxy.

Enable Advanced Settings

Specifies NTLM authentication.

Default: Disabled.

Note: This check box is enabled, when the Enable Proxy Settings check box is selected for HTTP proxy.

Advanced Settings Data Set

Defines the data set containing the XML data with settings.

Note: For more information about the advanced settings, see the *Administration Guide*.

Test Connection

Runs a quick connection test to the HTTP proxy address and port, or tests the direct HTTP connection, if you do not use HTTP proxy.

Note: If you change the HTTP proxy settings, apply them before testing the connection. The test results are displayed in the information text area at the top of the page.

FTP Proxy

Specifies the values used by CA CSM to acquire product installation and maintenance packages.

Enable Proxy Settings

Specifies whether a proxy is used.

Note: If a proxy is not used, CA CSM uses FTP Port Number 21.

Address and Port

Specify the URL of the proxy.

Enable Advanced Settings

Specifies FTP proxy authentication requirements.

Default: Disabled.

Note: This check box is enabled, when the Enable Proxy Settings check box is selected for FTP proxy.

Advanced Settings Data Set

Defines the data set containing the XML data with settings.

Note: For more information about the advanced settings, see the *Administration Guide*.

Test Connection

Runs a quick connection test to the FTP proxy address and port, or tests the direct FTP connection, if you do not use FTP proxy.

Note: If you change the FTP proxy settings, apply them before testing the connection. The test results are displayed in the information text area at the top of the page.

Acquisition Options

Specifies the settings used by CA CSM when downloading software packages.

CA MPS Usage

Excludes product installation packages from downloading to the software catalog during PAS processing. Other types of packages (for example, maintenance packages or documentation for the product package set) are downloaded normally.

Note: This setting is intended to be used by users who are members of the CA Maintenance Product Upgrade Service (CA MPS).

Ignore Common Products During Discovery

Excludes the CA Common Services for z/OS and CA CSM product packages and maintenance from being added to the Software Catalog during PAS processing when discovering other products.

Note: You can use this setting if you maintain different SMP/E environments for each of your CA Technologies products.

Use HTTPS for Downloads

Specifies HTTPS for downloading software packages. Keep this check box unselected to use FTP.

CA Support Online Accounts

Defines the users who can retrieve information or acquire software from [the CA Support Online website](#). You can use the New button to associate login users with credentials on [the CA Support Online website](#).

Support Online User ID and Owner

Display the association between a user ID on [the CA Support Online website](#) and a CA CSM user (owner).

When the owner, for example, downloads a product, the corresponding credentials from [the CA Support Online website](#) are used.

Actions button

Lists the actions that you can use to manage the associations.

System Settings, Software Catalog Page

The Software Catalog Settings page sets up the configuration for your software catalog. You can leave the fields to their defaults. If you change any values, use the Apply button to apply and save your changes.

This page contains the following fields:

Base Settings

Locates the software package database and allocates package processing resources.

Root Directory

Specifies where acquired software packages are stored. The directory is relative to the CA CSM root, which is specified in the options file used during installation and setup.

Threads for Package Processing and Number of MCS Scanners

Specifies the resources available to process software packages. More resources make processing more efficient but use more memory. For best practice, the two values should be close to each other.

Defaults: 1 and 1

Limits: 1 through 10 and 1 through 12

Queue Length of Incoming Packages

Specifies the maximum number of downloaded packages that can be queued. A package is queued when no thread is available to process the package.

Default: 20

Limits: 20 through 600

HFS Data Set Parameters

(Optional) Specifies the parameters for HFS data sets (file systems) that constitute the package database.

Data Set Suffix

Specifies a suffix for the data set name, which also has an internally generated counter. The name has the following format: *hfs_prefix.suffixn*.

hfs_prefix is the Data Set Prefix setting on the Settings, Mount Point Management tab.

Primary Quantity and Secondary Quantity

Specifies the primary and secondary spaces in tracks for the data sets. A small primary space can cause multiple data sets to be mounted; a large primary space can lead to waste of space.

Limits: 1 through 100000000

Recommendations: 400 to 800 tracks for primary quantity; less than 200 tracks for secondary quantity

CA RS Settings

Specifies the parameters for automatic download of CA RS files in your software catalog. If automatic update is set up, a new task is run accordingly to update the software catalog with CA RS files available.

Note: After download, CA RS files are stored in Software Catalog, in a separate USS directory with a mounted file system. Software Catalog organizes and manages free space for storing CA RS files.

Enable Automatic Updates

Enables CA RS files to download automatically to your software catalog.

Owner of Update Task

Specifies the TSO user ID under which the update task is run.

Note: This field is enabled only when the Enable Automatic Updates check box is selected.

Number of Displayed CA RS Files

Specifies the number of recent CA RS maintenance packages to display on a page when filtering the packages by CA RS level.

Note: All remaining fields in this group are enabled only when the Enable Automatic Updates check box is selected.

Recurrence

Specifies how often the task recurs.

Update Software Catalog Every *number of Days*

or

Update Software Catalog On *day of week* Every *number of Weeks*

Specifies the frequency of downloading CA RS files to your software catalog, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when an automatic update occurs. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Local Time

Identifies local time calculated based on the system time that you set.

Update Immediately

Lets you immediately update the software catalog with CA RS files.

HOLDDATA Settings

Specifies the parameters for automatic download of HOLDDATA from an appropriate CA Technologies FTP site to your software catalog. If automatic update is set up, a new task is run accordingly to update the software catalog with HOLDDATA available.

Note: After download, HOLDDATA is stored in Software Catalog, in a separate USS directory. Software Catalog organizes and manages free space for storing HOLDDATA.

Enable Automatic Updates

Enables HOLDDATA to download automatically to your software catalog.

Note: All remaining fields in this group are enabled only when the Enable Automatic Updates check box is selected.

Owner of Update Task

Specifies the TSO user ID under which the update task is run.

Recurrence

Specifies how often the task recurs.

Update Software Catalog Every *number of* Days

or

Update Software Catalog On *day of week* Every *number of* Weeks

Specifies the frequency of downloading HOLDDATA to your software catalog, in days or weeks, depending on the value of Recurrence.

Note: Imagine you set the recurrence for a specific number of days and you set the time that precedes the current time. Then the first update occurs in the specified number of days at the specified time. For example, on Monday at 10.30am, you set the number of days to 3 and time to 07.00. The first update then occurs on the third day, Thursday, at 7.00am. When you set the time past the current time, the first update occurs on the same day at the time set. For example, on Monday at 10.30am, you set the number of days to 3 and time to 11.00. The first update then occurs on that Monday at 11.00am.

System Time

Specifies the system time when an automatic update occurs. The system time reflects your CA CSM application server time zone. The TZ parameter within Tomcat startup libraries defines the time zone. If the TZ parameter is not defined, the CA CSM application server time zone defaults to GMT – Greenwich Mean Time.

Local Time

Identifies local time calculated based on the system time that you set.

Update Immediately

Lets you immediately update the software catalog with HOLDDATA.

System Settings, Software Installation Page

The Software Installation Settings page sets up the configuration for installing your software. You use the Apply button to apply and save your changes.

This page contains the following fields:

MVS Program Executor - Output

Specifies whether the data sets resulting from installation is SMS-controlled.

Temporary Data Set Prefix

Specifies the prefix for temporary data sets used by executed programs.

The name of a temporary data set has the following format: *prefix.Rn.ddname* (*n* is the execution request number).

Default: *userid.CAMSM.jobname*

Limits: 24 characters

If Use SMS is selected, the Storage Class parameter applies:

Storage Class

Specifies the SMS storage class for the data sets.

If Use VOLSER & Unit is selected, the VOLSER and Unit parameters apply:

VOLSER and Unit

Specifies the volume serial number and type of the DASD on which to place data sets.

Example: DASD01 and 3390

MVS Program Executor - Limit

Specifies the number of MVS programs CA CSM can execute concurrently. The field limits the number of concurrent tasks.

Default: 4

Limits: 1 through 128 characters

Package Management

Specifies how CA CSM works with acquired software packages.

GIMUNZIP Temporary Prefix

Specifies the prefix for the temporary data sets created by GIMUNZIP during installation and maintenance. The name of the resulting data set is *prefix.jobname.unpacked_file_name*. The created temporary work files are not SMP/E controlled data sets. CA CSM deletes them through the product installation process. These files are used as input relative files for SMP/E processing during the receiving of a product into the SMP/E environment global zone.

Limits: 12 through 19 characters (depending on the number of characters used for *jobname*)

Note: If you use the default 6-character *jobname*, you can enter up to 14 characters for the GIMUNZIP temporary prefix.

GIMUNZIP Temporary VOLSER

Specifies the volume serial number of the DASD to use for the temporary data sets created by GIMUNZIP during installation.

Default: *

SIS Base Installation – Work DDDEFs

Specifies whether the work DDDEF allocation for all product installations is done using the SMS parameters or the Unit parameter.

If Use SMS is selected, the following parameters apply:

Storage Class

Specifies the SMS storage class for temporary data sets.

Data Class

Specifies the data class for temporary data sets.

Management Class

Specifies the management class for temporary data sets.

If Use Unit is selected, the following parameter applies:

Unit

Specifies the unit type where the temporary data sets are stored.

Default: SYSALLDA

SIS Base Installation – File System

Specifies the file system type that is used when installing a product that allocates file systems.

Select one of the following:

- Product Specific File System
- Hierarchical File System (HFS)
- z/OS Distributed File Service zSeries File System

Note: If you select Product Specific File System, the file system that is used for installing a product is defined according to the product metadata. Otherwise, the product metadata is overwritten.

Execute Checks During Base Installation

Specifies that additional checks for the installation are performed before the following step executes.

Execute Apply Check During Base Installation

Verifies that all of the requirements for the Apply step are satisfied before the Apply step executes. If the Apply Check step fails, installation stops and all of the previous steps are undone.

Suspend Base Installation After Apply Check

Suspends the base installation process after Apply Check is completed and generates [pending installation actions](#) (see page 281) for the SMP/E environment where the product is being installed.

Note: This check box is enabled if you enable the Execute Apply Check During Base Installation check box.

Execute Accept Check During Base Installation

Verifies that all of the requirements for the Accept step are satisfied before the Accept step executes. If the Accept Check step fails, installation stops and all of the previous steps are undone.

Suspend Base Installation After Accept Check

Suspends the base installation process after Accept Check is completed and generates [pending installation actions](#) (see page 281) for the SMP/E environment where the product is being installed.

Note: This check box is enabled if you enable the Execute Accept Check During Base Installation check box.

More information:

[Execute Apply Check and Accept Check During Base Installation](#) (see page 56)
[SMP/E Environments, Pending Installations Tab](#) (see page 281)

System Settings, Software Deployment Page

The Software Deployment Settings page lets you set up settings for managing and setting up deployed software. You use the Apply button to apply and save your changes.

This page contains the following fields:

Always Prompt to Set Up Remote Credentials

Displays the [Remote Credentials Properties dialog](#) (see page 288) every time you access remote systems (for example, when you transmit or delete a deployment).

Prompt to Set Up Only Missing Remote Credentials

Displays the [Remote Credentials Properties dialog](#) (see page 288) when you access remote systems and you did not set up remote credentials for one or more remote systems. For example, when you transmit or delete a deployment.

Note: Always Prompt to Set Up Remote Credentials and Prompt to Set Up Only Missing Remote Credentials are mutually exclusive.

Allow Saving Remote Credentials in the Database

Enables the following:

- The Save to Database column in the [Remote Credentials Properties dialog](#) (see page 288) that lets you save remote credentials in the database. Saved remote credentials appear in the list of remote credentials on the [Settings, Remote Credentials page](#) (see page 319).
- The New button and the Edit option in the Actions drop-down list for remote credentials on the [Settings, Remote Credentials page](#) (see page 319).

Default: Selected.

More information:

[Configure a Remote Credentials Prompt](#) (see page 130)

System Settings, Mount Point Management Page

The Mount Point Management Settings page sets up the mounting of file systems (data sets) used by CA CSM for managing products. As a file system becomes full, a new file system is created. You use the Apply button to apply and save your changes.

This page contains the following fields:

Mount

Specifies the values used by CA CSM to mount file systems.

Hierarchical File System (HFS) or z/OS Distributed File Service zSeries File System (zFS)

Specifies the type of file systems to be used.

Data Set Size

Specifies the primary size of a data set in tracks. Allow 72 tracks for each product.

Limits: 1 through 1000000

Automount

Specifies whether the data sets (file systems) are mounted automatically when CA CSM is started. If you do not select this option, CA CSM only mounts the data sets (file systems) when it accesses them.

Data Set Prefix

Specifies the HLQ for the data set names.

Limits: 40 characters

Application Root

Specifies the mount point (directory) for the file systems (data sets).

An initial mount point is configured. If you change the value, ensure that the specified mount point is defined.

Unmount at Shutdown

Specifies whether to unmount file systems automatically when CA CSM shuts down.

Mount – File System Allocation Parameters

Specifies the values of allocation parameters used by CA CSM to mount file systems.

Use SMS or Use Non-SMS

Specifies whether to use SMS when allocating new data sets for file systems.

Default: Use SMS.

If Use SMS is selected, the following parameters apply:

Storage Class

Specifies the SMS storage class for the data sets.

Management Class

Specifies the SMS management class for file system data sets.

Data Class

Specifies the SMS data class for file system data sets.

If Use Non-SMS is selected, the following parameters apply:

VOLSER

Specifies the volume serial number of the device on which the file system data sets reside.

Unit

Specifies the type of the DASD on which to place data sets.

Managed Product USS File Systems

Enables you to configure how CA CSM handles managed product USS file systems at CA CSM startup.

Verify File System Mount Capability at Startup

Verifies that a managed product USS file system is mounted, at CA CSM startup.

Note: If you want CA CSM to mount managed product USS file systems in case CA CSM discovers they are not mounted, select the Attempt to Mount File System If Not Mounted check box.

Default: Not selected.

Issue an Operator Console Message If Verification Fails

Sends a message to an operator with routing code 2 and descriptor code 3 if an error occurs during verification of at least one managed product USS file system.

Note: This check box is enabled, when the Verify File System Mount Capability at Startup check box is selected.

Attempt to Mount File System If Not Mounted

Enables CA CSM to attempt to mount a file system in the server context if during verification CA CSM discovered that the file system is not mounted.

Note: For managed product file systems to be mounted after the initial program load (IPL), you must configure the BPXPRM member in PARMLIB.

Note: This check box is enabled, when the Verify File System Mount Capability at Startup check box is selected.

Stop Verifying File Systems at Startup After a Period of Time

Enables you to stop verification of a particular managed product USS file system after the number of days specified in the Number of Days Since File System Has Been Added to CA CSM field has passed.

Note: This check box is enabled, when the Verify File System Mount Capability at Startup check box is selected.

Number of Days Since File System Has Been Added to CA CSM

Specifies a time interval in days that should pass since a file system is added in CA CSM, after which CA CSM stops verifying the file system mount capability.

Default: 30

Note: This field is enabled, when the Stop Verifying File Systems at Startup After a Period of Time check box is selected.

User Settings, Software Installation Page

The Software Installation Settings page lets you override the system configuration for installing your software. You use the Apply button to apply and save your changes.

This page contains the following fields:

MVS Program Executor - Output

Specifies whether the data sets resulting from installation is SMS-controlled.

Temporary Data Set Prefix

Specifies the prefix for temporary data sets used by executed programs.

The name of a temporary data set has the following format: *prefix.Rn.ddname* (*n* is the execution request number).

Default: *userid.CAMSM.jobname*

Limits: 24 characters

If Use SMS is selected, the Storage Class parameter applies:

Storage Class

Specifies the SMS storage class for the data sets.

If Use VOLSER & Unit is selected, the VOLSER and Unit parameters apply:

VOLSER and Unit

Specifies the volume serial number and type of the DASD on which to place data sets.

Example: DASD01 and 3390

Package Management

Specifies how CA CSM works with acquired software packages.

GIMUNZIP Temporary Prefix

Specifies the prefix for the temporary data sets created by GIMUNZIP during installation and maintenance. The name of the resulting data set is *prefix.jobname.unpacked_file_name*. The created temporary work files are not SMP/E controlled data sets. CA CSM deletes them through the product installation process. These files are used as input relative files for SMP/E processing during the receiving of a product into the SMP/E environment global zone.

Limits: 12 through 19 characters (depending on the number of characters used for *jobname*)

Note: If you use the default 6-character *jobname*, you can enter up to 14 characters for the GIMUNZIP temporary prefix.

GIMUNZIP Temporary VOLSER

Specifies the volume serial number of the DASD to use for the temporary data sets created by GIMUNZIP during installation.

User Settings, User Preferences Page

The User Preferences page sets up your display characteristics. You use the Apply button to apply and save your changes.

This page contains the following fields:

Maintenance Novelty Interval

Specifies the number of days over which downloaded CA RS files, maintenance packages, products, as well as new releases and gen levels for the products are regarded as old. For example, when packages become old, they are removed from the notices on the [Software Status tab](#) (see page 265).

Limits: 0 through 20

Table Rows

Specifies the number of rows to display on a page. You can use the navigation drop-down list to display another page of rows.

Limits: 25 through 750

Note: A larger number increases the time it takes to load the page.

User Settings, Software Acquisition Page

The Software Acquisition Settings page lets you override the system configuration. You must use the Apply button to apply and save your changes.

This page contains the following items:

Acquisition Options

Specifies the settings used by CA CSM when downloading software packages.

CA MPS Usage

Excludes product installation packages from downloading to the software catalog during PAS processing. Other types of packages (for example, maintenance packages or documentation for the product package set) are downloaded normally.

Note: This setting is intended to be used by users who are members of the CA Maintenance Product Upgrade Service (CA MPS).

Ignore Common Products During Discovery

Excludes the CA Common Services for z/OS and CA CSM product packages and maintenance from being added to the Software Catalog during PAS processing when discovering other products.

Note: You can use this setting if you maintain different SMP/E environments for each of your CA Technologies products.

User, Password, and Confirm Password

Specify your credentials for authenticating yourself to the enabled proxies.

Note: If you are authenticating to an HTTP proxy that uses NTLM, you can specify your domain and user in the format: *domain\username*

User Settings, Remote Credentials Page

The Remote Credentials page sets up remote credentials accounts by user ID, 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 when deploying to a nonstaging system. The user is responsible for having the correct owner, remote user ID, remote system name, password, and authenticated authorization before creating a new remote credential.

You can [add](#) (see page 127), [edit](#) (see page 129), or [delete](#) (see page 130) remote credentials.

This page contains the following buttons and fields:

Remote Credentials Accounts List

Lists the remote credentials created by this logged on user.

New

Lets you create new remote credentials.

Note: If the New button is disabled, contact your administrator and verify your settings on the [Settings, Software Deployment page](#) (see page 314).

Owner

This is the logged on user ID.

Remote User ID

This is the remote user ID for the specified remote system.

Remote System Name

This is the name of the remote system.

Action for a remote credentials account

This is a drop down menu on the right in the remote credentials menu bar.

Edit

Edits the selected remote credential account.

Note: If the Edit option is disabled, contact your system administrator and verify your settings on the [Settings, Software Deployment page](#) (see page 314).

Delete

Deletes the selected remote credential account.

Apply

Submits and saves your changes.

Error Dialog

The Error dialog displays the details of an error. You can perform the following actions:

Close

Closes the dialog.

Export

Displays a drop-down list for you to select one of the following options:

Download as TXT

Downloads the details as a TXT file. Follow the instructions in your browser to save or open the file. When printing the TXT file, you can reduce the font size and use landscape mode to minimize line wrapping problems.

Save as Data Set

Saves the details as a data set. Complete the following fields in this dialog and click OK:

Data Set Name

Specify the data set name.

VOLSER

(Optional) Specify the volume serial number.

Limits: 1-6 characters

Storage Class

(Optional) Specify the storage class.

Limits: 1-8 characters

Help

Displays the online help for the error dialog.

Appendix B: External Interfaces

Some of the tasks that you perform using the web-based interface can also be performed outside of CA CSM using external interfaces. CA CSM is able to accept commands from external applications, translate them into an appropriate format, and generate tasks based on them.

Performing Tasks Outside of CA CSM

You can perform some Product Acquisition Service tasks such as updating the catalog tree and obtaining updates for products and product releases on a regular basis using external schedulers. You can also execute task management policies and change log4j settings.

You set up the scheduler to issue commands that are translated into the MVS command MODIFY (F). This command obtains a set of parameters such as your user ID, the command type you want to execute, and its properties.

Note: For information about how to configure your scheduler, see its documentation.

Every time a scheduled task is executed, CA CSM validates the received command. If the validation is successful, the appropriate task is created and performed in CA CSM. You can view the task status from the Tasks tab.

Note: To set up the automatic updates, you must have a valid TSO user ID, and an account set up on [the CA Support Online website](#).

MVS MODIFY Command

The MODIFY (F) command allows you to update the product tree, obtain updates for products and product releases, execute task management policies, and change log4j settings. For each action, the command contains a particular set of parameters.

The MODIFY command has the following format:

`F jobname,APPL=command,parameter=value[,parameter=value,...]`

jobname

Defines the name of the job which is started.

APPL=command

Defines the command that is issued.

command

Specifies the command type. The following options are available:

UPDTTREE

Updates the product tree.

UPDTCAT

Obtains updates for products and product releases.

CHNGLOG

Temporarily changes log4j settings at run time.

EXECPLCY

Executes a task management policy.

parameter=value

Defines a parameter that may vary depending on the type of the command that you issue: [updating the product tree](#), (see page 324) [updating products or product releases](#) (see page 325), [changing log4j settings](#) (see page 328), or [execute task management policies](#) (see page 329).

Update the Product Tree

For updating the product tree, this command has the following format:

F *jobname*,APPL=UPDTREE,USERID=*user_id*[,FILTER=*filter_name*] [,VENDOR=*vendor_name*]

USERID=*user_id*

Defines the user who issues the command.

FILTER=*filter_name*

(Optional) Defines the name of the site ID filter to use for updating the catalog tree.

Note: If the filter name is not defined, the command is rejected. If no filter is defined, all site IDs will be used. If the VENDOR parameter is specified, the FILTER parameter must come before the VENDOR parameter.

VENDOR=vendor_name

(Optional) Defines the name of the vendor for which you update the catalog tree.

Note: If the vendor name is not defined, the command is executed for the default vendor, CA.

Note: Do not change the order of the command parameters. Doing so may result in parsing errors.

Example

This example updates the product list for the CA Technologies mainframe products:

```
F MSMTC,APPL=UPDTTREE,USERID=MYUSERID,VENDOR=CA
```

Update Products and Product Releases

For obtaining updates for products and product releases, this command has the following format:

```
F jobname,APPL=UPDTCAT,USERID=user_id,PRODUCT=product_name
[ ,RELEASE=release_number] [ ,TYPE=FULL|PTFS] [ ,MODE=EXECUTE|CHECK|ATOMIC]
```

USERID=*user_id*

Defines the user who issues the command.

PRODUCT=*product_name*

Defines the name of the product for which you want to obtain updates.

Note: To distinguish between products whose names are not unique (they share part of the name), put *product_name* in single quotes. For example, PRODUCT='CA IDMS SQL OPTION - MVS' searches for the product called *CA IDMS SQL OPTION - MVS* and ignores *CA Easytrieve Report Generator CA IDMS SQL OPTION - MVS*.

RELEASE=*release_number*

(Optional) Defines the product release for which you want to obtain updates.

TYPE=FULL|PTFS

(Optional) Specifies the type of a product or release update to be obtained.

Note: If the type is not explicitly defined in the command syntax, the command is executed with the FULL type.

FULL

Retrieves all product packages and maintenance packages. This is the default.

PTFS

Retrieves only maintenance packages that have been released since the product release was updated last time.

MODE=EXECUTE|CHECK|ATOMIC

(Optional) Specifies the mode in which the command for obtaining updates for products and product releases is executed.

Note: When the mode is not explicitly defined in the command syntax, the command is executed with EXECUTE mode.

EXECUTE

Validates the command and executes any tasks generated based on it. This is the default.

CHECK

Validates the command, returns any errors but does not execute any tasks.

ATOMIC

Runs the command in the CHECK mode, validating the command and generating task based on it, but does not execute tasks immediately: it stores all the validated tasks and only executes them if all tasks have been completely validated.

Note: All validation errors found and defined as WARNING are treated as SEVERE. Any error with a severity level of WARNING or SEVERE causes the entire command to fail.

Note: Do not change the order of the command parameters. Doing so may result in parsing errors.

Examples

Obtain Available Updates for One or Multiple Products

These examples obtain updates for all available releases of CA Panvalet:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA PANVALET - MVS,TYPE=FULL  
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA PANVALET - MVS
```

This example obtains updates for all available releases of CA Panvalet, CA Auditor for z/OS, and CA SMF Director:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA PANVALET - MVS, CA AUDITOR - MVS,  
CA SMF DIRECTOR - MVS
```

This example obtains updates for all available releases of CA IDMS SQL OPTION MVS and ignores updates for any products whose names contain the part *CA IDMS SQL OPTION MVS*:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT='CA IDMS SQL OPTION MVS'
```

Obtain Specific Updates for One Product

This example obtains updates for releases 6.0, 11.0, and 12.0 of CA SMF Director in the CHECK mode:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA SMF DIRECTOR -  
MVS,RELEASE=6.0,11.0,12.0,MODE=CHECK
```

This example obtains updates for release 16.0 of CA IDMS SQL OPTION MVS and ignores updates for any products whose names contain the part *CA IDMS SQL OPTION MVS*:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT='CA IDMS SQL OPTION  
MVS',RELEASE=16.0
```

Obtain Specific or Available Updates for Multiple Products

This example obtains updates for releases 6.0 and 11.0 of CA SMF Director and updates for all available releases of CA Panvalet in the ATOMIC mode:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA SMF DIRECTOR -  
MVS,RELEASE=6.0,11.0,PRODUCT=CA PANVALET - MVS,MODE=ATOMIC
```

This example obtains updates for release 12.0 of CA SMF Director, and release 14.5 of CA Panvalet:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA SMF DIRECTOR -  
MVS,RELEASE=12.0,PRODUCT=CA PANVALET - MVS,RELEASE=14.5
```

This example obtains only maintenance packages for release 12.1 of CA Auditor for z/OS that have been released since the product release was updated last time:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA AUDITOR -  
MVS,RELEASE=12.1,TYPE=PTFS
```

This example obtains only maintenance packages for all releases of CA Panvalet that have been released since the product release was updated last time:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT=CA PANVALET - MVS,TYPE=PTFS
```

This example obtains updates for release 16.0 of CA IDMS SQL OPTION MVS, and release 16.0 of CA IDMS/DB - MVS, and ignores updates for any products whose names contain the part *CA IDMS SQL OPTION MVS* or *CA IDMS/DB - MVS*:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT='CA IDMS SQL OPTION  
MVS',RELEASE=16.0,PRODUCT='CA IDMS/DB - MVS',RELEASE=16.0
```

This example obtains updates for all available releases of CA IDMS SQL OPTION MVS, and all available releases of CA IDMS/DB - MVS, and ignores updates for any products whose names contain the part *CA IDMS SQL OPTION MVS* or *CA IDMS/DB - MVS*:

```
F MSMTC,APPL=UPDTCAT,USERID=MYUSERID,PRODUCT='CA IDMS SQL OPTION MVS,CA IDMS/DB  
- MVS'
```

Change log4j Settings

For temporarily changing log4j settings at run time, this command has the following format:

F *jobname*,APPL=CHNGLOG, *logger*[*]:*loglevel*

logger

Defines the log4j logger, which is usually the class or package name.

loglevel

Specifies the lowest log4j level of messages to display, such as DEBUG, INFO, WARN, ERROR, or FATAL.

Notes:

- Do not change the order of the command parameters. Doing so may result in parsing errors.
- Do not change log4j settings at run time unless instructed to do so by [CA Support](#).

Example

This example temporarily changes the log4j settings of the SCS logger to warning or higher (WARN, ERROR, or FATAL):

F MSMTC,APPL=CHNGLOG,com.ca.scs:WARN

This example temporarily changes the log4j settings of all the SAM Communications loggers to debug or higher (DEBUG, INFO, WARN, ERROR, or FATAL):

F MSMTC,APPL=CHNGLOG,com.ca.SAM.Communications.*:DEBUG

This example temporarily changes the log4j settings of all loggers to informational or higher (INFO, WARN, ERROR, or FATAL):

F MSMTC,APPL=CHNGLOG,*:INFO

Execute Task Management Policy

For executing a task management policy, this command has the following format:

F *jobname*,APPL=EXECPLCY,USERID=*user_id*,POLICY=*policy_name*
USERID=*user_id*

Defines the user who issues the command.

POLICY=*policy_name*

Specifies the name of the policy that you want to execute.

The policy name must be a valid policy name in CA CSM.

Note: Do not change the order of the command parameters. Doing so may result in parsing errors.

Example

This example executes a task management policy with the name MYARCHIVEPOLICY:

```
F MSMT,APPL=EXECPLCY,USERID=MYUSERID,POLICY=MYARCHIVEPOLICY
```

Command Validation

Every time a scheduled update is executed, CA CSM validates that the following is true:

- The command format and syntax is correct.
- Data defined in the command (product names, release numbers) are valid and correspond with the data in CA CSM database.
- The user issuing the command has appropriate credentials.

If any of these rules are false, the command execution does not start, the task is not generated, and an error is logged in the STDOUT DDNAME in the JOBLOG for the CA CSM region.

Log Messages

When a command for a scheduled update is issued, a set of messages is recorded in STDOUT DDNAME in the CA CSM region JOBLOG reflecting the steps CA CSM performs while processing the request.

Each message starts with MSMM, followed by a 4-digit number and the message status code. The message status code can be one of the following:

- I – Information
- E – Error
- S – Serious

Example

This example displays messages recorded in the STDOUT DDNAME in the CA CSM region JOBLOG after USER1 issued a command obtaining updates for CA Panvalet, release 14.5.

```
MSMM0101I - MODIFY command received: UPDTCAT
MSMM0100I - Handling command: UPDTCAT - USERID=USER1,PRODUCT=CA PANVALET -
MVS,RELEASE=14.5
MSMM0191I - Authenticating user: USER1.
MSMM0153E - Release 14.5 for product CA PANVALET - MVS not found in software catalog.
MSMM0162I - PAS task executed for specific product releases.
```

Note: For more information about CA CSM messages, see the *Message Reference Guide*.

Appendix C: Troubleshooting

This appendix provides Frequently Asked Questions and troubleshooting information to help you identify and resolve issues that you may encounter when using CA CSM. It does not include CA CSM error messages.

Note: For a complete list of CA CSM messages, see the *Message Reference Guide*.

Accept or Restore Maintenance in SMP/E Fails

Symptom:

When I try to accept or restore maintenance in an SMP/E environment, the task fails, and the SPMOUT output reports error messages.

- For accepting maintenance, the error messages can be:

GIM51702S ** THE ACCEPT COMMAND WAS NOT PROCESSED BECAUSE NO RELATED ZONE WAS SPECIFIED IN THE ZONE DEFINITION ENTRY.

GIM50801S ** ZONE *zone_name* WAS NOT USED BECAUSE IT IS NOT DEFINED BY A ZONEINDEX SUBENTRY IN THE GLOBAL ZONE.

- For restoring maintenance, the error messages can be:

GIM51702S ** THE RESTORE COMMAND WAS NOT PROCESSED BECAUSE NO RELATED ZONE WAS SPECIFIED IN THE ZONE DEFINITION ENTRY.

GIM50801S ** ZONE *zone_name* WAS NOT USED BECAUSE IT IS NOT DEFINED BY A ZONEINDEX SUBENTRY IN THE GLOBAL ZONE.

Reason:

Depending on the action you are performing, the reason is one of the following:

- If you accept maintenance, the SMP/E environment is missing the target zone related to the affected distribution zone, or the related target zone does not exist.
- If you restore maintenance, the SMP/E environment is missing the distribution zone related to the affected target zone, or the related distribution zone does not exist.

Solution:

- Submit a batch job with a step similar to the following example to either add the missing target zone related to the affected distribution zone, or define the existing target zone:

```
SET
  BOUNDARY(distribution_zone_name) .
UCLIN .
ADD DLIBZONE(distribution_zone_name)
  RELATED(target_zone_name) .
ENDUCL .
```

- Submit a batch job with a step similar to the following example to either add the missing distribution zone related to the affected target zone, or define the existing distribution zone:

```
SET
  BOUNDARY(target_zone_name) .
UCLIN .
ADD TARGETZONE(target_zone_name)
  RELATED(distribution_zone_name) .
ENDUCL .
```

CA CSM Address Space Functions Incorrectly

Symptom:

The SCS address space does not function correctly, and I see messages similar to the following in the log:

```
MSMC0501E SQL PREPARE VERSIONSTMT for task MSMCJTSK failed, SQLCODE=-124,
SQLSTATE=51002, RETCODE=,
          IRETCODE=X'0000'
MSMC0503E SQL error message: PLAN CASWMGT.MSMCFSQL_050_001 DOES NOT EXIST
MSMC0501E SQL ROLLBACK for task MSMCJTSK failed, SQLCODE=-124, SQLSTATE=51002,
RETCODE=, IRETCODE=X'0000'
MSMC0503E SQL error message: PLAN CASWMGT.MSMCFSQL_050_001 DOES NOT EXIST
```

```
MSMC0501E SQL PREPARE_DEPUNIT for task MSMCIENG failed, SQLCODE=-124, SQLSTATE=51002,
RETCODE=, IRETCODE=X'0000'
MSMC0501E SQL ROLLBACK for task MSMCIENG failed, SQLCODE=-124, SQLSTATE=51002,
RETCODE=, IRETCODE=X'0000'
```

Additionally, you can see the messages similar to these:

```
MSMC0401E EVTINIT for task MSMCIES0 failed, RETCODE=X'00000020'
MSMC0401E EVTINIT for task MSMCIENG failed, RETCODE=X'00000020'
MSMC0401E EVTINIT for task MSMCCEVH failed, RETCODE=X'00000020'
```

Reason:

The SQL plans in the CA Datacom/MSM database are not up-to-date.

Solution:

Update and synchronize the SQL plans in the CA Datacom/MSM database.

Note: For more information about updating SQL plans, see the *Administration Guide*.

CA CSM Application Server Timeout

Symptom:

When I select to display a list of maintenance packages, the following message appears:

Reading maintenance packages from Software Catalog

Then, the following error message is displayed:

The call failed on the server; see server log for details

I can see the following messages in the MSMTC job log:

SEVERE: Exception while dispatching incoming RPC call
Throwable occurred: java.net.SocketTimeoutException: Read timed out
at java.net.SocketInputStream.read(SocketInputStream.java:140)

This issue only appears when I work in CA CSM in Microsoft Internet Explorer.

Reason:

CA CSM fails to display a large amount of data.

Solution:

Take the following steps, as necessary:

1. Verify the number of table rows to display. This number is defined in the Table Rows field on the [User Settings, User Preferences page](#) (see page 318), under the Settings tab. If the number of rows is 250, set it to a lower value, for example, 50 or 100.

2. If for any reason you need to keep the number of table rows set to 250, update the CA CSM application server timeout parameter.

In the server.xml file located in the tomcat/conf directory, find the following line:

```
connectionTimeout="20000"
```

This parameter defines how long (in milliseconds) the TCP/IP stack waits for incoming packets. Set this parameter to a greater value (for example, 180000). Then, restart the CA CSM application server to make the changes take effect.

Note: The server.xml file is stored in ASCII.

For more information about editing files stored in ASCII, see the *Administration Guide*.

CA CSM Fails to Start with SAF Security Enabled

Symptom:

CA CSM fails with SAF security enabled. SafError with RC=13 or RC=15 is displayed in the job log. The log displays error messages similar to the following example:

```
FATAL (main) 2012-06-13 14:12:37,056
(SafManagerImpl.java:434):SafManager-initialize
DSI():Return code from DDSI_java_open is higher than zero.RC=13
FATAL (main) 2012-06-13 14:12:37,067 (SystemManager.java:491):
com.ca.mf20.zos.services.saf.errors.SafError: null
```

Additional Diagnostic Data:

```
Error during DSI java open. RC=13
Path to 'dsi.conf': /u/users/msmr51/msmruntime/dsi/dsi.conf
BEGINNING OF 'dsi.conf':
This is the DSI Server component configuration file
host localhost
port 22130
TLSKeyringFile /u/users/msmdev/dsi/cert/CA_SelfSigned_Server.kdb
TLSKeyringStash /u/users/msmdev/dsi/cert/CA_SelfSigned_Server.sth
TLSKeyLabel "Cert for SelfSigned Server"
TLSVerifyClient ON
END OF 'dsi.conf'
```

DSI parameters from table USERCONFIG in database:

Required parameters are marked with (*):

KEY:	DEFAULT_VALUE:	VALUE
*dsiPort:	22130:	22130
*dsiHost:	localhost:	localhost
*dsiConf:	N/A:	/u/users/msmr51/msmruntime/dsi/dsi.conf
>dsiKdb:	N/A:	Uninitialized
>dsiSth:	N/A:	Uninitialized
>dsiLabel:	N/A:	Uninitialized
>dsiVerPeer:	N/A:	false

Solution:

Take the following steps as necessary:

- Verify whether the localhost entry is defined in your DNS. Issue the following USS command:

```
oping localhost
```

If the command returns the error message (EZZ3111I Unknown host 'localhost'), the localhost entry is not defined. In this case, perform one of the following actions:

- Ask your network administrator to define the localhost entry in your DNS.
- In the USERCONFIG database table and in dsi.conf, set the dsiHost entry to 127.0.0.1.

- Verify whether the host and the port parameters in the dsi.conf file are the same as dsiHost and dsiPort parameters in the USERCONFIG database table. If the host/dsiHost and port/dsiPort parameters differ, update either the dsi.conf file or the database entries. The content of the dsi.conf file, the CA DSI Server parameters in the USERCONFIG database table, and the path to the dsi.conf file are displayed in the error message.

- Verify whether the CA DSI Server port (port/dsiPort) is free. Issue the following USS command:

```
onetstat -P port_number
```

For example:

```
onetstat -P 22130
```

If the command returns an empty table, the port is free.

- Verify whether the CA DSI Server port is reserved for CA CSM. Issue the following USS command:

```
onetstat -o
```

The command displays the list of reserved ports. If the CA DSI Server port is not listed, we recommend that you reserve the CA DSI Server port.

CA CSM Fails with Exception

Symptom:

CA CSM fails with an exception, for example:

MSM0008E - System startup failed - please see error output for further information.
Fatal error that has stopped the startup was: or
g.apache.tomcat.dbcp.dbcp.SQLNestedException: Cannot create
PoolableConnectionFactory (IO error sending or receiving native data:
ca.datacom.db.DBIOException: CCICONV FAILURE: No receiver online in
Session(connect)).

MSM0010E - CA CSM startup failed.

FATAL (main) 2011-01-12 15:05:15,098 (SystemManager.java:333): java.lang.Error:
org.apache.tomcat.dbcp.dbcp.SQLNestedException: Cannot create
PoolableConnectionFactory (IO error sending or receiving native data:
ca.datacom.db.DBIOException: CCICONV FAILURE: No receiver online in
Session(connect))

Reason:

The ServerName for the CA Datacom/MSM server or ApplicationID in both the SAMPLIB(SRVLIB) member and the context.xml file do not match.

Solution:

Change the ServerName or the ApplicationID in either context.xml or SAMPLIB(SRVLIB) so that they match.

SMP/E Environment Migration Fails at the SMP/E Environment Functions Step of the SMP/E Environment Migration Wizard

Symptom:

[Migration of an SMP/E environment](#) (see page 113) fails on the SMP/E Environment Functions step of the wizard, and I receive one of the following messages:

- I see the following message on the SMP/E Environment Migration wizard:

MMR0005S - An error occurred during dlopen(libGIMAPI03040026.so): CEE3501S The module libGIMAPI03040026.so was not found. MMI0084S - Initialization of CAGIMAPI address space failed.

- I see one of the following messages in the MSMTC job log:

.1299171650. CGIMAPIExtractor_ForkStub: Exception occurred during Initialize()
processing: mcCagimapiHandshake

.1299171650. CGIMAPIExtractor_ForkStub: Exception text: Initialization of
CAGIMAPI address space failed.

An exception has occurred during native_initialize(): MMI0101S - A serious error
has occurred while initializing GIMAPI Extractor.

ERROR (http-17310-5) 2011-03-03 14:49:43,895
(DataExtractionDriver_Jni.java:305): Initialization of
DataExtractionDriver_Jni has failed.

INFO (http-17310-5) 2011-03-03 14:49:43,896 (BufferedMessageReader.java:206):
A new message was read and enqueued in the message log: MMR0005S - An error occurred
during dlopen(libGIMAPI03040026.so): CEE3501S The module libGIMAPI03040026.so
was not found. at ./CGIMAPIExtractionLibrary.C:51

INFO (http-17310-5) 2011-03-03 14:49:43,896 (BufferedMessageReader.java:206):
A new message was read and enqueued in the message log: MMI0084S - Initialization
of CAGIMAPI address space failed. At ./CGIMAPIExtractor_ForkStub.C:430

Reason:

CA CSM cannot load the shared object files (DLL), because the files do not have the
required attributes. All of the files need the following attributes:

+p, +s, +r, +x

The libcci.so file also needs this attribute:

+a

Solution:

Check the .so files and .dll files for the correct attributes and privileges. Add the
required attributes and privileges to files that are lacking them.

1. Check the attributes and privileges of all .so files and .dll files in the .../tomcat/lib
directory using the command:

ls -E *.so *.dll

Results similar to the following example appear:

-rwxr-xr-x 1 USERID GROUPID 233472 Aug 17 2010 libcci.so

2. Fix attributes of shared object files using the command:

```
extattr attribute filename
```

For example, to add the +a attribute to the libcci.so file, type:

```
extattr +a libcci.so
```

3. Fix access privileges using the command:

```
chmod attribute filename
```

For example, to add the +r privilege to the libcci.so file, type:

```
chmod +r libcci.so
```

Delete Task Button Disabled on the Tasks Tab

Symptom:

I cannot delete a task from the Tasks tab, and the Delete Task button is disabled.

Reason:

You do not have access to delete tasks.

Solution:

Check whether the security feature in CA CSM is enabled, and do one of the following:

- If the security feature is enabled, check that the following resource profiles are created:

TM.TASK.@SELF.DELETE

Grants access to delete user's own tasks.

TM.TASK.SYSTEM.DELETE

Grants access to delete any tasks.

- If the security feature is disabled, verify that the following option is specified in the CA CSM options file:

sysTaskDeleteOverrideEnabled=Y

sysTaskDeleteOverrideEnabled

Specifies whether to let CA CSM users delete tasks.

Y

Any user can delete any completed task.

N

Users cannot delete completed tasks.

Default: N

Deployment SMPOUT Reports GIMUNZIP Message

Symptom:

I get message GIM69158I in the SMPOUT report for my deployment task.

Reason:

The message is displayed when the user executing the deployment does not have UNIX SUPERUSER attributes or authorities assigned to them. GIMUNZIP behavior on the target system is affected by the presence of the SUPERUSER attribute.

Solution:

This is an informational message.

Note: For more information about the specific return or reason codes associated with the message, see the *IBM SMP/E Messages and Codes*.

Dynamic Allocation Errors for Temporary and RELFILE Data Sets

Symptom:

I get a dynamic allocation error for temporary and RELFILE data sets.

Reason:

The HLQ option was set to a value that you are not authorized to use.

Solution:

Change the HLQ option to a value that you are authorized to use.

Dynamic Allocation for the MACLIB Library Fails During Software Installation

Symptom:

When creating an SMP/E environment during product installation, I see the following error in the message log:

Dynamic allocation of input data set member SYS1.MACLIB(GIMZPOOL) failed. DD: ZP3 RC: 4 Error code: 0x1708 Info code: 0x2.

Reason:

CA CSM cannot locate the default MACLIB library, SYS1.MACLIB. For example, the library was renamed.

Solution:

Define a new Java runtime option maclib.dsn variable in the SAMPLIB(MSMLIB) member. Verify that the new data set name does not exceed 38 characters.

Example:

```
IJO="$IJO -Dmaclib.dsn=CUSTOM.MACLIB"
```

False Product Update Succeeded Status

Symptom:

CA CSM completes a product update with a Succeeded status, but the software catalog has not been updated.

Note: This issue does not occur when HTTP downloads are active.

Reason:

Pax and ESD product files are occasionally unavailable for immediate download. When this happens, CA CSM initiates a Request Product PrePackage process that makes these files available on the web page and sends an email to you when that process is completed. Because of internal changes on [the CA Support Online website](#), CA CSM no longer initiates a Request Product PrePackage process unless you have installed CA CSM Build 442, PTF 5EGP442 or later.

Solution:

Ensure that you have installed CA CSM Build 442, PTF 5EGP442 or later.

GIM54701S ** ALLOCATION FAILED FOR SMPJHOME

Symptom:

When applying a maintenance package, I see the following SMP/E error message:

```
GIM54701S ** ALLOCATION FAILED FOR SMPJHOME - IKJ56228I PATH
/sys/java31bt/v6r0m0/usr/lpp/java/J6.0 NOT IN CATALOG OR CATALOG CAN NOT BE ACCESSED.
```

Note: Your Java home path may be different from the Java home path in the previous message as CA CSM does not specify a mandatory path.

Reason:

The SMPJHOME DDDEF is not set correctly in the SMP/E environment where you applied a maintenance package.

Solution:

Change the SMPJHOME DDDEF in the SMP/E environment.

- If the SMPJHOME DDDEF is not set correctly in the CA CSM SMP/E environment, use the UCLIN statement to correct the SMPJHOME DDDEF in the CA CSM SMP/E environment.
- If the SMPJHOME DDDEF is not set correctly in another SMP/E environment, use the UCLIN statement to correct the SMPJHOME DDDEF in all zones in the SMP/E environment.

Note: For more information about reassigning the Java home directory, see the chapter *Additional Administration Tasks* in the *Administration Guide*.

I/O Errors in SMP/E Generated Data Sets

Symptom:

When I try to install a product or manage a maintenance package, the task is missing one or more steps with task output. These steps can be of the following types: SMPLIST, SMPPRINT, SYSPRINT, or SYSTERM. I see the following error message in the MSMTC job log:

```
Errno2: -1070137335, ErrorCode: 0, FeedbackFdbk: 0, FeedbackFtncd: 0,  
FeedbackRc: 0, LastOp: 3, ErrnoMsg: EDC5066I A read system error was detected.
```

Reason:

CA CSM failed to read one of temporary data sets with task output that it created, and interrupted further reading.

Solution:

Do the following:

1. Include the following parameter in the SAMPLIB(MSMLIB) data set member:
`IJO=\"$IJO -DWriteEmptyRecordMVS=true"`
2. Restart the CA CSM application server.

MSMTC Fails with RC=100

Symptom:

The MSMTC job fails with RC=100 (MAXCC=100) after the job is started.

For example:

```
04.30.18 J0B00480 $HASP165 MSMTC      ENDED AT SYSSERV1  MAXCC=100 CN(INTERNAL)
```

The STDMMSG output contains the following message:

```
JVMJZBL2007E Stack trace follows:  
java.lang.NoClassDefFoundError: org.apache.catalina.startup.Bootstrap  
Caused by: java.lang.ClassNotFoundException: org.apache.catalina.startup.Bootstrap
```

Note: The STDMMSG output may not be a part of MSMTC JOBLOG. It is managed by the following statement in RunTimeMVSHLQPrefix.JCL(MSMTCSRV):

```
//  ARGs='start 1>stdout 2>stdERR',  <-- Args to Java class  
If ARGs='', STDMMSG is created.
```

Reason:

The first step of the MSMTC job is to start the [CA CSM application server](#) (see page 381), located in RunTimeUSSPath/tomcat.

When RunTimeUSSPath is empty, this step fails with RC=100. A possible reason for RunTimeUSSPath being empty is that the file system belonging to this folder is not mounted.

Solution:

- Mount the file system to RunTimeUSSPath and verify that other file systems are properly mounted.
- Contact [CA Support](#).

Note: For more information about USS path setup, see the appendix *CA CSM Implementation and Status* in the *Administration Guide*.

No Ticket Error Message When Accessing CA CSM

Symptom:

When I try to access CA CSM using a web browser, I get multiple error messages including the No Ticket error message. The access attempt fails.

Reason:

Cookies are not allowed in your web browser.

Solution:

Allow cookies in your web browser.

If your site standards restrict using cookies, add the CA CSM access URL to trusted sites.

Note: For more information about how to allow cookies and how to add a URL to trusted sites, see user documentation for your web browser.

Product List Update Fails

Symptom:

When I update the product list, I receive a message similar to the following:

IO Error was detected during PAS processing.

Additional Diagnostic Data:

IO Exception Error.(UnknownHostException) Error encountered while accessing the following URL:

<https://supportservices.ca.com/support>
supportservices.ca.com

Please review your http proxy settings and validate that your system has network connectivity to the above URL.

Solution:

Verify that the CA CSM application server is using the correct TCP/IP stack. If necessary, uncomment the SYSTCPD DD card in the CA CSM application server startup job (MSMTCSRV) or the application server started task.

```
//SYSTCPD DD DSN=VTAM.TCPIP.TCPIP.DATA,  
//                                DISP=SHR
```

SMP/E APPLY or ACCEPT Processing Fails

Symptom:

SMP/E APPLY or ACCEPT processing fails due to a target or distribution library running out of free directory blocks.

Reason:

A product (for example, PDSMAN) was installed and configured in a way that PDS directory blocks occupy more space than by default. This particular PDS data set ran out of free directory blocks.

Solution:

Change the PDS directory block increase percentage.

Follow these steps:

1. Shut down the MSMTC address space using the command:

P MSMTC

2. In the STDENV startup script, specify the variable for `msm.pds.dirblk.percentage` in the data set that the STDENV DDNAME points to in the MSMTC STC procedure. Alternatively you can increase the value of the variable:

`IJO="$IJO -Dmsm.pds.dirblk.percentage=25"`

3. Start the MSMTC address space using the command:

S MSMTC

4. Retry the task that failed.

Tomcat Error in MSMLOG File

Symptom:

I see the following error message in the CA CSM Tomcat MSMLOG file:

```
WARNING: Error reading /dev/urandom
Throwable occurred: java.io.FileNotFoundException: /dev/urandom (EDC5157I An
internal error has occurred.)
at java.io.FileInputStream.<init>(FileInputStream.java:112)
```

Reason:

This message only appears if you have installed PTF RO21996 on CA CSM r2.0 (FMID CEG1200), and only if the IBM Integrated Cryptographic Service Facility (ICSF) has not been started on the z/OS system where the CA CSM Tomcat session is running.

Solution:

The appearance of this message in no way affects the performance of CA CSM, and CA CSM will continue to function. If you want to verify that `/dev/urandom` is running and is compatible with CA CSM, use the following command:

```
$ cat </dev/urandom | head -c12 | od -X
```

The command has to return random data without any error. For example:

0000000000	60621BCF	8AAD1F12	8944D619
0000000014			

If the device is not working, a warning message appears. For example:

```
FSUM7343 cannot open "/dev/urandom" for input: EDC5157I An internal error  
has occurred.  
0000000000
```

If you see this error message, reconfigure your /dev/random device in order that the command can successfully read from this device.

Note: For more information about the /dev/random device, see the *IBM z/OS V1R10.0 UNIX System Services Planning* (GA22-7800-14).

Tomcat Error on Startup in MSMLOG File

Symptom:

CA CSM Tomcat fails during startup, and I see the following error message in the CA CSM Tomcat MSMLOG file:

```
SEVERE: StandardServer.await: create[22150]:  
Throwable occurred: java.net.BindException: EDC8116I Address not available.  
at java.net.PlainSocketImpl.socketBind(Native Method)  
at java.net.PlainSocketImpl.bind(PlainSocketImpl.java:384)  
at java.net.ServerSocket.bind(ServerSocket.java:331)
```

Reason:

The localhost Domain Name System (DNS) entry was not defined in your local DNS.

Solution:

Your network administrator must define a DNS entry for localhost.

Appendix D: Environment Profiles

This appendix provides information about the CA CSM system registry environment profiles and the environment variables that they contain.

A set of environment profiles is defined for each non-staging system defined within the CA CSM system registry. Environment profiles logically group related environment variables and represent the execution environment of a given target system.

The variable data contained in the CA CSM system registry is shared by all products managed by CA CSM. The environment variables are available for use by the set of products enabled for configuration by CA CSM. A product configuration only uses the environment variables that are relevant to that product.

Not all environment profile variables contain values. Where allowed, the Software Configuration Service (SCS) uses a single space to indicate no value. Not all variables accept a blank as a valid value. When editing a variable value, delete any blank space and place the cursor at the beginning of the data entry field. Only those environment variables referenced by product configurations must contain a value.

The description associated with the variable indicates if a single blank space is allowed. Variables containing the string **(blank)** will be used to visually show fields containing a single blank value.

In some cases, the environment variable data provides execution preferences that product configurations use to establish the default values specific to a given target system. In other cases, the variables represent the data describing an explicit aspect of the target system. For example, the z/OS version, the CAICCI system name that is associated with the system, or attributes specific to a CICS region.

The environment variables defined for use within a product configuration appear in the [Define System Preferences](#) (see page 219) step of the Configuration wizard. The value associated with the environment variables that you have previously specified in the system registry is prepopulated with their respective values.

Note: The composition of the environment profiles within the system registry may change as product configurations are performed when environment variables that those configurations require are not previously defined in the system registry. That is, when you build a product configuration, it is possible for the structure and variables defined in the system registry to be dynamically updated. Therefore, the content of the profiles described in the following sections may not match the system registry at your site.

This section contains the following topics:

- [CA Common Services](#) (see page 348)
- [CA Products](#) (see page 351)
- [CA Subsystems](#) (see page 355)
- [IBM Subsystems](#) (see page 360)
- [Language Processors](#) (see page 365)
- [Networking](#) (see page 367)
- [Storage](#) (see page 367)
- [System](#) (see page 372)

CA Common Services

This section contains the following topics:

- [CCS - CA Common Services Profile](#) (see page 349)
- [Easytrieve Profile](#) (see page 350)
- [ENF Profile](#) (see page 350)

CCS - CA Common Services Profile

This is the CA Common Services environment profile for CA CSM.

This profile has the following environment variables:

VERSION - CA Common Services version and release

Specifies the CA Common Services version and release value. Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 12100 for CA Common Services 12.1.00.

KEYS - CAIRIM KEYS file name

Specifies the CAIRIM KEYS data set name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

AUTOCMDS - CAIRIM AUTOCMDS file name

Specifies the CAIRIM AUTOCMDS data set name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

PARMLIB - CAIRIM PARMLIB file name

Specifies the CAIRIM PARMLIB data set name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

CAS9JCL - CAS9 JCL procedure file name

Specifies the CAS9 JCL procedure file name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

CCSLOAD - CA Common Services BASE and OPTIONAL load library data set name

Specifies the CA Common Services BASE and OPTIONAL load library. For r14 and later, this is the CAWOLOAD data set. For r12, it is the CAILOAD data set. Releases earlier than r12, it is the CAILIB data set. Enter a 1 to 44 character MVS data set name.

CCCSLOAD - CA Common Services LEGACY load library data set name

For release r14 and later releases, specifies the CA Common Services LEGACY load library. Enter a 1 to 44 character MVS data set name.

ASLOAD - CA Common Services agent service load library data set name

Specifies the CA Common Services agent service load library. Enter a 1 to 44 character MVS data set name.

CAIGLBL0000 - Common Services Event Management directory name

Specifies the CA Common Services Event Management directory name. Enter a 1 to 255 character mixed case path name.

Easytrieve Profile

This is the CA Easytrieve environment profile for CA CSM. This profile may contain content to a CA Common Services version or to a standard version of the product.

This profile has the following environment variables:

EZTMAC - CA Easytrieve macro library name

Specifies the CA Easytrieve macro library. Enter a 1 to 44 character MVS data set name.

EZTLOAD - CA Easytrieve load library name

Specifies the CA Easytrieve load library. Enter a 1 to 44 character MVS data set name.

EZTOPT - CA Easytrieve options table name

Specifies the CA Easytrieve options table. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name. Note that the options table is a loadlib member in the CA Common Services 6.4 version, but a sequential file in r11.

ENF Profile

This is the CA Common Services Event Notification Facility (ENF) environment profile for CA CSM.

This profile has the following environment variables:

ENFPARMS - CA ENF configuration parameters data set name

Specifies the ENF configuration parameters data set name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name

ENFDB - CA ENF database

Specifies the CA ENF database data set name. Enter a 1 to 44 character MVS data set name.

ENFJCL - CA ENF JCL procedure to START ENF as a started task

Specifies the JCL procedure name to start ENF as a started task. Enter a 1 to 54 character MVS data set with member name.

STARTOPTION - CA ENF start option

Specifies whether ENF should be manually started or started automatically by CA CSM. Select either MANUAL or AUTOMATIC.

STARTCOMMAND - CA MSM ENF START command string

Specifies the START command string to activate ENF as a started task. Enter a 1 to 126 character mixed case alphanumeric text string.

STOPOPTION - CA ENF stop option

Specifies whether ENF should be manually stopped or stopped automatically by CA CSM. Select either MANUAL or AUTOMATIC.

STOPCOMMAND - CA ENF STOP command string

Specifies the STOP command string to stop ENF as a started task. Enter a 1 to 126 character mixed case alphanumeric text string.

ENFCMDS - CAIENF AUTOCMDS file name

Specifies the CAIENF AUTOCMDS data set name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

CAIDCM - CAIDCM DDNAME

Specifies the DDNAME for the DCM control option. Enter a 1 to 8 character DDNAME.

ADDOPTION - ENF CA MSM automatic add option

Specifies whether ENF options should be manually updated or updated automatically by CA CSM. Select either MANUAL or AUTOMATIC.

DELETEOPTION - ENF CA MSM automatic delete option

Specifies whether ENF options should be manually updated or updated automatically by CA CSM. Select either MANUAL or AUTOMATIC.

CA Products

This section contains the following topics:

[DB2 Tools Profile](#) (see page 352)

[GTS Profile](#) (see page 352)

[IPC Profile](#) (see page 353)

[CA Chorus Profile](#) (see page 354)

[SYSVIEW Profile](#) (see page 355)

DB2 Tools Profile

This is the CA Database Management Solutions for DB2 for z/OS environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - CA Database Management Solutions for DB2 for z/OS description

Specifies the description of the CA Database Management Solutions for DB2 for z/OS occurrence. Enter a 1 to 512 character mixed case text string.

VERSION - CA Database Management Solutions for DB2 for z/OS version and release

Specifies the version and release of the CA Database Management Solutions for DB2 for z/OS. Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 15000 for DB2 CA Database Management Solutions for DB2 for z/OS 15.0.00.

LOADLIB - CA Database Management Solutions for DB2 for z/OS load module library data set name

Specifies the CA Database Management Solutions for DB2 for z/OS load module library. Enter a 1 to 44 character MVS data set name.

PARMLIB - CA Database Management Solutions for DB2 for z/OS parameter library data set name

Specifies the CA Database Management Solutions for DB2 for z/OS parameter library. Enter a 1 to 44 character MVS data set name.

XMESSAGE - CA Database Management Solutions for DB2 for z/OS message library data set name

Specifies the CA Database Management Solutions for DB2 for z/OS message library name. Enter a 1 to 44 character MVS data set name.

GTS Profile

This is the CA Generalized Transaction Server (GTS) environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - CA Generalized Transaction Server description

Specifies the description of the CA Generalized Transaction Server. Enter a 1 to 512 character mixed case text string.

GTSLOAD - CA Generalized Transaction Server (GTS) load module library data set name

Specifies the CA Generalized Transaction Server (GTS) load module library. Enter a 1 to 44 character MVS data set name.

GTSPARM - CA Generalized Transaction Server (GTS) startup parameter

Specifies the CA Generalized Transaction Server (GTS) startup parameter library. Enter a 1 to 44 character MVS data set name.

CLIENTxx - CA Generalized Transaction Server (GTS) CLIENTxx member suffix

Specifies the suffix for the CA Generalized Transaction Server (GTS) CLIENTxx Parmlib member. Enter 2 uppercase alphanumeric or national (#,@,\$) characters.

LOGGERxx - CA Generalized Transaction Server (GTS) LOGGERxx member suffix

Specifies the suffix for the CA Generalized Transaction Server (GTS) LOGGERxx Parmlib member. Enter 2 uppercase alphanumeric or national (#,@,\$) characters.

IPC Profile

This is the CA Inter-Product Components (IPC) environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - CA Inter-Product Components description

Specifies the description of the CA Inter-Product Components. Enter a 1 to 512 character mixed case text string.

IPCMAC - CA Inter-Product Components (IPC) macro library data set name

Specifies the CA Inter-Product Components (IPC) macro library. Enter a 1 to 44 character MVS data set name.

IPCLIB - CA Inter-Product Components (IPC) load module library data set name

Specifies the CA Inter-Product Components (IPC) load module library. Enter a 1 to 44 character MVS data set name.

ADRPNL - CA Inter-Product Components (IPC) ADRPNL VLS library data set name

Specifies the CA Inter-Product Components (IPC) ADRPNL VLS library name. Enter a 1 to 44 character MVS data set name.

CA Chorus Profile

This is the CA Chorus environment profile for CA CSM.

This profile has the following environment variables:

VERSION - CA Chorus version and release

Specifies the CA Chorus version and release value. Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 03000 for CA Chorus 03.0.00.

RUNTIME_HLQ - CA Chorus Runtime Data Set HLQ

Specifies the High Level Qualifier (HLQ) for the CA Chorus runtime data sets. Enter the RUNTIME_HLQ value used when configuring CA Chorus.

RUNTIME_USS_HLQ - CA Chorus Runtime Data Set HLQ

Specifies the High Level Qualifier (HLQ) for the CA Chorus runtime zFS file systems. Enter the RUNTIME_USS_HLQ value used when configuring CA Chorus.

RUNTIME_HOME - CA Chorus Runtime Home directory name

Specifies the CA Chorus runtime home directory path name. Enter the RUNTIME_HOME value used when configuring CA Chorus.

CHORUS_GROUP - CA Chorus default USS Group ID

Specifies the CA Chorus USS Group name. Enter the CHORUS_GROUP value used when configuring CA Chorus.

Datacom/AD_Database_DS_Prefix - CA Chorus Datacom/AD database data set prefix

Specifies the CA Datacom/AD database data set prefix. Enter the ADHLQ value used when configuring CA Chorus.

Datacom/AD_Software_Prefix - CA Chorus Datacom/AD software data set prefix

Specifies the CA Datacom/AD software data set prefix. Enter the ADSHLQ value used when configuring CA Chorus.

JAVA_HOME - CA Chorus Java Home Directory name

Specifies the directory path name where the version of Java that CA Chorus will use is installed. Enter the JAVA_HOME value used when configuring CA Chorus.

JAVALIB - Data set name containing the JZOS Java Batch Launcher module

Specifies the data set name containing the JZOS Java Batch Launcher module required by CA Chorus for execution. Enter the JAVALIB value used when configuring CA Chorus.

TCPDATA - CA Chorus TCPDATA file name

Specifies the CA Chorus TCPIP.DATA file name. Enter the TCPDATA value used when configuring CA Chorus.

SYSVIEW Profile

This is the CA SYSVIEW environment profile for CA CSM.

This profile has the following environment variables:

VERSION - SYSVIEW version and release

Specifies the SYSVIEW version and release value. Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 13500 for SYSVIEW 13.5.00.

SUBSYS - SYSVIEW subsystem name

Specifies the 4 character subsystem name used when installing SYSVIEW. The subsystem name must start with an alphabetic or national (@, #, or \$) character followed by 3 alpha-numeric or national characters.

CNM4BLOD - SYSVIEW load module library name

Specifies the SYSVIEW load module library. Enter a 1-44 character MVS data set name. If the SYSVIEW load library is contained in the LINKLIST concatenation, you can specify the keyword LINKLIST.

CNM4BJAR - SYSVIEW SysviewXapi.jar location

Specifies the location of the SysviewXapi.jar file. Enter the USS directory path where the file resides.

CA Subsystems

This section contains the following topics:

[CA IDMS dictionary Profile](#) (see page 356)

[Datacom Profile](#) (see page 357)

[IDMS CV Profile](#) (see page 359)

CA IDMS_dictionary Profile

This is the CA IDMS dictionary environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - IDMS dictionary description

Specifies the description of the IDMS dictionary. Enter a 1 to 512 character mixed case text string.

DBNAME - CA IDMS dictionary name

Specifies the dictionary name. Enter a 1 to 8 character uppercase alphanumeric text string.

SYSCTL_DSN - CA IDMS dictionary data set name of the updating CV

Specifies the data set name of the updating CA IDMS Central Version (CV). Enter a 1 to 44 character MVS data set name.

VERSION - CA IDMS dictionary version and release

Specifies the version and release of the CA IDMS Central Version. Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 18000 for IDMS 18.0.00.

HAS_SYSGEN - CA IDMS dictionary contains SYSGEN definitions (Y or N)

Specifies whether the database contains SYSGEN definitions. Select Y for yes or N for no.

HAS_DIRL - CA IDMS dictionary contains CA IDMSNTWK schema (Y or N)

Specifies whether the database contains CA IDMSNTWK schema definitions. Select Y for yes or N for no.

HAS_REPORTS - CA IDMS dictionary contains report definitions (Y or N)

Specifies whether the database contains report definitions. Select Y for yes or N for no.

HAS_MSGS - CA IDMS dictionary contains CA-defined messages (Y or N)

Specifies whether the database contains CA-defined messages. Select Y for yes or N for no.

HAS_APPL - CA IDMS dictionary contains application definitions (Y or N)

Specifies whether the database contains application definitions. Select Y for yes or N for no.

HAS_ADS - CA IDMS dictionary contains ADS definitions (Y or N)

Specifies whether the database contains ADS definitions. Select Y for yes or N for no.

HAS_VDBA - CA IDMS dictionary contains visual DBA definitions (Y or N)

Specifies whether the database contains visual DBA definitions. Select Y for yes or N for no.

HAS_SQL - CA IDMS dictionary contains SQL content (Y or N)

Specifies whether the database contains SQL content. Select Y for yes or N for no.

HAS ASF - CA IDMS dictionary contains ASF content (Y or N)

Specifies whether the database contains ASF content. Select Y for yes or N for no.

HAS_TOOLS - CA IDMS dictionary contains tools definitions (Y or N)

Specifies whether the database contains tools definitions. Select Y for yes or N for no.

Datacom Profile

This is the CA Datacom environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - CA Datacom Multi-User Facility (MUF) address space description

Specifies the description of the CA Datacom Multi-User Facility (MUF) address space. Enter a 1 to 512 character mixed case text string.

JOBNAME - CA Datacom Multi-User Facility (MUF) address space job name

Specifies the CA Datacom Multi-User Facility (MUF) address space job name. Enter a 1 to 8 character alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

MUFNAME - CA Datacom Multi-User Facility (MUF) identifier used on startup

Specifies the CA Datacom Multi-User Facility (MUF) identifier. Enter the MUF parm used on startup.

VERSION - CA Datacom Multi-User Facility (MUF) version and release

Specifies the version and release of the CA Datacom Multi-User Facility (MUF). Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 12100 for CA Datacom/DB 12.1.00.

CUSLIB - CA Datacom customer load library data set name

Specifies the CA Datacom/DB customer load library. Enter a 1 to 44 character MVS data set name.

CUSMAC - CA Datacom customer macro library data set name

Specifies the CA Datacom/DB customer macro library. Enter a 1 to 44 character MVS data set name.

CAILIB - CA Datacom load module library data set name

Specifies the CA Datacom/DB pre-12.0 load module library. Enter a 1 to 44 character MVS data set name.

BATCHJCL - CA Datacom JCL to start the Multi-User Facility (MUF) as an initiated job

Specifies the JCL to activate the Multi-User Facility (MUF) as an initiated job. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

STARTCOMMAND - CA Datacom START command to activate the Multi-User Facility (MUF) as a started task

Specifies the START command text to activate the Multi-User Facility (MUF) as a started task. Enter a 1 to 126 character mixed case alphanumeric text string.

SVCNUM - CA Datacom user SVC number

Specifies the CA Datacom/DB user SVC number. Enter a 3 character numeric value in the range of 200 to 255. Used for the CA Datacom/DB validation SVC number.

CABDLOAD - CA Datacom product load library

Specifies the CA Datacom/DB 12.0 and above load library. Enter a 1 to 44 character MVS data set name.

CABDMAC - CA Datacom product macro library data set name

Specifies the CA Datacom/DB product macro library. Enter a 1 to 44 character MVS data set name.

CXXDSN - CA Datacom database directory data set name

Specifies the CA Datacom/DB database directory. Enter a 1 to 44 character MVS data set name.

CXXNAME - CA Datacom internal database directory data set name

Specifies the CA Datacom/DB internal database directory name. Enter a 1 to 44 character MVS data set name.

IDMS_CV Profile

This is the IDMS Central Version environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - IDMS Central Version (CV) description

Specifies the description of the IDMS Central Version (CV). Enter a 1 to 512 character mixed case text string.

JOBNAME - CA IDMS CV address space job name

Specifies the job name of the IDMS address space. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

SYSTEM# - CA IDMS CV DC/UCF system number

Specifies the DC/UCF system number. Enter a 1 to 4 character numeric value in the range of 1-9999.

SYSCTL - CA IDMS CV SYSCTL data set name

Specifies the data set name for SYSCTL. Enter a 1 to 44 character MVS data set name.

VERSION - CA IDMS CV version and release

Specifies the version and release of the IDMS Central Version (CV). Enter a 5 digit numeric value in the form *vvrrmm*. The *vv* is version, *r* is release, and *mm* is the maintenance level. For example, 18000 for IDMS 18.0.00.

DMCL - CA IDMS CV DMCL name

Specifies the IDMS Central Version (CV) DMCL name. Enter a 1 to 8 character uppercase alphanumeric text string.

DBTABLE - CA IDMS CV database name table

Specifies the IDMS Central Version (CV) database name table. Enter a 1 to 8 character uppercase alphanumeric text string.

DBALOAD - CA IDMS CV DMCL and DBTABLE library data set name

Specifies the data set name of the library containing the DMCL and DBTABLE. Enter a 1 to 44 character MVS data set name.

SYSTRK - CA IDMS CV model SYSTRK data set name

Specifies the data set name of the model SYSTRK file if the central version uses change tracking. Enter a single space, or a 1 to 44 character MVS data set name.

SYSTRKDD - CA IDMS CV DDNAME of the SYSTRK files prefix

Specifies the DD name of the prefix of SYSTRK files if the central version uses change tracking. Enter a single space, or a 1 to 8 character alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

NODENAME - CA IDMS CV DC/UCF system node name

Specifies the node name of the DC/UCF system. Enter a 1 to 8 character uppercase alphanumeric text string.

SVC# - CA IDMS CV SVC number

Specifies the SVC Number. Enter a 1 to 3 character numeric value in the range of 1-255.

CV# - CA IDMS CV number

Specifies the Central Version (CV) number. Enter a 1 to 3 character numeric value in the range of 0-255.

IBM Subsystems

This section contains the following topics:

[CICS Profile](#) (see page 360)

[DB2 Tools Profile](#) (see page 361)

[IMS Profile](#) (see page 364)

CICS Profile

This is the CICS environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - CICS description

Specifies the description of the CICS region. Enter a 1 to 512 character mixed case text string.

JOBNAME - CICS job name

Specifies the name of the CICS region. Enter a 1 to 8 character uppercase alphanumeric or national(#,@,\$) text string that must begin with an alphabetic or national character.

APPLID - CICS APPLID

Specifies the primary VTAM APPLID of the CICS region. Enter a 1 to 8 character uppercase alphanumeric text string.

TSVERSION - CICS Transaction Service version identifier

Specifies the Transaction Service version identifier of the CICS region. Enter a 6 digit numeric value in the form *vvrrmm*. The *vv* is version, *rr* is release, and *mm* is the maintenance level. For example, 030200 for CICS TS 3.2.

RELEASE - CICS internal release identifier

Specifies the CICS internal release identifier. Enter a 4 digit numeric value. For example, 0650.

SDFHAUTH - CICS APF-authorized library data set name

Specifies the CICS APF-authorized library associated with the CICS region. Enter a 1 to 44 character MVS data set name.

SDFHLOAD - CICS runtime library data set name

Specifies the runtime library associated with the CICS region. Enter a 1 to 44 character MVS data set name.

SDFHLINK - CICS link library data set name

Specifies the link library associated with the CICS region. Enter a 1 to 44 character MVS data set name.

SDFHMAC - CICS macro library data set name

Specifies the CICS macro library associated with the CICS region. Enter a 1 to 44 character MVS data set name.

DFHCSD - CICS CSD data set name

Specifies the CSD associated with the CICS region. Enter a 1 to 44 character MVS data set name.

DB2 Profile

This is the DB2 environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - DB2 subsystem description

Specifies the description of the DB2 subsystem. Enter a 1 to 512 character mixed case text string.

SUBSYSNAME - DB2 subsystem name

Specifies the DB2 subsystem name. Enter a 1 to 4 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

SSIDDESC - DB2 subsystem description

Specifies the description of the DB2 subsystem. Enter a 1 to 40 character mixed case text string.

VERSION - DB2 version identifier

Specifies the DB2 product version identifier. Enter a 6 digit numeric value in the form *vvrrmm*. The *vv* is version, *rr* is release, and *mm* is the maintenance level. For example, 100100 for DB2 10.1.00.

SSIDVER - DB2 version identifier

Specifies the DB2 product version identifier. Enter a 3 character value in the form *Vnn*. The *nn* is version. For example, V10.

SSIDMODE - DB2 subsystem operational mode

Specifies the DB2 subsystem operational mode. Allowed values are CM, CM8, CM9, ENMF, ENMF8, ENMF9, NFM.

SSBP4KIX - DB2 4K bufferpool index

Specifies the DB2 4K bufferpool index. Allowed values are BP16K0-BP16K9.

SSBP4KTS - DB2 4K bufferpool tablespace

Specifies the DB2 4K bufferpool tablespace. Allowed values are BP0-BP49.

SSBP8K - DB2 8K bufferpool

Specifies the DB2 8K bufferpool. Allowed values are BP8K0-BP8K9.

SSBP16K - DB2 16K bufferpool

Specifies the DB2 16K bufferpool. Allowed values are BP16K0-BP16K9.

SSBP32K - DB2 32K bufferpool

Specifies the DB2 32K bufferpool. Allowed values are BP32K, BP32K1-BP32K9.

SSIDXTYP - DB2 index type

Specifies the DB2 index type. Allowed values are 2, D, P, and blank.

SSPROTCL - DB2 index type

Specifies the DB2 protocol to be used for remote data access. Specify PRIVATE for DB2 V8 and earlier releases, DRDA for DB2 V9 and greater.

SSREMOTE - DB2 index type

Specifies the DB2 DRDA remote bind option. Specify YES or NO to indicate whether the Bind Packages and Plans task should include package binds on remote DB2 subsystems.

LOCATION - DB2 location

Specifies the DB2 location.

LOCSSIC - DB2 location subsystem ID

Specifies the DB2 location subsystem ID.

SDSNLOAD - DB2 load module library data set name

Specifies a DB2 load module library. Enter a 1 to 44 character MVS data set name.

SDSNEXIT - DB2 load modules data set name

Specifies the DB2 load module library containing the subsystem parameter module (DSNHDECP) and user-written exit routines. Enter a 1 to 44 character MVS data set name.

LOADLIB3 - Load module library data set name

Specifies an additional load module library. Enter a 1 to 44 character MVS data set name.

LOADLIB4 - Load module library data set name

Specifies an additional load module library. Enter a 1 to 44 character MVS data set name.

ZPARMLIB - DB2 ZPARMLIB data set name

Specifies the DB2 ZPARMLIB library name. Enter a 1 to 44 character MVS data set name.

ZPARMMEM - DB2 ZPARMLIB member name

Specifies the DB2 ZPARMLIB member name. Enter a 1 to 8 character member name.

BSDS01 - DB2 Recovery Analyzer and Log Analyzer first boot strap data set name

Specifies the first DB2 Recovery Analyzer and Log Analyzer boot strap data set name. Enter a 1 to 44 character MVS data set name.

BSDS02 - DB2 Recovery Analyzer and Log Analyzer second boot strap data set name

Specifies the second DB2 Recovery Analyzer and Log Analyzer boot strap data set name. Enter a 1 to 44 character MVS data set name.

SYSADM - DB2 system administrator user name

Specifies the DB2 install system administrator user ID. Enter a 1 to 8 character user name.

SYSADM2 - DB2 alternate system administrator user name

Specifies the alternate DB2 install system administrator user ID. Enter a 1 to 8 character user name.

CATALIAS - DB2 VCAT high level ID

Specifies the VCAT high level ID for the DB2 system. Enter a 1 to 8 character name.

DSNHDECP - DB2 DECP Module Name

Enter a 1 to 8 character DECP Module name. Enter a single blank space if the subsystem version is not DB2 10 NFM or later. Specify the same value as the DECP() option of the DB2 command STARTR DB2.

XMLDEFVL - DB2 XML Column Default Value

Enter a 1 to 40 character default value for new XML columns. For example: DOCUMENTED 1.0. Enter a single blank space to specify no default value.

DDF - DB2 Distributed Data Facility (DDF) Option

Specifies the DB2 Distributed Data Facility (DDF) option. Select YES if DDF is enabled for this DB2 and NO if it is not.

DSGROUP - DB2 data sharing group name

Specifies the DB2 data sharing group name. Enter a 1 to 8 character data sharing group name.

IMS Profile

This is the IMS environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - IMS description

Specifies the description of the IMS region. Enter a 1 to 512 character mixed case text string.

JOBNAME - IMS job name

Specifies the name of the IMS region. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

VERSION - IMS version identifier

Specifies the IMS version identifier. Enter a 6 digit numeric value in the form *vvrrmm*. The *vv* is version, *rr* is release, and *mm* is the maintenance level. For example, 110100 for IMS 11.1.

RESLIB - IMS linkage editor library data set name

Specifies the IMS linkage editor library. Enter a 1 to 44 character MVS data set name.

MODBLKS - IMS system definition data set name

Specifies the IMS system definition library. Enter a 1 to 44 character MVS data set name.

OPTIONS - IMS stage 2 customized system definition data set name

Specifies the IMS stage 2 customized system definition library. Enter a 1 to 44 character MVS data set name.

ADFSMAC - IMS macro library data set name

Specifies the IMS macro library. Enter a 1 to 44 character MVS data set name.

Language Processors

This section contains the following topics:

[C/C++ Profile](#) (see page 365)

[COBOL Profile](#) (see page 366)

[PL/I Profile](#) (see page 366)

C/C++ Profile

This is the C/C++ environment profile for CA CSM.

This profile has the following environment variables:

C/C++COMPILER - C/C++ compiler name

Specifies the C/C++ compiler name. Enter a 1 to 8 character load module name.

C/C++LIB1 - C/C++ compiler load module library name

Specifies a C/C++ compiler load module library. Enter a 1 to 44 character MVS data set name.

C/C++LIB2 - C/C++ compiler load module library name

Specifies a C/C++ compiler load module library. Enter a 1 to 44 character MVS data set name.

C/C++LIB3 - C/C++ compiler load module library name

Specifies a C/C++ compiler load module library. Enter a 1 to 44 character MVS data set name.

COMPILERINLL - C/C++ compiler in the LNKLST/LPALST

Specifies whether the libraries needed for the C/C++ compiler are in LNKLST/LPALST. Select one: YES|NO.

COBOL Profile

This is the COBOL environment profile for CA CSM.

This profile has the following environment variables:

COBOLCOMPILER - COBOL compiler name

Specifies the COBOL compiler name. Enter a 1 to 8 character load module name.

COBOLLIB1 - COBOL compiler load module library name

Specifies a COBOL compiler load module library. Enter a 1 to 44 character MVS data set name.

COBOLLIB2 - COBOL compiler load module library name

Specifies a COBOL compiler load module library. Enter a 1 to 44 character MVS data set name.

COBOLLIB3 - COBOL compiler load module library name

Specifies a COBOL compiler load module library. Enter a 1 to 44 character MVS data set name.

COMPILERINLL - COBOL compiler in the LNKLST/LPALST

Specifies whether the libraries needed for the COBOL compiler are in LNKLST/LPALST. Select one: YES|NO.

PL/I Profile

This is the PL/I environment profile for CA CSM.

This profile has the following environment variables:

PLICOMPILER - PL/I compiler name

Specifies the PL/I compiler name. Enter a 1 to 8 character load module name.

PLILIB1 - PL/I compiler load module library name

Specifies a PL/I compiler load module library. Enter a 1 to 44 character MVS data set name.

PLILIB2 - PL/I compiler load module library name

Specifies a PL/I compiler load module library. Enter a 1 to 44 character MVS data set name.

PLILIB3 - PL/I compiler load module library name

Specifies a PL/I compiler load module library. Enter a 1 to 44 character MVS data set name.

COMPILERINLL - PL/I compiler in the LNKLST/LPALST

Specifies whether the libraries needed for the PL/I compiler are in LNKLST/LPALST. Select one: YES|NO.

Networking

This section contains the following topic:

[TCPIP Profile](#) (see page 367)

TCPIP Profile

This is the TCPIP environment profile for CA CSM.

This profile has the following environment variables:

TCPDATA - TCPDATA file name

Specifies the TCPIP.DATA file name. Enter a 1 to 54 character MVS data set with member name, or a 1 to 44 character sequential data set name.

SEZAINST - TCP/IP installation data set name

Specifies the TCP/IP installation library. Enter a 1 to 44 character MVS data set name.

SEZACMAC - TCP/IP macro library data set name

Specifies the TCP/IP macro library. Enter a 1 to 44 character MVS data set name.

Storage

This section contains the following topics:

[PERMMVSST Profile](#) (see page 368)

[PERMOMVSST Profile](#) (see page 369)

[PERMVSAMST Profile](#) (see page 370)

[TAPESTORAGE Profile](#) (see page 371)

[TEMPPMVSST Profile](#) (see page 371)

PERMMVSST Profile

This is the permanent MVS storage environment profile for CA CSM. The variables contained in this profile provide default values that a product configuration may use as part of their configuration definition. These variables are intended to be used for resource definitions of non-VSAM MVS data sets that are considered to be a permanent part of the product configuration.

This profile has the following environment variables:

UNIT - Unit name

Specifies the unit name of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric, national (#,@,\$), hyphen (-), or slash (/) characters. The first character of the name must not be a slash.

VOLSER - Volume serial number

Specifies the volume serial number of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

MGMTCLAS - SMS management class

Specifies the SMS management class of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

STORCLAS - SMS storage class

Specifies the SMS storage class of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

DATACLAS - SMS data class

Specifies the SMS data class of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

PERMOMVSST Profile

This is the permanent OMVS storage environment profile for CA CSM. The variables contained in this profile provide default values that a product configuration may use as part of their configuration definition. These variables are intended to be used for resource definitions of data sets typically used in OMVS.

This profile has the following environment variables:

UNIT - Unit name

Specifies the unit name of the permanent OMVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric, national (#,@,\$), hyphen (-), or slash (/) characters. The first character of the name must not be a slash.

VOLSER - Volume serial number

Specifies the volume serial number of the permanent OMVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

USSFSHLQ - CA MSM default USS File High Level Qualifier

Specifies up to two high level qualifiers for the z/OS data set name that is used when creating runtime USS file systems. Enter a blank space, or a 1 to 17 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character. For example, OMVSUSR.MSM.

MGMTCLAS - SMS management class

Specifies the SMS management class of the permanent OMVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

STORCLAS - SMS storage class

Specifies the SMS storage class of the permanent OMVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

DATACLAS - SMS data class

Specifies the SMS data class of the permanent OMVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

PERMVSAMST Profile

This is the permanent VSAM storage environment profile for CA CSM. The variables contained in this profile provide default values that a product configuration may use as part of their configuration definition. These variables are intended to be used for resource definitions of VSAM data sets that are considered to be a permanent part of the product configuration.

This profile has the following environment variables:

UNIT - Unit name

Specifies the unit name of the permanent VSAM storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric, national (#,@,\$), hyphen (-), or slash (/) characters. The first character of the name must not be a slash.

VOLSER - Volume serial number

Specifies the volume serial number of the permanent VSAM storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

MGMTCLAS - SMS management class

Specifies the SMS management class of the permanent VSAM storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

STORCLAS - SMS storage class

Specifies the SMS storage class of the permanent VSAM storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

DATACLAS - SMS data class

Specifies the SMS data class of the permanent VSAM storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

TAPESTORAGE Profile

This is the TAPE storage environment profile for CA CSM. The variables contained in this profile provide default values that a product configuration may use as part of their configuration definition. These variables are intended to be used for resource definitions describing tape storage.

This profile has the following environment variables:

UNIT - Unit name

Specifies the unit name of the tape storage devices for use by CA CSM Configuration Services. Enter 1 to 8 uppercase alphanumeric, national (#,@,\$), hyphen (-), or slash (/) characters. The first character of the name must not be a slash.

EXPDT - Expiration date

Specifies the expiration date for tape data sets created by CA CSM Configuration Services. Enter a blank space, or a character text string in one of the following forms: YYDDD, YY/DDD, YYYYDDD, or YYYY/DDD; where YY is 00 through 99, YYYY is 0000 through 9999, and DDD is 000 through 366.

TEMPMVST Profile

This is the temporary MVS storage environment profile for CA CSM. The variables contained in this profile provide default values that a product configuration may use as part of their configuration definition. These variables are intended to be used for resource definitions of non-VSAM MVS data sets that are considered to be temporary and not a permanent part of the product configuration.

This profile has the following environment variables:

UNIT - Unit name

Specifies the unit name of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric, national (#,@,\$), hyphen (-), or slash (/) characters. The first character of the name must not be a slash.

VOLSER - Volume serial number

Specifies the volume serial number of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

MGMTCLAS - SMS management class

Specifies the SMS management class of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

STORCLAS - SMS storage class

Specifies the SMS storage class of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

DATACLAS - SMS data class

Specifies the SMS data class of the temporary MVS storage device for use by CA CSM Configuration Services. Enter a blank space, or a 1 to 8 uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

System

This section contains the following topics:

[General Profile](#) (see page 372)

[ISPF Profile](#) (see page 373)

[JES2 Profile](#) (see page 375)

[JES3 Profile](#) (see page 375)

[MIM Profile](#) (see page 376)

[MVS Profile](#) (see page 376)

[VTAM Profile](#) (see page 379)

General Profile

This is the general system CA CSM environment profile for CA CSM.

This profile has the following environment variables:

DESCRIPTION - System Description

Specifies the description for the system. Enter a 1 to 512 character mixed case text string.

PLEXCFG - SYSPLEX configuration type

Specifies the type of sysplex configuration associated with the system. Select one: MULTISYSTEM|MONOPLEX|XCFLOCAL|ANY.

SYSPLEXNAME - SYSPLEX name

Specifies the name of the sysplex associated with the system. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

LPARNAME - LPAR name

Specifies the logical partition name defined to the processor. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

CCINAME - CA CCI name

Specifies the CA CCI system name. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) characters that must begin with an alphabetic or national character.

ZOSVERSION - z/OS version identifier

Specifies the z/OS version identifier of the system. Enter a 6 digit numeric value in the form *vvrrmm*. The *vv* is version, *rr* is release, and *mm* is the maintenance level. For example, 011100 for z/OS 1.11.

OPERCMDTOV - CA CSM OperatorCommand service timeout value

Specifies the CA CSM OperatorCommand service timeout value in seconds. Enter a 1 to 3 character numeric value.

Note: Some product configurations use the OPERCMDTOV value to influence the timeout value. The timeout value is the time that the CA CSM Software Configuration Service processing waits for response messages to operator commands.

ISPF Profile

This is the ISPF environment profile for CA CSM.

This profile has the following environment variables:

SISPSAMP - ISPF sample library data set name

Specifies the ISPF sample library. Enter a 1 to 44 character MVS data set name.

SISPLOAD - ISPF load library data set name

Specifies the ISPF load library. Enter a 1 to 44 character MVS data set name.

SISPALIB - ISPF APL2 workspace library data set name

Specifies the ISPF APL2 workspace library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPALIB).

SISPCLIB - ISPF CLIST library data set name

Specifies the ISPF CLIST library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPCLIB).

SISPEXEC - ISPF REXX exec library data set name

Specifies the ISPF REXX exec library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPEXEC).

SISPLPA - ISPF LPA load library data set name

Specifies the LPA load library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPLPA).

SISPMACS - ISPF non-language specific macro library data set name

Specifies the non-language specific macro library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPMACS).

SISPHELP - ISPF help library data set name

Specifies the ISPF help library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPHELP).

SISPGUI - ISPF client/server workstation code library data set name

Specifies the ISPF client/server workstation code library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPGUI).

SISPGXXX - ISPF language specific panel source library data set name

Specifies the ISPF language specific panel source library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPGENU).

SISPGMLI - ISPF non-language specific panel source library data set name

Specifies the ISPF non-language specific panel source library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPGMLI).

SISPMXXX - ISPF language specific message library data set name

Specifies the language specific message library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPMENU).

SISPPXXX - ISPF language specific panel library data set name

Specifies the language specific panel library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPENU).

SISPSXXX - ISPF language specific skeleton library data set name

Specifies the language specific skeleton library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPSENU).

SISPSLIB - ISPF language specific skeleton library data set name

Specifies the non-language specific skeleton library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPSLIB).

SISPTXXX - ISPF language specific table library data set name

Specifies the language specific table library. Enter a 1 to 44 character MVS data set name (for example, ISP.SISPTENU).

JES2 Profile

This is the JES2 environment profile for CA CSM.

This profile has the following environment variables:

SHASMAC - SHASMAC JES2 macro library name

Specifies the JES2 macro library. Enter a 1 to 44 character MVS data set name.

SHASSRC - SHASSRC JES2 source library name

Specifies the JES2 source library. Enter a 1 to 44 character MVS data set name.

JES3 Profile

This is the JES3 environment profile for CA CSM.

This profile has the following environment variables:

SIATMAC - SIATMAC JES3 macro library name

Specifies the JES3 macro library. Enter a 1 to 44 character MVS data set name.

SIATSRC - SIATSRC JES3 source library name

Specifies the JES3 source library. Enter a 1 to 44 character MVS data set name.

MIM Profile

This is the MIM environment profile for CA CSM.

This profile has the following environment variables:

MIACF00VOLSER - Volume serial number for the primary MIA control file

Specifies the volume serial number for the primary MIA control file. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) characters text string.

MIACF01VOLSER - Volume serial number for the secondary MIA control file

Specifies the volume serial number for the secondary MIA control file. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) characters text string.

MIICF00VOLSER - Volume serial number for the primary MII control file

Specifies the volume serial number for the primary MII control file. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) characters text string.

MIICF01VOLSER - Volume serial number for the secondary MII control file

Specifies the volume serial number for the secondary MII control file. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) characters text string.

MVS Profile

This is the MVS environment profile for CA CSM.

This profile has the following environment variables:

SYSRES - MVS system residence volume serial number

Specifies the system residence volume serial number. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

PROCLIB - MVS PROCLIB data set name

Specifies the MVS PROCLIB library in the MASTER JCL concatenation. Enter a 1 to 44 character MVS data set name.

PRCLVSER - MVS PROCLIB volume serial number

Specifies the PROCLIB volume serial number. Enter a blank space, or a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

JESPROC - MVS JESPROC data set name

Specifies the JES procedure library in the JES JCL concatenation. Enter a 1 to 44 character MVS data set name.

JESPVSER - MVS JESPROC volume serial number

Specifies the JESPROC volume serial number. Enter a blank space, or a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

MCATDSN - MVS master catalog data set name

Specifies the MVS master catalog. Enter a 1 to 44 character MVS data set name.

MCATVSER - MVS master catalog volume serial number

Specifies the master catalog volume serial number. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

MACLIB - MVS macro library data set name

Specifies the macro library. Enter a 1 to 44 character MVS data set name.

MODGEN - MVS MODGEN library data set name

Specifies the MODGEN library. Enter a 1 to 44 character MVS data set name.

SCEERUN - MVS LE SCEERUN runtime library data set name

Specifies the MVS Language Environment (LE) dynamic runtime library. Enter a 1 to 44 character MVS data set name.

SCEERUN2 - MVS LE SCEERUN2 runtime library data set name

Specifies the MVS Language Environment (LE) dynamic runtime library. Enter a 1 to 44 character MVS data set name.

SCEEINLL - SCEERUN and SCEERUN2 in the LNKLST/LPALST

Specifies whether the MVS Language Environment (LE) dynamic runtime libraries SCEERUN and SCEERUN2 are in the LNKLST/LPALST. Select one: YES|NO.

SCEEMAC - MVS LE SCEEMAC macro library data set name

Specifies the MVS Language Environment (LE) macro library. Enter a 1 to 44 character MVS data set name.

SCEEOBJ - MVS LE SCEEOBJ object module library data set name

Specifies the MVS Language Environment (LE) object module library. Enter a 1 to 44 character MVS data set name.

SCEELKED - C/C++ non-XPLINK (uppercase, no long name) resident routine library data set name

Specifies the C/C++ non-XPLINK (uppercase, no long name) resident routine library. Enter a 1 to 44 character MVS data set name.

SCEELKEX - C/C++ non-XPLINK (case sensitive, long name) resident routine library data set name

Specifies the C/C++ non-XPLINK (case sensitive, long name) resident routine library. Enter a 1 to 44 character MVS data set name.

SCEE LIB - C/C++ non-XPLINK (case sensitive, long name) resident routine library data set name

Specifies the C/C++ XPLINK (uppercase, no long name) resident routine library. Enter a 1 to 44 character MVS data set name.

SCEECPP - C/C++ base definition library data set name

Specifies the C/C++ base definition library. Enter a 1 to 44 character MVS data set name.

SCEECICS - COBOL specific CICS LE runtime library data set name

Specifies the COBOL specific CICS LE runtime library. Enter a 1 to 44 character MVS data set name.

SCEEBND2 - Language Environment (LE) resident routine library data set name

Specifies the Language Environment (LE) resident routine library. Enter a 1 to 44 character MVS data set name.

JESTYPE - Job entry subsystem type

Specifies job entry subsystem type for the system. Select one: JES2 | JES3.

ESMTYPE - External security manager type

Specifies external security manager type for the system. Select one: ACF2 | TSS | RACF.

LIBRARYTYPE - DSNTYPE for a partitioned data set

Specifies the default library allocation type. Select one: PDS | LIBRARY.

SMFNAME - SMF system identifier

Specifies the SMF system identifier that is used in SMF records. Enter a 1 to 4 character mixed case text string.

SYSPLEX - MVS static symbol for the name of the SYSPLEX

Specifies the value assigned to the MVS static symbol &SYSPLEX. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

SYSNAME - MVS static symbol for the name of the system

Specifies the value assigned to the MVS static symbol &SYSNAME. Enter a 1 to 8 character uppercase alphanumeric or national (#,@,\$) text string that must begin with an alphabetic or national character.

SYSCLONE - MVS static symbol for shorthand notation of the system name

Specifies the value assigned to the MVS static symbol &SYSCLONE. Enter a 2 character uppercase alphanumeric or national (#,@,\$) text string.

SYSR1 - MVS static symbol for the IPL volume serial number

Specifies the value assigned to the MVS static symbol &SYSR1. Enter a 1 to 6 uppercase alphanumeric, national (#,@,\$), or hyphen (-) character text string.

SYSALVL - MVS static symbol for the architecture level of the system

Specifies the value assigned to the MVS static symbol &SYSALVL. Enter a 1 digit numeric value.

VTAM Profile

This is the VTAM environment profile for CA CSM.

This profile has the following environment variables:

VTAMLIB - VTAM load module library name

Specifies the VTAM load module library. Enter a 1 to 44 character MVS data set name.

VTAMLST - VTAM definition library name

Specifies the VTAM definition library. Enter a 1 to 44 character MVS data set name.

Glossary

aggregated package

An *aggregated package* is a file that comprises several single maintenance packages (nested packages).

automatic ID

The *automatic ID* is the value of the MSMID variable. This is part of the snapshot and is unique for every deployment.

CA CSM application server

The *CA CSM application server* is the CA CSM Tomcat region that supports the CA CSM application code.

CA Datacom/MSM server

The *CA Datacom/MSM server* is a server that lets workstation-based applications use the CA Datacom/MSM database.

CA Recommended Service (CA RS)

CA Recommended Service (CA RS) is a set of maintenance packages that have been tested in a mainframe integrated system test environment. We recommend that you install CA RS maintenance to keep your products up-to-date. To keep yourself informed about new CA RS maintenance available, you must download (either manually or automatically) all CA RS files that list published maintenance for that CA RS level.

CAICCI system ID

The *CAICCI system ID* is a unique name for a system that is part of a CAICCI network. If you do not specify one, CA CSM obtains it using a validate action.

configuration category

A *configuration category* is a group of variables for a configuration. The top root level is a category that encompasses all categories and variables.

configurations

A *configuration* is a CA CSM object that you create to tailor your deployed software and make it usable in your environment. It contains the profiles, variables and resources specific to your environment.

confirm

Confirms that the deployment is complete. This is the final action by the user. A deployment is not completed until it is confirmed. After it is confirmed the deployment moves to the Confirmed deployment list.

contact system

The *contact system* defines which system the deployment is unpackaged on. That is, which system CAICCI is spawned to run the unpackaging.

custom data set

A *custom data set* is a data set that contains either a z/OS data set or USS parts path.

data destination

A *data destination* must be defined for every system. The data destination is how you tell CA CSM which technique to use to transport the deployment data to the remote system. Data destinations are assigned to non-sysplex systems, sysplexes, and shared DASD clusters. Data destinations are named objects, and thus can be assigned to multiple entities in the system registry and have their own independent maintenance dialogs.

data set name mask

A *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.

deploy

The *deploy* functionality combines the snapshot, transmit, and deploy actions into one action, letting you copy your CA CSM product onto systems across your enterprise. For example, you can send one or many products to one or many systems by copying it to a shared DASD or through FTP.

deployment

A *deployment* is a CA CSM object that you create to deploy libraries and data sets using a process that copies target libraries defined to SMP/E and user data sets across both shared DASD and networked environments.

directory path

The root *directory path* is the base directory to which the FTP server is allowed access. The FTP server will be allowed to create files to or read files from this directory and any of its subdirectories. The 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.

File Transfer Protocol (FTP)

File Transfer Protocol (FTP) is a protocol for transfer of files from one computer to another over the network.

FIXCAT

FIXCAT (fix category) associates a maintenance package to one or more categories of PTFs (for example, installation, function, z/OS version, or communication).

FTP port

An *FTP port* is the point of connection through which files are transferred. The default is 21.

gen level

A *gen level* is the innermost level in the product list in the left pane under the release level of a product. Selecting a gen level in the left pane displays the available base installation packages and other product components in the right pane. Gen levels are preceded with the following icon: 

More information:

[product](#) (see page 384)

[release](#) (see page 385)

GIMUNZIP volume

The *GIMUNZIP volume* is a data destination setting in CA CSM that specifies the GIMUNZIP volume to direct GIMUNZIP to use GIMUNZIP control files to unpack the data sets onto the specified volume. Use this setting when your environmental setup requires that the libraries that are deployed and copied by CA CSM are directed to a particular volume on your target system.

GIMZIP

GIMZIP is an IBM utility that creates portable packages of software with a suffix of z.

landing directory

The *landing directory* is where the data is temporarily placed during a deployment.

managed product USS file system

A *managed product USS file system* is a collection of USS file systems that are used by SMP/E environment under the control of CA CSM. CA CSM creates managed product USS file systems during a base installation and optionally during migration of an SMP/E environment.

methodology

A *methodology* is the process by which data sets are named on the target system. It provides the *how* of a deployment. It is a named object with a description that is assigned to an individual deployment.

monoplex

A *monoplex* is a sysplex that has only one member system and minimally a single coupling facility. Currently, a monoplex is tracked in the same manner as a sysplex, except the sysplex name shown in the web-based interface is actually the monoplex system name.

MSM Common Services

The *MSM Common Services* (CETN500) is a contributed component of CA Common Services for z/OS that consists of the Software Deployment Service (SDS) and the Software Configuration Services (SCS).

MSMCAUX

MSMCAUX is the JCL procedure that is used to start the auxiliary address space. CA Common Services for z/OS that CA CSM uses includes a sample procedure in the member *MSMCAUX* of the CCS CAIPROC (CCShlq.CAIPROC) library. You must copy this procedure to a system PROCLIB that z/OS START commands use and modify it to suit your installation environment. The *MSMCAUX* sample member describes the changes that are required. Do not start the *MSMCAUX* procedure manually. The *MSMCAUX* procedure is started by the SCS address space (MSMCPROC).

MSMCPROC

MSMCPROC is the JCL procedure that is used to start the SCS address space. CA Common Services for z/OS that CA CSM uses includes a sample procedure in the member *MSMCPROC* of the CCS CAIPROC (CCShlq.CAIPROC) library. You must copy this procedure to a system PROCLIB that the z/OS START commands use and modify it to suit your installation environment. The *MSMCPROC* sample member describes the changes that are required.

MSMTC

MSMTC is the job stream or started task associated with the [CA CSM application server](#) (see page 381).

non-sysplex

A *non-sysplex* is a stand-alone z/OS system that is not part of a sysplex or a monplex system.

optional variable

An *optional variable* does not require a value. Some optional variables must be confirmed.

policy

A *policy* in CA CSM represents a combination of (1) metadata input that identifies the component parts of a product, and (2) user-supplied input that identifies the deployment criteria, such as where it will go and what will it be called.

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.

product

A *product* is a level in the product list in the left pane under the vendor. Selecting a product in the left pane displays product releases in the right pane. Products are preceded with the following icon: 

More information:

[gen level](#) (see page 383)
[release](#) (see page 385)

Product Acquisition Service (PAS)

The *Product Acquisition Service (PAS)* facilitates the acquisition of mainframe products and the service for those products, such as program temporary fixes (PTFs). The PAS retrieves information about products to which your site is entitled. Then it records these entitlements in a software inventory that is maintained on your driving system.

profile/profile occurrence

A *profile* is a grouping of variables that belong to a subsystem or a component. A *profile occurrence* is a version of that profile that has been tailored for a specific system. You can have multiple profile occurrences for the same profile on one system.

release

A *release* is the level in the product list in the left pane under the product. Selecting a release in the left pane displays maintenance packages in the right pane. Releases are preceded with the following icon: 

More information:

[gen level](#) (see page 383)
[product](#) (see page 384)

resolved variable

A *resolved variable* contains a value and has been confirmed (if required). You can modify a variable that has been resolved.

resource

A *resource* is a physical or virtual component of a system. Resources include data sets, parameter settings, libraries, files, and operator commands. Dummy resources are temporary resources used during the configuration build or implementation process, or that serve as place holders for tracking purposes.

SCS address space

The *SCS address space* is a specially defined location where the system registry and commands for interrogating output and console traffic reside within the operating system. The SCS address space provides the services and processing necessary to implement configurations across your targeted z/OS systems. Each target system expected to support SCS processing must execute an SCS address space.

SCS address space port

An *SCS address space port* is the point of connection through which the client communicates with the address space. The default is 49152.

shared DASD clusters

A *shared DASD clusters* system is a set of systems that share DASD and it can be composed of sysplex and/or non-sysplex systems. Staging system cannot be part of a shared DASD cluster.

snapshot

A *snapshot* is a copy of the set of target libraries that CA CSM makes using the IBM utility GIMZIP. CA CSM uses GIMZIP to create a compressed archive of these libraries, including a list of applied maintenance. The SMP/E environment is locked during this archive creation process to verify the integrity of the archived data.

Software Configuration Service (SCS)

The *Software Configuration Service (SCS)* facilitates the mainframe product configuration from the software inventory of the driving system to targeted z/OS operating systems.

Software Deployment Service (SDS)

The *Software Deployment Service (SDS)* facilitates the mainframe product deployment from the software inventory of the driving system to the target system. This facilitation includes deploying installed products that are policy-driven with a set of appropriate transport mechanisms across a known topology.

Software Installation Service (SIS)

The *Software Installation Service (SIS)* facilitates the installation and maintenance of mainframe products in the software inventory of the driving system. This facilitation includes browsing downloaded software packages, managing SMP/E consolidated software inventories on the driving system, and automating installation tasks.

staging system

A *staging system* is a virtual system that deploys the deployment to the computer where the CA CSM driving system is located. To use a staging system, the CA CSM driving system must be registered in the CA CSM system registry. 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.

storage classes

storage classes apply only to SMS-managed data sets and objects. They allow you to define different levels of performance and availability services for your data sets. Using them, you can separate the level of service needed by a data set or object from its physical characteristics. Storage classes can supply such information as attributes for dynamic cache management, sequential data set striping, and concurrent copy. It is the association of a storage class with a data set or object which causes the data set or object to be SMS-managed. Because of this, such functions as dynamic cache management and sequential data set striping apply only to SMS managed data sets. Data sets may be SMS-managed or non-SMS managed. Objects must be SMS-managed.

symbolic substitution

symbolic substitution, or translation, is a process performed by CA CSM 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 CSM symbol is defined in the list of symbols. Each symbol begins with an ampersand (&) and ends with a period (.). For example the symbol &LYYMMDD., 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.

sysplex

A *sysplex* (SYStem comPLEX) is the IBM mainframe system complex which 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.

system registry

The *system registry* is a repository of variable data that all CA CSM managed products share. The system registry repository contains information about the systems that have been defined to CA CSM and selected as a target for deployments and configurations. You can create non-sysplex, sysplex, shared DASD cluster, and staging systems. You can maintain, validate, view, and delete a registered system and you can investigate a failed validation.

task output browser

The *task output browser* displays the details of finished tasks.

topology

The enterprise system *topology* can include shared DASD environments, networked environments, and z/OS systems.

transmit

The *transmit* functionality lets you copy a product onto systems across the enterprise through FTP, in preparation for a subsequent deployment.

Uniform Resource Identifier (URI)

A *Uniform Resource Identifier (URI)* is a string of characters used to identify a name or a resource on the Internet. Such identification enables interaction with representations of the resource over a network (typically the World Wide Web) using specific protocols. Schemes specifying a concrete syntax and associated protocols define each URI. For a shared DASD cluster or sysplex, the URI must be the URI of the Contact System.

UNIX System Services (USS) files

For *UNIX System Services (USS) files* for z/OS systems, there are three types of files system: HFS (Hierarchical File Systems), zFS (zSeries File Systems), and NFS (Network File Systems). USS files are any one, or combination, of these file systems, and start with the root directory, which is denoted by a single forward slash (/).

validation

The *validation* process is started by the user when they 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 (staging systems are not validated). This starts a background security procedure using the CAICCI validation services to validate this system.

VOLSER

A *VOLSER* is the Volume Serial Number that places the data on an explicit volume.

working set

A *working set* is a selected group of SMP/E environments with which you want to work. Future displayed information will be based on the working set. For example, maintenance information is shown for the working set. The information is not shown for environments outside the set.

zFS candidate volumes

You can use a *zFS candidate volume* when your environmental setup dictates that zFS container data sets are directed to the specified volume.

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