

CA Allocate™ DASD Space and Placement

Installation Guide
r12.5, Second Edition



This Documentation, which includes embedded help systems and electronically distributed materials (hereinafter referred to as the "Documentation"), is for your informational purposes only and is subject to change or withdrawal by CA at any time.

This Documentation may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of CA. This Documentation is confidential and proprietary information of CA and may not be disclosed by you or used for any purpose other than as may be permitted in (i) a separate agreement between you and CA governing your use of the CA software to which the Documentation relates; or (ii) a separate confidentiality agreement between you and CA.

Notwithstanding the foregoing, if you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all CA copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to CA that all copies and partial copies of the Documentation have been returned to CA or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, CA PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL CA BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF CA IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is CA.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

Copyright © 2015 CA. All rights reserved. All trademarks, trade names, service marks, and logos referenced herein belong to their respective companies.

CA Technologies Product References

This document references the following CA Technologies products:

- CA Allocate™ DASD Space and Placement (CA Allocate)
- CA Mainframe Software Manager (CA MSM)
- CA Service Desk Manager (CA SDM)

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

Providing Feedback About Product Documentation

If you have comments or questions about CA Technologies product documentation, you can send a message to techpubs@ca.com.

To provide feedback about CA Technologies product documentation, complete our short customer survey which is available on the CA Support website at <http://ca.com/docs>.

Contents

Chapter 1: Overview	7
Audience	7
How the Installation Process Works.....	7
Chapter 2: Preparing for Installation	9
Software Requirements	9
CA Common Services Requirements	9
CAICCI.....	10
CAIRIM	10
CA LMP	11
CAISDI Service	11
CA Health Checker Common Service	12
Security Requirements	12
Storage Requirements.....	12
Other Requirements.....	13
Concurrent Releases	13
Chapter 3: Installing Your Product Using CA MSM/CA CSM	15
How the Installation Process Works.....	15
How to Install Your Product Using CA MSM.....	17
Access CA CSM Using the Web-Based Interface	18
Acquire a New Product	18
Install a Product	19
Maintain the Installed Products	21
Deploy the Product to the Destination System.....	22
Configure the Deployed Product.....	23
Chapter 4: Installing Your Product from Pax-Enhanced ESD	25
How to Install a Product Using Pax-Enhanced ESD	25
How the Pax-Enhanced ESD Download Works	27
ESD Product Download Window	27
USS Environment Setup	30
Allocate and Mount a File System.....	31
Copy the Product Pax Files into Your USS Directory	34
Download Using Batch JCL	35

Download Files to Mainframe through a PC	38
Create a Product Directory from the Pax File	39
Sample Job to Execute the Pax Command (Unpackage.txt)	40
Copy Installation Files to z/OS Data Sets.....	40
Receiving the SMP/E Package	41
How to Install Products Using Native SMP/E JCL	42
Prepare the SMP/E Environment for Pax Installation	42
Run the Installation Jobs for a Pax Installation	43
Clean Up the USS Directory.....	44
Apply Maintenance	45
HOLDDATA	45
 Chapter 5: Beginning to Use CA Allocate	 47
Current Users	47
New Users	47
Copy or create members from the CCTVJCL lib into the Parmlib.....	48
Security, APF, and LINK Requirements.....	49
Start and Stop the VAM Task	49
Deploy Your Product	49
Syntax-Check ASRs	49
ASR Compile Failure	50
Correct Failed Install or Remove	50
Refresh Active Members	51
Limit VAM to Your Testing	51
DORMANT Mode.....	51
ACTIVE Mode	52

Chapter 1: Overview

This guide describes how to install and implement CA Allocate.

This section contains the following topics:

[Audience](#) (see page 7)

[How the Installation Process Works](#) (see page 7)

Audience

This guide is used by the System Programmers who install CA Allocate and do the basic configuration.

How the Installation Process Works

CA Technologies has standardized product installations across all mainframe products. Installation uses the following process:

- Acquisition—Transports the software to your z/OS system.
- Installation using SMP/E—Optionally creates a CSI environment and runs the RECEIVE, APPLY, and ACCEPT steps. The software is untailored.
- Deployment—Copies the target libraries to another system or LPAR.
- Configuration—Creates customized load modules, bringing the software to an executable state.

CA MSM provides a web-based interface to make the standardized installation process easier. Using CA MSM, someone with limited knowledge of JCL and SMP/E can install a product.

As a best practice, we recommend that you install mainframe products and maintenance using CA MSM.

Note: If you do not have CA MSM, you can download it from the Download Center at <http://ca.com/support>. Follow the installation instructions in the CA Chorus Software Manager documentation bookshelf on the CA Chorus Software Manager product page.

You can also complete the standardized installation process manually using pax files that are downloaded from <http://ca.com/support>, <http://www.t> or a product DVD.

To install your product, do the following tasks:

1. Prepare for the installation by [confirming that your site meets all installation requirements](#) (see page 9).
2. Acquire the product using one of the following methods:
 - CA MSM
 - Pax-Enhanced Electronic Software Delivery (ESD)
 - Order a DVD. To do so, contact your account manager or a CA Technologies Support representative.
3. Install the product based on your acquisition method.
Note: If a CA Recommended Service (CA RS) package is published for your product, install it before continuing with deployment.
4. Install the CA Common Services using the pax files that contain the CA Common Services you need at your site.
Install all CA Common Services contained in the Required CA Common Service bundle.
5. Apply maintenance, if applicable.
6. Deploy your target libraries.
7. Configure your product.

Chapter 2: Preparing for Installation

This section describes what you need to know and do before you install the product.

This section contains the following topics:

- [Software Requirements](#) (see page 9)
- [CA Common Services Requirements](#) (see page 9)
- [Security Requirements](#) (see page 12)
- [Storage Requirements](#) (see page 12)
- [Other Requirements](#) (see page 13)
- [Concurrent Releases](#) (see page 13)

Software Requirements

CA Allocate requires any IBM supported release of z/OS.

CA Common Services Requirements

The following CA Common Services are used with CA Allocate:

- CAICCI
- CAIRIM
- CA LMP
- CAISDI Service
- CA Health Checker Common Service

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

CAICCI

The CAI Common Communications Interface (CAICCI) is a communications facility that enables CA products to communicate with one another in a simple and flexible approach. This facility provides a layer that isolates application software from the specifics of the communication environment. The responsible routines are grouped under the CA Service code W410.

CAICCI features include:

- Single point of control
- Multiple platform support
- Performance optimization
- Peer-to-peer (program to program) communication
- Parallel conversations
- Dynamic installation configuration
- Ease of customization
- Error handling

CAIRIM

CAI Resource Initialization Manager (CAIRIM) is the common driver for a collection of dynamic initialization routines. The routines eliminate the need for user SVCs, SMF exits, subsystems, and other installation requirements that are commonly encountered when installing systems software. These routines are grouped under the CA dynamic service code, S910.

CAIRIM features include:

- Obtaining SMF data
- Verification of proper software installation
- Installation of z/OS interfaces
- Automatic startup of CA and other vendor products
- Proper timing and order of initialization

CA LMP

The CA License Management Program (CA LMP) tracks the licensed software in a standardized and automated way. CA LMP uses common real-time enforcement software to validate your configuration. With the help of the routines that are integrated into the CA z/OS dynamic service code, S910 (the CAIRIM service), CA LMP reports activities that are related to the license, usage, and financials of CA products.

CA LMP features include:

- Common Key Data Set can be shared among many CPUs.
- Check digits are used to detect errors in transcribing key information.
- Execution keys can be entered without affecting any CA software product already running.
- No special maintenance requirements.

CAISDI Service

The Unicenter Service Desk Interface (CAISDI) enables CA mainframe z/OS products to automatically open request tickets in Unicenter Service Desk for serious conditions that have been detected. Thus, important problems are brought to the attention of the selected individuals far more quickly. The automatic detection and escalation of mainframe problems through Unicenter Service Desk empowers IT to take a proactive, business-driven, or Service Aware approach to incident escalation and service management.

CAISDI uses web services technology to access Unicenter Service Desk. To activate the Service Desk interface, have the following components installed and configured:

- Unicenter Service Desk r11 running on a server accessible to the mainframe using TCP/IP
- TCP/IP on your z/OS system
- CAICCI on your z/OS system
- CAISDI on your z/OS system

For more information about activating the CAISDI interface, see the *Unicenter Service Desk Interface Getting Started*.

CA Health Checker Common Service

The CA Health Checker common service provides a simple and consistent method for CA products to create health checks to run under the IBM Health Checker for z/OS. The IBM Health Checker for z/OS allows you to identify potential problems in your z/OS environment by checking system or product parameters and system status against recommended settings. CA Allocate health checks are automatically activated on the target system when the CA Allocate task is started on a system where the following components are installed and configured:

- CA Health Checker Common Service at the r11 SP08 level, plus additional maintenance. See <http://Support.ca.com> for additional details on the required maintenance for CA Health Checker Common Service.
- IBM Health Checker for z/OS.

Security Requirements

To install CA Allocate, you need CREATE or UPDATE authority for all of the libraries in the SMP/E zone.

To customize CA Allocate, the TSO ID needs update authority to the PARMLIB library.

To run CA Allocate, the CA Allocate started task (or batch job) needs READ authority for the CCTVLOAD and PARMLIB libraries.

Storage Requirements

Ensure that you have the following space available:

- For the installation and setup:
 - Installation = 45 cylinders
 - SMP/E temporary libraries = 45 cylinders

When all features are enabled, the Allocation Manager component requires approximately 1741 KB of CSA above the 16-MB line, with the largest contiguous piece being 807 KB. The component also requires approximately 70 KB below the 16-MB line, with the largest contiguous piece being 66 KB.

Other Requirements

An LMP key is required for the Allocation Manager component and the Quota component.

When using the QSYNC process of the Quota selectable unit, have the CA Allocate Started Task running (RESIDENT=YES).

Concurrent Releases

You can install this release of CA Allocate and continue to use an older release for your production environment. If you plan to continue to run a previous release, consider the following points:

- When installing into an existing SMP/E environment, this installation deletes previous releases. Also consider the following points:
Note: Do not reuse the target or distribution zones from earlier releases. CA Allocate 12.0 reuses the FMID from releases 5.3, 11.1, and 11.5.
- If you acquired your product from tape or with Pax-Enhanced ESD, select different target and distribution zones for your new release from where your current release is installed. The new zones use different libraries than your current release.
Note: CA MSM installs into a new CSI by default.
- Define DDDEF entries in your new zones to point SMP/E to the proper libraries for installation. Ensure that they point to the new release libraries.

Chapter 3: Installing Your Product Using CA MSM/CA CSM

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

Note: If you do not have CA MSM, you can download it from the Download Center at the CA Support Online website. Follow the installation instructions in the CA Mainframe Software Manager documentation bookshelf on the CA Mainframe Software Manager product page.

When you have completed the procedures in this section, go to [Configuring Your Product](#).

This section contains the following topics:

[How the Installation Process Works](#) (see page 15)

[How to Install Your Product Using CA MSM](#) (see page 17)

How the Installation Process Works

CA Technologies has standardized product installations across all mainframe products. Installation uses the following process:

- Acquisition—Transports the software to your z/OS system.
- Installation using SMP/E—Creates an SMP/E environment and runs the RECEIVE, APPLY, and ACCEPT steps. The software is untailored.
- Deployment—Copies the target libraries to another system or LPAR.
- Configuration—Creates customized load modules, bringing the software to an executable state.

CA Chorus™ Software Manager (CA MSM) provides a web-based interface to make the standardized installation process easier. Using CA MSM, someone with limited knowledge of JCL and SMP/E can install a product.

As a best practice, we recommend that you install mainframe products and maintenance using CA MSM.

Note: If you do not have CA MSM, you can download it from the Download Center at <http://ca.com/support>. Follow the installation instructions in the CA Chorus Software Manager documentation bookshelf on the CA Chorus Software Manager product page.

You can also complete the standardized installation process manually using pax files that are downloaded from <http://ca.com/support> or a product DVD.

To install your product, do the following tasks:

1. Prepare for the installation by [confirming that your site meets all installation requirements](#) (see page 9).
2. Verify that you acquired the product using one of the following methods:
 - Download the software from <http://ca.com/support> using CA MSM.
 - Download the software from <http://ca.com/support> using Pax-Enhanced Electronic Software Delivery (Pax ESD).
 - Order a product DVD. To do so, contact your account manager or a CA Technologies Support representative.
3. Perform an SMP/E installation using one of the following methods:
 - If you used CA MSM to acquire the product, start the installation process from the SMP/E Environments tab in CA MSM.
 - If you used Pax ESD to acquire the product, you can install the product in the following ways:
 - Install the product manually.
 - Complete the SMP/E installation using the Add Product option in CA MSM.
 - If you used a DVD, install the product manually.
- Note:** If a CA Recommended Service (CA RS) package is published for your product, install it before continuing with deployment.
4. Deploy the target libraries using one of the following methods:
 - If you are using CA MSM to configure your products, a CA MSM deployment is required.
 - If you are using a manual configuration process, a manual deployment is an optional step.
- Note:** Deployment is considered part of starting your product.
5. Configure your product using CA MSM or manually.

Note: Configuration is considered part of starting your product.

How to Install Your Product Using CA MSM

As a system programmer, your responsibilities include acquiring, installing, maintaining, deploying, and configuring CA Technologies mainframe products on your system.

CA MSM is an application that simplifies and unifies the management of your CA Technologies mainframe products on z/OS systems. As products adopt the CA MSM services, you can install your products in a common way according to industry best practices.

This scenario describes the steps for a system programmer to acquire, install, deploy, and configure products and maintenance. Not all tasks may apply to your organization. For example, you may decide not to deploy and configure products. In this case, do not perform the product deployment task and the product configuration task.

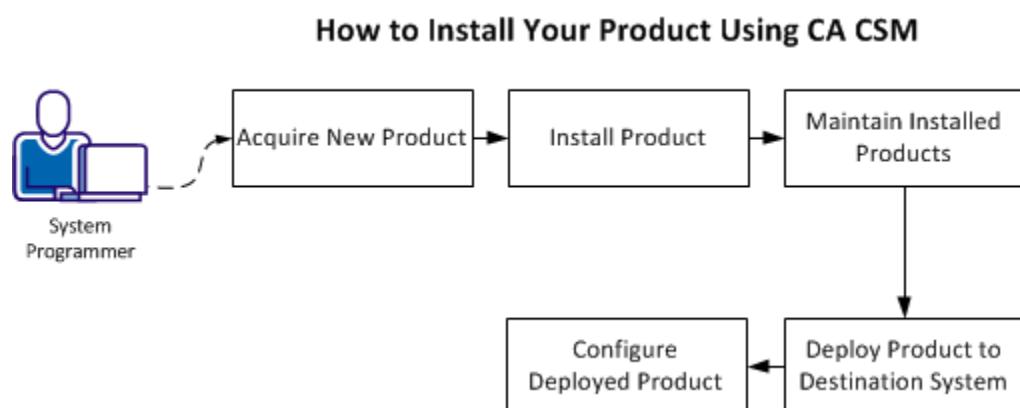
Before you use this scenario, you must have CA MSM installed at your site. If you do not have CA MSM installed, you can download it from the Download Center at <http://ca.com/support>. This web page also contains links to the complete documentation for CA MSM.

You [access CA MSM](#) (see page 18) from a web browser.

Note: This scenario applies to the latest version of CA MSM. If you are using an earlier version, see the appropriate bookshelf on the CA Chorus Software Manager product page.

This scenario is a high-level overview of steps that you perform using CA MSM. For more detailed information, use the online help that is included in CA MSM.

You perform the following tasks to install products and manage them on your system:



1. [Acquire a new product](#) (see page 18).
2. [Install the product](#) (see page 19).
3. [Maintain the installed products](#) (see page 21).

4. [Deploy the product to the destination system](#) (see page 22).
5. [Configure the deployed product](#) (see page 23).

Access CA CSM Using the Web-Based Interface

You access CA MSM using the web-based interface.

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

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.

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

Acquire a New Product

Acquisition allows you to download products and product maintenance from the CA Support Online website at <http://ca.com/support> to a USS directory structure on your system. The products to which your site is entitled and the releases available are displayed in the Available Products section on the Products page.

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

1. Set up a CA Support Online account at <http://ca.com/support>.

To use CA MSM to acquire or download a product, you must have a CA Support Online account. If you do not have an account, create one on <http://ca.com/support>.

2. Determine the CA MSM URL for your site.

To [access CA MSM](#) (see page 18), you require its URL. You can get the URL from your site CA MSM administrator and log in using your z/OS credentials. When you log in for the first time, you are prompted to create a CA MSM account with your credentials that you use to access <http://ca.com/support>. This account enables you to download product packages.

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

After you log in to CA MSM, 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 product list. CA MSM refreshes the product list through <http://ca.com/support> using the site IDs associated with your credentials.

4. Download the product installation packages.

After you find your product in the product list, you can download the product installation packages. To do so, use the Update Product Release action.

CA MSM downloads (acquires) the packages (including any maintenance packages) from the CA Support Online website.

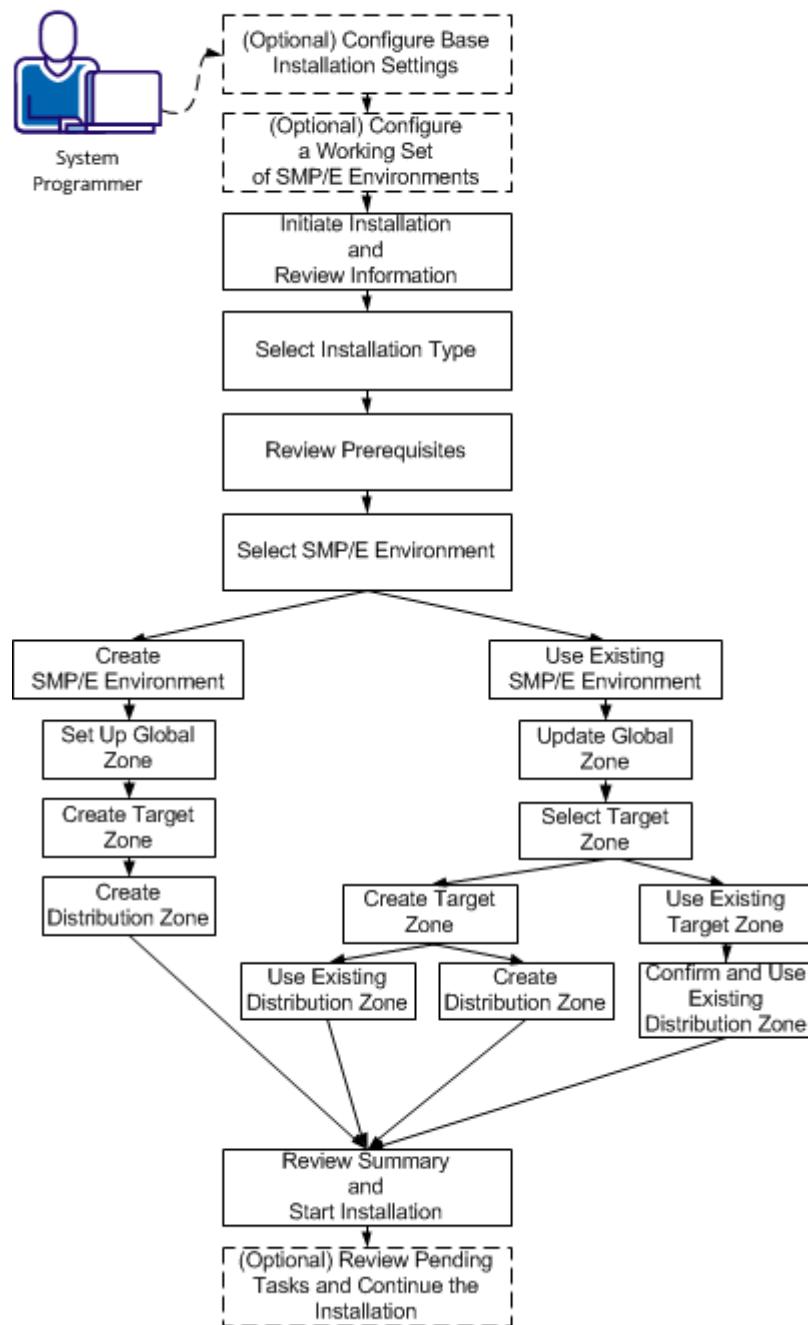
After the acquisition process completes, the product is ready for you to install or apply maintenance.

Install a Product

CA MSM simplifies and manages SMP/E installation tasks. You can browse and install a product that you acquired and that is available in the product list on the Products page. You can also install the maintenance for the products that are currently installed in a managed SMP/E environment on the driving system.

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

How to Install a Product



1. (Optional) On the Settings tab, click Software Installation under System Settings, and configure base installation settings.
2. (Optional) Click the SMP/E Environments tab, and configure a working set of SMP/E environments.
3. Click the Products tab and select a product that you want to install. Start the installation wizard and review product information.
4. Select an installation type.
5. Review installation prerequisites if any are presented.
6. Take *one* of the following steps to select an SMP/E environment:
 - Create an SMP/E environment:
 - a. Set up the global zone.
 - b. Create a target zone.
 - c. Create a distribution zone.
 - Use an existing SMP/E environment from your working set:
 - a. Update the global zone.
 - b. Set up the target zone: Create a target zone or use an existing target zone.
 - c. Set up the distribution zone: Create a distribution zone or use an existing distribution zone.
7. Review the installation summary and start the installation.
8. (Optional) Review pending tasks for the SMP/E environment where you are installing your product. Continue the installation, if applicable.

CA MSM installs the product.

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 MSM before continuing.

Maintain the Installed Products

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

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

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

1. Verify that CA MSM recognizes the SMP/E environment where your product is installed. If not, migrate the SMP/E environment to CA MSM.

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

2. From the Product tab, download the latest maintenance for the installed product releases.

If you cannot find the required release, perform the following steps to download the maintenance:

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

3. Apply the maintenance.

CA MSM applies the maintenance to your product.

After the maintenance process completes, the product is ready for you to deploy to systems that are defined in the system registry.

Deploy the Product to the Destination System

Deployment is a process of copying SMP/E target libraries to a destination system. The destination system could be the local z/OS system, a remote z/OS system, or a sysplex. You identify the destination system, deployed data set names, and the transport mechanism as part of the deployment process. Deploying a product makes it available for configuration.

Important! Before you deploy a product, set up the destination systems and remote credentials in the system registry.

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

1. On the Deployments tab, set up methodologies.

Note: You can also set up methodologies when creating a deployment, or use existing methodologies, if you have set up any previously. If you do so, you can skip this step.

2. Start the New Deployment wizard to create a deployment. Complete each of the steps in the wizard. The wizard guides you through choosing deployment settings for your site. At any point, you can save your work and come back to it later.

3. Deploy:
 - a. Take a snapshot of the deployment.
 - b. Transmit the deployment to a destination system.
 - c. Deploy (unpack) to the mainframe environment.

CA MSM deploys the product to the destination system.

After the deployment process completes, the product is ready for you to configure.

Configure the Deployed Product

Configuration is a process of copying the deployed libraries to run-time libraries and customizes the product for your site to bring it to an executable state. You can configure CA Technologies products that you have already acquired, installed, and deployed using CA MSM. You cannot use CA MSM to configure a product unless you have already used CA MSM to deploy the product.

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

1. Select a configurable deployment on the Deployments tab to view details and products for that deployment.
2. Select a product in the deployment and start the Configuration wizard to create a configuration. Complete each of the steps in the wizard. The wizard has multiple levels of detailed instructions and guides you through choosing configuration settings for your site. At any point, you can save your work and come back to it later. Configurations where you have partially completed the steps in the wizard are listed on the Configurations tab. The steps in the wizard include the following:
 - a. Define a configuration name and select a system for the configuration.
 - b. Select configuration functions and options.
 - c. Define system preferences.
 - d. Create target settings.
 - e. Select and edit resources.
3. Build the configuration. The last step of the Configuration wizard lets you build the configuration. If needed, you can edit the configuration and can build the configuration again. Building the configuration closes the wizard and creates a configuration with all your settings.
4. (Optional) Validate the configuration. Validation verifies access to resources that are going to be used when you implement the configuration.

5. Implement the configuration. You implement a configuration to make your deployed software fully functional. Implementation executes on the destination system, applying the variables, resources, and operations that are defined in the configuration.

CA MSM configures the product.

After the configuration process completes, the product is ready for you to use.

Chapter 4: Installing Your Product from Pax-Enhanced ESD

This section contains the following topics:

- [How to Install a Product Using Pax-Enhanced ESD](#) (see page 25)
- [Allocate and Mount a File System](#) (see page 31)
- [Copy the Product Pax Files into Your USS Directory](#) (see page 34)
- [Create a Product Directory from the Pax File](#) (see page 39)
- [Copy Installation Files to z/OS Data Sets](#) (see page 40)
- [Receiving the SMP/E Package](#) (see page 41)
- [Clean Up the USS Directory](#) (see page 44)
- [Apply Maintenance](#) (see page 45)

How to Install a Product Using Pax-Enhanced ESD

This section describes the Pax-Enhanced ESD process. We recommend that you read this overview and follow the entire procedure the first time you complete a Pax-Enhanced ESD installation. For experienced UNIX users, the *Pax-Enhanced ESD Quick Reference Guide* has sufficient information for subsequent installations.

Important! Downloading pax files for the SMP/E installation as part of the Pax-Enhanced ESD process requires write authority to the UNIX System Services (USS) directories that are used for the ESD process.

If you prefer not to involve all CA Technologies product installers with z/OS UNIX System Services, assign a group familiar with USS to perform Steps 1 through 4 and provide the list of the unpacked MVS data sets to the product installer. USS is not required for the actual SMP/E RECEIVE of the product or for any of the remaining installation steps.

To install files using Pax-Enhanced ESD, use the following process:

1. Allocate and mount the file system. This process requires a USS directory to receive the pax file and to perform the unpack steps. We recommend that you allocate and mount a file system that is dedicated to Pax-Enhanced ESD and create the directory in this file system. Ensure that all users who will be working with pax files have write authority to the directory.

2. Copy the product pax files into your USS directory. To download files, choose one of the following options:
 - Download a zip file from CA Support Online to your PC, unzip the file, and then upload the product pax files to your USS file system.
 - FTP the pax files from CA Support Online directly to your USS directory.

Note: Perform Steps 3 through 6 for each pax file that you upload to your USS directory.
3. Create a product directory from the pax file. Set the current working directory to the directory containing the pax file, and create a directory in your USS directory by entering the following command:

```
pax -rvf pax-filename
```
4. Use the SMP/E GIMUNZIP utility to create z/OS installation data sets. The file UNZIPJCL in the directory that the pax command created in Step 3 contains a sample JCL to GIMUNZIP the installation package. Edit and submit the UNZIPJCL JCL.
5. Receive the SMP/E package. Use the data sets that GIMUNZIP created in Step 4. Perform a standard SMP/E RECEIVE using the SMPPTFIN and SMPHOLD (if applicable) DASD data sets. Also, specify the high-level qualifier for the RELFILEs on the RFPREFIX parameter of the RECEIVE command.
6. Proceed with product installation. Consult product-specific documentation, including AREADME files and installation notes to complete the product installation.
7. (Optional) Clean up the USS directory. Delete the pax file, the directory that the pax command created, all of the files in it, and the SMP/E RELFILEs, SMPMCS, and HOLDDATA data sets.

More Information:

[USS Environment Setup](#) (see page 30)
[Allocate and Mount a File System](#) (see page 31)
[Copy the Product Pax Files into Your USS Directory](#) (see page 34)
[Create a Product Directory from the Pax File](#) (see page 39)
[Copy Installation Files to z/OS Data Sets](#) (see page 40)

How the Pax-Enhanced ESD Download Works

Important! To download pax files for the SMP/E installation as part of the Pax-Enhanced ESD process, you must have write authority to the UNIX System Services (USS) directories used for the ESD process and available USS file space before you start the procedures in this guide.

Use the following process to download files using Pax-Enhanced ESD:

1. Log in to <https://support.ca.com/>, and click Download Center.
The CA Support Online web page appears.
2. Under Download Center, select Products from the first drop-down list, and specify the product, release, and genlevel (if applicable), and click Go.
The CA Product Download window appears.
3. Download an entire CA Technologies product software package or individual pax files to your PC or mainframe. If you download a zip file, you must unzip it before continuing.
For both options, [The ESD Product Download Window](#) (see page 27) topic explains how the download interface works.
Note: For traditional installation downloads, see the *Traditional ESD User Guide*. Go to <https://support.ca.com/>, log in, and click Download Center. A link to the guide appears under the Download Help heading.
4. Perform the steps to install the product based on the product-specific steps.
The product is installed on the mainframe.

ESD Product Download Window

You can download CA Technologies product ESD packages multiple ways. Your choices depend on the size of the individual files and the number of files that you want to download. You can download the complete product with all components, or you can select individual pax and documentation files for your product or component.

The following illustration shows sample product files. The illustration lists all components of the product. You can use the Download Cart by selecting one or more components that you need, or selecting the check box for Add All to cart. If you prefer to immediately download a component, click the Download link.

CA Earl - MVS

- Pax Enhanced Electronic Software Delivery (ESD) Guide [\[?\]](#)
- Pax Enhanced Electronic Software Delivery (ESD) Quick Reference Guide [\[?\]](#)
- Traditional Electronic Software Delivery (ESD) Guide [\[?\]](#)
- Learn more about Using pkzip with your Downloaded Mainframe Products [\[?\]](#)
- Learn more about downloading components of CA product [\[?\]](#)
- Mounting ISO Images with OpenVMS [\[?\]](#)

If you have comments or suggestions about CA product documentation, send a message to techpubs@ca.com.

Note: Related Published Solutions are available on the other results tab on this page. You must add these solutions to your Download Cart to include them with your product files for download.

 [View Download Cart](#)

<input type="checkbox"/> Add All to cart					
Product Components				Add to cart	Download
CCS - LEGACY - ESD ONLY 140000AW030.pax.Z	14.0 /0000	07/06/2011	4.89MB	<input type="checkbox"/>	Download
CCS - MFNSM - ESD ONLY 140000AW040.pax.Z	14.0 /0000	07/06/2011	202.01MB	<input type="checkbox"/>	Download
CCS - BASE - ESD ONLY 140001AW010.pax.Z	14.1 /0000	06/05/2012	27.44MB	<input type="checkbox"/>	Download
CCS - OPTIONAL - ESD ONLY 140001AW020.pax.Z	14.1 /0000	06/05/2012	14.49MB	<input type="checkbox"/>	Download
CA EARL PRODUCT PACKAGE 610106AE000.pax.Z	6.1 /0106	10/30/2008	1.85MB	<input type="checkbox"/>	Download
EARL PIPPACK AEO61010600.pdf	6.1 /0106	01/29/2010	93.92KB	<input type="checkbox"/>	Download
CA EASYTRIEVE PRODUCT PACKAGE B60000ESA00.pax.Z	11.6 /0000	07/05/2011	6.12MB	<input type="checkbox"/>	Download
DATACOM/AD PROD INFO PACKET CAIE000000P0.pdf	14.0 /0000	06/01/2012	220.53KB	<input type="checkbox"/>	Download
DATACOM/AD XPRESS INSTALL				<input type="checkbox"/>	Download

Clicking the link for an individual component takes you to the Download Method page.

Download Method

Please choose a download method to complete your download request. [Learn More](#)

HTTP via Download Manager

This is the CA recommended method for download. The Download Manager allows you to download your files faster and more efficiently.

[Download](#)

HTTP via Internet Browser

If Download Manager cannot be used or fails to start you may access your file(s) via your internet browser.

[View File Link\(s\)](#)

FTP

This method allows you to download your file(s) via FTP from CA's content delivery network or via native FTP servers.

Note: Processing is required and an email notification will be sent when your request is ready for downloading.

[FTP Request](#)

Depending on the size and quantity of ordered product files, the Download Method screen could also have these options:

Note: For mainframe downloads using this HTTP method, click the Learn More link.

Download Method

Please choose a download method to complete your download request. [Learn More](#)

HTTP via Download Manager

This is the CA recommended method for download. The Download Manager allows you to download your files faster and more efficiently.

[Download](#)

Create a Zip File

This method allows you to bundle your download files into one or more zip files of up to 3.5 GB each. These zip files can then be downloaded via HTTP or FTP.

Note: Processing is required and an email notification will be sent when your request is ready for downloading.

[Create Zip](#)

The HTTP method lets you start downloading immediately. The FTP method takes you to the Review Orders page that displays your order, first in a Pending status changing to Ready when your order has been processed.

Preferred FTP uses the new content delivery network (CDN). Alternate FTP uses the CA Technologies New York-based FTP servers.

The Create a Zip File option first creates the zip, and when ready, offers the options that the Zip Download Request examples show in the next illustration.

Review Download Requests

Below is a list of the FTP and large HTTP downloads that have been requested by your site. When status is set to 'Ready' a link will appear.

- For FTP requests, click on the FTP link to view the path information for your download. For more information view our [FTP Help document](#)
- For HTTP requests, click on the HTTP link to initiate your download.
- To view the details of your request, click on the desired order number.

Today's Downloads

Order #	Status	Description	Date Placed	Download Options
10000961	Ready	FTP Download Request 04/30/2010		Preferred FTP Alternate FTP

Previous 6 day Download History

Order #	Status	Description	Date Placed	Download Options
10000949	Ready	ZIP Download Request 04/29/2010		HTTP via DLM Preferred FTP Alternate FTP
10000948	Ready	ZIP Download Request 04/29/2010		HTTP via DLM Preferred FTP Alternate FTP

USS Environment Setup

You need a UNIX System Services (USS) directory and a file system with adequate space to perform the following tasks:

- Receive product pax files from CA Support Online.
- Perform utility functions to unpack the pax file into MVS data sets that you can use to complete the product installation.

We recommend that you allocate and mount a file system that is dedicated to Pax-Enhanced ESD. The amount of space that you need for the file system depends on the following variables:

- The size of the pax files that you intend to download.
- Whether you plan to keep the pax files after unpacking them. We do not recommend this practice.

We recommend that you use one directory for downloading and unpacking pax files. Reusing the same directory minimizes USS setup. You need to complete the USS setup only one time. You reuse the same directory for subsequent downloads. Alternatively, you can create a directory for each pax download.

Important! Downloading pax files for the SMP/E installation as part of the Pax-Enhanced ESD process requires write authority to the UNIX System Services (USS) directories that are used for the ESD process. The USS file system that is used for Pax-Enhanced ESD must have sufficient free space to hold the directory that the pax command created, and its contents. You need approximately 3.5 times the pax file size in free space to download the pax file and unpack its contents. For example, to download and unpack a 14 MB pax file, you need approximately 49 MB of free space in the file system hosting your ESD directory.

Allocate and Mount a File System

You can use the zSeries File System (zFS) or hierarchical file system (HFS) for ESD downloads.

This procedure describes how to perform the following tasks:

- Allocate a zFS or an HFS.
- Create a mount point in an existing maintenance USS directory of your choice.
- Mount the file system on the newly created mount point.

Note: You must have either SUPERUSER authority, or the required SAF profile setting to allow you to issue the USS mount command for the file system.

- Optionally, permit write access to anyone in the same group as the person who created the directory.

Important! USS commands are case-sensitive.

Follow these steps:

1. Allocate the file system by customizing one of the following samples to your site requirements:

- On a zFS, use the following sample:

```
//DEFINE EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//AMSDUMP DD SYSOUT=*
//SYSIN DD *
  DEFINE CLUSTER ( +
    NAME(your_zFS_data_set_name) +
    STORAGECLASS(class) +
    LINEAR +
    CYL(primary secondary) +
    SHAREOPTIONS(3,3) +
  )
/*
//FORMAT EXEC PGM=IOEAGFMT,REGION=0M,
// PARM=( -aggregate your_zFS_data_set_name -compat')
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//STDOUT DD SYSOUT=*
//STDERR DD SYSOUT=*
//CEEDUMP DD SYSOUT=*
/*
```

- On an HFS, use the following sample:

```
//ALCHFS EXEC PGM=IEFBR14
//CAESD DD DSN=yourHFS_data_set_name,
//          DISP=(NEW,CATLG,DELETE),UNIT=3390,
//          DSNTYPE=HFS,SPACE=(CYL,(primary,secondary,1))
```

The file system is allocated.

Note: Ensure that the zFS or HFS data set name that you use conforms to your data set naming conventions for USS file systems. If the allocation of the file system data set fails, it is because of environmental settings not allowing for the allocation. On an HFS, try using the ISPF 3.2 Data Set Utility to allocate your HFS data set.

2. Create a mount point for the file system. This example shows how to create a /CA/CAESD directory in an existing directory, /u/maint. From the TSO OMVS shell, enter the following commands:

```
cd /u/maint/  
mkdir CA  
cd CA  
mkdir CAESD
```

Note: This document refers to this structure as *yourUSSESDDirectory*.

The mount point is created.

3. Mount the file system by customizing one of the following samples to your site requirements:

- On a zFS, use the following sample:

```
MOUNT FILESYSTEM('your_zFS_data_set_name')  
  MOUNTPOINT('yourUSSESDDirectory')  
  TYPE(ZFS)  MODE(RDWR)  
  PARM(AGGRGROW)
```

- On an HFS, use the following sample:

```
MOUNT FILESYSTEM('your_HFS_data_set_name')  
  MOUNTPOINT('yourUSSESDDirectory')  
  TYPE(HFS)  MODE(RDWR)
```

The file system is mounted.

4. (Optional) Set security permissions for the directory. You can use the chmod command to let other users access the ESD directory and its files. For example, to allow write access to the ESD directory for other users in your USS group, from the TSO OMVS shell, enter the following command:

```
chmod -R 775 /yourUSSESDDirectory/
```

Write access is granted.

Note: For more information about the chmod command, see the *IBM z/OS UNIX System Services User Guide* (SA22-7802).

Copy the Product Pax Files into Your USS Directory

To begin the CA Technologies product installation procedure, copy the product pax file into the USS directory that you set up. Use one of the following methods:

- Download the product pax files directly from the CA Support Online FTP server to your z/OS system.
- Download the product pax file from the CA Support Online FTP server to your computer, and upload it to your z/OS system.
- Download the product file from CA Support Online to your computer. If your download included a zip file, unzip the file, and upload the unzipped pax files to your z/OS system.

This section includes a sample batch job to download a product pax file from the CA Support Online FTP server directly to a USS directory on your z/OS system and sample commands to upload a pax file from your computer to a USS directory on your z/OS system.

Important! The FTP procedures vary due to local firewall and other security settings. Consult your local network administrators to determine the appropriate FTP procedure to use at your site.

Ensure that sufficient free space is available in the USS file system that you are using for Pax-Enhanced ESD to hold the product pax file. If you do not have sufficient free space, error messages similar to the following appear:

```
EZA1490I Error writing to data set
EZA2606W File I/O error 133
```

When the download finishes, the pax file size in your USS directory matches the value in the Size column for the corresponding pax file on the CA Technologies Products Download window.

More Information:

[How the Pax-Enhanced ESD Download Works](#) (see page 27)
[ESD Product Download Window](#) (see page 27)

Download Using Batch JCL

Use this process to download a pax file from the CA Support Product Downloads window by running batch JCL on the mainframe. Use the sample JCL attached to the PDF file as CAtoMainframe.txt to perform the download.

Important! To simplify the Pax-Enhanced ESD process, the PDF version of this guide includes a sample JCL job that you can copy directly to the mainframe. To access this job, click the paper clip icon at the left of the PDF reader. A window displaying attachments opens. Double-click the file to view the sample JCL.

Note: We recommend that you follow the preferred method as described on CA Support Online. This procedure is our preferred download method; however, we do include the procedure to download to the mainframe through a PC in the next section.

Follow these steps:

1. Supply a valid JOB statement.
The job points to your profile.
2. Replace *yourTCPIP.PROFILE.dataset* with the name of the TCP/IP profile data set for your system. Consult your local network administrators, if necessary.
The job points to your email address.
3. Replace *YourEmailAddress* with your email address.
The job points to your USS directory.
4. Replace *yourUSSESDDirectory* with the name of the USS directory that you use for ESD downloads.
The job points to your USS directory.
5. Locate the product component to download on the CA Support Product Download window.
You have identified the product component to download.
6. Click Download for the applicable file.
Note: For multiple downloads, add files to a cart.
The Download Method window opens.
7. Click FTP Request.
The Review Download Requests window displays any files that you have requested to download.
Note: We send you an email when the file is ready to download or a link appears in this window when the file is available.

8. Select one of the following methods:

Preferred FTP

Uses CA Technologies worldwide content delivery network (CDN). If you cannot download using this method, review the security restrictions for servers that company employees can download from that are outside your corporate network.

Host Name: `ftp://ftpdownloads.ca.com`

Alternate FTP

Uses the original download servers that are based on Long Island, New York.

Host Name: `ftp://scftpd.ca.com` for product files and download cart files and `ftp://ftp.ca.com` for individual solution files.

Both methods display the host, user name, password, and FTP location, which you then can copy into the sample JCL.

Note: The following links provide details regarding FTP: the FTP Help document link in the Review Download Requests window and the Learn More link available in the Download Methods window.

9. Submit the job.

Important! If your FTP commands are incorrect, it is possible for this job to fail and still return a zero condition code. Read the messages in the job `DDNAME SYSPRINT` to verify the FTP succeeded.

After you run the JCL job, the pax file resides in the mainframe USS directory that you supplied.

Example: CAtoMainframe.txt, JCL

The following text appears in the attached CAtoMainframe.txt JCL file:

```
//GETPAX  JOB (ACCOUNTNO),'FTP GET ESD PACKAGE',  
//           MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID  
//*****  
//** This sample job can be used to download a pax file directly from *  
//** CA Support Online to a USS directory on your z/OS system.      *  
//**  
//** When editing the JCL ensure that you do not have sequence numbers *  
//** turned on.                                              *  
//**  
//** This job must be customized as follows:                      *  
//** 1. Supply a valid JOB statement.                            *  
//** 2. The SYSTCPD and SYSFTPDD JCL DD statements in this JCL may be *  
//** optional at your site. Remove the statements that are not      *  
//** required. For the required statements, update the data set      *  
//** names with the correct site-specific data set names.        *  
//** 3. Replace "Host" based on the type of download method.      *  
//** 4. Replace "YourEmailAddress" with your email address.       *  
//** 5. Replace "yourUSSESDdirectory" with the name of the USS      *  
//** directory used on your system for ESD downloads.          *  
//** 6. Replace "FTP Location" with the complete path            *  
//** and name of the pax file obtained from the FTP location    *  
//** of the product download page.                            *  
//*****  
//GETPAX  EXEC PGM=FTP,PARM='(EXIT',REGION=0M  
//SYSTCPD  DD  DSN=yourTCPIP.PROFILE.dataset,DISP=SHR  
//SYSFTPDD DD  DSN=yourFTP.DATA.dataset,DISP=SHR  
//SYSPRINT DD  SYSOUT=*  
//OUTPUT   DD  SYSOUT=*  
//INPUT    DD  *  
Host  
anonymous YourEmailAddress  
lcd yourUSSESDdirectory  
binary  
get FTP_location  
quit
```

Download Files to Mainframe through a PC

If you download pax or zip files from CA Support Online to your PC, use this procedure to upload the pax file from your PC to your z/OS USS directory.

Follow these steps:

1. Follow the procedures in [How the Pax-Enhanced ESD Download Works](#) (see page 7) to download the product pax or zip file to your PC. If you download a zip file, first unzip the file to use the product pax files.

The pax or zip file resides on your PC.
2. Open a Windows command prompt.

The command prompt appears.
3. Customize and enter the FTP commands with the following changes:
 - a. Replace *mainframe* with the z/OS system IP address or DNS name.
 - b. Replace *userid* with your z/OS user ID.
 - c. Replace *password* with your z/OS password.
 - d. Replace *C:\PC\folder\for\thePAXfile* with the location of the pax file on your PC.
 - e. Replace *yourUSSESDDirectory* with the name of the USS directory that you use for ESD downloads.
 - f. Replace *paxfile.pax.Z* with the name of the pax file to upload.

The pax file is transferred to the mainframe.

Example: FTP Commands

This list is a sample of FTP commands to upload the pax file from your PC to your USS Pax-Enhanced ESD directory:

```
ftp mainframe
userid
password
bin
lcd C:\PC\folder\for\thePAXfile
cd /yourUSSESDDirectory/
put paxfile.pax.Z
quit
exit
```

Create a Product Directory from the Pax File

Use the sample job attached to the PDF file as Unpackage.txt to extract the product pax file into a product installation directory.

Important! To simplify the Pax-Enhanced ESD process, the PDF version of this guide includes a sample JCL job that you can copy directly to the mainframe. To access this job, click the paper clip icon at the left of the PDF reader. A window displaying attachments opens. Double-click the file to view the sample JCL.

Follow these steps:

1. Supply a valid JOB statement.
2. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.
The job points to your specific directory.
3. Replace *paxfile.pax.Z* with the name of the pax file.
The job points to your specific pax file.
4. Submit the job.
The job runs and creates the product directory.

Note: If the PARM= statement exceeds 71 characters, uncomment and use the second form of UNPAXDIR instead. This sample job uses an X in column 72 to continue the PARM= parameters to a second line.

Sample Job to Execute the Pax Command (Unpackage.txt)

The following text appears in the attached Unpackage.txt JCL file:

```
//ESDUNPAX JOB (ACCOUNTNO),'UNPAX ESD PACKAGE ',  
// MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID  
//*****  
//** This sample job can be used to invoke the pax command to create *  
//** the product-specific installation directory. *  
//** *  
//** This job must be customized as follows: *  
//** 1. Supply a valid JOB statement. *  
//** 2. Replace "yourUSSESDDirectory" with the name of the USS *  
//** directory used on your system for ESD downloads. *  
//** 3. Replace "paxfile.pax.Z" with the name of the pax file. *  
//** NOTE: If you continue the PARM= statement on a second line, make *  
//** sure the 'X' continuation character is in column 72. *  
//*****  
//UNPAXDIR EXEC PGM=BPXBATCH,  
// PARM='sh cd /yourUSSESDDirectory/; pax -rvf paxfile.pax.Z'  
//*UNPAXDIR EXEC PGM=BPXBATCH,  
// PARM='sh cd /yourUSSESDDirectory/; pax X  
//** -rvf paxfile.pax.Z'  
//STDOUT DD SYSOUT=*  
//STDERR DD SYSOUT=*
```

Copy Installation Files to z/OS Data Sets

Use this procedure to invoke the SMP/E GIMUNZIP utility to create MVS data sets from the files in the product-specific directory.

Follow these steps:

1. Locate and read the product readme file or installation notes, if applicable, which resides in the product-specific directory that the pax command created. This file contains the product-specific details that you require to complete the installation procedure.

You have identified the product-specific installation details.
2. Use ISPF EDIT or TSO ISHELL to edit the UNZIPJCL sample job. You can perform this step in one of the following ways:
 - Use ISPF EDIT. Specify the full path name of the UNZIPJCL file.
 - Use TSO ISHELL. Navigate to the UNZIPJCL file and use the E line command to edit the file.

The job is edited.

3. Change the SMPDIR DD PATH to the product-specific directory created by the pax command.

Your view is of the product-specific directory.

4. If ICSF is not active, perform the following steps:

- a. Change the SMPJHOME DD PATH to your Java runtime directory. This directory varies from system to system.

Note: The default Java location is the following:

/usr/lpp/java/Java_version

- b. Perform one of the following steps:

- Change the SMPCPATH DD PATH to your SMP/E Java application classes directory, typically */usr/lpp/smp/classes/*.
- Change HASH=YES to HASH=NO on the GIMUNZIP parameter.

One of the following occurs: ICSF is active, or you are using Java.

5. Change all occurrences of *yourHLQ* to the high-level qualifier (HLQ) for z/OS data sets that the installation process uses. We suggest that you use a unique HLQ for each expanded pax file to identify uniquely the package. Do *not* use the same value for *yourHLQ* as you use for the SMP/E RELFILEs.

All occurrences of *yourHLQ* are set to your high-level qualifier for z/OS data sets.

6. Submit the UNZIPJCL job.

The UNZIPJCL job completes with a zero return code. Messages GIM69158I and GIM48101I in the output and IKJ56228I in the JES log are acceptable.

GIMUNZIP creates z/OS data sets with the high-level qualifier that you specified in the UNZIPJCL job. You use these data sets to perform the product installation. The pax file and product-specific directory are no longer needed.

Note: For more information, see the IBM *SMP/E for z/OS Reference* (SA22-7772).

Receiving the SMP/E Package

If you are installing the package into a new SMP/E environment, use the sample jobs included with the product to set up an SMP/E environment before proceeding.

At this point, complete the SMP/E RECEIVE using files on DASD that the UNZIPJCL job created. Consult the product sample JCL library that contains a sample job customized to receive the product from DASD. Specifically, you must specify the following values:

- DASD data set names for SMPPTFIN and SMPHOLD (if applicable)
- The HLQ that you used in the UNZIPJCL job on the RFPREFIX parameter on the RECEIVE command

How to Install Products Using Native SMP/E JCL

The following steps describe the process to install products using native SMP/E JCL:

1. Allocate product data sets and SMP/E data sets.
2. Create SMP/E CSI.
3. Receive base functions.
4. Apply base functions.
5. Accept base functions.
6. Configure the product according to your site requirements.

Prepare the SMP/E Environment for Pax Installation

The members in this procedure prepare the data sets, initialize the zones, and create the DDDEFs for CA Allocate. External DDDEF data sets are required. The default is NULLFILE.

For information about the members, see the comments in the JCL.

To prepare the SMP/E environment for your product

1. Customize the macro VAMSEDIT with your site-specific information and then copy the macro to your syslib location. Replace the rightmost parameters for each ISREDIT CHANGE macro command. Each time you edit an installation member, type SEDIT on the TSO command line, and press Enter to replace the defaults with your specifications.

The macro is ready to customize your VAM.SAMPJCL members.

Note: Set the DASD HLQ to the same value specified for *yourHLQ* for the unzip to DASD ESD JCL.

Note: The following steps include instructions to execute the VAMSEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the VAMEDALL member.

2. Open the SAMPJCL member VAM1ALL in an edit session and execute the VAMSEDIT macro from the command line.
VAM1ALL is customized.
3. Submit VAM1ALL.

This job produces the following results:

- The target and distribution data sets for CA Allocate are created.
- Unique SMPLTS, SMPMTS, SMPSCDS, and SMPSTS data sets for this target zone are created.

4. Open the SAMPJCL member VAM2CSI in an edit session and execute the VAMSEDIT macro from the command line.
VAM2CSI is customized.
5. Submit VAM2CSI.
This job produces the following results:
 - The CSI data set is defined.
 - The SMPPTS and SMPLOG data sets are allocated.
 - The global, target, and distribution zones are initialized.
 - The DDDEF entries for your product are created.
 - The DDDEFs for the required SMP/E data sets are created.

Run the Installation Jobs for a Pax Installation

Submit and run these SAMPJCL members in sequence. Do not proceed with any job until the previous job has completed successfully.

To run the installation jobs

1. Submit the *yourhlq*.SAMPJCL member VAM3RECD to receive SMP/E base functions.
CA Allocate is received and now resides in the global zone.
2. Customize and submit the *yourhlq*.SAMPJCL member VAM4APP to APPLY SMP/E base functions.
Your product is applied and now resides in the target libraries.
3. Customize and submit the *yourhlq*.SAMPJCL member VAM5ACC to ACCEPT SMP/E base functions.
Your product is accepted and now resides in the distribution libraries.

Clean Up the USS Directory

Important! This procedure is optional. Do not use this procedure until you complete the entire installation process.

To free file system disk space for subsequent downloads after downloading and processing the pax files for your CA product, we recommend removing the files from your USS directory and deleting unnecessary MVS data sets. You can delete the following items:

- Pax file
- Product-specific directory that the pax command creates and all of the files in it
- SMP/E RELFILEs, SMPMCS, and HOLDDATA MVS data sets

These data sets have the HLQ that you assigned in the UNZIPJCL job.

To delete the pax files and product-specific directories

1. Navigate to your Pax-Enhanced ESD USS directory.

Your view is of the applicable USS directory.

2. Delete the pax file by entering the following command:

rm paxfile

paxfile

Specifies the name of the CA Product pax file that you downloaded.

The pax file is deleted.

3. Delete the product-specific directory by entering the following command:

rm -r product-specific-directory

product-specific-directory

Specifies the product-specific directory that the pax command creates.

The product-specific directory is deleted.

Note: You can also use TSO ISHELL to navigate to the pax file and product-specific directory, and delete them using the D line command.

Apply Maintenance

CA Support Online can have maintenance and hold data that have been published since the installation data was created.

To apply maintenance

1. Check CA Support Online and download any PTFs and hold data that was published since this release was created.
2. Transfer the downloaded files to two separate FB 80 sequential data sets. Use one data set to contain the PTFs and the other to contain the hold data.
The PTFs and hold data become accessible to the *yourhlq.SAMPJCL* maintenance members.
3. Edit and submit the VAMSEDIT macro.
The *yourhlq.SAMPJCL* members VAM6RECP, VAM7APYP, and VAM8ACCP are customized.
4. Customize the VAM6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and hold data.
5. Submit VAM6RECP.
The PTFs and hold data are received.
6. Submit VAM7APYP.
The PTFs are applied.
7. (Optional) Customize and submit *yourhlq.SAMPJCL* member VAM8ACCP.
The PTFs are accepted.

Note: You do not have to submit the job now. You can accept the PTFs according to your site policy.

Note: We recommend that you check for available maintenance; however, you may find that none is available.

HOLDDATA

When you apply maintenance, you typically encounter SMP/E HOLDDATA. We use HOLDDATA to notify your SMP/E system of SYSMODs that have errors or special conditions. We support system and external HOLDDATA.

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

Chapter 5: Beginning to Use CA Allocate

This section contains the following topics:

- [Current Users](#) (see page 47)
- [New Users](#) (see page 47)
- [Copy or create members from the CCTVJCL lib into the Parmlib](#) (see page 48)
- [Security, APF, and LINK Requirements](#) (see page 49)
- [Start and Stop the VAM Task](#) (see page 49)
- [Deploy Your Product](#) (see page 49)
- [Syntax-Check ASRs](#) (see page 49)
- [ASR Compile Failure](#) (see page 50)
- [Correct Failed Install or Remove](#) (see page 50)
- [Refresh Active Members](#) (see page 51)
- [Limit VAM to Your Testing](#) (see page 51)

Current Users

Review the Product Information Packet (PIP) and review the changes in CA Allocate. To see if your VAM proc needs changes, review the VAM proc in the CCTVJCL lib.

New Users

To understand CA Allocate, see the following chapters in the *User Guide*:

- Introduction
- Concepts and Facilities
- Implementation
- Operation

Copy or create members from the CCTVJCL lib into the Parmlib

VAM

Modify the sample VAM proc with your DSNs for the STEPLIB and PARMs (Parmlib) DDs. Copy the VAM proc into a system proclib. This member is not needed in the Parmlib.

SAMPCONF

Create the member CONFIG.

SAMPVKGP

Create the member VKGPARMS. Review the entries with SPECIFY indicated to determine if you specify a value.

TESTASRS

Identifies a simple batch job to check the syntax of your ASRs. Specify your DSNs. When executed, the condition codes are:

CC=0

The compile was successful.

CC=1

The compile was unsuccessful. Messages indicate the problem.

VDSPROG

The EXIT CODE(0) statement lets you start VAM and ensure that no allocations are altered until you are ready.

VDSTORGP

Specify the volters or patterns for your storage groups that VAM redirects allocations to. A blank in CC1 indicates a comment.

If you use the QUOTA optional feature, copy these members:

QCONFIG

This member contains the Quota Configuration.

QREBUILD

This member contains the QREBUILD ASR.

QSCAN

This member contains the QSCAN ASR.

For more information, see the *User Guide*.

Security, APF, and LINK Requirements

To install CA Allocate, you need CREATE or UPDATE authority for all of the libraries in the SMP/E zone.

To customize CA Allocate, your TSO ID needs update authority to the Parmlib.

To run CA Allocate, the started task (VAM) needs READ authority for the CCTVLOAD and Parmlib libraries. The CCTVLOAD must be APF authorized. Optionally, you can add it to Linklist. The CCTVLINK is added to Linklist only if the site is running CA AUDITOR.

Start and Stop the VAM Task

To start the VAM task, enter the console command S VAM. VAM starts up, compiles the one line of the ASRs, and then idles.

To stop the task, enter the command F VAM,REMOVE. After 2 minutes or 3 minutes, VAM shuts down.

For more information, see the *User Guide*.

Deploy Your Product

For a simple implementation on a single system, a unique Parmlib is specified on the PARMS DD in each VAM proc on each system.

A more complex implementation uses a single Parmlib with several VKGPARMx members, one for each of the multiple VAM procs. These definitions are made in the CONFIG member and specified on the EXEC in each VAM proc.

For more information, see the *User Guide*.

Syntax-Check ASRs

During your testing, the ASRs are modified frequently. To avoid an ASR compile failure during your testing, syntax-check your ASR member. Use the TESTASRS job that you copied from CCTVJCL into the Parmlib.

ASR Compile Failure

After you successfully install VAM, a subsequent ASR compile fails, VAM continues to run with the ASRs that it compiled previously.

The compile messages at the end of the VAM task tell you where and explain the problem. Correct the ASRs and then issue the refresh command again.

Correct Failed Install or Remove

If the ASRs do not compile at startup, review the SYSPRT DD output. Messages near the bottom indicate the error. Correct the error in the ASRs and issue the REFRESH command. If after issuing the REFRESH command, any of the following errors occur, VAM can be stuck partially installed and nonfunctional.

- VAM abends
- Error messages display at startup indicating that VAM or some of its hooks are already installed.
- An abend occurs at REMOVE.

If VAM is running, issue the following command:

`F VAM, CLEANUP`

If VAM is not running, issue the following command:

`S VAM, CLEANUP`

The VAM task starts, removes remaining hooks, and shuts down. You can then do a normal start of the VAM task.

For more information about the CLEANUP command, see the *User Guide*.

Refresh Active Members

To refresh all active VAM and QUOTA members *including* VKGPARMS, issue the following command:

```
F VAM, PARMREF
```

To refresh all active VAM and QUOTA members *except* VKGPARMS, issue the following command:

```
F VAM, REFRESH
```

To change the active member for either the ASRs or the storage groups, issue the respective command specifying the new member:

```
F VAM, REFRESH, PROG=  
F VAM, REFRESH, STORGP=
```

Limit VAM to Your Testing

DORMANT Mode

To affect only job steps that have a specific DD statement included, put CA Allocate in a dormant mode.

Follow these steps:

1. Specify Vkgparm:

```
PLSMODE (DORMANT)
```

2. Start VAM.

3. Place this DD statement in the job step that you want VAM to control:

```
///#VAMTST# DD DUMMY
```

All other steps and jobs are ignored.

You can change this DDname with Vkgparm PLSDRMNT.

ACTIVE Mode

To exclude all but the specific jobs you want to test, put CA Allocate in ACTIVE mode with ASR statements.

Follow these steps:

1. Specify Vkgparm (or let default):

```
PLSMODE (ACTIVE)
```

2. Add the following code to your ASRs, after your FILTLIST statements, but before the first VAMENVIR statement.

```
IF &USER NE 'user'      THEN EXIT
IF &JOB   NE 'jobname' THEN EXIT
IF &DSN   NE hlq.**    THEN EXIT
```

CA Allocate controls only the JOB, USER, and DSN allocations that you specify in these statements.

3. To determine if CA Allocate causes a job failure, place the following DD statement in the job:

```
//VDSBYPAS DD DUMMY
```

VAM takes no action.

4. Rerun the job.

If the job still abends, then CA Allocate is not the cause. If you cannot determine the cause of the failure, contact CA Technical Support.

You can change this DDname with Vkgparm PLSBYPAS.