CA TLMS® Tape Management

TLMS_Installation_ENU

Release 12.6 Second Edition

CA Technologies Product References

This document references the following CA Technologies products:

- CA Common Services
- CA ACF2™ for z/OS (CA ACF2)
- CA Earl™ (CA Earl)
- CA Mainframe Software Manager (CA MSM)
- CA TLMS® Tape Management (CA TLMS)
- CA Top Secret® Security for z/OS (CA Top Secret)
- CA Vantage™ Storage Resource Manager GMI (CA Vantage GMI)

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

This guide describes how to install and implement CA TLMS.

This section contains the following topics:

Audience

Readers of this book should have knowledge in the following areas:

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

You may need to work with the following personnel:

- Systems programmer for z/OS and VTAM definitions
- Security administrator, for library and started task access authority
- SMS or storage administrator, for DASD allocations

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.

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. The standardized installation process can also be completed manually.

To install your product, do the following tasks:

1. Prepare for the installation by confirming that your site meets all installation requirements (see page 11).
2. Use one of the following methods to acquire the product:
   - Download the software from CSO using CA MSM (see page 19).
   - Download the software from CSO using Pax-Enhanced Electronic Software Delivery (ESD) (see page 27).
   - Order a tape or a DVD.
3. Perform an SMP/E installation using one of the following methods:
   - If you used CA MSM to acquire the product, start the SMP/E step from the SMP/E Environments tab in CA MSM.
   - If you used ESD to acquire the product, you can install the product in the following ways:
     - Install the product manually.
     - Use the Insert New Product option in CA MSM to complete the SMP/E installation.
   - If you used a tape (see page 51) or 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, deployment is required; it is a prerequisite for configuration.
   - If you are using a manual process, 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.

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:

Hardware Requirements

CA TLMS, CA CTS, and CA Gate are designed to operate under all IBM-supported levels of z/OS. All IBM compatible tape devices are supported.

Consoles

An operator console is required to permit tape librarians to perform online inquiry and update if they will not be using TSO. Any console that is supported by the IBM Multiple Console Support (MCS) can be used.

There may be restrictions concerning combinations of consoles and printers. To help you choose devices that are appropriate for your data center, see the system generation manual for your system and the programming pages of the IBM manual, *Service For Consultants.*

Printer

A printing device is required if you want to print external gummed tape labels. You can use any printer that is supported by MCS.

Labels

If you wish to print external gummed labels, order them several weeks before you need them. It is recommended that plain labels with an NCR (noncarbon required) backing be used. Two different types of labels are required for cartridge tapes and reel tapes; the cartridge tapes (3480/3490/3590s) have a different physical structure from the 3400/2400 tapes.

The External Gummed Label task (LAB) described in the *Configuration Guide* allows you to modify the labels generated by CA TLMS.

Software Requirements

CA TLMS requires the IBM Supported release of z/OS r 1.9 or above.

If you plan to install into PDSEs, you must also install CA Common Services r12.

If you plan to install into PDSs, be aware that MSM defaults to PDSEs and you must change that default.

CA Common Services Requirements

The following CA Common Services are used with CA TLMS:

- CAICCI
- CAIRIM
- CAISSF
- CA EARL
- SRAM Service
- CA LMP
- CAISDI
- CA Health checker Common Service

CA TLMS installation requires CAIRIM to be installed first.

Note: For information on CA Common Services, see the *CA Common Services Administrator Guide.*

LMP Key Requirements

The CA License Management Program (CA LMP) tracks licensed software. CA LMP uses common real-time enforcement software to validate the user configuration. CA LMP reports on activities that are related to the license, usage, and financials of CA Technologies products.

Your product is licensed with an LMP key. Acquire the LMP key with one of the following methods:

- Your product media
- Pax ESD
- From CA Support
  https://www.ca.com/us/register/login.aspx?TYPE=33554433&REALMOID=06-e81fc501-5d1d-4a33-b51f-22ee9acac391&GUID=&SMAUTHREASON=0&METHOD=GET&SMAGENTNAME=-SM-J%2bg6zoRqC%2f%2funOni5QmU4NoqpA4AmQswggRAWpB1t7RyxGbbxxMyPOu3yJFaH%2bH8&TARGET=-SM-HTTPS%3a%2f%2fsupport%2eca%2ecom%2fredirectform%2fredirect%2ehtml%3foriginaltarget%3dSFRUUFM6Ly9zdXBwb3J0LmNhLmNvbS9pcmovcG9ydGFsP05hdmlnYXRpb25UYXJnZXQ9bmF2dXJsOi8vNjU2MjFmYmIwYjY3YjRmMzQ5NTEwMzFmZTI1MzE3Nzk%3d

For more information, see the CA Common Services for z/OS documentation.

Security Requirements

CA TLMS can interface with CA Top Secret, CA ACF2, and IBM RACF for “external” security. It also provides an internal security for the TLTP functions via USERMOD.

Storage Requirements

Ensure that you have the following storage available:

- If installing with ESD, 10 cylinders for the downloaded files.
- For installation and setup:
  - Installation = 10 cylinders
  - SMP/E temporary libraries = 50 cylinders]

CA TLMS SMP/E Data Sets

The following distribution library (DLIB) and target data sets are installed for the base FMID for CA TLMS, CATLxx0. ‘xx’ is replaced with the product release.

DLIB	Target	Description
AATLCLS0	CTAPCLS0	CLISTs
AATLEARL	CTAPEARL	CA Earl programs
AATLECPB	CTAPECPB	CA Earl macros or copybooks
AATLEVNT	CTAPEVNT	Event members for Service Desk
AATLEXEC	CTAPEXEC	REXX execs
AATLJCL	CTAPJCL	Sample JCL
AATLMAC	CTAPMAC	Macros
AATLMENU	CTAPMENU	ISPF messages
AATLMOD0	CTAPLINK	Link listed load library
AATLOPTN	CTAPOPTN	Options and system parameters
AATLPENU	CTAPPENU	ISPF panels
AATLPROC	CTAPPROC	System procedures
AATLSAMP	CTAPSAMP	Sample user exit source
AATLSRC	CTAPSRC	User exit source
AATLTENU	CTAPTENU	ISPF tables
AATLXML	CTAPXML	XML

The following distribution library (DLIB) and target data sets are installed for the Common Tape System component CBAFxx0 FMID. ‘xx’ is replaced with the product release. The target libraries are the same libraries as the CA TLMS base FMID.

DLIB	Target	Description
ABAFCLS0	CTAPCLS0	CLISTs
ABAFEARL	CTAPEARL	CA Earl programs
ABAFEPCB	CTAPEPCB	CA Earl macros or copybooks
ABAFEZTM	CTAPEZTM	CA EASYTRIEVE macros
ABAFJCL	CTAPJCL	Sample JCL
ABAFMAC	CTAPMAC	Macros
ABAFMENU	CTAPMENU	ISPF messages
ABAFMOD0	CTAPLINK	Link listed load library

ABAFOPTN	CTAPOPTN	Options and system parameters
ABAFPENU	CTAPPENU	ISPF panels
ABAFSAMP	CTAPSAMP	Sample user exit source
ABAFSRC	CTAPSRC	User exit source

The following distribution library (DLIB) and target data sets are installed for the CA Gate component CAG8xx0 FMID. ‘xx’ is replaced with the product release. The target load library is the same as the CA TLMS base FMID.

DLIB	Target	Description
AAG8MOD0	CTAPLINK	Link listed load library

Other Requirements

If the Distributed Tape System component is to be used, then iGateway and iSponsor Architecture is required.

Concurrent Releases

You can install this release of CA TLMS and continue to use an older release in another SMP/E CSI 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 in that environment.
- 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

This section contains the following topics:

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.

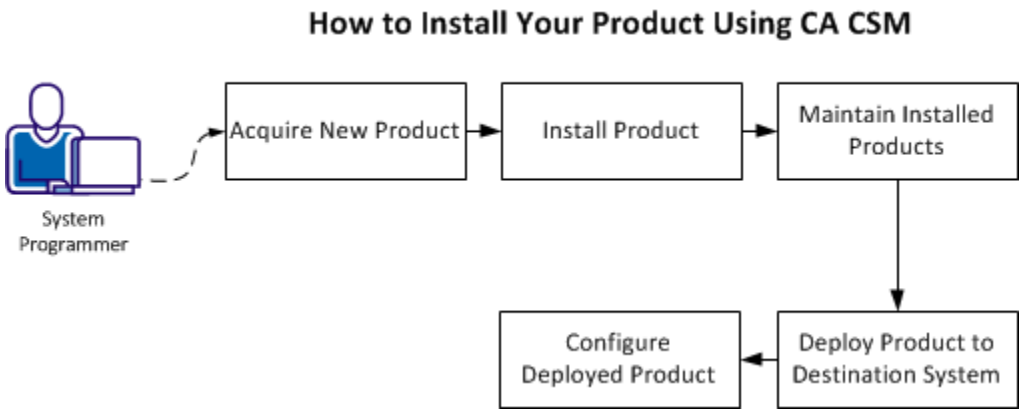
Before you use this scenario, you must have CA MSM installed at your site. If you do not have CA MSM installed, you can download it from the Download Center at http://ca.com/support. This web page also contains links to the complete documentation for CA MSM.

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 19).
2. Install the product (see page 20).
3. Maintain the installed products (see page 22).
4. Deploy the product to the destination system (see page 23).
5. Configure the deployed product (see page 24).

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.

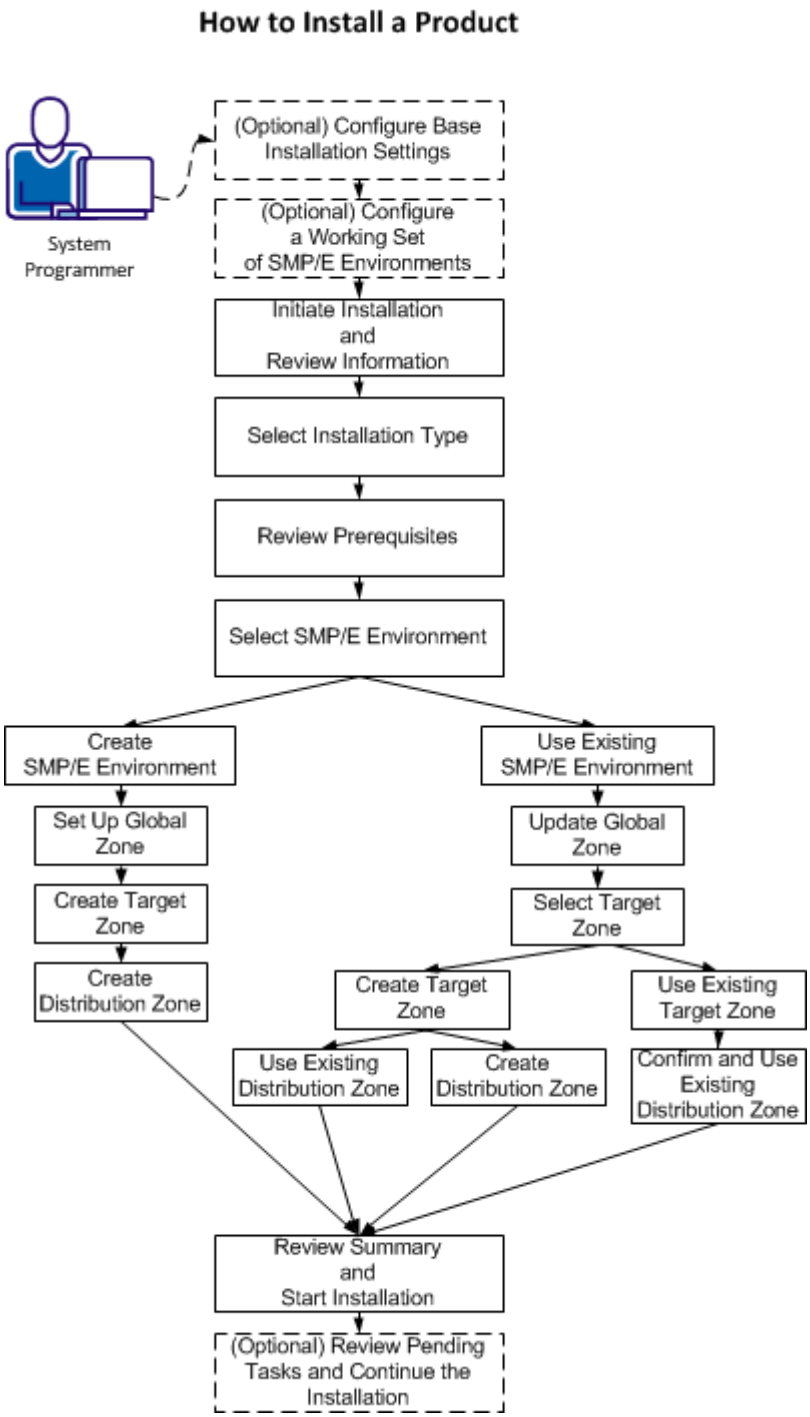
   CA MSM downloads (acquires) the packages (including any maintenance packages) from the CA Support Online website.

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:



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.

     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.
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

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 32)
Allocate and Mount a File System (see page 33)
Copy the Product Pax Files into Your USS Directory (see page 36)
Create a Product Directory from the Pax File (see page 41)
Copy Installation Files to z/OS Data Sets (see page 42)

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 29) 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.

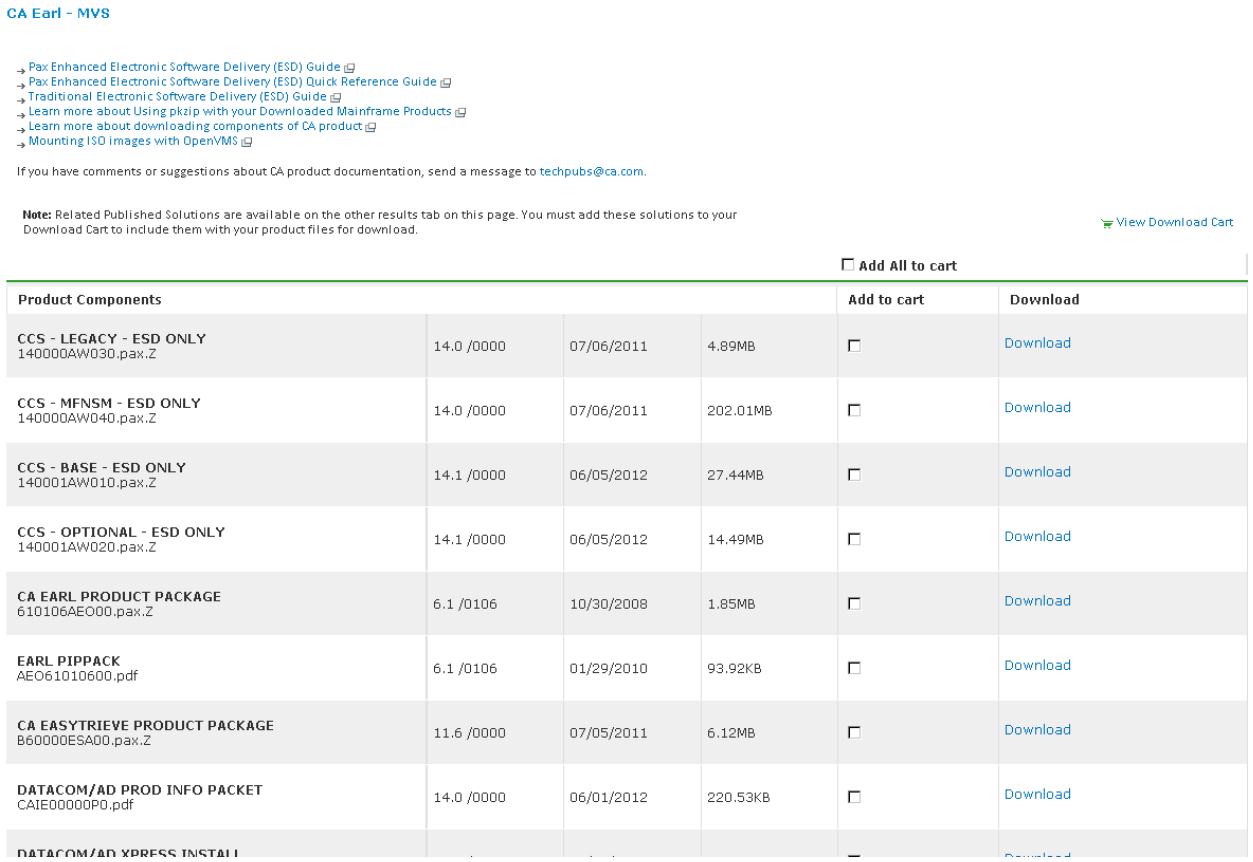
4. Perform the steps to install the product based on the product-specific steps.

   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.

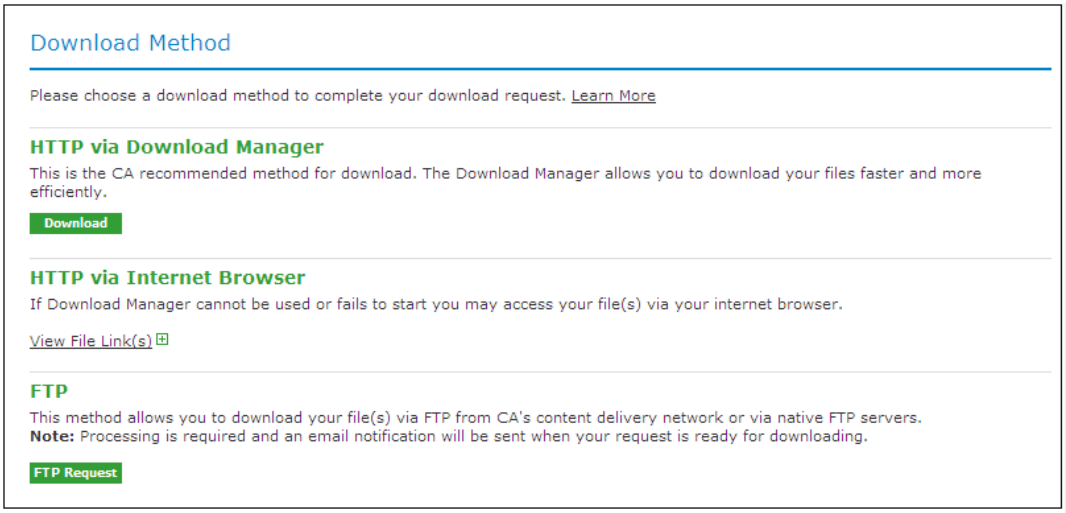
Note: Related Published Solutions are available on the other results tab on this page. You must add these solutions to your Download Cart to include them with your product files for download.

View Download Cart

Add All to cart

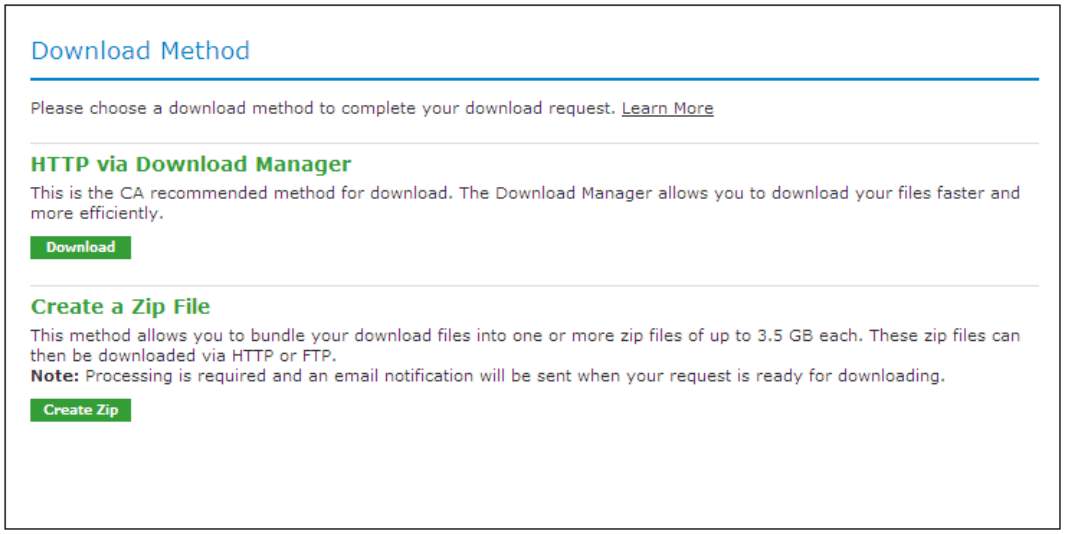
Product Components				Add to cart	Download
CCS - LEGACY - ESD ONLY 140000AW030.pax.Z	14.0 /0000	07/06/2011	4.89MB	☐	Download
CCS - MFNSM - ESD ONLY 140000AW040.pax.Z	14.0 /0000	07/06/2011	202.01MB	☐	Download
CCS - BASE - ESD ONLY 140001AW010.pax.Z	14.1 /0000	06/05/2012	27.44MB	☐	Download
CCS - OPTIONAL - ESD ONLY 140001AW020.pax.Z	14.1 /0000	06/05/2012	14.49MB	☐	Download
CA EARL PRODUCT PACKAGE 610106AEO00.pax.Z	6.1 /0106	10/30/2008	1.85MB	☐	Download
EARL PIPPACK AEO61010600.pdf	6.1 /0106	01/29/2010	93.92KB	☐	Download
CA EASYTRIEVE PRODUCT PACKAGE B60000ESA00.pax.Z	11.6 /0000	07/05/2011	6.12MB	☐	Download
DATACOM/AD PROD INFO PACKET CAIE00000P0.pdf	14.0 /0000	06/01/2012	220.53KB	☐	Download
DATACOM/AD XPRESS INSTALL				☐	

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



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

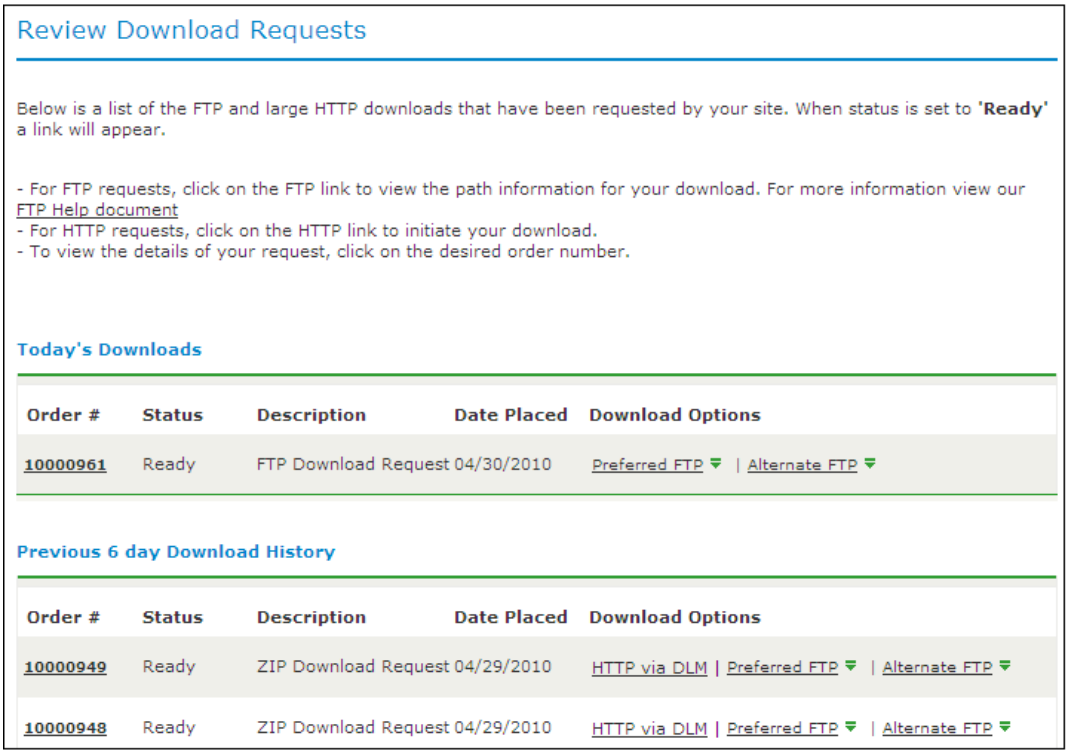
Note: For mainframe downloads using this HTTP method, click the Learn More link.



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 29)
ESD Product Download Window (see page 29)

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.
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 profile.
3. Replace *YourEmailAddress* with your email address.

   The job points to your email address.
4. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.

   The job points to your USS directory.
5. Locate the product component to download on the CA Support Product Download window.

   You have identified the product component to download.
6. Click Download for the applicable file.

   Note: 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 SYSFTPD 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
//SYSFTPD  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 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 y*ourHLQ* 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 y*ourHLQ* as you use for the SMP/E RELFILEs.

   All occurrences of y*ourHLQ* 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 that are used in this procedure prepare the data sets, initialize the zones, and create the DDDEFs for CA TLMS.

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

Follow these steps:

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

   The macro is ready to customize the *yourHLQ*.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 TLMSEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the TLMEDALL member.

2. Open the SAMPJCL member TLM1ALL in an edit session and execute the TLMSEDIT macro from the command line.

   TLM1ALL is customized.

3. Submit TLM1ALL.

   This job produces the following results:

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

4. Open the SAMPJCL member TLM2CSI in an edit session and execute the TLMSEDIT macro from the command line.

   TLM2CSI is customized.

5. Submit TLM2CSI.

   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 *yourHLQ*.SAMPJCL members in sequence. Do not proceed with any job until the previous job has completed successfully.

Follow these steps:

1. Open the SAMPJCL member TLM3RECD in an edit session, and execute the TLMSEDIT macro from the command line.

   TLM3RECD is customized.

2. Submit the *yourHLQ*.SAMPJCL member TLM3RECD to receive SMP/E base functions.

   Third-Party Software for CA TLMS is received and now resides in the global zone.

3. Open the SAMPJCL member TLM4APP in an edit session, and execute the TLMSEDIT macro from the command line.

   TLM4APP is customized.

4. Submit the *yourHLQ*.SAMPJCL member TLM4APP to apply SMP/E base functions.

   Third-Party Software for CA TLMS is applied and now resides in the target libraries.

5. Open the SAMPJCL member TLM5ACC in an edit session, and execute the TLMSEDIT macro from the command line.

   TLM5ACC is customized.

6. Submit the *yourHLQ*.SAMPJCL member TLM5ACC to accept SMP/E base functions.

   Third-Party Software for CA TLMS 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 Technologies 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 created and all of the files in it
- SMP/E RELFILEs, SMPMCS, and HOLDDATA MVS data sets

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

Note: Retain non-SMP/E installation data sets such as *yourHLQ*.INSTALL.NOTES for future reference.

Follow these steps:

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 Technologies 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 created.

   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 has maintenance and HOLDDATA published since the installation data was created. After the maintenance process completes, the product is ready to deploy.

Follow these steps:

1. Check CA Support Online and download any PTFs and HOLDDATA published since this release was created. If the base release was created recently, no PTFs or HOLDATA will have been published yet.
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 HOLDDATA.

   The PTFs and HOLDDATA become accessible to the *yourHLQ*.SAMPJCL maintenance members.
3. The TLMSEDIT macro was customized in the installation steps. Verify that you still have the values from the base installation.
4. Open the SAMPJCL member TLM6RECP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM6RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the TLM6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit TLM6RECP.

   The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member TLM7APYP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM7APYP is customized.
8. Submit TLM7APYP.

   The PTFs are applied.
9. (Optional) Open the SAMPJCL member TLM8ACCP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM8ACCP is customized.
10. (Optional) Submit *yourHLQ*.SAMPJCL member TLM8ACCP.

    The PTFs are accepted.

    Note: You do not have to submit the job at this time. 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.

System HOLDDATA

System HOLDDATA indicates data that is an in-stream part of the SYSMOD, informing you of special conditions. The following reasons are used with SYSTEM HOLDDATA for your product:

ACTION

Indicates that you must perform special processing before or after you apply this SYSMOD.

AO

Affects automated operations. It changes either the message identifier or the displacement of a field inside the message.

DB2BIND

Indicates that DBRMs have changed and packages need to be rebound.

DDDEF

Indicates that data sets and DDDEFs are being added or modified.

DELETE

Deletes the SYSMOD load module. You cannot reverse this type of SYSMOD with the SMP/E RESTORE command.

DEP

Indicates a dependency for this SYSMOD that you must externally verify.

DOC

Indicates a documentation change with this SYSMOD.

DYNACT

Describes the steps to dynamically activate this fix without performing an IPL.

EC

Indicates that this SYSMOD requires a hardware engineering change. An EC hold SYSMOD usually does not affect the product unless the EC is present on the hardware device.

ENH

Introduces a small programming enhancement. The hold contains the instructions to implement the enhancement. If no action is needed to implement the enhancement, give a summary of the enhancement.

EXIT

Indicates that changes delivered by this SYSMOD require reassembly of user exits.

EXRF

Indicates that the SYSMOD must be installed in both the Active and Alternate Extended Recovery Facility Systems.

IPL

Indicates that an IPL is required for this SYSMOD to take effect. This is used only when there is no alternative for dynamic activation.

MSGSKEL

Indicates that the SYSMOD contains internationalized message versions that must be run through the message compiler for each language.

MULTSYS

Apply this SYSMOD to multiple systems for either pre-conditioning, coexistence, or exploitation.

RESTART

Indicates that after applying this SYSMOD, the site must perform a special restart as opposed to a routine restart.

SQLBIND

Indicates that a bind is required for a database system other than DB2.

SYSMOD

Indicates that some or all of the elements that this SYSMOD delivers are to be downloaded to a workstation.

Code a bypass operand on your APPLY command to install SYSMODs that have internal holds. Code the bypass operand only after you have performed the required action, or if you are performing the action after the APPLY, if that is appropriate.

External HOLDDATA

External HOLDDATA is not part of the PTF. The HOLDDATA resides in a separate file. The HOLDDATA is commonly used for SYSMODs that have been distributed and later are discovered to cause problems.

Download the external HOLDDATA from CA Support to a DASD file, and allocate the file to the SMPHOLD DD statement. To take care of the external HOLDDATA, receive it into your SMP/E environment. SMP/E receives the HOLDDATA from CA-supplied jobs.

If a SYSMOD has an unresolved hold error, SMP/E does not install it unless you add a bypass to your APPLY command. You can bypass an error hold in situations that are not applicable to you. Error holds that are not applicable to you can include a problem that happens only with a hardware device that you do not have or in a product feature that you do not use.

When CA Technologies publishes a SYSMOD that resolves the hold, the resolving SYSMOD supersedes the hold error. This action lets you apply the original SYSMOD in conjunction with the fixing SYSMOD.

A special HOLDDATA class that is called ERREL exists. We have determined that the problem fixed by the SYSMOD is more important than the one that it causes. We recommend that you apply these SYSMODs.

The only manual task is running a REPORT ERRSYSMODS. This report identifies the following:

- Any held SYSMODs already applied to your system
- Any resolving SYSMODs that are in RECEIVE status

SMP/E identifies the SYSMOD to apply to correct the situation.

Chapter 5: Installing Your Product from Tape

This section contains the following topics:

Unload the Sample JCL from Tape

To simplify the 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 UnloadJCL.txt file to view the sample JCL job.

Note: The sample JCL to install the product is also provided in the CAI.SAMPJCL library on the distribution tape.

Follow these steps:

1. Run the following sample JCL:

```
//COPY      EXEC PGM=IEBCOPY,REGION=4096K
//SYSPRINT  DD   SYSOUT=*
//SYSUT1    DD   DSN=CAI.SAMPJCL,DISP=OLD,UNIT=unitname,VOL=SER=nnnnnn,
//          LABEL=(1,SL)
//SYSUT2    DD   DSN=yourHLQ.SAMPJCL,
//          DISP=(,CATLG,DELETE),
//          UNIT=sysda,SPACE=(TRK,(15,3,6),RLSE)
//SYSUT3    DD   UNIT=sysda,SPACE=(CYL,1)
//SYSIN     DD   DUMMY
```

unitname

Specifies the tape unit to mount the tape.

nnnnnn

Specifies the tape volume serial number.

yourHLQ

Specifies the data set prefix for the installation.

sysda

Specifies the DASD where you want to place the installation software.

The SAMPJCL data set is created and its contents are downloaded from the tape.

2. Continue with one of the following options:
   - If you already have set up the SMP/E environment, go to Run the Installation Jobs for a Tape Installation.
   - If you have *not* set up the SMP/E environment, go to Prepare the SMP/E Environment for Tape Installation.

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 Tape Installation

The members that are used in this procedure prepare the data sets, initialize the zones, and create the DDDEFs for CA TLMS.

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

Follow these steps:

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

   The macro is ready to customize your y*ourHLQ*.SAMPJCL members.

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

2. Open the SAMPJCL member TLM1ALL in an edit session and execute the TLMSEDIT macro from the command line.

   TLM1ALL is customized.

3. Submit TLM1ALL.

   This job produces the following results:

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

4. Open the SAMPJCL member TLM2CSI in an edit session and execute the TLMSEDIT macro from the command line.

   TLM2CSI is customized.

5. Submit TLM2CSI.

   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 Tape Installation

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

Follow these steps:

1. Open the SAMPJCL member TLM3RECT in an edit session and execute the TLMSEDIT macro from the command line.

   TLM3RECT is customized.

2. Submit the *yourHLQ*.SAMPJCL member TLM3RECT to receive SMP/E base functions.

   CA TLMS is received and now resides in the global zone.

3. Open the SAMPJCL member TLM4APP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM4APP is customized.

4. Submit the *yourHLQ*.SAMPJCL member TLM4APP to apply SMP/E base functions.

   Your product is applied and now resides in the target libraries.

5. Open the SAMPJCL member TLM5ACC in an edit session and execute the TLMSEDIT macro from the command line.

   TLM5ACC is customized.

6. Submit the *yourHLQ*.SAMPJCL member TLM5ACC to accept SMP/E base functions.

   Your product is accepted and now resides in the distribution libraries.

Apply Maintenance

CA Support Online has maintenance and HOLDDATA published since the installation data was created. After the maintenance process completes, the product is ready to deploy.

Follow these steps:

1. Check CA Support Online and download any PTFs and HOLDDATA published since this release was created. If the base release was created recently, no PTFs or HOLDATA will have been published yet.
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 HOLDDATA.

   The PTFs and HOLDDATA become accessible to the *yourHLQ*.SAMPJCL maintenance members.
3. The TLMSEDIT macro was customized in the installation steps. Verify that you still have the values from the base installation.
4. Open the SAMPJCL member TLM6RECP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM6RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the TLM6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit TLM6RECP.

   The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member TLM7APYP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM7APYP is customized.
8. Submit TLM7APYP.

   The PTFs are applied.
9. (Optional) Open the SAMPJCL member TLM8ACCP in an edit session and execute the TLMSEDIT macro from the command line.

   TLM8ACCP is customized.
10. (Optional) Submit *yourHLQ*.SAMPJCL member TLM8ACCP.

    The PTFs are accepted.

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

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.

System HOLDDATA

System HOLDDATA indicates data that is an in-stream part of the SYSMOD, informing you of special conditions. The following reasons are used with SYSTEM HOLDDATA for your product:

ACTION

Indicates that you must perform special processing before or after you apply this SYSMOD.

AO

Affects automated operations. It changes either the message identifier or the displacement of a field inside the message.

DB2BIND

Indicates that DBRMs have changed and packages need to be rebound.

DDDEF

Indicates that data sets and DDDEFs are being added or modified.

DELETE

Deletes the SYSMOD load module. You cannot reverse this type of SYSMOD with the SMP/E RESTORE command.

DEP

Indicates a dependency for this SYSMOD that you must externally verify.

DOC

Indicates a documentation change with this SYSMOD.

DYNACT

Describes the steps to dynamically activate this fix without performing an IPL.

EC

Indicates that this SYSMOD requires a hardware engineering change. An EC hold SYSMOD usually does not affect the product unless the EC is present on the hardware device.

ENH

Introduces a small programming enhancement. The hold contains the instructions to implement the enhancement. If no action is needed to implement the enhancement, give a summary of the enhancement.

EXIT

Indicates that changes delivered by this SYSMOD require reassembly of user exits.

EXRF

Indicates that the SYSMOD must be installed in both the Active and Alternate Extended Recovery Facility Systems.

IPL

Indicates that an IPL is required for this SYSMOD to take effect. This is used only when there is no alternative for dynamic activation.

MSGSKEL

Indicates that the SYSMOD contains internationalized message versions that must be run through the message compiler for each language.

MULTSYS

Apply this SYSMOD to multiple systems for either pre-conditioning, coexistence, or exploitation.

RESTART

Indicates that after applying this SYSMOD, the site must perform a special restart as opposed to a routine restart.

SQLBIND

Indicates that a bind is required for a database system other than DB2.

SYSMOD

Indicates that some or all of the elements that this SYSMOD delivers are to be downloaded to a workstation.

Code a bypass operand on your APPLY command to install SYSMODs that have internal holds. Code the bypass operand only after you have performed the required action, or if you are performing the action after the APPLY, if that is appropriate.

External HOLDDATA

External HOLDDATA is not part of the PTF. The HOLDDATA resides in a separate file. The HOLDDATA is commonly used for SYSMODs that have been distributed and later are discovered to cause problems.

Download the external HOLDDATA from CA Support to a DASD file, and allocate the file to the SMPHOLD DD statement. To take care of the external HOLDDATA, receive it into your SMP/E environment. SMP/E receives the HOLDDATA from CA-supplied jobs.

If a SYSMOD has an unresolved hold error, SMP/E does not install it unless you add a bypass to your APPLY command. You can bypass an error hold in situations that are not applicable to you. Error holds that are not applicable to you can include a problem that happens only with a hardware device that you do not have or in a product feature that you do not use.

When CA Technologies publishes a SYSMOD that resolves the hold, the resolving SYSMOD supersedes the hold error. This action lets you apply the original SYSMOD in conjunction with the fixing SYSMOD.

A special HOLDDATA class that is called ERREL exists. We have determined that the problem fixed by the SYSMOD is more important than the one that it causes. We recommend that you apply these SYSMODs.

The only manual task is running a REPORT ERRSYSMODS. This report identifies the following:

- Any held SYSMODs already applied to your system
- Any resolving SYSMODs that are in RECEIVE status

SMP/E identifies the SYSMOD to apply to correct the situation.

Chapter 6: Preparing to Start Your Product

This section describes the tasks needed before CA TLMS can be started and used.

Parameters used by the CA Common Services for z/OS component CAIRIM to initialize CA TLMS are generated by this procedure.

To prepare to start CA TLMS

1. Add the following parameter statement if you have the CAI.CTAPOPTN CARIMPRM member:

   ```
   PRODUCT(CA-TLMS/MVS) VERSION(TLC6) INIT(TLC6INIT) PARM(INIT)
   ```

2. Add the CAI.CTAPOPTN CARIMPRM member to contain the above parameter statement if the member does not exist.

   Note: There is a sample CAIRIM parameter statement for CA TLMS in CAI.CTAPOPTN member TLRIMPRM.

3. Ensure that your CA TLMS CAI.CTAPLINK data set is APF authorized and added to your LINKLIST or copied to a data set in your LINKLIST.

4. Remove all libraries for prior versions of CA TLMS from LINKLIST and IPL before attempting to start CA TLMS Release 12.6 Second Edition if you have a previous version of CA TLMS installed.

Chapter 7: Configuring Your Product

How to Configure Your Product

This scenario describes the minimum configuration tasks needed before CA TLMS can be started, customized, and used in your environment.

CA TLMS requires option members in CAI.CTAPOPTN, a CTS procedure, a Volume Master File, an Alternate Log, and a Retention Master File.

Follow these steps:

1. Copy the CAI.CTAPOPTN members to your active options file, then edit the members for your configuration.

   The minimum is to set your company name.

2. Copy the CTS PROC to your active PROCLIB and edit for your data set names.

   For more information, see Symbolic Variable Worksheet (see page 62).

3. Copy the CLIST, REXX, and ISPF, members from the CA TLMS target libraries to your active ISPF libraries. Then edit the REXX and CLIST members for your libraries.

4. Allocate a Volume master file.

   You can use the JCL in CAI.CTAPJCL(TLMJVMFI).

5. Allocate an Alternate Log file.

   You can use the JCL in CAI.CTAPJCL(TLMJALGI).

6. Allocate a Retention Master File.

   You can use the JCL in CAI.CTAPJCL(TLMJRMFI) and CAI.CTAPJCL(TLMJRMFU).

7. Allocate and format the CTS DUMP file.

   You can use the JCL in CAI.CTAPJCL(CTSJDMPA).

8. Add your USER entries to CAI.CTAPOPTN(TLMSIPO), if you had a TLTPOPTS USERMOD in a previous release.

Note: You may have to change other CA TLMS PROCs as more functions are used. For information about allocating a volume master file, alternate log file, or a retention master file, see the *Configuration Guide*. See the index member TLMJ@NDX in CAI.CTAPJCL for sample jobs to install User Exits and other USERMODs.

Symbolic Variable Worksheet

CA TLMS procedures use common symbolic names. Use the following worksheet to assign values these symbolics. Then you can use these values to customize the procedures in your active PROCLIB.

Note: The default DASD space allocations are very small. Change these for use with your actual CA TLMS files.

CA TLMS data sets name prefix:

Default: CAI

CAI=_____

Permanent DASD volumes generic unit name:

Default: SYSDA

PERMDA=_____

Temporary work DASD volumes generic unit name:

Default: SYSDA

WORK=_____

DASD volume for SMP/E libraries:

Default: (no default)

VOLSER=_____

Tape unit generic unit name:

Default: TAPE

TAPE=_____

CA TLMS product options data set name:

Default: 'CAI.CTAPOPTN(TLMSIPO)'

OPTS=_____

CA product load library data set name:

Default: 'CAI.CTAPLINK'

LOAD=_____

CA TLMS Alternate Log (ALOG) file data set name:

Default: 'CAI.TLMS.ALOG'

ALOG=_____

CA TLMS Volume Master File (VMF) data set name:

Default: 'CAI.TLMS.VMF'

VMF=_____

CA TLMS VMF index file data set name:

Default: 'CAI.TLMS.VMFINDEX'

VMFIDX=_____

CA TLMS Retention Master File (RMF) data set name:

Default: 'CAI.TLMS.RMF'

RMF=_____

CA TLMS ALOG backup file data set name:

Default: 'CAI.TLMS.BKUPALOG'

BKUPALOG=_____

CA TLMS RMF backup file data set name:

Default: 'CAI.TLMS.BKUPRMF'

BKUPRMF=_____

CA TLMS VMF backup file data set name:

Default: 'CAI.TLMS.BKUPVMF'

BKUPVMF=_____

CA Common Services for z/OS Earl Service definitions for CA TLMS record layouts data set:

Default: 'CAI.CTAPEARL'

EARLLIB=_____

CA Common Services for z/OS Earl Service definitions for CA TLMS record layout data set:

Default: 'CAI.CTAPECPB'

EARLMAC=_____

Library that contains the IBM modules CA TLMS requires for operating system intercepts:

Default: 'SYS1.LPALIB'

LPALIB=_____

VMF backup file data set name:

Default: 'CAI.TLMS.BKUPVMF'

BKUPVMF=_____

Preferred SYSOUT class for CA TLMS jobs:

Default: A='*'

A=_____

Preferred SYSOUT class for CA TLMS EARL reports:

Default: '*'

SOUT=_____

Data set name of the library where the options are installed:

Default: CAI.CTAPOPTN

OPTS=_____

VMF sorted space requirements:

Default: (CYL,(5_,5_))

SRTSPC=_____

CA EARL sort records space requirements:

Default: (CYL,(5_,5_))

SPCERL=_____

VMF utilities space requirements:

Note: Base space estimate on one 500 byte record for each data set and each volume on multi-data set volumes. For more information, see the CATVMFI worksheet.

Default: (CYL,(5,5))

SPCVMF=_____

Tape database for CA Earl reports data set name:

Note: This should be the same as the VMF symbolic.

Default: CAI.TLMS.VMF

TAPEDB=_____

Retention Master File volume serial number:

VOLRMF=_____

SMF to VMF conversion space requirements:

Default: (CYL,(10,10))

SPCSMF=_____

Number of buffers used when the VMF is being processed sequentially:

Default: 80

BUFNO=_____

CTS Dump spool data set name:

Note: This data set is used to hold program dumps from the CTS address space until they can be copied to SYSOUT and released.

Default: CAI.CTS.DMUP

CTSDMP=_____

CTS Options data set data set name:

Default: CAI.CTAPOPTN

CTSOPTS=_____

CA TLMS Initialization deck data set name:

Default: CAI.CTAPOPTN(TLMSIDECK)

IDK=_____

SORT/MERGE SORTLIB data set name:

Default: SYS1.SORTLIB

SORTLIB=_____

VMF definitions storage data set name:

Default: CAI.CTAPOPTN(TLMSIDCK)

IDCK=_____

Chapter 8: Migration Information

This section contains the following topics:

Migration Considerations

CA TLMS Release 12.6 Second Edition can run with CA TLMS r11.5 and above files. The Release 12.6 Second Edition PROCs, CLISTs, and REXX EXECs should be used. New CA wide standard SMP/E libraries are being used, so many SMP/E elements may not be where you would be expecting them. CA TLMS is delivered in only three FMIDs, far less than previous releases.

Options and Interfaces not Supported

Several options have been dropped in CA TLMS Release 12.6 Second Edition and will be ignored, if present.

The following options are no longer supported:

- SUBVOL
- MACC
- SUBOVER
- KEYDD
- OVERRIDE
- RPTEXIT
- RMPEXIT
- CATLG
- DSNSTD

The following interfaces with external products are no longer supported:

- CA Dynam/T
- CICS
- CA ROSCOE

New samples are included in CAI.CTAPJCL to apply USERMODs for CA TLMS and CTS.

TLTPOPTS Online User Option Table not Supported

USER= parameters in CAI.CTAPOPTN replaces the online user option table TLTPOPTS. If you used TLTPOPTS, code USER= parameters for CA TLMS Release 12.6 Second Edition.

Give the USEREXITs in CA TLMS Release 12.6 Second Edition any name, so that they are not distributed as ++MOD. You can create each USEREXIT from a sample that is provided in CAI.CTAPSRC by applying the corresponding USERMOD from CAI.CTAPJCL.

Example to convert the TLTPOPTS table to TLMUTAB:

```
TLTPOPTS START
CAIDTOPT USER=DEFAULT,PRODUCT=TLMS,                                  *
PFKEYS=(HELP,,END,RETURN,,,BACKWARD,FORWARD,,,,CANCEL)
SPACE 2
CAIDTOPT USER=USER1,PASSWRD=USER1,ACCESS=UPDATE
SPACE 2
CAIDTOPT USER=USER2,PASSWRD=USER2,ACCESS=INQUIRY
SPACE 2
CAIDTOPT USER=DUMMY,PASSWRD=NONE,ACCESS=NONE
SPACE 2
CAIDTOPT                      GENERATE OPTIONS TABLE
END
```

TLMUMOD:

```
USER=USER1,PWD=USER1,ACCESS=U
USER=USER2,PWD=USER2,ACCESS=I
USER=DUMMY,ACCESS=N
```

To change the TLMUTAB in CA TLMS Release 12.6 Second Edition, follow these steps:

1. Update the USER= with the new user and access.
2. Execute CAS9 with a PARM of REINIT for TLMS.

   The User Table reloads.
3. Ensure the new user logs off and back on to TSO/TLTPISPF.

For more information about USER= parameters, see the *Configuration Guide*.

Migrate JCL

In CA TLMS Release 12.6 Second Edition, all files, samples, PROC, and exits are SMP/E controlled. Therefore, you should use the Release 12.6 Second Edition PROCs delivered in CAI.CTAPPROC and the sample JCL delivered in CAI.CTAPJCL.

Index

M

P

R

S

T

U