

# CA PMA Chargeback™

## Installation Guide

Release 12.6.00



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## CA Technologies Product References

This document references the following CA Technologies products:

- CA Datacom®/AD
- CA Datacom®/DB
- CA Mainframe Software Manager (CA MSM)

## Contact CA Technologies

### Contact CA Support

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

- 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
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# Chapter 1: Overview

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This guide describes how to install and implement CA PMA Chargeback.

This section contains the following topics:

[Audience](#) (see page 9)

[How the Installation Process Works](#) (see page 9)

## 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
- Storage administrator, for DASD allocations
- DB2 or CA Datacom database administrator

## How the Installation Process Works

The following steps describe the installation process:

1. Prepare for the installation by confirming that your site meets all installation requirements.
2. Acquire the product using one of the following methods:
  - CA MSM

**Note:** If you do not have CA MSM, you can download it from the Download Center at [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.
  - Pax-Enhanced Electronic Software Delivery (ESD)
  - Tape

3. Install the product based on your acquisition method.
4. Install the CA Common Services using the pax files that contain the CA Common Services you need at your site. All sites should install all CA Common Services contained in the Required CA Common Service bundle.
5. Apply maintenance, if applicable.
6. Configure each component that has configuration parameters.

# Chapter 2: Preparing for Installation

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

This section contains the following topics:

[Hardware Requirments](#) (see page 11)

[Software Requirements](#) (see page 11)

[Common Services Requirements](#) (see page 11)

[Security Requirements](#) (see page 13)

[Storage Requirements](#) (see page 13)

[Concurrent Releases](#) (see page 15)

[Relationships Between Versions](#) (see page 16)

## Hardware Requirments

CA PMA Chargeback can be run on both nonprogrammable color and monochrome terminals.

## Software Requirements

CA PMA Chargeback runs under z/OS.

Either the current release of DB2 or CA Datacom® with SQL must be installed. If your site does not have one of these databases, CA provides a current release of CA Datacom/AD on a separate installation tape.

## Common Services Requirements

CA PMA Chargeback uses the cBASE component of ViewPoint to provide online facilities. Programs are written in C language. We, therefore, provide the CA Common Services for z/OS CA C Runtime routines necessary to execute these programs. Reporting and sorting are accomplished with two CA Common Services components: the Earl Service and CA SRAM.

Before installing CA PMA Chargeback, the following CA Common Services for z/OS *must* be installed:

- CAIRIM (S910 or higher)
- ViewPoint (CAG3000 or higher)
- CA-C Runtime (F330 or higher)

If you plan to use Earl reporting, the following CA Common Services for z/OS *must also* be installed:

- SRAM Service (SR66 or higher)
- Earl Service (XE61)

### **CAIRIM**

Prepares your operating system environment for all CA applications and starts them. The common driver for a collection of dynamic initialization routines eliminates the need for user SVCs, SMF exits, subsystems, and other installation requirements commonly encountered when installing systems applications.

Integral parts of CAIRIM are CAISSF, CA LMP, and CA zIIP Enablement Services.

#### **CAISSF**

Provides an external security mechanism for controlling and monitoring access to all system and application resource processes. CAISSF is integrated into many CA enterprise applications and is also used by other CCS for z/OS services. CAISSF provides security services for user logon, resource access control, process use control, and recording and monitoring of violation activity.

#### **CA LMP**

Provides a standardized and automated approach to the tracking of licensed software and is provided as an integral part of CAIRIM. After CAIRIM is installed, you have access to Technical Support for all CA LMP-supported products.

#### **CA zIIP Enablement Services**

Provides a common service for CA products to allow their code to run on zIIP processors, if available.

### **ViewPoint**

Provides an SQL engine for PC-based workstation products. Workstation products can use ViewPoint to query z/OS product databases without knowledge of the underlying database structure.

### **CA-C Runtime**

Provides a C run-time facility that insulates programs from system and release dependencies.

### **SRAM Service**

Allows the activation of several sort processes concurrently, simplifying the data and logic flow. The incoming data to the sort can be manipulated as desired by the user program in a high-level language without the need for special exit routines.

**Earl Service**

Provides a user-friendly report-definition facility with the power of a comprehensive programming system. Earl Service allows you to modify and print the contents and layout of a pre-defined CA application report using English-like statements.

## Security Requirements

One of the CA security solutions or a compatible non-CA security product is required for database access.

## Storage Requirements

### TSO Requirements

We recommend that TSO users run the DataManager and CA PMA Chargeback online facility using 4 MB. However, online processing can function using 2 MB.

### DASD Requirements

This section shows the device independent allocation requirements, in tracks, for this product's SMP/E target and distribution libraries.

#### CA PMA Chargeback Permanent (Target) Libraries

Library Name	Blksize	Tracks	Dir Blocks	Description
CAJRCLSO	32720	2,1	2	CLIST Library
CAJRLOAD	6144	39,8	6	Load Library
CAJRPROC	32720	3,1	2	Procedure Library
CAJRJCL	32720	6,2	14	Sample JCL Library
CAJRSAMP	32720	2,1	2	Sample Source Library
CAJROPTN	32720	2,1	2	Sample Option Library
CAJRDATV	32760	11,3	2	IVP Data Library
CAJREARL	32720	4,1	9	EARL Library
CAJRXML	32760	3,1	2	XML Library
CAJRSQL	32720	84,17	26	SQL Library

Library Name	Blksize	Tracks	Dir Blocks	Description
CAJRCPNC	32760	16,4	74	cBASE PMA Chargeback Panel Library
CAJRCPNS	32760	30,6	137	cBASE Shared Panel Library
CAJRCLST	32760	6,2	41	cBASE List Library
CAJRCMSG	32760	21,5	212	cBASE Message Library
CAJRCDLG	32760	231,47	66	cBASE Dialog Library
CAJRCSQL	32720	24,5	212	cBASE SQL Library
CAJRCTMP	32720	3,1	3	cBASE Template Library

### CA PMA Chargeback Distribution Libraries

AAKRSAMP	32720	2,1	2	Sample Library
AAKRSQL	32720	13,3	8	SQL Library
AAKREARL	32720	4,1	9	Earl Library
AAKRJCL	32720	5,1	11	JCL Library
AAKRCLS0	32720	2,1	2	CLIST Library
AAKRPROC	32720	2,1	2	Procedure Library
AAKROPTN	32720	2,1	2	Sample Option Library
AAKRMOD0	27998	19,4	5	Object Module Library
AAKRCLST	32760	5,1	33	cBASE List Library
AAKRMSG	32760	18,4	161	cBASE Message Library
AAKRCPNS	32760	30,6	137	cBASE Shared Panel Library
AAKRCDLG	32760	209,42	50	cBASE Dialog Library
AAKRCSQL	32760	20,4	168	cBASE SQL Library
AAKRCTMP	32720	2,1	2	cBASE Template Library
AAKRDTV	32760	11,3	2	IVP Data Library
AAKSSQL	32720	73,15	18	SQL Library
AAKSEARL	32720	3,1	2	Earl Library
AAKSJCL	32720	3,1	3	JCL Library
AAKSPROC	32720	3,1	2	Procedure Library
AAKSOPTN	32720	2,1	2	Sample Option Library
AAKSMOD0	27998	15,3	6	Object Module Library
ABEOCDLG	32760	25,5	17	DataManager cBASE Dialog Library

ABEOCLST	32760	3,1	8	DataManager cBASE List Library
ABEOCLS0	32720	2,1	2	DataManager CLIST Library
ABEOCMMSG	32760	9,2	51	DataManager cBASE Message Library
ABEOCPNC	32760	16,4	74	DataManager cBASE Panel Library
ABEOCSQL	32760	9,2	44	DataManager cBASE SQL Library
ABEOCTMP	32720	2,1	2	DataManager cBASE Template Library
ABEOJCL	32720	3,1	2	DataManager JCL Library
ABEOMOD0	27998	4,1	2	DataManager Object Module Library
ABEOXML	32760	3,1	2	XML Library

### CA PMA Chargeback Parameter Files

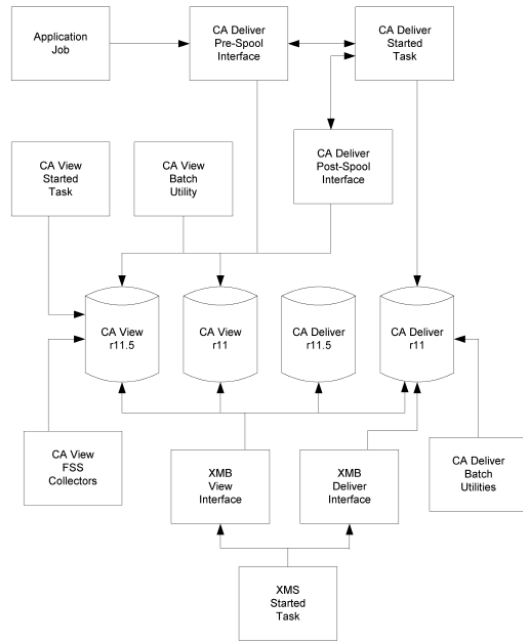
Library Name	Blksize	Blks	Dir	Description
CAI.CAIKRPAR	80	85	N/A	PMA Chargeback runtime parameters
CAI.CAIKSPAR	80	85	N/A	DataManager runtime parameters

## Concurrent Releases

You can install this release of CA PMA Chargeback and continue to use an older release for your production environment. However, due to substantial changes in target and distribution libraries, you must install into a new SMP/E environment.

## Relationships Between Versions

The following diagram shows the relationships among multiple versions of CA View and CA Deliver.



# Chapter 3: Installing Your Product Using CA MSM

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This section contains the following topics:

[How to Use CA MSM: Scenarios](#) (see page 17)

[Access CA MSM Using the Web-Based Interface](#) (see page 22)

These topics provide information to get you started managing your product using CA MSM. You can use the online help included in CA MSM to get additional information.

Before using these topics, you must already have CA MSM installed at your site. If you do not have CA MSM installed, you can download it from the Download Center at [the CA Support Online website](#), which also contains links to the complete documentation for CA MSM.

**Note:** The information in this section applies to the latest version of CA MSM. If you are using an earlier version, see the appropriate bookshelf on the CA Mainframe Software Manager product page.

## How to Use CA MSM: Scenarios

In the scenarios that follow, imagine that your organization recently deployed CA MSM to simplify the installation of CA Technologies products and unify their management. You have also licensed a new CA Technologies product. In addition, you have a number of existing CSIs from previously installed products.

- The first scenario shows how you can use CA MSM to acquire the new product.
- The second scenario shows how you can use CA MSM to install the new product.
- The third scenario shows how you can use CA MSM to maintain products already installed in your environment.
- The fourth scenario shows how you can use CA MSM to deploy the product to your target systems.
- The fifth scenario shows how you can use CA MSM to configure the deployed product to your target systems.

## How to Acquire a Product

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

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

To do this, complete the following tasks:

1. Set up a CA Support Online account.

To use CA MSM to acquire or download a product, you must have a CA Support Online account. If you do not have an account, you can create one on [the CA Support Online website](#).

2. Determine the CA MSM URL for your site.

To [access CA MSM](#) (see page 22), you require its URL. You can get the URL from your site's CA MSM administrator and log in using your z/OS credentials. When you log in for the first time, you are prompted to create a CA MSM account with your credentials for [the CA Support Online website](#). This account enables you to download product packages.

3. Log in to CA MSM and go to the Software Catalog page to locate the product that you want to manage.

After you log in to CA MSM, you can see the products to which your organization is entitled on the Software Catalog tab.

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

4. Download the product installation packages.

After you find your product in the catalog, you can download the product installation packages.

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

The product is now ready for you to install or maintain.

## How to Install a Product

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

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

To do this, complete the following tasks:

1. Initiate product installation and review product information.
2. Select an installation type.
3. Review installation prerequisites if any are presented.
4. Do *one* of the following to select a CSI:
  - Create a new CSI:
    - a. Set up the global zone.
    - b. Create a target zone.
    - c. Create a distribution zone.
  - Use an existing CSI from your working set:
    - a. Update the global zone.
    - b. Set up the target zone: either create a new target zone or use an existing target zone.
    - c. Set up the distribution zone: either create a new distribution zone or use an existing distribution zone.
5. Review the installation summary and start the installation.

The product is now ready for you to deploy.

## How to Maintain Existing Products

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

You can use the PAS and SIS to maintain a CA Technologies product.

To do this, complete the following tasks:

1. Migrate the CSI to CA MSM to maintain an existing CSI in CA MSM.

During the migration, CA MSM stores information about the CSI in the database.

2. Download the latest maintenance for the installed product releases from the Software Catalog tab.

If you cannot find a release (for example, because the release is old), you can add the release to the catalog manually and then update the release to download the maintenance.

3. Apply the maintenance.

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

The product is now ready for you to deploy.

## How to Deploy a Product

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

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

To do this, complete the following tasks:

1. Set up the system registry:
  - a. Determine the systems you have at your enterprise.
  - b. Set up remote credentials for those systems.
  - c. Set up the target systems (Non-Sysplex, Sysplex or Monoplex, Shared DASD Cluster, and Staging), and validate them.
  - d. Add network information, including data destination information, to each system registry entry.
2. Set up methodologies.
3. Create the deployment, which includes completing each step in the New Deployment wizard.

After creating the deployment, you can save it and change it later by adding and editing systems, products, custom data sets, and methodologies, or you can deploy directly from the wizard.

**Note:** If you must deploy other products to the previously defined systems using the same methodologies, you must create a separate deployment.

4. Deploy the product, which includes taking a snapshot, transmitting to target, and deploying (unpacking) to your mainframe environment.

The product is now ready for you to configure.

## How to Configure a Product

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

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

To do this, complete the following tasks:

1. Select a deployed product to configure from the Deployments tab to open the Create Configuration wizard.
2. Create the configuration, which includes completing each step in the Create Configuration wizard, including the following:
  - a. Define a configuration name and select a target system.
  - 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 Create Configuration wizard lets you build the configuration.
4. Implement the configuration. The implementation process in CA MSM is a step-by-step process that carefully guides you and provides detailed instructions to start, stop, and manage the steps of the implementation process.

**Note:** You cannot use CA MSM to configure a product to a Staging System.

## Access CA MSM Using the Web-Based Interface

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

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

### To access CA MSM using the web-based interface

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

The login page appears.

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

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

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

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

3. Click New.

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

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

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

You are prompted to review your user settings.

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

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

A dialog 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.

# Chapter 4: Installing Your Product from Pax-Enhanced ESD

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This section contains the following topics:

[How to Install a Product Using Pax-Enhanced ESD](#) (see page 23)

[Allocate and Mount a File System](#) (see page 29)

[Copy the Product Pax Files into Your USS Directory](#) (see page 31)

[Create a Product Directory from the Pax File](#) (see page 36)

[Copy Installation Files to z/OS Data Sets](#) (see page 37)

[Receiving the SMP/E Package](#) (see page 38)

[Apply Maintenance](#) (see page 41)

## 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 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 dedicated to Pax-Enhanced ESD and create the directory in this file system. Ensure that all users who will be working with pax files have write authority to the directory.

2. Copy the product pax files into your USS directory. To download files, choose one of the following options:

- Download a zip file from CA Support Online to your PC, unzip the file, and then upload the product pax files to your USS file system.
- FTP the pax files from CA Support Online directly to your USS directory.

**Note:** Perform Steps 3 through 6 for each pax file that you upload to your USS directory.

3. Create a product directory from the pax file. Set the current working directory to the directory containing the pax file, and create a new directory in your USS directory by entering the following command:

```
pax -rvf pax-file-name
```

4. Use the SMP/E GIMUNZIP utility to create z/OS installation data sets. The file UNZIPJCL in the directory created by the pax command in Step 3 contains a sample job to GIMUNZIP the installation package. Edit and submit the UNZIPJCL job.
5. Receive the SMP/E package. For this step, use the data sets created by GIMUNZIP 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 created by the pax command, all of the files in it, and the SMP/E RELFILES, SMPMCS, and HOLDDATA data sets.

**More Information:**

[USS Environment Setup](#) (see page 28)

[Allocate and Mount a File System](#) (see page 29)

[Copy the Product Pax Files into Your USS Directory](#) (see page 31)

[Create a Product Directory from the Pax File](#) (see page 36)

[Copy Installation Files to z/OS Data Sets](#) (see page 37)

## How the Pax-Enhanced ESD Download Works

**Important!** To download pax files for the SMP/E installation as part of the Pax-Enhanced ESD process, you must have write authority to the UNIX System Services (USS) directories used for the ESD process and available USS file space before you start the procedures in this guide. For additional ESD information, go to [ca.com/mainframe](http://ca.com/mainframe). Under Events, we offer an ESD webcast to further explain the Pax-Enhanced ESD process.

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

1. Log in to <https://support.ca.com/>, and click Download Center.

The CA Support Online web page appears.

2. Under Download Center, select Products from the first drop-down list, and specify the product, release, and genlevel (if applicable), and click Go.

The CA Product Download window appears.

3. Download an entire CA 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 25) topic explains how the download interface works.

**Note:** For traditional installation downloads, see the *Traditional ESD User Guide*. Go to <https://support.ca.com/>, log in, and click Download Center. A link to the guide appears under the Download Help heading.

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

The product is installed on the mainframe.

## ESD Product Download Window

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

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

**CA Earl - MVS**

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

If you have comments or suggestions about CA product documentation, send a message to [techpubs@ca.com](mailto:techpubs@ca.com).

[View Download Cart](#)

**Add All to cart**

Product Components				Add to cart	Download
<b>CA COMMON SERVICES PROD PKG</b> 11SP08AW000.pax.Z	11.0 /SP08	03/31/2010	407MB	<input type="checkbox"/>	<a href="#">Download</a>
<b>CA EARL PRODUCT PACKAGE</b> 610106AEO00.pax.Z	6.1 /0106	03/31/2010	1MB	<input type="checkbox"/>	<a href="#">Download</a>
<b>EARL PIPPACK</b> AEO61010600.pdf	6.1 /0106	03/31/2010	93KB	<input type="checkbox"/>	<a href="#">Download</a>
<b>EARL INSTALL GUIDE MANUAL</b> I2J2ED610NE.pdf	6.1 /0000	03/31/2010	361KB	<input type="checkbox"/>	<a href="#">Download</a>
<b>CA COMMON SERVICES COVER LTR</b> QI92742.pdf	11.0 /SP08	03/31/2010	46KB	<input type="checkbox"/>	<a href="#">Download</a>

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 product files ordered, the Download Method screen could also have these options:

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

**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 shown by the Zip Download Request examples in the next screen.

**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
<a href="#">10000961</a>	Ready	FTP Download Request	04/30/2010	<a href="#">Preferred FTP</a> ▼   <a href="#">Alternate FTP</a> ▼

**Previous 6 day Download History**

Order #	Status	Description	Date Placed	Download Options
<a href="#">10000949</a>	Ready	ZIP Download Request	04/29/2010	<a href="#">HTTP via DLM</a>   <a href="#">Preferred FTP</a> ▼   <a href="#">Alternate FTP</a> ▼
<a href="#">10000948</a>	Ready	ZIP Download Request	04/29/2010	<a href="#">HTTP via DLM</a>   <a href="#">Preferred FTP</a> ▼   <a href="#">Alternate FTP</a> ▼

## USS Environment Setup

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

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

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

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

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

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

## Allocate and Mount a File System

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

This procedure details how to perform the following tasks:

- Allocate a zFS or an HFS file system.
- Create a mount point in an existing maintenance directory.
- Mount the file system on the newly created mount point.
- Optionally permit write access to anyone in the same group as the person who created the directory.

**Important!** USS commands are case-sensitive.

### To allocate and mount the file system

1. Allocate the HFS. For example:

```
//ALCHFS EXEC PGM=IEFBRI4
//CAESD DD DSN=yourHFS dataset name,
// DISP=(NEW,CATLG,DELETE),UNIT=3390,
// DSNTYPE=HFS,SPACE=(CYL,(primary,secondary,1))
```

The HFS is allocated.

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

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

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

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

The mount point is created.

3. Mount the file system. For example, from TSO, enter the following command:

```
MOUNT      FILESYSTEM('yourHFS dataset name')
           MOUNTPOINT('yourUSSESDdirectory')
           TYPE(HFS)  MODE(RDWR)
```

The file system is mounted.

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

```
chmod-R 775 /yourUSSESDdirectory/
```

Write access is granted.

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

## Copy the Product Pax Files into Your USS Directory

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

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

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

**Important!** 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 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 24)  
[ESD Product Download Window](#) (see page 25)

## Download Using Batch JCL

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

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

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

### To download files using batch JCL

1. Supply a valid JOB statement.
2. Replace *yourTCPIP.PROFILE.dataset* with the name of the TCPIP profile data set for your system. Consult your local network administrators, if necessary.  
The job points to your profile.
3. Replace *YourEmailAddress* with your email address.  
The job points to your email address.
4. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.  
The job points to your USS directory.
5. Locate the product component to download on the CA Support Product Download window.  
You have identified the product component to download.
6. Click Download for the applicable file.  
**Note:** 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 world-wide content delivery network (CDN). If you are not able to download using the Preferred FTP method, check the security restrictions for all servers that company employees can download from that are outside of your corporate network.

**Host Name:** ftp://ftpdnloads.ca.com

**Alternate FTP**

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

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

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

**Note:** For details regarding FTP, see the FTP Help document link in the Review Download Requests window and the Learn More link available in the Download Methods window.

9. Submit the job.

**Important!** If your FTP commands are incorrect, 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 running the JCL, the pax file resides in the mainframe USS directory that you supplied.

### Example: CAtoMainframe.txt, JCL

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

```
//GETPAX JOB (ACCOUNTNO),'FTP GET ESD PACKAGE',
//          MSGCLASS=X,CLASS=A,NOTIFY=&SYSUID
//*****
/* This sample job can be used to download a pax file directly from *
/* CA Support Online to a USS directory on your z/OS system.      *
/*                                                                *
/* 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's statements in this JCL maybe *
/* 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,REGION=0K
//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.

### To upload files to the mainframe through a PC

1. Follow the procedures in [How the Pax-Enhanced ESD Download Works](#) (see page 9) to download the product pax or zip file to your PC. If you download a zip file, first unzip the file to use the product pax files.

The pax or zip file resides on your PC.

2. Open a Windows command prompt.

The command prompt appears.

3. Customize and enter the FTP commands with the following changes:

- a. Replace *mainframe* with the z/OS system's IP address or DNS name.
- b. Replace *userid* with your z/OS user ID.
- c. Replace *password* with your z/OS password.
- d. Replace *C:\PC\folder\for\thePAXfile* with the location of the pax file on your PC.
- e. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.
- f. Replace *paxfile.pax.Z* with the name of the pax file to upload.

The pax file is transferred to the mainframe.

### Example: FTP Commands

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

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

## Create a Product Directory from the Pax File

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

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

### To create a product installation directory using the `Unpackage.txt` sample job

1. Supply a valid JOB statement.
2. Replace *yourUSSESDdirectory* with the name of the USS directory that you use for ESD downloads.

The job points to your specific directory.

3. Replace *paxfile.pax.Z* with the name of the pax file.

The job points to your specific pax file.

4. Submit the job.

The job runs and creates the product directory.

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

## Example Job to Execute the Pax Command (Unpackage.txt)

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

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

## Copy Installation Files to z/OS Data Sets

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

### To copy the Pax-Enhanced ESD installation files to z/OS data sets

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

You have identified product-specific installation details.

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

The job is edited.

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

Your view is of the product-specific directory.

4. If ICSF is not active, perform the following steps:
  - a. Change the SMPJHOME DD PATH to your Java runtime directory. This directory varies from system to system.
  - b. Perform one of the following steps:
    - Change the SMPCPATH DD PATH to your SMP/E Java application classes directory, usually /usr/lpp/smp/classes/.
    - Change HASH=YES to HASH=NO on the GIMUNZIP parameter.

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

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

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

6. Submit the UNZIPJCL job.

The UNZIPJCL job 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 you specified in the UNZIPJCL job. You use these data sets to perform the product installation. The pax file and product-specific directory are no longer needed at this point.

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

## 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 used in this procedure prepare the data sets, initialize the zones, and create the DDDEFs for CA PMA Chargeback.

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

### To prepare the SMP/E environment for your product

1. Customize the macro BL5SEDIT with your site-specific information and then copy the macro to your SYSPROC location. Replace the rightmost parameters for each ISREDIT CHANGE macro command. Each time you edit an installation member, type BL5SEDIT on the TSO 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 BL5SEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the BL5EDALL member.

2. Open the SAMPJCL member BL51ALL in an edit session and execute the BL5SEDIT macro from the command line.

BL51ALL is customized.

3. Submit BL51ALL.

This job produces the following results:

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

4. Open the SAMPJCL member BL52CSI in an edit session and execute the BL5SEEDIT macro from the command line.

BL52CSI is customized.

5. Submit BL52CSI.

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.

See the Best Practices Guide for guidance on installing the common component FMID, CVH9000. We recommend only installing and maintaining one version of this function. Edit the following appropriate JCL members to remove that FMID, if appropriate.

### To run the installation jobs

1. Open the SAMPJCL member BL53RECD in an edit session and execute the BL5SEEDIT macro from the command line.

BL53RECD is customized.

2. Submit the *yourhlq*.SAMPJCL member BL53RECD to receive SMP/E base functions.

CA PMA Chargeback is received and now resides in the global zone.

3. Open the SAMPJCL member BL54APP in an edit session and execute the BL5SEEDIT macro from the command line.

BL54APP is customized.

4. Submit the *yourhlq*.SAMPJCL member BL54APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member BL55ACC in an edit session and execute the BL5SEEDIT macro from the command line.

BL55ACC is customized.

6. Submit the *yourhlq*.SAMPJCL member BL55ACC 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. When the maintenance process is complete the product is ready to deploy.

### To apply maintenance

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 HOLDDATA 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 BL5SEDIT macro was customized in the installation steps. Verify that you still have the values from the base install.
4. Open the SAMPJCL member BL56RECP in an edit session and execute the BL5SEDIT macro from the command line.  
  
BL56RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the BL56RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit BL56RECP.  
  
The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member BL57APYP in an edit session and execute the BL5SEDIT macro from the command line.  
  
BL57APYP is customized.
8. Submit BL57APYP.  
  
The PTFs are applied.
9. (Optional) Open the SAMPJCL member BL58ACCP in an edit session and execute the BL5SEDIT macro from the command line.  
  
BL58ACCP is customized.
10. (Optional) Submit *yourhlq*.SAMPJCL member BL58ACCP.  
  
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's 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.

# Chapter 5: Installing Your Product from Tape

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This section contains the following topics:

[Unload the Sample JCL from Tape](#) (see page 43)

[How to Install Products Using Native SMP/E JCL](#) (see page 44)

## Unload the Sample JCL from Tape

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

### To unload the sample JCL from tape

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 the SMP/E environment set up, go to Run the Installation Jobs for a Tape Installation.
  - If you *do not* have the SMP/E environment set up, 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 used in this procedure prepare the data sets, initialize the zones, and create the DDDEFs for CA PMA Chargeback.

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

#### To prepare the SMP/E environment for your product

1. Customize the macro BL5SEEDIT with your site-specific information and then copy the macro to your SYSPROC location. Replace the rightmost parameters for each ISREDIT CHANGE macro command. Each time you edit an installation member, type BL5SEEDIT on the TSO command line, and press Enter to replace the defaults with your specifications.

The macro is ready to customize your BL5.SAMPJCL members.

**Note:** The following steps include instructions to execute the BL5SEEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the BL5EDALL member.

2. Open the SAMPJCL member BL51ALL in an edit session and execute the BL5SEEDIT macro from the command line.

BL51ALL is customized.

3. Submit BL51ALL.

This job produces the following results:

- The target and distribution data sets for CA PMA Chargeback are created.
- Unique SMPPLTS, SMPPTS, SMPSCDS, and SMPSTS data sets for this target zone are created.

4. Open the SAMPJCL member BL52CSI in an edit session and execute the BL5SEEDIT macro from the command line.

BL52CSI is customized.

5. Submit BL52CSI.

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.

### To run the installation jobs

1. Open the SAMPJCL member BL53RECT in an edit session and execute the BL5SEEDIT macro from the command line.

**Note:** Comment out any unwanted FMIDs.

BL53RECT is customized.

2. Submit the *yourhlq*.SAMPJCL member BL53RECT to receive SMP/E base functions.

CA PMA Chargeback is received and now resides in the global zone.

3. Open the SAMPJCL member BL54APP in an edit session and execute the BL5SEEDIT macro from the command line.

**Note:** Comment out any unwanted FMIDs.

BL54APP is customized.

4. Submit the *yourhlq*.SAMPJCL member BL54APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member BL55ACC in an edit session and execute the BL5SEEDIT macro from the command line.

**Note:** Comment out any unwanted FMIDs.

BL55ACC is customized.

6. Submit the *yourhlq*.SAMPJCL member BL55ACC to accept SMP/E base functions.  
Your product is accepted and now resides in the distribution libraries.

## Chapter 6: Apply Maintenance

---

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

### To apply maintenance

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 HOLDDATA 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 BL5SEEDIT macro was customized in the installation steps. Verify that you still have the values from the base install.
4. Open the SAMPJCL member BL56RECP in an edit session and execute the BL5SEEDIT macro from the command line.  
BL56RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the BL56RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit BL56RECP.  
The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member BL57APYP in an edit session and execute the BL5SEEDIT macro from the command line.  
BL57APYP is customized.
8. Submit BL57APYP.  
The PTFs are applied.

9. (Optional) Open the SAMPJCL member BL58ACCP in an edit session and execute the BL5SEEDIT macro from the command line.

BL58ACCP is customized.

10. (Optional) Submit *yourhlq*.SAMPJCL member BL58ACCP.

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's 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.



# Chapter 7: Configuring Your Product

---

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

This section contains the following topics:

- [Step 1. Review System Requirements and Database Installation](#) (see page 49)
- [Step 2. Complete the Worksheet](#) (see page 50)
- [Step 3. Tailor LMP Keys](#) (see page 52)
- [Step 4. Run cBASE Link-Edit](#) (see page 52)
- [Step 5. Run cBASE Data Dictionary Link-Edit for CA Datacom](#) (see page 52)
- [Step 6. Run DB2 BIND Procedure](#) (see page 53)
- [Step 7. Allocate CAIKSPAR](#) (see page 53)
- [Step 8. Customize CAIKSPAR](#) (see page 53)
- [Step 9. Prepare the Database](#) (see page 54)
- [Step 10. Create Schema for CA Datacom Users](#) (see page 55)
- [Step 11. Create and Load Tables](#) (see page 56)
- [Step 12. Allocate CAIKRPAR](#) (see page 57)
- [Step 13. Customize CAIKRPAR](#) (see page 57)
- [Step 14. Process DataManager IVP](#) (see page 58)
- [Step 15. Print ORD Data File](#) (see page 58)
- [Step 16. Process CA PMA Chargeback IVP](#) (see page 58)
- [Step 17. Print CA PMA Chargeback Reconciliation File](#) (see page 59)
- [Step 18. Generate CA PMA Chargeback Invoices](#) (see page 59)
- [Step 19. Customize DataManager Online and CA PMA Chargeback Online](#) (see page 60)
- [Step 20. Invoke DataManager Online](#) (see page 61)
- [Step 21. Invoke CA PMA Chargeback Online](#) (see page 62)
- [Step 22. Prepare for Live Data](#) (see page 62)
- [Step 23. Grant Access to Additional Users](#) (see page 63)
- [Step 24. Implement Security](#) (see page 64)

## Step 1. Review System Requirements and Database Installation

Review the system requirements in the "Preparing for Installation" chapter. Pay special attention to the requirement for one of two databases: DB2 or CA Datacom. If you do not already have one, now is the time to install CA Datacom/AD. See the CA Datacom/AD installation and maintenance documentation for instructions on how to install the database.

## Step 2. Complete the Worksheet

Complete the worksheet before going any further. The keywords on the worksheet are the same as the symbolic parameters used in the supplied installation JCL. If a default has been assigned in the supplied JCL, it is indicated under the associated item description of the worksheet.

1. What high-level qualifier has been defined for the CA Common Services libraries?

Default: CSIND='CAI'      1. CSIND= \_\_\_\_\_

2. If using CA Datacom, what high-level qualifier has been defined for those libraries?

Default: DCIND='CAI'      2. DCIND= \_\_\_\_\_

3. If using DB2, what is the name of your DB2 load library?

No default      3. DSNLOAD= \_\_\_\_\_

4. If using DB2, what is the subsystem ID?

No default      4. SUBSYSTEM\_ID= \_\_\_\_\_

5. Which DASD volume do you plan to use for the JARS/OLF parameter files?

No default

5. PARMVOL=\_\_\_\_\_

6. What high-level qualifier do you plan to assign to the parameter files?

Default: PINDEX='CAI'

6. PINDEX=\_\_\_\_\_

7. What values do you plan to use for the following parameters?

7. DATABASE\_NAME=\_\_\_\_\_

DB2 PLAN\_ID=\_\_\_\_\_

SQL\_TYPE=\_\_\_\_\_

SUBSYSTEM\_ID=\_\_\_\_\_

CUSTOMER\_NAME=\_\_\_\_\_

BASE\_VERSION=\_\_\_\_\_

CHARGE\_PREC=\_\_\_\_\_

RATE\_PREC=\_\_\_\_\_

UNIT\_PREC=\_\_\_\_\_

EURODB2=\_\_\_\_\_

CBLOAD\_VERSION=\_\_\_\_\_

RECONCILIATION\_FILE=\_\_\_

**Note:** See the "Batch Processing & Reporting" chapter in the *User Guide* for information on these parameters.

## Step 3. Tailor LMP Keys

The CA License Management Program (LMP) is one of the components of CA TCC: Total Client Care. LMP is comprised of three components: the CA product, the LMP product key certificate, and the common LMP enforcement software.

The key certificate contains an execution key for each CPU licensed at your site. These keys must be entered into the PPOPTION data set LMP product keys member, which has a default name of KEYS.

The LMP common enforcement software is distributed as part of the CAIRIM CA Common Services for z/OS.

Define the LMP execution key at this time. See the *CA Common Services for z/OS Getting Started* for detailed instructions.

## Step 4. Run cBASE Link-Edit

Members IF23LKDC and IF23LKD2 link-edit the CA Datacom service routines or the DB2 plan database, respectively. Choose the appropriate member, depending on which database you are using.

Edit the JCL to conform to your data center's standards and the previously completed worksheet. Submit the job and review the output. Processing should complete with a return code of 0 or 4.

**Note:** Members IF23LKDC and IF23LKD2 are in the CA Common Services for z/OS sample JCL library.

## Step 5. Run cBASE Data Dictionary Link-Edit for CA Datacom

If you are using CA Datacom, you must process member SP23DDLK to link-edit the Data Dictionary.

Edit the JCL to conform to your data center's standards and the previously completed worksheet. Submit the job and review the output. Processing should complete with a return code of 0.

**Note:** Member SP23DDLK is in the CA Common Services for z/OS sample JCL library.

## Step 6. Run DB2 BIND Procedure

If you are using DB2 as your database access method, member SP23BIND runs the BIND procedure for the CA SDBS modules. If you are not using DB2, proceed to the next step.

Edit the JCL to conform to your data center's standards and the previously completed worksheet. Submit the job and review the output. Processing should complete with a return code of 0.

**Note:** Member SP23BIND is in the CA Common Services for z/OS sample JCL library.

**Important!** The userid used in subsequent steps (referred to as the owner's ID or ownerid) *must* be authorized for the database by your database administrator. This userid *must* be used to complete the configuration.

## Step 7. Allocate CAIKSPAR

Member CAKSPALL in CAJRJCL allocates the CAIKSPAR file. Edit this JCL to conform to your data center's standards using the previously completed worksheet. Submit the job and review the output to verify that processing completed with a return code of 0.

## Step 8. Customize CAIKSPAR

Customize the CAIKSPAR data set to define your database environment. See the "Batch Processing & Reporting" chapter in the *User Guide* for information on customization. In order to process the IVPs, the Base\_Version must be set to **TEST**.

**Important!** All the batch JCL STEPLIB statements must be reviewed and customized prior to processing.

- If CA Datacom is being used, ensure that the data set name matches the data set names used during CA Datacom installation. Also delete references to the DB2 library.
- If DB2 is being used, ensure that the data set name of the DB2 library is correct. Also delete the references to the CA Datacom libraries and remove the DCIND symbolic from all JCL members and PROCs.

## Step 9. Prepare the Database

If the database system to be used by CA PMA Chargeback is:

- CA Datacom/DB, then complete task 9A.
- CA Datacom/AD, then complete task 9B.
- DB2, then complete task 9C.

### Step 9A. Prepare CA Datacom/DB

Before running the schema (Step 10) for CA Datacom/DB, the PMA490 database must be set up. JCL to set up the database can be found in the CAJRJCL as member name CADBDATA. The JCL contains five steps:

- DDUPDATE - Adds the PMA490 database definitions to the dictionary.
- CPYPRD - Copies the PMA490 definitions to PROD status.
- CATALOG - Catalogs the PMA490 definitions to the CXX.
- IEFBR14 - Allocates the dataspace for index and data areas.
- INITLD - Initializes and NULL LOADs the PMA490 areas.

After completing the above steps successfully, continue with Step 10.

**Note:** If you are using Datacom r12 or later, the DBUTLTY program (see step INITLD) must be authorized.

### Step 9B. Prepare CA Datacom/AD Database

The following jobs, provided in CAJRJCL, must be executed in the order listed below to prepare the CA Datacom/AD database.

- CADBDEF - Adds the PMA490 database definitions.
- CADDRTV - Verifies, copies to PROD, catalogs, and enables.
- CADBALLC - Allocates the dataspace for index and data areas.
- CADBUTIL - Initializes and NULL LOADs the database.

After completing the above steps successfully, continue with Step 10.

**Note:** If you are using Datacom r12 or later, the DBUTLTY program (see step INITLD in the CADBUTIL job) must be authorized.

## Step 9C. Prepare DB2 Database

- Have the DB2 database administrator authorize the ID being used to install CA PMA Chargeback for DATABASE CREATE, TABLE CREATE, and GRANT authority.
- Create a database, buffer pool, and storage group to be used by CA PMA Chargeback.
- Grant access to the database and buffer pool to the ID being used to install CA PMA Chargeback.
- The following SQL commands can be used as a guide for setting up DB2 to prepare for CA PMA Chargeback.

```
CREATE DATABASE PMA490
STOGROUP SGPMA490
BUFFERPOOL BP0
CREATE STOGROUP SGPMA490 VOLUMES ("*", "*", "*") VCAT xxxx;
```

The above SQL statements will create and identify the PMACB database to DB2 using storage group SGPMA490 and buffer pool zero. The xxxx represents the four-character database subsystem id.

```
GRANT DBADM ON DATABASE PMA490 TO userid;
GRANT USE OF BUFFERPOOL BP0 TO userid;
GRANT USE OF STOGROUP SGPMA490 TO userid;
GRANT EXECUTE ON PLAN CAISSQL2,CAISSQL3,CAISSQL9 TO userid;
```

The SQL statements above grant database administrator authority and use of the buffer pool and storage group to the userid specified.

- Continue with Step 11.

## Step 10. Create Schema for CA Datacom Users

CAJRJCL member CAKRSCH creates a schema authorizing an owner ID to allow access to the database. Be sure to customize the CAKRTAB PROC contained in CAJRPROC and CAKRSCMA contained in CAJRSQL.

- In CAKRSCMA, the default owner ID of DUMMY must be changed to the ID that is to be authorized (the installer's ID).
- In CAKRTAB, the PARM statement must be set as follows:

```
EXEC PGM=CAKRINST, PARM='CAIKSPCB, SYSADM'
```

The second parameter of the PARM statement indicates to the database installation program how to connect to the database. The SYSADM AUTH ID is a pre-authorized ID that can be used to authorize the first new userid (usually the installer's). Use SYSADM to perform the CREATE SCHEMA task authorizing the new owner ID (installer's ID). After successful completion of this step, change SYSADM in the CAKRTAB PROC to the userid just authorized in the CREATE SCHEMA step.

## Step 11. Create and Load Tables

This is a two-step process where JCL members CAKRTBLI and CAKRTBLP are executed. Both members invoke the CAKRTAB procedure found in the CAJRPROC library. Before executing CAKRTBLI and CAKRTBLP, update CAKRTAB according to directions found in the member.

1. Member CAKRTBLI allocates and loads the required tables for both CA PMA Chargeback and DataManager. This member also creates indexes and synonyms for the owner's ID, and loads and commits the DataManager startup definitions, as well as the CA PMA Chargeback definitions needed for IVP processing.

This jobstream consists of four steps. Each of these steps utilizes input from additional CAJRSQL members. An overview of the steps and the input statements is provided in the table below. The last two columns of the table indicate whether customization is required for DB2 or Datacom.

Step	Description	Input	DB2	CA Datacom
STEP010	Creates Tables	CAKRDC8	N/A	Y
		CAKRDB8	Y	N/A
STEP020	Create Synonyms	CAKRRCR84	Y	Y
STEP030	Load Dispatch Tables	CAKSCR81	N	N
STEP040	Load CA PMA Chargeback Tables — IVP	CAKRRCR88	N	N

For CA Datacom, input members that must be customized are CAKRDC8 and CAKRRCR84. In member CAKRDC8, change PMA490 to reflect the correct database name. In member CAKRRCR84, change *ownerid* to the DB owner's ID.

For DB2, input members CAKRDB8 and CAKRRCR84 must be customized. For member CAKRDB8, change DSNDB04 to reflect the correct database name. For member CAKRRCR84, change *ownerid* to the DB owner ID.

After completing this, customize CAJRJCL library member CAKRTBLI. The STEP010 step must be reviewed to ensure that the INPUT symbolic reflects the appropriate input, either CAKRDC8 or CAKRDB8. Submit the job and review the output to verify that processing completed with a return code of 0.

**Note:** Input members are from CAJRSQL.

- Member CAKRTBLP will load CA PMA Chargeback IRD/ORD tables. Edit this member and select only the tables that you want to load. See Appendix B in the *DataManager User Guide* for a list of the predefined input and output records.

CAJRSQL members distributed with the product that are used as input to the CAKRINST program, include SQL "COMMIT" statements after every one-hundred inserts. The COMMIT statement commits all work to the database and held storage is freed.

**Important!** This removes the "ROLLBACK" capability if the job fails for any reason. It will be necessary for users to create backups for tables that are modified after initial installation before using CAKRINST.

## Step 12. Allocate CAIKRPAR

Member CAKRCALL allocates CAIKRPAR. Customize the JCL to conform to your data center's standards using the previously completed worksheet. Submit the job and review the output to verify that processing has completed with a return code of 0.

## Step 13. Customize CAIKRPAR

Customize the CAIKRPAR data set. For IVPs to run successfully, set the following:

- BASE = TEST
- CBLOAD = TEST
- RECON = YES

**Note:** For more information, see the "Batch Processing and Reporting" chapter in the *User Guide*.

## Step 14. Process DataManager IVP

Member CAKSIVP processes IVP data using the startup definitions loaded in Step 11. Edit this JCL to conform to your data center's standards using the previously defined worksheet. Submit the job and review the output to verify that processing has completed with a return code of 0.

Validate that IVP processing completed successfully by reviewing the condition codes and the DataManager Load Processing Report. This report should show the following:

Input Statistics: JARS Record Read	544
IRDID Records Generated	213
Output Statistics: CAIKSOP MBJ	213

## Step 15. Print ORD Data File

Customize the EARL PROC (CAKSEARL) located in CAJRPROC. Copy the CAKSEARL PROC to your user PROCLIB or use instream in CAJRJCL library member CAKSORDS.

Edit member CAKSORDS to conform to your data center's standards using the previously completed worksheet. Submit the job and review the output to verify processing completed with a return code of 0.

## Step 16. Process CA PMA Chargeback IVP

This step uses the **committed** CA PMA Chargeback startup definitions loaded into the database during install Step 11, along with the ORD data file generated from Step 14 to apply charges to the CCCTAB and to generate a detailed reconciliation file.

Edit member CAKRIVP to conform to your data center's standards using the previously completed worksheet.

Submit the job and review the output to verify processing completed with a return code of 0. Review the CA PMA Chargeback Load Processing Summary Report. The records read should be equal to the total output records written to the ORD data file.

Validate that the IVP processing completed successfully by reviewing the condition codes and the CA PMA Chargeback Summary Control Report. The control report should show the following:

Records Read	213
Original Records Created	419
Records Inserted into CCCTAB	61

## Step 17. Print CA PMA Chargeback Reconciliation File

The CA PMA Chargeback IVP process includes generation of the reconciliation file. Member CAKRECON uses Earl Service to print the reconciliation file. See Chapter 11 of the *User Guide* for detailed information.

Edit this member according to your data center's standards and the previously completed worksheet. Submit the job and review the output to verify that processing completed successfully. The record count of the SYSEARL should show the following:

Hitfile Records Written	419
Grand Total	2931.6712

## Step 18. Generate CA PMA Chargeback Invoices

This step generates an invoice from the IVP data processed in Step 16. Member CAKRINVC uses Earl Service to generate an invoice.

Edit this member according to your data center's standards and the previously completed worksheet. Submit the job and review the output to verify that processing completed successfully.

## Step 19. Customize DataManager Online and CA PMA Chargeback Online

### 1. Customize Templates:

Customize members NEWDM (for DataManager) and NEWCB (for CA PMA Chargeback) in CAI.CAJRTCMP.

For DB2, change the &&XXSSID to the four-character SSID. (The SSID is a driver that is used when DB2 links to data.)

For CA Datacom, change the &&XXSSID to the owner's ID.

The &&WHATSQ must reflect the numeric value associated with the database system. These values are:

- 2 SQL/OS
- 3 DB2
- 4 CA Datacom/DB

If you are using DB2, be sure to also change &&PLAN to CAISSQL3.

### 2. Customize CLISTs:

Edit members PMADMC (for DataManager) and PMACBC (for CA PMA Chargeback) in CAI.CAJRCLS0 to reflect the appropriate high level qualifiers. In PMACBC, remove the CAI.CAJRCPNO library from the concatenations.

Note: The library CAI.VPOINT.PANEL is part of CA Common Services (Viewpoint).

### 3. Allocate Libraries for CLISTs:

The following load libraries must be allocated during the execution of the PMADMC or PMACBC CLISTs, in this order:

- CA PMA Chargeback load library CAI.CAJRLOAD
- CA Common Services load library
- If you use CA Datacom, its load library (CAILIB or CABDLOAD) and custom load library (CUSLIB)
- If you use DB2, its load library (SYS2.DSNLOAD)

We recommend that you use the ISPEXEC facility to temporarily create a TASKLIB that will be available during the execution of the CLISTs. Here is an example for PMACBC:

```
FREE DDN(PMALIB)
ALLOC F(PMALIB) DA(
    'CAI.CAJRLOAD'
    'CA.COMMON.SERVICE.CAILIB'
    'CA.DATACOM.DB.LIBRARY') SHR REUSE
.
. PMACBC CLIST statements
.
```

```
ISPEXEC LIBDEF ISPLLIB LIBRARY ID(PMALIB)
CBASEX NEWCB
ISPEXEC LIBDEF ISPLLIB LIBRARY
```

Updating your CLISTs as shown in this section (instead of adding a STEPLIB statement to your TSOPROC) will reduce system overhead. When STEPLIBs are added to TSO LOGON PROCs, they are searched every time TSO commands are entered. By allocating as a TASKLIB within the CLIST and removing the TASKLIB on exiting the CLIST, no additional overhead is incurred.

#### 4. Set European DB2 (optional):

Customize the CAIKSPAR data set to set EURODB2 = YES if you plan to use European DB2 with a comma as a decimal point separator. In addition, update CAJRCTMP library members NEWDM and NEWCB and uncomment the following three )\*SET statements:

```
)*SET &&XXDECPNT = ,      ->  )SET &&XXDECPNT = ,
)*SET &&XXNTYPE = EUR     ->  )SET &&XXNTYPE = EUR
)*SET &&NTYPE = EUR       ->  )*SET &&NTYPE = EUR
```

Note: See step 8 for information on how to customize CAIKSPAR.

## Step 20. Invoke DataManager Online

1. Log on executing the TSOPROC.
2. Execute CAI.CAJRCLS0(PMADMC) either through TSO or the ISPF TSO command processor.

## Step 21. Invoke CA PMA Chargeback Online

1. Log on executing the TSOPROC.
2. Execute the CAI.CAJRCLS0(PMACBC) either through TSO or the ISPF TSO command processor.
3. Verify IVP results. Perform the following:
  - Select the online Query function.
  - Select Charge query.
  - On the Charge Query Primary panel (CBQQRYP) define the Query name and description. Press F2 to create.
  - On the Charge Query Specifications panel (CBQQRYS):
    - Ensure that the Version field is set to TEST.
    - Press F2 to execute the query.
  - The Charge Query Results panel (CBQQRYP) displays where you can verify IVP results.

## Step 22. Prepare for Live Data

To complete the IVP process, the DataManager tables were committed to a TEST version and the CA PMA Chargeback tables were committed to TESTTEST. Processing of the CA PMA Chargeback IVP resulted in updating of the CCCTAB. The following steps are required to remove IVP data:

1. Delete the CCCTAB:

CAJRJCL member CAKRDEL1 deletes the IVP data records from the CCCTAB.

Edit this member to conform to your data center's standards using the previously completed worksheet. Submit the job and review the output to verify processing completed with a return code of 0.

**Note:** Processing of this member will result in the deletion of the CA PMA Chargeback IVP data.

2. Delete IVP CA PMA Chargeback Definitions (Optional):

CAJRJCL member CAKRDEL2 deletes the CBdefs that were utilized in processing of the CA PMA Chargeback IVP.

Edit this member to conform to your data center's standards using the previously completed worksheet. Submit the job and review the output to verify processing completed with a return code of 0.

## Step 23. Grant Access to Additional Users

This step outlines the tasks necessary to grant additional users access to the CA PMA Chargeback tables

### 1. Authorize userid:

If you have installed the system using DB2, the new user must be granted EXECUTE access on the plans created when the bind procedure was run for DB2. The plan names are CAISSQL2, CAISSQL3 and CAISSQL9. The following SQL statement grants EXECUTE access to userid B0001:

```
GRANT EXECUTE ON PLAN CAISSQL2, CAISSQL3, CAISSQL9 to B0001;
```

If you installed the system using CA Datacom, you must create a schema for the new user. Member CAKRSCHE can be used. Be sure to customize CAKRSCMA. The userid must be changed to the new userid.

### 2. Grant access to userid:

Customize CAJRSQL member CAKRRCR87 to reflect the userid requiring GRANT access. Edit CAJRSQL member CAKRGRNT to conform to your data center's standards. Submit the job and review the output to ensure that the job completed with a condition code of 0.

**Note:** If database security is not turned on, SQL error -559 will be returned when attempting to grant other users access to CA PMA Chargeback tables. You can proceed to the next step if you get this error.

### 3. Establish synonyms:

**Note:** This step must be executed by the userid requiring the synonyms.

Member CAKRSYN will establish synonyms. This member uses input member CAKRRCR84 to complete this process. Edit CAKRSYN to conform to your data center's standards and make sure the owner ID of the tables you are creating synonyms for is reflected in CAKRRCR84. The last SQL statement in member CAKRRCR84 performs an insert into the options table to set up the default options for the new user. Change the first variable in the statement to the name of the new userid. This variable appears in the statement directly after the word "VALUES" as illustrated in the following example:

```
INSERT INTO XXXXXXXX.OPTTAB VALUES ('YYYYYYYY', 'BOTH', 'NOREV', ...
```

The XXXXXXXX in the above statement should be replaced with the userid (OWNER) that was originally used to create the tables. The YYYYYYYY should be replaced with the new userid.

- If the database system being used is DB2, run the CAKRSYN step from the userid that requires the synonyms.
- If the database system is CA Datacom, be sure to update the CAKRTAB PROC as follows:

```
EXEC PGM=CAKRINST, PARM='CAIKSPCB, YYYYYYYY'
```

Replace the YYYYYYY parameter of the PARM statement with the name of the userid for which you are creating synonyms.

## Step 24. Implement Security

Security of CA PMA Chargeback tables is implemented by protection of dialogs.

See the *User Guide* or the *DataManager User Guide* chapters on security and audit.

# Chapter 8: Migration Information

---

This section contains the following topics:

[Update Database Tables](#) (see page 65)

## Update Database Tables

After applying CA PMA Chargeback maintenance or installing a new version of CA PMA Chargeback, there is an optional step to perform database table updates. Member CAKRTBLM contained in CAJRJCL contains the JCL and instructions on how to perform table updates. Note that it uses the CAKRTAB procedure, customized during installation.

Before running the update job, review member CAKRTBLZ in CAJRSQL to determine if table updates are required. Member CAKRTBLZ contains a list of all modified IRD/ORD data sets by release and the SQL statements to delete IRD/ORD sets that may need to be refreshed. Update job CAKRTBLM is required only if IRD/ORD data sets that are in use by the current chargeback algorithm are listed in CAKRTBLZ and new metrics provided by the updated IRD/ORD data sets are needed in a chargeback algorithm.



# Appendix A: Preparation Worksheets

---

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

## Unload Tape

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

### Tape Unit

*unitname* = \_\_\_\_\_

### Tape Volume Serial Number

*nnnnnnn* = \_\_\_\_\_

### Data Set Prefix for the Installation

*yourhlq* = \_\_\_\_\_

### DASD for the Installation Software

*sysda* = \_\_\_\_\_

## Next Topic

If you are...



# Appendix B: Troubleshooting

---

This section contains the following topics:

[Verifying the Problem](#) (see page 69)

[Collecting Diagnostic Data](#) (see page 69)

[Interpreting Diagnostic Data](#) (see page 71)

## Verifying the Problem

Before contacting Technical Support, attempt to resolve the problem using the following steps.

1. Examine the procedure that you used and compare it to the documented procedure for performing the required activity.
2. If you find no discrepancies between your procedures and the documented procedures, repeat the activity under conditions similar to those that existed when the problem first appeared. (If you no longer get unsatisfactory results, an inadvertent error may have caused the problem.)
3. If the same error occurs when you repeat a given activity, and you can find nothing in the documentation to suggest that your procedure is flawed, check with others at your site to determine if they have had the same or similar problem and how they handled it.

## Collecting Diagnostic Data

Use the information below to see how to resolve various problems.

## CA PMA Chargeback Online Facility

### Unable to bring up the online facility

- Verify that member NEWCB in CAJRCTMP is correctly customized as outlined in the step Customize DataManager Online and CA PMA Chargeback Online in the chapter "Configuring Your Product."
- Verify that member PMACBC in CAJRCLS0 has been changed to reflect the appropriate high-level qualifiers.
- Verify that the CAJRLOAD library is allocated and available to the TSO session.
- Verify that the user CAIKRPAR (CAIKRPAR DD statement) correctly defines your database environment.
- Verify that the step Grant Access to Additional Users in the chapter "Configuring Your Product" has been completed.

### Error in definition

If you attempt to define accounting sources for an ORD Type and receive a message that says the ORD Type does not exist, do the following:

- Verify that the DataManager version specified using the Option facility reflects the DataManager version with which the ORD Type was committed.
- If the ORD Types definition exists in the development version of DataManager, you must process the DataManager commit before these ORD Types can be used by CA PMA Chargeback for definition.

### Period Functions — Forecasting

If you receive a message stating the Forecast version does not match the version specified in Options, perform the following steps.

- Exit the Forecasting panel.
- Select Options, then select item 2 (Versions) from the Options pull-down.
- Change the DataManager and CA PMA Chargeback version to match the CA PMA Chargeback version specified during generation of the forecast.

## CA PMA Chargeback

### Batch Processing Error

See the *Messages and Codes Guide* to determine appropriate reasons and actions for the error messages received.

## DataManager

### Batch Processing Error

See the *Messages and Codes Guide* to determine appropriate reasons and actions for the error messages received.

## DataManager Online Facility

### Unable to bring up the online facility

- Verify that member NEWDM in CAJRCTMP is correctly customized as outlined in the step Customize DataManager Online and CA PMA Chargeback Online in the chapter "Configuring Your Product."
- Verify that member PMADMC in CAJRCLS0 has been changed to reflect the appropriate high-level qualifiers.
- Verify that the CAJRLOAD library is allocated and available to the TSO session.
- Ensure that the user CAIKSPAR (CAIKSPAR DD statement) correctly defines your database environment.

## Interpreting Diagnostic Data

When you have collected the specified diagnostic data, write down your answers to the following questions.

- What was the sequence of events prior to the error condition?
- What circumstances existed when the problem occurred and what action did you take?
- Has this situation occurred before? What was different then?
- Did the problem occur after a particular PTF was applied or after a new release of the software was installed?
- Have you recently installed a new release of the operating system?
- Has the hardware configuration (tape drives, disk drives, and so forth) changed?

From your response to these questions and the diagnostic data, try to identify the cause and resolve the problem.

If you determine that the problem is a result of an error in a CA product, you can make use of the CA online support system to see if a fix (APAR or PTF) or other solution to your problem has been published. Otherwise, contact [Technical Support](#).



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