CA Datacom® CICS Services

Installation Guide for z/OS

Version 14.02

CA Technologies Product References

This document references the following CA products:

- CA Common Services for z/OS
- CA Datacom® CICS Services
- CA Datacom® Datadictionary™
- CA Datacom®/DB
- CA Datacom® DB2 Transparency
- CA Datacom® DL1 Transparency
- CA Datacom® Fast Restore
- CA Datacom® IMS/DC Services
- CA Datacom® Presspack
- CA Datacom® Server
- CA Datacom® SQL
- CA Datacom® STAR
- CA Datacom® TOTAL Transparency
- CA Datacom® VSAM Transparency
- CA Dataquery™ for CA Datacom® (CA Dataquery)
- CA Ideal™ for CA Datacom® (CA Ideal)
- CA IPC
- CA License Management Program (CA LMP)
- CA Mainframe Software Manager™ (CA CSM)

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 Datacom CICS Services.

This section contains the following topics:

Audience

This document is used by system administrators, analysts, and any others who are involved in installation and maintenance of the computer system.

Readers of this document should have a working knowledge of the following:

- CA CSM
- CA Datacom/DB
- CICS
- SMP/E
- JCL
- z/OS environment and standard tools that are used in maintaining that environment
- Computer system configuration and applications of their company that are on it

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 13).
2. Use one of the following methods to acquire the product:
   - Download the software from CSO using CA MSM (see page 21).
   - 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 49) 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.

Prerequisite

When you are familiar with your system requirements for this installation, complete the necessary preliminary steps, including the worksheet, before you begin the installation process.

To Access the README File

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.

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

- The CA Datacom product line requires an IBM mainframe that fully supports the z/OS operating system.
- One of the following disk drives is required: 3375, 3380, 3390, 9345, or any drive that can emulate one of these.
- If you are using System Managed Storage (SMS), you must not mix device types in a storage class used for CA Datacom.

Software Requirements

- This release of CA Datacom CICS Services is compatible with CA Datacom/DB Version 12.0 with RO28671 and RO29269 applied or Version 14.0.

  Note: If RO29269 is applied, run CAIRIM with REINIT on the CAIRIM PARM statement after the apply. Do *not* update the CAS9 PROC.
- CA Datacom CICS Services requires CICS Transaction Server Release 3.2, 4.1, 4.2, or later as supported by IBM.
- The IBM SMP/E Release 1.8 or later must be installed on your system before you attempt to install or maintain this product.
- This version of CA Datacom CICS Services is compatible with Version 13.0 and Release 13.5 of CA SYSVIEW if you are assembling your DBCVTPR macro with SYSVW=YES. If you are assembling your DBCVTPR with SYSVW=YES:
  - Include the CA SYSVIEW libraries in the STEPLIB of the CICS
  - Include the CA SYSVIEW definitions in your CSD and include the CA SYSVIEW libraries in your CICS DFHRPL

- Before installing CA Datacom CICS Services, first install all required CA Common Services for z/OS with all current maintenance applied.

  CA License Management Program (CA LMP), part of CA Common Services for z/OS, is required by all CA products.

  For more information, see Introduction to the CA Common Services for z/OS (see page 14).
- Supports the following CA SYSVIEW releases:

	SYSVIEW Release								
Software	**13.5**	**13.0**	**12.7**	**12.5**	**12.0**	**11.6**	**11.5**	**11.0**	**7.7**
CA Datacom CSF 14.0	13.5	13.0							
CA Datacom CSF 11.0	13.5	13.0	12.7	12.6	12.0				
CA Datacom CSF 2.6					12.0	11.6	11.5	11.0	7.7

Note: CA Datacom CICS Services must run with the libraries for the highest release of CA Datacom/DB that can be connected.

The use of the multiple Multi-User Facilities (MUFs) feature requires a default CA Datacom/DB MUF that must be at CA Datacom/DB Version 12.0 or later. The default MUF SID library must be listed first in the DFHRPL (the load library concatenation for loading modules in CICS) and is the only MUF that supports Datacom/SQL requests.

Introduction to the CA Common Services for z/OS

To help you quickly understand all that the CA Common Services for z/OS offers, this section provides a brief description of each service that CA Datacom CICS Services uses.

CA Common Services for z/OS is a group of system services that protect your software investment by helping to manage your data center more efficiently. Each of the CA Common Services for z/OS offers individual benefits. The following CA Common Services for z/OS components are used with and benefit the CA Datacom products.

CA LMP

CA LMP provides a standardized and automated approach to the tracking of licensed software. It uses common real-time enforcement software to validate user configuration. CA LMP reports on activities related to the license, usage, and financials of your CA products. CA LMP features include:

- Common key data set which can be shared among many CPUs
- "check digits" used to detect errors in transcribing key information
- Execution keys you can enter without affecting any CA product already running
- No special maintenance requirements

Using CA LMP

To initialize correctly, CA Datacom CICS Services requires CA Common Services for z/OS component CA LMP, which provides a standardized and automated approach to track licensed software.

Examine the CA LMP Key Certificate you received with your product installation package. The certificate contains the following information:

Key Certificate

Fields	Descriptions
Product Name	The trademarked or registered name of the CA product licensed for the designated site and CPUs.
Supplement	The reference number of your license for the particular product, in the format nnnnnn - nnn. This format differs slightly inside and outside North America, and in some cases may not be provided at all.
Expiration Date	The date (month dd, yyyy, as in August 15, 1999) your license for this product expires.
Technical Contact	The name of the technical contact at your site who is responsible for the installation and maintenance of the designated product, the person to whom CA addresses all CA LMP correspondence.
MIS Director	The name of the Director of MIS, or the person who performs that function at the site. If the title but not the name of the person is indicated on the certificate, please supply the actual name when correcting and verifying the certificate.
CPU Location	The address of the building where the CPU is installed.

Fields	Descriptions
Execution Key	An encrypted code required by CA LMP for product initialization. During installation, it is referred to as the LMP Code.
Product Code	A two-character code that corresponds to this particular product.
CPU ID	The code that identifies the specific CPU for which installation of your product is valid.

Defining KEYS

The CA LMP execution key provided on the Key Certificate must be added to the CAIRIM parameters to ensure proper initialization of all CA products.

To define a CA LMP execution key to the CAIRIM parameters, modify member KEYS in the OPTLIB data set. This is the parameter structure for member KEYS:

```
PROD(pp) DATE(ddmmmyy) CPU(tttt-mmmm/ssssss) LMPCODE(kkkkkkkkkkkkkkkk)
```

Parameter	Description
pp	*(Required)* The two-character product code. For any given CA LMP product, this code agrees with the product code already in use by the CAIRIM initialization parameters for earlier genlevels of the product.
ddmmmyy	*(Required)* The CA LMP licensing agreement expiration date.
tttt-mmmm	*(Required)* The CPU type and model (for example, 3090–600) on which the CA LMP product will run. If the CPU type, model, or both require less than four characters, blank spaces substitute for any unused characters.
ssssss	*(Required)* The serial number of the CPU on which the CA LMP product will run.
kkkkkkkkkkkkkkkk	*(Required)* The execution key needed to run the CA LMP product. This CA LMP execution key is provided on the Key Certificate shipped with each CA LMP product.

Example

In the following example, the CA LMP execution key value is invalid and is provided here *as an example only*.

```
PROD(BD) DATE(15APR2005) CPU(3090-600 /370623) LMPCODE(52H206130Z7RZD6)
```

Note: For a full description of the procedure for defining the CA LMP execution key, see the *CA Common Services for z/OS* documentation.

DASD Requirements

The following tables indicate the estimated blocks of DASD space that CA Datacom CICS Services requires. Each data set, library, or database name is preceded by its high-level qualifier (such as CAI.HLQ or CAI.THLQ).

Headings

The column heading Volume on the following charts refers to the VOLSER from the installation worksheet. The heading TRKS refers to the number of tracks used with DASD type 3390.

SAMPJCL Library Allocation

Library Name	Volume	BLKSZ	LRECL	TRKS
SAMPJCL	DASD01	27920	80	11

CICS Output Files

Optionally, the following files can be defined as SYSOUT in the CSD and in the CICS.

Name	Volume	BLKSZ	LRECL	TRKS
DBOCPRT	DASD02	140	136	10
DBAUXTA	DASD02	3120	80	15
DBAUXTB	DASD02	3120	80	15

SMP/E CSI and Data Sets

These CSI and data sets are required only if you are creating a new SMP/E environment.

Name	Volume	BLKSZ	LRECL	TRKS
SMPCSI.CSI				
SMPCSI.CSI.DATA	DASD01	4096	24	225
SMPCSI.CSI.INDEX	DASD01	4096	0	2
SMPSCDS	DASD01	27920	80	120
SMPMTS	DASD01	27920	80	75
SMPPTS	DASD01	27920	80	75
SMPSTS	DASD01	27920	80	75
SMPLTS	DASD01	32760	0	75
SMPLOG	DASD01	6233	510	75
SMPLOGA	DASD01	6233	510	75
NULLFILE	DASD01	27920	80	1

Distribution Libraries

Name	Volume	BLKSZ	LRECL	TRKS
AAB1MOD0	DASD01	32760	0	19
AAB1MAC	DASD01	27920	80	62
AAB1SAMP	DASD01	27920	80	21
AAB1XML	DASD01	32760	512	17

Target Libraries

Name	Volume	BLKSZ	LRECL	TRKS
CAB1LOAD	DASD01	32760	0	38
CAB1LPA	DASD01	32760	0	38
CAB1MAC	DASD01	27920	80	62
CAB1SAMP	DASD01	27920	80	21

Name	Volume	BLKSZ	LRECL	TRKS
CAB1XML	DASD01	32760	512	17
INSTJCL	DASD01	3120	80	100

Custom Libraries

Name	Volume	BLKSZ	LRECL	TRKS
CUSMAC	DASD02	3120	80	11
CUSLIB	DASD02	6144	0	30

Concurrent Releases

You can install this release of CA Datacom CICS Services 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.

Important! If you are running concurrent releases, DBEC cannot be used in an MRO environment. Doing so yields unpredictable results including abends.

Chapter 3: Installing Your Product Using CA MSM

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.

How to Use CA MSM: Scenarios

Imagine that your organization has started using 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 CA Technologies products.

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

1. Acquire the new product (see page 21).
2. Install the new product (see page 22).
3. Maintain products already installed in your environment (see page 23).
4. Deploy the product to your target systems (see page 24).
5. Configure the deployed product to your target systems (see page 25).

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). PAS retrieves information about products to which your site is entitled. Then it records these entitlements in a software inventory that is maintained on your driving system.

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

Follow these steps:

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 26), 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.

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

How to Install a Product

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

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

Follow these steps:

1. Initiate product installation and review product information.
2. Select an installation type.
3. Review installation prerequisites if any are presented.

4. 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: Either create a target zone or use an existing target zone.
     c. Set up the distribution zone: Either 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.
5. Review the installation summary and start the installation.

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 beginning the deployment process.

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.

Follow these steps:

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.

After the maintenance process completes, the product is ready for you to deploy. You may have to perform other steps manually outside of CA MSM before beginning the deployment process.

How to Deploy a Product

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

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

Follow these steps:

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.

After the deployment process completes, the product is ready for you to configure. You may have to perform other steps manually outside of CA MSM before beginning the configuration process.

How to Configure a Product

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

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

Follow these steps:

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.

After the configuration process completes, the product is ready for you to use. You may have to perform other steps manually outside of CA MSM.

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. Obtain 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, 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 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.

   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 in to the CA Support Online website and clicking My Account. You need the correct setting 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

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.

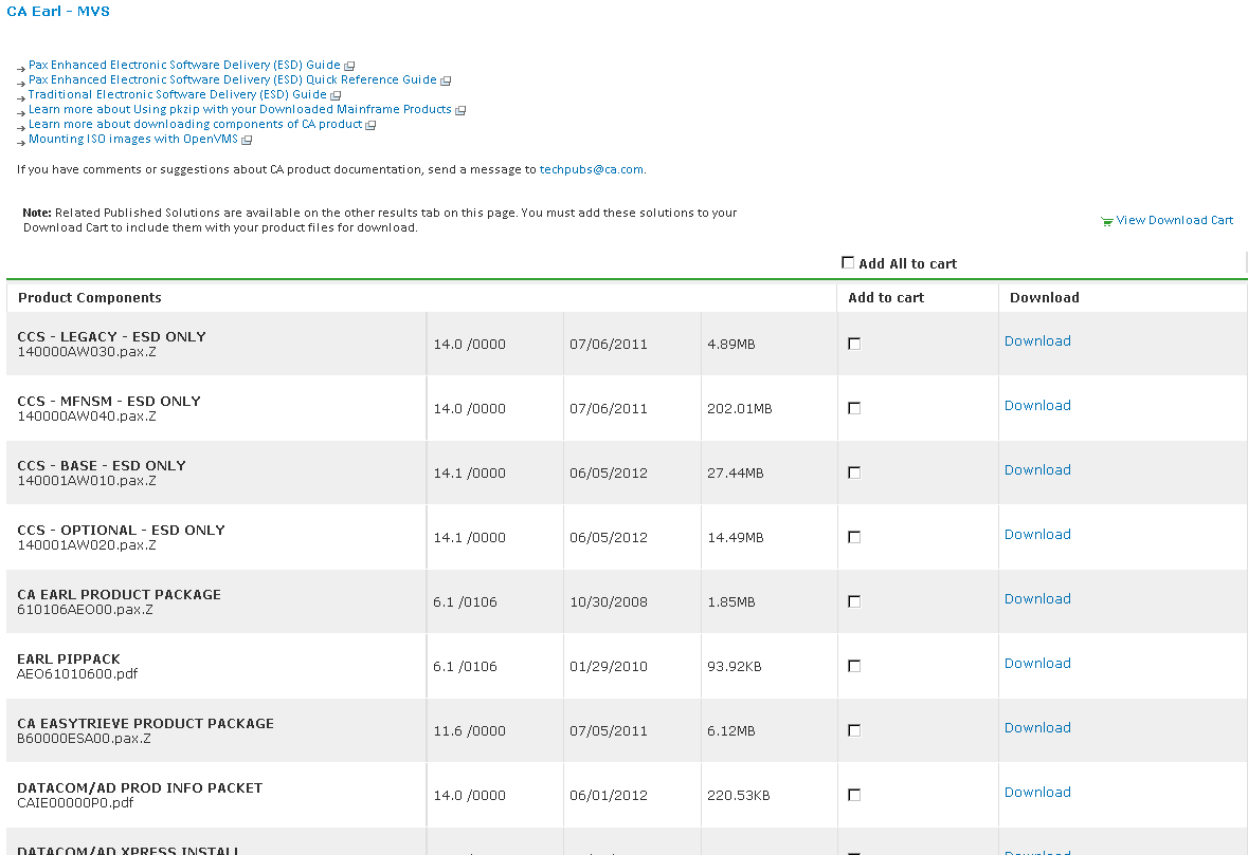
4. Perform the steps to install the product based on the product-specific steps.

   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.

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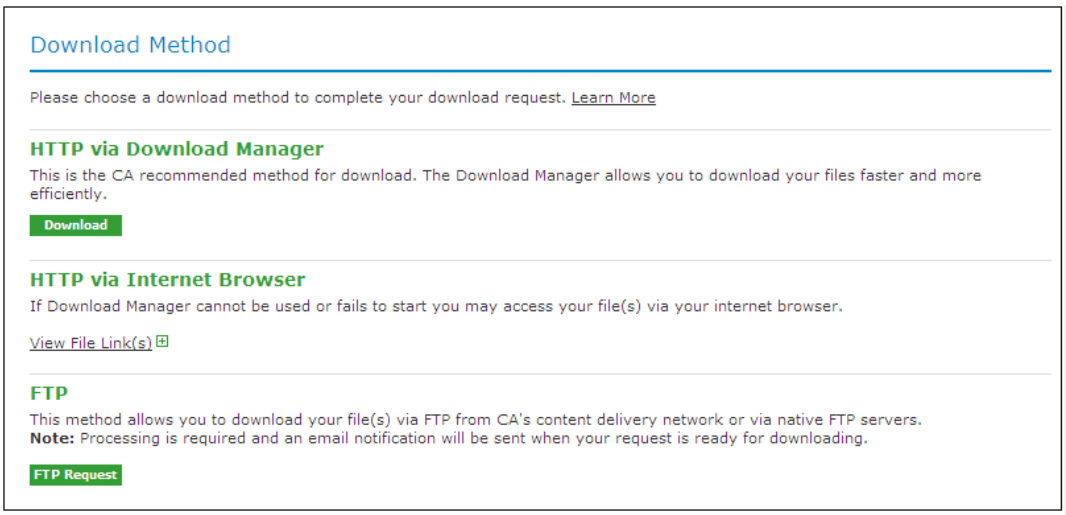
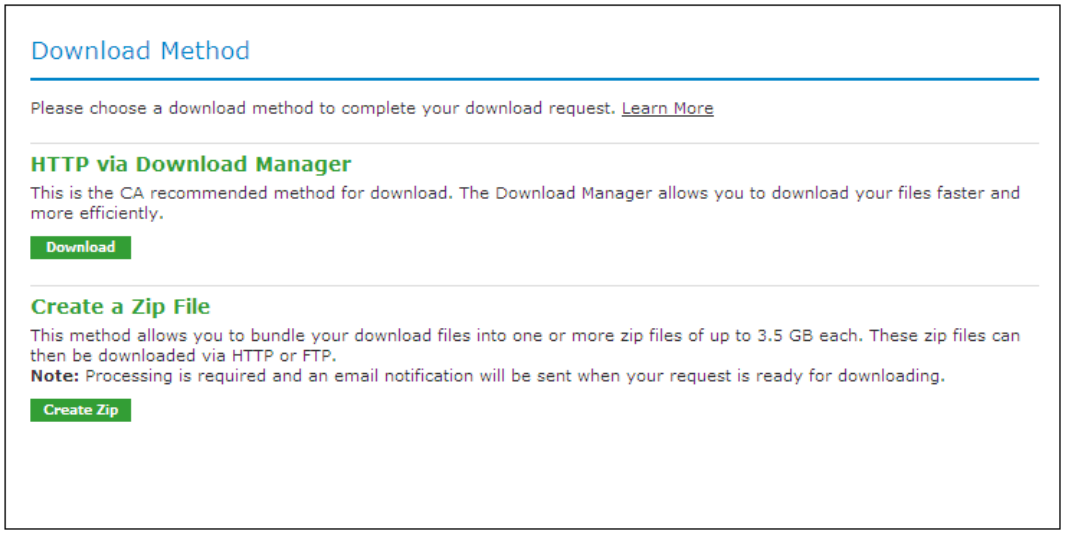
CCS - BASE - ESD ONLY 140001AW010.pax.Z	14.1 /0000	06/05/2012	27.44MB	☐	Download
CCS - OPTIONAL - ESD ONLY 140001AW020.pax.Z	14.1 /0000	06/05/2012	14.49MB	☐	Download
CA EARL PRODUCT PACKAGE 610106AEO00.pax.Z	6.1 /0106	10/30/2008	1.85MB	☐	Download
EARL PIPPACK AEO61010600.pdf	6.1 /0106	01/29/2010	93.92KB	☐	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:

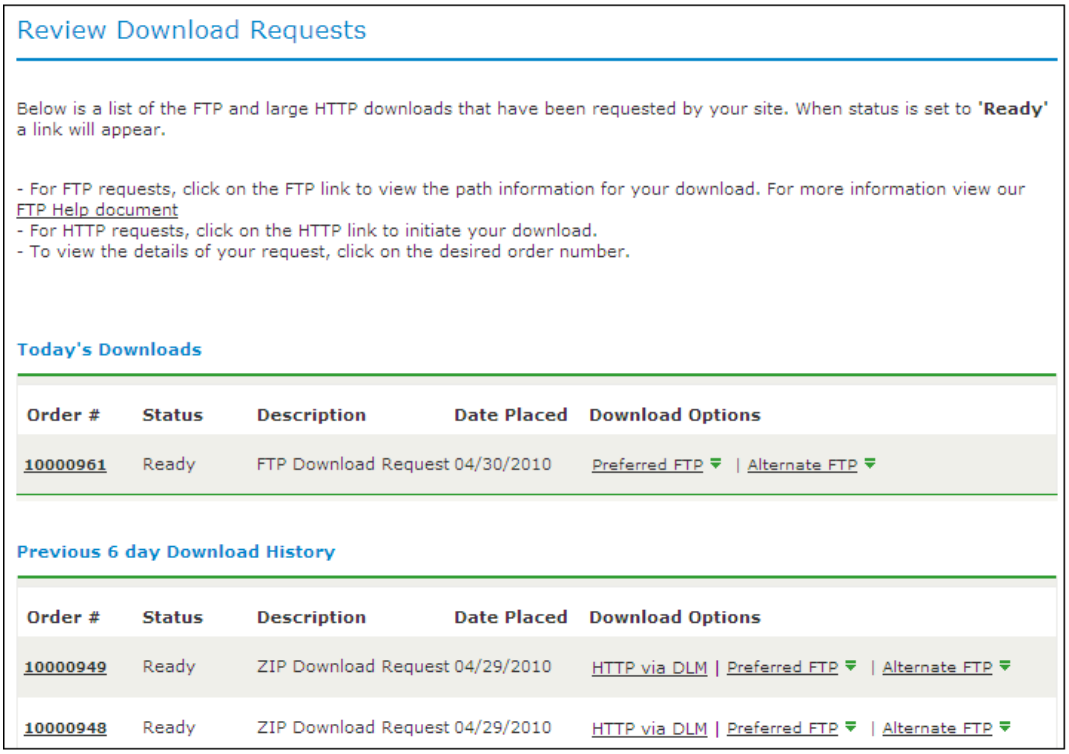
Note: For mainframe downloads using this HTTP method, click the Learn More link.



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 Datacom CICS Services.

Before you begin this procedure, confirm whether your product uses UNIX System Services (USS). If it does, establishing a hierarchical file system (HFS) may be required as part of the product installation or required as a feature of the product.

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

Follow these steps:

1. Customize the macro DCCSEDIT 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 DCCSEDIT 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 DCCSEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the DCCEDALL member.

2. Open the SAMPJCL member DCC1ALL in an edit session and execute the DCCSEDIT macro from the command line.

   DCC1ALL is customized.

3. Submit DCC1ALL.

   This job produces the following results:

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

4. Open the SAMPJCL member DCC2CSI in an edit session and execute the DCCSEDIT macro from the command line.

   DCC2CSI is customized.

5. Submit DCC2CSI.

   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 DCC3RECD in an edit session, and execute the DCCSEDIT macro from the command line.

   DCC3RECD is customized.

2. Submit the *yourHLQ*.SAMPJCL member DCC3RECD to receive SMP/E base functions.

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

3. Open the SAMPJCL member DCC4APP in an edit session, and execute the DCCSEDIT macro from the command line.

   DCC4APP is customized.

4. Submit the *yourHLQ*.SAMPJCL member DCC4APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member DCC5ACC in an edit session, and execute the DCCSEDIT macro from the command line.

   DCC5ACC is customized.

6. Submit the *yourHLQ*.SAMPJCL member DCC5ACC to accept SMP/E base functions.

   Third-Party Software for CA Datacom CICS Services 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 DCCSEDIT macro was customized in the installation steps. Verify that you still have the values from the base installation.
4. Open the SAMPJCL member DCC6RECP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC6RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the DCC6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit DCC6RECP.

   The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member DCC7APYP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC7APYP is customized.
8. Submit DCC7APYP.

   The PTFs are applied.

9. (Optional) Open the SAMPJCL member DCC8ACCP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC8ACCP is customized.

10. (Optional) Submit *yourHLQ*.SAMPJCL member DCC8ACCP.

    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.

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.

nnnnnnn

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 Datacom CICS Services.

Before you begin this procedure, confirm whether your product uses UNIX System Services (USS). If it does, establishing a hierarchical file system (HFS) may be required as part of the product installation or required as a feature of the product.

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

Follow these steps:

1. Customize the macro DCCSEDIT 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 DCCSEDIT 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 DCCSEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the DCCEDALL member.

2. Open the SAMPJCL member DCC1ALL in an edit session and execute the DCCSEDIT macro from the command line.

   DCC1ALL is customized.

3. Submit DCC1ALL.

   This job produces the following results:

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

4. Open the SAMPJCL member DCC2CSI in an edit session and execute the DCCSEDIT macro from the command line.

   DCC2CSI is customized.

5. Submit DCC2CSI.

   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 DCC3RECT in an edit session and execute the DCCSEDIT macro from the command line.

   DCC3RECT is customized.

2. Submit the *yourHLQ*.SAMPJCL member DCC3RECT to receive SMP/E base functions.

   CA Datacom CICS Services is received and now resides in the global zone.

3. Open the SAMPJCL member DCC4APP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC4APP is customized.

4. Submit the *yourHLQ*.SAMPJCL member DCC4APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member DCC5ACC in an edit session and execute the DCCSEDIT macro from the command line.

   DCC5ACC is customized.

6. Submit the *yourHLQ*.SAMPJCL member DCC5ACC 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 DCCSEDIT macro was customized in the installation steps. Verify that you still have the values from the base installation.
4. Open the SAMPJCL member DCC6RECP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC6RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the DCC6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit DCC6RECP.

   The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member DCC7APYP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC7APYP is customized.
8. Submit DCC7APYP.

   The PTFs are applied.
9. (Optional) Open the SAMPJCL member DCC8ACCP in an edit session and execute the DCCSEDIT macro from the command line.

   DCC8ACCP is customized.
10. (Optional) Submit *yourHLQ*.SAMPJCL member DCC8ACCP.

    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.

Chapter 6: Configuring Your Product

This section describes the minimum configuration tasks needed before CA Datacom CICS Services can be started, customized, and used in your environment.

This section contains the following topics:

Installation Procedures

Complete the following actions before beginning this installation:

- Read the cover letter and any Product Information Packets (PIPs) available on the product page under Product Status on CA Support Online.
- Check the README file. The README file contains information not available elsewhere about various important topics, including product concerns, new features, and installation or maintenance issues. The README file is available through the online support site at support.ca.com. For more information, see To Access the README File.
- If you are upgrading from the previous version, read the *CA Datacom CICS Services Release Notes*.
- See Installation Worksheets. These procedure parameters are required for all new or upgrade CA Datacom CICS Services product installations. Verify that each parameter has a valid value.

Preparing for Installation

This section provides step-by-step instructions for installing, customizing, and demonstrating CA Datacom CICS Services in the z/OS environment.

Review the README file before beginning the installation. This file contains information that is not available elsewhere about various important topics, including product concerns, new features, and installation or maintenance issues. The README file is available through support.ca.com.

Sample JCL Data Sets

Beginning with Version 14.0, the SAMPJCL data set was split into two separate data sets, the SAMPJCL data set itself and the CAB1SAMP target library. The SAMPJCL data set now contains only the JCL needed for the SMP/E install. See Installing Your Product From Pax-Enhanced ESD.

The CAB1SAMP target library contains the JCL needed to perform DBCVTPR assemblies, install the CA Datacom CICS Services 14.0 CSD entries, and optionally create CA Datacom CICS Services data sets. After the SMP/E install, copy the necessary jobs to the newly created INSTJCL library using the provided B1CUS00 job so they can be edited for use.

Note: Before you submit each step, review the JCL for any DD statements that need to be added or removed to properly reflect the environment at your site.

INSTJCL Member Names

The INSTJCL member names can be easily identified during any installation. These names are constructed as follows:

1. Members that are copied to the INSTJCL begin with the letters B1. The third through fifth characters identify the type of installation job:
   - **CUS** indicates a customization job with CICS-specific generation, assemblies, link-edits, and more.
2. The remainder of each name indicates the number of the step and can include a suffix. The meaning of the suffix is explained in the following section.

Suffixes:

Jobs with suffixes are conditional and are executed only if you are installing the indicated product option.

Run these jobs *after* the job member without a suffix is complete. A job member name with no suffix after the number indicates that the step is for the base product installations.

Each installation step, including the base product and any product options, must be complete before you begin the next step.

Suffixes to the installation step numbers are assigned by product option and are the last value in the member name.

X

Indicates an optional job

Installation Sequence

To execute sample jobs, they *must* be executed in sequential order by name and number. Review, edit, execute, and complete each installation step before proceeding to the next step.

Important! Verify that you have adequate backups of your SMP/E and CA Datacom environments before beginning the install. If there is a problem at any point, these backups are available for use.

Follow these steps:

1. Installation Phase

   Perform the SMP/E jobs as outlined in the following:

   - Installing Your Product Using CA MSM (see page 21)
   - Installing Your Product from Pax-Enhanced ESD (see page 27)
   - Installing Your Product from Tape (see page 49)

2. Customization Phase

   - Before performing either a new install or an upgrade, execute the members that have names that start with B1CUS. For more information, see AppendixB; Post-Installation JCL Parameters (see page 67).

3. Post-Installation Phase

   Make any CA Datacom CICS Services modifications necessary for your specific site.

Configuration Steps

Complete the following jobs in this section after performing the SMP/E installation steps. You can run these jobs multiple times for as many CICSs as needed.

Step	Description	Purpose
0	Retrieve B1CUS00 from CAB1SAMP, perform changes as directed, and submit the JCL.	Copies the sample JCL from the target library into the INSTJCL library
1	Retrieve B1CUS01 from INSTJCL, perform changes as directed, and submit the JCL.	Performs CA Datacom CICS Services product custom assemblies and links

2X	(*Conditional*.) Retrieve B1CUS02X from INSTJCL, perform changes as directed, and submit the JCL.	Allocates CA Datacom CICS Services DBOC log and auxiliary trace data sets. This job is optional if you are using SYSOUT for the data sets or if this is an upgrade.

Copy the JCL from Target to INSTJCL Library

To begin Step 0, copy the JCL from the target library to the INSTJCL library. After this step is complete, you can perform any mass edits to the JCL using the $DCB1EDT macro.

Follow these steps:

1. Retrieve the member B1CUS00 from your CAB1SAMP library.
2. Make the required global changes (see the instruction block) but DO NOT SAVE this member in the CAB1SAMP library.
3. Submit the JCL to complete this step.
4. Review the output for successful completion which is indicated with a condition code of 00. If you receive any other code, correct your changes and resubmit the JCL.

CICS Customization Steps

To begin Step 1, prepare the source for the CA Datacom CICS Services customized assembly of the DBCVTPR. This step creates the CUSMAC and CUSLIB libraries, adds the DBCVTPR source to the CUSMAC, and assembles/links the DBCVTPR into the CUSLIB.

Note: Although new installs complete successfully with the default values provided, upgrades may need to modify these values. Carry previous release DBCVTPR parameter values forward to the new version provided with this install. Review your DBCVTPR parameter values before running this step and make the appropriate changes to the DBCVTPR parameters.

Follow these steps:

1. Retrieve member B1CUS01 from your INSTJCL library.
2. Make the required global changes (see the instruction block).
3. Submit the JCL to complete this step.
4. Review the output for successful completion which is indicated with a condition code of 00. If you receive any other code, correct your changes and resubmit the JCL.

Review, edit, execute, and complete this step before continuing.

Note: In a multiple MUF environment where there is more than one CICS, carefully plan the placement of the CA Datacom CICS Services CUSLIB (DBC.CUSLIB) containing the DBCVTPR module and the CA Datacom/DB CUSLIB (DB.CUSLIB) containing the DBSIDPR modules in the DFHRPL library concatenation.

Example

For a DBCVTPR module that includes DBCSID statements, each CICS could have a common default DBCVTPR (the one in DBC.CUSLIB). If a different default MUF is needed, the DBCVTPR should be in a library that *only* CICS uses. Because CA Datacom installs provide two libraries for user compiled modules, such as the DBCVTPR and DBSIDPR modules (DBC.CUSLIB and DB.CUSLIB), the special MUF-related DBCVTPR module can be placed in the DB.CUSLIB of the default MUF for that CICS region. In such cases, you are required to specify the DB.CUSLIB of the default MUF as the one used in the CICS region. This example allows, if needed, each CICS to point to a different default MUF. If a DBCVTPR module is not in the DB.CUSLIB, it uses the default DBCVTPR module in DBC.CUSLIB. In this example, the DB.CUSLIB must be placed in front of the DBC.CUSLIB and DBC.CAILIB to ensure that the correct DBCVTPR is used. The named DBCSIDs need to be available in all CICS regions. To avoid duplication, place them in the DBC.CUSLIB common library for all CICS regions running CA Datacom CICS Services. This is just an example as there are other ways for placing a DBCVTPR and associated DBCSID=named DBSIDPR modules for a multi-MUF environment such as a DBC.CUSLIB for each CICS region containing its specific DBCVTPR.

Allocate DBOC Log File, Auxiliary Trace Data Sets

(Optional) This step allocates the DBOC log file data set and the auxiliary trace data sets, and adds the DCFILE copybook to the CUSMAC library.

Note: None of these data sets can be shared across CICS regions.

Follow these steps:

1. Retrieve member B1CUS02X from your INSTJCL PDS.
2. Make the required global changes (see the instruction block).
3. Submit the JCL to complete this step.
4. Review the output for successful completion.

Post-Installation Steps and Considerations

Perform the following steps after completing the previous installation tasks.

1. Modify CICS
2. Check the README file
3. Verify installation

Step 1. Modify CICS

Activate CA Datacom CICS Services in MUF if you have not already done so by adding the following to the Multi-User Startup input:

```
DATACOM  CICSSVCS        CA-DATACOM/CICS SERVICES
```

Verify that the CA Datacom/DB CUSLIB (or multiple CUSLIBs for a Multi-MUF environment) and the CABDLOAD library have been added to the CICS DFHRPL. If you are running Multi-MUF with mixed releases of MUFs, use the CABDLOAD for the most recent release of CA Datacom/DB.

Include a DD statement for the CA Datacom CICS Services load library (CUSLIB) and the Target load library (CAB1LOAD) in the DFHRPL concatenation of the CICS startup JCL. If this is an upgrade of CA Datacom CICS Services, replace the previous release libraries with the Version 14.0 libraries.

CICS requires the addition of DD statements for the CA Datacom CICS Services files. The CA Datacom CICS Services installation creates these statements for you. Fetch the DCFILE member from the Custom macro library (CUSMAC) and insert it into the CICS startup JCL. If this is an upgrade of CA Datacom CICS Services, you do not have to create new DBOC log and auxiliary trace files. You can continue using the files already being used in your CA Datacom CICS Services.

The CA Datacom CICS Services installation also produces all source members for the CICS CSD modification. These source members in the CAB1SAMP library contain all of the required entries. For those sites installing CA Datacom CICS Services Version 14.0 and replacing a previous release of CA Datacom CICS Services, replace CSD definitions from the previous release with the CSD definitions for CA Datacom CICS Services Version 14.0.

Note: If there are no changes for Version 14.0 in the CSD transient data definitions for the log and auxiliary trace data sets, you do not need to replace those transient data definitions and auxiliary trace data sets.

The CICS PLT entries needed for automatic CICS Services startup and shutdown during CICS PLT processing are produced as part of the installation. Include them at the appropriate place in your CICS DFHPLTxx program assemblies. If this is an upgrade of CA Datacom CICS Services, it is not necessary to reassemble your PLT programs. Continue using your existing PLT programs.

Warning! Be sure that the CICS Services 14.0 CSD group is added after any Datacom/DB CSD group in your CICS GRPLIST.

Although they are included as illustrations only, the following JCL member in the INSTJCL library can be used to define the product to CICS.

B1CICS

Read the instructions contained within the B1CICS and B1CUS installation members pertaining to options in defining the CA Datacom Services CSD entries and allocating the transient data datasets.

This job defines the programs, transactions, and files CICS Transaction Server 3.2, 4.1, 4.2, or later as supported by IBM.

14.0 Copybook for CICS Table Assemblies	14.0 Copybook for CICS RDO	CICS CSD Group Name
B114PLTA	B114CSD	B114GRP
	B114CSD4 ***b**	B114GRP
B114PLTB	B114CSD1 ***a**	B114GRP
	B114CSD2 ***a**	B114GRP
	B114CSDT	B114TOR

*** Note:**

a. A change made in CA Datacom CICS Services r11 carried forward to Version 14.0 regarding the default definition of the Transient Data Queues for the DDNAMEs DBOCPRT, DBAUXTA, and DBAUXTB. In releases prior to r11, these definitions sent the output to allocated data sets by default. In r11 and Version 14.0, these definitions send the output to SYSOUT by default. To use this default, no change to the B1CUS02X job is necessary. Make the following changes to B1CUS02X for new files allocated by job B1CUS02X according to your preference:

   - Delete the DD statement for CAB1SAMP member B114CSD1.
   - Uncomment the DD statement for CAB1SAMP member B114CSD2

b. Make the following changes to B1CICS to define the program, transactions, and mapsets required for DBC 14.0:

   In CICS Transaction Server 4.2, the REQUIRED program definition value was introduced for the CONCURRENCY parameter. In CICS Services 14.0, programs are defined as THREADSAFE in member B114CSD. CA Datacom CICS Services 14.0 with CICS Transaction Server 4.2 can now be defined as REQUIRED for performance by optionally using member B114CSD4. To use this CSD definition member for only CICS Transaction Server 4.2 and later, make the following changes to B1CICS to optionally use the CONCURRENCY(REQUIRED) program definitions.

   - Delete the DD statement for CAB1SAMP member B114CSD.
   - Uncomment the DD statement for CAB1SAMP member B114CSD4.

Step 2. Check the README File

Review the README file to confirm if any additional tasks are required after the install, upgrade, or maintenance procedure.

Step 3. Verify Installation

After completing the CA Datacom CICS Services installation and post-installation steps, perform the following steps to verify that Multi-User is connected or automatically connects and that the DBURT 001 Human Resource database is open or automatically opens.

1. Issue a DBOC/DBEC STARTUP (if CA Datacom CICS Services was not started by PLT)
2. Issue the CICS transaction DBAC

Successful installation is demonstrated by the resulting screens of data from the Human Resource sample database.

Additionally, you can issue a DBEC command as described in the *CA Datacom CICS Services User Guide*, or any verification script provided by any other CA Datacom component that uses CICS. If you are not sure whether CA Datacom CICS Services has not been started, we recommend that you do any DBEC inquiry command before proceeding with any verification method such as DBAC.

Fall Back Steps

Perform the following steps to fall back from CA Datacom CICS Services Version 14.0 to CA Datacom CICS Services Version 11.0.

Follow these steps:

1. Modify the CICS CSD to restore the B111GRP and B111TOR groups into your CICS CSD GRPLIST and remove the B114GRP and B114TOR groups from your GRPLIST. The CA Datacom CICS Services Version 11.0 CSD definitions are located in the CAIMAC if you need to re-install them.
2. In the CICS DFHRPL, replace the CA Datacom CICS Services Version 14.0 CAB1LOAD load library and the DBC.CUSLIB load library containing the Version 14.0 DBCVTPR load module. Use Version 11.0 CAILIB and DBC.CUSLIB containing the Version 11.0 DBCVTPR load module.
3. COLD START your CICS.

Note: If you have multiple CICS regions for fallback and use DBEC in MRO mode, cease using the SYSID qualifier with DBEC commands until all connected CICS have successfully gone through the fallback process.

Fall Forward Steps

Perform the following steps when you are ready to fall forward to the previously installed CA Datacom CICS Services Version 14.0 from the fallback to CA Datacom CICS Services Version 11.0.

Follow these steps:

1. Modify the CICS CSD to restore the B114GRP and B114TOR groups into your CICS CSD GRPLIST and remove the B111GRP and B111TOR groups from your GRPLIST. The CA Datacom CICS Services Version 14.0 CSD definitions are located in the CAB1SAMP if you need to re-install them.
2. In the CICS DFHRPL, replace the CA Datacom CICS Services Version 11.0 CAILIB load library and the DBC.CUSLIB load library containing the Version 11.0 DBCVTPR load module. Use the Version 14.0 CAB1LOAD load library and DBC.CUSLIB containing the Version 14.0 DBCVTPR load module that was assembled previously during post-installation.
3. COLD or INITIAL START your CICS.

Note: If you have multiple CICS regions that you need to fall forward and use DBEC in MRO mode, cease using the SYSID qualifier with DBEC commands until all connected CICS have gone through the fall forward process successfully.

Appendix A: Installation JCL Parameters

This worksheet is designed to simplify modifying the JCL supplied for the post-installation steps. Values have been supplied for your convenience.

Requirements for the SMP/E Installation Job

The following parameters are required for the SMP/E install job procedures in the SAMPJCL library.

Item	Parameter Description
1	Job card information for card one. **Default: 'JOBCARD1'**
2	Job card information for card two. **Default: 'JOBCARD2'**
3	Job card information for card three or a comment card. **Default: 'JOBCARD3'**
4	Job card information for card four or a comment card. **Default: 'JOBCARD4'**
5	Volume information for the product and SMP/E target and distribution data sets. Use either the VOL=SER or the SMS VOLINFO statement when editing the ISREDIT macro. **Default: 'VOLINFO'**
6	Volume information for the CSI VSAM data set. Use either the VOL=SER or the SMS CSIVOLINF statement when editing the ISREDIT macro. **Default: 'CSIVOLINF'**
7	High-level qualifier for the GLOBAL ZONE **Default: 'GLOBALHLQ'**
8	SMP/E High-level qualifier for the CAIT0 TARGET ZONE. **Default: 'CAIT0HLQ'**
9	Product data set high-level qualifier. This HLQ must be the same as CAITHLQ in the INSTJCL members. **Default: 'PRODHLQ'**
10	(*Required if installing from DASD*) high-level qualifier for the data sets when the UNZIPJCL job was run. **Default: 'DASDHLQ'**

11	High-level qualifier used for data sets for the SAMPJCL data set. **Default: 'SAMPHLQ'**
12	Generic device type or symbolic group name for magnetic tape. **Default: 'TAPEUNIT'**
13	Disk unit name. **Default: 'DISKUNIT'**
14	High-level qualifier for SMP/E temporary files. **Default: 'SMPETEMP'**
15	Target Zone name or default to CAIT0. **Default: 'ZNCAIT0'**
16	Distribution Zone name or default to CAID0. **Default: 'ZNCAID0'**
18	The IBM CICS TS target load library. **Default: 'SDFHLOAD'**
19	The system macro library for assemblies. **Default: 'SYS1.MACLIB'**
20	The CA Datacom/DB target load library. **Default: 'CABDLOAD'**

Chapter 7: Post-Installation JCL Parameters

This worksheet is designed to simplify modifying the JCL supplied for the configuration and post-installation steps. Values have been supplied for your convenience.

Requirements for the Post-Installation Jobs

The following parameters are required for the configuration and post-install job procedures.

You can print out the worksheet in this section or print the CAB1SAMP member @B1WKSHT to record the values needed for your site when installing the product.

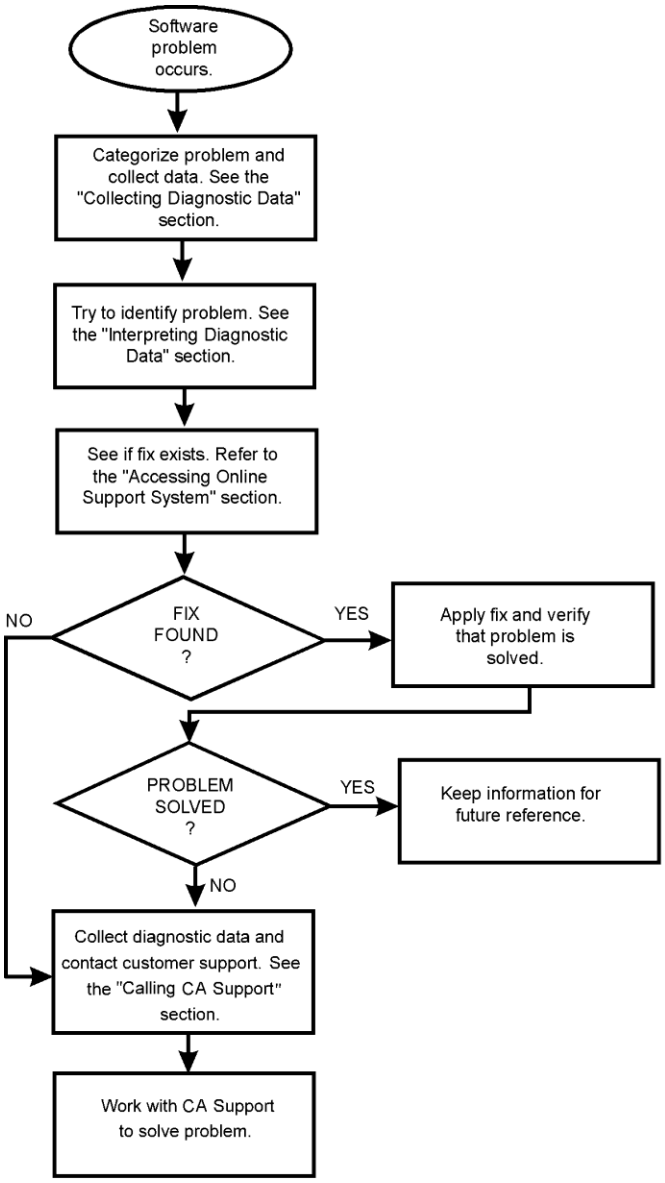
	Parameter Description	Value
1	What high-level qualifier is used to prefix the CA Datacom CICS Services SMP/E Target libraries? **Default = "CAI.THLQ"**	
2	What high-level qualifier is used to prefix the CUSTOM Target libraries used for custom assemblies/links (for example, DBCVTPR)? **Default = "CAI.CHLQ"**	
3	What high-level qualifier is used to prefix the new CA Datacom CICS Services data sets? **Default = "CAI.HLQ"**	
4	What is the data set name of the Distribution Macro Library for the CA Datacom/DB Database macros used in the CA Datacom CICS Services DBCVTPR assemblies? **Default = "CAI.DHLQ.AABDMAC"**	
5	What is the unit name of the device for temporary work DSNs? **Default = "SYSDA"**	
6	What DASD volume serial name is used for the CA Datacom CICS Services INSTJCL Library? (" " for managed DSNs) **Default = "VOL=SER=DASD01"**	

	Parameter Description	Value
7	What DASD type for the volume used for the INSTJCL Library? (for example, "SYSDA", "3380", "3390" **Default = "B1UNI1"**	
8	What is the library name of the CICS Macro Library? **Default = "CICS.SDFHMAC"**	
9	What is the data set name of the CICS Load Library? **Default = "CICS.SDFHLOAD"**	
10	What is the data set name of the CICS CSD? **Default = "CICS.DFHCSD"**	
11	What is the name of the group list for CICS? **Default = "CICSGRPL"**	
12	What DASD volume serial name is used for the CA Datacom CICS Services LOG and AUXTRACE files and the custom library data sets? (" " for managed DSNs) **Default = "VOL=SER=DASD02"**	
13	What DASD type is the volume for the CA Datacom CICS Services transient data data sets and the custom library data sets? (for example, "SYSDA","3380 ","3390 ") **Default = "B1UNI2 "**	
14	What is the name of the linkage editor module for link editing? **Default = "IEWL"**	
15	What is the name of the Assembler module? **Default = "ASMA90"**	
16	What is the name of the utility program for copying PDS data sets? **Default = "IEBCOPY"**	
17	What is the name of the utility program for allocating data sets? **Default = "IEFBR14"**	
18	What is the name of the SMP/E distribution zone? **Default = "IEBUPDTE"**	
19	Not used.	

Appendix B: Troubleshooting

Diagnostic Procedures

Use the following flowchart to guide you through the procedures you should follow if you have a problem with a CA Technologies software product.



Problem Resolution

Before contacting CA Support, attempt to resolve the problem yourself using the following procedures identified in the following sections.

Verify the Problem

1. Examine the procedure that you used and compare it to the documented procedure for performing the required activity.
2. Section Diagnostic Procedures (see page 69) identifies several potential problem areas and presents general debugging suggestions. Review this section for solutions which apply to your current problem.
3. 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 can have caused the problem.)
4. 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, try to secure assistance in resolving the problem from others at your site.

Collect Diagnostic Data

This section identifies some potential problem areas and presents debugging suggestions. It also lists the documentation to have on hand when communicating with CA Support about each type of problem.

Interpret Diagnostic Data

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

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

From your responses 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 Technologies software product, you can make use of the online client support system to see if a fix (APAR or PTF) or other solution to your problem has been published and call CA Support.

Access the Online Client Support System

CA Support Online is the CA Technologies online product support and service system available on the Internet. It contains an extensive Knowledge Base that allows you to retrieve many types of product-related information with a single search.

The online support system includes the following benefits:

- Solution downloads
- CA Support issue management
- Product downloads
- Product documentation downloads
- License key downloads
- Virus signature downloads
- Product-specific FAQs
- Newsgroup open forums
- E-News newsletters

For full access to all the services related to your licensed products, you must log in. Many areas require that you are a registered support.ca.com user. You can register at the site.

Licensing

Many CA Technologies products use license keys or authorization codes to validate your hardware configuration. If you need assistance obtaining a license key or authorization code, click the Licensing link on Support Online.

Contact CA Support

For online technical assistance and a complete list of locations, primary service hours, and telephone numbers, contact CA Support at http://support.ca.com/.

Prepare for a Call on a New Issue

Prior to placing the call on a new issue, prepare the following:

- A photocopy of the *Support Contact Information* form (see SUPPORT CONTACT INFORMATION (see page 78)) with the following sections completed:
  - General Information
  - Your Company Information
  - Product Versions
- Your most recent *Support Contact Number Log* or a blank form with the date of the call recorded in the "Date Opened" field (See SUPPORT CONTACT NUMBER LOG (see page 76).)
- A history of the problem

Note: The person calling CA Support should be generally familiar with the CA Datacom products installed at the site, their current versions, their current maintenance levels, and the various options and features in use. For example, the CA Support Specialist might need to know various options specified in your MUF startup options, User Requirements Tables, CA Datacom Datadictionary System Resource Table, or CA Dataquery for Datacom Options List assemblies. If the caller does not have this information, he should have immediate access to someone who does.

Prepare for a Call on an Existing Issue

When you call CA Support, see the issue at hand by contact number, not by the name of the Specialist with whom you previously spoke. The issue might have been transferred to a different group internally, and a new Specialist might have assumed responsibility for further action on the issue. All prior history of the contact is retained in the CA Support tracking and reporting system under that contact number, so that the new Specialist has immediate access to it.

Prior to placing the call, have the following available:

- The Support Contact Information form containing the supplied information: CA Support Specialist name, contact number, issue number (if there is more than one issue associated with the contact number), solution number, if provided, and your CA Client ID.

  Note: If you no longer have the Support Contact Information form, look up the contact number recorded on your Support Contact Number Log form.
- A brief description of the nature of this call.

Where to Call for Support

If you are in North America, see the telephone support directory on the CA Technologies website for the CA Support phone number. Outside North America, call your local CA Support Center during normal business hours.

Note: Only your local CA Support Center can provide native language assistance. Please use English when contacting any North American center.

Describe and Prioritize the Problem

If you are unable to resolve the problem, please have the following information ready before contacting CA Support:

1. Identify the context in which the problem occurred:

   Initial installation

   Problem during the installation of the product

   Product upgrade

   Problem during the installation of a maintenance tape or new version

   Pilot project

   Problem occurring during a pilot project

   Test

   Problem with something that is not in production

   Production

   Problem with something that is currently in production

2. If this is a new installation, product upgrade, pilot project, or problem with a test system, list the steps followed up to this point.
3. If the problem occurred in a production environment, describe the following in detail:

   a. The attempted activity, with expected results and actual results

   b. The attempts to resolve the problem and their results

   Note: The very act of producing an accurate description of the problem might be sufficient for you to determine its cause and perhaps a way to correct it. If not, an accurate description assists the CA Support Specialist in helping you to resolve it.

4. CA uses a rating system to expedite resolution of support calls. Use the following guide to establish the severity of your problem.

   1

   Production system down or major business impact

   2

   Major component nonfunctional or serious business impact

   3

   Minor component nonfunctional or moderate business impact

   4

   General question or a noncritical problem

5. Make a photocopy of each of the following forms and complete the applicable sections of each form.

   Support Contact Information form

   Prior to making the call, use this form to record all the information required by the CA Support Specialist. During the call, use this form to record all the information the Specialist provides. See SUPPORT CONTACT INFORMATION (see page 78).

   Support Contact Number Log

   Use this form to keep a permanent record of the contact numbers associated with the issues about which you contact CA Support. If an issue which has been closed reappears due to incomplete resolution, this form can serve as a reference of the original contact number so that the Specialist can reactivate the appropriate file. See SUPPORT CONTACT NUMBER LOG (see page 76).

Make the Call

1. Provide the CA Support Specialist with the following information:

   - Your CA Client ID, if known
   - Severity of your problem
   - "Your Company Information" (see *Support Contact Information* on SUPPORT CONTACT INFORMATION (see page 78))
   - History of your problem

   Note: When you call about a new issue, do not use a contact number previously assigned for a different issue. This could impede the resolution of your current problem.

   If you do not know your CA Client ID or are not certain what the problem severity code should be, the Specialist provides this information to you. Record the Client ID and severity level on the *Support Contact Information* form.

2. The Specialist enters your issue(s) in the CA Support tracking system and give you a contact number and, if you address multiple issues, the issue numbers. Record this information on the *Support Contact Information* form.
3. The Specialist might request that you:
   - Relate additional information.
   - Follow directions on a terminal to perform directed troubleshooting.
   - Relate certain options in use at your site.
4. If a solution is determined at the initial call, the Specialist gives you a solution number. Record the solution number on the *Support Contact Information* form. Also, record the current date under "Date Closed" on the *Support Contact Number Log.*
5. If the problem cannot be resolved immediately over the phone, the Specialist gives you a solution number and advise you to expect the solution in the form of a module replacement, ZAP, or source change. As soon as the solution is ready, the Specialist supplies it to you by one of the following methods:
   - FAX, telex, or through the mail
   - Over the telephone
   - On tape
   - Through the online client support system
6. If the solution resolves the problem, record the date of resolution under "Date Closed" on the *Support Contact Number Log*. Otherwise, continue the dialog with the Specialist until the problem is resolved.

Sample Forms

The forms on the following pages are designed to help you keep an accurate record of your contacts with CA Support. See these when making calls. For example, use the Support Contact Number Log to record the issues associated with a Contact Number. When they are solved (closed), enter the date in the last column. If a closed problem recurs, see this log for its Contact Number so that the appropriate file can be reactivated.

CA SUPPORT CONTACT NUMBER LOG

Product Support Assistance

Contact Number	Date Opened	Time	Description	Date Closed

Contact Number	Date Opened	Time	Description	Date Closed

CA SUPPORT CONTACT INFORMATION

Page 1 of 3

- **General Information:**
  - CA Support Telephone Number: ( ) _____
  - Date of Call: _____
  - Problem Severity: _____
- **CA Supplied Information:**
  - CA Support Specialist: _____
  - FAX Number: ( ) _____
  - Your CA Client ID: _____
  - Product: _____ Version: _____
  - Contact Number: _____ Issue Number: _____
  - Solution Number: _____
- **Your Company Information:**
  - Company Name: _____
  - Site ID: _____
  - Your Name: _____
  - Telephone Number: ( ) _____

    Extension: _____
  - FAX Number: ( ) _____
  - Alternate Contact Person: _____
  - Alternate Telephone Number: ( ) _____

    Extension: _____
- **Notes:**

CA SUPPORT CONTACT INFORMATION

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Operating System: _____

Product Versions and Service Packs:

Product Version Service Pack

- Operating System _____ _____
- [assign the value for IPC in your book] _____ _____
- CA Datacom/DB _____ _____
- CA Datacom Fast Recovery _____ _____
- CA Datacom IMS/DC Services _____ _____
- CA Datacom CICS Services _____ _____
- CA Datacom Presspack _____ _____
- CA Datacom Server _____ _____
- CA Datacom STAR _____ _____
- CA Datacom DB2 Transparency _____ _____
- CA Datacom DL1 Transparency _____ _____
- CA Datacom TOTAL Transparency _____ _____
- CA Datacom VSAM Transparency _____ _____
- CA Dataquery for Datacom _____ _____
- CA Ideal for Datacom _____ _____

CA SUPPORT CONTACT INFORMATION

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Additional solutions applied:

Product	**Solution Numbers**
_____	
_____	
_____	
_____	
_____	

Enclosed Documentation:

1. _____ 5. _____
2. _____ 6. _____
3. _____ 7. _____
4. _____ 8. _____

Request Enhancements

CA Technologies welcomes your suggestions for product enhancements. All suggestions are considered and acknowledged. You can contact your Account Manager who initiates the request for you.