# CA Ideal™ for CA Datacom®

## Installation Guide for z/OS

Version 14.02

# CA Technologies Product References

This document references the following CA Technologies products:

- CA Datacom®/DB
- CA Datacom® CICS Services
- CA Datacom® SQL
- CA Ideal™ for Datacom® (CA Ideal)
- CA Ideal™ for DB2
- CA Ideal™ for VSAM
- CA IPC
- CA Mainframe Software Manager™ (CA MSM)

# Contact CA Technologies

**Contact CA Support**

For your convenience, CA Technologies provides one site where you can access the information 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.

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# Chapter 1: Overview

This guide describes how to install and implement CA Ideal.

This section contains the following topics:

Audience (see page 9)
How the Installation Process Works (see page 10)

## Audience

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

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

You may need to work with the following personnel:

- Systems programmer for z/OS and VTAM definitions
- Storage administrator, for DASD allocations

# 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 23).
   - Download the software from CSO using Pax-Enhanced Electronic Software Delivery (ESD) (see page 29).
   - 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 53) or DVD, install the product manually.

   **Note:** If a CA Recommended Service (CA RS) package is published for your product, install it before continuing with deployment.

4. Deploy the target libraries using one of the following methods:
   - If you are using CA MSM, deployment is required; it is a prerequisite for configuration.
   - If you are using a manual process, deployment is an optional step.

   **Note:** Deployment is considered part of starting your product.
5. Configure your product using CA MSM or manually.

   **Note:** Configuration is considered part of starting your product.

# Chapter 2: Preparing for Installation

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

This section contains the following topics:

General Considerations (see page 13)
Hardware and Software Requirements (see page 14)
DASD Requirements (see page 15)
Introduction to CA Common Services (see page 18)
Using CA LMP (see page 19)

## General Considerations

The following are considerations you need to review prior to installing any product.

### JCL Editing

After running the jobs to install the SMP/E libraries, the next step of the installation or upgrade process is to copy the sample JCL from the target sample library into an INSTJCL library that contains all the JCL necessary to install or upgrade the product. Each job included in the INSTJCL library has a “flower box” at the top that describes the changes required to edit the JCL to meet the installation requirements for your site. The following is a sample:

```
//* INSTRUCTIONS:
//*      ***  CHANGE JOB CARD AS NECESSARY FOR YOUR SITE.
//*   1. PERFORM A GLOBAL CHANGE OF “CAI.SMPCSI.CSI”
//*      TO THE NAME OF THE SMP/E CSI DATA SET.
//*      WORKSHEET PARAMETER 1
//*   2. PERFORM A GLOBAL CHANGE OF “CAI.SHLQ”
//*      TO THE HIGH LEVEL QUALIFIER OF THE SMP/E DATA SETS.
//*      WORKSHEET PARAMETER 2
//*   3. PERFORM A GLOBAL CHANGE OF “ILRRSS”
//*      TO THE VOLSER OF THE INSTALL TAPE.
//*      WORKSHEET PARAMETER 24
//*   4. PERFORM A GLOBAL CHANGE OF “TAPE”
//*      TO THE UNIT TYPE OF THE INSTALL TAPE, FOR EXAMPLE, “CART”
//*      WORKSHEET PARAMETER 25
```

The list of JCL edits needed is covered in Installation Worksheet.

You can choose to edit each job manually according to the flower box instructions or you can use a PDS utility to perform the edits. In the following sections, we discuss a few available PDS editing tools. Remember to save the original sample PDS before doing any mass edits in case you want to redo your edits.

## Editing SAMPJCL Using the Supplied REXX Execs under ISPF

If you use ISPF, there are two ISREDIT macros tha$EDITINP and $DCOMEDT to make global changes in the SAMPJCL and INSTJCL libraries for the worksheet parameter strings.

| PDS Member | Description |
|---|---|
| $DCOMEDT | Mainline REXX exec that is executed under ISPF. |
| $EDITINP | Sample ISREDIT macro that makes the global changes to the SMP/E install jobs in the SAMPJCL library. |

These members contain an edit command for each worksheet item in the form of 'ISREDIT C”STRING1” “STRING2” ALL'. In each case, STRING1 represents what is currently in the installation job members in the SAMPJCL PDS. Change STRING2 so that the worksheet values for your installation are incorporated.

Once you have made the appropriate changes, save this member to your SYSPROC location and then execute this macro from the command line in ISPF.

Although this global edit procedure eliminates the requirements for almost all manual editing of the installation jobs, you should still review the instruction block in each job for any optional changes.

# Hardware and Software Requirements

You must meet all the hardware and software requirements for your system before installing, upgrading, or maintaining the CA Ideal product.

## Hardware Requirements

CA Ideal requires an IBM or compatible mainframe computer.

If you are installing from tape, a tape drive capable of reading a 3480 cartridge is required.

## Software Requirements

The following are the software requirements for a z/OS environment:

- IBM z/OS operating system with UNIX System Services (USSO) is required.
- IBM SMP/E at the releases supported by IBM is required.
- IBM CICS Transaction Server at the releases supported by IBM is required.
- CA Common Services is required. It must be installed before CA Ideal is installed.
- CA IPC Version 14.0 is required. It must be installed before CA Ideal is installed.
- CA Datacom/DB Version 12.0 is required for CA Ideal. The CA Datacom/DB Multi-User Facility must be active.
- CA Datacom CICS Services is required. CA Ideal for DB2 users have this already installed as part of their CA Datacom/AD system.
- CA Ideal for DB2 requires IBM DB2 at a release currently supported by IBM.

# DASD Requirements

Disk space requirements depend on your product mix. The following table indicates the estimated blocks of DASD space required. The column heading VOLUME refers to the VOLSER given in the Installation Worksheet.

## SMP/E CSI and Data Sets

The following tracks are needed for both new and upgrade installs:

| Name | VOLUME | 3390 TRKS |
|---|---|---|
| SMPCSI.CSI | | |
| SMPCSI.CSI.DATA | | 45 |
| SMPCSI.CSI.INDEX | | 75 |
| SMPLTS | | 75 |
| SMPSCDS | | 120 |
| SMPMTS | | 75 |
| SMPPTS | | 75 |
| SMPSTS | | 75 |
| SMPLOG | | 75 |
| SMPLOGA | | 75 |
| SAMPJCL | | 15 |

| Name | VOLUME | 3390 TRKS |
|---|---|---|
| NULLFILE | | 1 |
| Total | | 706 |

## Target Libraries

The following tracks are needed for both new and upgrade installs.

| Name | Volume | 3390 Tracks |
|---|---|---|
| CAILLOAD | | 597 |
| CAIMAC | | 42 |
| CAILLPA | | 150 |
| CAILSAMP | | 77 |
| CAILXML | | 17 |
| CAILDATV | | 123 |
| Total | | 1006 |

## Custom Libraries

The following tracks are needed for both new and upgrade installs.

| Name | Volume | 3390 Tracks |
|---|---|---|
| CUSPROC | DASD02 | 30 |
| CUSLIB | DASD02 | 30 |
| CUSMAC | DASD02 | 30 |
| Total | | 90 |

## Distribution Libraries

The following tracks are needed for both new and upgrade installs.

| Name | Volume | 3390 Tracks |
|---|---|---|
| AAILMAC | | 42 |
| AAILMOD0 | | 118 |
| AAILXML | | 17 |

| | |
|---|---|
| AAILSAMP | 77 |
| AAILDATV | 123 |
| Total | 377 |

## VLS Backup Data Sets

The following tracks are needed for both new and upgrade installs.

| Name | Volume | 3390 Tracks |
|---|---|---|
| ADRPNL.BACKUP | DASD04 | 159 |
| ADRLIB.BACKUP | DASD04 | 34 |
| Total | | 193 |

## VLS Data Sets

The following tracks are needed for both new and upgrade installs.

**Note:** If you are upgrading, you may already have these.

| Name | Volume | 3390 Tracks |
|---|---|---|
| IDDAT | DASD04 | 26 |
| IDDVW | DASD04 | 50 |
| ID$IDSRC | DASD04 | 58 |
| ID$IDPNL | DASD04 | 25 |
| ID$IDOBJ | DASD04 | 67 |
| Total | | 226 |

## DB2 Only Data Sets

The following tracks are needed for both new and upgrade installs.

| Name | Volume | 3390 Tracks |
|---|---|---|
| ILDB2.DBRM | DASD03 | 3 |
| Total | | 3 |

# Introduction to CA Common Services

To help you understand all that the CA Common Services offer, this section briefly describes each service that CA Ideal uses.

CA Common Services is a group of system services that protect your investment in products by helping you manage your data center more efficiently. Each of the CA Common Services offers individual benefits. The following CA Common Services components are used with and benefit the CA Ideal product:

- CA LMP and CAIRIM assists you in getting your CA products running and in keeping them running.
- CAISSF enables your CA products to offer standardized security interfaces.

The remaining pages of this chapter describe these services in more detail.

## CA LMP

The CA License Management Program (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. The routines which accomplish this are integrated into the CA z/OS dynamic service code, S910 (CAIRIM). 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 products already running
- No special maintenance requirements

## CAIRIM

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

- Obtaining SMF data
- Verifying proper software installation
- Installing z/OS interfaces
- Automatically starting up CA and other vendor products
- Ensuring proper timing and order of initialization

## CAISSF

The CAI Standard Security Facility (CAISSF) allows CA products to offer standardized security interfaces without regard to the particular needs of underlying access control software. CAISSF offers user authentication and resource access validation facilities. It can interface with CA external security products or compatible security products that are not from CA. CAISSF is a subservice contained in the CA service code, S910 (CAIRIM).

For CA security products, CAISSF features include:

- A single security mechanism
- Isolation of CA products from CA or vendor mechanisms

For security products that are not from CA, CAISSF features include:

- Resource class translation
- Access level translation
- Selective logging of requests
- Request type control
- Message support for failed access

# Using CA LMP

CA Ideal requires CA LMP to initialize correctly. CA LMP also provides a standardized and automated approach to the tracking of licensed software.

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

## Key Certificate

The following are the fields in the Key Certificate:

| FIELDS | DESCRIPTION |
|---|---|
| Product Name | The trademark 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. |

| FIELDS | DESCRIPTION |
| --- | --- |
| Expiration Date | The date (month dd, yyyy) your license for this product expires. |
| Technical Contact | The name of the technical contact at your site who is responsible for installation and maintenance of the designated product. This is 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, supply the actual name when correcting and verifying the Certificate. |
| CPU Location | The address of the building where the CPU is installed. |
| 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. CA LMP is provided as an integral part of CAIRIM. Once CAIRIM has been installed or maintained at service level A5 or later, CA LMP support is available for all CA products. |

## Defining KEYS

Proper initialization of any CA product requires the addition of the CA LMP execution key provided on the Key Certificate to the CAIRIM parameters. To define a CA LMP execution key to the CAIRIM parameters, modify member KEYS in the OPTLIB data set. This is the parameter structure of member KEYS:

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

***pp***

Specifies 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***

Specifies the CA LMP licensing agreement expiration date.

***tttt-mmmm***

Specifies the CPU type and model (for example, 3090&@@endash.600) on which the CA LMP product runs. If the CPU type, model, or both require less than four characters, blank spaces are inserted for the unused characters.

***ssssss***

Specifies the serial number of the CPU on which the CA LMP product runs.

***kkkkkkkkkkkkkkkk***

Specifies 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 this example, the CA LMP execution key value is invalid and provided as an example only.

```
PROD(IL) DATE(15JAN06) CPU(3090-600 /370623) LMPCODE(52H2K06130Z7RZD6)
```

For more information about the procedure for defining the CA LMP execution key to the CAIRIM parameters, see the *CA Common Services for z/OS Installation and Maintenance Guide*.

# 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

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

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

### 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 27), 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 FTP 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.

# 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 (see page 29)
Allocate and Mount a File System (see page 35)
Copy the Product Pax Files into Your USS Directory (see page 38)
Create a Product Directory from the Pax File (see page 43)
Copy Installation Files to z/OS Data Sets (see page 44)
Receiving the SMP/E Package (see page 45)
Clean Up the USS Directory (see page 48)
Apply Maintenance (see page 49)


## 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 34)
Allocate and Mount a File System (see page 35)
Copy the Product Pax Files into Your USS Directory (see page 38)
Create a Product Directory from the Pax File (see page 43)
Copy Installation Files to z/OS Data Sets (see page 44)

## 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 31) topic explains how the download interface works.

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

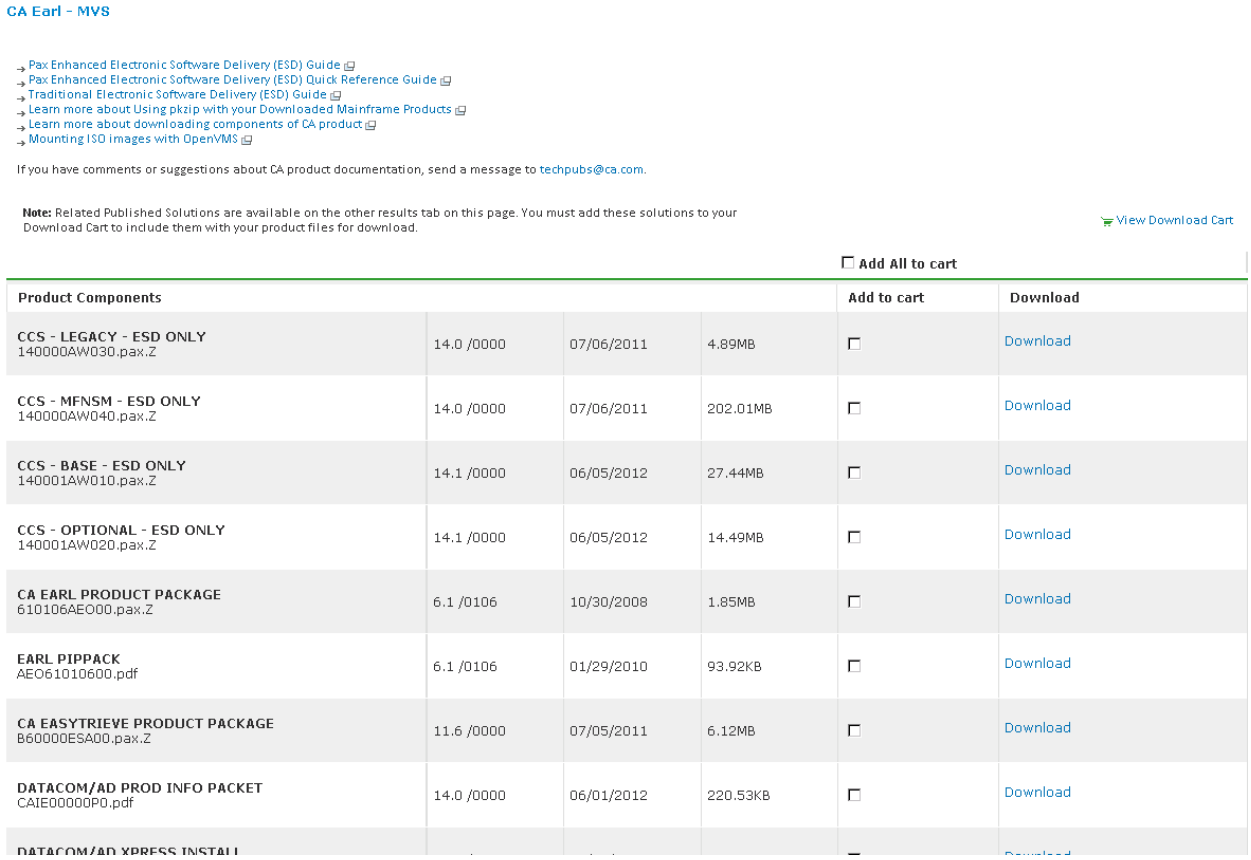
4. Perform the steps to install the product based on the product-specific steps.

   The product is installed on the mainframe.

## ESD Product Download Window

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

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



CA Earl - MVS

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

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

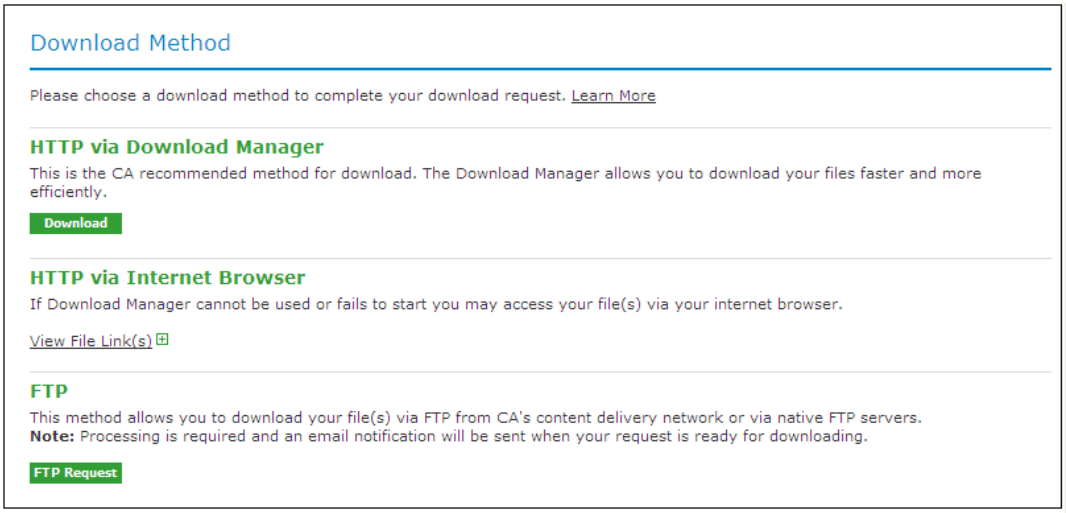
**Note:** Related Published Solutions are available on the other results tab on this page. You must add these solutions to your Download Cart to include them with your product files for download.

View Download Cart

Add All to cart

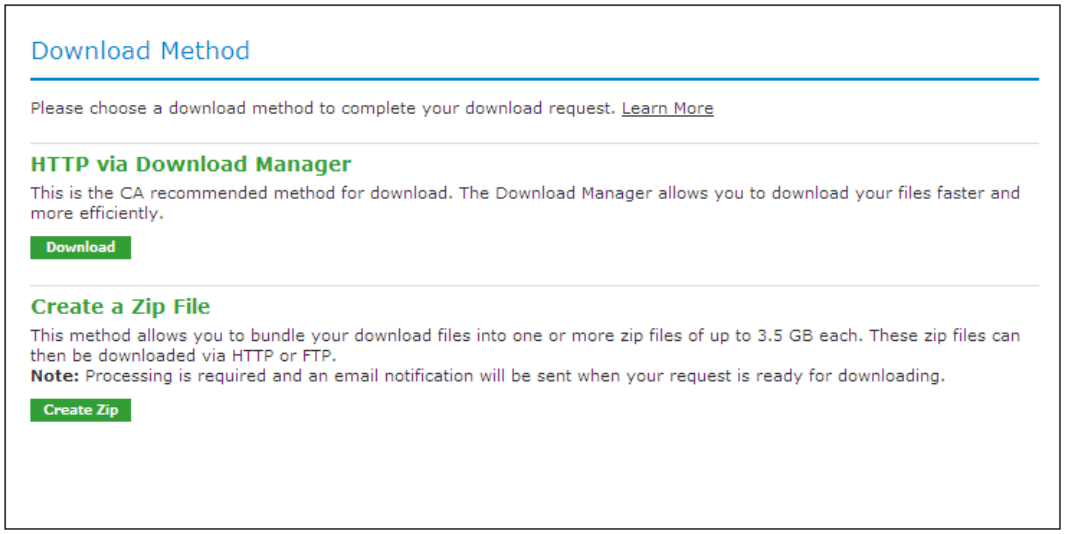
| Product Components | | | | Add to cart | Download |
|---|---|---|---|---|---|
| CCS - LEGACY - ESD ONLY<br>140000AW030.pax.Z | 14.0 /0000 | 07/06/2011 | 4.89MB | ☐ | Download |
| CCS - MFNSM - ESD ONLY<br>140000AW040.pax.Z | 14.0 /0000 | 07/06/2011 | 202.01MB | ☐ | Download |
| CCS - BASE - ESD ONLY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

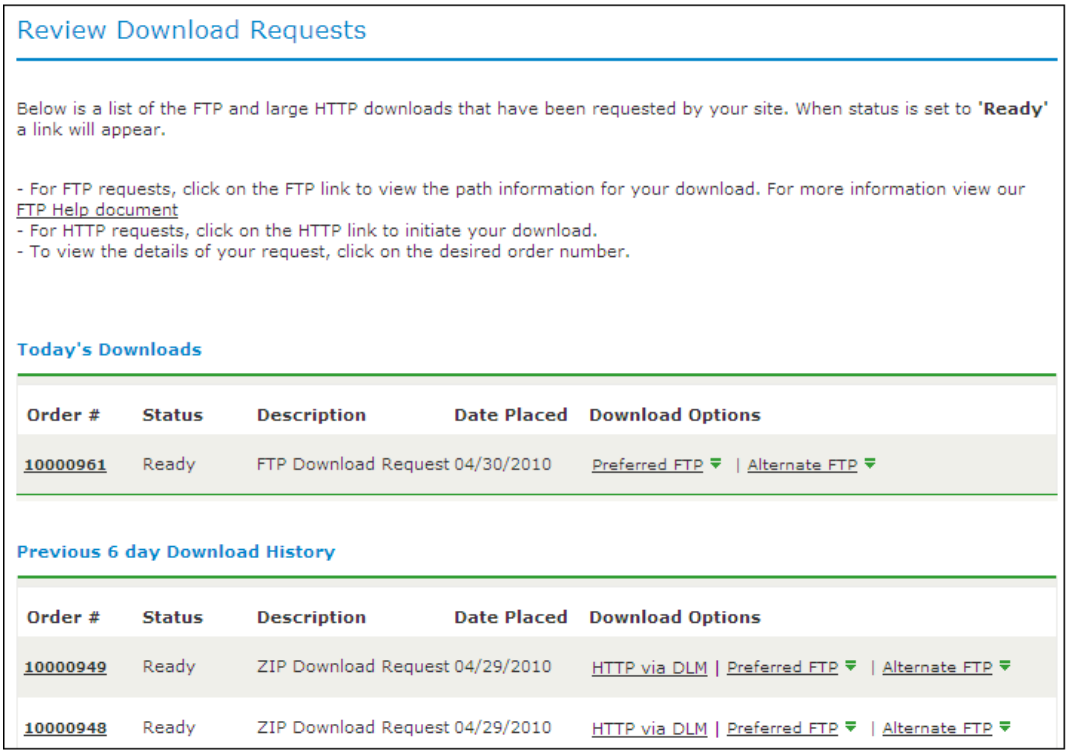
**Note:** For mainframe downloads using this HTTP method, click the Learn More link.




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 31)
ESD Product Download Window (see page 31)

## 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 Ideal.

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 IDLSEDIT 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 IDLSEDIT 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 IDLSEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the IDLEDALL member.

2. Open the SAMPJCL member IDL1ALL in an edit session and execute the IDLSEDIT macro from the command line.

   IDL1ALL is customized.

3. Submit IDL1ALL.

   This job produces the following results:

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

4. Open the SAMPJCL member IDL2CSI in an edit session and execute the IDLSEDIT macro from the command line.

   IDL2CSI is customized.

5. Submit IDL2CSI.

   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 IDL3RECD in an edit session, and execute the IDLSEDIT macro from the command line.

   IDL3RECD is customized.

2. Submit the *yourHLQ*.SAMPJCL member IDL3RECD to receive SMP/E base functions.

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

3. Open the SAMPJCL member IDL4APP in an edit session, and execute the IDLSEDIT macro from the command line.

   IDL4APP is customized.

4. Submit the *yourHLQ*.SAMPJCL member IDL4APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member IDL5ACC in an edit session, and execute the IDLSEDIT macro from the command line.

   IDL5ACC is customized.

6. Submit the *yourHLQ*.SAMPJCL member IDL5ACC to accept SMP/E base functions.

   Third-Party Software for CA Ideal 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 IDLSEDIT macro was customized in the installation steps. Verify that you still have the values from the base installation.
4. Open the SAMPJCL member IDL6RECP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL6RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the IDL6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit IDL6RECP.

   The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member IDL7APYP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL7APYP is customized.
8. Submit IDL7APYP.

   The PTFs are applied.

9. (Optional) Open the SAMPJCL member IDL8ACCP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL8ACCP is customized.

10. (Optional) Submit *yourHLQ*.SAMPJCL member IDL8ACCP.

    The PTFs are accepted.

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

# HOLDDATA

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

## System HOLDDATA

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

**ACTION**

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

**EXRF**

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

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

## External HOLDDATA

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

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

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

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

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

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

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

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

# Chapter 5: Installing Your Product from Tape

This section contains the following topics:

Unload the Sample JCL from Tape (see page 54)
How to Install Products Using Native SMP/E JCL (see page 55)
Apply Maintenance (see page 57)

# 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 Ideal.

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 IDLSEDIT 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 IDLSEDIT 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 IDLSEDIT macro each time you open a new SAMPJCL member. To edit all SAMPJCL members simultaneously, read and follow the instructions in the IDLEDALL member.

2. Open the SAMPJCL member IDL1ALL in an edit session and execute the IDLSEDIT macro from the command line.

   IDL1ALL is customized.

3. Submit IDL1ALL.

   This job produces the following results:

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

4. Open the SAMPJCL member IDL2CSI in an edit session and execute the IDLSEDIT macro from the command line.

   IDL2CSI is customized.

5. Submit IDL2CSI.

   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 IDL3RECT in an edit session and execute the IDLSEDIT macro from the command line.

   IDL3RECT is customized.

2. Submit the *yourHLQ*.SAMPJCL member IDL3RECT to receive SMP/E base functions.

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

3. Open the SAMPJCL member IDL4APP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL4APP is customized.

4. Submit the *yourHLQ*.SAMPJCL member IDL4APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member IDL5ACC in an edit session and execute the IDLSEDIT macro from the command line.

   IDL5ACC is customized.

6. Submit the *yourHLQ*.SAMPJCL member IDL5ACC 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 IDLSEDIT macro was customized in the installation steps. Verify that you still have the values from the base installation.
4. Open the SAMPJCL member IDL6RECP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL6RECP is customized with your JOB statement, CSI location, and zone names.
5. Customize the IDL6RECP SMPPTFIN and SMPHOLD DD statements to reference the FB 80 data sets for the PTFs and HOLDDATA.
6. Submit IDL6RECP.

   The PTFs and HOLDDATA are received.
7. Open the SAMPJCL member IDL7APYP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL7APYP is customized.
8. Submit IDL7APYP.

   The PTFs are applied.
9. (Optional) Open the SAMPJCL member IDL8ACCP in an edit session and execute the IDLSEDIT macro from the command line.

   IDL8ACCP is customized.
10. (Optional) Submit *yourHLQ*.SAMPJCL member IDL8ACCP.

    The PTFs are accepted.

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

## HOLDDATA

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

## System HOLDDATA

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

**ACTION**

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

**DELETE**

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

**DEP**

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

**DOC**

Indicates a documentation change with this SYSMOD.

**EXRF**

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

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

## External HOLDDATA

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

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

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

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

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

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

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

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

# Chapter 6: Configuring Your Product

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

This section contains the following topics:

INSTJCL Member Names (see page 61)
Installation Sequence (see page 62)
Steps for All Installations (see page 63)
Description of Customization Steps (see page 63)
New Installation Phase (see page 65)
Description of New Installation Steps (see page 65)
CA Ideal Option for DB2 Installation Phase (see page 67)
Description of CA Ideal for DB2 Installation Steps (see page 67)
Post-Installation Phase (see page 69)
Verification Phase (see page 72)
Customization (see page 76)

## INSTJCL Member Names

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

- The first two characters relate to the component being installed:

  Each name begins with *IL* to identify CA Ideal.

  Each name begins with *IO* to identify CA Ideal for DB2.

- The next three characters identify the type of installation step:

  **INS**

  Indicates a new or upgrade installation step performed CA Ideal for DB2.

  **NEW**

  Indicates a step for new installations of the CA Ideal environment.

  **VER**

  Indicates an installation verification step.

- The remainder of each name indicates the number of the step and can include a suffix.

  If the suffix is *X*, the step is *optional* for the overall installation. You might not need to perform this step. Read the step description to determine whether to include it in your CA Ideal installation. If it is to be included, run these jobs after the same job number without the X suffix.

# Installation Sequence

You *must* execute sample jobs in sequential order by name and number. Be sure to review, edit, execute, and complete each installation step before proceeding to the next step.

Follow these guidelines when installing:

1. SMP/E Installation Phase

   Perform the SMP/E jobs as outlined in Installing Your Product Using CA MSM, Installing Your Product from Pax-Enhanced ESD, or Installing Your Product from Tape.

2. Customization Phase

   Before performing either a new install or an upgrade, execute the members that have names that start with ILCUS.

3. New Installation Phase

   If you are installing CA Ideal for the first time, execute members whose names start with ILNEW. After all ILNEW jobs execute successfully, the CA Ideal product environment is ready for use.

4. CA Ideal for DB2 Installation Phase

   If you are installing the CA Ideal for DB2, execute members whose names start with *IOINS* and all previously mentioned jobs. After all *IOINS* jobs execute successfully, the CA Ideal for DB2 for DB2 environment is complete.

5. Verification Phase

   Execute the members whose names start with *ILVER*. After all *ILVER* jobs execute successfully, the CA Ideal components are successfully installed and verified. If you are upgrading from an earlier release, you will also apply any additional table entries or option table changes at this point.

# Steps for All Installations

For information about the SMP/E installation, see (as appropriate) Installing Your Product Using CA MSM r31 (see page 23), Installing Your Product From Pax-Enhanced Electronic Software Delivery (see page 29), or Installing Your Product From Tape (see page 53).

Perform the jobs in this section before performing the steps in either the upgrade or new install sections. You can run these jobs multiple times for as many CA Ideal environments as needed.

Perform the following steps:

| Step | Description | Purpose |
|---|---|---|
| 1 | Retrieve ILCUS00 from your CAILSAMP library, perform changes as directed, and submit the JCL. | Copy the sample JCL from the target library into the INSTJCL library. |
| 2 | Retrieve ILCUS01 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Assemble/link-edit @IIDOPTS, @IIDSYSF, CA Ideal web interface tables and @IADFLGS. |
| 3 | Retrieve ILCUS02 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Add the customized JCL copybooks to the custom PROC library. |
| 4 | Retrieve ILCUS03 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Allocate backup files for the VLS files and add members to the ADRPNL and ADRLIB files. |

# Description of Customization Steps

The following section describes the customization steps in more detail.

## Step 1. Copy the JCL from Target to INSTJCL Library

This step creates the INSTJCL library and copies the new and upgrade 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 $DCOMEDT macro.

1. Retrieve member ILCUS00 from your CAILSAMP 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 2. Assemble/link-edit Custom Modules

This step assembles/link-edits the CA Ideal options block, the system file table, web interface modules, and the @IADFLGS module.

1. Retrieve member ILCUS01 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 3. Add the JCL Copybooks to the CUSPROC Library

This step adds the CA Ideal JCL copybooks to the CUSPROC library.

1. Retrieve member ILCUS02 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.

Be sure you review, edit, execute, and complete this step before continuing.

### Step 4. Populate ADRLIB and ADRPNL

This step adds members to the ADRLIB and ADRPNL VLS files and backs up the VLS libraries.

1. Retrieve member ILCUS03 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.

Be sure you review, edit, execute, and complete this step before continuing.

## New Installation Phase

This section describes the procedures required for all *new installations.* Perform these steps after completing the steps required by all installations. For this phase of the installation, you run the INSTJCL PDS members whose names start with *ILNEW.*

Perform the following steps for *new* installations:

| Step | Description | Purpose |
|---|---|---|
| 1 | Retrieve ILNEW01 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Allocate the IDDAT, IDDVW, ID$IDSRC, ID$IDPNL and ID$IDOBJ VLS files. |
| 2 | Retrieve ILNEW02 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Format the IDDAT, IDDVW, ID$IDSRC, ID$IDPNL and ID$IDOBJ VLS files. |
| 3 | Retrieve ILNEW03 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Add default Dictionary entities for CA Ideal. |

## Description of New Installation Steps

The following sections describe the steps required for a new installation in more detail.

## Step 1. Allocate the CA Ideal VLS Files

This step allocates the IDDAT, IDDVW, ID$IDSRC, ID$IDPNL, and ID$IDOBJ VLS files.

1. Retrieve member ILNEW01 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 2. Format the CA Ideal VLS Files

This step formats the IDDAT, IDDVW, ID$IDSRC, ID$IDPNL, and ID$IDOBJ VLS files.

1. Retrieve member ILNEW02 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 3. Add CA Ideal Entities to the Datadictionary

*The CA Datacom Multi-User Facility must be running for this step to be successful.*

This step adds CA Ideal entities to the CA Datacom/DB Datadictionary component. This step initializes the Datadictionary for CA Ideal using the utility @IUTINST. Refer to Appendix B for more information regarding this utility.

1. Retrieve member ILNEW03 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.

Be sure you review, edit, execute, and complete this step before continuing.

# CA Ideal Option for DB2 Installation Phase

This section describes the procedures required to install the CA Ideal for DB2. Perform these steps after completing the steps required for all installations. If this is a new installation, you must also perform the new installation phase before this phase.

**Note:** For DB2 option installs, retrieve the IOINSnn jobs from the CAILSAMP PDS and manually save them into the INSTJCL PDS.

| Step | Description | Purpose |
|---|---|---|
| 1 | Retrieve IOINS01 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Copy the CA Ideal DBRMs from the target macro library to the DBRM library and bind the CA Ideal installation plan. |
| 2 | Retrieve IOINS02 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Reassemble/link @IIDOPTS to include the DB2 option parameters and add the proc IDPLAN to the custom proclib. |
| 3X | (Optional) Retrieve IOINS03X from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Create the DB2 tables that CA Ideal for DB2 uses. |
| 4 | Retrieve IOINS04 from your INSTJCL PDS, perform changes as directed, and submit the JCL. | Execute the bind of the development plan that CA Ideal uses. |

# Description of CA Ideal for DB2 Installation Steps

The following sections describe the steps required for installation in the DB2 environment in more detail.

## Step 1. Copy DBRMs and Bind Plans

*The DB2 subsystem must be available for this step.*

This step copies the CA Ideal DBRMs from the target macro library to the DBRM library and then binds the CA Ideal installation plan.

1. Retrieve member IOINS01 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 2. Prepare Custom Assemblies

This step reassembles @IIDOPTS (the CA Ideal options block) to include the DB2 option parameters. It also adds procedure IDPLAN to the custom procedures library (CAI.CHLQ.CUSPROC).

1. Retrieve member IOINS02 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 3X. Create DB2 Tables for CA Ideal Development (Optional)

*This step is required for new installs only.*

*The DB2 subsystem must be available for this step.*

This step creates the DB2 tablespaces that CA Ideal uses.

1. Retrieve member IOINS03X 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.

Be sure you review, edit, execute, and complete this step before continuing.

## Step 4. Bind the CA Ideal Development Plan

*The DB2 subsystem must be available for this step.*

This step executes the bind of the development plan used by CA Ideal.

1. Retrieve member IOINS04 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.

Be sure you review, edit, execute, and complete this step before continuing.

# Post-Installation Phase

The following sections describe the configurable settings required for post-installation phase.

## CICS Modifications

Include a DD statement for the CA Ideal target load library (CAI.SHLQ.CAILIB) and the CA Ideal custom load library (CAI.CHLQ.CUSLIB) in the DFHRPL concatenation of the CICS startup JCL.

CICS requires the addition of DD statements for the CA Ideal files. The CA Ideal installation creates these statements for you. Fetch the IDLFILES member from the custom procedure library (CHLQ.CUSPROC) and insert the files into the CICS startup JCL.

## CICS Resource Definitions

The CA Ideal installation provides a SAMPJCL member ILCICS that can be used to install the CICS definitions into a CICS group list.

The CA Ideal installation also produces all source members for CICS table modification. These source members contain all of the entries for all of the CA Ideal options you are installing or upgrading. Refer to Step 10 Define Table Groups for CICS.

For those sites using an existing CICS that does not already reference a CA Datacom/DB Multi-User Facility, install CA Datacom CICS Services, as specified in the chapter "Software Requirements." CA Ideal Option for DB2 users already have this installed as part of their CA Datacom/AD system.

You can find source members for each CA Ideal component in the target macro library (CAI.SHLQ.CAIMAC) for all CICS tables and CSD definitions. You can use these members to update your CICS using site-standard jobs instead of using the ILCICS job in your SAMPJCL. In addition to updating your CSD for transactions and programs, retrieve the CICS copybook for preparing the File Control Table (FCT). Review all members to ensure they meet your site's requirements.

The following table lists the library members:

| Component | Copybook for CICS Table Assemblies | Copybook for CICS RDO |
|---|---|---|
| CA Ideal/base | IL14FCT, IL14PLT | IL14CSD, IL14CSDT |
| CA Ideal for Datacom | | I414CSD |
| CA Ideal for DB2 | | IO14CSD |
| CA Ideal for VSAM | | F414CSD |

## CA Ideal Option for DB2 Users Only

Add the DB2 load library that contains module DSNHDECP to the DFHRPL concatenation. This module contains your site's DB2 default values. It is needed to parse imbedded SQL statements correctly during compilation.

You must define the CA Ideal development plan (the default is IDPB00DV) in the RCT to access DB2. Member IO14CSD contains the DB2TRAN and DB2ENTRY definitions required.

## Special Considerations for CICS

CICS system initialization parameter PGAIPGM must specify active. The default SIT has PGAIPGM=INACTIVE. This lets CICS dynamically add PPT entries for the CA Ideal application load modules. Refer to CICS documentation for more information.

## CICS Resident Programs

The installation process defines only one CA Ideal program to CICS as RES=YES. @IADTREX is required to remain CICS resident. For a list of CA IPC programs that are required to be CICS resident, see the CA IPC *Implementation Guide*.

## User-Replaceable Modules for Web Interface

CA Ideal supplies several User-Replaceable Modules for use with the Web Interface that require assembly/link into a DFHRPL library. This process is dependent on the release of CICS Transaction Server in use, so no sample job is provided. The sample source members IDLWBADX, IDLWBAD2, IDLWBAD3 and IDLWCONV should be reviewed and the appropriate ones installed. The CICS Command Level assembler source code is provided in the CAILSAMP file.

IDLWBADX is a basic analyzer that uses no converter and supports only a 32kB response.

IDLWBAD2 uses the converter IDLWCONV to support response documents exceeeding 32kB. The CA Ideal Web Interface verification requires IDL2BAD2 and IDLWCONV.

IDLWBAD3 is the development version of IDLWBAD2 analyzer with additional support for the debugger and DIAL.

RDO object TCPIPSERVICE is used to define the handling of a port, each of which can have its own analyzer URM (User Replaceable Module), and thus different processing.

```
TCpipservice     : HTTPNSSL
Group            : IDLWEB
Description      : CICS Web
Urm              : IDLWBADX
Portnumber       : 00080
Certificate      :
STatus           : Open
SSl              : No
Authenticate     : No

TRansaction      : CWXN
Backlog          : 00005
TSqprefix        :
Ipaddress        :
SOcketclose      : No
```

**Important!** The CA Ideal analyzer cannot be used to run the IBM sample program that is used to verify the CICS Web Interface. Refer to IBM documentation regarding the CICS Web Interface.

## Confirm that Your Web Browser Can Talk to CICS Using TCP/IP

To confirm that communication between your web browser and CICS is established:

- Confirm your port number, by issuing the following command in CICS:

```
CEMT INQUIRE TCPIPSERVICE
 Tcpips(IBMHTTP ) Bac( 00005 ) Con(0000) Por(03082)
    Ope Tra(CWXN) Urm( DFHWBADX ) Ipa(10.202.66.4   )        Tim
```

- Check your CICS startup. The CICS SIT startup parameters should include TCPIP=YES (or equivalent). The CICS startup messages should include the following:

```
+DFHWB0109I APPLID Web domain initialization has started.
.
.
.
+DFHWB0110I APPLID Web domain initialization has ended.
```

- Confirm that the DFHWEB group list has been included in your CICS startup list. Use CEMT INQUIRE PROGRAM(DFH$WB1A) to verify the IBM sample program definition.

- To execute the IBM Web Interface verification program, in your web browser, type in the following URL, where *port* is the port number using analyzer (Urm) DFHWBADX:

  ```
  http://server.domain.com:port/CICS/CWBA/DFH$WB1A
  ```

  You should get the following response:

  ```
  DFH$WB1A on system APPLID successfully invoked through the CICS Web Interface.
  ```

# Verification Phase

This section describes the procedures required for verifying the CA Ideal installation. Perform these steps after completing the steps required for all installations.

## Import Asynchronous and Web Verification Programs

This step imports the source of the verification programs into the VLS libraries and compiles the programs.

- Retrieve member ILVER01 from your INSTJCL PDS.
- Make the required global changes (see the instruction block).
- Submit the JCL to complete this step.
- Review the output for successful completion.

Be sure you review, edit, execute, and complete this step before continuing.

## Import CA Datacom/DB Access Verification Program

*Run this step only if you use the CA Datacom/DB.*

This step catalogs the dataview in CA Ideal and imports the source of the verification program into the VLS libraries.

- Retrieve member ILVER02 from your INSTJCL PDS.
- Make the required global changes (see the instruction block).
- Submit the JCL to complete this step.
- Review the output for successful completion.

Be sure you review, edit, execute, and complete this step before continuing.

## Online Verification Process

After you complete the steps to install CA Ideal, run the following verification script to ensure that CA Ideal is properly installed.

1. Sign on to CICS, and enter transaction IDEA.
2. Sign on to CA Ideal as user $IDEAL (no password), if this is a new install. If this an upgrade, you may signon with previously defined userids and if external security is in effect via SC00OPTS, your security host-id must also exist as a CA Ideal userid.

3. Enter the following command:

   ```
   @I$INTERNAL STATUS
   ```

   This command shows you the release levels of the products. Verify that CA Ideal has the release level of Version 14.0 and CA IPC components (VPE, SCF, PMS, PSS) have a release of Version 14.0. Sites with the DB2 option should check the DB2 subsystem name. Also, verify that the value for 'Maintenance' reflects the correct service pack level for your installation.

   In addition, check that you have the correct CA Ideal product options (DB, DBSQL, DB2, and VSAM) turned on (Y for yes and N for no).

   **Note:** DBSQL will indicate DATACOM, ANSI or FIPS, instead of Y.

4. Verify the Datacom/DB access (if used) by compiling and running the sample program imported with SAMPJCL job ILVER02. This program assumes the Datacom/DB verification database 10 is implemented.

   Enter the following commands:

   ```
   SELECT SYSTEM $ID
   COMPILE SCROLL VERSION 1
   ```

   When you receive the message that the compilation has completed successfully, enter the command:

   ```
   RUN SCROLL V 1
   ```

5. Verify access to Datacom/DB via SQL (if available) as follows:

   Create a dataview for the System Table DIR_ELEMENT by entering the command:

   ```
   CATALOG DB DATAVIEW  SYSADM.DIR_ELEMENT
   ```

   This should display the resulting dataview on the screen. Now enter the following commands:

   ```
   CREATE REPORT DBSQLIVP USING DVW SYSADM.DIR_ELEMENT
   DETAIL
   ```

   This should display a filled-in report detail screen. In order for all the reported fields to fit on a single line, enter a "D" in the margin of the line for DIR_ELEMENT.SECURITY_CODE. This will delete that field from the report.

   Enter the following commands to create a program that will read the table and write the report.

   ```
   CREATE PROGRAM DBSQLIVP
   RESOURCES
   ```

   Add the resources DVW SYSADM.DIR_ELEMENT and RPT DBSQLIVP, and then enter the command PROC to edit the procedure of the program. Enter either a blank line or a comment (start the line with the character ":") and press enter. You can now enter FF in the margin to add a FOR FIRST template to the program.

Modify the template code to match the following code :

```
FOR THE FIRST 50 DIR_ELEMENT
    NO UPDATE
    PRODUCE DBSQLIVP

    WHEN NONE
    LIST 'No rows found in table'
ENDFOR
```

Enter the commands

```
COMPILE DBSQLIVP @I$SYNC
RUN DBSQLIVP
```

6. Verify asynchronous execution by running the sample program imported and compiled by job ILVER01. Enter the commands:

   ```
   SELECT SYSTEM $ID
   DISPLAY PROGRAM ASYNCVER
   ```

   Read the comments in the ASYNCVER Procedure Definition. The $IDEAL user must be given authority to run this program asynchronously. Duplicate the user definition, or re-create it if it is missing, and add CONTROL authority in system $ID. (Administrative privileges are ignored for an asynchronous run.)

   Exit CA Ideal by entering the OFF command, and test the program by entering the following CICS transaction:

   ```
   CECI START TRANSID('IDAV')
   ```

   Sign back onto CA Ideal as user $IDEAL and enter the command,

   ```
   DISPLAY OUTPUT STATUS
   ```

   Use the command DISPLAY OUTPUT ALL STATUS if signing onto CA Ideal with a userid other than $IDEAL. There will be LIST output for program ASYNCVER produced by the asynchronous execution.

7. Verify the web interface installation by executing the sample program imported by job ILVER01. Display the program WEBVERFY as above and review the comments.

   Check the TCPIPService definition in CICS using CEMT:

   ```
   Cemt inq tcpips
   STATUS:  RESULTS - OVERTYPE TO MODIFY                          Tcpips(HTTPNSSL)
   Bac( 00005 ) Con(0000) Por(07080)
       Ope Tra(CWXN) Urm( IDLWBAD2 ) Ipa(141.202.65.11  )
   ```

You must have installed the analyzer code shown as "Urm". Note the IP address (Ipa) and Port (Por) values shown. Enter these in a web browser as follows:

```
http://ipaddress:port/IDWV
```

This should produce a simple web page confirming the execution. Refer to the CA Ideal Web Interface Guide for information on troubleshooting and debugging.

8. If you have the DB2 Option, verify it as follows:

   Online in CA Ideal enter the following commands to create a dataview for DB2 table SYSIBM.SYSVIEWS and to create a program to read the table:

```
CAT DB2 DVW SYSIBM.SYSVIEWS

CRE PGM DB2IVP
RES
```

   Enter DVW SYSIBM.SYSVIEWS in the RESource Definition.

   Enter PROC to edit the PROCedure Definition. Enter comment character ":" and hit enter to get one line with a margin. In the margin enter the template command FF and hit enter to display FOR FIRST code. Modify the generated template code to look like the following:

```
FOR THE FIRST 50 SYSVIEWS
       NO UPDATE
      WHERE SYSVIEWS.SEQNO = 1
     LIST SYSVIEWS.CREATOR SYSVIEWS.NAME
  WHEN NONE
     LIST 'NO ROWS IN DB2 TABLE SYSIBM.SYSVIEWS'
ENDFOR
```

   COMpile DB2IVP and RUN DB2IVP to produce RUNLIST output.

# Customization

## Transaction Tables

Review CA IPC installation job VQCUS01 to ensure that CA Ideal transactions are included in the assembly for module SC00TRAN.

CA Ideal job ILCUS01 assembles and links SCASTRAN for asynchronous transactions and SCWBTRAN for web transactions with entries for the supplied verification programs. If you currently have SCASTRAN and SCWBTRAN tables, the source may be re-assembled with the CA Ideal Version 14.0 macros.

Use CA Ideal online command DISPLAY PCT to verify transactions are properly defined to both CICS and CA Ideal.

## Load Module Tables

The CA Ideal program CICSWEB, required for the Web Interface, is provided in load MODULE format in the CA Ideal CAILIB. CA Ideal job ILCUS01 also assembles the AMT (Application Module Table) containing an entry for program CICSWEB plus the assembly and link of module @ILMTLIST containing TABLEID=WEB. This is @ILMTLIST module with the WEB entry is required to run the web interface verification program.

Modify the LMLIST source in CA Ideal CUSMAC to include other TABLEID entries, re-assemble and link as needed.

## PMS Non-Display Translate Table

When you edit a member or program in CA Ideal, any characters that may not be displayable are removed and replaced by spaces. This can be a problem for Web applications that need additional characters.

Apply the following zap to your PMS translate tables so that the left and right square bracket characters can be used in CA Ideal MEMBER and PDL editors. These characters are required by JavaScript for subscript notation, and occupy different locations in national code pages. Verify values will be x'6F' unless previously modified by your site. The offsets given here are for the US, and should be reviewed if you are in another country.

```
NAME PMSTRND PMSTRND
VER 00AD ..
VER 00BD ..
VER 00BA ..
VER 00BB ..
REP 00AD AD
REP 00BD BD
REP 00BA BA
REP 00BB BB
```

For more information about the Panel Management System (PMS) translate tables used by CA Ideal, see How to Modify PMS Conversion Tables in the *CA IPC Implementation Guide*.

## IPWC Transaction

The transaction ID "IPWC" is treated as a special case by CA Ideal in order to support IpServer from Data21. SC00WBTD will use the 4-character transaction ID following the "?" in the URL when transaction IPWC is executed. When any other transaction ID is executed, that specific transaction will be used.

# Appendix A: Troubleshooting

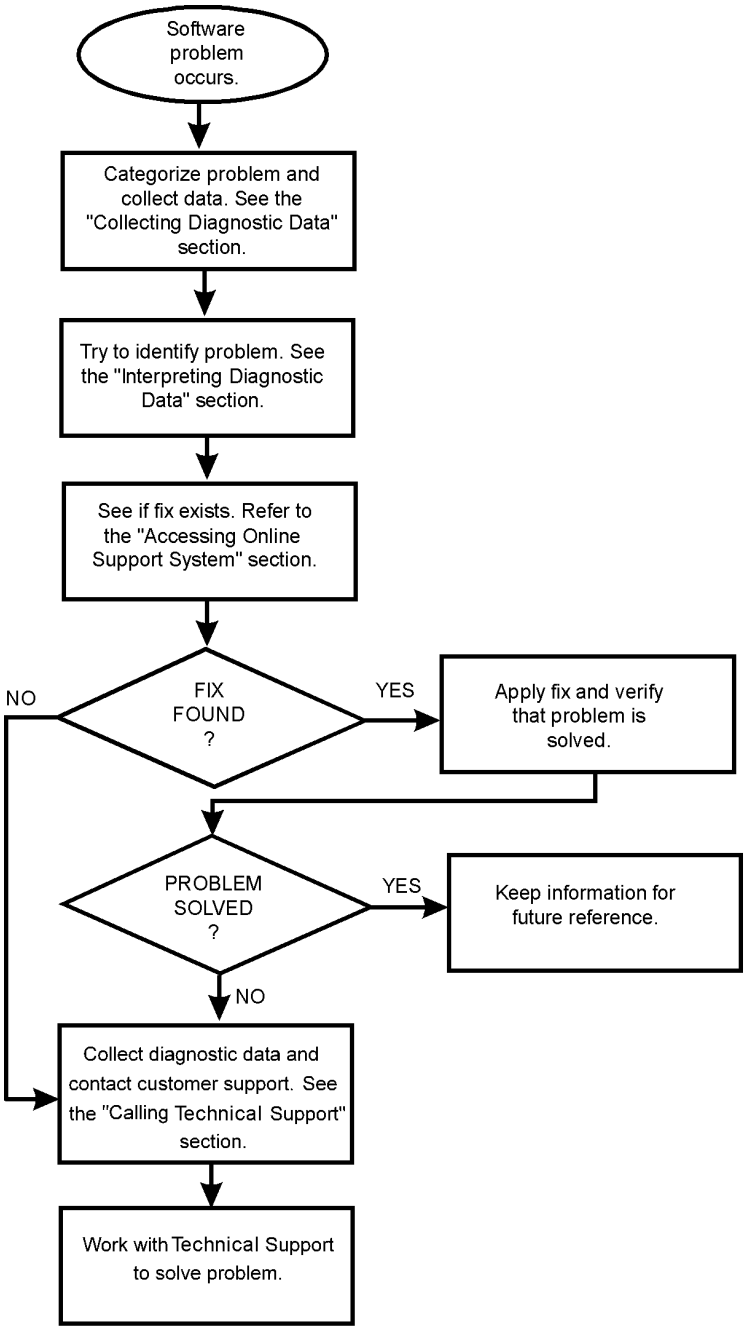
For details on identifying problems, see the *Problem Determination Guide*.

This section contains the following topics:

Diagnostic Procedures (see page 80)
Problem Resolution (see page 81)
Accessing the Online Support System (see page 82)
CA TLC: Total License Care (see page 83)
Calling Technical Support (see page 83)
Product Releases and Maintenance (see page 84)
Requesting Enhancements (see page 84)

# Diagnostic Procedures

The following flowchart provides a summary of the procedures you should follow if you have a problem with a CA product. These procedures are detailed in this chapter.



# Problem Resolution

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

## Verifying the Problem

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

## Collecting Diagnostic Data

The following information is helpful in diagnosing problems that might occur:

- Short description of the problem
- Control statements used to activate your product
- JCL used to install or activate your product
- Relevant system log or console listings
- Relevant system dumps or product dumps
- List of other IBM or third-party products that might be involved
- Manufacturer, model number, and capacity of your hardware
- Numbers and text of IBM or CA error messages associated with the problem
- Names of panels where the problem occurs
- Listings of all fixes applied to all relevant software, including:
  - The dates fixes were applied
  - Fix numbers
  - Names of components to which fixes were applied

## Interpreting Diagnostic Data

When you have collected the diagnostic data for a problem, 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 release of the software was installed?
5. Have you recently installed a new release of the operating system?
6. Has the hardware configuration (tape drives, disk drives, and so forth) changed?

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

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

# Accessing the Online Support System

SupportConnect is CA online product support and service system available on the Internet. Enter http://ca.com/support http://ca.com/support in your browser to access the site. The following are among the features provided on SupportConnect:

- Knowledge Base
- Solution downloads
- Technical Support issue management
- License key downloads
- Virus signature downloads
- Product downloads
- Product documentation downloads
- Newsgroup open forums
- E-News newsletters

# CA TLC: Total License Care

Many CA products use license keys or authorization codes to validate your hardware configuration. If you need assistance obtaining a license key or authorization code, contact the CA TLC: Total License Care group through the License Keys link on SupportConnect.

# Calling Technical Support

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

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

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

- All the diagnostic information described in Collecting Diagnostic Data
- Product name, release number, operating system, and genlevel
- Product name and release number of any other software you suspect is involved
- Release level and PUTLEVEL of the operating system
- Your name, telephone number and extension (if any)
- Your company name
- Your site ID
- Severity code (This is a number from 1 to 4 that you assign to the problem. Use the following to determine the severity of the problem.)

| Code | Description |
|---|---|
| 1 | "System down" or inoperative condition |
| 2 | Suspected high-impact condition associated with the product |
| 3 | Question concerning product performance or an intermittent low-impact condition associated with the product |
| 4 | Question concerning general product utilization or implementation |

# Product Releases and Maintenance

Customers are requested to operate only under currently supported releases of the product.

Customers with current maintenance agreements also receive ongoing product maintenance. When a new release of the system is available, a notice is sent to all current customers.

# Requesting Enhancements

CA welcomes your suggestions for product enhancements. All suggestions are considered and acknowledged. Contact your Account Manager to initiate the request for you.

# Appendix B: Installation Worksheet

This pre-installation worksheet is designed to simplify modifying the JCL supplied at installation. The parameter values are supplied for your convenience and are required for the install job procedures.

You can print the following worksheet or print the SAMPJCL PDS member @ILWKSHT and fill in the values for the parameters that are used during installation.

| **Parameter Description** |
|---|
| 1. What high-level qualifier is used to prefix the other SMP/E and distribution library datasets?<br>Default 'PRODHLQ' |
| 2. What high-level qualifier is used to prefix the CUSTOM libraries for custom assembly/link-edits (for example, IDOPTS, IDSYSF)?<br>Default 'CAI.CHLQ' |
| 3. What high-level qualifier is used to prefix the CA Ideal VLS libraries IDDVW, IDDAT, source, object, panel, and the trace file ADRTRC?<br>Default 'CAI.HLQ' |
| 4. What high-level qualifier is used to prefix the existing CA Ideal r11.0 custom datasets?<br>Default 'CAI.PCHLQ' |
| 5. What high-level qualifier is used to prefix the existing CA Ideal r11.0 target libraries?<br>Default 'CAI.PTHLQ'<br>&ILPTHLQ=' ' |
| 6. What high-level qualifier is used to prefix the existing CA IPC datasets for upgrade installs?<br>Default 'CAI.PHLQ' |
| 7. What high-level qualifier for the Target Library for the CA IPC product?<br>Default 'CAI.IHLQ' |
| 8. What high-level qualifier is used to prefix the CA IPC custom libraries?<br>Default 'CAI.ICHLQ' |
| 9. What high-level qualifier is used to prefix the VLS datasets?<br>Default 'CAI.VHLQ' |

| Parameter Description |
| --- |
| 10. What high-level qualifier is used to prefix the CA Datacom/DB target datasets?<br>Default 'CAI.DHLQ' |
| 11. What high-level qualifier is used to prefix the CA Datacom/DB custom datasets?<br>Default 'CAI.DCHLQ' |
| 12. What is the unit name of the device for temporary work dsns?<br>Default 'SYSDA ' |
| 13. What DASD volume serial name is to be used for the CA Ideal Backups and VLS files?<br>Default 'VOL=SER=DASD02,' |
| 14. What DASD type is the ILVOL2 volume (for example. 'SYSDA, 3390, 3390, 9345')?<br>Default '3390 ' |
| 15. What DASD volume serial name is to be used for the CA Ideal Backups and VLS files?<br>Default 'VOL=SER=DASD04,' |
| 16. What DASD type is the ILVOL4 volume (for example. 'SYSDA, 3390, 3390, 9345')?<br>Default '3390 ' |
| 17. (*Conditional*) What DASD volume serial name is to be used for the CA Ideal for DB2 DBRM files?<br>Default 'VOL=SER=DASD05,' |
| 18. (*Conditional*) What DASD type is the ILVOL5 volume? (for example,'SYSDA, 3390, 3390, 9345'<br>Default '3390' |
| 19. (*Conditional*) What is the dataset name of the CA Ideal for DB2 of the DBRM macro library?<br>Default 'CAI.ILDB2.DBRM' |
| 20. (*Conditional*) What is the high-level qualifier for the IBM DB2 target libraries?<br>Default 'DB2.DSN' |
| 21. (*Conditional*) What is the name of the DB2 subsystem to be used?<br>Default 'XXXX' |
| 22. (*Conditional*) What is the name of the CA Ideal development plan for DB2?<br>Default 'IDP140DV' |

| Parameter Description |
| --- |
| 23. What is the dataset name of the Target Load Library for the CA Common Services programs?<br>Default 'CAI.CACCS.CAILOAD'<br>Maximum Length: 44 characters. |
| 24. What is the dataset n ame of the CICS CSD for RDO?<br>Default 'CICS.DFHCSD' |
| 25. What is the group list for CICS?<br>Default 'CICSGRPL' |
| 26. What is the dataset name of the CICS Macro Library?<br>Default 'CICS.SDFHMAC' |
| 27. What is the dataset name of the CICS Load Library?<br>Default 'CICS.SDFHLOAD' |
| 28. What is the suffix to be used for CICS table assemblies for CA Ideal?<br>Default '.ILSFX.' |
| 29. What is the name of the assembler program?<br>Default 'ASMA90' |
| 30. What is the name of the utility program for copying PDS datasets?<br>Default 'IEBCOPY' |
| 31. What is the name of the utility program for allocating datasets?<br>Default 'IEFBR14' |
| 32. What is the name of the Linkage Editor module for link editing?<br>Default 'IEWL'<br>Maximum Length: 8 characters. |
| 33. What is the name of the utility used for updating PDS members?<br>Default 'IEBUPDTE'<br>Maximum Length: 8 characters. |
| 34. What is the name of the utility used for copying datasets?<br>Default 'IEBGENER' |

# Appendix C: Utility for Datadictionary Initialization

The utility for CA Datacom/DB Datadictionary initialization (@IUTINST) must be performed as part of the installation of CA Ideal (job ILNEW03) to add the entity occurrences that CA Ideal requires to the Datadictionary and to establish the necessary relationship occurrences among them. After the initialization is performed successfully, CA Ideal is completely functional.

## @IUTINST Utility

Execute this utility only during an original installation (INST=NEW). Never include it as part of an upgrade (INST=UPGRADE).

The control cards used in the execution of the utility can be in any of the following formats:

- INIT
- INIT REPEAT

**Important!** Any use of the REPEAT parameter sanctions the destruction of existing entity occurrences with names that correspond to names of occurrences the utility is adding.

Use the optional REPEAT parameter as follows:

- If the utility aborts due to some abnormal condition, use the REPEAT parameter to restart the utility and prevent loss of activities that were already performed.
- The INIT function of the utility consists of two phases. The first phase is the inspection of the host dictionary for names of existing entity occurrences that are the same as names that the utility is adding. If you specified the REPEAT parameter, however, the new original entity occurrence is deleted and replaced by the new entity occurrence. No message is issued.
- Log messages created during the execution of the utility provide information about the activities performed during the execution. If no REPEAT parameter is used and the utility aborts, you can use the log messages to determine which step the utility has aborted, and whether the cause was a duplicate entity occurrence name. You can then restart the utility using the REPEAT parameter with the parameter INIT.

The following entity occurrences are added to the Datadictionary during the initialization:

- Three LIBRARY entity occurrences: Source, Object, and Panel called $ISRCLIB, $IOBJLIB, and $IPNLLIB, respectively.
- The SYSTEM entity occurrences $IDEAL, alias (SHORT-SYSTEM-ID) $ID.
- RELATIONSHIP occurrences between the system $IDEAL and each of the three LIBRARY occurrences. The library names placed in the intersection data are:
  - ID$IDSRC
  - ID$IDOBJ
  - ID$IDPNL
- Four AUTHORIZATION entity occurrences:
  - $$ID-DVW
  - $$ID-USE
  - $$ID-ADM
  - $$PR-ADM
- The PERSON entity occurrence $IDEAL, alias (USER ID) $ID.
- A RELATIONSHIP occurrence (PER-SYS-ACCESS) between the PERSON entity occurrence named $IDEAL and the SYSTEM entity occurrence named $IDEAL.

  A RELATIONSHIP occurrence (PER-ATZ-AUTH) between the PERSON entity occurrence $IDEAL and the four AUTHORIZATION entity occurrences.

# Appendix D: Utility for Creating the DB2 Tables

You must run the utility (DDDCULM) for creating the DB2 tables as part of the installation of CA Ideal Option for CA Ideal Option forDB2 (job IOINS03X). The utility creates the database (default name DD), and the appropriate tablespaces, tables, and indexes in the DB2 catalog.

## DDDCULM Utility

Execute this utility only during an original installation of the CA Ideal Option for DB2.

The following control statements are in job IOINS03X:

```
-COM comment statement
-SQL
 CREATE ...  (or other SQL statement)
-APR database.tablespace
-APA database.tablespace
-APT database.tablespace
```

**-COM**

Specifies that this is a comment and is generated solely for documentation purposes.

**-SQL**

Introduces the following SQL statements. It has no operands. In job IOINS03X, -SQL control statements are generated to create the DB2 database, tablespaces, and indexes. You can modify the parameters in the SQL CREATE statements to suit your needs.

**-APA, -APR, and -APT**

Creates the plan resource/authorization tables for DB2 plans in either a DB2 only site or a site with both CA Datacom/DB and DB2. They should be followed by the database name and the tablespace name.

In addition, -SQL control statements to perform GRANT statements on the tables defined are also generated.

**Note:** You can change the database name and tablespace names, storage group names, and the buffer pool names, but the table names, index names, and authorization ID (SYSADR) must remain intact.

A DDUX abend can occur if any unexpected error is encountered. It is accompanied by one of the following error messages:

**+DDUX CAF ERROR RC=nnnnnnnn REASON=xxxxxxxx SUBSYSTEM id=sss**

An error was returned by DB2 Call Attach Facility (CAF) while attempting to connect to the specified DB2 subsystem name. Check that the specified subsystem name is correct and active. See the DB2 messages and codes for explanations on REASON code.

**+DDUX INPUT CARD ERROR**

An invalid control statement is detected.

**+DDUX PARM ERROR SUBSYSTEM id=sss**

An invalid parameter is detected for the last processed control statement.

**+DDUX SQLERROR SQLCODE=nnnn**

An SQL error was encountered during the execution of the last SQL statement shown. See the DB2 messages and codes on SQLCODE.

# Appendix E: Web Transaction Table

Use the SCWEBTB macro to create the Web Transaction Table which is required for the Web Interface component.

## The SCWEBTB Macro

The following illustration is an example of the SCWEBTB macro:

```
WEBTRANS TITLE 'CICS WEB TRANSACTIONS'
        SCWEBTB  TYPE=INITIAL
        SCWEBTB  TYPE=ENTRY,                                  X
              TRANID=IDW1,                                    X
              TRNDATA='WWWWEBDEMO1001',                       X
              DFLTUSR=WWW
        . . .
        SCWEBTB  TYPE=FINAL
        END
```

The following is an explanation of each parameter:

**TYPE=**

**INITIAL**

Creates the table header. Only one call to the macro can specify INITIAL and it must be the first.

**ENTRY**

Creates a transaction entry.

**FINAL**

Completes the table information. Only the last call to the macro may specify FINAL.

**TRANID=**

Specifies the 4-character CICS transaction ID for the Web transaction. This must be an alias transaction as described in the CICS Web Interface documentation, and as a CA Ideal transaction, it requires a TWASIZE of 64 or more.

**TRNDATA=**

Specifies the system, name, and version of the CA Ideal program to be called to process this request. Bytes 1 to 3 are the system ID, 4 to 11 are the program name, and 12 to 14 the version number or "PRD". Trailing blanks should be entered if the program name is less than 8 characters. Note that if the program is in PROD status, the version must be specified as PRD and not as a numeric value. Bytes 16 to 23 may contain the name of a member belonging to the Default User that will be used as a sign-on member in place of the default “SIGNON”. Commands in this member (e.g. ASSIGN commands for subprogram versions) will be executed prior to the SELECT and RUN commands. Note that byte 15 is always blank.

**DFLTUSR=**

Defines the user ID that is used to run the CA Ideal application. Since the commands that will be executed are "SELECT SYSTEM $ID; RUN CICSWEB PROD", this user needs RUN-PROD authority in system $ID. It is not sufficient to make this default user a CA Ideal Administrator, as that authority is revoked for this environment which has no sign on verification. This user's SIGNON member will be executed (unless overridden by one in TRNDATA) prior to the SELECT and RUN commands.

The table should be linked with a name of *SCWBTRAN*. It should not be made resident, as you *will* want to replace it.

**Note:** You should specify the version as PRD for a production system. This allows the processing code to be replaced by your usual mechanisms for production CA Ideal code, and enables the use of load module format for performance. In a Development region, you can use a fixed version 001 (which avoids replacing the table) and use the DUP command to copy the code to the next version before marking it to production status.