CA OPS/MVS® Event Management and Automation

WebCenter Installation Guide

Release 12.2

ca technologies

CA Technologies Product References

This document references the following CA Technologies products:

- CA ACF2™ for z/OS (CA ACF2)
- CA Common Services for z/OS
- CA Chorus™ Software Manager (CA CSM)
- CA NetMaster® Network Management for TCP/IP (CA NetMaster NM for TCP/IP)
- CA OPS/MVS® Event Management and Automation (CA OPS/MVS)
- CA SYSVIEW® Performance Management (CA SYSVIEW)
- CA Top Secret® for z/OS (CA Top Secret)

Contact CA Technologies

Contact CA Support

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

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

Providing Feedback About Product Documentation

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

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

Contents

Chapter 5: Configuring Your Product   49

Chapter 6: Preparing to Start Your Product   57

Chapter 7: Starting Up   67

Chapter 8: Multisystem Deployment   69

Chapter 9: Multisystem Configuration   77

Appendix A: Worksheets   81

Appendix B: VSAM and RAMDB Maintenance   91

Index   99

Chapter 1: Overview

This section contains the following topics:

Audience

Readers of this book require knowledge in the following areas:

- Job control language (JCL)

- TSO/ISPF

- z/OS environment and installing software in this environment

- Your IT environment, enterprise structure, and region structure

You work with the following personnel:

- Systems programmer for z/OS, VTAM, and TCP/IP definitions

- Security administrator, for library and started task access authority

- Storage Management Subsystem (SMS) or storage administrator, for direct access storage device (DASD) allocations

How the Installation Process Works

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

- Acquisition—This task transports the software to your z/OS system.

- Installation using SMP/E—This task optionally creates an SMP/E environment and runs the RECEIVE, APPLY, and ACCEPT steps. The software is *not* tailored.

- Deployment—This task copies the target libraries to another system or LPAR.

- Configuration—This task creates customized load modules, bringing the software to an executable state.

CA Chorus™ Software Manager (CA CSM) - formerly known as CA Mainframe Software Manager™ (CA MSM) - is an intuitive web-based tool. The tool automates and simplifies many CA Technologies product installation activities on z/OS systems. This application also makes obtaining and applying corrective and recommended maintenance easier. A web-based interface enables you to install and maintain your products faster and with less chance of error. As a best practice, we recommend that you install mainframe products and maintenance using CA CSM. Using CA CSM, someone with limited knowledge of JCL and SMP/E can install a product.

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

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

To install your product, do the following tasks:

1. Prepare for the installation by confirming that your site meets all installation requirements.

2. Verify that you acquired the product using one of the following methods:

   ■ Download the software from http://ca.com/support using CA CSM.

   ■ Download the software from http://ca.com/support using Pax-Enhanced Electronic Software Delivery (Pax ESD).

   ■ Order a product DVD. To do so, contact your account manager or a CA Technologies Support representative.

3. Perform an SMP/E installation using one of the following methods:

   ■ If you used CA CSM to acquire the product, start the installation process from the SMP/E Environments tab in CA CSM.

   ■ If you used Pax ESD to acquire the product, you can install the product in the following ways:

     – Install the product manually.

     – Complete the SMP/E installation using the Add Product option in CA CSM.

   ■ If you used a DVD, install the product manually.

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

4. Deploy the target libraries using one of the following methods:

   ■ If you are using CA CSM to configure your products, a CA CSM deployment is required.

   ■ If you are using a manual configuration process, a manual deployment is an optional step.

5. Configure your product using CA CSM or manually.

6. Set up user security.

Chapter 2: Preparing for Installation

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

This section contains the following topics:

Software Requirements

Verify that your system is set with the requirements described in this section.

Operating Environment

Ensure that you have the appropriate operating environment. Your system must have the following software:

- A currently supported version of z/OS.

- For implementing Secure Sockets Layer (SSL) for the web interface:

    – SMP/E V3R5.0.

    – IBM 31-bit SDK for z/OS, Java 2 Technology Edition for the libjvm.x side deck. IBM 64-bit SDK is *not* supported.

User PC Requirements

The WebCenter users require the following *minimum* levels of third-party products that are installed on their PCs:

- Internet Explorer: 8.0 *or* Firefox: 13.0

- Java Runtime Environment (JRE): Version 7 Update 51

    Note: If you are using a 64-bit browser, review the JRE support and minimum system requirements for 64-bit browsers on the java.com website.

CA Common Services Requirements

Your system must have a currently supported version of CA Common Services for z/OS. The CA Common Services load libraries must be accessible to the WebCenter and the SOLVE Subsystem Interface (SSI) address spaces through the JCL STEPLIB or system linklist.

Note: The latest version of CA Common Services for z/OS is included in your package.

The following CA Common Services are used with WebCenter:

CA Health Checker

Provides CA Technologies applications with a framework for invoking IBM Health Checker routines in a consistent and easy to implement manner. The health checks of CA Technologies products execute under IBM Health Checker for z/OS. To register the checks successfully, IBM Health Checker must be active.

Note: For more information about the IBM Health Checker, including setup and configuration tasks, see the *IBM Health Checker for z/OS User's Guide*.

CAICCI

Provides CA Technologies enterprise applications with a common communications software layer. This service is required, for example, when forwarding alerts to CA Service Desk.

CAISDI/soap

Is the z/OS Simple Object Access Protocol (SOAP) client that communicates with CA Service Desk. The component manages the communication using TCP/IP to CA Service Desk and provides the basic mechanisms that allow CA Technologies products to open CA Service Desk tickets. This component is required for all CA Service Desk integration.

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

Security Requirements

To complete the tasks in this guide, you need the following security privileges:

- If you plan to download the product using ESD or from DVD, you require access to UNIX System Services (USS).

- You have the READ authority to data sets with a prefix of CAI.*.

- You have the UPDATE authority to the following data sets or libraries:
  - Started task PROCLIB that stores the run-time JCL job, for example, SYS1.PROCLIB
  - SYS1.PARMLIB
  - SYS1.VTAMLST or the library that stores VTAM application definitions and VTAM initialization parameters
  - Master catalog, a requirement if you intend to define alias entries for data set prefixes

- You have authority to update the following initialization parameter data set members if necessary:
  - SYS1.PARMLIB(IEFSSN*xx*) to add subsystem IDs
  - SYS1.PARMLIB(IEAAPF*xx*) to APF-authorize your load libraries
  - SYS1.PARMLIB(CONSOL*xx*) if your system does *not* use extended MCS consoles

Storage Requirements

WebCenter has the following 3390 DASD space requirements:

- If you are using CA CSM, ESD, or DVD, the following z/OS UNIX file system space is required for the downloaded and unpacked files: 115 MB.

- For the installation and setup, the following spaces are required:
  - Installation = 1155 cylinders
  - IBM System Modification Program/Extended (SMP/E) libraries = 85 cylinders
  - Setup = 360 cylinders
  - Setup temporary work area = 700 cylinders

Worksheets

The [preparation worksheets](#) (see page 81) help you gather the required information before you install and configure (or set up) the product.

The [post-installation worksheet](#) (see page 89) lets you record the names of the data sets created by the installation and configuration process for future reference.

Chapter 3: Installing Your Product Using CA CSM

This section contains the following topics:

How to Install Your Product Using CA CSM (see page 17)

Important! During the installation, consider using the target and distribution zone names of CAIT80 and CAID80. Do *not* use the same zone names as those names used for any of the following software: Chorus, CMDB Connector, Hardware Interface Service, Mainframe Connector, NetMaster, or SOLVE.

Important! During the installation, consider using the low-level qualifier, .OWC2, in your prefix for target and distribution data set names. If you plan to install using CA CSM and then to configure manually, use the low-level qualifier, .OWC2, in your prefix for target and distribution data set names. Do *not* use the same target and distribution data set names as those names used for any of the following software: Chorus, CMDB Connector, Hardware Interface Service, Mainframe Connector, NetMaster, or SOLVE.

How to Install Your Product Using CA CSM

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

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

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

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

You access CA CSM (see page 19) from a web browser.

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

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

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

How to Install Your Product Using CA CSM
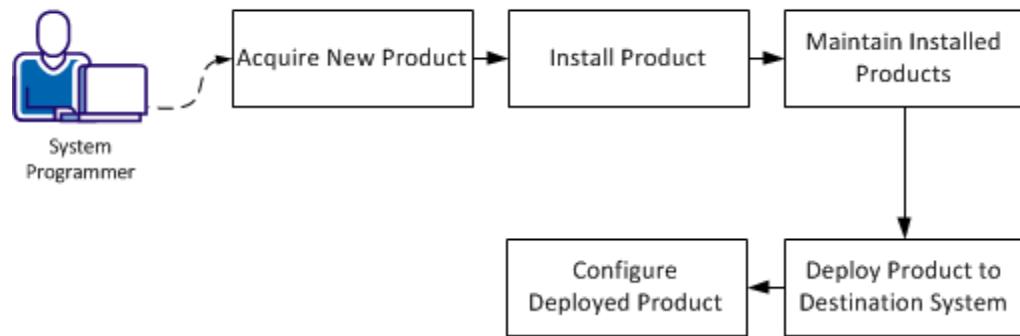
1. Acquire a new product (see page 19).

2. Install the product (see page 20).

3. Maintain the installed products (see page 22).

4. Deploy the product to the destination system (see page 23).

5. Configure the deployed product (see page 24).

Access CA CSM Using the Web-Based Interface

You access CA CSM using the web-based interface.

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

Follow these steps:

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

   The login page appears.

   Note: If the Notice and Consent Banner appears, read and confirm the provided information.

2. Enter your z/OS login user name and password.

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

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

3. Click New.

   You are prompted for the credentials to use on the CA Support Online website.

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

   You are prompted to review your user settings.

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

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

   A dialog opens, which shows the progress of the configuration task. You can click Show Results to view the details of the actions in a finished task.

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

Acquire a New Product

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

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

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

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

2. Determine the CA CSM URL for your site.

    To access CA CSM (see page 19), you require its URL. You can get the URL from your site CA CSM administrator and log in using your z/OS credentials. When you log in for the first time, you are prompted to create a CA CSM account with your credentials that you use to access http://ca.com/support. This account enables you to download product packages.

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

    After you log in to CA CSM, you can see the products to which your organization is entitled on the Products tab.

    If you cannot find the product that you want to acquire, update the product list. CA CSM refreshes the product list through http://ca.com/support using the site IDs associated with your credentials.

4. Download the product installation packages.

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

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

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

Install a Product

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

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

How to Install a Product
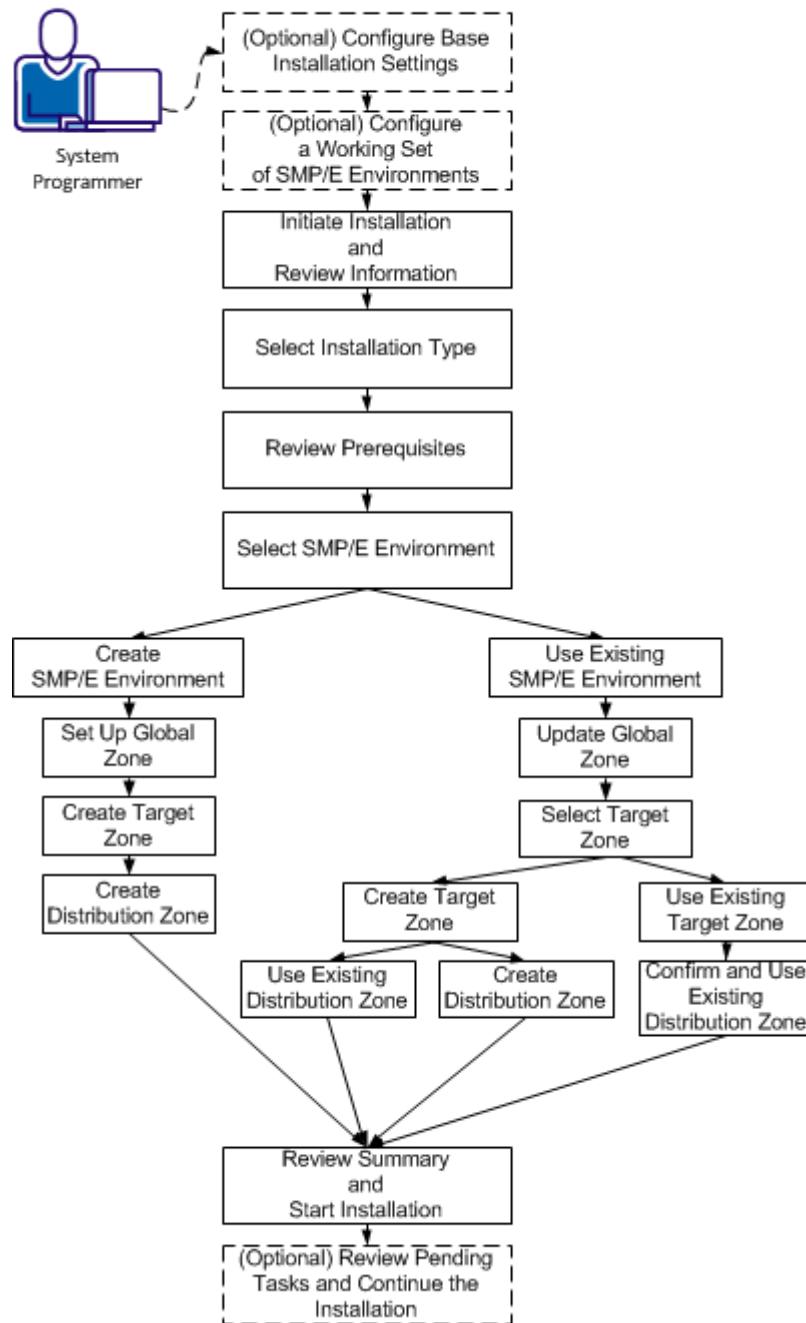
1. (Optional) On the Settings tab, click Software Installation under System Settings, and configure base installation settings.

2. (Optional) Click the SMP/E Environments tab, and configure a working set of SMP/E environments.

3. Click the Products tab and select a product that you want to install. Start the installation wizard and review product information.

4. Select an installation type.

5. Review installation prerequisites if any are presented.

6. Take *one* of the following steps to select an SMP/E environment:

   ■ Create an SMP/E environment:

      a. Set up the global zone.

      b. Create a target zone.

      c. Create a distribution zone.

   ■ Use an existing SMP/E environment from your working set:

      a. Update the global zone.

      b. Set up the target zone: Create a target zone or use an existing target zone.

      c. Set up the distribution zone: Create a distribution zone or use an existing distribution zone.

      Note: If you install a product or its components into an existing target or distribution zone, older versions are deleted from the zone and associated data sets. We recommend that you use new target and distribution zones for this installation so that you can apply maintenance to your current version, if necessary.

7. Review the installation summary and start the installation.

8. (Optional) Review pending tasks for the SMP/E environment where you are installing your product. Continue the installation, if applicable.

   CA CSM installs the product.

After the installation process completes, check for and install available product maintenance. The product is ready for you to deploy. Sometimes, there are other steps to perform manually outside of CA CSM before continuing.

Maintain the Installed Products

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

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

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

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

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

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

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

   a. Add the release to the catalog manually.

   b. Update the added release.

3. Apply the maintenance.

   CA CSM applies the maintenance to your product.

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

Deploy the Product to the Destination System

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

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

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

1. On the Deployments tab, set up methodologies.

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

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

3. Deploy:

   a. Take a snapshot of the deployment.

   b. Transmit the deployment to a destination system.

   c. Deploy (unpack) to the mainframe environment.

   CA CSM deploys the product to the destination system.

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

Configure the Deployed Product

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

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

1. Select a configurable deployment on the Deployments tab to view details and products for that deployment.

2. Select a product in the deployment and start the Configuration wizard to create a configuration. Complete each of the steps in the wizard. The wizard has multiple levels of detailed instructions and guides you through choosing configuration settings for your site. At any point, you can save your work and come back to it later. Configurations where you have partially completed the steps in the wizard are listed on the Configurations tab. The steps in the wizard include the following:

   a. Define a configuration name and select a system for the configuration.

   b. Select configuration functions and options.

   c. Define system preferences.

   d. Create target settings.

   e. Select and edit resources.

3. Build the configuration. The last step of the Configuration wizard lets you build the configuration. If needed, you can edit the configuration and can build the configuration again. Building the configuration closes the wizard and creates a configuration with all your settings.

4. (Optional) Validate the configuration. Validation verifies access to resources that are going to be used when you implement the configuration.

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

    CA CSM configures the product.

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

Note: If you deploy and configure regions on multiple systems, you can connect the regions (see page 79) to set up a multisystem environment.

Chapter 4: Installing Your Product Using Pax ESD or DVD

This section contains the following topics:

How to Install Your Product Using a Pax File

As a system programmer, your responsibilities include installing products on your mainframe system. With this option, you acquire a product pax file from http://ca.com/support or from a product DVD.

The DVD contains a folder that includes the pax file for the product. Product updates may have occurred after you acquired the product DVD. The files on the online site always have the most current product updates. To determine if you have the latest updates, go to http://ca.com/support and click Download Center.

You perform the following tasks to install a product with a pax file:

How to Install a Product Using a Pax File
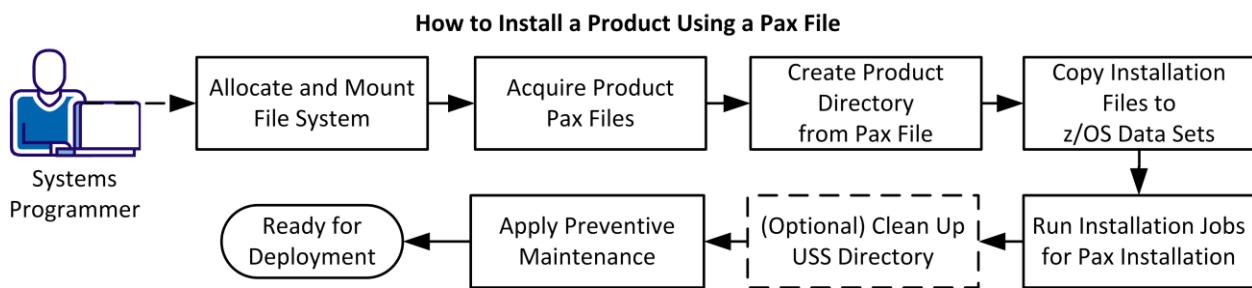
1. Allocate and mount the file system (see page 29).

2. Acquire the product pax files (see page 31).

3. Create a product directory from the pax file (see page 37).

4. Copy the installation files to z/OS data sets (see page 38).

5. Run the installation jobs for a pax installation (see page 40).

6. (Optional) Clean up the USS directory (see page 42).

7. Apply preventive maintenance (see page 43).

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 http://ca.com/support.

■ 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 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 ESD process requires write authority to the UNIX System Services (USS) directories that are used for the Pax ESD process. In the file system that contains the Pax ESD directories, you also need free space approximately 3.5 times the pax file size to download the pax file and unpack its contents. For example, to download and unpack a 14 MB pax file, you need approximately 49 MB of free space in the file system hosting your Pax ESD directory.

Allocate and Mount a File System

The product installation 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 the product acquisition and create the directory in this file system.

You can use the zSeries File System (zFS) or hierarchical file system (HFS) for product 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
//CAPAX  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/CAPAX directory in an existing directory, /u/maint. From the TSO OMVS shell, enter the following commands:

    ```
    cd /u/maint/
    mkdir CA
    cd CA
    mkdir CAPAX
    ```

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

    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('yourUSSpaxdirectory')
          TYPE(ZFS)  MODE(RDWR)
          PARM(AGGRGROW)
    ```

    ■   On an HFS, use the following sample:

    ```
    MOUNT FILESYSTEM('your_HFS_data_set_name')
          MOUNTPOINT('yourUSSpaxdirectory')
          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 Pax ESD directory and its files. For example, to allow write access to the Pax ESD directory for other users in your USS group, from the TSO OMVS shell, enter the following command:

    ```
    chmod -R 775 /yourUSSpaxdirectory/
    ```

    Write access is granted.

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

Acquire the Product Pax Files

To begin the CA Technologies product installation procedure, copy the product pax file into the USS directory that you set up.

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

Use one of the following methods:

- Download the product pax file from http://ca.com/support to your PC (see page 32), and then upload it to your USS file system.

  If you download a zip file, you must unzip it before uploading to your USS file system.

- Download the pax files from http://ca.com/support directly to your USS file system (see page 33).

- Download the pax file from the product DVD to your PC, and then upload the pax files to your USS file system. (see page 36)

This section includes the following information:

- 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

- Sample commands to upload a pax file from your PC to a USS directory on your z/OS system

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

Ensure that sufficient free space is available in the USS file system that you are using 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.

Download Files to a PC Using Pax ESD

You can download product installation files from http://ca.com/support to your PC.

Follow these steps:

1. Log in to http://ca.com/support, and click Download Center.

   The Download Center web page appears.

2. Under Download Center, select Products from the first drop-down list, and specify the product, release, and gen level (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. If you download a zip file, you must unzip it before continuing.

   Note: For traditional installation downloads, see the *Traditional ESD User Guide*. For information about download methods, see the Download Methods and Locations article. Go to http://ca.com/support, log in, and click Download Center. Links to the guide and the article appear under the Download Help heading.

Download Using Batch JCL

You download a pax file from http://ca.com/support by running batch JCL on the mainframe. Use the sample JCL attached to the PDF file as CAtoMainframe.txt (see page 35) to perform the download.

Important! The PDF version of this guide includes sample JCL jobs that you can copy directly to the mainframe. To access these jobs, click the paper clip icon at the left of the PDF reader. A window displaying attachments opens. Double-click a file to view a sample JCL. We recommend that you use the latest version of Adobe Reader for viewing PDF files.

Note: We recommend that you follow the preferred download method as described on http://ca.com/support. This JCL procedure is our preferred download method for users who do not use CA CSM. We also include the procedure to download to the mainframe through a PC in the next section.

Follow these steps:

1. Replace *ACCOUNTNO* with 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 *yourUSSpaxdirectory* with the name of the USS directory that you use for Pax 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 PAX 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 "yourUSSpaxdirectory" with the name of the USS          *
//*    directory used on your system for Pax 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 TIMEOUT 120',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 yourUSSpaxdirectory
binary
get FTP_location
quit
/*
```

Download Files to Mainframe through a PC

You download the product installation files to your PC and transfer them to your USS system.

Follow these steps:

1. Download the product file to your PC using one of the following methods:

    ■ Pax ESD (see page 32). If you downloaded a zip file, first unzip the file to use the product pax files.

    ■ DVD. Copy the entire product software package (or individual pax files) to your PC.

    The pax file resides on your PC.

    Note: Do *not* change the format of the pax.Z.

2. Open a Windows command prompt.

    The command prompt appears.

3. Customize and enter the following FTP commands:

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

    mainframe

    Specifies the z/OS system IP address or DNS name.

    userid

    Specifies your z/OS user ID.

    password

    Specifies your z/OS password.

    C:*PC\folder\for\thePAXfile*

    Specifies the location of the pax file on your PC.

    Note: If you specify a location that has blanks or special characters in the path name, enclose that value in double quotation marks.

yourUSSpaxdirectory

Specifies the name of the USS directory that you use for Pax ESD downloads.

paxfile.pax.Z

Specifies the name of the pax file to upload.

The pax file is transferred to the mainframe.

Create a Product Directory from the Pax File

The pax command performs the following actions:

■ Extracts the files and directories that are packaged within the pax file.

■ Creates a USS directory in the same directory structure where the pax file resides.

■ Automatically generates a product and level-specific directory name.

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
```

Use the sample JCL that is attached to the PDF file as Unpackage.txt (see page 38) to extract the product pax file into a product installation directory.

Important! The PDF version of this guide includes sample JCL jobs that you can copy directly to the mainframe. To access these jobs, click the paper clip icon at the left of the PDF reader. A window displaying attachments opens. Double-click a file to view a sample JCL. We recommend that you use the latest version of Adobe Reader for viewing PDF files.

Follow these steps:

1. Replace *ACCOUNTNO* with a valid JOB statement.

2. Replace *yourUSSpaxdirectory* with the name of the USS directory that you use for product 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 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.

Example: JCL File, Unpackage.txt, to Customize

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

```
//ESDUNPAX JOB (ACCOUNTNO),'UNPAX PAX 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 "yourUSSpaxdirectory" with the name of the USS         *
//*    directory used on your system for Pax 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,       *
//*       start entering characters in column 16 and make sure        *
//*       the 'X' continuation character is in column 72.             *
//**********************************************************************
//UNPAXDIR EXEC PGM=BPXBATCH,
// PARM='sh cd /yourUSSpaxdirectory/; pax -rvf paxfile.pax.Z'
//*UNPAXDIR EXEC PGM=BPXBATCH,
//* PARM='sh cd /yourUSSpaxdirectory/; 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.

The file UNZIPJCL in the product directory contains a sample job to GIMUNZIP the installation package. You edit and submit the UNZIPJCL job to create z/OS data sets.

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.

    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* remove CAI after *yourHLQ*. 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)*.

Install Utility

The Install Utility guides the installation. The Install Utility installs the product into an IBM System Modification Program/Extended (SMP/E) environment. The utility collects your site-specific values such as data set prefixes, DASD volume serial numbers, and JCL parameter values. The utility then uses these values to generate the jobs necessary to install your product.

Unload the Install Utility

The installation utility software lets you generate and run the JCL required to install your product. The installation utility software is delivered in the pax file.

The installation software unloads into the *dsnpref*.CAI.OWC2.CC2DJCL data set; *dsnpref* is a prefix that you specify for your product data sets.

After you unzip the data sets, take *one* of the following actions:

■ Rename *dsnpref*.CAI.OWC2.CC2DJCL to *dsnpref*.OWC2.CC2DJCL

■ Copy the members in *dsnpref*.CAI.OWC2.CC2DJCL into *dsnpref*.OWC2.CC2DJCL

Generate and Run the Installation Jobs

The installation process creates the *dsnpref*.OWC2.INSTDB database to store details of each installation that you perform.

Note: During this task, the INSTALLATION JCL Library Creation panel lets you specify your installation JCL library. The default library name is *dsnpref*.OWC2.INSTALL.JCL, where *dsnpref* is the same data set prefix that you used for the *dsnpref*.OWC2.CC2DJCL data set.

If your installation JCL library exists, take *one* of the following actions:

■ Specify a new data set name at that panel.

■ Delete the existing library by issuing a TSO DELETE command.

Note: If you leave the Install Utility at any stage, you can return to it from the ISPF/PDF TSO Command Shell prompt. Execute the following command: EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

During the installation process, you provide the site-specific installation information that you previously collected (see page 81). This information is used to generate the installation JCL.

Follow these steps:

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

   EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

   The Install Utility panel appears.

   Note: On each of the Install Utility panels, you can use the following keys:

   - Enter to proceed to the next panel

   - F1 to display online help

   - F3 to return to the previous panel

   - F4 to exit and return to the main menu

2. Press Enter.

   The Install Utility Primary Menu panel appears.

3. Enter **1** (Set Installation Parameters).

   The Software Delivery Method panel appears.

4. Complete each of the panels as they open. Press Enter at the completion of each panel.

   Important! During the installation, consider using the target and distribution zone names of CAIT80 and CAID80. Do *not* use the same zone names as those names used for any of the following software: Chorus, CMDB Connector, Hardware Interface Service, Mainframe Connector, NetMaster, or SOLVE.

   Complete the parameter panels before you install the product. Take the default options, or specify site-specific values.

   Note: For information about the fields, press F1 (Help).

5. Enter **2** (Install Products).

   The INSTALLATION Primary Menu panel appears.

6. Enter **1** (Select Products to Install).

   The INSTALLATION Product Selection panel appears.

7. Enter **S** next to the product name.

   The INSTALLATION Product Confirmation panel appears, confirming your selection.

8. Press Enter to confirm your selection, and complete each of the INSTALLATION panels as they open.

   Complete all the panels. Take the default options, or specify site-specific values.

9. Record the data set name into which the JCL was generated in your post-installation worksheet (see page 89).

   You can submit the jobs from the panel or directly from this data set after exiting the panel.

10. Submit and run the following installation jobs in sequence. Do *not* proceed with any job until the previous job has completed successfully.

    I01ALLOC

    Allocates the data sets.

    The I01ALLOC member allocates CC2DPLD as a load library of the PDSE type.

    I02INSMP

    Initializes the SMP/E data sets.

    I03RCSMP

    Performs an SMP/E RECEIVE.

    I04AKSMP

    Performs an SMP/E APPLY CHECK. This job is listed only if maintenance exists.

    I05RSSMP

    Performs an SMP/E RESTORE. This job is listed only if maintenance exists.

    I06APSMP

    Performs an SMP/E APPLY.

    I07ACSMP

    Performs an SMP/E ACCEPT.

11. Press F3.

    You are returned to the Primary Menu panel.

Clean Up the USS Directory

This procedure is optional. If you decide to perform the procedure, do so after you complete the installation process and when you do not need the installation files anymore.

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 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 Preventive Maintenance

Important! The *dsnpref*.OWC2.CC2DLINK data set must be in your system linklist before you start the maintenance. You can also create a STEPLIB to the data set name (DSN) in your TSOPROC. If you installed the product using CA CSM, use CA CSM to apply the maintenance.

The product maintenance is provided as system modification program (SMP) fixes. The fixes consist of PTFs applied using the IBM System Modification Program/Extended (SMP/E) tool.

Note: If an installed SMP fix contains maintenance for the VSAM data sets, update those VTAM data sets for each region you have set up.

The RAMDB maintenance is provided as SMP/E PTFs. However, this methodology is only for delivery and recordkeeping. Apply the maintenance using $RMDB04D (see page 93).

This section describes how to apply individual SMP fixes using the Install Utility.

Note: The individual SMP fixes are only available from the CA Support site (see page 3).

When you receive the SMP fixes, unload them into *one* of the following data sets:

- A sequential data set

- A member of a partitioned data set

Multiple SMP fixes can be appended into a single data set or member.

Follow these steps:

1. Access the ISPF/PDF Primary Menu.

2. Select the COMMAND option.

   The ISPF Command Shell panel appears.

3. At the command prompt, enter the following command:

   EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

4. At the Install Utility title panel, press Enter.

   The Install Utility Primary Menu panel appears.

5. At the Install Utility Primary Menu panel, enter **8** (Maintain Products).

   The MAINTENANCE Primary Menu panel appears.

6. Enter **3** (Apply individual SMP fixes from a DASD data set).

   The MAINTENANCE DASD Fixes Dataset Name panel appears.

7. Enter the data set name that contains the SMP fixes to be applied and press Enter.

8. Complete the fields on the following MAINTENANCE panels as they open.

9. At the MAINTENANCE JCL Library Creation panel, review your fix JCL library.

   The default library name is:

   dsnpref.OWC2.FIX.DASD.JCL

   dsnpref

      Is the same data set prefix that you used for the *dsnpref*.OWC2.CC2DJCL data set.

   Note: Each time when you apply maintenance, use a new output data set. A new data set ensures that the only jobs in your maintenance JCL library are the jobs that are required for the maintenance. To use a new data set:

   - Delete the library by issuing a TSO DELETE command and the library name, at the command prompt.

   - Specify a new data set name.

10. Press Enter to proceed with the generation of the maintenance JCL.

   When the JCL generation is complete, a list of generated jobs and a description of each member appears.

11. Note the name of the data set into which the JCL was generated.

12. Submit and run the following jobs in sequence. Do not proceed with any job until the previous job has completed successfully.

    Each job must complete with return code 0 unless otherwise indicated.

    F11RCSMP

    SMP/E receives the maintenance and lists existing HOLDDATA and SOURCEIDs that are already applied. If a job step returns condition code 04, there is no HOLDDATA present.

    Review the information. For any held APARs that you want to apply, add the correct BYPASS HOLD*x* operands to the corresponding APPLY control statement for those APARs. Add the operands by manually editing the F12APSMP job that contains the SMP control statements.

    Note: For information about the BYPASS HOLD*x* operands, see IBM *SMP/E Commands* guide.

    F12APSMP

    SMP/E applies the maintenance.

13. Press F3.

    The Install Utility Primary Menu panel appears.

If the fix contains maintenance for VSAM data sets (as indicated by HOLDDATA), update the VSAM data sets for the regions you have set up (see page 91). Otherwise, you have finished applying the fix.

HOLDDATA

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

System HOLDDATA

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

ACTION

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

AO

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

DB2BIND

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

DDDEF

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

DELETE

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

DEP

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

DOC

Indicates a documentation change with this SYSMOD.

DOWNLD

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

DYNACT

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

ENH

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

EXIT

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

EXRF

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

MULTSYS

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

RESTART

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

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 and contains both error and FIXCAT HOLDDATA. The error HOLDDATA is used for SYSMODs that have been distributed and later are discovered to cause problems. The FIXCAT HOLDDATA helps identify maintenance that is required to support a particular hardware device, software, or function.

Download the external HOLDDATA from http://ca.com/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.

Error HOLDDATA

If a SYSMOD has unresolved error HOLDDATA, SMP/E does not install it unless you add a bypass to your APPLY command. You can bypass error HOLDDATA in situations that are not applicable to you. Error HOLDDATA that is 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 error HOLDDATA, the resolving SYSMOD supersedes the error HOLDDATA. This action lets you apply the original SYSMOD in conjunction with the fixing SYSMOD.

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.

FIXCAT HOLDDATA

CA Technologies provides FIXCAT HOLDDATA to help identify maintenance that is required to support a particular hardware device, software, or function. Fix categories are supplied as SMP/E FIXCAT HOLDDATA statements. Each FIXCAT HOLDDATA statement associates an APAR and its related fixing PTF to one or more fix categories.

Chapter 5: Configuring Your Product

The topics in this section describe the manual tasks you perform if you are not configuring your product using CA CSM.

You use the Install Utility to set up the regions for this product.

Important! You must put the *dsnpref*.OWC2.CC2DLINK data set in your system linklist before you start setting up regions. You can also create a STEPLIB to the data set name (DSN) in your TSOPROC.

This section contains the following topics:

How Region Setup Works

You can have more than one region on a system. Each region runs as a started task.

The Install Utility uses the site-specific information that you collected during preparing for installation (see page 81) to generate the jobs that build the regions. If you need more regions, you can reuse the Install Utility to create them.

Important! After you have run a setup job, you cannot alter the results using the setup software. You can use the setup software to create a region, or you can manually customize the JCL for the existing region.

Region Contents

Your product is comprised of the following components:

SOLVE Subsystem Interface (SSI)

Provides the communication between the product region and other software on a system. One SSI can serve multiple product regions.

WebCenter Region

Specifies where you log in to administer WebCenter.

On each system that you want to monitor, configure and run both an SSI and a region.

SOLVE SSI as Common Component

The SOLVE SSI is a common component for multiple CA Technologies product families and can serve multiple product regions on a system. If your site has any of the following products and the associated SSI is running, you can share that SSI region:

- CA NetMaster® family of products
- CA SOLVE:Operations® family of products

Note: If you do *not* run those products, .

The SSI for these products includes the following parameter setting, XEVNT=YES, which WebCenter requires. Do *not* set up another SSI for WebCenter. Determine the subsystem ID of the running SSI for use by the product region. You can use the following commands to determine the subsystem ID:

1. To determine whether a system has a running SSI with XEVNT=YES, issue the following command:

   ```
   D GRS,RES=(SOLVEEPS,$SYS.SIMPLE.EVENT)
   ```

   The command returns the job name of the SSI.

2. To determine the subsystem ID of the SSI, issue the following command:

   ```
   D GRS,RES=(NMSSID,*)
   ```

   The command returns information about all SOLVE SSIs running on the system, including the subsystem ID.

Specify the SOLVE SSI

Note: If you are running SOLVE SSI on the system already, you do *not* have to perform this task. Record the subsystem ID of the running SSI for use by the product region.

Note: In a multisystem environment with shared DASD, you can configure one SSI and run that SSI on the different systems. In a multisystem environment where the DASD are *not* shared, see

If you do *not* use CA CSM to configure the SSI, use the Install Utility to set up the SSI. This procedure provides the communication between the product region and other software on a system.

Follow these steps:

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

   EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

   The Install Utility panel appears.

   Note: On each of the Install Utility panels, you can use the following keys:

   - Enter to proceed to the next panel
   - F1 to display the online help
   - F3 to return to the previous panel
   - F4 to exit and return to the main menu

2. Press Enter.

   The Install Utility Primary Menu panel appears.

3. (Optional) If you have installed the product using CA CSM, perform the following steps:

   a. Enter **1**.

      The Software Delivery Method panel appears.

   b. Complete the panel:

      - Enter **S** next to CA CSM.
      - Specify the name of the CSI data set used during the product installation in the SMP/E CSI Used field.

   c. Press Enter. Accept the default zones, or specify site-specific zones.

4. Enter **4**.

   A panel appears listing several approaches to implement your SSI environment.

   Note: For more information, press F1 (Help).

5. Press Enter.

    The SETUP SOLVE SSI Primary Menu panel appears.

6. Enter **1** (Add a Region).

    The SETUP Specify SOLVE SSI Name panel appears.

7. Enter the name (*ssiname*) and description of the SSI region you are setting up.

    The setup software uses the name to generate the started task JCL. For example, if the name is SOLVESSI, your started task JCL is named SOLVESSI.

8. Complete each of the SETUP panels as they appear. Accept the default values, or specify site-specific values.

    Note: Install Utility lets you configure an SSI that works with other products, enabling the SSI to be shared.

    The Install Utility generates a series of setup jobs into the *dsnpref*.OWC2.*ssiname*.JCL library.

9. Record the name of the data set into which the JCL was generated in your post-installation worksheet (see page 89).

    Note: If you are setting up a new SSI, continue with these steps. Otherwise, skip the remaining steps in this procedure. Verify that the required SSI parameters are present in your existing shared SSI, and update them as necessary.

10. Submit and run the following jobs:

    S01SSIAL

    Allocates any local SSI data sets.

    S02SSIAS

    Allocates any shared SSI data sets.

    Note: If applicable, this allocation occurs only for the first SSI you set up. For the setup of subsequent SSIs, this is a dummy job.

    S03SSILD

    Copies the PDS members to *dsnpref*.OWC2.SSIPARM.

    S04MIGRT

    Copies data from earlier releases.

    This job is only generated if the value in the Enable the Packet Analyzer field on the SETUP Region Parameters panel is set to YES. The field applies if you include CA NetMaster NM for TCP/IP as a client of the SSI.

11. Press F3.

    The Install Utility Primary Menu panel appears.

Specify the WebCenter Region

If you do *not* use CA CSM to configure the region, use the Install Utility to set up the region. The Install Utility lets you set up a region with the product you installed.

Note: In a multisystem environment with shared DASD, you can reuse Install Utility to create the regions for the different systems. In a multisystem environment where the DASD is *not* shared, see Multisystem Deployment (see page 69). In either case, you connect the regions (see page 79) to set up the multisystem environment.

Follow these steps:

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

   EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

   The Install Utility panel appears.

   Note: On each of the Install Utility panels, you can use the following keys:

   ■ Enter to proceed to the next panel

   ■ F1 to display online help

   ■ F3 to return to the previous panel

   ■ F4 to exit and return to the main menu

2. Press Enter.

   The Install Utility Primary Menu panel appears.

3. (Optional) If you have installed the product using CA CSM, perform the following steps:

   a. Enter **1**.

      The Software Delivery Method panel appears.

   b. Complete the panel:

      ■ Enter **S** next to CA CSM.

      ■ Specify the name of the CSI data set used during the product installation in the SMP/E CSI Used field.

   c. Press Enter. Accept the default zones, or specify site-specific zones.

4. Enter **5**.

   The SETUP Product Region Primary Menu panel appears.

5. Enter **1** (Add a Region).

   The SETUP Specify Product Region Name panel appears.

6. Enter the name (*rname*) and description of the region you are setting up.

   The Install Utility uses the name that you entered to generate local data set names and the started task JCL. For example, you enter REGION01 as the region name. Then, your started task JCL is REGION01 and a local region file, such as the Virtual File System (VFS), is *dsnpref.*REGION01.VFS.

   The SETUP Product Selection panel appears.

7. Enter **S** next to the product.

   The SETUP Product - Confirmation panel appears, confirming your selection.

8. Press Enter to confirm your selection, and complete each of the SETUP panels as they open. Accept the default values, or specify site-specific values.

   Note: For information about the fields, press F1 (Help).

   Note: On the SETUP Region Information panel, ensure that the Subsystem Interface Identifier value identifies the SOLVE SSI you intend to use.

   The setup software generates a series of setup jobs in the *dsnpref*.OWC2.*rname*.JCL library.

9. Record the name of the data set into which the JCL was generated in your post-installation worksheet (see page 89).

10. Submit and run the following jobs in the listed sequence. Do not proceed with any job until the previous job has completed successfully.

    S01LCALC

    Allocates the region-specific (local) data sets. If you are upgrading and have increased the size of a particular file, modify the JCL to increase the space allocation as required.

    S02SHALC

    Allocates the shared run-time data sets.

    S03LDVIP

    Populates the MODS, PANELS, and OSCNTL files.

    S04LDVSM

    Populates the other VSAM files.

    S05LDPDS

    Copies some PDS members to *dsnpref.rname*.TESTEXEC or *dsnpref.*PARMLIB for use by the product region. If this product is being added to an existing region, the RUNSYSIN and IIAPARMS are overwritten.

    When the region starts for the first time, the values in IIAPARMS set up certain parameter group values. On subsequent startups, the region uses the parameter group values. The IIAPARMS values are then only used if INIRESET=YES is specified or if the VFS data set is reset.

    Note: The member names for IIAPARMS and SXPARMS include the domain ID, so they appear as IIA*dmid* and SXP*dmid*.

    Note: The utility also generates the following jobs: S10DUMP and S11REST. The jobs help you deploy the configuration files for your region to a target system when a shared DASD is not available. The S10DUMP job creates a backup data set that includes the configuration files for the region, which you deploy to the target system. The S11REST job, when submitted on the target system, restores the configuration files from the backup data set. In addition to deploying the configuration files, also deploy the target libraries. CA CSM can facilitate this deployment.

11. Press F3.

    The Install Utility Primary Menu panel appears.

Create VTAM Definitions and Tables

The Create VTAM Definitions and Tables facility builds the VTAM major node, which contains application definition statements for all ACBs required by your product regions. Perform this task initially when all product regions have been set up. If you change any regions or you add more regions later, perform the task again.

Note: You use the major node that you create in this procedure to <u>activate your VTAM applications</u> (see page 65).

Follow these steps:

1. At the ISPF/PDF TSO Command Shell prompt, execute the following command:

    EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

    The Install Utility Primary Menu panel appears.

2. Enter **7** (Create VTAM Definitions and Tables).

    The VTAM Primary Menu panel appears.

3. Enter **1** (Create VTAM Definitions and Tables).

    The VTAM Data Sets panel appears.

4. Enter the VTAM major node name (*vtamname*) and data set names of the requested IBM data sets.

    The VTAM ACBs panel appears. The panel displays the prefix for External Interface Package (EIP) ACBs and the names of all product regions and the ACBs associated with them.

    Note: If >>> appears, you can use F10 (right) to display all ACBs.

5. Enter the prefix for EIP ACBs.

6. Complete each of the remaining panels as they appear. Accept the default values, or specify site-specific values.

    Note: For information about the fields, press F1 (Help).

    The Install Utility generates a series of jobs in the *dsnpref*.OWC2.VTAM.JCL library.

7. Record the name of the data set into which the JCL was generated in your <u>post-installation worksheet</u> (see page 89).

8. Submit and run the following job:

    V01LDVTM

    Copies major node into the specified VTAMLST data set.

    Each job returns condition code 0 unless otherwise indicated.

9. Press F3.

    The Install Utility Primary Menu panel appears.

10. Enter **X**.

    The Install Utility closes.

Note: Press F1 (Help) for information about any panel.

Chapter 6: Preparing to Start Your Product

Before WebCenter can be started and used, preparation tasks are required.

This section contains the following topics:

Started Task JCL Setup

The Install Utility places the following SYSIN and parameter members into default data sets:

- SSIPARMS and SSISYSIN—for SOLVE SSI

- RUNSYSIN—for the product region

If you move these members into a more secure data set, update the started task JCL and SYSIN members to point to that data set.

Review the SOLVE SSI Started Task Parameter Member

The installation process generates the SSIPARM data set based on the values that are entered during the installation and setup process.

SSIPARM specifies the SSI started task parameters.

Review the data set to:

- Ensure that the members meet your site-specific requirements
- Reapply any previous customization that is still required

Review the following members in *dsnpref*.OWC2.SSIPARM:

SSISYSIN

(Optional) (If you are using an existing shared SOLVE SSI region, you do not have to review this member.)

If SUBS=YES is set, you can update the SSISYSIN started task member to use z/OS static system symbols. System symbols help in the planning of future deployment.

SSIPARMS

(Optional) (If you are using an existing shared SOLVE SSI region, you do not have to review this member.)

This member is present only if you created it when you specified the SSI region.

Parameters can be shared with any other products using this SSI. Review these parameters, and ensure that they are set correctly for the products (these parameters can be in SSISYSIN or SSIPARMS).

Review the Region Started Task Parameter Member

The installation process generates the RUNSYSIN member using the values that are entered during the installation and setup process.

RUNSYSIN specifies the region parameters.

Review RUNSYSIN to:

- Ensure that it meets your site-specific requirements
- Reapply any previous customization that is still required

If you have set SUBS=YES in the member, you can update the RUNSYSIN started task members to use z/OS static system symbols. System symbols help in the planning of future deployment.

If you require the SmartServer RSS Feeds feature, add the following parameter in *dsnpref.rname.*TESTEXEC(RUNSYSIN):

PPREF='PROD=RSS'

> Includes the feature in the region. The WEBCENTER parameter group enables the feeds.

Review the following parameters in *dsnpref.rname.*TESTEXEC(RUNSYSIN):

PPREF='XOPT=SDUMP'

> Specifies that the ABEND dumps are written to the SYS1.DUMP data set.

> If you do *not* want SYS1.DUMP data sets for dumps, remove the parameter and add the SYSMDUMP DD statement to the generated task in *dsnpref*.OWC2.*rname.*JCL(*rname*).

PPREF='INIFILE=????????'

> Specifies the INI file that is used for parameter customizations.

> To use a migrated INI file, uncomment the parameter and replace the question marks with the name of the INI file.

Review and Copy the SOLVE SSI Started Task

The installation process generates an SSI started task that you must review to ensure that it meets your site-specific requirements. If necessary, reapply any previous customization that is still required.

Note: If you are using an existing shared SOLVE SSI region, skip this procedure.

This procedure reviews, updates, and copies the SSI started task to a procedure library.

Note: To assist you in the planning of future deployment, you can update the SSI started task to use z/OS static system symbols.

Follow these steps:

1. Review and update the DD statements in the SSI started task member *dsnpref*.OWC2.*ssiname*.JCL(*ssiname*) for your site-specific requirements.

2. Copy the reviewed member to SYS*x*.PROCLIB.

Review and Copy the Region Started Task

The installation process generates a product region started task. Ensure that it meets your site-specific requirements; if necessary, reapply any previous customization that is still required.

Note: To assist you in the planning of future deployment, you can update the product region started task to use z/OS static system symbols.

Follow these steps:

1. Review and update the DD statements in the product region started task member *dsnpref*.OWC2.*rname*.JCL(*rname*) for your site-specific requirements.

    Note: The features for mobile devices can display information from CA SYSVIEW data. To enable access to CA SYSVIEW data, ensure that the CA SYSVIEW load library is in the system linklist or in the WebCenter region STEPLIB.

2. Copy the reviewed member to SYS*x*.PROCLIB.

Subsystem Identifier Setup

The setup of your product environment usually requires the following subsystem identifier (SSID) values that were defined during the setup process (see page 49):

■ An SSID value for the subsystem identifier for the SOLVE SSI—The SSI started task automatically identifies this SSID value to the system.

■ An SSID value to enable the use of z/OS commands and messages—This SSID is named the AOM subsystem interface ID (AOM SSID). The product region started task automatically identifies this SSID value to the system.

If you want the SSID values to be set permanently and available at system IPL time, you can set them in the SYS1.PARMLIB(IEFSSN*xx*) member. Ensure that you add the AOM SSID first (after JES) in the list of subsystem names, because the first region listed in the SYS1.PARMLIB(IEFSSN*xx*) member controls the processing of messages by the subsystem interface.

Load Libraries

Most of the products have their own load library but also require the load libraries of supporting services. The following load libraries must be APF-authorized:

■ CC2DPLD

Important! Ensure that you have added the CC2DPLD load library to the region STEPLIB, *not* the system linklist.

Authorization of the Load Libraries

To APF-authorize your load libraries, add the run-time load libraries to the APF list, SYS1.PARMLIB(IEAAPF*xx*).

To dynamically APF-authorize the load libraries, issue the following z/OS command:

`SETPROG APF,ADD,DSNAME=&loadlib,VOLUME=&volser`

&*loadlib*

Specifies the name of the load library.

&*volser*

Specifies its volume serial number.

To dynamically APF-authorize load libraries that Storage Management Subsystem (SMS) controls, issue the following z/OS command:

`SETPROG APF,ADD,DSNAME=&loadlib,SMS`

Enable Access to WebCenter Region by OPSVIEW

CA OPS/MVS OPSVIEW provides an option to access the 3270 interface of the WebCenter region directly.

To enable the access, make the *dsnpref*.OWC2.CC2DLMD0 data set available to OPSVIEW using *one* of the following methods:

- Include the data set in your system linklist.

- Create a STEPLIB to the data set name (DSN) in your TSOPROC.

Configure Started Task Security

Ensure that the following conditions are met:

- The user IDs associated with your started tasks have access to the run-time data sets created by the installation and setup processes (UPDATE authority required).

- The user ID associated with the region started task has the following authority:

    - Authority to issue system commands

    - Authority to use the following CA OPS/MVS Programmable Operations Interface (POI) command processors and program:

        - OPSGETV, OPSQL, OPSSETV, and OPSSMTBL command processors

        - STATESET program

    To provide authority, use *one* of following methods:

    - Set CA OPS/MVS parameter EXTSECURITY=ON, and complete the external security package resource definitions.

    - Create CA OPS/MVS Automated Operations Facility (AOF) security rules that grant access to SQL, OPSSMTBL, OPSGLOBALGLOBALW.

    Note: For information about the security for CA OPS/MVS commands, see *Security Guide*.

Implement Signon and Signoff with CA Top Secret

The external security includes the security for signon and signoff. The CA Top Secret security administrator must create a region control ACID, FACILITY, and started task definition for the online STC (OPSWEB).

Follow these steps:

1. Create a region control ACID using the following commands:

   ```
   TSS CRE(opswacid) NAME('region_acid OPSWEB') DEPT(opswdept) PASS(NOPW,0)
   FAC(STC,OPSWEB) MASTFAC(OPSWEB) NOVOLCHK NORESCHK NOLCFCHK NODSNCHK NOSUBCHK
   ```

2. Create an OPSWEB FACILITY by placing the following statements into the CA Top Secret startup parameter file member:

   ```
   FAC(user15=NAME=OPSWEB)
   FAC(OPSWEB=NOABEND,ASUBM)
   FAC(OPSWEB=INSTDATA,KEY=8,LCFCMD,LOCKTIME=0,NOLUMSG)
   FAC(OPSWEB=MULTIUSER,PGM=NM0,NORNDPW,RES,SIGN(M))
   FAC(OPSWEB=SHRPRF,NOSTMSG,NOTSOC,WARNPW,NOXDEF)
   ```

3. Define the OPSWEB STC to the CA Top Secret STC table using the following command:

   ```
   TSS ADD(STC)  PROCNAME(OPSWEB)  ACID(opswacid)
   ```

4. For any region control ACID to be used to sign on, authorize it to the OPSWEB FACILITY using the following command:

   ```
   TSS ADD(region_acid) IBMFAC(OPSWEB)
   ```

Configure User Security

WebCenter uses a full security exit providing an administrator resource and a user resource. The administrator resource is for systems programmers who administer a region through the 3270 interface. The user resource is for operators who access a region through the web interface to monitor system applications. Unless your site has changed the name of these resources, they are OP$MVS.WEBADMIN and OP$MVS.WEBUSER. You use these resources to configure the user security. The PARMLIB(SXPOW0*i*) member defines the resource profiles.

The following examples grant USER1 administrator authority and USER2 user authority using different security products.

Example: CA ACF2 for z/OS

To define the security resources and grant users access to a region, issue CA ACF2 for z/OS commands in TSO, for example:

```
[ACF]
SET RESOURCE(FAC)
COMPILE *
$KEY(OP$MVS) TYPE(FAC)
WEBADMIN UID(USER1) SERVICE(READ) ALLOW
WEBUSER UID(USER2) SERVICE(READ) ALLOW
STORE
[END]
```

Example: CA Top Secret for z/OS

To define the security resources and grant users access to a region, issue CA Top Secret for z/OS commands in TSO, for example:

```
TSS ADDTO(acid) IBMFAC(OP$MVS)
TSS PERMIT(USER1) IBMFAC(OP$MVS.WEBADMIN)
TSS PERMIT(USER2) IBMFAC(OP$MVS.WEBUSER)
```

Example: RACF

To define the security resources and grant users access to a region, issue RACF commands in TSO, for example:

```
RDEFINE FACILITY OP$MVS.WEBADMIN UACC(NONE)
RDEFINE FACILITY OP$MVS.WEBUSER UACC(NONE)
SETROPTS RACLIST(FACILITY) REFRESH
PERMIT OP$MVS.WEBADMIN CLASS(FACILITY) ID(USER1)
PERMIT OP$MVS.WEBUSER CLASS(FACILITY) ID(USER2)
```

Activate VTAM Applications

Activate the VTAM applications for your regions. The Create VTAM Definitions and Tables facility builds a VTAM major node that contains APPL definitions for all product regions. The member V01LDVTM copies *vtamname* to your VTAMLST data set. This data set is the VTAM library that contains all the major node and application definitions that your product uses.

Follow these steps:

1. Add *vtamname* to the startup list in your VTAMLST(ATCCON*xx*) member.

2. Activate the VTAM major node by entering the following VTAM command:

    ```
    V NET,ACT,ID=vtamname
    ```

3. Check that all of the applications are defined to VTAM after the activation. Display the major node by entering the following VTAM command:

    ```
    D NET,ID=vtamname,E
    ```

Assign Consoles

Your product needs a pool of consoles (either JES or extended MCS consoles) to issue system commands. As delivered, this product uses extended MCS consoles that are dynamically defined.

To use JES consoles instead of the default MCS consoles, define at least six consoles that other products are *not* using.

Follow these steps:

1. Open the SYS1.PARMLIB(CONSOL*xx*) member.

2. Add the following statement for each console you want to define:

    ```
    CONSOLE DEVNUM(SUBSYSTEM)...
    ```

An IPL is required to activate the updated CONSOL*xx* member. To start using the JES consoles, also update the $RM CONSOLES Customizer parameter group.

Chapter 7: Starting Up

This section contains the following topics:

Start the SOLVE SSI

If SOLVE SSI is not running, start it.

To start the SSI region, issue the following command from the MVS console:

S *ssiname*,REUSASID=YES

ssiname is the name that you specified for the SSI during the setup process.

Note: If you use cross memory services, specifying REUSASID=YES makes the address space ID of a terminated SOLVE SSI reusable. Otherwise, the ID is unavailable until after the next IPL.

To stop the SSI started task, issue the following command from the MVS console:

P *ssiname*

Start the Region

To start the region, issue the following command:

S *rname*,REUSASID=YES

rname is the name that you specified for the region during the setup process.

Note: If you use cross memory services, specifying REUSASID=YES makes the address space ID of a terminated SOLVE SSI reusable. Otherwise, the ID is unavailable until after the next IPL.

Note: To stop the started task, issue the following command from the MVS console:
P *rname*.

Access the Region Using the 3270 Interface

After the WebCenter region has started, users can log in to it using the web interface. These users monitor system resources through the alert and resource monitors. You give them the URL of the web interface for them to access the login page.

The region does not require further configuration. However, you, as a systems programmer, can use the 3270 interface to learn more about the functions available to an administrator. This interface also displays the web interface URL.

Note: The uniform resource locator (URL) of the web UI is made available in a CA OPS/MVS global variable named GLOBALW.OPS#.WEBCENTERURL. You display these variables using the CA OPS/MVS OPSVIEW Control option, Global Variables (Option 4.8).

Follow these steps:

1. Select the CA OPS/MVS OPSVIEW Control, WebCenter Control option (Option 4.14).

    The WebCenter 3270 interface appears.

2. Explore the interface, using the menu options. Press F1 (Help) if you require help on a panel.

Verify WebCenter

Your WebCenter user ID and password are used to access WebCenter.

Follow these steps:

1. Start your web browser, and enter the access URL in the Address text box.

    The login page appears.

2. Enter your User ID and Password, and click the Log In button.

    The initial page appears, showing a navigational menu on the left pane. Each page has a help link in the upper-right corner that you can click for context-sensitive online help.

Note: For more information, see *WebCenter Reference Guide*.

Chapter 8: Multisystem Deployment

If you have multiple systems, deploy WebCenter in a multisystem environment to provide a consolidated view of your enterprise.

We recommend that you use the CA CSM Software Deployment Service (SDS) and Software Configuration Service (SCS) to deploy and configure the software on the remote systems. If you do *not* use CA CSM, follow the process in these topics.

You set up and configure the product once, typically on a test system, which becomes the deployment system. After the product is configured, you create backup data sets for the configuration files (see page 74). You can then deploy the product target libraries and the backup data sets. On the remote system, you can restore the configuration files from the deployed backup data sets.

This section contains the following topics:

How Deployment Works

Configure one region properly before you proceed to perform the multisystem deployment.

Typically, deployment consists of the following stages:

1. Create a generic RUNSYSIN member and a generic initialization file for sharing between regions.

2. Copy the required data sets to and allocate them on the target systems.

3. Deploy started task members on target systems.

4. APF authorize load libraries on target systems.

5. Link regions to create the multisystem environment.

More information:

General Description (see page 78)

Software Changes

Changes are required to set up subsystem IDs, load libraries, and VTAM:

- Two subsystem IDs are required for the initialization of the required subsystems. The IDs have the following default values:

    - SOLV for the SOLVE Subsystem Interface (SSI), which enables a region to communicate with other software on the system

    - OPWC for the region interface that enables a region to issue operating system commands and receive messages

    The SOLVE SSI started task and the region automatically identify these IDs to the system. If you want to set the IDs permanently, you can set them in the SYS1.PARMLIB(IEFSSN*xx*) member. Add the ID for the region interface first (after the job entry subsystem (JES)) in the list of subsystem names.

- The CC2DPLD load library for WebCenter must be APF-authorized.

- The CC2DLMD0 data set must be made available to CA OPS/MVS OPSVIEW.

- A VTAM major node member, which contains application definition statements for all ACBs required by your region, must be created and added to VTAMLST. You can use the Create VTAM Definitions and Table option of the product's Install Utility to perform this task.

Create Generic Initialization File and RUNSYSIN Member for Multiple Regions

Create a generic RUNSYSIN member that points to a generic initialization file. You can use this generic member for all the regions that are deployed in your enterprise.

Follow these steps:

1. Generate the initialization file for a properly configured region. Use the **/CUSTOM.G** panel shortcut.

2. Replace specific information in the file by <u>region variables</u> (see page 74) and system symbols.

    A generic initialization file is created.

3. Replace specific information in RUNSYSIN by system symbols.

4. Update RUNSYSIN with the following statement:

    PPREF='INIFILE=*xxxx*INI'

    ***xxxx*INI**

    Is the name of the generic initialization file.

    A generic RUNSYSIN member is created.

5. Start the region using the generic RUNSYSIN member, and verify that it is free of errors.

    If initialization errors occur, review RUNSYSIN and the initialization file to correct the errors.

6. Repeat the previous step until the region initializes without error.

    The generic RUNSYSIN member is ready for use by other regions.

Region Initialization File

Region customization parameters are stored in a virtual file system (VFS) data set, which is a virtual storage access method (VSAM) data set. The data set is not easy to update outside of WebCenter. However, a RUNSYSIN member can point to an initialization file member in TESTEXEC by using the INIFILE parameter.

An initialization file is a procedure that contains the parameter information.

With an initialization file, the region gets the parameter information from the file at startup and the region updates the VFS data set. Because the region uses the initialization file each time it starts up, any changes you make manually using the /PARMS panel shortcut are not retained. To keep the changes, regenerate the file using the /CUSTOM.G panel path.

Even if you do not use the file for startup, you can use it as a backup of the parameters in the VFS data set. Generate it before updating the parameters using /PARMS.

The initialization file is useful during the deployment to other systems because it is relatively simple to update for different systems. By using product variables and system symbols, the file can be made generic enough for all the regions you plan to deploy.

Generic Initialization File

You can modify an initialization file to use system symbols to support its use throughout your enterprise.

Example: Initialization File with System Symbols

The following sample code shows statements for the LOGFILES parameter group using the &SYSNAME system symbol:

```
.LOGFILES
   &$IAPLOGPR     = &STR $LOPROC
   &$IAPLOGVW     = &STR $LOBROW
   &$IAPLOGF1     = &STR NMLOG01
   &$IAPLOGD1     = &STR NETW.NM.NETM&SYSNAME.NMLOG01
   &$IAPLOG01     = &STR LSR SIS DEFER
   &$IAPLOGI1     = &STR SHR
   &$IAPLOGF2     = &STR NMLOG02
   &$IAPLOGD2     = &STR NETW.NM.NETM&SYSNAME.NMLOG02
   &$IAPLOG02     = &STR LSR SIS DEFER
   &$IAPLOGI2     = &STR SHR
   &$IAPLOGF3     = &STR NMLOG03
   &$IAPLOGD3     = &STR NETW.NM.NETM&SYSNAME.NMLOG03
   &$IAPLOG03     = &STR LSR SIS DEFER
   &$IAPLOGI3     = &STR SHR
```

Generic RUNSYSIN

By building a RUNSYSIN member using system symbols, you can create a generic RUNSYSIN member that can be deployed throughout your enterprise.

You can identify the symbols that are defined to your system from the response to the following system command:

```
D SYMBOLS
```

To enable the substitution of symbols, include the following statement in RUNSYSIN:

```
SUBS=YES
```

Example: RUNSYSIN with System Symbols

The following sample code shows RUNSYSIN statements using the &SYSNAME and &SYSCLONE system symbols:

```
SUBS=YES -* Required to invoke system symbols
PGM=NM001
ERROR=U0001
PPREF='PRI=NETM&SYSNAME' -* if &SYSNAME = "ABCD", PRI=NETMABCD
PPREF='NMDID=&SYSCLONE.NW'
PPREF='INIT=NMINIT'
PPREF='READY=NMREADY'
PPREF='SSID=NMSS'
PPREF='DSNQLCL=NETW.NM.NETM&SYSNAME'
PPREF='DSNQLNV=NETW.NM.VSAM.NETM&SYSNAME'
```

Note: A symbol in the middle of the name must be defined with two periods (..), for example:

```
DD=VFS,DISP=SHR,DSN=NETW.NM.NETM&SYSNAME..VFS
```

System Variables for a Region

The following system variables enable you to make an initialization file generic:

&ZDSNQLCL

Contains the local VSAM data set qualifier.

&ZDSNQSHR

Contains the shared VSAM data set qualifier.

&ZACBNAME

Contains the primary VTAM ACB name of the region.

&ZDSNQLNV

Contains the local non-VSAM data set qualifier.

&ZDSNQSNV

Contains the shared non-VSAM data set qualifier.

&ZNMDID

Contains the domain identifier.

&ZNMSUP

Contains the system user prefix.

Data Set Deployment

During the deployment, you copy data sets to the target systems.

One method to distribute data sets is to use a backup utility, such as DFDSS, to create a single data set. You then transfer that data set to the target systems and restore its content.

When the Install Utility sets up a region, the utility creates the following data set members:

S10DUMP

Creates backup data sets that include the configuration files for the region. These backup data sets are *dsnpref*.DFDSS.LOCAL (containing files specific to the region) and *dsnpref*.DFDSS.SHARED (containing files that multiple regions can share).

S11REST

Restores the configuration files from the backup data sets.

After you submit the S10DUMP job, copy the created backup data sets and the S11REST job to the target system. On the target system, you submit S11REST to restore the configuration files.

Started Task Deployment

During the deployment, you copy the region and SOLVE SSI started task members to SYS*x*.PROCLIB on the target systems.

Software Changes on Target Systems

During the deployment, you add the subsystem IDs and ACBs, and APF-authorize the load libraries on the target systems.

More information:

Software Changes

Chapter 9: Multisystem Configuration

This section contains the following topics:

General Description

WebCenter regions can be connected together to form a complex.

In a multisystem environment, operators can monitor the entire complex from a single web browser.

The following diagram provides an overview of the multisystem configuration for WebCenter. On each system for which you want to monitor data, you have a CA OPS/MVS instance and its associated WebCenter region running. Select one CA OPS/MVS instance and its WebCenter as the monitoring region. Use this region for monitoring, and (if necessary) for defining customized monitor formats and filters. Connected WebCenter regions pass data to this monitoring region, which provides the multisystem view.

Connected WebCenter regions see the same data. Formats and filters that are created or customized *after* the regions are connected are synchronized and available across all connected regions.

Multisystem Configuration

WebCenter
(Resource and
Alert Monitors)

Other
WebCenter
Instances

WebCenter
(Monitor
Formats and
Filters)

Resources

System State
Manager

Subsystem
Interface

Alerts

ADDRESS
ALERTMON Host
Environment
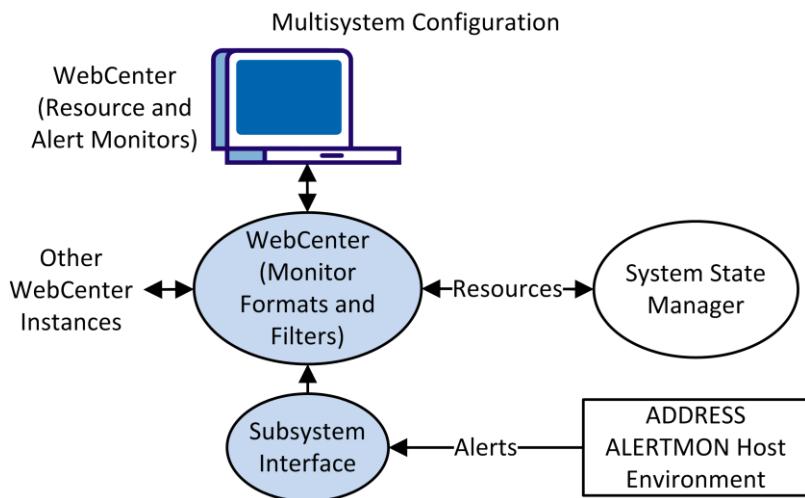
Each WebCenter reads the resource data from its corresponding System State Manager (SSM) Relational Data Framework (RDF) tables. The data is displayed the data on the Resource Monitor.

Each WebCenter also receives alerts from the ADDRESS ALERTMON host environment. The alerts are displayed on the Alert Monitor.

Connect Regions

To create a multisystem configuration, connect a stand-alone region to another region to form a complex. Build the multisystem by adding other stand-alone regions to a region in the complex.

Follow these steps:

1. Log on to the region to connect with another region.

2. Enter **/MADMIN** at the prompt.

    The Multi-System Support Menu appears.

3. Select Option **C**.

    This option establishes a connection between the local region and another region.

    The Remote System Identification panel appears.

4. Complete the following field:

    Primary Name

    > Specifies the ACB name of the remote region to which you want to connect this region.

5. Press F6 (Action) to request the connection.

    A confirmation panel appears.

6. Press F6 (Confirm) to initiate the connection process.

    A status panel appears. The regions are connected when the status indicates success.

Appendix A: Worksheets

This section contains the following topics:

Preparation Worksheets

During the installation and setup process, you enter values that are used to do the following:

- Allocate data sets.

- Set initial parameters.

- Prepare for the use of your product.

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

Installation

This worksheet helps you gather information required for installation.

Job Information

Gather the following job information:

Batch job class

Record the value that your site uses here:

Class = _____

ESD or DVD

If you plan to download the product using ESD or from DVD, gather the following information:

USS directory

Is where you download the product archive file into.

_____

Example: …/CA/CAESD/

Data set prefix

Is the prefix (*dsnpref*) of the data sets to which you copy the retrieved product files. The data set names have the following format: *dsnpref*.CAI.*data_set_type*.

_____

Installation Parameters

Gather the following information about the installation:

Allocation Parameters

Use these prefixes for high-level qualifiers for the different data set groups.

Record the values that your site uses here:

SMP/E Target

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

Unit = _____

SMP/E Distribution

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

Unit = _____

SMP/E Libraries

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

Unit = _____

SMP/E CSI

Data Set Prefix = _____

Management class = _____

Storage class = _____

Volume serial number = _____

SMPTLIB

Data Set Prefix = _____

Volume serial number = _____

Unit = _____

Language Environment Parameters

Record these language environment values:

Language Environment link-edit input 2

Record the value that your site uses here:

SCEEBND2 = _____

Default: CEE.SCEEBND2

Language Environment link-edit input

Record the value that your site uses here:

SCEELIB = _____

Default: CEE.SCEELIB

Language Environment library

Record the value that your site uses here:

SCEELKED = _____

Default: CEE.SCEELKED

IBM macros

Record the value that your site uses here:

MODGEN = _____

Default: SYS1.MODGEN

Data set that contains the GIMZPOOL member

Record the value that your site uses here:

_____

Default: SYS1.MACLIB

SSL

Gather the following information about your SSL requirement:

Important! The installation of SSL support requires SMP/E V3R5.0.

Note: After SSL support is installed, you enable it for a region by updating the WEBCENTER parameter group.

IBM side-decks

Record the path that your site uses here:

GSKSSL.x: _____

libjvm.x (31-bit SDK): _____

Default: /usr/lib/ and /sys/javatm2/v1r4m2/usr/lpp/java/J1.4/bin/classic/

Region Setup

This worksheet helps you gather the required information for region setup.

SOLVE Subsystem Interface Region

Gather the following information about the SSI region:

Name of the SSI started task (*ssiname*)

Record the value that your site uses here:

_____

Default: SOLVESSI

Name of the SSI SYSIN member

This member contains control statements for starting the SSI.

Record the value that your site uses here:

SYSIN = _____

Default: SSISYSIN

Name of the optional SSI parameter member

This member contains startup parameters for the SSI. If omitted, startup parameters are included in the SSI SYSIN member previously described.

Record the value that your site uses here:

PARAMETER = _____

Subsystem ID for an SSI started task

Record the value that your site uses here:

SSID = _____

Default: SOLV

Prefix for SSI data sets

Record the value that your site uses here:

_____

Default: *dsnpref*

Region

Gather the following information about the region:

Region started task name (*rname*)

Record the value that your site uses here:

_____

Default: OPSWEB

Region SYSIN member name

Record the value that your site uses here:

SYSIN = _____

Default: RUNSYSIN

Primary VTAM ACB name for the region

Record the value that your site uses here:

PRI = _____

Default: OPSWEB

Domain ID

Specifies an ID that uniquely identifies the region in a multisystem environment:

NMDID = _____

Default: OW01

Mixed case passwords

Specifies whether the case is preserved (YES) or whether the case is forced to uppercase (NO):

___

Default: NO

SYSOUT

Specifies the SYSOUT subparameters. You can specify a class, a writer, and a form.

_____

Default: *

System authorization facility (SAF) resource names

WebCenter uses a full security exit providing an administrator resource and a user resource. Record the values that your site uses here:

Administrator: _____

User: _____

Defaults: OP$MVS.WEBADMIN and OP$MVS.WEBUSER

Prefix for VSAM data sets local to the region

Record the value that your site uses here:

_____

Default: *dsnpref.rname*

Prefix for sequential data sets local to the region

Record the value that your site uses here:

_____

Default: *dsnpref.rname*

Prefix for TESTEXEC

Record the value that your site uses here:

_____

Default: *dsnpref.rname*

Prefix for shareable VSAM data sets

Record the value that your site uses here:

_____

Default: *dsnpref*.OWC2

Prefix for shareable PARMLIB data sets

Record the value that your site uses here:

_____

Default: *dsnpref*.OWC2.PARMLIB

AOM subsystem interface ID

Record the value that your site uses here:

AOMSSID = _____

Default: OW01

Note: Verify that this value does not conflict with other subsystems. The AOM subsystem interface enables system message flow to the region.

AOM SSI command prefix string

Record the value that your site uses here:

_____

Default: *aomssid>*

AOM message suppression character

Record the value that your site uses here:

_____

Default: /

Note: If you use a command string prefix for other tasks, verify that this value is not in conflict with them.

CA OPS/MVS subsystem identifier suffix

Specifies the subsystem name suffix of the CA OPS/MVS instance that uses this region. The AUTOIDS parameter group in the region stores the resulting subsystem name (for example, OPSS).

_____

Default: S

Web interface port

Specifies the port number for accessing the region using the web interface:

_____

Default: 8080

CA OPS/MVS Libraries

WebCenter requires access to some CA OPS/MVS libraries. You identify the libraries if they are not already in the link pack area (LPA) or linklist. These load libraries are included in the region started task JCL member.

Note: These values can be different for each region you configure.

CA OPS/MVS Load

Specifies the CA OPS/MVS program load library, for example, *ops_prefix*.CCLXLOAD.

_____

CA OPS/MVS REXX

Specifies the CA OPS/MVS base REXX programs library, for example, *ops_prefix*.CCLXEXEC.

_____

VTAM Definitions

Gather the following information that is related to the VTAM definitions:

VTAM major node name

Record the value that your site uses here:

_____

Default: VTAMAPPL

System macro library

Record the value that your site uses here:

_____

Default: SYS1.MACLIB

VTAM network definitions library

Record the value that your site uses here:

_____

Default: SYS1.VTAMLST

VTAM macro library

Record the value that your site uses here:

_____

Default: SYS1.SISTMAC1

Post-installation Worksheet

After you have completed the installation and setup processes, record the data set names that the Install Utility generates for future reference.

You can print the following worksheet. Record this information as you progress through this guide.

Installation data set

Record the generated value here:

_____

Default: *dsnpref*.OWC2.CC2DJCL

Installation JCL data set

Record the generated value here:

_____

Default: *dsnpref*.OWC2.INSTALL.JCL

SOLVE SSI setup JCL data set

Record the generated value here:

_____

Default: *dsnpref*.OWC2.*ssiname*.JCL

Region setup JCL data set

Record the generated value here:

_____

Default: *dsnpref*.OWC2.*rname*.JCL

VTAM JCL data set

Record the generated value here:

_____

Default: *dsnpref*.OWC2.VTAM.JCL

Appendix B: VSAM and RAMDB Maintenance

This section contains the following topics:

Update VSAM Data Sets

If an installed SMP fix contains maintenance for the VSAM data sets, maintenance option V of the Install Utility becomes available. To complete the maintenance, select the option to update the data sets for the regions you have set up.

Follow these steps:

1. Access the ISPF/PDF Primary Menu, and select the COMMAND option.

    The ISPF Command Shell panel appears.

2. At the command prompt, execute the following command:

    EXEC '*dsnpref*.OWC2.CC2DJCL(INSTALL)'

    The Install Utility title panel appears.

3. Press Enter.

    The Install Utility Primary Menu panel appears.

4. Enter **8** (Maintain Products).

    The MAINTENANCE Primary Menu panel appears.

5. Enter **V** (Update MODS, PANELS, OSCNTL and NETINFO data sets with installed maintenance).

    The MAINTENANCE Shared Region Data Sets panel appears.

6. Review the information, and press Enter.

7. At the MAINTENANCE JOBCARD Information panel, specify your JOBCARD details and press Enter.

8. At the MAINTENANCE JCL Library Creation panel, review your fix JCL library. The library has the following default name:

   `dsnpref`.OWC2.FIX.VSAMUPD.JCL

   dsnpref

   Specifies the same data set prefix that is used for the *dsnpref*.OWC2.CC2DJCL data set.

   Note: Each time that you apply maintenance, use a new output data set. The new data set ensures that your maintenance JCL library includes only the jobs that are required for the maintenance you are installing. To use a new data set, take *one* of the following actions:

   ■ Delete the library by issuing a TSO DELETE command and the library name, at the command prompt.

   ■ Specify a new data set name.

9. Press Enter to proceed with the generation of the maintenance JCL.

10. Submit and run the job F21RFRSH.

   The job updates the VSAM data sets.

   Note: The utility also generates the following jobs: F22DUMP and F23REST. If a shared DASD is not available, the jobs help you deploy those updates to a target system. The F22DUMP job creates a backup data set that includes the updated VSAM data sets, which you deploy to the target system. This backup data set is *dsnpref*.DFDSS.SHARED. The F23REST job, when submitted on the target system, restores the updated VSAM data sets from the backup data sets.

11. Press F3.

   The Install Utility Primary Menu panel appears.

12. Press F4 to exit the Install Utility Primary Menu panel and return to the ISPF Command Shell panel, or continue with the other options.

Individual RAMDB Maintenance

Note: The RAMDB maintenance is available from the CA Technical Support site (see page 3).

This section describes how to apply the maintenance to RAMDB and details the command syntax of the $RMDB04D maintenance utility. You apply this maintenance in each active region.

Important! The RAMDB data set must not be updated with the individual replacement records using the IDCAMS REPRO command.

You use $RMDB04D OPT=APPLY (see page 95) to apply the maintenance. When applying maintenance, you can use the DIFF operand to display details of what differences are being added, replaced, or deleted by the maintenance.

Create Backup RAMDB

As a safety precaution, create a backup of your RAMDB, RAMDBd, before applying maintenance.

Follow these steps:

1. Allocate RAMDBd in the same way that RAMDB was allocated.

   The cluster definition is in *dsnpref*.OWC2.*rname*.JCL(S01LCALC).

2. Stop the product region.

3. Copy the data from RAMDB to RAMDBd using IDCAMS REPRO command.

   Note: For information, see the example in *dsnpref*.OWC2.*rname*.JCL(S04LDVSM).

4. Restart the product region.

Apply Maintenance to RAMDB

Apply the maintenance directly to your RAMDB in each active region. If necessary, you can restore the maintenance using your RAMDBd as input (if the maintenance has *not* yet been applied to RAMDBd).

Follow these steps:

1. Log on to your product region and enter CMD.

    The command entry panel appears.

2. Check the RAMDB fix by entering the following command:

    `$RMDB04D OPT=APPLY FIX=`*`fix-name`*` CHECK=YES`

    fix_name

    >   Is RAM@UPDT for published solutions or TZ*ddddd* for test fixes.

    When the APPLY CHECK finishes, a report appears. The report shows whether an APPLY of the fix will be successful and also exactly what changes will result from the APPLY.

    You perform this step for the following reasons:

    -   See what happens if a fix is applied to a RAMDB.

    -   See whether a fix has been applied to a RAMDB.

3. Apply the RAMDB fix by entering the following command:

    `$RMDB04D OPT=APPLY FIX=`*`fix_name`*

Note: If a RAMDB fix does *not* apply correctly or you want to restore a fix, restore the RAMDB maintenance (see page 94).

Restore RAMDB Maintenance

(Optional) The RESTORE option can be used to remove an applied fix from the RAMDB by using RAMDBd as input. The fix is effectively reversed. Any added objects are deleted and any deleted or replaced objects are copied from RAMDBd back to the RAMDB.

To restore the fix, enter the following command:

`$RMDB04D OPT=RESTORE FIX=`*`fix_name`*` DDBDSN=`*`?RAMDBd-dataset-name`*` DDB=`*`?RAMDBd`*

?RAMDBd

>   Specifies the ddname for the backup RAMDB.

?RAMDBd-dataset-name

>   Specifies the full data set name of the backup RAMDB.

RAMDB Maintenance Utility Syntax

This section describes the syntax of the RAMDB maintenance utility.

$RMDB04D OPT=APPLY

This utility option applies a fix to a RAMDB or verify a fix against a RAMDB.

This option has the following format:

```
$RMDB04D OPT=APPLY
         FIX=fix-number
        [DDNAME=ddname | DATASET=dataset-name]
        [CHECK={NO | YES]
        [DIFF={YES | NO}]
        [FORCE={NO | YES}]
        [CONFIRM={YES | NO}]
        [DB=file-id [DBDSN=db-dataset-name]]
```

OPT=APPLY

Specifies that a fix is being applied to a RAMDB.

FIX=*fix-number*

Specifies the fix number. This number is used as the member name of the input partitioned data set.

DDNAME=*ddname* | DATASET=*dataset-name*

(Optional) Specifies *one* of the following parameters:

■ DDNAME parameter if you have already allocated the data set containing the fix to the system

■ DATASET parameter if you want to allocate the data set containing the fix and to free the data set after the fix has been retrieved

These two parameters are mutually exclusive and, therefore, you cannot specify both of them. If neither is specified, the COMMANDS DD concatenation in the region is used.

CHECK={NO | YES}

(Optional) Specifies whether the fix is checked. If you specify YES, the fix is checked only for compatibility with the database. The fix is *not* applied to the database. The verification phase is always performed regardless of the value specified. However, this parameter determines whether the phase is the only phase to be performed.

DIFF={YES | NO}

(Optional) Specifies whether differences are displayed. If you specify YES, the differences between the target objects and the new objects in the fix are displayed for each updated object. This report applies to any SET (update) and CREATE (add) actions in the fix member where the target objects already exist.

Default: YES

FORCE={NO | YES}

(Optional) Specifies whether the fix is applied regardless of the success or failure of the verification phase. However, if CHECK=YES is specified, the FORCE parameter has no effect.

CONFIRM={YES | NO}

(Optional) Specifies whether the fix is retrieved and the syntax is checked before being presented as a panel for browsing. The panel enables you to view the fix and confirm the application. After you confirm, the fix is applied, and the message log displays another panel for browsing. If you specify NO, the fix is applied without presenting any confirmation panel. The message log is written to the terminal rather than being displayed as a panel.

The message log is always written to the activity log regardless of the options specified.

DB=*file-id* [DBDSN=*db-dataset-name*]

(Optional) Specifies the DB parameter to apply the fix to a database other than the currently allocated RAMDB. This parameter specifies the file ID of the target database. If you also specify the DBDSN parameter, the specified data set is allocated a ddname, *file-id*. The data set is then opened and started. The database is *not* freed after the fix is applied. If the database is already allocated, the specified data set name is verified as allocated to the ddname, *file-id*. The data set is opened to the same file ID.

$RMDB04D OPT=RESTORE

This utility option reverses the effect of a fix.

This option has the following format:

```
$RMDB04D OPT=RESTORE
         FIX=fix-number
        [DDNAME=ddname | DATASET=dataset-name]
        [CONFIRM={YES | NO}]
        [TDB=target-file-id [TDBDSN=target-dataset-name]]
        [DDB=source-file-id [DDBDSN=source-dataset-name]]
```

OPT=RESTORE

Specifies that a fix, which has been applied to the target RAMDB, is being reversed.

FIX=fix-number

Specifies the fix number that you want to back out of the RAMDB. This number is used as the member name of the fix data set. The number is verified against the contents of the member for the correct fix.

DDNAME=ddname | DATASET=dataset-name

(Optional) Specifies *one* of the following parameters:

- DDNAME parameter if you have already allocated the data set containing the fix to the system

- DATASET parameter if you want to allocate the data set containing the fix and to free the data set after the fix has been retrieved

These two parameters are mutually exclusive and, therefore, you cannot specify both of them. If neither is specified, the COMMANDS DD concatenation in the region is used.

CONFIRM={YES | NO}

(Optional) Specifies whether the fix is retrieved and the syntax is checked before being presented as a panel for browsing. The panel lets you view the fix and confirm the restoration process. After you confirm, the fix is removed and the original data restored. The message log is presented as another panel for browsing. If you specify NO, the restoration process proceeds without presenting any confirmation panel. The message log is written to the terminal rather than being displayed as a panel.

The message log is always written to the activity log regardless of the options specified.

TDB=*target-file-id* [TDBDSN=*target-dataset-name*]

(Optional) Reverses a fix in a database other than the currently allocated RAMDB. This parameter specifies the file ID of the target database. If you also specify the TDBDSN parameter, the specified data set is allocated a ddname, *target-file-id*.The data set is then opened and started. The database is *not* freed after the restoration process. If the database is already allocated, the specified data set name is verified as allocated to the ddname, *target-file-id*. The data set is opened to the same file ID.

DDB=*source-file-id* [DDBDSN=*source-dataset-name*]

(Optional) Specifies the file ID of the source database.

Note: Restoration requires the specification of the distribution (source) database through the DDB parameter.

The source database must be a copy of the original database. If you also specify the DDBDSN parameter, the specified data set is allocated a ddname, *source-file-id*. The data set is then opened and started. The database is *not* freed after the restoration process. If the database is already allocated, the specified data set name is verified as allocated to the ddname, *source-file-id*. The data set is opened to the same file ID.

Index