CA View®

Installation Guide

Release 12.2

CA Technologies Product References

This document references the following CA Technologies products:

- CA Chorus™ Software Manager (CA CSM)
- CA Chorus™
- CA 1®
- CA ACF2™
- CA Balancing™
- CA Common Services
- CA Connect™
- CA Deliver™
- CA DRAS™
- CA Easytrieve® Report Generator
- CA Output Management Web Viewer
- CA Output Management Document Viewer
- CA Roscoe®
- CA Spool™
- CA TLC (CA Total License Care)
- CA Top Secret® for z/OS

Contact CA Technologies

Contact CA Support

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

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

Providing Feedback About Product Documentation

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

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

Contents

Chapter 1: Overview

This section contains the following topics:

Audience

This guide is targeted to the systems programmer who will install, use, and maintain CA View.

This guide assumes you are familiar with CA View and IBM computer system terms and concepts. You should also have a working knowledge of MVS online facilities such as ISPF, since the CA View panels behave in a similar fashion.

This guide assumes that you:

- Are familiar with CA View and IBM computer system terms and concepts
- Have a working knowledge of MVS online facilities such as ISPF because the CA View panels behave in a similar fashion.

How the Installation Process Works

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

- Acquisition—Transports the software to your z/OS system.
- Installation using SMP/E—Creates an SMP/E environment and runs the RECEIVE, APPLY, and ACCEPT steps. The software is untailored.
- Deployment—Copies the target libraries to another system or LPAR.
- Configuration—Creates customized load modules, bringing the software to an executable state.

CA Chorus™ Software Manager (CA CSM) - formerly known as CA Mainframe Software Manager™ (CA MSM) - is an intuitive web-based tool that can automate and simplify 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 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.

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

   Note: Configuration is considered part of starting your product.

Installation Considerations

Before installation, you must prepare your system, assemble your materials, and then follow the installation steps exactly and in order. Use the following list as a guide for the installation process.

1. Verify that CA Common Services are installed on your system, and that the required hardware, software, and libraries are prepared.
   - CA View uses the CAI Resource Initialization Manager CAIRIM portion of the CA Common Services.
   - CAIRIM prepares the operating system for CA products and components, and then executes them.
   - CA DRAS requires the CAIENF (Event Notification Facility) and the CAICCI (Common Communications Interface) components of the CA Common Services.

   Note: For more information about system requirements, see the chapter "System Requirements".
2. Install CA View using one of the three installation methods -- CA CSM, PAX Enhanced ESD, or DVD.
3. Use options and initialization parameters to customize the solution according to the needs of your site, as follows:
   - Configure your CA View system.
   - Install the online interfaces including the cross-memory and online retrieval options for ISPF, TSO, VTAM, CA Roscoe Interactive Environment (CA Roscoe), CICS and IMS.

     Note: For more information about installing online interfaces, see the chapter "Installing Online Interfaces."
   - Install the features including:
     - ERO
     - The VTAM print option
     - The CA Spool interface option
     - The CA View ACIF interface, the CA View Proprietary Print Stream (PPS) Viewing Option for Xerox interface
     - CA GSS, the Global Subsystem interface
     - FSS, the Functional Subsystem Collector.

     Note: See the chapter "Installing Features" for more information.
4. Optionally, configure and customize CA DRAS. For more information, see the *CA DRAS Operations Guide.*

First Time Installation or Upgrade

Use the tasks presented in this chapter, and in the Installing Online Interfaces and Installing Features sections of the "Configuring Your Product" chapter whether you are installing CA View Release 12.2 for the first time or upgrading from a previous release, as follows:

- If you are installing for the first time, perform:
  - All steps in this chapter as indicated
  - The tasks in the Installing Online Interfaces and Installing Features chapters, to install the optional online interfaces and features that are appropriate for your site.
- If you are upgrading from a previous release, perform:

  All steps in this chapter as indicated and the tasks in the Installing Online Interfaces and Installing Features chapters as appropriate for your site.

  Note: Some steps must be performed exactly as presented; several steps must be modified according to the instructions in the Upgrading from a Previous Release section.

Important! Although much of the JCL is similar to the previous release, you must use the new version because the naming conventions have changed and new files have been introduced. *Be sure to retain your previous CA View JCL files and load libraries*

Chapter 2: Preparing for Installation

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

This section contains the following topics:

Hardware Requirements

This section describes the hardware and libraries that are required for CA View and CA DRAS.

Supported Operating Systems

IBM z/OS 1.9 and higher is the minimum software required to run this release of CA View and meet the performance requirements.

Supported Cryptographic Hardware

Two cryptographic hardware choices are available for you to use on various systems:

- Cryptographic Coprocessor Facility (CCF)

  A standard component on z900 and a no-cost option for z800. On z800 and z900 systems, ICSF requires CCF.

- CP Assist for Cryptographic Functions (CPACF)

  A standard component on z9 and z10 and a no-cost option for z890 and z990.

Other available cryptographic hardware components, described in the following list, do not necessarily improve encryption performance:

- Peripheral Component Interconnect (PCI)-based coprocessors (PCICC, PCIXCC, and Crypto Express2)

  These coprocessors provide secure key storage, hardware hashing, and SSL support.

- PCI-based accelerators (PCICA, Crypto Express2 configured in accelerator mode)

  These accelerators provide high performance SSL assistance.

Note:

- Because CA View uses a clear key, it does not require the use of the Cryptographic Express2 coprocessor (CEX2C).
- To run ICSF without a CEX2C coprocessor, you will need ICFS release FMID HCR7751 or higher.
- If you are running an older release of ICSF, you must purchase a CEX2C coprocessor because older releases of ICSF required that specific hardware to initialize the CKDS data set.

CA View Target Libraries

This table lists the amount of disk space needed to install the target libraries:

Library Name	Blksize	Tracks	Dir Blks	Description
CAI.CVDEJCL	27920	110	66	JCL library
CAI.CVDELOAD	32760	718	158	Load library
CAI.CVDEPROC	27920	349	24	Procedure library
CAI.CVDEOPTN	27920	92	34	Options library
CAI.CVDESRC	27920	57	39	Source library
CAI.CVDEMAC	27920	77	44	Macro library
CAI.CVDECLS0	27920	22	12	CLIST library
CAI.CVDEPNL0	27920	39	24	ISPF panels library
CAI.CVDETBL0	27920	20	12	ISPF table library
CAI.CVDEPENU	27920	120	400	Online panels (English)
CAI.CVDEPDAN	27920	390	271	Online panels (Danish)
CAI.CVDEPFRC	27920	390	272	Online panels (French-Canadian)
CAI.CVDEPDEU	27920	390	271	Online panels (German)

Library Name	Blksize	Tracks	Dir Blks	Description
CAI.CVDEDATA	32718	20	12	Model banner page library
CAI.CVDEXML	32760	205	24	CA CSM Deployment and Configuration Services

Important! Do not reblock the libraries listed above; storage problems could occur.

CA View Distribution Libraries

This table lists the amount of disk space needed to install the distribution libraries:

Library Name	Blksize	Tracks	Dir Blks	Description
CAI.ABRMJCL	27920	110	66	JCL library
CAI.ABRMMOD	32760	105	178	Load library
CAI.ABRMMOD0	32760	8	12	Load library
CAI.ABRMMAC	27920	77	44	Macro library
CAI.ABRMPROC	27920	394	24	Procedure library
CAI.ABRMOPTN	27920	92	34	Options library
CAI.ABRMSRC	27920	57	39	Source library
CAI.ABRMCLS0	27920	22	12	CLIST library
CAI.ABRMPNL0	27920	39	24	ISPF panel library
CAI.ABRMTBL0	27920	20	12	ISPF table library
CAI.ABRMPENU	27920	390	271	Online panels (English)
CAI.ABRMPDAN	27920	390	271	Online panels (Danish)
CAI.ABRMPFRC	27920	391	272	Online panels (French-Canadian)
CAI.ABRMPDEU	27920	390	271	Online panels (German)
CAI.ABRMDATA	32718	20	12	Model banner page library
CAI.ABRMXML	32760	205	24	CA CSM Deployment and Configuration Services

CA DRAS Target Libraries

This table lists the amount of disk space required to install the target libraries.

Library Name	Blksize	Tracks	Dir Blks	Description
CAI.CBY3JCL	27920	11	12	JCL library
CAI.CBY3LOAD	32760	124	12	Load library
CAI.CBY3PROC	27920	11	12	Procedure library
CAI.CBY3OPTN	27920	22	24	Options library
CAI.CBY3XML	27998	37	12	CA CSM Deployment and Configuration Services
TPV.CSARLOAD	32760	154	65	SAS/C library (optional)
TPV.CFD9LOAD	32760	105	12	Xenos transformers
TPV.CFEBLOAD	32760	10	12	Third-party transformers

CA DRAS Distribution Libraries

This table lists the amount of disk space needed to install the distribution libraries.

Library Name	Blksize	Tracks	Dir Blks	Description
CAI.ABY3JCL	27920	11	12	JCL library
CAI.ABY3MOD	32760	175	132	Load library
CAI.ABY3PROC	27920	11	12	Procedure library
CAI.ABY3OPTN	27920	22	24	Options library
CAI.ABY3XML	27998	37	12	CA CSM Deployment and Configuration Services
TPV.ASARLOAD	32760	154	65	SAS/C Library (optional)
TPV.AFD9MOD	32760	76	12	Xenos transformers
TPV.AFEBMOD	32760	4	12	Third-party transformers

EBC Distribution Libraries

This table lists the amount of disk space required for the EBC distribution libraries.

Library Name	Blksize	Tracks	Dir Blks	Description
CAI.ABROMOD	32760	41	68	Load library
CAI.ABROPROC	27920	394	24	Procedure library
CAI.ABROOPTN	27920	92	34	Options library
CAI.ABROSRC	27920	57	39	Source library
CAI.ABROMAC	27920	77	44	Macro library
CAI.ABROPNL0	27920	39	24	ISPF library
CAI.ABROJCL	27920	110	66	JCL library
CAI.ABROXML	32760	205	24	CA CSM Deployment and Configuration Services

Software Requirements

This software is required for CA View:

- IBM Supported release of z/OS r1.9 or higher
- SMP/E

The next sections list the Release 12.2 component SYSMODs for CA View and CA DRAS.

Common Component SYSMODs

CBROC20 is the EBC common component SYSMOD.

Note: The optional EBC CICS FMID has been incorporated into the EBC common component FMID beginning with Release 11.6.

CA View Component SYSMODS

CBRMC20 is the CA View base product component SYSMOD.

Note: The CA View/CA Spool API and foreign language FMID's have been incorporated into the CA View base FMID.

CA DRAS Component SYSMODS

This following are the CA DRAS component SYSMODS.

CBY3C20

Indicates CA DRAS base function.

CBY3C22

Indicates CA View DRAS Agent.

ASARB75

Indicates optional SAS/C Runtime.

CFD9C20

Indicates optional Xenos transformer for AFP to PDF conversion.

CFEBC20

Indicates optional generic third-party transformer.

Common Services Component

The CA Common Services component CAIRIM supports CA LMP.

The following CA Common Services components are required for CA DRAS.

CAIENF

CA Event Notification Facility.

CAICCI

CA Common Communications Interface.

EMC Centera Disk Option

For more information about the system requirements and an Implementation Checklist for the EMC Centera Disk Option, see the chapter "EMC Centera Disk Option" in the *Reference Guide*.

CA Common Services Requirements

We recommend that you maintain CA Common Services at a current maintenance level to ensure compatibility. For the latest information about maintenance requirements, go to CA Support Online.

Note: If you intend to use CA CSM for your installation and maintenance tasks, there might be certain additional CA Common Service requirements. For more information, see the Software Requirements section in the *CA Mainframe Software Manager Product Guide*.

The following CA Common Services are used with CA View:

- CAIRIM - Using the CAIRIM component requires CA Common Services.
- CAICCI
- CAIENF
- CA LMP
- CA Health Checker Common Service

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

CA Common Services Installation Considerations

If CA Common Services have not been installed on your system, you must install them before you proceed with this installation. For more information, see the CA Common Services Installation Guide.

CAIRIM

CAIRIM (CAI Resource Initialization Manager) is the common driver for a collection of dynamic initialization routines. These initialization routines eliminate the need for user SVCs, SMF exits, subsystems, and other installation requirements that you might commonly encounter when you install systems software.

CAIRIM prepares the operating system for CA products and components, and then executes them.

The following is a list of some of the tasks that CAIRIM performs:

- Obtains SMF data
- Verifies proper software installation
- Installs MVS interfaces
- Automatically starts CA products and the products of other vendors
- Properly times and sets the order of the initialization

Note: CA DRAS requires CAIRIM to run the required CA LMP, if CA OM Web Viewer Version 12.0 is in use on any platform.

CA LMP

The CA License Management Program (CA LMP) is a standardized automated approach to the tracking of licensed software that uses common real time enforcement software to validate the user's configuration. CA LMP reports on activities related to the license, usage, and financial activity of program solutions. CA LMP features include:

- A common key data set that can be shared among many CPUs
- The use of "check digits" to detect errors in transcribing key information
- Execution keys that can be entered without affecting any CA software solution already running
- No special maintenance requirements

Common Services Required for CA DRAS

The following services are required for cooperative viewing with CA DRAS:

- CAIENF
- CAICCI
- CAIRIM - Using the CAIRIM component requires CA Common Services
- CA LMP

CA Common Services for z/OS must be installed or maintained at the genlevel indicated on the cover letter for the product

CAIENF

CA DRAS uses CAIENF (Event Notification Facility) services. CAIENF is an operating system interface component that provides a simple approach for CA products to obtain data from an MVS system by interfacing to any of CA's z/OS applications. This interface exploits technologies, such as relational database architectures for the benefit of the entire product line.

The level of integration is improved by enabling operating systems and CA software-generated event information to be driven through a standard interface. This standardization simplifies multiple product-to-product interfaces and the associated necessary maintenance.

Be aware of the following:

- CAIENF must be installed into an APF authorized library.

  Linklist is recommended although it is not required.

- CAIENF runs as a started task within its own address space.

  A database must be allocated and initialized for CAIENF to use. For more information on space requirements, see the CA Common Services documentation.

CAICCI

CAICCI (Common Communication Interface) provides CA enterprise applications with a wealth of capabilities, including:

- Common communications
- Cooperative processing
- Database server facilities
- Distributed database management

Full support for all forms of distributed processing provides the highest degree of flexibility for the enterprise.

CA DRAS uses the CAICCI service to provide communication between client applications and the servers. CAICCI is a facility that allows CA products to communicate with other applications in a simple, straightforward manner.

CAICCI builds a layer on top of today's communication and network software so that an application can be isolated from the specifics of its environment.

CAICCI and TCP/IP

CAICCI provides robust TCP/IP support, and this protocol can be used to efficiently connect a wide variety of platforms and applications. Mainframes, PCs, and UNIX systems can all be inter-connected, using TCP/IP.

Be aware of the following:

- If you are using TCP/IP as your communications protocol, a mainframe TCP/IP product must be installed in addition to the base CAICCI component. Currently, CA TCPAccess Communications Server and IBM TCP/IP products are supported for z/OS.
- CAICCI utilizes TCP/IP using one or more separate server address spaces to coordinate TCP/IP processing for CAICCI.
- The CCITCP server task uses TCP/IP to support mainframe-to-PC connections and is required for CA DRAS.
- Use the appropriate client/server protocol parameter, depending on the vendor for TCPIP or C runtime, as described in the CA Common Services documentation.

Common Services Required for z/OS

CA Common Services for z/OS must be installed or maintained at the genlevel indicated on the cover letter for the product.

Health Checker Common Service

CA View issues health checks and requires the CA Health Checker Common Service modules to be available in the CA View environment.

CA View links to the CA Health Checker Common Service product to provide a standard access to the operating system's health checker services. The CA Health Checker Common Service runs under the IBM Health Checker for z/OS.

Note: To successfully register CA checks, the IBM Health Checker must be active. For more information about the IBM Health Checker, see the IBM Health Checker for z/OS User's Guide – as appropriate for your release of z/OS.

CA DRAS Is Included with CA View

The CA DRAS system uses a Microsoft Windows-based viewer to enable cooperative report viewing.

Be aware of the following:

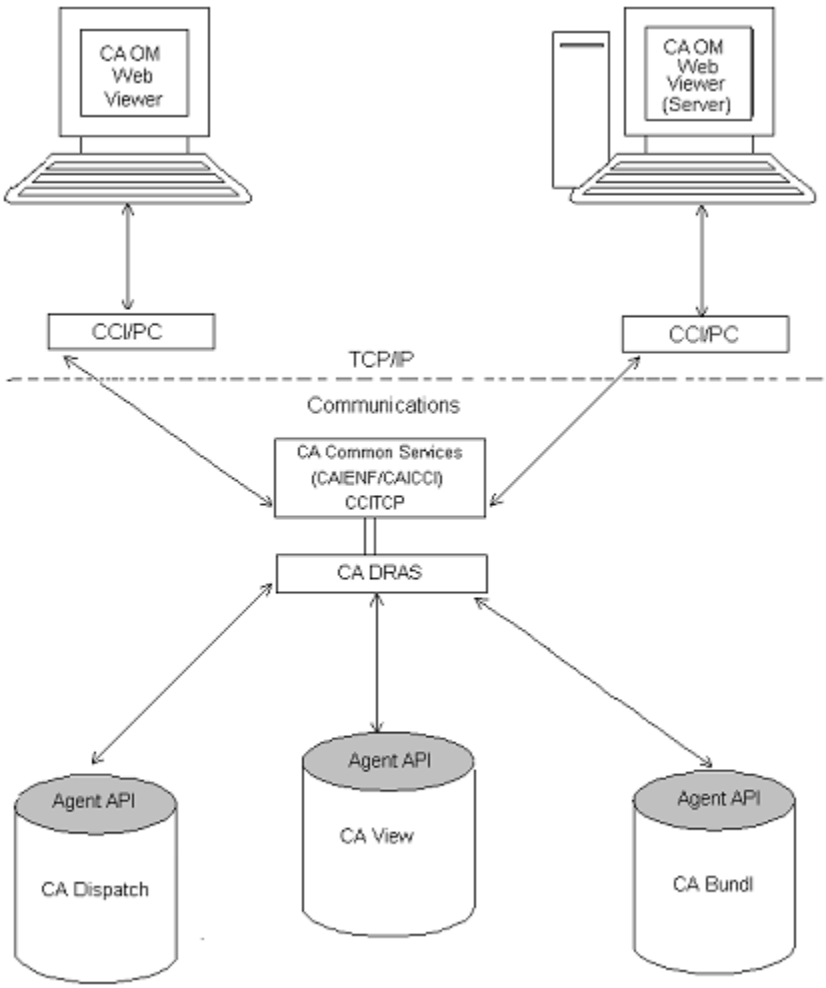
- CA DRAS is middle-ware that runs as a started task on the mainframe
- CA DRAS communicates with agents such as CA View Output Archival and Viewing on one end and Windows-based viewers such as CA Output Management Web Viewer on the other.
- Components of CA DRAS are required and are automatically installed.
- Optionally, you can use the installation steps in this guide to customize and configure CA DRAS to enable cooperative viewing, when necessary.

Overview of the Cooperative Process

To successfully connect the desktop client to a mainframe repository, there are several key elements that need to be properly installed and configured. The following illustration shows how the workflow is processed, and where each solution fits into what is called Cooperative Processing.

The illustration that follows shows:

- How the workflow is processed, and where each solution fits into what is called Cooperative Processing.
- A basic view of how cooperative processing works to provide end user access to reports residing in a z/OS-based report repository.



The process works this way:

1. The client initiates a request using an initial login or a report data request from CA OM Web Viewer (CA-DocView/Web).
2. An SQL request is formatted by the Client API and passed through CA Common Services, Common Communications Interface (CCI).

   The Common Communications Interface uses the TCP/IP communication protocol to pass the request from the Windows environment, through CCI/PC, to the z/OS platform running the Common Communication Interface (CCITCP) task.
3. CA DRAS receives the request from the Common Communications Interface and passes it on to the requested repository Agent API for interpretation.

   The Agent API formats the request based on the repository system and passes the properly formatted request to the repository system for processing.
4. The request is validated and processed by the Report Repository system, CA View, in this case.
5. Once the request is processed, it is returned to an SQL format and passed back to CA DRAS.
6. CA DRAS processes and packages the response and passes it back through the Common Communications Interface to the Viewer system, where it is processed and displayed to the client.

Security Requirements

For information about the security requirements that are related to the ability to access a CA View database, or reports and data within the CA View database, see the "Security" chapter in the CA View Reference Guide.

Be aware of the following:

- If you are enabling ICSF encryption on a CA View database, security privileges might be needed to allow you to access and update of keys in the ICSF CKDS data set.
- CA View does not access the ICSF CKDS data set directly but it does invoke ICSF services to create new keys and access existing keys.
- If access to ICSF keys is restricted via an external security product, started task, batch jobs, and online users of CA View are going to need sufficient authority to access these ICSF keys.

- All CA View started tasks, batch jobs, utilities, and online users that access report data in a CA View database require at a minimum READ access to the ICSF keys.

The following started tasks, batch jobs, utilities, and online users require WRITE access to ICSF keys:

- Archival started tasks which includes the CA View started task, CA View FSS Archival tasks, and any application job where data will be written directly to the CA View database
- Batch jobs that execute SARINIT
- Batch jobs that execute SARDBASE to COPY, LOAD, MERGE, or RESTORE a CA View database
- Batch jobs that execute SARBCH to LOAD a report or report index to a CA View database
- Batch jobs that execute SARBCH to reindex a report in a CA View database
- Online users that are able to perform an online LOAD of a report or a report index to a CA View database

Storage Requirements

Be sure that the following storage is available:

- If you are installing with ESD, 100 cylinders for the downloaded files.
- For installation and setup:
  - Installation = *200* cylinders
    - SMP/E temporary libraries = 20 cylinders

Other Requirements

These sections explain additional requirements.

SVC Dump Data Sets

CA View issues SVC dumps (SDUMP) for certain types of abends. These dumps are written to the MVS SYS1.DUMP.*nn*. data sets.

Verify that the data sets are allocated with at least 100 cylinders.

Dump Analysis and Elimination

The CA View SDUMP program supports MVS/ESA dump analysis and elimination processing. This MVS/ESA feature eliminates the possibility of duplicate SVC dumps being written to the SYS1.DUMP.*nn*. data sets.

To use this feature, the SYS1.DAE data set must be allocated and the following parameter members must be updated in SYS1.PARMLIB:

```
IEACMDxx
SET DAE = xx
```

where *xx* identifies the ADYSET*xx*. member.

```
ADYSETxx
DAE=START,RECORDS(sss),SVCDUMP(MATCH,UPDATE,SUPPRESS
```

where *sss* is the number of records in SYS1.DAE.

System Dump Parameters

CA View allocates storage from MVS subpool 230.

For this storage area to be dumped correctly, the IEADMR*xx*. member in SYS1.PARMLIB should contain the SDATA RGN parameter:

```
SDATA=(...,RGN,...)
```

The IEADMP*xx*. member in SYS1.PARMLIB should contain the SDATA LSQA parameter:

```
SDATA=(...,LSQA,...)
```

Important! If these dump parameters are not specified as shown in the previous example, certain storage areas could be missing from dumps, which can hinder support efforts.

JCL Procedures

During the installation of the product, CA View procedures are copied into CVDEPROC, the CA View Procedure Library. These procedures are used later during normal execution of the product.

We recommend that you add the CVDEPROC library to the system PROCLIB concatenation.

Concurrent Releases

You can install this release of your product and continue to use an older release in another SMP/E environment. If you plan to continue to run a previous release, consider the following points:

- When you install the product into an existing SMP/E environment, this installation deletes previous releases in that environment.
- If you acquired your product with Pax ESD, select different target and distribution zones for your new release from where your current release is installed. The new zones use different libraries than your current release.

  Note: CA CSM installs a product into a new SMP/E environment by default. You can select an existing SMP/E environment from your working set. For more information, see the online help that is included in CA CSM.
- Define DDDEF entries in your new zones to point SMP/E to the proper libraries for installation. Ensure that they point to the new release libraries.

Concurrent Release Considerations

Important! CA View Release 11.7, Version 12.0, and Release 12.1 are the only releases of CA View that can be upgraded to Release 12.2. Do not attempt to upgrade from a release before Release 11.7.

If you are upgrading in an SMP/E CSI that contains a different version or release of Deliver, you must define new SMP/E target and distribution zones for CA View Release 12.2. CA View Release 12.2 cannot be installed into an SMP/E zone that contains a previous release of CA Deliver. However, CA View Release 12.2 can share an SMP/E zone with CA Deliver Release 12.2.

Be aware of the following:

- Beginning with Release 11.7, the product target and distribution library naming conventions were changed.
- Beginning with Release 11.5, to help simplify installations and upgrades, the foreign language panel FMIDs have been incorporated into the CA View base FMID.

  All four panel libraries *must* exist or the apply step will fail.

  Be prepared to enlarge any existing panel libraries before you run the apply step. See the Hardware Requirements section to determine the amount of space required for these libraries and adjust it accordingly.
- CA View Release 11.7, Version 12.0, and Release 12.1 databases can be upgraded to Release 12.2.
- The CA View Release 12.2 database can receive reports and retain bundle holding copies from CA Deliver Release 11.7, Version 12.0, Release 12.1, and Release 12.2 direct archival mechanism.

  The CA Deliver ARCH specifications can reference CA View databases at any of these release levels.
- The CA View Release 12.2 cross-memory region can access CA View Release 11.7, Version 12.0, Release 12.1, and Release 12.2 database release levels.
- The CA View Release 12.2 DRAS agent can access CA View supported databases Release 12.2, Release 12.1, Version 12.0, and Release 11.7.

  Note: For compatibility, if you versioned your CA View database to the most recent version, verify that your DRAS task is using the most recent libraries.

The diagram that follows shows the relationship between multiple versions of CA View and CA Deliver.

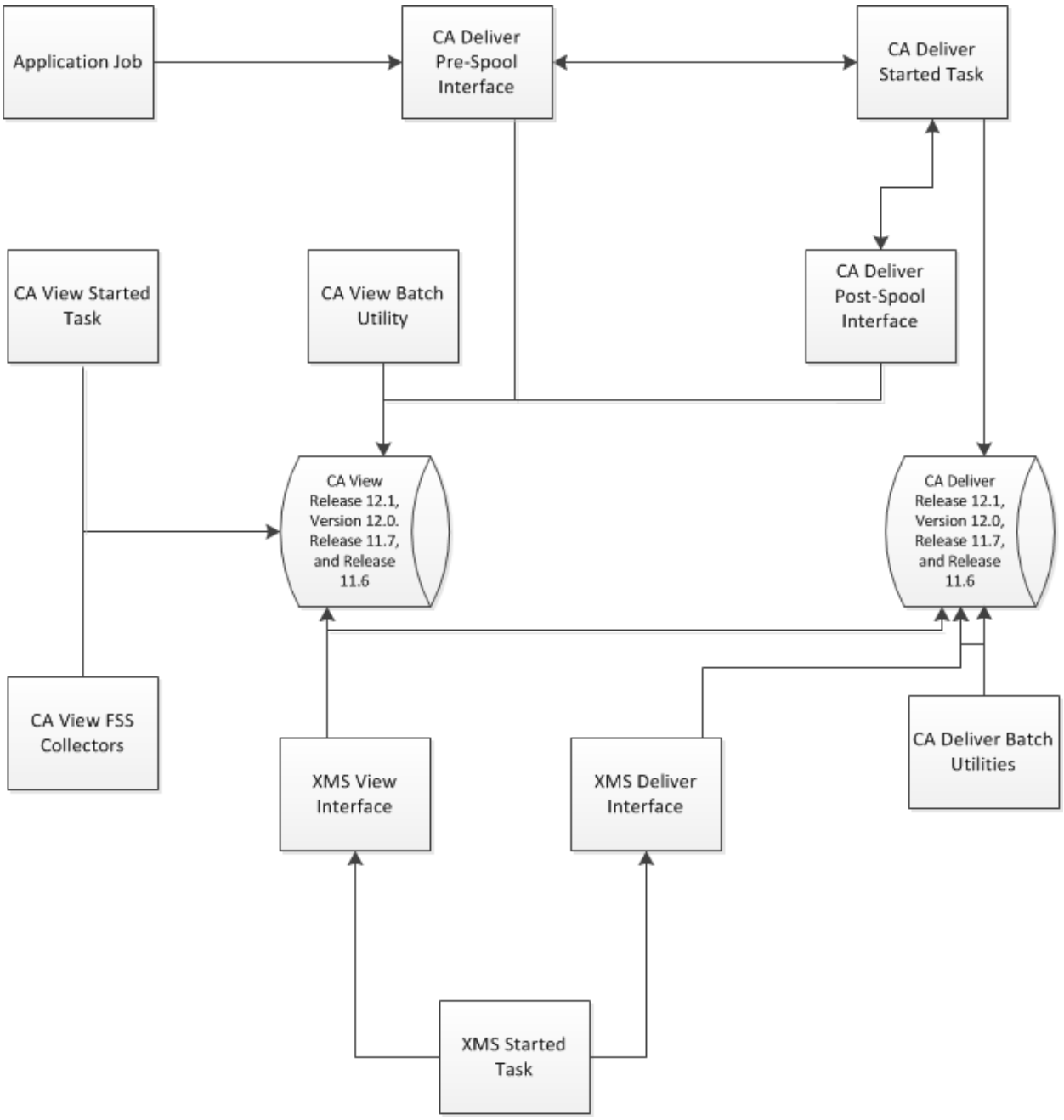
USS Space Requirements

Ensure that you have sufficient free space in the USS file system that you are using for Pax ESD to hold the directory that the pax command and its contents create. You need approximately 3.5 times the pax file size in free space.

If you do not have sufficient free space, you receive error message EDC5133I.

Relationship between Versions of CA View and CA Deliver

The following diagram shows the relationship between multiple versions of CA View and CA Deliver:



Chapter 3: Installing Your Product Using CA CSM

This section contains the following topics:

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.

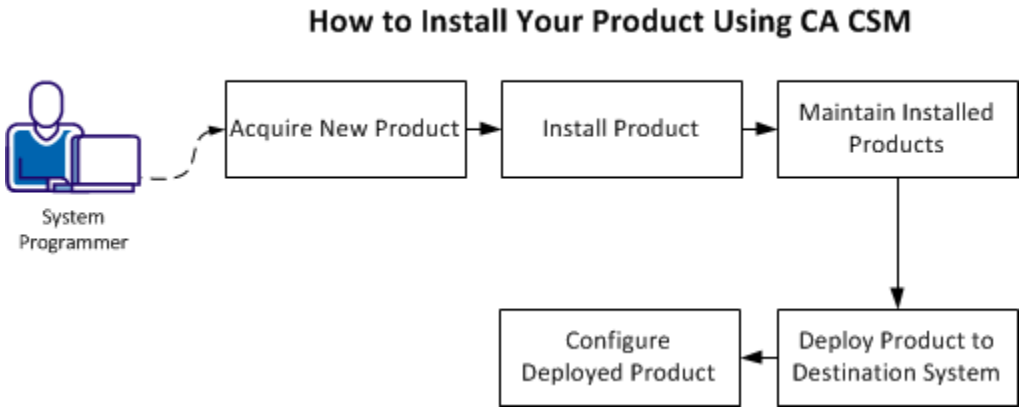
Before you use this scenario, you must have CA CSM installed at your site. If you do not have CA CSM installed, you can download it from the Download Center at http://ca.com/support. This web page also contains links to the complete documentation for CA CSM.

You access CA CSM (see page 38) 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:



1. Acquire a new product (see page 39).
2. Install the product (see page 40).
3. Maintain the installed products (see page 42).
4. Deploy the product to the destination system (see page 43).
5. Configure the deployed product (see page 44).

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 38), 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.

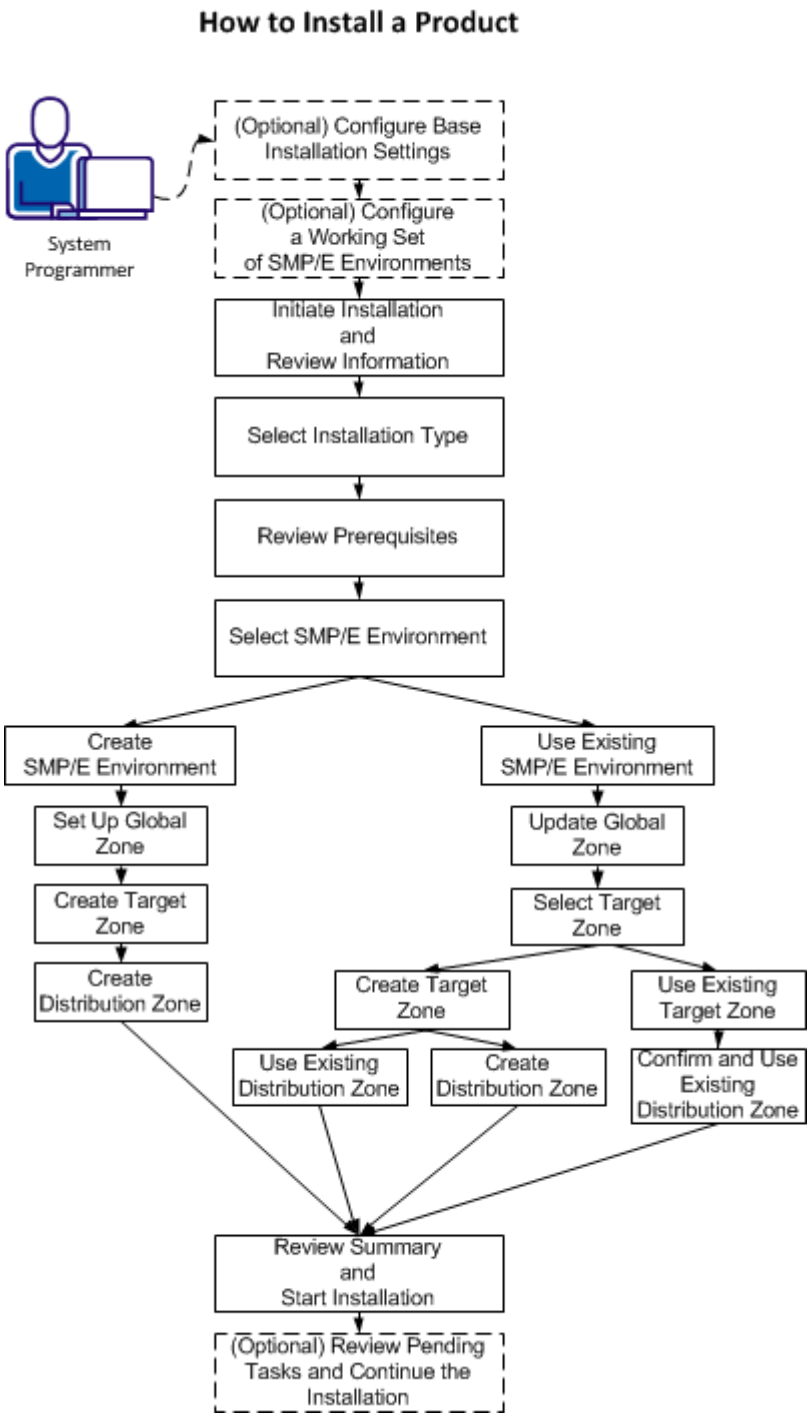
   CA CSM downloads (acquires) the packages (including any maintenance packages) from the CA Support Online website.

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:



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.

Chapter 4: Installing Your Product Using Pax ESD or DVD

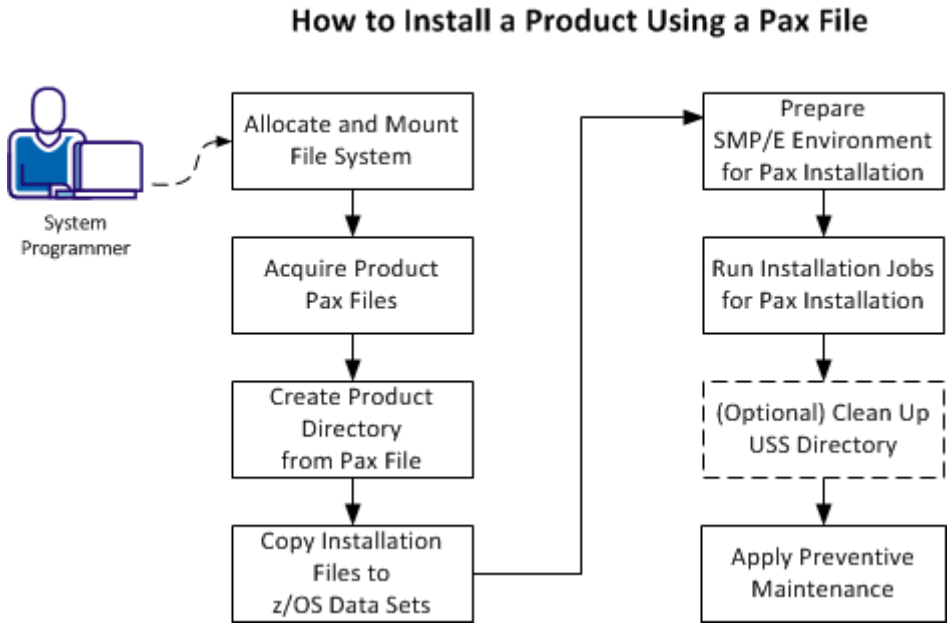
This section contains the following topics:

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:



1. Allocate and mount the file system (see page 49).
2. Acquire the product pax files (see page 51).
3. Create a product directory from the pax file (see page 57).
4. Copy the installation files to z/OS data sets (see page 58).
5. Prepare the SMP/E environment for a pax installation.
6. Run the installation jobs for a pax installation.
7. (Optional) Clean up the USS directory (see page 63).
8. Apply preventive maintenance (see page 64).

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 52), 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 53).

- Download the pax file from the product DVD to your PC, and then upload the pax files to your USS file system. (see page 56)

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 55) 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 52). 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 58) 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)*.

Prepare the SMP/E Environment for a Pax Installation

The following steps describe the process to install products using native SMP/E JCL:

1. Download external HOLDDATA.
2. Allocate product data sets and SMP/E data sets.
3. Create an SMP/E environment.
4. Receive base functions.
5. Apply base functions.
6. Accept base functions.
7. Configure the product according to your site requirements.

The members that are used in this procedure prepare the data sets, initialize the zones, and create the DDDEFs for your product

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

Follow these steps:

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

   The macro is ready to customize the *yourHLQ*.SAMPJCL members.

   Note: Set the DASD HLQ to the same value specified for *yourHLQ* within the JCL that is used to unzip the pax file.

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

2. Open the SAMPJCL member BRM1HOLD in an edit session and execute the BRMSEDIT macro from the command line.

   BRM1HOLD is customized.

3. Submit BRM1HOLD.

   This job downloads the error and FIXCAT HOLDDATA from http://ca.com/support.

4. Open the SAMPJCL member BRM2ALL in an edit session and execute the BRMSEDIT macro from the command line.

   BRM2ALL is customized.

   Note: When upgrading into an existing CSI, comment out any allocation DD statements for existing files.

5. Submit BRM2ALL.

   This job produces the following results:

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

6. Open the SAMPJCL member BRM3CSI in an edit session and execute the BRMSEDIT macro from the command line.

   BRM3CSI is customized.

   Note: When upgrading into an existing CSI, comment out any allocation DD statements for existing files and delete the CREATCSI step. Change all ADD's to REP's.

7. Submit BRM3CSI.

   This job produces the following results:

   - The CSI data set is defined.
   - The SMPPTS and SMPLOG data sets are allocated.
   - The global, target, and distribution zones are initialized.
   - The DDDEF entries for your product are created.
   - The DDDEFs for the required SMP/E data sets are created.

Run the Installation Jobs for a Pax Installation

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

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

Follow these steps:

Note: The default middle level qualifier name of the SMP/E CSI has been removed beginning with Release 11.6. If upgrading from a previous release, ensure that the correct, complete name of your CSI is specified in the PARM= on the execute card for the following steps.

1. Open the SAMPJCL member BRM4RECD in an edit session, and execute the BRMSEDIT macro from the command line.

   BRM4RECD is customized.

2. Submit BRM4RECD to receive SMP/E base functions.

   Your product is received and now resides in the global zone.

3. Open the SAMPJCL member BRM5APP in an edit session, and execute the BRMSEDIT macro from the command line.

   BRM5APP is customized.

   Important! The APPLY of this CA View release deletes all previous releases of CA View.

4. Submit BRM5APP to apply SMP/E base functions.

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

5. Open the SAMPJCL member BRM6ACC in an edit session, and execute the BRMSEDIT macro from the command line.

   BRM6ACC is customized.

6. Submit BRM6ACC to accept SMP/E base functions.

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

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! We strongly recommend that you use CA CSM to maintain your CA Technologies z/OS-based products. The procedure that is discussed in this section is fully automated when you use CA CSM.

CA Support Online at http://ca.com/support has maintenance and HOLDDATA published since the installation data was created. After the maintenance process completes, the product is ready to deploy.

Use this procedure during product installation and for ongoing preventive maintenance in non-installation use cases according to your maintenance strategy.

Note: To review the CA Technologies mainframe maintenance philosophy, see your *Best Practices Guide* or visit the CA Next-Generation Mainframe Management page.

This procedure directs you to use the CAUNZIP utility. The CAUNZIP utility processes ZIP packages directly on z/OS without the need for an intermediate platform, such as a Microsoft Windows workstation. If you are not familiar with this utility, see the *CA Common Services for z/OS Administration Guide*. This guide includes an overview and sample batch jobs. To use this utility, you must be running CA Common Services for z/OS Version 14.0 with PTF RO54887 or CA Common Services for z/OS Release 14.1 with PTF RO54635 and RO58216. These PTFs are included in CA Common Services for z/OS Release 14.1 at the S1401 Service Update level.

Follow these steps:

1. Check the Download Center at http://ca.com/support for PTFs that have been published since this release was created. If the base release was created recently, no PTFs will have been published yet. If PTFs exist, add published solutions for your product to your Download Cart, and click Checkout.
2. Specify that you want a complete package.

   When processing completes, a link appears on the Review Download Requests page. You also receive an email notification.
3. Click the Alternate FTP link for your order to obtain FTP login information and the ZIP file location. Download the ZIP file into a USS directory on your z/OS system.

4. Run the CAUNZIP utility.

   CAUNZIP unzips the package of published solutions and creates a SMPNTS file structure that the SMP/E RECEIVE FROMNTS command can process. For sample JCL to run the utility that is located in *yourHLQ*.CAW0JCL(CAUNZIP), see the *CA Common Services for z/OS CAUNZIP Administration Guide*. After execution completes, the ZIPRPT data set contains the summary report. The summary report does the following:

   - Summarizes the content of the product order ZIP file.
   - Details the content of each data set and the z/OS UNIX files produced.
   - Provides a sample job to receive the PTFs in your order.

5. Review the sample job that is provided in the CAUNZIP output ZIPRPT file. Cut and paste the JCL into a data set, specify your SMP/E CSI on the SMPCSI DD statement and submit the job to receive the PTFs in your order.

6. Verify that you have the values from the base installation in the BRMSEDIT macro that was customized in the installation steps.

7. Open the SAMPJCL member BRM1HOLD in an edit session and execute the BRMSEDIT macro from the command line.

   Note: Update BRM1HOLD SAMPJCL to download the HOLDDATA file.

   BRM1HOLD is customized.

8. Submit BRM1HOLD.

   The job downloads the external HOLDDATA file.

9. Open the SAMPJCL member BRM7RECH in an edit session and execute the BRMSEDIT macro from the command line.

   BRM7RECH is customized.

10. Submit BRM7RECH.

    The job receives the external HOLDDATA file.

11. (CA Recommended Service (CA RS)) installation only) Do the following:

    a. Determine which ASSIGN statements to download.

       - The yearly CA RS ASSIGN statements are stored in the following file:

         `ftp.ca.com/pub/ASSIGN/YEARLY/CARyyyy.TXT`

       - The quarterly CA RS ASSIGN statements are stored in the following file:

         `ftp.ca.com/pub/ASSIGN/CARyymm.TXT`

    b. Open the SAMPJCL member BRM7CARS in an edit session, update BRM7CARS SAMPJCL to download ASSIGN statements from http://ca.com/support, and execute the BRMSEDIT macro from the command line.

    BRM7CARS is customized.

12. (CA RS installation only) Submit BRM7CARS.

    The job downloads the CA RS ASSIGN statements.

13. (CA RS installation only) Open the SAMPJCL member BRM7RECP in an edit session, manually add the data set that contains the ASSIGN statements to the SMPPTFIN DD, and execute the BRMSEDIT macro from the command line.

    BRM7RECP is customized.

14. (CA RS installation only) Submit BRM7RECP.

    The job receives the external HOLDDATA file and CA RS ASSIGN statements.

15. Open the SAMPJCL member BRM8APYP in an edit session and execute the BRMSEDIT macro from the command line.

    BRM8APYP is customized.

16. Submit BRM8APYP.

    The PTFs are applied.

17. (Optional) Open the SAMPJCL member BRM9ACCP in an edit session and execute the BRMSEDIT macro from the command line.

    BRM9ACCP is customized.

18. (Optional) Submit BRM9ACCP.

    The PTFs are accepted.

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

HOLDDATA

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

System HOLDDATA

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

ACTION

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

AO

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

DB2BIND

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

DDDEF

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

DELETE

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

DEP

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

DOC

Indicates a documentation change with this SYSMOD.

DYNACT

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

EC

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

ENH

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

EXIT

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

EXRF

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

IPL

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

MSGSKEL

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

MULTSYS

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

RESTART

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

SQLBIND

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

DOWNLD

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

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. SMP/E receives the HOLDDATA from CA-supplied jobs.

You can find JCL to download the external HOLDDATA in your SAMPJCL member. Open BRM1HOLD in an edit session and execute the BRMSEDIT macro on the command line. Then, submit the JCL.

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: Starting Your Product

This section contains the following topics:

How to Complete Configuration With CA CSM

The topics in this section describe the manual tasks that you perform when configuring your product using CA CSM (see page 44).

Authorize Program Load Libraries

All users must perform this step.

Perform *one* of the following to either authorize the program load library or copy the modules to a system authorized library:

- If you want CA View to execute from its own target library APF-authorize the target library by adding an entry for CAI.CVDELOAD to member PROG*xx* of SYS1.PARMLIB.

  Note: Authorization does not take effect until the next IPL.

- If you do *not* want to APF authorize the CA View target library copy the load modules in CAI.CVDELOAD to an existing authorized library such as SYS1.LINKLIB or any other library in the linklist.

Important! We recommend that you authorize CVDELOAD rather than copying the modules. The load modules must reside in an authorized library.

Enter the LMP Code

All users must perform this step.

CA View requires CA LMP (License Management Program), one of the CA Common Services, to initialize correctly. CA LMP provides a standardized and automated approach to the tracking of licensed software. Examine the CA LMP Key Certificate you received with your CA View installation or maintenance cartridge.

The LMP Key Certificate

Your LMP Key Certificate contains the following information:

Product Name

Specifies the trademarked or registered name of the copy of CA View licensed for the designated site and CPUs.

Supplement

Specifies the reference number of your license for the particular CA View, in the format *nnnnnn nnn*.

This format differs slightly inside and outside North America, and in some cases may not be provided at all.

Expiration Date

Specifies the date (MONTH *dd*, *yyyy* as in OCTOBER 21, 2011) that your license expires for the installation and maintenance of the designated CA View.

Technical Contact

Specifies the name of the technical contact at your site, who is responsible for the installation and maintenance of CA View.

This is the person to whom CA addresses all CA LMP correspondence.

MIS Director

Specifies the name of the Director of MIS, or the person who performs that function at the site.

If the title, but not the individual's name is indicated on the Certificate, you should supply the actual name when correcting and verifying the Certificate.

CPU Location

Specifies the address of the building where the CPU is installed.

CA LMP is provided as an integral part of CAIRIM (Resource Initialization Manager), another one of the CA Common Services.

Execution Key

Specifies an encrypted code required by CA LMP for CA View initialization, referred to as the LMP Code during installation.

Product Code

Specifies a two-character code that corresponds to CA View.

CPU ID

Specifies the code that identifies the specific CPU for which installation of your CA View is valid.

The CA LMP execution key, provided on the key certificate, must be added to the CAIRIM parameters to ensure proper initialization of the CA software solution.

Defining the CA LMP Execution Key

To define a CA LMP execution key to the CAIRIM parameters, modify member KEYS in OPTLIB data set.

Syntax is as follows:

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

where:

pp

Specifies the two-character product code (required).

For any given CA LMP software solution, this code agrees with the product code already in use by the CAIRIM initialization parameters for earlier service packs of CA View.

ddmmmyy

Specifies the CA LMP licensing agreement expiration date (required).

tttt-mmmm

Specifies the CPU type and model (for example, 3090-600) on which the CA LMP software solution is to run (required).

If the CPU type or model requires less than four characters, blank spaces are inserted for the unused characters.

ssssss

Specifies the serial number of the CPU on which the CA LMP software solution is to run (required).

kkkkkkkkkkkk

Specifies the execution key required to run the CA LMP software solution (required).

This CA LMP execution key is provided on the Key Certificate shipped with each CA LMP software solution.

The following example shows a control statement for the CA LMP execution software parameter. The CA LMP execution key is *invalid* and is provided only as an example.

```
PROD(HV) DATE(21OCT09) CPU(3090-600 /370623)
LMPCODE(52H2K06130Z7RZD6)
```

Note: For more information about the procedure for defining the CA LMP execution key to the CAIRIM parameters, see the *CA Common Services Getting Started.*

Define Security Rules

CA View has full external security support using security classes and interfaces with CA Top Secret, CA ACF2, and IBM's RACF.

Note: For more information about security, see the chapter "Security" in the *Reference Guide*.

Install the ISPF Online Retrieval Option

The ISPF online retrieval option runs under the IBM Interactive System Productivity Facility (ISPF) for z/OS Version 3.0 and higher.

Note: For more information about the ISPF Online Retrieval Option, see the chapter "Online Interface Administration" in the *Reference Guide*.

(Optional) Step 1: Add STEPLIB Statements

To add STEPLIB DD statements to the procedures for the ISPF Online Retrieval Option, Follow these steps::

1. Determine which one of the following actions you performed during the base-product installation:

   - Authorized the program load library
   - Copied the modules to a system authorized library

   If the CA View load modules were not copied to one of the libraries in the linklist, continue with this section. Otherwise, skip this section and go to the next section, Step 2: Add the Panel and Command Libraries (ISPF only) (see page 75).

2. Add STEPLIB DD statements to the TSO LOGON procedures if the load modules are not in a linklist library.

3. Add a STEPLIB DD statement for the library containing the product's load modules to the LOGON procedures for TSO users who use the ISPF online retrieval option.

   Note: If you have CA Deliver, verify that the CA Deliver load modules are in either in the linklist or in a STEPLIB statement with this step.

4. To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to *all* STEPLIB DD statements.

Step 2: Add the Panel and Command Libraries (ISPF only)

If you are running under SPF, go to Step 3.

If your system runs CA View under ISPF, proceed with this step.

Follow these steps in your TSO logon procedure:

- Concatenate the command table library CAI.CVDETBL0 to DD statement ISPTLIB.
- Concatenate the panel library CAI.CVDEPNL0 to DD statement ISPPLIB.

  Note: If you also plan to use SARSPF (the SPF interface), with multiple releases of CA View, concatenate CAI.CVDETBL0 first. Use the CAI.CVDETBL0 from the most current release.

Step 3: (Optional) Add the Mount Attribute to the TSO User IDs

If you want to add the mount attribute to your TSO user IDs, proceed with this step; otherwise, go to the next step.

Assign the mount attribute to all TSO users who are authorized to browse SYSOUT directly from an archival tape.

Use the TSO ACCOUNT command as follows to assign the mount attribute:

```
ACCOUNT
C (userid) MOUNT
END
```

Note: TSO users do *not* need the MOUNT attribute to access reports through the Expanded Access Tape Server (EAS), because the tape is mounted by the EAS started task and not the user's TSO session.

Step 4: (Optional) Modify an ISPF Selection Menu to Select Online Retrieval

If you want to add a selection code for the online retrieval feature to one of the ISPF selection menus, proceed with this step; otherwise, your detailed instructions for ISPF are complete.

To define your selection code, use this command:

```
PGM(SARSPF) PARM(high-level-database-name) NEWAPPL(SAR)
```

Use the value next to the NAME parameter on your Initialization Parameter Worksheet for PARM(high-level-database-name).

Note: Adding a selection code allows you to select the online retrieval feature in the same way you would select other ISPF options.

Panel Libraries

The names of the panel libraries vary from site to site and for the different releases of SPF ISPF. These panel libraries are allocated to the ISPPLIB DD statement under TSO. Be aware that some installations do not allow direct modifications of IBM panels and libraries. In this case, modified panels can be placed in user or site-specific libraries and concatenated ahead of the IBM libraries. Consult your ISPF administrator or systems administrator for procedures and guidelines for modifying ISPF panels.

Note: The selection menus shown in the following examples are part of the program product SPF ISPF, and are copyrighted by IBM.

Install the TSO Online Retrieval Option

This list summarizes the steps required to install the TSO online retrieval option. Each step is explained in detail in the sections that follow.

Note: For more information about the TSO Online Retrieval option, see the chapter "Online Interface Administration" in the *Reference Guide*.

1. (Optional) Add STEPLIB DD statements to the TSO LOGON procedures if the load modules are not in a linklist library.
2. (Optional) Add the mount attribute to the TSO user IDs.

(Optional) Step 1: Add STEPLIB DD Statements

To add STEPLIB DD statements to the procedures for the TSO Online Retrieval Option, Follow these steps::

1. Determine which one of the following actions you performed during the base-product installation:
   - Authorized the program load library
   - Copied the modules to a system authorized library

   If the CA View load modules were *not* copied to one of the libraries in the linklist, continue with this section. Otherwise, skip this section and go to the next section, Step 2: (Optional) Add Mount Attributes (see page 77).
2. Add a STEPLIB DD statement (for the library containing the load modules) to the TSO LOGON procedures for TSO users who use the native TSO online retrieval option.
3. To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to all STEPLIB DD statements.

Note: If you have CA View, verify that the CA View load modules are either in the linklist or in a STEPLIB statement with this step.

Step 2: (Optional) Add Mount Attributes

Assign the mount attribute to all TSO user IDs authorized to browse SYSOUT directly from an archival tape. Use the TSO ACCOUNT command to assign the mount attribute as follows:

```
ACCOUNT
C (userid) MOUNT
END
```

Note: TSO users do *not* need the MOUNT attribute to access reports through the Expanded Access Tape Server (EAS), because the tape is mounted by the EAS started task and not the user's TSO session.

Install the XMS Online Interfaces (Optional)

If you want to install the XMS Online Interfaces to complete configuration with CSM see the topic *How to Complete Configuration of the XMS Online Interfaces with CA CSM* in the chapter *Installing the Online Interfaces*.

How to Configure Without CA CSM

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

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

Follow these steps to configure your product. Some steps are required; others are optional according to the needs of your site.

Step 1. Authorize Program Load Libraries

All users must perform this step.

Perform *one* of the following options to either authorize the program load library or copy the modules to a system authorized library:

- If you want CA View to execute from its own target library:

  APF-authorize the target library by adding an entry for CAI.CVDELOAD to member PROG*xx* of SYS1.PARMLIB.

  Note: Authorization does not take effect until the next IPL.

- If you do *not* want to APF authorize the CA View target library:

  Copy the load modules in CAI.CVDELOAD to an existing authorized library such as SYS1.LINKLIB or any other library in the linklist.

  Use one of the following to copy the load modules:

  - ISPF option 3.3
  - Member HBRMCAPF in CAI.CVDEJCL

    This batch job can be run to copy the load modules from CAI.CVDELOAD to USER.APFLIB.

  Note: The load modules must reside in an authorized library.

Important! We strongly recommend that you authorize and run from the CAI.CVDELOAD target library. We also recommend that you add CAI.CVDELOAD to your linklist.

Step 2. Enter the LMP Code

All users must perform this step.

CA View requires CA LMP (License Management Program), one of the CA Common Services, to initialize correctly. CA LMP provides a standardized and automated approach to the tracking of licensed software. Examine the CA LMP Key Certificate you received with your CA View installation or maintenance cartridge.

The LMP Key Certificate

Your LMP Key Certificate contains the following information:

Product Name

Specifies the trademarked or registered name of the copy of CA View licensed for the designated site and CPUs.

Supplement

Specifies the reference number of your license for the particular CA View, in the format *nnnnnn nnn*.

This format differs slightly inside and outside North America, and in some cases may not be provided at all.

Expiration Date

Specifies the date (MONTH *dd*, *yyyy* as in OCTOBER 21, 2011) that your license expires for the installation and maintenance of the designated CA View.

Technical Contact

Specifies the name of the technical contact at your site, who is responsible for the installation and maintenance of CA View.

This is the person to whom CA addresses all CA LMP correspondence.

MIS Director

Specifies the name of the Director of MIS, or the person who performs that function at the site.

If the title, but not the individual's name is indicated on the Certificate, you should supply the actual name when correcting and verifying the Certificate.

CPU Location

Specifies the address of the building where the CPU is installed.

CA LMP is provided as an integral part of CAIRIM (Resource Initialization Manager), another one of the CA Common Services.

Execution Key

Specifies an encrypted code required by CA LMP for CA View initialization, referred to as the LMP Code during installation.

Product Code

Specifies a two-character code that corresponds to CA View.

CPU ID

Specifies the code that identifies the specific CPU for which installation of your CA View is valid.

The CA LMP execution key, provided on the key certificate, must be added to the CAIRIM parameters to ensure proper initialization of the CA software solution.

Defining the CA LMP Execution Key

To define a CA LMP execution key to the CAIRIM parameters, modify member KEYS in OPTLIB data set.

Syntax is as follows:

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

where:

pp

Specifies the two-character product code (required).

For any given CA LMP software solution, this code agrees with the product code already in use by the CAIRIM initialization parameters for earlier service packs of CA View.

ddmmmyy

Specifies the CA LMP licensing agreement expiration date (required).

tttt-mmmm

Specifies the CPU type and model (for example, 3090-600) on which the CA LMP software solution is to run (required).

If the CPU type or model requires less than four characters, blank spaces are inserted for the unused characters.

ssssss

Specifies the serial number of the CPU on which the CA LMP software solution is to run (required).

kkkkkkkkkkkkk

Specifies the execution key required to run the CA LMP software solution (required).

This CA LMP execution key is provided on the Key Certificate shipped with each CA LMP software solution.

The following example shows a control statement for the CA LMP execution software parameter. The CA LMP execution key is *invalid* and is provided only as an example.

```
PROD(HV) DATE(21OCT09) CPU(3090-600 /370623)
LMPCODE(52H2K06130Z7RZD6)
```

Note: For more information about the procedure for defining the CA LMP execution key to the CAIRIM parameters, see the *CA Common Services Getting Started.*

Multiple LMP Codes

CA View consists of the base product and several components (options) that are purchased separately. Because each component has its own LMP code, you are required to supply an LMP code for each component you purchased. The following table lists the component product codes:

pp	Component Description
VA	CA View base product
VB	CICS online interface
VC	Expanded retention option
VD	IMS/DC online interface
VG	Native TSO online interface
VH	Optical disk interface
VI	Expanded access server option
VK	CA Roscoe online interface
VN	ISPF online interface
VQ	VTAM online interface
0A	PPS for Xerox option
06	EMC Centera option
0W	AFP-to-PDF transform

Note: For more information about the components, see the chapters "Installing Online Interfaces" and "Installing Features."

Step 3. Exclude Archive Tapes from Tape Management Abend Retention

All users must perform this step; otherwise, CA View archival tapes may be scratched prematurely.

Most tape management systems have functions whereby any output tapes created by started tasks or batch jobs that have abended or been canceled are kept for only a specified default period. This can pose problems with CA View archive tapes if the started task (SARSTC) or the archive tape consolidation utility (SARPAC) is canceled or abends.

To ensure that valid data is not lost, your tape management system probably provides a way to override this default retention period based on specific information such as a data set qualifier, creating program name, job name.

The archive tapes use the same qualifier as your CA View database, unless a different qualifier was specified on the STORGRP0-9 initialization parameters. The program name for the started task is SARSTC and the program name for the tape consolidation utility is SARPAC.

CA 1

For CA 1 Tape Management (CA 1), the ABE parameter determines how many days to keep tapes that are created from a job that abnormally terminates. To override the default, CA 1 provides a customizable exit called TMSUX2B that can be modified to prevent CA View tapes from being scratched or overwritten in the event of an abnormal termination.

Note: For more information about the installation of this exit, see the chapter "User Exits and Interfaces" in the *CA 1 Tape Management Systems Programmer Guide*, or contact Technical Support for assistance with CA 1.

CA Dynam/TLMS

For CA Dynam/TLMS Tape Management (CA Dynam/TLMS), the ABEND parameter in your TLMSIPO systems option member controls how long to keep tapes that were created from jobs and tasks that were abnormally terminated. To bypass this option for CA View generated tape output, the TLMSXCLS user exits can be customized to retain the tapes generated in the event of an abnormal termination.

Note: For more information about user exits, see the chapter "User Exits and Macros" in the *CA Dynam/TLMS Tape Management Systems Programmer Guide*, or contact Technical Support for assistance with CA Dynam/TLMS.

For other tape management systems, consult with your software vendor.

Step 4. Create the Database

All users must perform this step.

Upgrade Considerations

Note: For more information about upgrading and additional instructions, see the Upgrading from a Previous Release section.

New Installations

The CA View database is comprised of index and data file data sets.

- The data file data sets hold the report data, report index data, online panels, and banner page members.
- The index file data sets retain initialization parameter settings, user profile data, definition data, and report references.

Both index and data file data sets must be allocated for a new database. These data sets are allocated with the ADDDS INDEX and ADDDS DATA control statements of the SARDBASE utility.

Note: For more information about creating the database, *including formulas for estimating both the DATA and INDEX areas* and important details regarding database extent placement, see the ADDDS section of the SARDBASE Control Statements in the "Database Utilities" chapter in the *Reference Guide*.

Sample JCL to create an index file and database is provided in member HBRMADDS in CAI.CVDEJCL.

Step 5. Modify the Skeleton JCL

All users must perform this step.

Examine and make any necessary changes to the skeleton JCL by editing member SA*x*JCL1 in the OLIB data sets as explained in the following sections.

The skeleton JCL is used by the online task to submit a background job to reprint or retrieve SYSOUT.

Choose the Languages You Want to Use

If you want to have panels for multiple languages in your database, change the skeleton JCL for each language you install.

Select the languages you want to use from the following table, and then modify the corresponding data sets (which contain the online panels) and skeleton JCL members:

Language	Data Set Name	Skeleton JCL Member
English	CAI.CVDEPENU	SARJCL1
Danish	CAI.CVDEPDAN (optional)	SADJCL1
French Canadian	CAI.CVDEPFRC (optional)	SACJCL1
German	CAI.CVDEPDEU (optional)	SAGJCL1

If you want to use a language other than English as the default for your panels, use the LANGUAGE initialization parameter to specify your chosen language. You may also want to record this information next to the LANGUAGE parameter on your Initialization Parameter Worksheet.

Skeleton JCL

The SAxJCL1 skeleton JCL member is processed by CA View when a batch job, such as, a batch reprint or loading of a report from tape is submitted.

The member contains symbolic parameters (variables which begin with an ampersand) which are substituted with the actual values when the job is submitted. The symbolic parameters used here are similar to the symbolic parameters in a JCL procedure.

Modify the SAxJCL1 member for STEPLIB references and tape setup processing.

```
&SJC1

&SJC2
&SJC3
&SJC4
//*
//*         MODIFY //*SETUP AS NECESSARY
//*
)DOT SARTVARS
//*SETUP &TVSER (&TDSN)
)ENDDOT
//STEP1    EXEC PGM=SARBCH
)DOT SAROUTPT
&OJCL
)ENDDOT
//*
//*         MODIFY OR REMOVE STEPLIB AS NECESSARY
//*
//STEPLIB  DD  DSN=CAI.CVDELOAD,DISP=SHR
//*        DD  DSN=CAI.SPOOL.CBQ4LOAD,DISP=SHR  <== CA Spool Loadlib
//SYSUDUMP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSIN    DD  *
/DBASE NAME=&IDX
```

Following are the four variables which can be optionally used to construct JCL:

```
&USERID   User Id (8 characters)
&DID      Distribution Id (32 characters)
&SJCn     Job Statements 1 through 4 (each 72 characters)
&IDX      Database High-level Qualifier (17 characters)
```

The Distribution Id, and SJC1-4 are populated from the user's database profile. If any of the SJC1-4 are not defined when the user's profile was created, they default to JCL Comment statements (//*).

Optionally, there are two system variables which can be used to construct the JCL:

```
&PRD      Product Name (12 characters)
&GL       Maintenance Level (4 characters)
```

The Product Name is always initialized to CA View, the maintenance level is initialized from an entry in the program library (CVDELOAD). This maintenance level is sometimes referred as increment level.

There are two re-occurring tape setup variables which can be optionally used to construct the JCL:

```
&TDSN     Tape Dataset Name (44 characters)
&TVSER    Tape Volume Serial Number (6 characters)
```

These variables can be used for tape SETUP requirements. The sites may require a /*SETUP or a //*SETUP statement in the job stream before the data center can pull tapes. These two variables are called 're-occurring' because more than one tape may be required to complete the batch process.

The ")DOT SARTVARS" and ")ENDDOT" statements form a loop and create the "//*SETUP &TVSER (&TDSN)" statement for each tape referenced in the batch control cards.

The setup statements can be removed from the SAxJCL1 member if they are not required. They can also be used anywhere within the SAxJCL1 member, such as, creating a SARBCH Comment statement for documentation purposes:

```
/DBASE NAME=&IDX
)DOT SARTVARS
* DSNAME=&TDSN VOL=SER=&TVSER
)ENDDOT
```

These statements would create the following SARBCH Statements:

```
/DBASE NAME=.......db_hlq........
* DSNAME=.....tape_hlq.......SARTAPE.T00nnnnn VOL=SER=vvvvvv
* DSNAME=.....tape_hlq.......SARTAPE.T00nnnnn VOL=SER=vvvvvv
```

The SAxJCL1 JCL is combined with the JCL from the user's database profile. This JCL is presented to the user when the SUBMIT Command in entered from any panel. The user can modify these statements. You can ignore these JCL Statements and code all JCL in the SAxJCL1 member.

A SAxJCL1 member can have a JOB card which contains the user's id. The following is an example of a JOB Statement which may be coded in the SAxJCL1:

```
//&USERID.A JOB (ACCTNO),'CA VIEW',CLASS=A,MSGCLASS=X,NOTIFY=&USERID
```

Note: The job id modifier character is not incremented and in this example, is always be 'A'.

You can define four JCL Statements in the user's database profile using the SARBCH/DEFUSER Control Statement. These JCL Statements can be a job statement and other setup JCL or comment statements.

The following is a sample user definition:

```
/DEFUSER USER=DEARO02 ACC=YYYYY MODE=ALL MASTER=Y
   JCL1='//DEARO02A JOB (ACCNO),''ROBERT JONES'',CLASS=K,MSGCLASS=V'
   JCL2='/*JOBPARM S=CA31'
   JCL3='//JOBMSG OUTPUT JESDS=ALL,FORMS=RJ30'
```

Issuing the SUBMIT command from an interactive session displays the 'BATCH JOB JCL' panel:

```
CA View ALL ------------ BATCH JOB JCL ------------------------

COMMAND ===>


JOB STATEMENT INFORMATION:
===> //DEARO02H JOB (ACCNO),'ROBERT JONES',CLASS=K,MSGCLASS=V
===> /*JOBPARM S=CA31
===> //JOBMSG OUTPUT JESDS=ALL,FORMS=RJ30
===> //*
```

Press ENTER to submit or enter END command to cancel.

The user can change or delete any of these statements before they are submitted with the JCL from the SAxJCL1 member; the SARBCH Control Cards are generated to fulfill the requested batch functions.

You can bypass the Job Statement submission panel if a standard job statement is coded in the SAxJCL1 member or if the end-user is not allowed to change the job statements saved in the user's profile. The 'BATCH JOB JCL' panel can be bypassed with a simple SARSUBUX exit.

The following sample SARSUBUX statement bypasses the 'BATCH JOB JCL' panel and immediately submits the batch job:

```
SARSUBUX CSECT

         EBCMODE
         USING SARSUBUX,15
         C     0,=F'12'
         BNE   RC0
RC4      LA    15,4
         BR    14
RC0      SR    15,15
         BR    14
         END
```

STEPLIB References

The action you take in this step depends on decisions you made in Step 8: Authorize Program Load Libraries.

The SA*x*JCL1 skeleton JCL contains a STEPLIB DD statement. This DD statement must be updated if you have not link listed CAI.CVDELOAD or the library you copied the load modules to in the Authorize Program Load Libraries step. If you are running from a linklist library, you can remove the STEPLIB DD statement.

If you have CA Deliver installed into a separate load library, add it to the STEPLIB DD if this library is not in the linklist. You must concatenate the CA Deliver load library after the CA View load library in the STEPLIB statement.

If you have CA Spool installed into a separate load library and want to use the CA View to CA Spool interface, add this library to the STEPLIB DD if this library is not in the linklist. Supply this DD after the CA View and CA Deliver load library DD statements.

Step 6. Load the Online Panels and JCL Library

All users must perform this step. Use this step to choose a language and customize BROWSE and HELP panels.

Upgrade Considerations

Note: For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

Load the panel, message, and skeleton JCL members in the online library to the database.

The OLOAD control statement of the SARDBASE utility is used to load the online library to the database. The online library is defined with the DD statement SAROLIB.

The high-level name of the database must have been previously defined with the NAME control statement (or the PARM parameter of the EXEC JCL statement).

Syntax is as follows:

```
OLOAD
```

Note: For more information about how to load the members of the online library to the CA View database, see OLOAD in the SARDBASE Control Statements section in the "Database Utilities" chapter in the *Reference Guide*.

Sample JCL for this job is provided in member HBRMOLOD of CAI.CVDEJCL.

Choosing Languages for the Panels

You can display the panels in any of several languages in your database. The language panels displayed for a specific end user are determined by the setting of the LANGUAGE parameter on the Batch DEFUSER control statement.

Note: For more information about control statements, see "SARBCH Control Statements" in the *Reference Guide*.

You can load all of the languages, or only those languages your database uses. Each language requires approximately four cylinders of the database.

The following table shows the data sets containing online panels and their languages:

Language	Data Set Name
English	CAI.CVDEPENU
French Canadian	CAI.CVDEPFRC (optional)
German	CAI.CVDEPDEU (optional)
Danish	CAI.CVDEPDAN (optional)

Customize BROWSE and HELP Panels

The data sets listed above contain the BROWSE and HELP panels; you can modify them within the following limitations:

- Constants:

  Constants can be modified and their length can be increased or decreased. The new text displays as coded.

- Variables:
  - Most variables can be moved around the screen as long as the original variable names are retained, but be aware that the relative position of some variables is critical.
  - The length of a variable can be changed, but be aware that the product pads the value with blanks (or truncates it) to conform to its internal length.
  - Any variable can be deleted from a panel.
  - An attempt to add a variable to a screen results in the variable name itself appearing on the screen, without interpretation.

Customize Panels for Color and Highlight

The product supports the display of the following colors:

- Blue
- Red
- Pink
- Green
- Turquoise
- Yellow
- White

The product supports the following highlight attributes:

- Blink
- Reverse video
- Underscore

Note: For these attributes, the colors used must be red, white, blue, or green.

Define color and highlight attributes on the CA Deliver panels according to the rules listed in the IBM manual *Dialog Management Guide for ISPF.*

The following hexadecimal characters are reserved and cannot be defined as attribute statements on a panel:

Hex	Represents
00	Null character
0E	Shift out
0F	Shift in

Hex	Represents
40	Blank
50	Ampersand (&)

Step 7. Load the Model Banner Pages

All users must perform this step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

Upload Considerations

Load the model banner pages to the database.

The BLOAD control statement of the SARDBASE utility is used to load the model banner page library to the database. The model banner page library is defined with the DD statement SARBLIB.

The high-level name of the database must have been previously defined with the NAME control statement (or the PARM parameter of the EXEC JCL statement).

Syntax is as follows:

BLOAD

Note: For more information about how to load the model banner page members to the CA View database, see BLOAD in the SARDBASE Control Statements in the chapter "Database Utilities" in the *Reference Guide*.

Sample JCL for this job is provided in member HBRMBLOD of CAI.CVDEJCL.

Step 8. (Optional) Add the Microfiche Option

Perform this step if you want CA View to copy your SYSOUT to microfiche automatically; otherwise go to the next step.

If you have not added CAI.CVDEPROC to your procedure library concatenation, add the microfiche start procedure JCL to SYS1.PROCLIB. Sample JCL for this job is provided in member CBRMSMFP of CAI.CVDEPROC.

This JCL contains a STEPLIB DD statement. This DD statement must be updated if you have not link listed CAI.CVDELOAD or the library that you copied the load modules to in the Authorize Program Load Libraries step. If you are running from a linklist library, you can remove the STEPLIB DD statement.

Automatic Microfiche

For more information about how to have CA View automatically produce microfiche, see the following sections in the *Reference Guide:*

- Microfiche Processing with SARMFP in the "Configuring" chapter
- START in the Initialization Parameter Descriptions section in the "Initialization Parameters" chapter

Note: To save the information for a later step, be sure to record the member name of the microfiche procedure next to the START parameter on your Initialization Parameter Worksheet.

Index Parameter

Set the index parameter in the EXEC statement to the high-level name of the CA View database. Use the value next to the NAME parameter on your Initialization Parameter Worksheet.

SYSOUT and OUT DD Statements

The SYSOUT DD statement defines the SORT messages; this DD statement can be "dummied out" by specifying it as a comment.

The OUT DD statement must define a sequential output file so that it contains microfiche output. Sample file types are as follows:

- Tape data set processed by an offline microfiche processor
- Temporary data set passed to a microfiche processor
- SYSOUT data set for an online microfiche processor

The OUT DD statement DCB attributes can be specified as fixed or variable length. These attributes can be omitted; however, if they are omitted the DCB attributes are copied from the input disk archival generation.

Step 9. (Optional) Set up Job Accounting

Perform this step if you want CA View to capture job accounting data; otherwise go to the next step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information.*

Capture and Format the Accounting File

If you want the started task to capture the job accounting data, see the Job Accounting section in the chapter "Configuring" in the *Reference Guide.* Also, you may want to review the topic "Formatting the Accounting File" in that chapter.

Sample JCL for this job is provided in member SARINACT of CAI.CVDEJCL.

Note: To save the information for a later step, be sure to record the name of your accounting data set next to the SARACT ddname on your Archival Started Task Worksheet.

Step 10: (Optional) Set Up Backup Tape Tracking

Perform this step if you want the product to use the recovery data set to automatically track tapes used in the backup process; otherwise go to the next step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

Note: We strongly recommend that you use this recovery data set feature.

Define the Recovery Data Set

The started task can automatically track tapes used in the backup process. See the following sections in the *Reference Guide:*

- The Recovery Data Set section in the chapter "Configuring"
- The chapter "Database Backup and Recovery"

Sample JCL for this job is provided in member SARRECV of CAI.CVDEJCL.

Note: To save the information for a later step, be sure to record the name of your recovery data set next to the SARRECV ddname on your Archival Started Task Worksheet.

Step 11: (Optional) Install System Extensions

Perform this step if you want to use CA View extensions for security and automatic report archiving for the data sets or for job accounting; otherwise go to the next step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

Before installing a new version of SARXTD, ensure that the old system extensions have been withdrawn.

Do this by issuing the following command:

```
S SARXTD,PARM=OFF
```

General Considerations for All Users

The system extensions do the following:

- Allow you to print and archive job output concurrently
- Provide security over the data sets
- Capture job accounting information

To add the extensions, if you have not added CAI.CVDEPROC to your procedure library concatenation, add the following start procedure JCL as member CBRMSXTD of SYS1.PROCLIB. Sample JCL for this job is provided in member CBRMSXTD of CAI.CVDEPROC.

```
//CBRMSXTD PROC CAI=CAI,SUBSYS=@
//IEFPROC EXEC PGM=SARXTD,
//             TIME=NOLIMIT,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=&CAI..CVDELOAD
//SUBSYS&SUBSYS DD  DUMMY
//NOTERM   DD  DUMMY
//NOCONF   DD  DUMMY
//SYSUDUMP DD  SYSOUT=X
//PRINT    DD  SYSOUT=X
//SARACT   DD  DISP=SHR,DSN=&CAI..SARACT
```

Note: Use the value next to the SARACT ddname on your Archival Started Task Worksheet for your SARACT data set name.

Library Authorization

The JCL for this job contains a STEPLIB DD statement. This DD statement must be updated if you have not link listed CAI.CVDELOAD, or the library you copied the load modules to in the Authorize Program Load Libraries step. If you are running from a linklist library, you can remove the STEPLIB DD statement.

Data Set Security and Automatic Report Archival

The parameters passed to the program through the PARM field on the EXEC statement apply to data set security and automatic report archival.

Note: For more information, see Systems Extensions (SARXTD) in the "Configuring" chapter in the *Reference Guide.*

Job Accounting

If you want job accounting through CA View extensions, do the following:

- Include the SARACT DD statement

  Note: For more information about job accounting, see Job Accounting in the chapter "Configuring" in the *Reference Guide*.

- Use the value next to the SARACT ddname on your Archival Started Task Worksheet for your SARACT data set name.

If you do not want job accounting, do not include the SARACT DD statement.

Step 12: (Optional) Exceptional Condition Checking

Perform this step if you want the product to check for exceptional conditions; otherwise go to the next step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

General Considerations for All Users

CA View records job-end condition codes and stores them with the SYSOUT. Certain CA View features (such as the Expanded Retention Option and the XPRINT initialization parameters) use these condition codes to determine processing. The product provides the following system default exceptional condition specifications:

- Non-zero condition code
- Data set not deleted
- Data set not cataloged
- Data set not recataloged
- Data set not uncataloged
- JCL error
- Operator cancel in allocation recovery
- System ABEND
- User ABEND
- User defined character strings

If these defaults are not correct for your system, proceed with this step; otherwise go to the next step.

Creating Exceptional Condition Statements

The product allows you to create exceptional condition statements.

Note: For more information about exceptional condition, see Exceptional Condition Checking in the chapter "Archival" in the *Reference Guide*.

The DD statement SARXCTAB in your SARSTC startup JCL and SARFSS JCL points to the file that contains your exceptional condition code checking statements.

Note: To save the information for a later step, be sure to enter the name of your exceptional condition statements data set next to the SARXCTAB ddname on your Archival Started Task Worksheet.

Step 13: (Optional) Replace or Modify User Exits

Perform this step if you want to replace or modify any of the default user exits; otherwise go to the next step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

For each user exit that you have tailored in previous releases, update the new CA View skeleton version and assemble it using the macros in CAI.CVDEMAC. See the comments in the sample exits before updating them.

General Considerations for All Users

The following table lists the user exits and the CAIOPTN members that you can use to install them.

Note: For more information about user exits, see the chapter "User Exits" in the *Programming Guide*.

User Exit	CVDEJCL Member	CVDEJCL Non-SMP	Function
SARACFUX	BRMSACFX	BRMJACFX	ACIF archival task exit
SARACTUX	BRMSACTX	BRMJACTX	Job accounting
SARARAUX	BRMSARAX	BRMJARAX	Automatic report archival
SARATHUX	BRMSATHX	BRMJATHX	Authorization
SARBKTUX	BRMSBKTX	BRMJBKTX	Backup cycle

User Exit	CVDEJCL Member	CVDEJCL Non-SMP	Function
SARDSTUX	BRMSDSTX	BRMJDSTX	Reprint destinations
SARD00UX	BRMSD00X	BRMJD00X	Migrate Cycle exit
SARD03UX	BRMSD03X	BRMJD03X	Secondary Storage Drive exit
SARD05UX	BRMSD05X	BRMJD05X	Secondary Storage Drive exit
SAREASUX	BRMSEASX	BRMJEASX	EAS for tape and robotics exit
SARFVCUX	BRMSFVCX	BRMJFVCX	View collector archival task exit
SARJS2UX	BRMSJS2X	BRMJJS2X	JES control block mapping
SARMFPUX	BRMSMFPX	BRMJMFPX	Microfiche
SAROMSUX	BRMSOMSX	BRMJOMSX	Online management system
SARPACUX	BRMSPACX	BRMJPACX	SARPAC tape consolidation
SARPAMUX	BRMSPAMX	BRMJPAMX	SARPAM Service Routine exit
SARPRFUX	BRMSPRFX	BRMJPRFX	User profile
SARPRTUX	BRMSPRTX	BRMJPRTX	Print
SARSECUX	BRMSSECX	BRMJSECX	Security
SARSMFUX	BRMSSMFX	BRMJSMFX	SMF processing
SARSPFUX	BRMSSPFX	BRMJSPFX	Selection list formatting
SARSRQUX	BRMSSRQX	BRMJSRQX	Selection request
SARSTCUX	BRMSSTCX	BRMJSTCX	Archival task
SARSUBUX	BRMSSUBX	BRMJSUBX	Job submission
SARTPOUX	BRMSTPOX	BRMJTPOX	Tape creation VOLSER exit
SARUNLUX	BRMSUNLX	BRMJUNLX	Selective Unload User exit
SARUS*x*UX	BRMSUS*x*X	BRMJUSxX	User ID determination
SARXCTUX	BRMSXCTX	BRMJXCTX	Exceptional condition checking

Note: Sample JCL is provided to assist with the installation of most CA View user exits in two formats. One sample format provides JCL for SMP/E-controlled USERMOD installation, and one sample format provides JCL to install outside of SMP.

The non-SMP/E samples have been provided in this release to help facilitate improved management of multiple sets of target libraries that have been deployed on more than a single LPAR and have different configuration criteria. To safely manage user exits outside of SMP/E, link the exits into a separate, independent load library that can be link-listed or concatenated before the CA View product load library. We recommend that you test the product before customizing exits.

For more information about User Exits, see the *Programming Guide*.

Step 14: (Optional) Set up for Multiple CPUs

Important! Perform this step only if your system is running multiple CPUs.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

Be aware of the following:

- No active tasks must be running that are pointing to the CVDELOAD and database that are being upgraded.

If a CA View database is accessed from multiple CPUs or LPARs, all PROCs, JCL, CLISTS, and so forth that access the database must also be upgraded.

Define ENQs to the System Integrity Products

If you use a system integrity product, make the required changes to accommodate the new CA View database. RESERVES are issued against both the first index extent and the first data extent; therefore, a review of local configurations is required.

The product issues ENQs and RESERVEs as necessary to maintain the integrity of its data sets. The primary ENQ (QNAME=SARSTC) is used by the archival task to ensure that only one archival task starts using a specific database. The ENQ is defined as SYSTEMS which will be propagated to all LPARs in a PLEX. This queue name need not be defined to a system integrity product. A secondary ENQ (QNAME=SARPAC) is used by the tape consolidation utility SARPAC. This is also defined as SYSTEMS and need not be defined to a system integrity product.

The RESERVE issued by CA View is normally short-lived but causes deadlock conditions unless properly defined. Convert them to global enqueues; however, if your environment dictates, the reserves need not be converted. If a database's first index extent AND the first data extent are on dedicated volumes with no other data sets, you do not need to convert RESERVES to global enqueues.

Using RESERVE and ENQ

The following table shows how CA View uses ENQ and RESERVE:

QNAME	Type	Description	Integrity Product Control
SARSTC	ENQ	Restricts the CA View database to only one archival task	NO
SARPAC	ENQ	Restricts the CA View SARPAC utility to only one task at a time.	NO
SARACT	RESERVE	Serializes the updating of the CA View accounting file	YES (NO if environment dictates)
SARUPD	RESERVE	Serializes the updating of the CA View database and index	YES (NO if environment dictates)

Database Extent Considerations

In a multiple CPU environment, it is possible to have processes in each system image accessing a database extent.

To minimize contention, we recommend that you place each database extent on a dedicated volume. Where possible, the size of the volume must match the size of the database extent. This allows each extent to be accessed by its own server (device address) and prevents I/O for multiple extents from queuing on the same device address, which can happen if multiple database extents are allocated on the same device.

Place the first extent of the index and the database on dedicated volumes because the RESERVE processing uses the data set name and volume of the first extent to serialize all accesses. If multiple database or index extents are on the same volume, then RESERVE can prevent access to the other database or index extents.

Step 15: (Optional) Install Optional Online Interfaces

Perform this step if you want to install any of the optional online interfaces; otherwise go to the next step.

Note: For more information about installing optional online interfaces, see the chapter "Installing Online Interfaces."

Step 16: (Optional) Install Optional Features

Perform this step if you want to install any of the optional features; otherwise go to the next step. For more information about installing optional features, see the chapter "Installing Features."

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

Review the chapter "Installing Features" and ensure that any STEPLIBs in your JCL reference the new CAI.CVDELOAD and that you use the new ERO parameters.

Step 17: (Optional) Download the EMC Centera API for CA View

The CA View Option for EMC Centera enables you to migrate and retrieve reports to/from a Centera disk cluster to the CA View database for viewing or printing.

The EMC Centera API is part of a separate, chargeable option for CA View, which is distributed on a separate cartridge that contains all the data required for the installation.

Sample JCL for downloading the EMC Centera API load library from the cartridge is provided in member HBRMCENT of CAI.CVDEJCL. Customize the JCL member to reflect a valid JOB statement, data set names, and volume serial numbers.

Note: For more information about the EMC Centera Option, see the chapter "EMC Centera Disk Option" in the *Reference Guide*.

Step 18: Add the Archival Task Start Procedure

All users must perform this step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

General Considerations for All Users

All CA Deliver started tasks (RMOSTC) that are writing to a Release 12.2 CA View database *must use the CA View Release 12.2 CVDELOAD load library.*

Note: The CA View databases referenced by those CA Deliver started tasks can be at release level Release 11.7, Version 12.0, Release 12.1, or Release 12.2.

SARSTC Startup Procedure

If CAI.CVDEPROC is not in your system procedure library concatenation, add the archival task startup procedure to SYS1.PROCLIB. Sample JCL statements for this job are in member CBRMSSTC of CAI.CVDEPROC.

```
//CBRMSSTC PROC  CAI=CAI,DB=VIEW.SYSTEM1,OPT=CLEAN
//IEFPROC EXEC PGM=SARSTC,PARM='&DB,&OPT',
//             TIME=NOLIMIT,REGION=0M
//STEPLIB  DD  DISP=SHR,DSN=&CAI..CVDELOAD
//*        DD  DSN=CAI.SPOOL.CBQ4LOAD,DISP=SHR  <== CA Spool Loadlib
//*
//*  OPTIONAL AND FEATURE DEPENDENT DD STATEMENTS:
//*
//SARACT   DD  DISP=SHR,DSN=&CAI..SARACT
//SARRECV  DD  DISP=SHR,DSN=&CAI..SARRECV
//SARXCTAB DD  DISP=SHR,DSN=&CAI..CVDEOPTN(PARMXCT)
//SARPATAB DD  DISP=SHR,DSN=&CAI..CVDEOPTN(PARMERO)
//SARBKLST DD  SYSOUT=X,DCB=BLKSIZE=1330
//SARDRLST DD  SYSOUT=X,DCB=BLKSIZE=1330
//SARD2LST DD  SYSOUT=X,DCB=BLKSIZE=1330
//SYSPRINT DD  SYSOUT=X
//SYSOUT   DD  SYSOUT=X
//SYSUDUMP DD  SYSOUT=X
```

Library Authorization

The JCL for this job contains a STEPLIB DD statement. This DD statement must be updated if you have not link listed CAI.CVDELOAD, or the library you copied the load modules to in the Authorize Program Load Libraries step. If you are running from a linklist library, you can remove the STEPLIB DD statement.

Index Name (Database High Level Qualifier)

Set the DB symbolic on the PROC statement to the high-level name of the database.

Use the value next to the NAME parameter on your Initialization Parameter Worksheet.

The Backup List Report

The Backup List report shows SYSOUTs that were backed up to tape, with their corresponding tape numbers.

To create this report, include the SARBKLST DD statement.

The DR Tape Backup List Report

The DR Tape Backup List report shows SYSOUTs that were backed up to the DR tape, with their corresponding tape numbers.

To create this report, include the SARDRLST DD statement.

The Optical Migration Report

The Optical Migration report (secondary disk) shows SYSOUTs that were backed up to optical disk.

To create this report, include the SARD2LST DD statement.

Optional Functions

Several of the optional functions need DD statements in the started task JCL (SARSTC).

If you installed an optional function, include the DD statement with the appropriate data set name (from your Archival Started Task Worksheet) in SARSTC.

Note: Do not include DD statements for functions you did not install.

Step 19: Use SARINIT to Set the Final Initialization Parameter Values

All users must perform this step.

Upgrade Considerations

For more information about upgrading and information that applies to this step, see the chapter *Migration Information*.

General Considerations for All Users

The SARINIT program is used to inspect, set, or change database initialization parameters. For complete instructions and a discussion of the parameters available, see the chapter "Initialization Parameters" in the *Reference Guide*.

Review the Initialization Parameter Worksheet

Review all of the parameters on your Initialization Parameter Worksheet. Verify that all options have been appropriately set.

Note: Any parameter that you do not modify is set to its default value.

Run SARINIT

Use the following procedure to run SARINIT. Sample JCL for this job is provided in member SARINIT of CAI.CVDEJCL.

1. Create the SARINIT control statements using the Initialization Parameter Worksheet in the appendix "Installation Worksheets."
2. Run SARINIT.
3. Save this JCL and control statements.

Note: You can run SARINIT again to change particular options.

Step 20. (Optional) Customize and Configure CA DRAS

Perform this step if you have installed the CA DRAS component to enable cooperative viewing with CA Output Management Web Viewer. For compatibility, if you versioned your CA View database to the most recent version, verify that your DRAS task is using the most recent libraries.

Note: For information about customizing and configuring CA DRAS, see the *CA DRAS Operations Guide.*

Post-Installation Considerations

Now that you have successfully installed CA View, consider the following:

- For information about shutting down CA View, see the *User Guide*.

Chapter 6: Migration Information

This section contains the following topics:

Migration Considerations

This section contains the information that is required to upgrade to CA View Release 12.2 from CA View Release 11.7, Version 12.0, or Release 12.1.

For an overview of the changes in this release, see the Release Notes.

Upgrading from Previous Releases

These instructions are for sites that want to upgrade to CA View Release 12.2 from CA View Release 11.7, Version 12.0, or Release 12.1; they consist of the original steps and a series of modifications.

To upgrade to Release 12.2, use the steps in the following chapters:

- "Installing Your Product Using CA CSM," "Installing Your Product From Pax-Enhanced Electronic Software Delivery," or "Installing Your Product From Tape"
- "Starting Your Product"
- "Installing Online Interfaces,"
- "Installing Features"

Modify the steps according to the supplementary instructions in the tables in the following sections:

- Installation Steps to Upgrade to Release 12.2
- Configuration Steps to Upgrade to Release 12.2

Existing Release 11.7, Version 12.0, or Release 12.1 users install the product in almost the same way as new users with one exception; instead of creating a database you version your existing database. This process updates several records in the database and executes in a few minutes.

Note: To revert to Release 11.7, Version 12.0, or Release 12.1, see the chapter Reverting to a Previous Installation.

Installation Steps to Upgrade to Release 12.2

To upgrade to Release 12.2, perform each installation step exactly as presented in either of the three "Installation" chapters unless the step has upgrade instructions in the table that follows.

The Step column lists the step and the Upgrade Instructions column explains what you must do to modify or replace the step.

Installation Step	Supplementary Upgrade Instructions
Step BRM1HOLD	No supplementary instructions.
Step BRM2ALL	Comment out or delete the allocations for the target libraries that exist. **Note:** Beginning with Release 11, to help simplify installations and upgrades, the foreign language panel FMIDs have been incorporated into the CA View base FMID. This change requires that all four panel libraries exist or the apply step will fail. Also, it is likely that any existing panel libraries must be enlarged before you run the Apply step. See the Hardware Requirements section to determine the amount of space required for these libraries and adjust accordingly. If you are upgrading from Release 11.7, Version 12.0, or Release 12.1, and the panel libraries are sufficiently allocated, skip this step.
Step BRM3CSI	Comment out or delete the allocations for any libraries that already exist. Comment out or delete the step that creates the CSI. If you are upgrading from Release 11.7, Version 12.0, or Release 12.1, comment out or delete the DDDEF statements for SYSPUNCH (three occurrences). Change all ADD statements to REP statements. Condition code 04 is acceptable. **Note:** The default middle level qualifier name of the SMP/E CSI has been removed beginning with Release 11.6. If you are upgrading from a previous release, ensure that the correct, complete name of your CSI is specified in the PARM= on the execute card.
Steps BRM4RECD, BRM5APP, BRM6ACC	No supplementary instructions. However, be aware that the default middle level qualifier name of the SMP/E CSI was removed beginning with Release 11.6. If upgrading from a previous release, ensure that the correct, complete name of your CSI is specified in the PARM= on the execute card.

Configuration Steps to Upgrade to Release 12.2 without CA CSM

To upgrade to Release 12.2, perform each configuration step exactly as presented in the *Starting Your Product* chapter unless the step has upgrade instructions in the table that follows.

The Step column lists the step and the Upgrade Instructions column explains what you must do to modify or replace the step.

Configuration Step	Supplementary Upgrade Instructions
Step 1-3	No supplementary instructions.
Step 4	Optionally set the version of your database up to Release 12.2. Release 12.2 provides full compatibility with Release 11.7, Version 12.0, and Release 12.1 databases. If you want to utilize specific Release 12.2 features, upgrade the database to Release 12.2. **Note:** If you do not want to from a previous release or version databases, skip this step. This step replaces the Create the Database step in the chapter "Starting Your Product." Instead of creating a CA View database, use the VERSION control statement of the SARDBASE utility to version your database to Release 12.2. This procedure executes in a few minutes. The high-level name of the database must have been previously defined with the NAME control statement (or the PARM parameter of the EXEC JCL statement) for the SARDBASE utility. The format of the VERSION control statement is: Release 12.2 Sample JCL to version the database is provided in member HBRMVERS in CAI.CVDEJCL For more information, see the SARDBASE utility in the chapter "Database Utilities" in the Reference Guide. **Note:** Save your initialization parameter settings; some parameter settings have been added or eliminated in this release, but you may need the original settings if you have to revert to a previous release.
Step 5	No supplementary instructions

Step 6	Load Online Panels and JCL Library If online panel members were customized in previous releases, copy those members to the appropriate Release 12.2 online library. Follow the instructions in this step in the "Starting Your Product" chapter and load the online panels for each language you are using to the database. Because some online panels have changed, you must OLOAD the new panels. **Note**: Only perform the OLOAD of the new panels if the database has been versioned to Release 12.2.
Step 7	Load the Model Banner Pages If model banner page members were customized or added in previous releases, copy those members to the Release 12.2 model banner page library. Follow the instructions in this step in the "Starting Your Product" chapter and load the model banner panels to the database.
Step 8	Add the Microfiche Option (Optional) Follow the instructions in this step in the "Starting Your Product" chapter. If you plan to use microfiche, add or adjust the start procedure in the PROCLIB.
Step 9	Set up Job Accounting (Optional) Skip this step if you want to continue to capture job accounting data in the same way you captured it in the previous releases. Otherwise, follow the instructions in this step in the "Starting Your Product" chapter.
Step 10	Set up Backup Tape Tracking (Optional) Skip this step if you want to continue to automatically track backup tapes the same way you used it in the previous releases. Otherwise, follow the instructions in this step in the "Starting Your Product" chapter.
Step 11	Install System Extensions (Optional) Follow the instructions in this step in the "Starting Your Product" chapter. If you use system extensions, add or adjust the start procedure in the PROCLIB. Before installing a new version of SARXTD, be sure that the old system extensions have been withdrawn. Do this by issuing the following command: S SARXTD,PARM=OFF Include the system extensions parameter in the started task JCL. Be sure that the system extensions JCL procedure is pointing to the new version of CVDELOAD through the STEPLIB statement. **Note:** If the CA View load modules are copied to your linklist library, remove the STEPLIB statement in the system extensions Proc.

Step 12	Exceptional Condition Checking (Optional) Skip this step if you want to continue to use exceptional condition checking the same way you used it in the previous releases. Otherwise, follow the instructions in this step in the "Starting Your Product" chapter to modify the system defaults for exceptional condition checking.
Step 13	Replace or Modify User Exits (Optional) Perform this step if you modified any of the CA View user exits; otherwise, go to the next step. For each user exit that you have tailored in previous releases, copy your changes to the new CA View skeleton version and assemble it. Sample JCL is provided to assist with the installation of most CA View user exits in two formats. One sample format provides JCL for SMP/E-controlled USERMOD installation, and one sample format provides JCL to install outside of SMP. The non-SMP/E samples have been provided in this release to help facilitate improved management of multiple sets of target libraries that have been deployed on more than a single LPAR and have different configuration criteria. To safely manage user exits outside of SMP/E, link the exits into a separate, independent load library that can be link-listed or concatenated before the CA View product load library. Save a copy of your user exits in case you need to revert to the previous release. The SARFVCUX and SARSTCUX user exits are now called with a new entry code 12 starting with Release 11.6. If you are tailoring these user exits, be sure that your user exit(s) correctly handle this new entry code. If your user exit code performs a simple check for entry code 4 and assumes that a higher value is the close call, an additional check may have to be added for entry code 12. In most cases, the entry code 12 call can be ignored by exiting from the user exit. If desired, the original sysout records can be monitored or altered through the entry code 12 call. For more information about user exits, see the "User Exits" chapter in the *Programming Guide.*

Step 14	Set Up for Multiple CPUs Review the instructions in this step in the "Starting Your Product" chapter. Verify that ENQs and RESERVEs are defined sufficiently to maintain integrity of the data sets. Be aware of the following: ■ No active tasks must be running that are pointing to the CVDELOAD and database that are being upgraded. ■ If multiple versions of CA View are running on multiple CPUs and share the database, all PROCs, JCL, CLISTS, and so forth, that access a given CA View database must also be upgraded.
Step 15	No supplementary instructions
Step 16	Install Optional Features (Optional) Verify that the LMP key has been supplied for each feature that you want to install; see the Enter the LMP Code step in the "Starting Your Product" chapter, then follow the installation instructions in the Installing Features section. You should not have to make any changes in your current use of those programs. Use a new CVDELOAD and new ERO parameters. There has been a minor change to cross-memory (one of the CA View optional features): the cross-memory program name was changed to EC2DRV to permit concurrent execution of the releases. For more information, see Installing Cross-Memory Services (XMS) in the Installing Online Interfaces section
Step 17	Download the EMC Centera API for CA View (Optional) Follow the instructions in the chapter "EMC Centera Disk Option" in the *Reference Guide* to download and configure the EMC Centera Disk Option.
Step 18	Add the Archival Task Start Procedure Follow the instructions in the Installation chapter you are using and add or adjust the archival start procedure in the PROCLIB. Ensure that STEPLIB points to the new CAI.CVDELOAD load library. You may want to add the following statements, if you do not already have them: ■ The SARBKLST DD statement provides information about reports that are backed up to tape, reports deleted from the database by the backup cycle, and uncataloged tapes. ■ The SARD2LST DD statement provides information about reports that are backed up to the DR tape. ■ The SARDRLST DD statement provides information about optical migration.

Step 19	Use SARINIT to Set the Final Initialization Parameter Values Follow the instructions in this step in the *Starting Your Product* chapter. Some initialization parameters have been added, changed, or eliminated in Release 12.2. Be sure to review the initialization parameters in the "Initialization Parameters" chapter in the *Reference Guide*. For more information about all initialization parameter changes, see the *Release Notes*. **Note:** Be sure to review any changes made to the FEATURE initialization parameter for this release and adjust your values removing any feature codes that have been deactivated. Save a copy of your initialization parameters in case you want to revert to a previous release.
Step 20	Customize and Configure CA DRAS (Optional) Perform this step if you have installed the CA DRAS component to enable cooperative viewing with CA Output Management Web Viewer. For compatibility, if you versioned your CA View database to the most recent version, verify that your DRAS task is using the most recent libraries. For more information about customizing and configuring CA DRAS, see the *CA DRAS Operations Guide*.

Chapter 7: Reverting to a Previous Installation

This section provides the instructions to use to revert to Release 12.1, Version 12.0, or Release 11.7.

This section contains the following topics:

Revert Considerations

When you version (revert) the CA View database from the current to a previous release, note the following points:

Note: If you are running Release 12.2, you can roll back to Release 12.1, 12.0, or 11.7. However, you *cannot* roll back to a previous increment of Release 12.2. For example, you *cannot* roll back from 12.2 Increment 4 (INC04) to 12.2 Increment 3 (INC03).

Revert to Release 12.1, 12.0, or 11.7

This section applies if you revert to Release 12.1, 12.0, or 11.7.

If any reports were indexed using composite keys, the following actions occur:

- Cross report indexing for these reports is disabled.
- The VERSION job ends with rc=04. The version reports display the following message identifying the report name and the logical view number:

  ```
  SARDBT24 Cross report indexing disabled for logical view "report-name" ‘logical view#’ due to composite index
  ```

The database records for JOB mode processing are removed from the database. However, the reports are still accessible from ALL, SAR, or SARO mode.

If JOB mode processing was permitted for any users, the User control records in the database are updated as follows:

- Each user mode set to JOB is changed to first mode that the user has access to. Examples follow: access mode YYYYYY receives ALL mode; NYNNN receives EXPO; NNYNN receives EXP.
- If all of the access modes are no (NNNNN), the access modes are reset to YNNNN and the user is placed in ALL mode.

Revert to Release 12.0 or 11.7

If you revert to Release 12.0, or 11.7, the points in the previous section apply. In addition, the following point also applies:

The dynamic report identification records are removed from the database. Those dynamic reports are accessible from ALL or EXPO modes but are no longer accessible through EXP mode.

Revert to Release 12.1

You can revert to CA View Release 12.1, if required.

Follow these steps:

1. Use the CA View Release 12.2 SARDBASE utility to set the version of your CA View database back to a CA View Release 12.1 database. The format of the VERSION control statement is:

   VERSION 12.1

   Note: If your CA View database is currently versioned to release level Release 12.1 or earlier, skip steps 1 and 2.

2. Use the CA View Release 12.1 SARDBASE utility to OLOAD the Release 12.1 online panel library into your database.
3. Use the CA View Release 12.1 SARDBASE utility to BLOAD the Release 12.1 banner page library to your database.
4. If you modified any of the CA View user exits, revert to your Release 12.1 versions of the exits.
5. Change your JCL, Procs, and started task JCL to point to the Release 12.1 libraries.
6. If the Release 12.2 load library was link listed, revert to the Release 12.1 link listed library.

Revert to Version 12.0

You can revert to CA View Version 12.0, if required.

Follow these steps:

1. Use the CA View Release 12.1 SARDBASE utility to set the version of your CA View database back to a CA View Version 12.0 database. The format of the VERSION control statement is:

   VERSION 12.0

   Note: If your CA View database is currently versioned to release level Version 12.0 or earlier, skip steps 1 and 2.

2. Use the CA View Version 12.0 release SARDBASE utility to OLOAD the release Version 12.0 online panel library into your database.
3. Use the CA View Version 12.0 release SARDBASE utility to BLOAD the release Version 12.0 banner page library to your database.

4. If you modified any of the CA View user exits, revert to your Release Version 12.0 versions of the exits.
5. Change your JCL, Procs, and started task JCL to point to the Release Version 12.0 libraries.
6. If the Release 12.1 load library was link listed, revert to the Release Version 12.0 link listed library.

Revert to Release 11.7

You can revert to CA View Release 11.7, if required.

Follow these steps:

1. Use the CA View Release 12.2 SARDBASE utility to set the version of your CA View database back to a CA View Release 11.7 database. The format of the VERSION control statement is:

   VERSION 11.7

   Note: If your CA View database is currently versioned to release level Release 11.7 or earlier, skip steps 1 and 2.
2. Use the CA View Release 11.7 SARDBASE utility to OLOAD the Release 11.7 online panel library into your database.
3. Use the CA View Release 11.7 SARDBASE utility to BLOAD the Release 11.7 banner page library to your database.
4. If you modified any of the CA View user exits, revert to your Release 11.7 versions of the exits.
5. Change your JCL, Procs, and started task JCL to point to the Release 11.7 libraries.
6. If the Release 12.2 load library was link listed, revert to the Release 11.7 link listed library.

Chapter 8: Installing the Online Interfaces

This section contains the following topics:

How to Complete Configuration of the XMS Online Interfaces with CA CSM

These steps are configured automatically by the EBC Common Component Configuration Option.

- XMS Startup PROC
- Initialization Parameter Statements
- Modify, Assemble and Link of the EC2XMCTR Module
- Definition of Transactions and Programs to CICS.

The EBC Common Component Configuration Option includes several external tasks that are required to complete the configuration.

Define Security Requirements

You can define security requirements for CA Top Secret (eTrust CA Top Secret).

Follow these steps:

1. Rename the existing facility in the facility matrix table if you do not have a facility defined for VIEWXMS.

   ```
   TSS MODIFY FACILITY(USERnn=NAME=VIEWXMS)
   ```

   Note: The TSS MODIFY command is only valid until the next recycle of CA Top Secret. To make the change permanent, add the following to the CA Top Secret parameter file:

   ```
   FACILITY(USERnn=NAME=VIEWXMS)
   ```

2. Verify that the correct PGMname is defined for the new facility, where PGMname is either the first three characters or all the eight characters of the program name that is going to make security calls (EC2 or EC2DRV).

   ```
   TSS MODIFY FACILITY(VIEWXMS=PGM=EC2)
   ```

   Note: The TSS MODIFY command is only valid until the next recycle of CA Top Secret. To make the change permanent, add the following to the CA Top Secret parameter file after the FACILITY(USERnn=NAME=VIEWXMS) statement:

   ```
   FACILITY(VIEWXMS=PGM=EC2)
   ```

3. Create region ACID for the facility and add a master facility of the facility defined in Step1.

   ```
   TSS CREATE(VIEWXMS) PASSWORD(xxxx,0) TYPE(USER) DEPT(dept) NAME('CA VIEW XMS
   REGION ACID')
   ```

   ```
   TSS ADDTO(VIEWXMS) MASTFAC(VIEWXMS)
   ```

   We recommend that all started task (STC) acids be given a password and OPTIONS(4) be set in the CA Top Secret parameter file. OPTIONS(4) eliminates the prompt for a password when the STC starts, but if someone tries to signon with the STC acid, he needs to know the password.

   The region acid needs access to all resources accessed at startup.

   This access can be given by adding bypass attributes:

   TSS ADD(VIEWXMS) NODSNCHK NOVOLCHK) or by permitting the specific resources

   TSS PERMIT(VIEWXMS) DATASET(xxxx) ACCESS(access)).

   These resources include:

   - READ access to the XMS load library if pointing to this library in a STEPLIB concatenation.
   - READ access to any other libraries specified in the STEPLIB concatenation.
   - READ access to the SYSIN DD statement if it points to a dataset.
   - UPDATE access to the View database.

   If any other DD statements (that is, SYSPRINT, SARLOG, EBCUDUMP, SYSUDUMP, etc) in the XMS startup procs point to datasets instead of SYSOUT, READ access to these datasets is required.

4. Define the VIEWXMS STC to the TSS STC record.

   ```
   TSS ADDTO(STC) PROCNAME(VIEWXMS) ACID(VIEWXMS)
   ```

5. Give access to the ACIDs required to sign on to this facility from Step 1.

   ```
   TSS ADDTO(acid) FACILITY(VIEWXMS)
   ```

   Where 'acid' is the user acid that needs access, an attached profile, or the ALL record if all users must have access.

Install the ISPF/Cross-Memory Online Retrieval Option

The ISPF/Cross-Memory Online Retrieval Option runs under IBM's ISPF for z/OS Version 3.0 and higher.

Important! This interface requires Cross-memory services to be already installed. For more information, see Install Cross-Memory Services in this chapter.

Note: In the JCL for the cross-memory services task, the parameter XMSSUB must be set to YES.

Installation Steps

The following steps are required to install the ISPF/cross-memory online retrieval option. Each step is explained in detail later in the sections that follow.

1. (Optional) Add STEPLIB DD Statements to the TSO LOGON procedures if the load modules were not copied to a linklist library.
2. Add the panel and command table libraries to the TSO logon procedures. (For ISPF only, not for SPF.)
3. (Optional) Modify an SPF selection menu to select the online retrieval feature.

Note: For more information about the ISPF/cross memory online retrieval option, see the chapter "Online Interface Administration" in the *Reference Guide*.

(Optional) Step 1: Add STEPLIB DD Statements to the TSO LOGON Procedures

To add STEPLIB DD statements to the TSO LOGON procedures, Follow these steps::

1. Determine which one of the following actions you performed during the base-product installation:

   - Authorized the program load library
   - Copied the modules to a system authorized library

   If the CA View load modules were not copied to one of the libraries in the linklist, continue with this section. Otherwise, skip this section and go to the next section, Step 2: Add Panel and Command Table Libraries to TSO Logon (see page 120).

   For this interface, the libraries do not have to be APF authorized. Authorization is provided in the cross-memory installation. Multiple versions of this online interface can coexist in one TSO library concatenation.

2. Perform *one* of the following actions:

   - Add a STEPLIB DD statement for the library that contains the load modules to the LOGON procedures for TSO users who use the ISPF/cross-memory online retrieval option.
   - Provide the load library that uses the ISPF LIBDEF facility.

   Note: If multiple versions are to run simultaneously, or if you want to run a previous version of SARSPF or SARTSO, concatenate the load library that you want SARSPF or SARTSO to use first.

More information:

Step 5. Modify the Skeleton JCL (see page 83)

Step 2: Add Panel and Command Table Libraries to TSO Logon

If you are going to run CA View under ISPF, proceed with this step. For Version 3 or higher, both the command table library and the panel library are used.

To add panel and command table libraries to the TSO LOGON procedure:

- Concatenate the command table library CAI.CVDETBL0 to DD statement ISPTLIB.
- Concatenate the panel library CAI.CVDEPNL0 to DD statement ISPPLIB.

Note: If you also plan to use SARSPF (the ISPF interface), and multiple versions of CA View, concatenate CAI.CVDETBL0 first. Use the CAI.CVDETBL0 from the most current release.

Step 3: (Optional) Modify an ISPF Selection Menu to Select Online Retrieval

If you want to add a selection code to one of the ISPF selection menus for the online retrieval feature, proceed with this step; otherwise, your ISPF detailed instructions are complete.

Note: If you add a selection code, you can select the online retrieval feature in the same way you select other ISPF options.

Use the value next to the NAME parameter on your Initialization Parameter Worksheet for PARM(high-level-database-name).

Use the values in this table for either SPF or ISPF.

Type	Selection Code is Defined As
ISPF (all versions)	'PGM(EC2XMSPF) PARM(high-level-database-name) NEWAPPL(SAR)'
SPF	'PGM(EC2XMSPF) PARM(high-level-database-name)'

Panel Libraries

The names of the panel libraries vary from site to site and for the different releases of ISPF. These panel libraries are allocated to the ISPPLIB DD statement under TSO.

Be aware that some installations do not allow direct modifications of IBM panels and libraries. In this case, you can place the modified panels in user or site-specific libraries and concatenate them ahead of the IBM libraries.

Ask your system administrator for the specific ISPF panel library that applies to your site and contains the panel ISR@PRIM.

Note: The selection menus shown in the following examples are part of the program products SPF and ISPF, and are copyrighted by IBM.

Example 1

The following example shows you how to add selection code R to the primary option menu ISR@PRIM for ISPF. The bright, offset text identifies the inserted lines.

```
%----------------------  ISPF/PDF PRIMARY OPTION MENU  --------------------
```

```
%OPTION  ===>_ZCMD                                                        +
%                                                    +USERID    - &ZUSER
%   0 +ISPF PARMS  - Specify terminal and user parameters   +TIME     - &ZTIME
%   1 +BROWSE      - Display source data or output listings +TERMINAL - &ZTERM
%   2 +EDIT        - Create or change source data           +PF KEYS  - &ZKEYS
%   3 +UTILITIES   - Perform utility functions
%   4 +FOREGROUND  - Invoke language processors in foreground
%   5 +BATCH       - Submit job for language processing
%   6 +COMMAND     - Enter TSO Command, CLIST, or REXX exec
%   7 +DIALOG TEST - Perform dialog testing
%   8 +LM UTILITIES- Perform library administrator utility functions
%   C +CHANGES     - Display summary of changes for this release
%   R +SARSPF   - Retrieve SYSOUT
%   T +TUTORIAL    - Display information about ISPF/PDF
%   X +EXIT        - Terminate ISPF using log and list defaults
%
+Enter%END+command to terminate ISPF.
)INIT
  .HELP = ISR00003
  &ZPRIM = YES        /* ALWAYS A PRIMARY OPTION MENU      */
  &ZHTOP = ISR00003   /* TUTORIAL TABLE OF CONTENTS        */
  &ZHINDEX = ISR91000 /* TUTORIAL INDEX - 1ST PAGE         */
)PROC
  &ZSEL = TRANS( TRUNC (&ZCMD,'.')
                0,'PANEL(ISPOPTA)'
                1,'PGM(ISRBRO) PARM(ISRBRO01)'
                2,'PGM(ISREDIT) PARM(P,ISREDM01)'
                3,'PANEL(ISRUTIL)'
                4,'PANEL(ISRFPA)'
                5,'PGM(ISRJB1) PARM(ISRJPA) NOCHECK'
                6,'PGM(ISRPTC)'
                7,'PGM(ISPYXDR) PARM(ISR) NOCHECK'
                8,'PANEL(ISRLPRIM)'
                C,'PGM(ISPTUTOR) PARM(ISR00005)'
             R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1) NEWAPPL(SAR)'
                T,'PGM(ISPTUTOR) PARM(ISR00000)'
               ' ',' '
                X,'EXIT'
                *,'?' )
   &ZTRAIL = .TRAIL
 )END
```

Note:

- NEWAPPL(SAR) is required and must be specified as shown previously in this section.

  This parameter is used with the command table library concatenation from Step 3 of the ISPF Installation Instructions.

- NEWAPPL(SAR) allows CA View to correctly interpret commands and program function key invocation.

  If this parameter is not specified, certain PF keys such as the scroll keys may not function.

Example 2

The following example shows you how to add selection code R to the primary option menu ISP@PRIM for SPF. Shading identifies the inserted lines.

```
%-----------------------  SPF-MVS PRIMARY OPTION MENU  ---------------
```

```
%OPTION  ===>_OPT
%                                                          +USERID   -
%   0 +ISPF PARMS  -     SPECIFY TERMINAL AND USER PARAMETERS   +TIME     -
%   1 +BROWSE      -     DISPLAY SOURCE DATA OR OUTPUT LISTINGS +TERMINAL —
%   2 +EDIT        -     CREATE OR CHANGE SOURCE DATA           +PF KEYS  -
%   3 +UTILITIES   -     PERFORM SPF UTILITY FUNCTIONS
%   4 +FOREGROUND  -     COMPILE, ASSEMBLE, OR DEBUG
%   5 +BACKGROUND  -     COMPILE, ASSEMBLE, OR LINK EDIT
%   6 +COMMAND     -     ENTER TSO COMMAND OR CLIST
%   7 +SUPPORT     -     TEST DIALOG OR CONVERT MENU/MESSAGE FORMATS
%   8 +LM UTILITIES-     PERFORM LIBRARY ADMINISTRATOR UTILITY FUNCTIONS
%  R +SARSPF    -    RETRIEVE SYSOUT
%   T +TUTORIAL    -     DISPLAY INFORMATION ABOUT SPF
%   X +EXIT        -     TERMINATE SPF USING LIST/LOG DEFAULTS
%
+PRESS%END KEY TO TERMINATE SPF+
%
)INIT
  .HELP = TTUTOR
  &ZHTOP = TTUTOR   /* TUTORIAL TABLE OF CONTENTS        */
  &ZHINDEX = TINDEX /* TUTORIAL INDEX - 1ST PAGE         */
)PROC
  &ZSEL = TRANS( TRUNC (&OPT,'.')
                0,'PANEL(ISPOPT)'
                1,'PGM(ISRBRO)'
                2,'PGM(ISPEDIT)'
                3,'PANEL(ISPUTIL)'
                4,'PANEL(ISPFORA)'
                5,'PANEL(ISRJOB)'
                6,'PGM(ISPTSO)'
                7,'PANEL(ISPOTAC)'
            R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1)'
                T,'PGM(ISPTUTOR) PARM(T)'
                ' ',' '
                 X,'EXIT'
                 *,'?' )
 )END
```

Example 3

This example shows you how to add selection code 3.R as a sub-option to the utilities menu ISPUTIL for ISPF. Shading identifies the inserted lines.

```
%----------------------  UTILITY SELECTION MENU  --------------------
```

```
%OPTION  ===>_OPT         +
%                                                                +
%   1 +LIBRARY        LIBRARY UTILITY:
+                     PRINT INDEX LISTING OR ENTIRE DATASET
+                     PRINT, RENAME, DELETE, OR BROWSE MEMBERS
+                     COMPRESS DATASET
%   2 +DATASET        DATASET UTILITY:
+                     DISPLAY DATASET INFORMATION
+                     ALLOCATE, RENAME, OR DELETE ENTIRE DATASET
+                     CATALOG OR UNCATALOG DATASET
%   3 +MOVE/COPY      MOVE OR COPY MEMBERS OR DATASETS
%   4 +CATALOG        CATALOG MANAGEMENT:
+                     DISPLAY OR PRINT CATALOG ENTRIES
+                     INITIALIZE OR DELETE USER CATALOG ALIAS
%   5 +RESET          RESET STATISTICS FOR MEMBERS OF SPF LIBRARY
%   6 +HARDCOPY       INITIATE HARDCOPY OUTPUT
%   7 +VTOC           DISPLAY OR PRINT VTOC ENTRIES FOR A DASD VOLUME
%   8 +OUTLIST        DISPLAY, DELETE, OR PRINT HELD JOB OUTPUT
%   9 +SCRIPT/VS      FORMAT,DISPLAY, AND OPTIONALLY PRINT SCRIPT TEXT
%  R +SARSPF      RETRIEVE SYSOUT
)INIT
  .HELP = TU
)PROC
  &SEL = TRANS( TRUNC (&OPT,'.')
                1,'PGM(ISPUDA) PARM(UDA1)'
                2,'PGM(ISPUDA) PARM(UDA1)'
                3,'PGM(ISPUMC)'
                4,'PGM(ISPUCA)'
                5,'PGM(ISPURS)'
                6,'PGM(ISPUHC)'
                7,'PGM(ISPUVT)'
                8,'PGM(ISPUOL) PARM(UOL01)'
                9,'PGM(ISPUSC) PARM(SCRPTA)'
            R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1)'
              ' ',' '
                *,'?' )
 )END
```

ISPF Cross-Memory Notes

Be aware of the following:

- The primary SARXMS region must be started with the XMSSUB=YES parameter.
- The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers. The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- RECON=YES can be used to allow reconnection (after an ISPF terminal error) at the point of exit.
- TIMEOUT= specifies how long ISPF waits for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

To abort the XMS session and return the user to ISPF or the TSO command prompt, press the ATTN key.

Note: The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.

Install the TSO/Cross-Memory Online Retrieval Option

Important! This interface requires the cross-memory services to be installed. See the previous topic Install the Cross-Memory Services in this chapter.

Note: The parameter XMSSUB must be set to YES in the JCL for the cross-memory services task.

Installation Steps

The following steps are required to install the TSO/cross-memory online retrieval option. Each step is explained in detail in the sections that follow.

1. (Optional) Add STEPLIB DD Statements to the TSO LOGON procedures if the load modules were not copied to a linklist library.
2. (Optional) Create user CLISTs to execute the CA View TSO/XMS driver program.

(Optional) Step 1: Add STEPLIB DD Statements

The action you take in this step depends on what you did during the base-product installation—specifically, did you:

- Authorize the program load library

  or

- Copy the modules to a system authorized library

If the CA View load modules were *not* copied to one of the libraries in the linklist, proceed with this step; otherwise go to the next step.

To add STEPLIB DD statements (for the library containing the CA View load modules) to the TSO LOGON procedures, do the following:

- Add a STEPLIB DD statement for the library that contains the CA View load modules to the LOGON procedures for those TSO users who are to use the TSO/Cross-Memory Online Retrieval Option.

Note: For this interface, the libraries do not have to be APF-authorized—authorization is provided in the cross-memory installation. Multiple releases of this online interface can coexist in one TSO library concatenation.

For more information about executing the CA View TSOXMS driver program, see the chapter "Online Interface Administration" in the *Reference Guide*.

Step 2: (Optional) Set up the TSOXMS Driver Program

To create user CLISTs to execute the CA View TSOXMS driver program, issue the following command:

```
EC2XMTSO highlevel.databasename
```

Note: For more information about executing the CA View TSOXMS driver program, see the chapter "Online Interface Administration" in the *Reference Guide*.

TSO Cross-Memory Notes

Be aware of the following:

- The primary SARXMS region should be started with the XMSSUB=YES parameter.
- The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers.

  The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- RECON=YES can be used to allow reconnection (after a TSO terminal error) at the point of exit.
- TIMEOUT= specifies how long TSO is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

To abort the XMS session and return the user to ISPF or the TSO command prompt, press the ATTN key.

Note: The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.

Install the VTAM Online Retrieval Option

Important! This facility uses the cross-memory feature distributed with CA View and must be installed with that feature.

Note: For more information about the cross-memory feature, see the Install Cross Memory Services section in this chapter.

Installation Steps

Follow these steps to install the VTAM online retrieval option.

1. Define the application program to VTAM (see page 128).
2. (Optional) Create a USS table definition (see page 129).

Step 1: Define the Application Program to VTAM

Add this application program definition to SYS1.VTAMLST:

```
* SYS1.VTAMLST(sarmajor)
sarmajor VBUILD TYPE=APPL
sarvtam  APPL  ACBNAME=sarvtam,AUTH=(PASS,ACQ),EAS=nn
```

where:

sarmajor

Specifies the application program major node name.

Use the SYS1.VTAMLST member name. The member name must be unique and must not be the same as the names on the APPL statement.

AUTH=(PASS,ACQ)

Is required when the cross-memory parameter VTAMPASS=YES is used to support multiple cross-memory regions.

If VTAMPASS=NO, you can specify AUTH=(ACQ). For more information about the VTAMPASS parameter, see the topic, Add the Start Procedure for the Cross-Memory Online Task, later in this chapter.

EAS=nn

Specifies the approximate number of concurrent sessions.

sarvtam

Specifies the application program minor node name.

- This name must be unique within the network domain; it is the APPLID referenced in the USS definition table or LOGON command.
- This name is also specified on the cross-memory SARAPPL parameter.
- If not specified, the network-unique name (the name of the APPL definition statement) is used.

Step 2: (Optional) Create a USS Table Definition

To simplify the manner in which a user logs on to VTAM online retrieval, you can create a USS definition table for CA View.

Example

Assume that two CA View systems have been created. The databases for the two systems have high-level names of VIEW.SYSTEM1 and VIEW.SYSTEM2, and you want a user to simply enter one of the following to log on to VTAM online retrieval for the respective systems:

```
VIEW1
VIEW2
```

Create a USS definition table as follows:

```
USSTAB
*
*    ENTRY FOR VIEW1
*
USSCMD  CMD=VIEW1,REP=LOGON,FORMAT=PL1
USSPARM PARM=APPLID,DEFAULT=SARVTAM
USSPARM PARM=LOGMODE

USSPARM PARM=DATA,DEFAULT=VIEW.SYSTEM1
*
*    ENTRY FOR VIEW2
*
USSCMD  CMD=VIEW2,REP=LOGON,FORMAT=PL1
USSPARM PARM=APPLID,DEFAULT=SARVTAM
USSPARM PARM=LOGMODE
USSPARM PARM=DATA,DEFAULT=VIEW.SYSTEM2
USSEND
```

VTAM Cross-Memory Notes

Be aware of the following:

- For VTAM only regions, you can start the primary SARXMS task with the XMSSUB=NO parameter. However if this is not a VTAM-only region, we recommend that you start the primary SARXMS region with the XMSSUB=YES parameter.
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- VTAM only XMS regions can have the XMS=NO parameter to make it accessible.
- All XMS interfaces require the EC2XMCTR table. You must assemble the table during installation to:
  - Define the relationship between CA View and CA Deliver database high-level qualifiers and the session options to be used
  - Provide information used to build the XMS database table. Only the database high-level qualifier is used for VTAM XMS users.
- Specify the SARAPPL=applid parameter. This parameter provides VTAM user signon capability.

  Note: When you are using multiple VTAM XMS regions, each region must have a unique applid.
- To pass VTAM signon requests to other XMS regions, specify the VTAMPASS=YES parameter.
- When you are using multiple VTAM XMS regions, the values for LGNFMT=, SARVDTB=, VTMQUERY=, and VTMSAA= must be the same in each region or the XMS interface may react in unpredictable ways.
- To activate the VTAM generic resource support for your cross-memory regions, specify the VGRAPPL= parameter.

  For more information about VTAM generic resources, see the following topic.

VTAM Generic Resource Name

If the VGRAPPL parameter is specified in an EMAS complex, this parameter specifies a common VTAM generic resource name for the entire EMAS complex.

Specifying the common VTAM generic resource name in the session request can initiate VTAM cross-memory sessions to any of the EMAS members.

When you are using the VTAM generic resource name, by default VTAM tries to request a session with an EMAS member in the same MVS image.

If it is not possible to get the session that was requested, VTAM uses normal load balancing when passing the session request to one of the active EMAS members.

Install the CA Roscoe/Cross-Memory Online Retrieval Option

The CA Roscoe/cross-memory online retrieval option runs as a command processor under ETSO/Roscoe.

Important! This interface requires cross-memory services to be installed. See the previous topic Installing Cross-Memory Services in this chapter. Be sure to set the parameter XMSSUB to YES in the JCL for the cross-memory services task.

Installation Steps

The following steps are required to install the CA Roscoe/Cross Memory Online Retrieval option. Each step is explained in detail in the sections that follow.

1. (Optional) Concatenate the Load Module Library to the ETSOLIB DD statement, if the load modules were not copied to a linklist library.
2. Add the control statement for the SARROS command processor to the Eligible Program List (EPL).
3. Invoke CA Roscoe/Cross Memory Online Retrieval.

(Optional) Step 1: Concatenate the Load Module Library

If the load modules were *not* copied to a linklist library, concatenate the library that contains the load modules to the ETSOLIB DD statement in the CA Roscoe start up JCL.

Note: If you have CA Deliver, the CA Deliver load modules must also be either in the linklist, or in a ETSOLIB statement with this step.

Step 2: Add SARROS Command Processor Statements

Important! This step is for CA Roscoe 6.0 and Higher.

Add this EPL control statement to member ETSOPGMS for the CA Roscoe user with the RO prefix.

Columns	Contents
1-8	EC2XMROS
9	Blank
10-12	Number of users allowed to access CA View at one time
13	Blank
14-17	CPU time slice Use 9999 to prevent premature termination.
18	Blank

Columns	Contents
19-24	Maximum memory (in KB) below the 16 MB line This memory is only for the cross-memory driver program (50 KB is ample).
25	Blank
26-31	Maximum memory (in KB) below the line that CA View can acquire at one time Use 999999 so that GETMAINs will not be limited.
32	Blank
33-38	Maximum memory (in KB) above the 16 MB line This memory is only for the cross-memory driver program (50 KB is ample).
39	Blank
40-45	Maximum memory (in KB) above the line that CA View can acquire at one time Use 999999 so that GETMAINs will not be limited.
46	Blank
47	N – Suppress Dump
48	Blank
49	Y – Application authorized to issue MODESET SVC
50	Blank
51-52	CP to call EC2XMROS as a TSO command processor
53-255	Ignored

Note: For more information about how to invoke the CA Roscoe/cross-memory online retrieval feature, see the chapter "Online Interface Administration" in the *Reference Guide*.

CA Roscoe Cross-Memory Notes

Be aware of the following:

- Start the primary SARXMS region with the XMSSUB=YES parameter.

  The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).

- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.

- The XMS regions must have the XMS=YES parameter to make it accessible.

- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers.

  The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.

- RECON=YES can be used to allow reconnection (after a TSO terminal error) at the point of exit.

- TIMEOUT= specifies how long TSO is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

Note: The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.

Install the CICS Pseudo-Conversational Option

Important! This option uses the cross-memory feature distributed with CA View and must be installed with that feature.

Note: For more information about cross-memory, see Install Cross Memory Services.

Installation Steps

The following steps are required to install the CICS Pseudo Conversational Option. Each step is explained in detail in the sections that follow.

1. Place the CA View load libraries into DFHRPL and STEPLIB.
2. Code the PCT and PPT Table Entries to CICS.
3. (Optional) Prepare the interface to a user-written CICS menu system.

Step 1: Add Modules to DFHRPL and STEPLIB

The CA View load library is required in the CICS DFHRPL and in the STEPLIB in the CICS region.

Note: If the CAI.CVDELOAD load library is in the linklist, it does not have to be included as a STEPLIB in the CICS region.

Be sure the following modules are available in the DFHRPL concatenation of libraries:

- EC2CICUX
- EC2CIEND
- EC2CINIT
- EC2CISRV
- EC2XMCIC
- EC2C*release-number*

  Where:

  release-number represents the CICS release number.

  - CTS 3.1 release number: 0640
  - CTS 3.2 release number: 0650
  - CTS 4.1 release number: 0660
  - CTS 4.2 release number: 0670
  - CTS 5.1 release number: 0680
  - CTS 5.2 release number: 0690

You can copy the six modules to the DD statement DFHRPL in your CICS task. However, we strongly recommend that you concatenate CAI.CVDELOAD to the DD statement DFHRPL.

Note: Several CA View modules are loaded (MVS load) from the CICS STEPLIB or LINKLIST. Verify that the entire CA View load library is defined in the CICS STEPLIB or is included in the linklist.

Step 2: Code the PCT and PPT Table Entries to CICS

The CICS transactions and programs were previously defined in the CSM configuration step. Review the following points to determine if they are applicable to your installation.

CICS Resource Definition Online Storage Protection

If you have CICS storage protection activated, the following resource definition online settings are required:

- For all transactions

  TASKDATALOC=ANY

  TASKDATAKEY=CICS

- For all programs

  DATALOCATION=ANY

  EXECKEY=CICS

PLT Start-up List

Add these table entries to the last phase of the PLT startup list to initialize the subtask that is used for cross-memory access:

```
DFHPLT TYPE=ENTRY,PROGRAM=DFHDELIM
DFHPLT TYPE=ENTRY,PROGRAM=EC2CINIT
```

PLT Shutdown List

Add this table entry to the first phase of the PLT shutdown list to be sure that the subtask that executes as part of the online facility shuts down correctly when CICS shuts down:

```
DFHPLT TYPE=ENTRY,PROGRAM=EC2CIEND
DFHPLT TYPE=ENTRY,PROGRAM=DFHDELIM
```

Optional DCT Entries

Specify a value for the DESTID parameter in the EBCXMOPT macro in the EC2XMCTR module and corresponding DCT entries. This value defines a transient data destination for messages issued by the subtask.

Note: Specify a blank for DESTID to suppress the generation of informational messages from the subtask.

The DCT entries for a DESTID of XMC2 are:

```
SARLOG   DFHDCT TYPE=SDSCI,   FOR CICS MESSAGES AND SHUTDOWN
                BLKSIZE=250,  STATISTICS
                BUFNO=1,
                DSCNAME=SARLOG,
                RECFORM=VARUNBM,
                RECSIZE=242,
                TYPEFLE=OUTPUT
XMC2G    DFHDCT TYPE=EXTRA,
                DESTID=XMC2,
                DSCNAME=SARLOG
```

Step 3: (Optional) Invoke the Product from a CICS Menu System

If you want to invoke CA View from a user-written CICS menu system, and then return to that menu system when you exit from CA View, do the following:

Invoke CA View from the menu system using the following CICS command:

```
EXEC CICS START TRANSID(VIEW transaction-id)
     TERMID(EIBTRMID)
     FROM(data-area)
     LENGTH(4)
```

where:

TRANSID(VIEW *transaction-id*)

Specifies the CA View transaction ID.

TERMID(EIBTRMID)

Specifies the terminal that a CA View transaction will communicate with.

FROM(*data-area*)

Specifies the optional variable length character string.

The format of the data-area parameter is:

tran,mode,sysoutid,jobnum,code

where:

tran

Specifies the return menu CICS transaction to be started when CA View finishes

mode

Specifies the CA View user mode (ALL, SAR, SARO, EXP, EXPO) for this user

If mode is not specified, the last mode that the user was in is used.

sysoutid

Specifies the SYSOUT ID or generic ID (with *) to be selected

jobnum

Specifies the JES2 job number of the SYSOUT ID to be selected

code

Indicates the selection code to be used (S, Pn, Vn, Jn, and so on)

If code is not specified, the user is presented with the SYSOUT Selection List.

Note: None of the data-area parameters is required.

LENGTH (4)

Specifies the number of bytes in the data field being passed.

When CA View receives control, it retrieves the four-byte return transaction ID and saves it from iteration to iteration.

If the retrieve fails, CA View retains the information that it was started directly from a terminal, not a menu system.

When CA View finishes processing, it determines whether it should return to a menu system by starting the return transaction.

If there is a saved transaction ID, the product starts the return transaction before it exits to CICS by issuing:

```
EXEC CICS START TRANSID(return transaction-id)
     TERMID(EIBTRMID)
     NOCHECK
```

CICS Notes

The cross-memory CICS access involves two different address spaces: the CICS address spaces and the XMS address spaces.

CICS Address Spaces

The user's CICS transactions and the cross memory support subtask reside in these address spaces.

- If multiple CICS regions are used to access CA View, each CICS region will have an XMS support subtask
- If you are using CICS/MRO, CA View normally runs in an AOR (application region).

XMS Address Spaces

Be aware of the following:

- The primary SARXMS region can be started with the XMSSUB=YES or XMSSUB=NO parameter.
- CICS has a router subtask in its region and does not require the XMSSUB=YES function. However, we recommend that you start the primary XMS region with XMSSUB=YES.
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- The XMS regions must have the XMS=YES parameter to make it accessible.
- The SUBSYS= parameter must match the EC2XMCTR table entry for the CICS transaction.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers.

  The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CICS user transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter can be used to route the CA View transaction to an alternate XMS subsystem ID. The SUBSYS= of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- TRANID=parameter specifies the CA View transaction identifier for CICS.
- RECON=YES can be used to allow reconnection (after a CICS terminal error) at the point of exit.

  Note: Do not specify RECON=YES if you use a multi-session manager that assigns LU names from a pool of names. Coding RECON=YES under these conditions could allow you to be connected to another user's session.

  For more information, see Multi-Session Managers later in this chapter.
- TIMEOUT= specifies how long CICS is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

CICS XMS Subtask Startup

Use *one* of these methods to start the XMS subtask automatically:

- When the CICS region is started, use the DFHPLTPI definition to automatically start the XMS subtask.
- Define a transaction for the EC2CINIT program to allow for manual startup.
- Write a CICS program to transfer control (XCTL) to EC2CINIT when you want to start the XMS subtask.

Until the XMS subtask is started, expect the transactions referencing EC2XMCIC to terminate with an error message that indicates that the XMS subtask is not active

Note:

- When the CICS region is terminated, the DFHPLTSD definition is to be used to terminate the XMS subtask.

  You can manually terminate the XMS subtask through a user application program that links the EC2CIEND, or you can use the optional transaction defined for EC2CIEND for manual termination.
- If you want to terminate the XMS subtask manually, we recommend that you use the DFHPLTSD entry to terminate the XMS subtask. This definition is needed to clean up linkages to the XMS address spaces.
- To prevent users from shutting down the XMS subtask, secure the optional transaction for program EC2CIEND.

Multi-Session Managers Using Virtual LU Names

Multi-session manager products, for example CA TPX Session Management (CA TPX), can be configured to assign an LU name to a user's terminal at the time the user selects the CICS application.

Important! This assignment means that a user can enter CICS each time with a different terminal ID which can cause problems for CA View application.

For example: If a user uses a multi-session manager to end a session, or shuts the PC down, CA View does not know that the user has left. Another user might select CICS, be assigned to the same LU name as the previous user, and enter CA View with the same terminal ID as the previous user. CA View believes that there are two active users on the same terminal.

To prevent this situation, you can add a small amount of code to the CICS Autoinstall Control Program.

Note: The default name of this program is DFHZATDX and its source is located in SDFHSAMP.

If you are not a CICS systems programmer, discuss this situation with the person in your company who is responsible for CICS support and maintenance.

The sample code that follows shows how to clear an active user from the CA View application at terminal deletion time. Insert this code in your Autoinstall Control Program.

The source that is shipped with CICS contains this line:

```
 * ==> PUT DELETE CODE HERE
```

Insert the code after that line.

```
LOAD  EP=EC2XSLOC,ERRET=RETURN
         LR    R6,R0                  GET EBCXSLOC ADDRESS
         ICM   R8,B'1111',0(R6)       ADDR OF MAIN CONTROL BLOCK
         BZ    RETURN                 GET OUT IF NONE
         LA    R7,4(,R8)              LOOK LIKE FIRST USER BLOCK
XSU_LOOP DS    OH
         ICM   R7,B'1111',8(R7)       USER BLOCK ADDR
         BZ    RETURN                 GET OUT IF DONE
         CLC   DELETE_TERM_ID,104(R7) FOR THIS TERMINAL?
         BNE   XSU_LOOP               NO
          TM    120(R7),X'01'        ACTIVE ENTRY?
          BZ     XSU_LOOP                    NO
         OI     120(R7),X'02'        SHOW SESSION DONE
          B     RETURN               EXIT PROGRAM
```

This code does the following:

1. Attempts to load program EC2XSLOC
   - If the load fails, this is not the region containing CA View and it exits.
   - If CA View is active in this region, the first word of EC2XSLOC contains the address of the main control block.

     If this word is zero, CA View is not active and the program exits.
2. Scans the chain of CA View user control blocks to find the terminal to be deleted
   - If the program finds the terminal ID, it makes sure that the user block is in use and is active, then it clears the appropriate fields.
   - If the block does not represent an active user, the program continues to search the chain to the end.
   - If the program gets to the end of the chain without finding the terminal ID, the program exits.

If you implement this change to the terminal deletion section of the Autoinstall Control Program, you can prevent the problems caused by the methods that were used to leave the CA View application.

Install the IMS Online Retrieval Option

Use these steps to install the IMS online retrieval option.

Important! This facility uses the cross-memory feature distributed with CA View and must be installed with that feature.

Note: For more information about cross-memory, see the topic Installing Cross-Memory Services in this chapter.

Installation Steps

This list summarizes the steps required to install the IMS Online Retrieval Option. Detailed instructions are in the sections that follow.

1. Code the IMS TRANSACT, PSB, and APPLCTN macros.
2. Run the PSB, ACB, and SYSGEN procedures.
3. Load EC2IMSUX Modules

   Move load modules to IMSVS.PGMLIB.

Important! All JCL and macros provided in this section are provided as general examples only and must be modified according for your site's systems and standards.

Step 1: Code the Macros

Use the examples in this section as a guide as you code these macros, and implement them in your IMS system.

- (IMS) TRANSACT macro
- PSB macros
- APPLCTN macro

TRANSACT Macro

One or more transactions must be defined for the IMS online retrieval program SARXMIMS. Normally, only one transaction identifier is defined, although you can define multiple transactions.

This TRANSACT macro identifies the SARXMIMS transaction to IMS:

```
TRANSACT NAME=EC2XMIMS,SPA=(18)
```

PSB Macros

This PSB must be generated for the EC2XMIMS transaction:

```
PCB       TYPE=TP,ALTRESP=YES,MODIFY=YES
PSBGEN    PSBNAME=EC2XMIMS,LANG=ASSEM,COMPAT=YES
```

APPLCTN Macro

This APPLCTN must be generated for the SARXMIMS transaction:

```
APPLCTN   PSB=EC2XMIMS
```

Step 2: Run the PSB, ACB, and SYSGEN Procedures

Use the macros created in Step 1. Code the Macros as input for the following procedures:

```
PSBGEN
ACBGEN
IMS SYSGEN
```

Step 3: Load EC2IMSUX Modules

Move load modules EC2IMSUX to IMSVS.PGMLIB.

Note: EC2IMSUX is in CAI.CVDELOAD and must be copied to IMSVS.PGMLIB.

IMS Notes (New Version)

Be aware of the following:

- The new IMS/DC Transaction Program (EC2XMIMS) is a replacement for the older SARXMIMS program.
- The EC2XMIMS does not need to be linkedited to the ASMTDLI interface program. The transaction is now conversational with a SPASIZE=18 (this can be adjusted).
- If you use extended color, the SEGSIZE= may need to be increased, because extended color data streams can be a 50% increase over the monochrome data stream size.

  To determine the SEGSIZE= value, take the terminal that uses the interface with the largest screen size, in bytes, and apply the following formula:

  ```
  ROWS * COLS * 1.5 = SEGSIZE
  ```

  For example, a 3278-5 with a 27 x 132 screen size would be (27 * 132 * 1.5) = 5346. If the SEGSIZE= is too small, the terminal user will get an RC= "A6" message indicating that a message insert failed.

IMS/DC Parameter Relationships

The cross-memory IMS/DC access involves up to three different address spaces as follows:

- IMS/DC message processing region address spaces

  The user's IMS/DC transaction resides here. If multiple IMS/DC users are processing concurrently (input being processed by the XMS system), a separate IMS/DC message region is used for each user.

  IMS/DC can control the maximum number of IMS/DC transactions executing at one time.

- The XMS support subtask
  - The subtask is started when the XMSSUB=YES input parameter is used when an XMS address space is started.
  - The subtask can be in a separate XMS address space or share the address space with XMS or VTAM sessions.
  - The XMSSUB=YES must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
  - If multiple XMS address spaces are started, only one can have the XMSSUB=YES specified.

  Note: All IMS/DC, TSO/XMS, ISPF/XMS and CA Roscoe/XMS sessions share the same XMS subtask.

- XMS address spaces

  See the topic that follows.

IMS/DC Cross-Memory Notes

Be aware of the following:

- The primary SARXMS region is to be started with the XMSSUB=YES parameter.

  This region can be in a separate XMS address space or share the address space with XMS or VTAM sessions.

- The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.

- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers. The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task

  The parameter must match the SUBSYS= parameter specified in the EBCXMCTR table entry.

- RECON=YES can be used to allow reconnection (after an ISPF terminal error) at the point of exit..
- TIMEOUT= specifies how long ISPF is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend a value as high as possible but not less than 240 (4 minutes).

To abort the XMS session and return the user to ISPF or the TSO command prompt, press the ATTN key.

Note:

- The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.
- For more information about the IMS online interface, see the chapter "Online Interface Administration" in the *Reference Guide*.

To control screen size manually, use these operands. The SNA query command can also be used to determine the device characteristics.

Enter	For Terminal Type
M2	3278-2 24 x 80 default screen size
M2H	3278-2 24 x 80 highlighting
M2X	3279-2 24 x 80 color highlighting
M2C	3279-2 24 x 80 color
M3	3278-3 32 x 80
M3H	3278-3 32 x 80 highlighting
M3X	3279-3 32 x 80 color highlighting
M3C	3279-3 32 x 80 color
M4	3278-4 43 x 80 highlighting
M4H	3278-4 43 x 80 highlighting
M4X	3279-4 43 x 80 color highlighting
M4C	3279-4 43 x 80 color
M5	3278-5 27 x 132
M5H	3278-5 27 x 132 highlighting
M5X	3279-5 27 x 132 color highlighting
M5C	3279-5 27 x 132 color
M6	3290 62 x 80
M6H	3290 62 x 80 highlighting
M7	3290 31 x 160
M7H	3290 31 x 160 highlighting
M8	3290 62 x 160
M8H	3290 62 x 160 highlighting

For other modifications to your system, see your VTAM programmer.

How to Configure the Online Interfaces Without CA CSM

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

This section also describes the online interface options, the cross-memory drivers, and how to install the online interfaces, including these topics:

- Online and cross-memory interfaces
- Cross-memory drivers for ISPF, TSO, and CA Roscoe interfaces
- Installation of these options:
  - ISPF online retrieval option
  - TSO online retrieval option
  - CA Roscoe online retrieval option
  - Cross-memory services
  - ISPF/cross-memory online retrieval option
  - TSO/cross-memory online retrieval option
  - VTAM online retrieval option
  - CA Roscoe/cross-memory online retrieval option
  - CICS pseudo-conversational option
  - IMS online retrieval option

Online Interfaces

The following table lists the online interfaces, whether cross-memory services (XMS) must be installed and any special advantages of using the interface.

Online Interface	XMS	Advantages
ISPF	NO	Provides full online access without the need for a cross-memory region
ISPF/XMS	YES	Does not require the STEPLIB to be APF-authorized To simplify migration, you can run multiple releases of CA View concurrently.
TSO	NO	Provides full online access without the need for a cross-memory region

Online Interface	XMS	Advantages
TSO/XMS	YES	Does not require the STEPLIB to be APF-authorized To simplify migration, you can run multiple releases of CA View concurrently.
VTAM	YES	Supports extended data stream to queriable terminals
CICS	YES	To simplify migration, you can run multiple releases of CA View concurrently.
IMS/DC	YES	
CA Roscoe	NO	Provides full online access without the need for a cross-memory region
CA Roscoe/XMS	YES	Does not require the STEPLIB to be APF-authorized To simplify migration, you can run multiple releases of CA View concurrently.

Cross-Memory Services Interface (XMS)

The cross-memory services interface manages several interfaces; this allows you to control online access with a single operator interface. Advantages of the interfaces are discussed later in this chapter.

The parameters in the startup procedure for the cross-memory task allow you to control:

- The maximum number of users allowed on the system
- Whether to cancel users when they are inactive for a specified time (CANCEL and LONGWAIT)

Note: For information about startup parameters, see Installing Cross-Memory Services later in this chapter.

The operator commands available to modify the cross-memory task allow you to:

- Cancel users
- Suspend additional logons
- List online usage statistics
- Modify selected cross-memory startup JCL parameters

Note: For more information about online interface, see the chapter "Online Interface Administration" in the *Reference Guide*.

Cross-Memory Drivers for Interfaces

You can use cross-memory services drivers to run the TSO, ISPF, and CA Roscoe online interfaces.

The advantages of using these drivers are:

- Users are authorized by cross-memory drivers.

  When you use the cross-memory services drivers for the ISPF, TSO, or CA Roscoe interfaces, users are authorized by cross-memory and do not also need authorization from the online interface (for example, TSO).

- Multiple versions of CA View can run simultaneously.

  When you use the cross-memory services drivers for the ISPF, TSO, or CA Roscoe interfaces, you can run multiple versions of CA View concurrently. This ability supports migration; it makes it easier to migrate when you are converting to a new version level of CA View.

You can also run multiple versions of the online interfaces simultaneously.

Restrictions

These restrictions apply when you execute the program using the cross-memory drivers for TSO, ISPF, and CA Roscoe:

- TSO SUBMIT is not used. The SUBMIT occurs from the connected cross memory region.
- Direct reprints from the user have the JES banner pages of the cross memory region. The internal system banner page can be used to check the user requesting the reprint.

User Exits

User exits run in the cross-memory region and do not have access to TSO or CA Roscoe allocations.

Install the ISPF Online Retrieval Option

The ISPF online retrieval option runs under the IBM Interactive System Productivity Facility (ISPF) for z/OS Version 3.0 and higher.

Note: For more information about the ISPF Online Retrieval Option, see the chapter "Online Interface Administration" in the *Reference Guide*.

Installation Steps

This list summarizes the steps to install the ISPF online retrieval option. Detailed instructions are in the sections that follow.

1. (Optional) Add STEPLIB DD statements to the TSO LOGON procedures if the load modules are not in a linklist library.
2. (Not SPF) Add the panel and command table libraries to the TSO logon procedures.
3. (Optional) Add the mount attribute to the TSO user IDs.
4. (Optional) Modify an ISPF Selection Menu to Select Online Retrieval feature.

(Optional) Step 1: Add STEPLIB Statements

To add STEPLIB DD statements to the procedures for the ISPF Online Retrieval Option, Follow these steps::

1. Determine which one of the following actions you performed during the base-product installation:

   - Authorized the program load library
   - Copied the modules to a system authorized library

   If the CA View load modules were not copied to one of the libraries in the linklist, continue with this section. Otherwise, skip this section and go to the next section, Step 2: Add the Panel and Command Libraries (ISPF only) (see page 75).
2. Add STEPLIB DD statements to the TSO LOGON procedures if the load modules are not in a linklist library.
3. Add a STEPLIB DD statement for the library containing the product's load modules to the LOGON procedures for TSO users who use the ISPF online retrieval option.

   Note: If you have CA Deliver, verify that the CA Deliver load modules are in either in the linklist or in a STEPLIB statement with this step.
4. To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to *all* STEPLIB DD statements.

Step 2: Add the Panel and Command Libraries (ISPF only)

If you are running under SPF, go to Step 3.

If your system runs CA View under ISPF, proceed with this step.

Follow these steps in your TSO logon procedure:

- Concatenate the command table library CAI.CVDETBL0 to DD statement ISPTLIB.
- Concatenate the panel library CAI.CVDEPNL0 to DD statement ISPPLIB.

  Note: If you also plan to use SARSPF (the SPF interface), with multiple releases of CA View, concatenate CAI.CVDETBL0 first. Use the CAI.CVDETBL0 from the most current release.

Step 3: (Optional) Add the Mount Attribute to the TSO User IDs

If you want to add the mount attribute to your TSO user IDs, proceed with this step; otherwise, go to the next step.

Assign the mount attribute to all TSO users who are authorized to browse SYSOUT directly from an archival tape.

Use the TSO ACCOUNT command as follows to assign the mount attribute:

```
ACCOUNT
C (userid) MOUNT
END
```

Note: TSO users do *not* need the MOUNT attribute to access reports through the Expanded Access Tape Server (EAS), because the tape is mounted by the EAS started task and not the user's TSO session.

Step 4: (Optional) Modify an ISPF Selection Menu to Select Online Retrieval

If you want to add a selection code for the online retrieval feature to one of the ISPF selection menus, proceed with this step; otherwise, your detailed instructions for ISPF are complete.

To define your selection code, use this command:

```
PGM(SARSPF) PARM(high-level-database-name) NEWAPPL(SAR)
```

Use the value next to the NAME parameter on your Initialization Parameter Worksheet for PARM(high-level-database-name).

Note: Adding a selection code allows you to select the online retrieval feature in the same way you would select other ISPF options.

Panel Libraries

The names of the panel libraries vary from site to site and for the different releases of ISPF. These panel libraries are allocated to the ISPPLIB DD statement under TSO.

Be aware that some installations do not allow direct modifications of IBM panels and libraries. In this case, you can place the modified panels in user or site-specific libraries and concatenate them ahead of the IBM libraries.

Ask your system administrator for the specific ISPF panel library that applies to your site and contains the panel ISR@PRIM.

Note: The selection menus shown in the following examples are part of the program products SPF and ISPF, and are copyrighted by IBM.

Example 1

This example shows you how to add selection code R to the primary option menu ISR@PRIM for ISPF. Shaded lines identify the inserted lines.

```
%----------------------- ISPF/PDF PRIMARY OPTION MENU ------------------------

%OPTION ===>_ZCMD                                                            +
%                                                        +USERID    - &ZUSER
%   0 +ISPF PARMS -   Specify terminal and user parameters   +TIME     - &ZTIME
%   1 +BROWSE      -  Display source data or output listings +TERMINAL - &ZTERM
%   2 +EDIT        -  Create or change source data           +PF KEYS - &ZKEYS
%   3 +UTILITIES   -  Perform utility functions
%   4 +FOREGROUND -   Invoke language processors in foreground
%   5 +BATCH       -  Submit job for language processing
%   6 +COMMAND     -  Enter TSO Command, CLIST, or REXX exec
%   7 +DIALOG TEST -  Perform dialog testing
%   8 +LM UTILITIES - Perform library administrator utility functions
%   C +CHANGES     -  Display summary of changes for this release
%  R +SARSPF    - Retrieve SYSOUT
%   T +TUTORIAL    -  Display information about ISPF/PDF
%   X +EXIT        -  Terminate ISPF using log and list defaults
%
+Enter%END+command to terminate ISPF.
)INIT
 .HELP = ISR00003
 &ZPRIM = YES        /* ALWAYS A PRIMARY OPTION MENU      */
 &ZHTOP = ISR00003   /* TUTORIAL TABLE OF CONTENTS        */
 &ZHINDEX = ISR91000 /* TUTORIAL INDEX - 1ST PAGE         */
)PROC
 &ZSEL = TRANS( TRUNC (&ZCMD,'.')
```

```
               0,'PANEL(ISPOPTA)'
               1,'PGM(ISRBRO) PARM(ISRBRO01)'
               2,'PGM(ISREDIT) PARM(P,ISREDM01)'
               3,'PANEL(ISRUTIL)'
               4,'PANEL(ISRFPA)'
               5,'PGM(ISRJB1) PARM(ISRJPA) NOCHECK'
               6,'PGM(ISRPTC)'
               7,'PGM(ISPYXDR) PARM(ISR) NOCHECK'
               8,'PANEL(ISRLPRIM)'
               C,'PGM(ISPTUTOR) PARM(ISR00005)'
            R,'PGM(SARSPF) PARM(VIEW.SYSTEM1) NEWAPPL(SAR)'
               T,'PGM(ISPTUTOR) PARM(ISR00000)'
              ' ',' '
               X,'EXIT'
               *,'?' )
  &ZTRAIL = .TRAIL
)END
```

Note:

- NEWAPPL(SAR) is required and must be specified as shown previously in this section.

  This parameter is used with the command table library concatenation from Step 3 of the ISPF Installation Instructions.

- NEWAPPL(SAR) allows CA View to correctly interpret commands and program function key invocation.

  If this parameter is not specified, certain PF keys such as the scroll keys may not function.

Example 2

This example shows you how to add selection code R to the primary option menu ISP@PRIM for SPF. Shading identifies the inserted lines.

```
        %-----------------------  SPF—MVS PRIMARY OPTION MENU  ---------------
        %OPTION  ===>_OPT
%                                                          +USERID   -
%   0 +ISPF PARMS  -     SPECIFY TERMINAL AND USER PARAMETERS   +TIME     -
%   1 +BROWSE      -     DISPLAY SOURCE DATA OR OUTPUT LISTINGS +TERMINAL —
%   2 +EDIT        -     CREATE OR CHANGE SOURCE DATA           +PF KEYS  -
%   3 +UTILITIES   -     PERFORM SPF UTILITY FUNCTIONS
%   4 +FOREGROUND  -     COMPILE, ASSEMBLE, OR DEBUG
%   5 +BACKGROUND  -     COMPILE, ASSEMBLE, OR LINK EDIT
%   6 +COMMAND     -     ENTER TSO COMMAND OR CLIST
%   7 +SUPPORT     -     TEST DIALOG OR CONVERT MENU/MESSAGE FORMATS
%   8 +LM UTILITIES-     PERFORM LIBRARY ADMINISTRATOR UTILITY FUNCTIONS
%  R +SARSPF    -    RETRIEVE SYSOUT
%   T +TUTORIAL    -     DISPLAY INFORMATION ABOUT SPF
%   X +EXIT        -     TERMINATE SPF USING LIST/LOG DEFAULTS
%
+PRESS%END KEY TO TERMINATE SPF+
%
)INIT
  .HELP = TTUTOR
  &ZHTOP = TTUTOR   /* TUTORIAL TABLE OF CONTENTS        */
  &ZHINDEX = TINDEX /* TUTORIAL INDEX - 1ST PAGE         */
)PROC
  &ZSEL = TRANS( TRUNC (&OPT,'.')
                0,'PANEL(ISPOPT)'
                1,'PGM(ISRBRO)'
                2,'PGM(ISPEDIT)'
                3,'PANEL(ISPUTIL)'
                4,'PANEL(ISPFORA)'
                5,'PANEL(ISRJOB)'
                6,'PGM(ISPTSO)'
                7,'PANEL(ISPOTAC)'
             R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1)'
                T,'PGM(ISPTUTOR) PARM(T)'
                ' ',' '
                 X,'EXIT'
                 *,'?' )
 )END
```

Example 3

This example shows you how to add selection code 3.R as a sub-option to the utilities menu ISRUTIL for SPF. Shaded lines identify the inserted lines.

```
%----------------------  Utility Selection Panel  --------------------

%Option  ===>_Z                                                                +
%1 +Library         Compress or print data set.  Print index listing.  Print,
+                        rename, delete, browse, edit or view members
%2 +Data Set        Allocate, rename, delete, catalog, uncatalog, or display
+                        information of an entire data set
%3 +Move/Copy       Move, or copy members or data sets
%4 +Dslist          Print or display (to process) list of data set names.
+                        Print or display VTOC information
%5 +Reset           Reset statistics for members of ISPF library
%6 +Hardcopy        Initiate hardcopy output
%7 +Transfer        Download ISPF Client/Server or Transfer data set
%8 +Outlist         Display, delete, or print held job output
%9 +Commands        Create/change an application command table
%11+Format          Format definition for formatted data Edit/Browse
%12+SuperC          Compare data sets                                (Standard Dialog)
%13+SuperCE         Compare data sets Extended                       (Standard Dialog)
%14+Search-For      Search data sets for strings of data             (Standard Dialog)
%15+Search-ForE     Search data sets for strings of data Extended    (Extended Dialog)
%R +SARSPF       Retrieve SYSOUT
)INIT
.ZVARS =  '(ZCMD)'
.HELP = ISR30000
.ATTR (ZCMD) = 'PADC(USER)'
)PROC
&ZCMDWRK = TRUNC(&ZCMD,'.')
&ZTRAIL=.TRAIL
&ZSEL = TRANS  (TRUNC (&ZCMD,'.')
    1,'PGM(ISRUDA) PARM(ISRUDA1) SCRNAME(LIBUTIL)'
    2,'PGM(ISRUDA) PARM(ISRUDA2) SCRNAME(DSUTIL)'
    3,'PGM(ISRUMC) SCRNAME(MCOPY)'
    4,'PGM(ISRUDL) PARM(ISRUDLP) SCRNAME(DSLIST)'
    5,'PGM(ISRURS) SCRNAME(RESET)'
    6,'PGM(ISRUHC) SCRNAME(HARDCOPY)'
    7,'PANEL(ISPUDL) SCRNAME(DOWNLOAD)'
    8,'PGM(ISRUOLP) SCRNAME(OUTLIST)'
    9,'PANEL(ISPUCMA) ADDPOP SCRNAME(CMDTABLE)'
   11,'PGM(ISRFMT) SCRNAME(FORMAT)'
   12,'PGM(ISRSSM) SCRNAME(SUPERC)'
   13,'PGM(ISRSEPRM) SCRNAME(SUPERCE) NOCHECK'
   14,'PGM(ISRSFM) SCRNAME(SRCHFOR)'
   15,'PGM(ISRSEPRM) PARM(S4) SCRNAME(SRCHFORE) NOCHECK'
   R,'PGM(SARSPF) PARM(VIEW.SYSTEM1)'
    ' ',' '
      *,'?' )
 )END
```

Install the TSO Online Retrieval Option

This list summarizes the steps required to install the TSO online retrieval option. Each step is explained in detail in the sections that follow.

Note: For more information about the TSO Online Retrieval option, see the chapter "Online Interface Administration" in the *Reference Guide*.

1. (Optional) Add STEPLIB DD statements to the TSO LOGON procedures if the load modules are not in a linklist library.
2. (Optional) Add the mount attribute to the TSO user IDs.

(Optional) Step 1: Add STEPLIB DD Statements

To add STEPLIB DD statements to the procedures for the TSO Online Retrieval Option, Follow these steps::

1. Determine which one of the following actions you performed during the base-product installation:
   - Authorized the program load library
   - Copied the modules to a system authorized library

   If the CA View load modules were *not* copied to one of the libraries in the linklist, continue with this section. Otherwise, skip this section and go to the next section, Step 2: (Optional) Add Mount Attributes (see page 77).
2. Add a STEPLIB DD statement (for the library containing the load modules) to the TSO LOGON procedures for TSO users who use the native TSO online retrieval option.
3. To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to all STEPLIB DD statements.

Note: If you have CA View, verify that the CA View load modules are either in the linklist or in a STEPLIB statement with this step.

Step 2: (Optional) Add Mount Attributes

Assign the mount attribute to all TSO user IDs authorized to browse SYSOUT directly from an archival tape. Use the TSO ACCOUNT command to assign the mount attribute as follows:

```
ACCOUNT
C (userid) MOUNT
END
```

Note: TSO users do *not* need the MOUNT attribute to access reports through the Expanded Access Tape Server (EAS), because the tape is mounted by the EAS started task and not the user's TSO session.

Install the CA Roscoe Online Retrieval Option

The following steps are required to install the CA Roscoe/Cross-Memory Online Retrieval Option. Each step is explained in detail in the sections that follow.

1. (Optional) Step 1: Concatenate the Load Module Library (see page 157) to the ETSOLIB DD statement, if the load modules were not copied to a linklist library.
2. Add the control statement for the SARROS command processor to the Eligible Program List (EPL). (see page 157)
3. Invoke the SARROS command processor.
4. To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to all STEPLIB DD statements.

(Optional) Step 1: Concatenate the Load Module Library

If the load modules were *not* copied to a linklist library, concatenate the library that contains the load modules to the ETSOLIB DD statement in the CA Roscoe startup JCL.

Note: If you have CA Deliver, the CA Deliver load modules must also be either in the linklist or in an ETSOLIB statement with this step.

Step 2: Add SARROS Command Processor Statements

Add this Eligible Program List (EPL) control statement to member ETSOPGMS for the CA Roscoe user with the RO prefix.

Columns	Contents
1–8	SARROS
9	Blank
10–12	Number of users allowed to access CA View at one time
13	Blank
14–17	CPU time slice Use 9999 to prevent premature termination.
18	Blank
19–24	Maximum memory (in KB) below the 16 MB line This value can vary depending on size of database and other factors (0001000 should be adequate).
25	Blank
26–31	Maximum memory (in KB) below the line that CA View can acquire at one time; use 999999 so that GETMAINs will not be limited

Columns	Contents
32	Blank
33–38	Maximum memory (in KB) above the 16 MB line This value can vary depending on features used (000512 should be adequate).
39	Blank
40–45	Maximum memory (in KB) above the line that CA View can acquire at one time Use 999999 so that GETMAINs will not be limited.
46	Blank
47	N – Suppress dump
48	Blank
49	Y – Application authorized to issue MODESET SVC
50	Blank
51-52	CP to call SARROS as a TSO command processor
53-255	Ignore

Note: For more information about how to invoke the CA Roscoe online retrieval facility, see the chapter "Online Interface Administration" in the *Reference Guide*.

Install the Cross-Memory Services

The cross-memory services interface is required for the following online interfaces:

- CICS pseudo-conversational
- IMS
- VTAM
- ISPF/cross-memory
- TSO/cross-memory
- CA Roscoe/cross-memory

This list summarizes the steps to install the cross-memory services. Detailed instructions are in the sections that follow.

1. (Optional) Add the start procedure to PROCLIB for the cross-memory online task.
2. (Optional) Modify, assemble, and link edit the EC2XMCTR module.
3. Define security requirements.
4. To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to all STEPLIB DD statements.

Cross-Memory Services Regions

The VTAM and XMS (cross-memory services) interfaces operate in one or more cross-memory online regions.

A cross-memory region can be configured as:

- An XMS only region
- A VTAM only region
- A combination of XMS and VTAM users

Be aware of the following:

- Each cross-memory region is configured with the start-up parameters provided on the PARM= of the execute statement, and with an optional SYSIN DD statement.

  The REGION= specification determines the maximum number of users supported.
- Allow 20 MB (megabytes) for the XMS region plus 1 MB of storage for every two users.

For example, if you specified a REGION of 120 MB, you could specify:

```
USERMAX=200
```

If more users are needed, multiple regions can be started under the same SUBSYS= value and will be chained together.

Note: The REGION ID specified in the parameters must be different for each region, and if VTAM interface is used, a different SARAPPL= name will be needed for each region.

Interface Parameter Requirements

This table lists the optional and required parameters for each interface.

Note: The numbers next to the interface values refer to note references.

Parameter	VTAM	TSO	TSO/ISPF	CA Roscoe	CICS	IMS/DC
CANCEL	Opt. (1)	Opt. (1)	Opt. (1)	Opt. (1)	Opt. (1)	Opt. (1)
LGNFMT	Opt. (2)					
LGNSEC	Opt. (3)	Opt. (3)	Opt. (3)	Opt. (3)	Opt. (3)	Opt. (3)
LGNPROP	Opt. (3)	Opt. (3)	Opt. (3)	Opt. (3)	Opt. (3)	Opt. (3)
LONGWAIT	Opt. (1)	Opt. (1)	Opt. (1)	Opt. (1)	Opt. (1)	Opt. (1)
MSGLVL	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
SARAPPL	Req.					

Parameter	VTAM	TSO	TSO/ISPF	CA Roscoe	CICS	IMS/DC
SARVTDB	Opt. (4)					
SMFSESS	Opt. (5)	Opt. (5)	Opt. (5)	Opt. (5)	Opt. (5)	Opt. (5)
SUBSYS	Opt. (6)	Opt. (6)	Opt. (6)	Opt. (6)	Opt. (6)	Opt. (6)
USERMAX	Req.	Req.	Req.	Req.	Req.	Req.
VGRAPPL	Opt. (7)					
VTAMPASS	Opt. (8)					
VTMQUERY	Opt. (9)					
VTMSAA	Opt. (9)					
XMS	Opt. (10)	Opt. (11)	Opt. (11)	Opt. (11)	Opt. (11)	Opt. (11)
XMSSUB		Req. (12)	Req. (12)	Req. (12)		Req. (12)

Notes for Interface Parameter Requirements Table

1. The CANCEL= and LONGWAIT= values work together.

   We recommend that you set CANCEL=YES and set LONGWAIT to a value appropriate for your site.

2. LGNFMT= should either not be specified, or should be specified as the default (LGNFMT=1), unless your session manager cannot provide logon data in the normal format.

   If SARVTDB= is specified, LGNFMT=1 must be specified; any VTAM logon data will be ignored.

3. The LGNSEC= and LGNPROP= work together, and require the default SARUSxUX exit.

   If LGNSEC=YES, LGNSEC=YESP, or LGNSEC=PPHRASE is used (to indicate external security signon), the LGNPROP=YES/NO will be used to control whether security violations, database opens, and jobs submitted will use the user ID (LGNPROP=YES which is the default) or will use the XMS region's user ID.

   It works this way:

   - In the online region, the CA View database is opened before logon, and uses the XMS region's user ID.
   - The CA Deliver database will be opened (read only) when the selection list processes entries that were archived through the CA Deliver system.
   - Any SARBCH jobs submitted by the online will open both the CA View database (read/write) and the CA Deliver database under the authorization of the user who submitted the job.
   - This authorization can be changed by doing one of the following:

     Use the SARSUBUX exit to set a USERID=

     Add a /*JOBFROM statement in the submitted JCL.

     We recommend that you use the LGNPROP=YES to do normal user ID propagation.

4. The SARVTDB= only affects VTAM access, and is only to be used when the session manger cannot produce valid LOGON DATA.

   For the valid formats supported by CA View, see the LGNFMT= parameter.

5. The SMFSESS= is to be specified when the user needs to collect user session statistics (CPU, logon/LOGOFF times, storage used, and so on).

6. The SUBSYS= is only to be specified when you are using a non-default subsystem ID under MVS.

   The default is release specific; it does not require JCL/PARM changes when you are converting to a new software release.

7. Specify VGRAPPL= only to activate VTAM generic resource support.

Using generic resources allows an application to be known by a generic resource name. Users can then log on to a VTAM cross-memory region using the generic resource name.

The VGRAPPL= parameter must be specified with the SARAPPL= parameter. For more information, see the Reference Guide.

8. VTAMPASS= is only to be specified if you are going to be running a multi-region VTAM interface.

   The other VTAM regions must specify the same parameters (LGNFMT= SARVDTB=, VTMQUERY=, VTMSAA=), or the interface might react in unpredictable ways.

9. VTMQUERY= is to be specified either as NORM (normal) or allowed to default to that value.

   VTMQUERY=NONE works, but CA View cannot detect color/high-light terminal attributes so color/high-light support will be shut off.

   VTAMSAA=NO is to be used if terminals cannot support the SNA QUERY LIST command, such as the older 3270/3290 devices and some older PC/3270 emulators.

10. XMS=NO is to be used when you are going to be using only the VTAM interface.

11. XMS=YES (the default) must be used to provide support for these interfaces.

12. XMSSUB=YES must be specified to provide support for these interfaces.

    The XMSSUB=YES must reside in an XMS region with a default SUBSYS= value. If multiple XMS regions are started, only one region can have XMSSUB=YES. The other regions will still be available for user sessions, but their traffic will be routed through the region specifying XMSSUB=YES.

    If you terminate the region with XMSSUB=YES, all sessions using the subtask are going to fail (that is, all TSO/XMS, ISPF/XMS, CA Roscoe/XMS, IMS/DC regions). CICS has router SUBTASK in its region, and does not use the XMSSUB=YES function.

13. The OVERRIDE parameter is valid for all interfaces and is optional. It might be specified only in the execute statement PARM field and it cannot be coded in the SYSIN data set.

    - If the parameter is not coded, the default duplicate parameter substitution hierarchy is SYSIN then the EXEC PARM.
    - The OVERRIDE parameter determines whether parameters in the execute statement PARM field have precedence over parameters in the SYSIN data set.
    - If OVERRIDE is coded in the execute statement PARM field, parameters specified in the execute statement PARM field will override duplicate specifications in the SYSIN data set.
    - If OVERRIDE is not coded, parameters specified in the SYSIN data set are used and corresponding parameter specifications in the execute statement PARM field are ignored.

- The OVERRIDE parameter does not have any sub-parameters and it is coded as is in the execute statement PARM field.
- If this parameter is coded in the SYSIN data set, error message "EBCDRV99 OVERRIDE KEYWORD NOT ALLOWED IN SYSIN STATEMENTS - RUN ENDED U0016" is going to be displayed in the XMS job log and XMS will terminate with a return code of 16.

Step 1: Add the Start Procedure for the Cross-Memory Online Task

Add this start-procedure JCL for the cross-memory online retrieval task as member CBROSDRV to SYS1.PROCLIB. Sample JCL for this PROC is provided in member CBROSDRV of CAI.CVDEPROC.

```
//CBROSDRV   EXEC PGM=EC2DRV,REGION=1024K,TIME=1440,
//           PARM=('XMSSYS01,SARAPPL=SARVTAM,USERMAX=30,VTAMPASS=YES')
//*
//STEPLIB DD DSN=&CAI.CVDELOAD,DISP=SHR
//*        DD  DSN=CAI.SPOOL.CBQ4LOAD,DISP=SHR  <== CA Spool Loadlib
//*
//SYSPRINT DD SYSOUT=A <--MESSAGE LOG (NEW, OUTPUT REQUIRED WHEN SUBMITTING
//*                       DUMP TO CA TECH SUPPORT)
//*
//SARLOG   DD SYSOUT=A <--MESSAGE LOG (NEW, OUTPUT REQUIRED WHEN
//*                       SUBMITTING DUMP TO CA TECH
//*                       SUPPORT) ONLY USED WHEN XMSSUB=YES)
//*
//EBCUDUMP DD SYSOUT=A <--INTERNAL DUMP OUTPUT (NEW, OUTPUT REQUIRED WHEN
//*                       SUBMITTING DUMP TO CA TECH SUPPORT)
//*
//*
//SYSUDUMP DD SYSOUT=A <--MVS DUMP OUTPUT (OPTIONAL, MVS DUMP CAN BE ROUTED
//*                       WITH SYSMDUMP OR SYSABEND ALSO)
//*                       WARNING!!!! ABENDAID DUMPS ARE OF NO USE CORRECTING
//*                       PROBLEMS WITH SARXMS. YOU MUST ALWAYS SUPPRESS
//*                       ABENDAID IF YOU HAVE IT INSTALLED FOR THIS REGION.
//*
//SYSIN    DD DSN=CAI.CVDEOPTN(PARMXMS),DISP=SHR
```

SYSIN Statements for Parameters

The REGIONID parameter is positional and must be specified in the PARM= statement of the cross-memory task JCL.

You can use SYSIN DD statements to specify the other cross-memory parameters.

If you are going to run multiple regions, specify these parameters in the PARM= statement:

```
SUBSYS=
SARAPPL=
XMS=
```

You can specify the rest of the parameters with SYSIN DD statements. If you place the SYSIN statements in a PDS member, you can alter the parameters without shutting down the cross-memory region. Be aware that the parameters do not take effect until the next time the region is shut down and restarted.

Note:

- SYSIN parameters for cross memory services must start in column #1. Any parameter that does not begin in column #1 is treated as a comment and is ignored.
- The OVERRIDE parameter cannot be coded in the SYSIN data set.
  - If the OVERRIDE parameter is coded in the execute statement PARM field, a duplicate parameter in the PARM field and the SYSIN data set will be set to the value specified in the PARM field parameter.
  - If the OVERRIDE parameter is not coded in the execute statement PARM field, a duplicate parameter in the PARM field and the SYSIN data set will be set to the value specified in the SYSIN.

More information:

Interface Parameter Requirements (see page 160)

Start Procedure Parameters

XMSSYS01 (in the PARM statement) specifies the one- to eight-character REGIONID. The REGIONID is positional—it must be the first value of the PARM= statement.

This value is used to define separate cross-memory regions attached to one MVS subsystem (specified by the SUBSYS parameter).

Note: Each separate SARXMS region has its own REGIONID. We suggest using the PROC name of the cross-memory-started task.

CANCEL=YES|NO

Indicates one of the following:

- CANCEL=YES specifies that a user who is inactive (no commands entered) for the time specified by the LONGWAIT parameter will be canceled, and the session will be terminated. With CANCEL=YES, all users are automatically canceled if the region is shut down by an operator command.
- CANCEL=NO specifies that the connection is not to be canceled, and the user status changes to LONGWAIT.

Default: NO

LGNFMT=n

Specifies the format of the data parameter when logging on to a VTAM region where n is a digit (1 through 3), as follows:

1 database//userid/password/newpass

2 userID/password/newpass/database/mode

3 database/mode

Note: LGNFMT does not support password phrases. If implementing password phrases, leave the password fields blank to prompt a logon screen.

Default: 1.

LGNPROP=YES|NO

Indicates whether the CA View user ID is to be passed to MVS for propagation during submit processing.

This parameter is only valid if LGNSEC=YES is specified.

Default: YES.

LGNSEC=YES|NO|PASSWORD|YESP|PPHRASE

Indicates whether there will be RACROUTE security checking.

LGNSEC must be YES, YESP, or PPHRASE if you are accessing a database that has the CA View initialization parameter SECURITY=EXTERNAL specified.

Modifications to default logon exit (SARUSXUX) is not required to implement external security. This exit is only provided so that you can customize the exit to provide any necessary functionality.

For example, to access external security packages directly, without SAF, you must modify and install the SARUSXUX user exit.

These values for LGNSEC are effective when the default exits are implemented:

Value

Result

YES

External security checking is performed using SAF calls.

External security verifies userid only for all cross-memory interfaces (with no interruption to the user).

A panel is presented to the user to verify userid and password.

Note: This panel is only presented when the user interface does not automatically send the userid to the XMS region.

Because the password is not forwarded, RACF or CA ACF2R Security (eTrust CA-ACF2) requires additional specifications. For RACF or CA ACF2, see Bypassing Password Verification in the chapter "Security" in the *Reference Guide* for implementation instructions.

NO

No SAF call to external security is performed.

The user ID is checked internally against CA View definitions.

If no match is found, CA View might or might not dynamically create a user ID depending on the value of your DEFMODE initialization parameter.

Review your DEFMODE values for appropriateness.

PASSWORD

No call to external security is performed.

Internally, userid and password are verified.

YESP

External security checking is performed using SAF calls.

External security verifies userid and password for all cross-memory interfaces (with no interruption to the user).

A panel is presented to the user to verify the userid and password. This panel is only presented when the user interface does not automatically send the userid and password to the XMS region.

PPHRASE

External security checking is performed using SAF calls.

External security verifies userid for all cross-memory interfaces (with no interruption to the user).

A panel is presented to the user to verify the userid and password phrase. This panel is only presented when the user interface does not automatically send the userid and password phrase to the XMS region

Default: NO.

LONGWAIT=nn

Specifies the number of minutes of inactivity (no commands entered) before a user's session is terminated.

The CANCEL parameter must be YES to terminate the session.

Default: 15.

MSGLVL=CRIT|ACTN|NORM|INFO|TRCE

Indicates the level of message to be written to the started task job log.

Unless they are suppressed, the CRITICAL and ACTION messages are written to the console. These settings cause the following types of messages to be written:

Setting	Message
CRIT	Only critical messages
ACTN	Only critical and action messages
NORM	Only critical, action, and normal messages
INFO	All but trace messages
TRCE	All messages

Default: NORM.

Note: This parameter does not suppress messages from the SYSPRINT log.

SARAPPL=applname

Specifies the SARVTAM APPLID which provides the VTAM user signon capability

Default: SARVTAM.

SARVTDB=high-level.databasename

Specifies that this database high-level qualifier must be used by all SARVTAM interface users

Typically, you would not specify this value and allow the user to specify which database to access when the user logs on. When this parameter is specified, any database specified at logon time with the VTAM logon command is ignored.

SMFSESS=nnn

Specifies whether SMF records are going to be collected for the cross-memory sessions.

The EBCSMFU1 macro documents the records available.

Default: zero—no record collection.

SUBSYS=name

Specifies the four-character MVS subsystem.

This value must match the value in the EC2XMCTR table.

Default: XMC2.

Note: The SUBSYS parameter does not apply to VTAM or IMS interface users.

USERMAX=nn

Specifies the maximum number of sessions to be allowed.

Default: 10.

VGRAPPL=name

Indicates the one- to eight-character generic resource name to be used to log on to VTAM cross memory regions.

VGRAPPL is only valid when specified with the SARAPPL parameter.

Default: None.

For more information, see the *Reference Guide*.

VTAMPASS=YES|NO

Indicates whether signon requests can be passed to other regions in this subsystem when this region cannot accept the request.

Possible reasons for not being able to accept a signon request are that the USERMAX parameter has been exceeded, or a SUSPEND operator command has been issued.

If VTAMPASS=YES is specified, include PASS in the AUTH value on the APPL statement in the VTAM definition. If you want to run multiple regions, VTAMPASS must be YES.

Default: NO.

VTMQUERY=ALL|NORM|NONE

Indicates whether the VTAM interface will QUERY terminals with dynamic log modes to determine the alternate screen size.

Use this parameter only to query VTAM terminals that support SNA QUERY commands, and do not have an alternate screen size defined in their log mode.

- For VTMQUERY=ALL, the interface will QUERY ALL terminals.
- For VTMQUERY=NORM, the interface will QUERY the terminal if the bind image indicates it is a VTAM QUERY terminal, and there is no alternate screen size defined.
- For VTMQUERY=NONE, the interface will not QUERY any terminals (and color will not be supported).

Default: NORM.

VTMSAA=YES|NO

Indicates whether all terminals are SAA compliant.

If you have the following:

- Older terminals that cannot support SAA (3290 terminals, for example
- These older terminals are going to be connecting with log modes that indicate that CA View should query their alternate screen size

You must specify VTAMSAA=NO or these terminals are not able to log onto the SARVTAM interface.

VTAMSAA=NO causes more overhead in logging on terminals than can be queried, and is only to be used when required.

XMS=YES|NO

Indicates whether cross-memory users are allowed to sign on to the region.

Set XMS=NO if this is a VTAM only region, and cross-memory is not to be supported.

Note: If XMS=NO, be sure that there is a VTAM ACB name coded in the SARAPPL= parameter.

Default: YES.

XMSSUB=YES|NO

XMSSUB=YES is required for ISPF cross-memory, TSO cross-memory, and CA Roscoe cross-memory sessions

All other interface users are to be set XMSSUB=NO.

Default: NO.

SARLOG DD Statement (Optional)

The optional SARLOG DD statement is used to specify where to write the log of user subtask messages.

This output is critical to resolving user subtask ABENDs, and is to be submitted to CA Technical Support along with the region or task dump created with an ABEND.

SYSPRINT DD Statement (Optional)

The optional SYSPRINT DD statement is used to specify where to write the log of cross-memory (SARXMS) messages.

This output is critical to resolving SARXMS ABENDs, and is to be submitted to CA Technical Support with the region or task dump created with an ABEND.

EBCUDUMP DD Statement

The EBCUDUMP DD statement is required, and is used to specify where to write a special dump of CA View control blocks that do not appear in normal MVS dump output.

This output is critical to resolving SARXMS abends and should be submitted to Technical Support with the region or task dump created with an ABEND.

Note:

- On ABEND Output, only regular MVS dump output should be collected. Output from dump compression and analysis programs is not helpful to technical support—you might be required to recreate the dump.
- Acceptable types include SYSUDUMP, SYSMDUMP, or SYSABEND output, in print-record format. IPCS/SVC dumps and CICS transaction or region dumps are also acceptable, but must be formatted for printing before they are placed on the tape.
- The RMOXMS region uses the operator facility to abort a user's task for various problems. These problems might be a LONGWAIT time out, a VTAM I/O error, or a detected internal error, which appear in the log followed by a U0522 ABEND of the user subtask. No dump is generated.

STEPLIB for this Job

The action you take in this step depends on what you did during the base-product installation. Specifically, did you:

- Authorize the program load library

  or

- Copy the modules to a system authorized library

Be aware of the following before you run this job:

- If the CA View load modules were copied to an authorized library other than one of the linklist libraries, you must change the data set name on the STEPLIB DD statement.
- If the load modules were copied to a linklist library, you must remove the STEPLIB DD statement.
- If you have CA Deliver installed, you must consider these possibilities before you run the job listed previously above: If the CA View load modules were copied to an authorized library other than one of the linklist libraries, concatenate the CA Deliver load library as a second STEPLIB after the CA View load library in the STEPLIB DD statement.
- If the load modules were copied to a linklist library, do nothing.
- To use CA Spool for online or batch printing, add the CA Spool load library CAI.SPOOL.CBQ4LOAD to all STEPLIB DD statements.
- For the JES3 Environment

  You must add the cross memory task to the JES3 task output table.

  If you do not add this task, the P reprint select code cannot function properly.

Step 2: Modify, Assemble, and Link the EC2XMCTR Module

The EC2XMCTR module defines the relationship between a transaction identifier and the database, and session attributes. Also, the execution options for the cross-memory subtask system are also defined in this module. All interfaces except VTAM require the EC2XMCTR table.

Be aware of the following:

- You must assemble the EC2XMCTR table during installation to define the relationship between CA View and CA Deliver database qualifiers, and the session options to be used, and to provide information used to build the XMS database table.
- The table contains an EBCXMOPT macro to define initialization options and one EBCXMTRN, RMOXMTRN, or INBXMTRN macro for each TSO user session. For all users except VTAM, the transaction being used for each session must be defined in an EBCXMTRN statement. Only the database high-level qualifier is used for VTAM XMS users.
- The transaction definition macros are searched by database name, and the first match is used. If no entry is found in the EC2XMCTR table, the session is rejected.

A sample EBCXMCTR source program is in the CAI.CVDESRC library, which is unloaded as part of CA Deliver's installation. The source is comprised of one or more assembler macros.

Format of the Macros

The first statement defines the system options and has this format:

```
EBCXMOPT DESTID=dest,SRVTRAN=transaction,MSGLVL=level,          X
      DESTID=CICS-dest,LOGWAIT=timout-val,SGNCNT=nn,            X
      USERMAX=user-number,WAITCNT=maxcount
```

The next group of statements is for each transaction and or database to be accessed; they have this format:

```
EBCXMTRN TYPE=SAR,                                              X
       TRANID=tranid,INDEX=high-level-name,TIMEOUT=sec,         X
       SUBSYS=subsysid,RECON=yes|no,                            X
       MSGSUPP=yes|no
```

The last statement generates the transaction table:

```
EBCXMTRN TYPE=GEN
```

Finally, an assembler END statement is needed to end the macro:

```
END
```

EBCXMOPT Statement Parameters

The EBCXMOPT statement specifies these parameters.

DESTID=dest

Specifies the transient data destination to which messages from the CICS subtask are sent.

- Supply a DESTID to indicate that a queue (typically an extra partitioned queue that points to a SYSOUT data definition name) is defined.
- Leave DESTID blank to specify that messages from the CICS subtask are not to be captured.

XMC11=transaction

Specifies a four-character transaction that is to be added to the EBCXMC11 time out message.

This transaction allows for site specific tailoring of the time out message.

Default: None.

SRVTRAN=transaction

Specifies the transaction defined for EC2CISRV that is initiated as a service transaction when CA View CICS is initialized.

Default: XMC2.

MSGLVL=CRIT|ACTN|NORM|INFO|TRCE

Indicates the level of messages to display on the console.

These settings cause the following types of messages to be written:

CRIT

Displays only critical messages

ACTN

Displays only critical and action messages

NORM

Displays only critical, action, and normal messages

INFO

Displays all but trace messages

TRCE

Displays all messages

Default: NORM.

LOGWAIT=nnn

Indicates the amount of time a user is to wait to log on before the user's session times out.

Default: 200 (2 minutes, 00 seconds).

SUBMAX=nn

Indicates the total number of user control blocks that are allocated when a cross-memory subtask (other than CICS) is initialized.

Default: 500.

USERMAX=nn

Indicates the number of user control blocks that are allocated when CICS is initialized.

Default: 500.

SGNCNT=nn

Controls the number of logon control blocks allocated. These blocks are only used during the logon process. They are then reused and made available to other users attempting to log on.

When you increase the SGNCNT value, be aware that 256 bytes of ECSA are needed each time SGNCNT is increased by 1. Typically, 5 logon blocks are enough, but the value cannot exceed 50.

Default: 5.

WAITCNT=nnn

Indicates the number of sessions for which the subtask can wait.

Default: 256.

IMSMENU

Indicates the IMS/DC conversational menu to transfer to when CA View terminates.

If this value is not specified, the transaction in the SPA will be set to blanks.

IMSSPA

Indicates the size of the IMS/DC SPA.

The SPA size must be at least 18, but cannot exceed 100.

Default: 18.

EBCXMTRN Statement Parameters

The following parameters are specified in the EBCXMTRN statements:

TYPE=SAR|GEN

Specifies whether this is a transaction/database entry or the table is to be generated.

GEN

Generates the table

SAR

Contains a transaction code and index entry for CA View. EXPRESS and INB are valid for CA Deliver and CA Balancing Report Control (CA Balancing) if this is a combined table.

TRANID=tranid

Defines the transaction identifier for CICS.

For TSO, ISPF, and CA Roscoe (the cross-memory drivers), TRANID is ignored, and the first instance of the database high-level qualifier is used.

INDEX=high-level-name

Defines the high-level name of the CA View database.

TIMEOUT=nnn

Defines the time-out value, in seconds, to be used by this transaction.

- This value is used as the maximum wait time for a response from the SARXMS started task.
- This value must be greater than zero and less than 9999 seconds (which is two hours, 40 minutes).
- If you do not want any timeout to occur, you may specify TIMEOUT=NO.

Default: 240 seconds (four minutes).

SUBSYS=subsys-id

Defines a four-character MVS subsystem name, which must match the value specified for SUBSYS in the cross-memory started task JCL.

Each subsystem can support multiple databases and/or CICS/IMS regions.

Default: XMC2.

Note:

- There is no need to change the default unless you wish to bring up multiple cross-memory regions and separate transactions for testing or performance reasons.
- This subsystem name is not defined in SYS1.PARMLIB.

RECON=YES|NO

Indicates whether a user can reconnect to a lost session.

Default: NO.

MSGSUPP=YES|NO

Indicates whether a termination message is displayed when a session is terminated by a user.

Default: NO. This does not suppress messages generated from abnormal termination.

Note: The statements follow standard assembler coding conventions.

Macro Coding Example

Assume that two CA View systems have been created.

The databases for the two systems have high-level names of VIEW.SYSTEM1 and VIEW.SYSTEM2. A user must enter transaction identifier VW1 for the first system and VW2 for the second. The source for program EC2XMCTR contains the following control statements:

```
EBCXMOPT MSGLVL=CRIT,USERMAX=50
EBCXMTRN TRANID=VW1,INDEX=VIEW.SYSTEM1
EBCXMTRN TRANID=VW2,INDEX=VIEW.SYSTEM2
EBCXMTRN TYPE=GEN
END
```

EBCXMTRN TYPE=GEN must be the last statement before the END. This statement causes the EBCXMCTR CSECT to be generated.

Sample JCL

Sample JCL for this job is provided in member BROSXCTR of CAI.CVDEJCL. This job provides an SMP/E USERMOD that assembles and links an installation-dependent version of EC2XMCTR.

Parameters for Online Interfaces

The EC2XMCTR table defines the way linkages between the online drivers and the XMS region are established. Some of the parameters are used only in specific environments and others are used in all environments.

This table indicates which parameter affects each online interface.

All XMS interfaces require the EC2XMCTR table.

You must:

- Assemble the table during installation to define the relationship between CA View and CA Deliver database high-level qualifiers and the session options that are to be used
- Provide the information that is used to build the XMS database table.

Note: Be aware if both CA View and CA Deliver are installed and the CA View interface is doing any access to an associated DLVR database, the associated DLVR database needs to be added as an entry in the EC2XMCTR table.

The numbers in parentheses are explained in the notes section that follows the table.

Parameter	TSO	TSO/ISPF	CA Roscoe	CICS	IMS/DC
DESTID				Opt. (1)	
XMC11				Opt. (8)	
SRVTRAN				Opt. (2)	
MSGLVL	Opt.	Opt.	Opt.	Opt.	Opt.
LOGWAIT	Opt.	Opt.	Opt.	Opt.	Opt.
SUBMAX	Opt. (3)	Opt. (3)	Opt. (3)		Opt. (3)
USERMAX				Opt. (4)	
WAITCNT	Opt. (5)	Opt. (5)	Opt. (5)	Opt. (5)	Opt. (5)
IMSMENU					Opt. (6)
IMSSPA					Opt. (7)

Note: The numbers next to the table values refer to note references.

Notes on Cross-Memory Service Parameters

1. DESTID= specifies the optional CICS destination where the message output is to be written.
2. SRVTRAN= specifies the service transaction ID.

   This transaction is required for CICS, but you can use the default service transaction name XMC2.
3. SUBMAX= controls the maximum number of connections that the subtask program can manage.

   The default is 500.

   Each ISPF/XMS, TSO/XMS, CA Roscoe/XMS, or IMS/DC user connects through the XMS subtask, and the value defines the total number of users that can be connected from these interfaces at one time.
4. USERMAX= controls the maximum connections that can be managed by the subtask program.

   The default is 500, which should be enough for most users. Each CICS region can manage this number of sessions. To increase the value, you must restart the CICS or XMS region that owns the subtask.
5. WAITCNT= specifies a value that should remain at the default value at this time.

   Major performance problems occur if you set this to a lower value. Note that this value cannot be set above 255.

   IMSMENU= specifies the IMS/DC conversational menu to transfer to when CA View ends.
6. If IMSMENU= is not specified, the SPA TRAN is set to blank upon termination.
7. IMSSPA= specifies the length of the IMS/DC spa to be used (IMS/DC only).

   This parameter allows you to adjust the spa size so that CA View can transfer to user transactions.

   IMS/DC requires that the spa size remain the same.

   The spa size must be at least 18 bytes, and although you can specify a spa size of up to 100 bytes, only the first 18 bytes are used.
8. XMC11= specifies an optional 4-character CICS transaction ID that is displayed as part of message EBCXMC11 when a CICS user times out.

Step 3: Define Security Requirements

You can define security requirements for CA Top Secret Security (eTrust CA Top Secret):

Follow these steps:

1. Rename the existing facility in the facility matrix table if you do not have a facility defined for VIEWXMS:

   ```
   TSS MODIFY FACILITY(USERnn=NAME=VIEWXMS)
   ```

   Note: The TSS MODIFY command is only valid until the next recycle of CA Top Secret. To make the change permanent, add the following to the CA Top Secret parameter file:

   ```
   FACILITY(USERnn=NAME=VIEWXMS)
   ```

2. Verify that the correct PGMname is defined for the new facility, where PGMname is either the first three characters or all the eight characters of the program name that is to make security calls (EC2 or EC2DRV).

   ```
   TSS MODIFY FACILITY(VIEWXMS=PGM=EC2)
   ```

   Note: The TSS MODIFY command is only valid until the next recycle of CA Top Secret. To make the change permanent, add the following to the CA Top Secret parameter file after the FACILITY(USERnn=NAME=VIEWXMS) statement:

   ```
   FACILITY(VIEWXMS=PGM=EC2)
   ```

3. Create region ACID for the facility and add a master facility of the facility defined in Step 1:

   ```
   TSS CREATE(VIEWXMS) PASSWORD(xxxx,0) TYPE(USER) DEPT(dept) NAME('CA VIEW XMS
   REGION ACID')
   ```

   ```
   TSS ADDTO(VIEWXMS) MASTFAC(VIEWXMS)
   ```

   We recommend that all started task (STC) acids be given a password and OPTIONS(4) be set in the CA Top Secret parameter file. OPTIONS(4) eliminates the prompt for a password when the STC starts, but if someone tries to signon with the STC acid, he needs to know the password.

   The region acid needs access to all resources accessed at startup.

   This access can be given by adding bypass attributes:

   TSS ADD(VIEWXMS) NODSNCHK NOVOLCHK) or by permitting the specific resources

   TSS PERMIT(VIEWXMS) DATASET(xxxx) ACCESS(access)).

These resources include:

- READ access to the XMS load library if pointing to this library in a STEPLIB concatenation.
- READ access to any other libraries specified in the STEPLIB concatenation.
- READ access to the SYSIN DD statement if it points to a dataset.
- UPDATE access to the View database.

If any other DD statements (that is SYSPRINT, SARLOG, EBCUDUMP, SYSUDUMP, etc) in the XMS startup procs point to datasets instead of SYSOUT, READ access to these datasets is required.

4. Define the VIEWXMS STC to the TSS STC record:

   ```
   TSS ADDTO(STC) PROCNAME(VIEWXMS) ACID(VIEWXMS)
   ```

5. Give access to the ACIDs required to sign on to this facility from Step 1:

   ```
   TSS ADDTO(acid) FACILITY(VIEWXMS)
   ```

   Where 'acid' is the user acid that needs access, an attached profile, or the ALL record if all users must have access.

Install the ISPF/Cross-Memory Online Retrieval Option

The ISPF/Cross-Memory Online Retrieval Option runs under IBM's ISPF for z/OS Version 3.0 and higher.

Important! This interface requires Cross-memory services to be already installed. For more information, see Install Cross-Memory Services in this chapter.

Note: In the JCL for the cross-memory services task, the parameter XMSSUB must be set to YES.

Installation Steps

The following steps are required to install the ISPF/cross-memory online retrieval option. Each step is explained in detail later in the sections that follow.

1. (Optional) Add STEPLIB DD Statements to the TSO LOGON procedures if the load modules were not copied to a linklist library.
2. Add the panel and command table libraries to the TSO logon procedures. (For ISPF only, not for SPF.)
3. (Optional) Modify an SPF selection menu to select the online retrieval feature.

Note: For more information about the ISPF/cross memory online retrieval option, see the chapter "Online Interface Administration" in the *Reference Guide*.

(Optional) Step 1: Add STEPLIB DD Statements to the TSO LOGON Procedures

To add STEPLIB DD statements to the TSO LOGON procedures, Follow these steps::

1. Determine which one of the following actions you performed during the base-product installation:

   - Authorized the program load library
   - Copied the modules to a system authorized library

   If the CA View load modules were not copied to one of the libraries in the linklist, continue with this section. Otherwise, skip this section and go to the next section, Step 2: Add Panel and Command Table Libraries to TSO Logon (see page 120).

   For this interface, the libraries do not have to be APF authorized. Authorization is provided in the cross-memory installation. Multiple versions of this online interface can coexist in one TSO library concatenation.

2. Perform *one* of the following actions:

   - Add a STEPLIB DD statement for the library that contains the load modules to the LOGON procedures for TSO users who use the ISPF/cross-memory online retrieval option.
   - Provide the load library that uses the ISPF LIBDEF facility.

   Note: If multiple versions are to run simultaneously, or if you want to run a previous version of SARSPF or SARTSO, concatenate the load library that you want SARSPF or SARTSO to use first.

More information:

Step 5. Modify the Skeleton JCL (see page 83)

Step 2: Add Panel and Command Table Libraries to TSO Logon

If you are going to run CA View under ISPF, proceed with this step. For Version 3 or higher, both the command table library and the panel library are used.

To add panel and command table libraries to the TSO LOGON procedure:

- Concatenate the command table library CAI.CVDETBL0 to DD statement ISPTLIB.
- Concatenate the panel library CAI.CVDEPNL0 to DD statement ISPPLIB.

Note: If you also plan to use SARSPF (the ISPF interface), and multiple versions of CA View, concatenate CAI.CVDETBL0 first. Use the CAI.CVDETBL0 from the most current release.

Step 3: (Optional) Modify an ISPF Selection Menu to Select Online Retrieval

If you want to add a selection code to one of the ISPF selection menus for the online retrieval feature, proceed with this step; otherwise, your ISPF detailed instructions are complete.

Note: If you add a selection code, you can select the online retrieval feature in the same way you select other ISPF options.

Use the value next to the NAME parameter on your Initialization Parameter Worksheet for PARM(high-level-database-name).

Use the values in this table for either SPF or ISPF.

Type	Selection Code is Defined As
ISPF (all versions)	'PGM(EC2XMSPF) PARM(high-level-database-name) NEWAPPL(SAR)'
SPF	'PGM(EC2XMSPF) PARM(high-level-database-name)'

Panel Libraries

The names of the panel libraries vary from site to site and for the different releases of ISPF. These panel libraries are allocated to the ISPPLIB DD statement under TSO.

Be aware that some installations do not allow direct modifications of IBM panels and libraries. In this case, you can place the modified panels in user or site-specific libraries and concatenate them ahead of the IBM libraries.

Ask your system administrator for the specific ISPF panel library that applies to your site and contains the panel ISR@PRIM.

Note: The selection menus shown in the following examples are part of the program products SPF and ISPF, and are copyrighted by IBM.

Example 1

The following example shows you how to add selection code R to the primary option menu ISR@PRIM for ISPF. The bright, offset text identifies the inserted lines.

```
%----------------------  ISPF/PDF PRIMARY OPTION MENU  --------------------
```

```
%OPTION  ===>_ZCMD                                                        +
%                                                  +USERID    - &ZUSER
%   0 +ISPF PARMS  - Specify terminal and user parameters   +TIME     - &ZTIME
%   1 +BROWSE      - Display source data or output listings +TERMINAL - &ZTERM
%   2 +EDIT        - Create or change source data           +PF KEYS  - &ZKEYS
%   3 +UTILITIES   - Perform utility functions
%   4 +FOREGROUND  - Invoke language processors in foreground
%   5 +BATCH       - Submit job for language processing
%   6 +COMMAND     - Enter TSO Command, CLIST, or REXX exec
%   7 +DIALOG TEST - Perform dialog testing
%   8 +LM UTILITIES- Perform library administrator utility functions
%   C +CHANGES     - Display summary of changes for this release
%   R +SARSPF   - Retrieve SYSOUT
%   T +TUTORIAL    - Display information about ISPF/PDF
%   X +EXIT        - Terminate ISPF using log and list defaults
%
+Enter%END+command to terminate ISPF.
)INIT
  .HELP = ISR00003
  &ZPRIM = YES        /* ALWAYS A PRIMARY OPTION MENU      */
  &ZHTOP = ISR00003   /* TUTORIAL TABLE OF CONTENTS        */
  &ZHINDEX = ISR91000 /* TUTORIAL INDEX - 1ST PAGE         */
)PROC
  &ZSEL = TRANS( TRUNC (&ZCMD,'.')
                0,'PANEL(ISPOPTA)'
                1,'PGM(ISRBRO) PARM(ISRBRO01)'
                2,'PGM(ISREDIT) PARM(P,ISREDM01)'
                3,'PANEL(ISRUTIL)'
                4,'PANEL(ISRFPA)'
                5,'PGM(ISRJB1) PARM(ISRJPA) NOCHECK'
                6,'PGM(ISRPTC)'
                7,'PGM(ISPYXDR) PARM(ISR) NOCHECK'
                8,'PANEL(ISRLPRIM)'
                C,'PGM(ISPTUTOR) PARM(ISR00005)'
             R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1) NEWAPPL(SAR)'
                T,'PGM(ISPTUTOR) PARM(ISR00000)'
               ' ',' '
                X,'EXIT'
                *,'?' )
   &ZTRAIL = .TRAIL
 )END
```

Note:

- NEWAPPL(SAR) is required and must be specified as shown previously in this section.

  This parameter is used with the command table library concatenation from Step 3 of the ISPF Installation Instructions.

- NEWAPPL(SAR) allows CA View to correctly interpret commands and program function key invocation.

  If this parameter is not specified, certain PF keys such as the scroll keys may not function.

Example 2

The following example shows you how to add selection code R to the primary option menu ISP@PRIM for SPF. Shading identifies the inserted lines.

```
%-----------------------  SPF-MVS PRIMARY OPTION MENU  ---------------
```

```
%OPTION  ===>_OPT
%                                                          +USERID   -
%   0 +ISPF PARMS  -     SPECIFY TERMINAL AND USER PARAMETERS   +TIME     -
%   1 +BROWSE      -     DISPLAY SOURCE DATA OR OUTPUT LISTINGS +TERMINAL —
%   2 +EDIT        -     CREATE OR CHANGE SOURCE DATA           +PF KEYS  -
%   3 +UTILITIES   -     PERFORM SPF UTILITY FUNCTIONS
%   4 +FOREGROUND  -     COMPILE, ASSEMBLE, OR DEBUG
%   5 +BACKGROUND  -     COMPILE, ASSEMBLE, OR LINK EDIT
%   6 +COMMAND     -     ENTER TSO COMMAND OR CLIST
%   7 +SUPPORT     -     TEST DIALOG OR CONVERT MENU/MESSAGE FORMATS
%   8 +LM UTILITIES-     PERFORM LIBRARY ADMINISTRATOR UTILITY FUNCTIONS
%  R +SARSPF    -    RETRIEVE SYSOUT
%   T +TUTORIAL    -     DISPLAY INFORMATION ABOUT SPF
%   X +EXIT        -     TERMINATE SPF USING LIST/LOG DEFAULTS
%
+PRESS%END KEY TO TERMINATE SPF+
%
)INIT
  .HELP = TTUTOR
  &ZHTOP = TTUTOR   /* TUTORIAL TABLE OF CONTENTS        */
  &ZHINDEX = TINDEX /* TUTORIAL INDEX - 1ST PAGE         */
)PROC
  &ZSEL = TRANS( TRUNC (&OPT,'.')
                0,'PANEL(ISPOPT)'
                1,'PGM(ISRBRO)'
                2,'PGM(ISPEDIT)'
                3,'PANEL(ISPUTIL)'
                4,'PANEL(ISPFORA)'
                5,'PANEL(ISRJOB)'
                6,'PGM(ISPTSO)'
                7,'PANEL(ISPOTAC)'
            R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1)'
                T,'PGM(ISPTUTOR) PARM(T)'
                ' ',' '
                 X,'EXIT'
                 *,'?' )
 )END
```

Example 3

This example shows you how to add selection code 3.R as a sub-option to the utilities menu ISPUTIL for ISPF. Shading identifies the inserted lines.

```
%----------------------  UTILITY SELECTION MENU  --------------------
```

```
%OPTION  ===>_OPT         +
%                                                                +
%   1 +LIBRARY        LIBRARY UTILITY:
+                     PRINT INDEX LISTING OR ENTIRE DATASET
+                     PRINT, RENAME, DELETE, OR BROWSE MEMBERS
+                     COMPRESS DATASET
%   2 +DATASET        DATASET UTILITY:
+                     DISPLAY DATASET INFORMATION
+                     ALLOCATE, RENAME, OR DELETE ENTIRE DATASET
+                     CATALOG OR UNCATALOG DATASET
%   3 +MOVE/COPY      MOVE OR COPY MEMBERS OR DATASETS
%   4 +CATALOG        CATALOG MANAGEMENT:
+                     DISPLAY OR PRINT CATALOG ENTRIES
+                     INITIALIZE OR DELETE USER CATALOG ALIAS
%   5 +RESET          RESET STATISTICS FOR MEMBERS OF SPF LIBRARY
%   6 +HARDCOPY       INITIATE HARDCOPY OUTPUT
%   7 +VTOC           DISPLAY OR PRINT VTOC ENTRIES FOR A DASD VOLUME
%   8 +OUTLIST        DISPLAY, DELETE, OR PRINT HELD JOB OUTPUT
%   9 +SCRIPT/VS      FORMAT,DISPLAY, AND OPTIONALLY PRINT SCRIPT TEXT
%  R +SARSPF      RETRIEVE SYSOUT
)INIT
  .HELP = TU
)PROC
  &SEL = TRANS( TRUNC (&OPT,'.')
                1,'PGM(ISPUDA) PARM(UDA1)'
                2,'PGM(ISPUDA) PARM(UDA1)'
                3,'PGM(ISPUMC)'
                4,'PGM(ISPUCA)'
                5,'PGM(ISPURS)'
                6,'PGM(ISPUHC)'
                7,'PGM(ISPUVT)'
                8,'PGM(ISPUOL) PARM(UOL01)'
                9,'PGM(ISPUSC) PARM(SCRPTA)'
            R,'PGM(EC2XMSPF) PARM(VIEW.SYSTEM1)'
              ' ',' '
                *,'?' )
 )END
```

ISPF Cross-Memory Notes

Be aware of the following:

- The primary SARXMS region must be started with the XMSSUB=YES parameter.
- The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers. The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- RECON=YES can be used to allow reconnection (after an ISPF terminal error) at the point of exit.
- TIMEOUT= specifies how long ISPF waits for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

To abort the XMS session and return the user to ISPF or the TSO command prompt, press the ATTN key.

Note: The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.

Install the TSO/Cross-Memory Online Retrieval Option

Important! This interface requires the cross-memory services to be installed. See the previous topic Install the Cross-Memory Services in this chapter.

Note: The parameter XMSSUB must be set to YES in the JCL for the cross-memory services task.

Installation Steps

The following steps are required to install the TSO/cross-memory online retrieval option. Each step is explained in detail in the sections that follow.

1. (Optional) Add STEPLIB DD Statements to the TSO LOGON procedures if the load modules were not copied to a linklist library.
2. (Optional) Create user CLISTs to execute the CA View TSO/XMS driver program.

(Optional) Step 1: Add STEPLIB DD Statements

The action you take in this step depends on what you did during the base-product installation—specifically, did you:

- Authorize the program load library

  or

- Copy the modules to a system authorized library

If the CA View load modules were *not* copied to one of the libraries in the linklist, proceed with this step; otherwise go to the next step.

To add STEPLIB DD statements (for the library containing the CA View load modules) to the TSO LOGON procedures, do the following:

- Add a STEPLIB DD statement for the library that contains the CA View load modules to the LOGON procedures for those TSO users who are to use the TSO/Cross-Memory Online Retrieval Option.

Note: For this interface, the libraries do not have to be APF-authorized—authorization is provided in the cross-memory installation. Multiple releases of this online interface can coexist in one TSO library concatenation.

For more information about executing the CA View TSOXMS driver program, see the chapter "Online Interface Administration" in the *Reference Guide*.

Step 2: (Optional) Set up the TSOXMS Driver Program

To create user CLISTs to execute the CA View TSOXMS driver program, issue the following command:

```
EC2XMTSO highlevel.databasename
```

Note: For more information about executing the CA View TSOXMS driver program, see the chapter "Online Interface Administration" in the *Reference Guide*.

TSO Cross-Memory Notes

Be aware of the following:

- The primary SARXMS region should be started with the XMSSUB=YES parameter.
- The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers.

  The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- RECON=YES can be used to allow reconnection (after a TSO terminal error) at the point of exit.
- TIMEOUT= specifies how long TSO is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

To abort the XMS session and return the user to ISPF or the TSO command prompt, press the ATTN key.

Note: The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.

Install the VTAM Online Retrieval Option

Important! This facility uses the cross-memory feature distributed with CA View and must be installed with that feature.

Note: For more information about the cross-memory feature, see the Install Cross Memory Services section in this chapter.

Installation Steps

Follow these steps to install the VTAM online retrieval option.

1. Define the application program to VTAM (see page 128).
2. (Optional) Create a USS table definition (see page 129).

Step 1: Define the Application Program to VTAM

Add this application program definition to SYS1.VTAMLST:

```
* SYS1.VTAMLST(sarmajor)
sarmajor VBUILD TYPE=APPL
sarvtam  APPL  ACBNAME=sarvtam,AUTH=(PASS,ACQ),EAS=nn
```

where:

sarmajor

Specifies the application program major node name.

Use the SYS1.VTAMLST member name. The member name must be unique and must not be the same as the names on the APPL statement.

AUTH=(PASS,ACQ)

Is required when the cross-memory parameter VTAMPASS=YES is used to support multiple cross-memory regions.

If VTAMPASS=NO, you can specify AUTH=(ACQ). For more information about the VTAMPASS parameter, see the topic, Add the Start Procedure for the Cross-Memory Online Task, later in this chapter.

EAS=nn

Specifies the approximate number of concurrent sessions.

sarvtam

Specifies the application program minor node name.

- This name must be unique within the network domain; it is the APPLID referenced in the USS definition table or LOGON command.
- This name is also specified on the cross-memory SARAPPL parameter.
- If not specified, the network-unique name (the name of the APPL definition statement) is used.

Step 2: (Optional) Create a USS Table Definition

To simplify the manner in which a user logs on to VTAM online retrieval, you can create a USS definition table for CA View.

Example

Assume that two CA View systems have been created. The databases for the two systems have high-level names of VIEW.SYSTEM1 and VIEW.SYSTEM2, and you want a user to simply enter one of the following to log on to VTAM online retrieval for the respective systems:

```
VIEW1
VIEW2
```

Create a USS definition table as follows:

```
USSTAB
*
*    ENTRY FOR VIEW1
*
USSCMD  CMD=VIEW1,REP=LOGON,FORMAT=PL1
USSPARM PARM=APPLID,DEFAULT=SARVTAM
USSPARM PARM=LOGMODE

USSPARM PARM=DATA,DEFAULT=VIEW.SYSTEM1
*
*    ENTRY FOR VIEW2
*
USSCMD  CMD=VIEW2,REP=LOGON,FORMAT=PL1
USSPARM PARM=APPLID,DEFAULT=SARVTAM
USSPARM PARM=LOGMODE
USSPARM PARM=DATA,DEFAULT=VIEW.SYSTEM2
USSEND
```

VTAM Cross-Memory Notes

Be aware of the following:

- For VTAM only regions, you can start the primary SARXMS task with the XMSSUB=NO parameter. However if this is not a VTAM-only region, we recommend that you start the primary SARXMS region with the XMSSUB=YES parameter.
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- VTAM only XMS regions can have the XMS=NO parameter to make it accessible.
- All XMS interfaces require the EC2XMCTR table. You must assemble the table during installation to:
  - Define the relationship between CA View and CA Deliver database high-level qualifiers and the session options to be used
  - Provide information used to build the XMS database table. Only the database high-level qualifier is used for VTAM XMS users.
- Specify the SARAPPL=applid parameter. This parameter provides VTAM user signon capability.

  Note: When you are using multiple VTAM XMS regions, each region must have a unique applid.
- To pass VTAM signon requests to other XMS regions, specify the VTAMPASS=YES parameter.
- When you are using multiple VTAM XMS regions, the values for LGNFMT=, SARVDTB=, VTMQUERY=, and VTMSAA= must be the same in each region or the XMS interface may react in unpredictable ways.
- To activate the VTAM generic resource support for your cross-memory regions, specify the VGRAPPL= parameter.

  For more information about VTAM generic resources, see the following topic.

VTAM Generic Resource Name

If the VGRAPPL parameter is specified in an EMAS complex, this parameter specifies a common VTAM generic resource name for the entire EMAS complex.

Specifying the common VTAM generic resource name in the session request can initiate VTAM cross-memory sessions to any of the EMAS members.

When you are using the VTAM generic resource name, by default VTAM tries to request a session with an EMAS member in the same MVS image.

If it is not possible to get the session that was requested, VTAM uses normal load balancing when passing the session request to one of the active EMAS members.

Install the CA Roscoe/Cross-Memory Online Retrieval Option

The CA Roscoe/cross-memory online retrieval option runs as a command processor under ETSO/Roscoe.

Important! This interface requires cross-memory services to be installed. See the previous topic Installing Cross-Memory Services in this chapter. Be sure to set the parameter XMSSUB to YES in the JCL for the cross-memory services task.

Installation Steps

The following steps are required to install the CA Roscoe/Cross Memory Online Retrieval option. Each step is explained in detail in the sections that follow.

1. (Optional) Concatenate the Load Module Library to the ETSOLIB DD statement, if the load modules were not copied to a linklist library.
2. Add the control statement for the SARROS command processor to the Eligible Program List (EPL).
3. Invoke CA Roscoe/Cross Memory Online Retrieval.

(Optional) Step 1: Concatenate the Load Module Library

If the load modules were *not* copied to a linklist library, concatenate the library that contains the load modules to the ETSOLIB DD statement in the CA Roscoe start up JCL.

Note: If you have CA Deliver, the CA Deliver load modules must also be either in the linklist, or in a ETSOLIB statement with this step.

Step 2: Add SARROS Command Processor Statements

Important! This step is for CA Roscoe 6.0 and Higher.

Add this EPL control statement to member ETSOPGMS for the CA Roscoe user with the RO prefix.

Columns	Contents
1-8	EC2XMROS
9	Blank
10-12	Number of users allowed to access CA View at one time
13	Blank
14-17	CPU time slice Use 9999 to prevent premature termination.
18	Blank

Columns	Contents
19-24	Maximum memory (in KB) below the 16 MB line This memory is only for the cross-memory driver program (50 KB is ample).
25	Blank
26-31	Maximum memory (in KB) below the line that CA View can acquire at one time Use 999999 so that GETMAINs will not be limited.
32	Blank
33-38	Maximum memory (in KB) above the 16 MB line This memory is only for the cross-memory driver program (50 KB is ample).
39	Blank
40-45	Maximum memory (in KB) above the line that CA View can acquire at one time Use 999999 so that GETMAINs will not be limited.
46	Blank
47	N – Suppress Dump
48	Blank
49	Y – Application authorized to issue MODESET SVC
50	Blank
51-52	CP to call EC2XMROS as a TSO command processor
53-255	Ignored

Note: For more information about how to invoke the CA Roscoe/cross-memory online retrieval feature, see the chapter "Online Interface Administration" in the *Reference Guide*.

CA Roscoe Cross-Memory Notes

Be aware of the following:

- Start the primary SARXMS region with the XMSSUB=YES parameter.

  The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).

- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.

- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers.

  The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- RECON=YES can be used to allow reconnection (after a TSO terminal error) at the point of exit.
- TIMEOUT= specifies how long TSO is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

Note: The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.

Install the CICS Pseudo-Conversational Option

Important! This option uses the cross-memory feature distributed with CA View and must be installed with that feature.

Note: For more information about cross-memory, see Install Cross Memory Services.

Installation Steps

The following steps are required to install the CICS Pseudo Conversational Option. Each step is explained in detail in the sections that follow.

1. Place the CA View load libraries into DFHRPL and STEPLIB.
2. Code the PCT and PPT Table Entries to CICS.
3. (Optional) Prepare the interface to a user-written CICS menu system.

Step 1: Add Modules to DFHRPL and STEPLIB

The CA View load library is required in the CICS DFHRPL and in the STEPLIB in the CICS region.

Note: If the CAI.CVDELOAD load library is in the linklist, it does not have to be included as a STEPLIB in the CICS region.

Be sure the following modules are available in the DFHRPL concatenation of libraries:

- EC2CICUX
- EC2CIEND
- EC2CINIT
- EC2CISRV
- EC2XMCIC
- EC2C*release-number*

  Where:

  release-number represents the CICS release number.

  - CTS 3.1 release number: 0640
  - CTS 3.2 release number: 0650
  - CTS 4.1 release number: 0660
  - CTS 4.2 release number: 0670
  - CTS 5.1 release number: 0680
  - CTS 5.2 release number: 0690

You can copy the six modules to the DD statement DFHRPL in your CICS task. However, we strongly recommend that you concatenate CAI.CVDELOAD to the DD statement DFHRPL.

Note: Several CA View modules are loaded (MVS load) from the CICS STEPLIB or LINKLIST. Verify that the entire CA View load library is defined in the CICS STEPLIB or is included in the linklist.

Step 2: Define Transaction and Programs to CICS

To access CA View using CICS, define the required transactions and programs for the CICS interface. The sample job to make these definitions is located in the CVDEJCL member CICSDEF. For more information about the CICS interface, see this JCL.

Note: Define a separate, unique transaction identifier for each CA View database that you want to access under CICS.

CICS Resource Definition Online Storage Protection

If you have CICS storage protection activated, the following resource definition online settings are required:

- For all transactions

  ```
  TASKDATALOC=ANY

  TASKDATAKEY=CICS
  ```

- For all programs

  ```
  DATALOCATION=ANY

  EXECKEY=CICS
  ```

PLT Start-up List

Add these table entries to the last phase of the PLT startup list to initialize the subtask that is used for cross-memory access:

```
DFHPLT TYPE=ENTRY,PROGRAM=DFHDELIM
DFHPLT TYPE=ENTRY,PROGRAM=EC2CINIT
```

PLT Shutdown List

Add this table entry to the first phase of the PLT shutdown list to be sure that the subtask that executes as part of the online facility shuts down correctly when CICS shuts down:

```
DFHPLT TYPE=ENTRY,PROGRAM=EC2CIEND
DFHPLT TYPE=ENTRY,PROGRAM=DFHDELIM
```

Optional DCT Entries

Specify a value for the DESTID parameter in the EBCXMOPT macro in the EC2XMCTR module and corresponding DCT entries. This value defines a transient data destination for messages issued by the subtask.

Note: Specify a blank for DESTID to suppress the generation of informational messages from the subtask.

The DCT entries for a DESTID of XMC2 are:

```
SARLOG   DFHDCT TYPE=SDSCI,   FOR CICS MESSAGES AND SHUTDOWN
                BLKSIZE=250,  STATISTICS
                BUFNO=1,
                DSCNAME=SARLOG,
                RECFORM=VARUNBM,
                RECSIZE=242,
                TYPEFLE=OUTPUT
XMC2G    DFHDCT TYPE=EXTRA,
                DESTID=XMC2,
                DSCNAME=SARLOG
```

Step 3: (Optional) Invoke the Product from a CICS Menu System

If you want to invoke CA View from a user-written CICS menu system, and then return to that menu system when you exit from CA View, do the following:

Invoke CA View from the menu system using the following CICS command:

```
EXEC CICS START TRANSID(VIEW transaction-id)
     TERMID(EIBTRMID)
     FROM(data-area)
     LENGTH(4)
```

where:

TRANSID(VIEW *transaction-id*)

Specifies the CA View transaction ID.

TERMID(EIBTRMID)

Specifies the terminal that a CA View transaction will communicate with.

FROM(*data-area*)

Specifies the optional variable length character string.

The format of the data-area parameter is:

tran,mode,sysoutid,jobnum,code

where:

tran

Specifies the return menu CICS transaction to be started when CA View finishes

mode

Specifies the CA View user mode (ALL, SAR, SARO, EXP, EXPO) for this user

If mode is not specified, the last mode that the user was in is used.

sysoutid

Specifies the SYSOUT ID or generic ID (with *) to be selected

jobnum

Specifies the JES2 job number of the SYSOUT ID to be selected

code

Indicates the selection code to be used (S, Pn, Vn, Jn, and so on)

If code is not specified, the user is presented with the SYSOUT Selection List.

Note: None of the data-area parameters is required.

LENGTH (4)

Specifies the number of bytes in the data field being passed.

When CA View receives control, it retrieves the four-byte return transaction ID and saves it from iteration to iteration.

If the retrieve fails, CA View retains the information that it was started directly from a terminal, not a menu system.

When CA View finishes processing, it determines whether it should return to a menu system by starting the return transaction.

If there is a saved transaction ID, the product starts the return transaction before it exits to CICS by issuing:

```
EXEC CICS START TRANSID(return transaction-id)
     TERMID(EIBTRMID)
     NOCHECK
```

CICS Notes

The cross-memory CICS access involves two different address spaces: the CICS address spaces and the XMS address spaces.

CICS Address Spaces

The user's CICS transactions and the cross memory support subtask reside in these address spaces.

- If multiple CICS regions are used to access CA View, each CICS region will have an XMS support subtask
- If you are using CICS/MRO, CA View normally runs in an AOR (application region).

XMS Address Spaces

Be aware of the following:

- The primary SARXMS region can be started with the XMSSUB=YES or XMSSUB=NO parameter.
- CICS has a router subtask in its region and does not require the XMSSUB=YES function. However, we recommend that you start the primary XMS region with XMSSUB=YES.
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.
- The XMS regions must have the XMS=YES parameter to make it accessible.
- The SUBSYS= parameter must match the EC2XMCTR table entry for the CICS transaction.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers.

  The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CICS user transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter can be used to route the CA View transaction to an alternate XMS subsystem ID. The SUBSYS= of the cross-memory task must match the SUBSYS= parameter specified in the EBCXMCTR table entry.
- TRANID=parameter specifies the CA View transaction identifier for CICS.
- RECON=YES can be used to allow reconnection (after a CICS terminal error) at the point of exit.

  Note: Do not specify RECON=YES if you use a multi-session manager that assigns LU names from a pool of names. Coding RECON=YES under these conditions could allow you to be connected to another user's session.

  For more information, see Multi-Session Managers later in this chapter.
- TIMEOUT= specifies how long CICS is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend as high a value as possible but not less than 240 (4 minutes).

CICS XMS Subtask Startup

Use *one* of these methods to start the XMS subtask automatically:

- When the CICS region is started, use the DFHPLTPI definition to automatically start the XMS subtask.
- Define a transaction for the EC2CINIT program to allow for manual startup.
- Write a CICS program to transfer control (XCTL) to EC2CINIT when you want to start the XMS subtask.

Until the XMS subtask is started, expect the transactions referencing EC2XMCIC to terminate with an error message that indicates that the XMS subtask is not active

Note:

- When the CICS region is terminated, the DFHPLTSD definition is to be used to terminate the XMS subtask.

  You can manually terminate the XMS subtask through a user application program that links the EC2CIEND, or you can use the optional transaction defined for EC2CIEND for manual termination.
- If you want to terminate the XMS subtask manually, we recommend that you use the DFHPLTSD entry to terminate the XMS subtask. This definition is needed to clean up linkages to the XMS address spaces.
- To prevent users from shutting down the XMS subtask, secure the optional transaction for program EC2CIEND.

Multi-Session Managers Using Virtual LU Names

Multi-session manager products, for example CA TPX Session Management (CA TPX), can be configured to assign an LU name to a user's terminal at the time the user selects the CICS application.

Important! This assignment means that a user can enter CICS each time with a different terminal ID which can cause problems for CA View application.

For example: If a user uses a multi-session manager to end a session, or shuts the PC down, CA View does not know that the user has left. Another user might select CICS, be assigned to the same LU name as the previous user, and enter CA View with the same terminal ID as the previous user. CA View believes that there are two active users on the same terminal.

To prevent this situation, you can add a small amount of code to the CICS Autoinstall Control Program.

Note: The default name of this program is DFHZATDX and its source is located in SDFHSAMP.

If you are not a CICS systems programmer, discuss this situation with the person in your company who is responsible for CICS support and maintenance.

The sample code that follows shows how to clear an active user from the CA View application at terminal deletion time. Insert this code in your Autoinstall Control Program.

The source that is shipped with CICS contains this line:

```
 * ==> PUT DELETE CODE HERE
```

Insert the code after that line.

```
LOAD  EP=EC2XSLOC,ERRET=RETURN
         LR    R6,R0                  GET EBCXSLOC ADDRESS
         ICM   R8,B'1111',0(R6)       ADDR OF MAIN CONTROL BLOCK
         BZ    RETURN                 GET OUT IF NONE
         LA    R7,4(,R8)              LOOK LIKE FIRST USER BLOCK
XSU_LOOP DS    OH
         ICM   R7,B'1111',8(R7)       USER BLOCK ADDR
         BZ    RETURN                 GET OUT IF DONE
         CLC   DELETE_TERM_ID,104(R7) FOR THIS TERMINAL?
         BNE   XSU_LOOP               NO
          TM    120(R7),X'01'        ACTIVE ENTRY?
          BZ     XSU_LOOP                    NO
         OI     120(R7),X'02'        SHOW SESSION DONE
          B     RETURN               EXIT PROGRAM
```

This code does the following:

1. Attempts to load program EC2XSLOC
   - If the load fails, this is not the region containing CA View and it exits.
   - If CA View is active in this region, the first word of EC2XSLOC contains the address of the main control block.

     If this word is zero, CA View is not active and the program exits.
2. Scans the chain of CA View user control blocks to find the terminal to be deleted
   - If the program finds the terminal ID, it makes sure that the user block is in use and is active, then it clears the appropriate fields.
   - If the block does not represent an active user, the program continues to search the chain to the end.
   - If the program gets to the end of the chain without finding the terminal ID, the program exits.

If you implement this change to the terminal deletion section of the Autoinstall Control Program, you can prevent the problems caused by the methods that were used to leave the CA View application.

Install the IMS Online Retrieval Option

Use these steps to install the IMS online retrieval option.

Important! This facility uses the cross-memory feature distributed with CA View and must be installed with that feature.

Note: For more information about cross-memory, see the topic Installing Cross-Memory Services in this chapter.

Installation Steps

This list summarizes the steps required to install the IMS Online Retrieval Option. Detailed instructions are in the sections that follow.

1. Code the IMS TRANSACT, PSB, and APPLCTN macros.
2. Run the PSB, ACB, and SYSGEN procedures.
3. Load EC2IMSUX Modules

   Move load modules to IMSVS.PGMLIB.

Important! All JCL and macros provided in this section are provided as general examples only and must be modified according for your site's systems and standards.

Step 1: Code the Macros

Use the examples in this section as a guide as you code these macros, and implement them in your IMS system.

- (IMS) TRANSACT macro
- PSB macros
- APPLCTN macro

TRANSACT Macro

One or more transactions must be defined for the IMS online retrieval program SARXMIMS. Normally, only one transaction identifier is defined, although you can define multiple transactions.

This TRANSACT macro identifies the SARXMIMS transaction to IMS:

```
TRANSACT NAME=EC2XMIMS,SPA=(18)
```

PSB Macros

This PSB must be generated for the EC2XMIMS transaction:

```
PCB       TYPE=TP,ALTRESP=YES,MODIFY=YES
PSBGEN    PSBNAME=EC2XMIMS,LANG=ASSEM,COMPAT=YES
```

APPLCTN Macro

This APPLCTN must be generated for the SARXMIMS transaction:

```
APPLCTN   PSB=EC2XMIMS
```

Step 2: Run the PSB, ACB, and SYSGEN Procedures

Use the macros created in Step 1. Code the Macros as input for the following procedures:

```
PSBGEN
ACBGEN
IMS SYSGEN
```

Step 3: Load EC2IMSUX Modules

Move load modules EC2IMSUX to IMSVS.PGMLIB.

Note: EC2IMSUX is in CAI.CVDELOAD and must be copied to IMSVS.PGMLIB.

IMS Notes (New Version)

Be aware of the following:

- The new IMS/DC Transaction Program (EC2XMIMS) is a replacement for the older SARXMIMS program.
- The EC2XMIMS does not need to be linkedited to the ASMTDLI interface program. The transaction is now conversational with a SPASIZE=18 (this can be adjusted).
- If you use extended color, the SEGSIZE= may need to be increased, because extended color data streams can be a 50% increase over the monochrome data stream size.

  To determine the SEGSIZE= value, take the terminal that uses the interface with the largest screen size, in bytes, and apply the following formula:

  ```
  ROWS * COLS * 1.5 = SEGSIZE
  ```

  For example, a 3278-5 with a 27 x 132 screen size would be (27 * 132 * 1.5) = 5346. If the SEGSIZE= is too small, the terminal user will get an RC= "A6" message indicating that a message insert failed.

IMS/DC Parameter Relationships

The cross-memory IMS/DC access involves up to three different address spaces as follows:

- IMS/DC message processing region address spaces

  The user's IMS/DC transaction resides here. If multiple IMS/DC users are processing concurrently (input being processed by the XMS system), a separate IMS/DC message region is used for each user.

  IMS/DC can control the maximum number of IMS/DC transactions executing at one time.

- The XMS support subtask
  - The subtask is started when the XMSSUB=YES input parameter is used when an XMS address space is started.
  - The subtask can be in a separate XMS address space or share the address space with XMS or VTAM sessions.
  - The XMSSUB=YES must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
  - If multiple XMS address spaces are started, only one can have the XMSSUB=YES specified.

  Note: All IMS/DC, TSO/XMS, ISPF/XMS and CA Roscoe/XMS sessions share the same XMS subtask.

- XMS address spaces

  See the topic that follows.

IMS/DC Cross-Memory Notes

Be aware of the following:

- The primary SARXMS region is to be started with the XMSSUB=YES parameter.

  This region can be in a separate XMS address space or share the address space with XMS or VTAM sessions.

- The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
- If multiple SARXMS regions are started, they must be started with XMSSUB=NO parameter.

  Only the primary XMS region can have XMSSUB=YES specified.

- The XMS regions must have the XMS=YES parameter to make it accessible.
- The EBCXMCTR table must be assembled during installation to define the relationship between CA View and CA Deliver database high-level qualifiers. The table contains an EBCXMOPT macro to define initialization options and the EBCXMTRN macro for each CA View database transaction.

The EBCXMTRN macro also contains options for the specific database as follows:

- SUBSYS= parameter of the cross-memory task

  The parameter must match the SUBSYS= parameter specified in the EBCXMCTR table entry.

- RECON=YES can be used to allow reconnection (after an ISPF terminal error) at the point of exit..
- TIMEOUT= specifies how long ISPF is to wait for the XMS session to respond after the user enters input, in seconds.

  We recommend a value as high as possible but not less than 240 (4 minutes).

To abort the XMS session and return the user to ISPF or the TSO command prompt, press the ATTN key.

Note:

- The SUBMAX= parameter controls the number of user connections, not the USERMAX= parameter. USERMAX= only applies when you are using the subtask with the CICS interface.
- For more information about the IMS online interface, see the chapter "Online Interface Administration" in the *Reference Guide*.

To control screen size manually, use these operands. The SNA query command can also be used to determine the device characteristics.

Enter	For Terminal Type
M2	3278-2 24 x 80 default screen size
M2H	3278-2 24 x 80 highlighting
M2X	3279-2 24 x 80 color highlighting
M2C	3279-2 24 x 80 color
M3	3278-3 32 x 80
M3H	3278-3 32 x 80 highlighting
M3X	3279-3 32 x 80 color highlighting
M3C	3279-3 32 x 80 color
M4	3278-4 43 x 80 highlighting
M4H	3278-4 43 x 80 highlighting
M4X	3279-4 43 x 80 color highlighting
M4C	3279-4 43 x 80 color
M5	3278-5 27 x 132
M5H	3278-5 27 x 132 highlighting
M5X	3279-5 27 x 132 color highlighting
M5C	3279-5 27 x 132 color
M6	3290 62 x 80
M6H	3290 62 x 80 highlighting
M7	3290 31 x 160
M7H	3290 31 x 160 highlighting
M8	3290 62 x 160
M8H	3290 62 x 160 highlighting

For other modifications to your system, see your VTAM programmer.

TSO, ISPF, CA Roscoe and Cross-Memory Address Spaces

TSO, ISPF, or CA Roscoe cross-memory access involves address spaces and subtasks as follows:

- TSO or CA Roscoe address spaces

  The TSO command, ISPF, or CA Roscoe application program resides here. If ISPF/XMS is being used with ISPF split-screen active, up to two sessions can be executing at the same time, to the same database, or different databases.

- XMS Support Subtask

  This subtask is started when XMSSUB=YES input parameter is used when starting an XMS address space. The subtask can be in a separate XMS address space, or it can share the address space with XMS or VTAM sessions.

  - The XMSSUB=YES parameter must only be used in an XMS address space with a default subsystem ID (SUBSYS=XMC2 or not specified).
  - If multiple XMS address spaces are started, only one can have the XMSSUB=YES specified.

  Note: All IMS/DC, TSO/XMS, ISPF/XMS, and CA Roscoe/XMS sessions share the same XMS subtask.

- XMS address spaces

  The XMS regions must have the XMS=YES parameter to make them accessible.

  Note: The SUBSYS= parameter must match the EC2XMCTR table entry for the database.

  Multiple address spaces can be used if needed.

Multiple Cross-Memory Region Requirements

Be aware of the following:

- All cross-memory regions started under the same SUBSYS ID are chained together.
- The REGIONID positional parameter is the first value of the PARM= statement for the cross-memory task.

  You must specify a different REGIONID for each started cross-memory region.

- The value of the XMSSUB parameter for the primary region depends on the type of XMS region you are defining.

See this table for the XMSSUB values. Specify XMSSUB=NO for all other started regions.

Primary Region Type	XMSSUB Recommendation
Non-VTAM	Must use XMSSUB=YES

Primary Region Type	XMSSUB Recommendation
CICS	Recommend using XMSSUB=YES
VTAM-only	XMSSUB=NO use allowed

Note:

- You must specify XMS=YES for all other started regions except for VTAM-only regions where XMS=NO is permissible.
- Each VTAM cross-memory region requires a different *applid*. The *applid* is specified using the SARAPPL= parameter.
- Each VTAM cross-memory region requires VTAMPASS=YES.
- The VTAM administrator must verify that each VTAM cross memory applid has this setting:

  ```
  AUTH=(PASS,ACO)
  ```

Prepare to Start the Cross Memory Task

Follow these steps:

1. (Optional) Add the start procedure to PROCLIB for the cross-memory online task.
2. (Optional) Modify, assemble, and link edit the ECqXMCTR module.
3. Define security requirements for CA Top Secret Security (eTrust CA-Top Secret).

Start the Cross Memory Task

Start the XMS CBROSDRV procedure.

Chapter 9: Installing the Features

This section explains how to install the various features of CA View.

This section contains the following topics:

Install ERO

The ERO (Expanded Retention Option) option allows you to specify particular SYSOUTs as having expanded retention, beyond the expiration for selected reports. These SYSOUTs can be given separate retention criteria. Read these instructions thoroughly before installing the option.

Step 1: Set the ERO Initialization Parameters

For more information about the instructions and a discussion of the initialization parameters available for the ERO, see the following chapters in the *Reference Guide:*

- "Initialization Parameters"
- "Configuring"
- "Expanded Retention Option"

Record the expanded retention initialization parameter values on the Initialization Parameter Worksheet in the appendix "Installation Worksheets."

Step 2: (Optional) Create the ERO Table Statements

The ERO table is a PDS member with multiple control statements.

If you want selective permanent archival of SYSOUT, place the control statements in a card image data set and include a SARPATAB DD statement for the data set in the archival started task JCL.

Record the name of your expanded retention control statement data set next to the SARPATAB ddname on the Archival Started Task Worksheet.

Install the VTAM Print Option

The following steps are required to install the VTAM print option. Each step is explained in detail in the sections that follow.

1. Define the application program to VTAM.
2. (Optional) Verify the CICS table entries for printers shared with CICS.
3. Set the VTAM print option initialization parameters.

Configuration Requirements

The VTAM print option is designed for an IBM 3287 printer configuration with LU type = 3. Consult your VTAM systems programmer if necessary.

Step 1: Define the Application Program to VTAM

Add the following application program definition to SYS1.VTAMLST:

```
name      VBUILD   TYPE=APPL
CCCC0001 APPL     AUTH=(ACQ)
CCCC0002 APPL     AUTH=(ACQ)
CCCC0003 APPL     AUTH=(ACQ)
CCCC0004 APPL     AUTH=(ACQ)
    .
    .
CCCCnnnn APPL     AUTH=(ACQ)
```

where *CCCCnnnn* values are as follows:

CCCC

Is the value in the VPRTAPPL initialization parameter

nnnn

Is a sequential number starting at 0001 which specifies the total number of printers being used simultaneously by all concurrent online users and batch jobs

Step 2: (Optional) Verify the CICS Table Entries

Ensure that you have the proper CICS table entries for printers shared with CICS. If you are sharing a printer with CICS, the CICS TCT must have a parameter of the following:

```
RELREQ=(YES,YES)
```

or an equivalent RDO setting:

```
RELREQ ---->YES
DISCREQ --->YES
```

Step 3: Set the VTAM Print Option Initialization Parameters

If the default VTAM print option initialization parameters are not suitable for your site, you can define your own specifications.

Note: For information about the initialization parameters, see the chapters "Configuring" and "Initialization Parameters" in the *Reference Guide*.

VTAM print option parameters have the prefix VPRT.

Record the VTAM print option initialization parameter values on the Initialization Parameter Worksheet in the appendix "Installation Worksheets."

Install the Interface with Print Management

The CA View-to-CA Spool interface allows you to output data directly into the CA Spool database rather than having to pass it through the JES SPOOL, which reduces processing time significantly.

The CA Spool interface option is installed during SMP/E RECEIVE and APPLY.

CA Spool Requirement

For the interface to work properly, you must have installed CA Spool 11.7 or later.

Initialization Parameters

Follow these steps:

- Specify the initialization parameter CMASPOOL.
- If you want to route print requests to CA Spool automatically, specify the initialization parameter PRINTTO SARINIT.
- Evaluate all other initialization parameters that begin with CMA.

Record the CA Spool initialization parameter values on the Initialization Parameter Worksheet.

Note: For information to configure initialization parameters, see the *Reference Guide*.

Install the Interface with ACIF (AFP Report Archival)

The following steps are required to install the CA View ACIF Interface Option. Each step is explained in detail in the following sections.

1. Define JES2 initialization statements, for JES2 sites.
2. Define JES3 initialization statements, for JES3 sites.

3. Define a CA View ACIF archiver PROC.
4. Define CA View FSA device control statements.

Note:

- For more information about archiving AFP reports to CA View, ACIF control statements, and a complete example of the process, see the "Archival" chapter in the *Reference Guide*.
- ACIF indexing on AFP reports requires a functional subsystem definition (FSS).

  FSS printers can be installed under JES2, JES3, or CA Spool. If you are planning to use CA Spool to host the ACIF FSS collector, see the CA Spool documentation for information about how to install and operate FSS printers under CA Spool.

  After you have defined the CA View FSS printer to CA Spool, skip Step 1 and Step 2 and continue with Step 3.

Step 1: Define JES2 Initialization Statements

This step provides a sample FSS definition, JES2 initialization statements, and a JES2 print statement.

Use the sample FSS definition as a guide and place the JES2 initialization statements in the JES2 PARMLIB or in a SYS1.PARMLIB.

Note: For more information about JES2 statements and a description of all of the FSSDEF parameters, see the *IBM JES2 Initialization and Tuning Reference* for your operating system.

Sample FSS Definition

This example shows JES2 statements for a CA View ACIF archiver:

```
FSSDEF(VBRMFSSS)PROC=CBRMSFSS, AUTOSTOP=Y PRINTER(10)FSS=VBRMFSSS,
    PRMODE=(ACIF),
    MODE=FSS,
    CLASS=AJQ,
    DRAIN,
    ROUTECDE=(R10),
    NOSEP,
    WS=(PRM,Q,R)
```

A sample PROC for this procedure is in CAI.CVDEPROC.

JES2 Initialization Statements

The FSSDEF initialization statement defines an FSS to JES2. The following explanations of the JES2 initialization statements are used in the definition of a CA View ACIF archiver. The syntax is as follows:

```
FSSDEF Statement
```

The FSSDEF statement is associated with one or more PRT*nnnn* statements that define each archiver FSA. The FSSDEF initialization parameter is optional, but recommended. If it is omitted, JES2 generates a default for that archiver.

The FSSDEF statement contains the following parameters:

FSSNAME

Defines the unique 1- to 8-character name of an FSS.

When you start the first CA View ACIF archiver that has an FSA definition for that FSS, an FSS address space is created for the archiver. The CA View ACIF interface manages this FSS and the archival FSA for the first CA View ACIF archiver. If you start a second archiver with an FSA definition for the same FSS, the CA View ACIF interface manages a separate FSA for the second archival FSA in that FSS.

Under JES2, each FSS can support a maximum of 24 FSAs. The actual number of FSAs per FSS depends on several factors, such as the size of resources used in the print jobs and the available virtual storage.

This parameter is required.

PROC

Specifies a procedure for starting the CA View ACIF FSS.

The procedure (which must be defined before this FSS is started) is a member of either SYS1.PROCLIB or a library concatenated to SYS1.PROCLIB. Different FSSDEF initialization parameters can refer to the same startup procedure.

HASPFSSM

Defines the 1- to 8-character name of the load module that is loaded into the PSF FSS address space.

This load module contains the various JES2-supplied FSI service routines. For CA View ACIF, specify the default value (HASPFSSM = HASPFSSM).

JES2 PRINTER(nnnn) Statement

A PRINTER(*nnnn*) statement (required to define each FSA) is associated with an FSSDEF statement. Each archival FSA must have a unique PRINTER(*nnnn*) name. This unique PRINTER(*nnnn*) must match the label on the device parameter DD statement in the procedure for starting the CA View ACIF FSS.

```
PRINTER(nnnn)
```

The PRINTER(*nnnn*) parameters define JES2 default values. The PRINTER(*nnnn*) statement contains the following parameters:

CLASS

Specifies the output class used for selecting data sets to be archived.

This parameter is only needed when Q is specified as the work selection (WS) criterion.

DRAIN|START

One of the following options:

DRAIN

Specifies that the archiver can be started by operator command.

START

Specifies that the archiver is started automatically when JES2 begins processing.

FSS

Defines the FSS for the archiver.

This value must match the value coded for an FSSNAME parameter for the corresponding FSSDEF statement. This parameter is required.

MODE

Specifies that the printer is managed by an FSS (MODE=FSS).

This parameter is required.

PRMODE

Defines the processing mode used for selecting data sets to be archived

This parameter is only needed when PRM is specified as the work selection (WS) criterion.

NOSEP

Indicates that no separator pages are to be produced.

TRKCELL=YES

Indicates that track-cell de-spooling is used with this printer.

ROUTECDE

Defines the route code used for selecting data sets to be archived.

This parameter is only needed when R is specified as the work selection (WS) criterion.

FORMS

Defines the form identifier used for selecting data sets for archival.

This parameter is only needed when F is specified as the work selection (WS) criterion.

WRITER

Defines the writer name used for selecting data sets for archival.

This parameter is only needed when W is specified as the work selection (WS) criterion.

WS

Defines the work selection criteria for archival.

Examples of WS are:

WS=(PRM),PRMODE=ACIF

Selects all data sets having a process mode of ACIF.

WS=(Q),CLASS=S

Selects all data sets having a SYSOUT class of S.

Step 2: Define JES3 Initialization Statements

This step provides a sample FSS definition, JES3 initialization statements, and a JES3 device statement.

Use the sample FSS definition as a guide and place the JES3 initialization statements in a SYS1.PARMLIB.

Note: For more information about JES3 statements, see the *IBM JES3 Initialization and Tuning Reference* for your operating system.

Sample FSS Definition

This example shows JES3 statements for a CA View ACIF archiver.

Place these statements in SYS1.PARMLIB.

```
FSSDEF,TYPE=WTR,FSSNAME=VBRMFSSS,PNAME=CVRMSFSS
DEVICE,JNAME=PRT1,DTYPE=SARACIF,MODE=FSS,
       PM=ACIF,WS=(PM),HEADER=NO
```

A sample PROC is in CAI.CVDEPROC.

JES3 Initialization Statements

The FSSDEF initialization parameter defines an FSS to JES3. The following explanations of the JES3 initialization statements are used in the definition of the CA View ACIF archivers. The syntax is as follows:

FSSDEF *Statement*

The FSSDEF initialization statement is optional, but recommended. If it is omitted, JES3 generates a default for that archiver. The FSSDEF statement can contain the following parameters:

TYPE

Specifies that the FSS is an output writer for deferred printing (TYPE=WTR).

This parameter is required.

FSSNAME

Defines the unique 1- to 8-character name of an FSS.

This parameter is required.

PNAME

Defines a procedure for starting a specific CA View ACIF FSS.

The procedure (which must be defined before that FSS is started) is a member of the procedure library defined by the STCPROC parameter of the STANDARDS statement, or of the IATPLBST procedure library (the default). Different FSSDEF initialization parameters can refer to the same startup procedure.

SYSTEM

The JES3 processor on which the FSS runs.

The name must be the same as specified on the NAME parameter of the MAINPROC statement for the processor.

TERM = YES|NO

YES specifies that the FSS is terminated if the JES3 global address space terminates by a *RETURN or *DUMP operator command.

JES3 Device Statement

A DEVICE statement is required for each archival FSA. The DEVICE parameters create JES3 default values that are used unless other values are specified in the JCL application program. The DEVICE statement can contain the following parameters:

DTYPE

Indicates a parameter that is ignored by CA View ACIF, but must be specified.

Any name can be used.

FSSNAME

Specifies a unique FSS for this CA View ACIF archiver DEVICE statement.

The value must match the value coded for the FSSNAME parameter in the corresponding FSSDEF statement. This parameter is required.

HEADER=NO

Indicates that no data set header pages are printed.

JNAME

Indicates the 1- to 8-character name of the CA View ACIF archiver FSA.

Each archiver FSA must have a unique JNAME. This JNAME must correspond to the name on the DEVICE DD statement in the procedure for starting the CA View ACIF FSS. This parameter is required.

JUNIT

Specifies the JUNIT = (,,,OFF) for CA View ACIF archival.

MODE

Indicates that the archiver is managed by an FSS.

This parameter is required.

WS=()

Defines the work selection criteria.

The options are:

CL

Specifies selection by SYSOUT class.

PM

Specifies selection by process mode.

Step 3: Define an ACIF Archiver PROC

This PROC specifies initialization parameters and libraries that contain system and installation resources for the CA View ACIF archiver.

Before starting a CA View ACIF archiver, ensure you have a cataloged startup PROC in SYS1.PROCLIB or a procedure library concatenated to it. Use the sample JCL for CA View ACIF startup procedure in the next section as a guide.

Sample JCL for an ACIF Startup PROC

```
//VIEWFSS   EXEC PGM=SARFSS,TIME=1440,REGION=2M
//STEPLIB  DD DISP=SHR,DSN=CAI.CVDELOAD
//           DD DISP=SHR,DSN=ACIF.LOADLIB          <== IBM ACIF LOADLIB
//*         DD DISP=SHR,DSN=CAI.SPOOL.CBQ4LOAD    <== CA SPOOL LOADLIB
//SYSUDUMP DD SYSOUT=A
//SARINDEX DD DISP=SHR,DSN=CAI.CVDEOPTN
//PRT68    DD DISP=SHR,DSN=CAI.CVDEOPTN(PRINT68)
//*
//*PRT70     DD DISP=SHR,DSN=CAI.CVDEOPTN(PRININT70)
//*OUTPUT70  DD DISP=(NEW,DELETE,DELETE),
//*             DCB=(LRECL=32756,BLKSIZE=32760,RECFM=VBM,DSORG=PS),
//*             SPACE=(CYL,(1,1)),UNIT=SYSDA
//*INDEX70   DD DISP=(NEW,DELETE,DELETE),
//*             DCB=(LRECL=32756,BLKSIZE=32760,RECFM=VBM,DSORG=PS),
//*             SPACE=(CYL,(1,1)),UNIT=SYSDA
//*RESOBJ70  DD DISP=(NEW,DELETE,DELETE),
//*             DCB=(LRECL=32756,BLKSIZE=32760,RECFM=VBM,DSORG=PS),
//*             SPACE=(CYL,(1,1)),UNIT=SYSDA
//*
//SARLOG   DD SYSOUT=A
```

Note: A sample PROC is in CAI.CVDEPROC.

The following explains the statements in the example:

STEPLIB DD: authorization

Defines that the CA View CAI.CVDELOAD and the ACIF load library (containing the APKACIF utility) must be in an authorized STEPLIB concatenation, or in a LNKLSTxx library.

If ACIF output is to be written to a CA Spool system, add your CA Spool load library to the STEPLIB concatenation.

SARINDEX DD

Specifies the PDS members containing the ACIF control statements.

For information about coding these statements, see the chapter "Archival" in the *Reference Guide*.

PRTnnnn DD statements

Contains parameters for each CA View ACIF archive.

The ddname must match that of the corresponding JES2 PRINTER(nnnn) device, or JES3 JNAME value. Multiple PRTnnnn DD statements can be specified for each CA View ACIF archive.

If ACIF output is to be written to a CA Spool system, add your CA Spool load library to the STEPLIB concatenation.

(Optional) SARLOG DD

Specifies that CA View ACIF messages are written to it. These messages are documented in the IBM manual, *Advanced Function Presentation, Conversion and Indexing Facility Application Programming Guide.*

(Optional) INDEXnn DD

Specifies temporary index dataset If ACIF output is to be written to a CA Spool system.

(Optional) OUTPUTnn DD

Specifies temporary output dataset If ACIF output is to be written to a CA Spool system.

(Optional) RESOBJnn DD

Specifies temporary resource dataset If ACIF output is to be written to a CA Spool system.

Step 4: Define FSA Device Control Statements

CA View FSA device control statements are defined in the CA View ACIF FSS start procedure with PRT*nnnn* DD statements. Each PRT*nnnn* DD statement must have a JES device initialization parameter statement (see Step 1: Define JES2 Initialization Statements and Step 2: Define JES3 Initialization Statements earlier in this chapter).

Use the sample ACIF device control statements as a guide. Place these statements in a product PARMLIB or in SYS1.PARMLIB.

Coding the Statements

Information about the coding rules of the FSA Device Control Statements is documented in the IBM manual, *Advanced Function Presentation, Conversion and Indexing Facility Application Programming Guide.*

Sample ACIF Device Control Statements

This example shows the CA View ACIF device control statements. Place these statements in a program product PARMLIB, or SYS1.PARMLIB.

```
TYPE=ACIF
NAME=highlevelindex.view.database
ARCHMSG=LOG
NOGRPID=
CHARS=(GT15,GS15,GU15,GU15)
FDEFLIB=SYS1.FDEFLIB,USER.AFPLIB
FONTLIB=SYS1.FONTLIBB,USER.AFPLIB
FORMDEF=A10110
OVLYLIB=SYS1.OVERLIB,USER.AFPLIB
PAGEDEF=V06683
PDEFLIB=SYS1.PDEFLIB,USER.AFPLIB
PSEGLIB=SYS1.PSEGLIB,USER.AFPLIB
NEWCLASS=T
NEWDEST=
NEWFORM=
NEWPRMOD=
NEWWTR=
NEWESF=cccc
COMBINE=NO
INDEXDD=
OUTPUTDD=
RESOBJDD=
```

The following list describes the CA View ACIF device control statements:

TYPE=ACIF

Indicates that the FSA is identified as an ACIF archive.

Code TYPE=ACIF as the first statement.

NAME=

Specifies the high-level name of the CA View database.

ARCHMSG=YES|NO|LOG

Specifies whether to issue a SARACI22 message every time that CA View archives a SYSOUT data set. LOG specifies that no WTO console messages are produced (only SARLOG messages are created, if SARLOG is present).

NOGRPID=PROCESS | FAIL

Specifies the action to be taken if the SARINDEX Library does not contain a member identified by the GROUPID= parameter on the //name OUTPUT JCL statement.

PROCESS =

Issues the message SARACI06, and archive the Sysout with the default specifications.

FAIL=

Issues the message SARACI06, mark the report in CA View as 'ACIF' in the Exception Code Field, the SARACI06 with other APKACIF messages are stored in the CA View report, and the JES 'Release/Hold' command is executed against the Sysout.

Default: PROCESS.

CHARS=

Specifies up to four different default font names.

A font name must be from 1–4 alphanumeric or national characters.

FDEFLIB

Specifies up to eight form definition libraries.

FONTLIB

Specifies up to eight font libraries.

FORMDEF

Specifies the default form definition.

OVLYLIB

Specifies up to eight overlay libraries.

PAGEDEF

Specifies the default page definitions.

PDEFLIB

Specifies up to eight page definition libraries.

PSEGLIB

Specifies up to eight page-segment libraries.

NEWCLASS

Specifies the new SYSOUT CLASS under which to archive.

This class becomes the default SYSOUT CLASS for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

The value of this parameter, if specified, becomes the class value for the report in the CA View database. Reprint Class translation, as specified by the SARINIT parameter NEWCLSL, can still occur whether NEWCLASS is specified, if the report is not a CA Deliver report.

NEWDEST

Specifies the new SYSOUT DEST under which to archive.

This DEST becomes the default SYSOUT DEST for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

The value of this parameter, if specified, becomes the destination value for the report in the CA View database. The SARINIT parameter NEWDEST, if specified, overrides this parameter when the report is reprinted.

NEWFORM

Specifies the new SYSOUT FORM under which to archive.

This form becomes the default SYSOUT FORM for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

The value of this parameter, if specified, becomes the forms value for the report in the CA View database. The SARINIT parameter NEWFORM, if specified, overrides this parameter when the report is reprinted.

NEWPRMOD

Specifies the new SYSOUT process mode under which to archive.

This mode becomes the default SYSOUT process mode for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

NEWWTR

Specifies the new SYSOUT WRITER name under which to archive.

This name becomes the default SYSOUT WRITER name for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

NEWESF=*cccc*

Specifies the new CA Spool Subsystem Identifier (SUBID=) where the ACIF output is to be written.

This parameter specifies that the ACIF output should be written to the CA Spool system cccc instead of writing it to a CA View database. This allows further processing, such as printing, transferring to remote destinations, transforming to other document formats.

The NEWESF parameter is mutually exclusive with the NAME parameter.

COMBINE={ NO | GROUP | JOB }

Specifies if multiple ACIF outputs are to be combined into a single CA Spool file or not, when NEWESF is specified.

NO

Do not combine sysout datasets. Each sysout is written as a unique CA Spool file.

This is the default value.

GROUP

Combine sysout datasets with the same jobname, jobid and GROUPID to a single CA Spool file.

If the ACIF FSS collector is driven by a CA Spool printer definition, PSFOPT=7 must be specified.

JOB

Combine all sysout datasets produced by given job into a single CA Spool file.

If the ACIF FSS collector is driven by a CA Spool printer definition, PSFOPT=7 must be specified.

Note: PSF supports CA Spool files containing multiple ACIF outputs. The CA Spool AFP transformers generate warning messages when processing CA Spool files containing multiple ACIF outputs. The CA Spool Java transformers do not support CA Spool files containing multiple ACIF outputs.

INDEXDD

Specifies DD-name for temporary index dataset. This parameter statement is required if NEWESF is specified.

OUTPUTDD

Specifies DD -name for temporary output dataset. This parameter statement is required if NEWESF is specified.

RESOBJDD

Specifies DD -name for temporary resource dataset. This parameter statement is required if NEWESF is specified.

Install a CA View PDF Archiver

The following steps are required to install the CA View PDF Archiver. Each step is explained in detail in the following sections.

1. (For JES2 sites) Define JES2 initialization statements.
2. (For JES3 sites) Define JES3 initialization statements.
3. Define a CA View PDF archiver PROC.
4. Define CA View FSA device control statements.

Note: For more information about archiving PDF reports to CA View, control statements and a complete example of the process, see the chapter "Archival" in the *Reference Guide*.

PDF indexing/archiver requires a functional subsystem definition (FSS).

Note: FSS printers can be installed under JES2, JES3, or CA Spool. If you are planning to use CA Spool to host the PDF FSS collector, see the CA Spool documentation for more information about how to install and operate FSS printers under CA Spool.

After you have defined the CA View FSS printer to CA Spool, Skip Steps 1 and 2 and continue with Step 3 in this section.

This product includes the zLib general purpose compression library. CA is grateful to the authors for making it available for inclusion in this software.

Step 1: Define JES2 Initialization Statements

This step provides a sample FSS definition, JES2 initialization statements, and a JES2 print statement.

Use the sample FSS definition as a guide and place the JES2 initialization statements in the JES2 PARMLIB or in a SYS1.PARMLIB.

Note: For more information about JES2 statements and a description of all of the FSSDEF parameters, see the *IBM JES2 Initialization and Tuning Reference* for your operating system.

Sample FSS Definition

This example shows JES3 statements for a CA View PDF archiver.

Place these statements in SYS1.PARMLIB.

```
FSSDEF,TYPE=WTR,FSSNAME=FSSSAR,PNAME=PDFCOLCT
DEVICE,JNAME=PRT1,DTYPE=SARPDF,MODE=FSS,
       PM=PDFC,WS=(PM),HEADER=NO
```

A sample PROC is in CAI.CVDEPROC.

JES2 Initialization Statements

The FSSDEF initialization statement defines an FSS to JES2.The following explains the JES2 initialization statements used in the definition of a CA View PDF archiver. The syntax is as follows:

FSSDEF *Statement*

The FSSDEF statement is associated with one or more PRT*nnnn* statements that define each archiver FSA. The FSSDEF initialization parameter is optional, but recommended. If it is omitted, JES2 generates a default for that archiver.

The FSSDEF statement contains the following parameters:

FSSNAME

Defines the unique 1- to 8-character name of an FSS,

When you start the first CA View PDF archiver that has an FSA definition for that FSS, an FSS address space is created for the archiver. The CA View PDF interface manages this FSS and the archival FSA for the first CA View PDF archiver. If you start a second archiver with an FSA definition for the same FSS, the CA View PDF interface manages a separate FSA for the second archival FSA in that FSS.

Under JES2, each FSS can support a maximum of 24 FSAs. The actual number of FSAs per FSS depends on several factors, such as the size of resources used in the print jobs and the available virtual storage.

This parameter is required.

PROC

Defines a procedure for starting the CA View PDF FSS.

The procedure (which must be defined before this FSS is started) is a member of either SYS1.PROCLIB or a library concatenated to SYS1.PROCLIB. Different FSSDEF initialization parameters can refer to the same startup procedure.

HASPFSSM

Defines the 1- to 8-character name of the load module that is loaded into the PSF FSS address space.

This load module contains the various JES2-supplied FSI service routines. For CA View PDF, specify the default value (HASPFSSM = HASPFSSM).

JES2 PRINTER(nnnn) Statement

A PRINTER(*nnnn*) statement (required to define each FSA) is associated with an FSSDEF statement. Each archival FSA should have a unique PRINTER(*nnnn*) name. This unique PRINTER(*nnnn*) must match the label on the device parameter DD statement in the procedure for starting the CA View PDF FSS.

PRINTER(*nnnn*)

The PRINTER(*nnnn*) parameters define JES2 default values. The PRINTER(*nnnn*) statement contains the following parameters:

CLASS

Defines the output class used for selecting data sets to be archived.

This parameter is only needed when Q is specified as the work selection (WS) criterion.

DRAIN|START

One of the following:

DRAIN

Specifies that the archiver can be started by operator command.

START

Specifies that the archiver is started automatically when JES2 begins processing.

FSS

Defines the FSS for the archiver.

This value must match the value coded for an FSSNAME parameter for the corresponding FSSDEF statement. This parameter is required.

MODE

Indicates that the printer is managed by an FSS (MODE=FSS).

This parameter is required.

PRMODE

Defines the processing mode used for selecting data sets to be archived.

This parameter is only needed when PRM is specified as the work selection (WS) criterion.

NOSEP

Specifies that no separator pages are produced.

TRKCELL=YES

Specifies that track-cell de-spooling is used with this printer.

ROUTECDE

Defines the route code used for selecting data sets to be archived.

This parameter is only needed when R is specified as the work selection (WS) criterion.

FORMS

Defines the form identifier used for selecting data sets for archival.

This parameter is only needed when F is specified as the work selection (WS) criterion.

WRITER

Defines the writer name used for selecting data sets for archival.

This parameter is only needed when W is specified as the work selection (WS) criterion.

WS

Defines the work selection criteria for archival.

Examples of WS are:

WS=(PRM),PRMODE=PDFC

Selects all data sets having a process mode of PDF.

WS=(Q),CLASS=S

Selects all data sets having a SYSOUT class of S.

Step 2: Define JES3 Initialization Statements

This step provides a sample FSS definition, JES3 initialization statements, and a JES3 device statement.

Use the sample FSS definition as a guide and place the JES3 initialization statements in a SYS1.PARMLIB.

Note: For more information about JES3 statements, see the *IBM JES3 Initialization and Tuning Reference* for your operating system.

Sample FSS Definition

This example shows JES3 statements for a CA View PDF archiver.

Place these statements in SYS1.PARMLIB.

```
FSSDEF,TYPE=WTR,FSSNAME=FSSSAR,PNAME=PDFCOLCT
DEVICE,JNAME=PRT1,DTYPE=SARPDF,MODE=FSS,
       PM=PDFC,WS=(PM),HEADER=NO
```

A sample PROC is in CAI.CVDEPROC.

JES3 Initialization Statements

The FSSDEF initialization parameter defines an FSS to JES3. The following explains the JES3 initialization statements used in the definition of the CA View PDF archivers. The syntax is as follows:

FSSDEF *Statement*

The FSSDEF initialization statement is optional, but recommended. If it is omitted, JES3 generates a default for that archiver. The FSSDEF statement can contain the following parameters:

TYPE

Specifies that the FSS is an output writer for deferred printing (TYPE=WTR).

This parameter is required.

FSSNAME

The unique 1- to 8-character name of an FSS.

This parameter is required.

PNAME

A procedure for starting a specific CA View PDF FSS.

The procedure (which must be defined before that FSS is started) is a member of the procedure library defined by the STCPROC parameter of the STANDARDS statement, or of the IATPLBST procedure library (the default). Different FSSDEF initialization parameters can refer to the same startup procedure.

SYSTEM

The JES3 processor on which the FSS runs.

The name must be the same as specified on the NAME parameter of the MAINPROC statement for the processor.

TERM = YES|NO

YES specifies that the FSS is terminated if the JES3 global address space terminates by a *RETURN or *DUMP operator command.

JES3 Device Statement

A DEVICE statement is required for each archival FSA. The DEVICE parameters create JES3 default values that are used unless other values are specified in the JCL application program. The DEVICE statement can contain the following parameters:

DTYPE

Defines a parameter that is ignored by CA View PDF, but must be specified.

Any name can be used.

FSSNAME

Specifies a unique FSS for this CA View PDF archiver DEVICE statement.

The value must match the value coded for the FSSNAME parameter in the corresponding FSSDEF statement. This parameter is required.

HEADER=NO

Indicates that no data set header pages are printed.

JNAME

Specifies the 1- to 8-character name of the CA View PDF archiver FSA.

Each archiver FSA must have a unique JNAME. This JNAME must correspond to the name on the DEVICE DD statement in the procedure for starting the CA View PDS FSS. This parameter is required.

JUNIT

Specifies the JUNIT = (,,,OFF) for CA View PDF archival.

MODE

Indicates that the archiver is managed by an FSS.

This parameter is required.

WS=()

The work selection criteria.

The options are:

PM

Specifies selection by SYSOUT class.

CL

Specifies selection by process mode.

Step 3: Define a PDF Archiver PROC

This PROC specifies initialization parameters and libraries that contain system and installation resources for the CA View PDF archiver.

Before starting a CA View PDF archiver, ensure you have a cataloged startup PROC in SYS1.PROCLIB or a procedure library concatenated to it. Use the sample JCL for CA View PDF startup procedure in the next section as a guide.

Sample JCL for an PDF Startup PROC

```
//PDFCOLCT PROC
//PDFCOLCT EXEC PGM=SARFSS,TIME=1440,
//         REGION=2M
//STEPLIB  DD DSN=CAI.CVDELOAD,DISP=SHR
//SYSUDUMP DD SYSOUT=A
//PDFINDEX DD DSN=VIEW.PDFINDEX,DISP=SHR
//PRT11    DD DSN=CAI.CVDEOPTN(PRT11),DISP=SHR
//SARLOG   DD SYSOUT=A
//PDFREPRT DD SYSOUT=X         <----  DEFAULT PDF REPORT DATASET
//PDFTRACE DD SYSOUT=X         <----  DEFAULT PDF TRACE REPORT DATASET
//SARLOG   DD SYSOUT=X            <----  DEFAULT SARLOG OUTPUT.
//SYSOUT   DD SYSOUT=X            <-- -  Informationary messages from PDF DEFLATE.
//STDERR   DD SYSOUT=X
//        PEND
//VIEWPDF EXEC PROC=PDFCOLCT
```

Note: A sample PROC is in CAI.CVDEPROC.

The following explains the statements in the example:

STEPLIB DD: authorization

Defines the CA View CAI.CVDELOAD must be in an authorized STEPLIB concatenation, or in a LNKLSTxx library.

PDFINDEX DD

Specifies the PDS members containing the PDF control statements.

For information about coding these statements, see the chapter "Archival" in the *Reference Guide*.

PRTnnnn DD statements

Contains parameters for each CA View PDF archive.

The ddname must match that of the corresponding JES2 PRINTER(nnnn) device, or JES3 JNAME value. Multiple PRTnnnn DD statements can be specified for each CA View PDF archive.

SARLOG DD

Specifies that CA View PDF messages are written to it. These messages are documented in the *Message Guide*. The SARLOG DD statement is optional.

Step 4: Define FSA Device Control Statements

CA View FSA device control statements are defined in the CA View PDF FSS start procedure with PRT*nnnn* DD statements. Each PRT*nnnn* DD statement must have a JES device initialization parameter statement (see Step 1: Define JES2 Initialization Statements and Step 2: Define JES3 Initialization Statements earlier in this chapter).

Use the sample PDF device control statements as a guide. Place these statements in a product PARMLIB or in SYS1.PARMLIB.

Code the Statements

For more information about the coding rules of the FSA device control statements, see the IBM manual, *Advanced Function Presentation, Conversion and Indexing Facility Application Programming Guide.*

Sample PDF Device Control Statements

```
TYPE=PDF
ARCHMSG=LOG
NAME=CA VIEW.SAR.DATABASE.TO.RECIEVE.INTO
```

The following list describes the CA View PDF device control statements:

TYPE=PDF

Indicates that the FSA is identified as a PDF archive.

Code TYPE=PDF as the first statement.

NAME=

Specifies the high-level name of the CA View database.

ARCHMSG=YES|NO|LOG

Specifies whether to issue a CAHPDF01I message every time that CA View archives a SYSOUT data set. LOG specifies that no WTO console messages are produced (only SARLOG messages are created, if SARLOG is present).

NEWCLASS

Specifies the new SYSOUT CLASS under which to archive.

This class becomes the default SYSOUT CLASS for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

The value of this parameter, if specified, becomes the class value for the report in the CA View database. Reprint Class translation, as specified by the SARINIT parameter NEWCLSL, can still occur whether NEWCLASS is specified, if the report is not a CA Deliver report.

NEWDEST

Specifies the new SYSOUT DEST under which to archive.

This DEST becomes the default SYSOUT DEST for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

The value of this parameter, if specified, becomes the destination value for the report in the CA View database. The SARINIT parameter NEWDEST, if specified, overrides this parameter when the report is reprinted.

NEWFORM

Specifies the new SYSOUT FORM under which to archive.

This form becomes the default SYSOUT FORM for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

The value of this parameter, if specified, becomes the forms value for the report in the CA View database. The SARINIT parameter NEWFORM, if specified, overrides this parameter when the report is reprinted.

NEWPRMOD

Specifies the new SYSOUT process mode under which to archive.

This mode becomes the default SYSOUT process mode for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

NEWWTR

Specifies the new SYSOUT WRITER name under which to archive.

This name becomes the default SYSOUT WRITER name for reprinting. It is not used for archival data created by CA Deliver or CA View systems extensions.

Install the Viewing Option Interface

The CA View Proprietary Print Stream (PPS) Viewing Option for Xerox solution provides these companion software products, one for the mainframe, and one for the PC, as follows:

- CA View PPS Emulator for Xerox interface for CA View on the mainframe
- The Document Viewer for PPS used with Output Management Document Viewer on the PC
- The RRM (Repository Resource Manager) for PPS Option utility that is downloaded from the mainframe to the administrator's PC and is used to collect and store the resources and definitions required to convert and index Xerox file information.

  Note: For more information about how to install and configure this option, see the CA View Proprietary Print Stream (PPS) Viewing Option for *Xerox Installation and Configuration Guide*.

Install the Global Subsystem Interface

The CA GSS (Global Subsystem) interface allows you to write REXX routines to have other CA products invoke the SARBCH, the batch processing program for CA View. You can also have SARBCH invoke other CA products.

SARBCH can be used for many administrative functions, such as:

- Adding, deleting, or modifying user definitions
- Printing reports
- Producing a listing of users or reports

Note: For more information about the implementation of CA GSS, see the chapter "Batch Processing" in the *Reference Guide.*

Perform each of the following steps to install the GSS interface:

1. (Optional) Verify that you have CA GSS installed on your system.

2. (Not SPF) Edit the data set and member that is allocated to the PARMLIB DDNAME in the GSS that is running on your system.

   To add CA View to the address space, add the line:

   ADDRESS XPVIEW SARINTF

3. (Optional) Add the CA View load library to the concatenation of the CA GSS procedure.
4. (Optional) Restart CA GSS.

Install the Optical Disk Interface

For more information about how to configure the optical disk interface, see the chapter "Using the Optical Disk Interface" in the *Reference Guide*.

Install the Extended Access Server for Tape and Robotics

For information about how to implement and use the extended access server for tape and robotics, see the chapter "Configuring" in the *Reference Guide*.

Install the FSS Collector

The CA View FSS (Functional Subsystem) Collector for JES report archival is an option designed to supplement the CA View archival task. FSS allows concurrent archiving of multiple reports from the JES spool, providing enhanced archival throughput.

This topic provides the instructions for installing and implementing the CA View FSS Collector. Read the instructions thoroughly before installing the collector.

The following SARINIT parameters *do not* apply to FSS:

- ARCHMSG
- CLSL
- DEST
- FORM
- MAXLINES
- NARCCLSL
- NEWCLSL
- NEWDEST
- NEWFORM
- PRTCLSL
- TAPECLSL
- XPRINT

Important! Backup and Direct-To-Tape archival are only performed by the CA View archival task.

FSS Collector Terms

Be familiar with the following:

- FSS (Functional Subsystem)

  An address space uniquely identified as performing a specific function related to the JES. For JES, an example of an FSS is the Print Services Facility program that operates the 3800 Model 3 and 3820 printers.

- FSA (Functional Subsystem Application)

  The functional application program that is managed by the functional subsystem.

- FSA startup

  The part of system initialization when the FSA is loaded into the functional subsystem address space and begins to initialize itself.

Installation Steps

The following is an overview of the steps to install the CA View FSS Collector. Each step is explained in detail in the following topics.

1. Define JES2 initialization statements (for JES2 sites).
2. Define JES3 initialization statements (for JES3 sites).
3. Define an FSS Archiver PROC.
4. Define FSA (Functional Subsystem Application) device control statements.
5. Define FSS report control statements.

Note: FSS printers can be installed under JES2, JES3, or CA Spool. If you are planning to use CA Spool to host the PDF FSS collector, see the CA Spool documentation for more information about how to install and operate FSS printers under CA Spool.

After you have defined the CA View FSS printer to CA Spool, skip Steps 1 and 2 and continue with Step 3 in this section.

Step 1: Define JES2 Initialization Statements

The following example shows JES2 initialization statements for a CA View FSS archiver. Place these statements in the JES2 PARMLIB or a SYS1.PARMLIB.

Sample FSS Definition

```
FSSDEF(VBRMFVC)
PROC=CBRMSFVC
AUTOSTOP=YES PRINTER(15)
FSS=VBRMFVC,PRMODE=(LINE),
MODE=FSS,CLASS=AJQ,DRAIN,ROUTECDE=(R15),NOSEP,WS=(PRM,Q,R)
```

JES2 Initialization Statements

This section explains the JES2 initialization statements used in the definition of a CA View FSS archiver. For more information about JES2 statements, see the IBM JES2 initialization and tuning publication for your operating system.

FSSDEF Statement

The FSSDEF initialization statement defines an FSS to JES2. The FSSDEF statement is associated with one or more PRT*nnnn* statements that define each archiver FSA.

The FSSDEF initialization parameter is optional, but recommended. If it is omitted, JES2 generates a default for that archiver.

For a description of all of the FSSDEF parameters, see the IBM JES2 initialization and tuning publication for your operating system.

The FSSDEF statement contains the following parameters:

FSSNAME

Specifies the unique 1- to 8-character name of an FSS.

When you start the first CA View FSS archiver that has an FSA definition for that FSS, an FSS address space is created for the archiver. The FSS interface manages this FSS and the archival FSA for the first FSS archiver. If you start a second archiver with an FSA definition for the same FSS, the FSS interface then manages a separate FSA for the second archival FSA in that FSS.

The FSSNAME parameter is required.

Under JES2, each FSS can support a maximum of 24 FSAs. The actual number of FSAs per FSS depends on several factors, such as the size of resources used in the print jobs and the available virtual storage.

PROC

Specifies a procedure for starting the CA View FSS.

The procedure, which must be defined before that FSS is started, is a member of either SYS1.PROCLIB or a library concatenated to SYS1.PROCLIB.

Different FSSDEF initialization parameters can refer to the same startup procedure.

AUTOSTOP

Stops (shuts down) the FSS address space if all of the devices attached to the FSS are drained.

HASPFSSM

Specifies the 1- to 8-character name of the load module that is loaded into the PSF FSS address space This load module contains the various JES2-supplied FSI service routines.

For FSS, specify the default value:

(HASPFSSM = HASPFSSM).

PRINTER(nnnn) Statement

A PRINTER(*nnnn*) statement, which is required to define each FSA, is associated with an FSSDEF statement. Each archival FSA must have a unique PRINTER(*nnnn*) name. This unique PRINTER(*nnnn*) name must match the label on the device parameter DD statement in the procedure for starting the CA View FSS Collector.

The PRINTER(*nnnn*) parameters define JES2 default values. The JES2 PRINTER(*nnnn*) statement contains the following parameters:

CLASS

Specifies the output class to be used for selecting data sets to be archived.

The CLASS parameter is only needed when Q is specified as a work selection (WS) criterion.

DRAIN|START DRAIN

Specifies that the archiver can be started by operator command.

START

Specifies that the archiver is started automatically when JES2 begins processing.

FSS

Specifies the FSS for the archiver and must match the value coded for an FSSNAME parameter for the corresponding FSSDEF statement.

The FSS parameter is required.

MODE

Specifies that the printer is managed by an FSS (MODE=FSS).

The MODE parameter is required.

PRMODE

Specifies the processing mode used for selecting data sets to be archived

The PRMODE parameter is only needed when PRM is specified as a work selection (WS) criterion.

NOSEP

Specifies that no separator pages are produced.

TRKCELL=YES

Specifies that track-cell de-spooling is used with this printer.

ROUTECDE

Specifies the route code used for selecting data sets to be archived,

The ROUTECDE parameter is only needed when R is specified as a work selection (WS) criterion.

FORMS

Specifies the form identifier used for selecting data sets for archival.

The FORMS parameter is only needed when F is specified as a work selection (WS) criterion.

WRITER

Specifies the writer name used for selecting data sets for archival.

The WRITER parameter is only needed when W is specified as a work selection (WS) criterion.

WS

Specifies the work selection criteria for archival.

Examples of WS are:

WS=(PRM),PRMODE=LINE

Selects all data sets having a process mode of LINE.

WS=(Q),CLASS=S

Selects all data sets having a SYSOUT class of S.

Step 2: Define JES3 Initialization Statements

The following example shows JES3 initialization statements for a CA View FSS archiver. Place these statements in SYS1.PARMLIB.

Sample FSS Definition

```
FSSDEF,TYPE=WTR,FSSNAME=VBRMFVC,PNAME=CBRMSFVC
DEVICE,JNAME=PRT1,DTYPE=SARFVC,MODE=FSS,PM=FVC,WS=(PM),HEADER=NO
```

JES3 Initialization Statements

The following explanations of the JES3 initialization statements are used in the definition of the FSS archivers. For more information about JES3 statements, see the IBM JES3 initialization and tuning publication for your operating system.

FSSDEF Statement

The FSSDEF initialization parameter defines an FSS to JES3. The FSSDEF initialization statement is optional, but recommended. If it is omitted, JES3 generates a default for that archiver.

The FSSDEF statement can contain the following parameters:

TYPE

Specifies that the FSS is an output writer for deferred printing (TYPE=WTR).

The TYPE parameter is required.

FSSNAME

Specifies the unique 1- to 8-character name of an FSS.

The FSSNAME parameter is required.

PNAME

Specifies a procedure for starting a specific CA View FSS.

The procedure, which must be defined before that FSS is started, is a member of the procedure library defined by the STCPROC parameter of the STANDARDS statement, or of the IATPLBST procedure library (the default). Different FSSDEF initialization parameters can refer to the same startup procedure. A sample PROC is in CAI.CVDEPROC.

SYSTEM

Specifies the name of the JES3 processor on which the FSS runs.

The name must be the same as specified for the NAME parameter of the MAINPROC statement for the processor.

TERM = YES|NO

YES specifies that the FSS is terminated if the JES3 global address space terminates by a *RETURN or *DUMP operator command.

JES3 DEVICE Statement

A DEVICE statement is required for each archival FSA. The DEVICE parameters create JES3 default values that are used unless other values are specified in the JCL application program.

The JES3 DEVICE statement can contain the following parameters:

DTYPE

A parameter that is ignored by FSS, but one that must be specified.

Any name can be used for the DTYPE parameter.

FSSNAME

Specifies a unique FSS for this CA View FSS archiver DEVICE statement.

The value must match the value coded for the FSSNAME parameter in the corresponding FSSDEF statement. The FSSNAME parameter is required.

HEADER = NO

Specifies that no data set header pages are printed.

JNAME

Specifies the 1- to 8-character name of the FSS archiver FSA.

Each archiver FSA must have a unique JNAME. This JNAME must correspond to the name on the DEVICE DD statement in the procedure for starting the CA View FSS. The JNAME parameter is required.

JUNIT

Specifies JUNIT = (,,,OFF) for FSS archival.

MODE

Specifies that the archiver is managed by an FSS.

The MODE parameter is required.

WS=()

Specifies the work selection criteria.

The options are:

PM WS=(PM)

Selects by process mode.

CL WS=(CL)

Selects by SYSOUT class.

Step 3. Define a VIEW Archiver PROC

Before starting a CA View VIEW archiver, you must have a cataloged startup PROC in SYS1.PROCLIB or a procedure library concatenated to it. This PROC specifies initialization parameters and libraries that contain system and installation resources for the VIEW archiver.

Example JCL for VIEW

```
VIEW Startup PROC
//CBRMSFVC  EXEC PGM=SARFSS,TIME=1440,REGION=2M
//STEPLIB   DD DISP=SHR,DSN=CAI.CVDELOAD
//SYSUDUMP  DD SYSOUT=A
//SARINDEX  DD DISP=SHR,DSN=VIEW.SARINDEX
//PRT15     DD DISP=SHR,DSN=VIEW.PARMLIB(PRT15)
//SARLOG    DD SYSOUT=A                          (OPTIONAL)
//SARACT    DD DISP=SHR,DSN=VIEW.SARACT          (OPTIONAL)
//SARXCTAB  DD DISP=SHR,DSN=VIEW.SARXCTAB        (OPTIONAL)
```

- STEPLIB DD

  The CA View load library must be in an authorized STEPLIB concatenation or in an LNKLSTxx library.

- SARINDEX DD

  SARINDEX specifies PDS members containing the VIEW control statements.

Note: For more information about coding these statements, see the chapter "Archival" in the *Reference Guide*.

PRTnnnn DD Statements

The PRT*nnnn* DD statements contain parameters for each VIEW archiver. The ddname must match that of the corresponding JES2 PRINTER(*nnnn*) device or JES3 JNAME value. Multiple PRT*nnnn* DD statements can be specified for each CA View Functional Subsystem archiver.

SARLOG DD Statement

The SARLOG DD statement is optional. If specified, CA View messages are written to it. The *Message Guide* documents these messages.

SARACT DD Statement

The SARACT DD statement is optional. If specified, this DD performs the same function as in the VIEW archival started task.

SARXCTAB DD Statement

The SARXCTAB DD statement is optional. If specified, this DD performs the same function as in the VIEW archival started task.

Step 4: Define FSA Device Control Statements

CA View FSA (Functional Subsystem Application) device control statements are defined in the FSS start procedure with PRT*nnnn* DD statements. Each PRT*nnnn* DD statement must have a JES device initialization parameter statement (see Step 2 or Step 3 earlier in this chapter).

FSA device control statements are coded as follows:

keyword=value

The following example shows FSS device control statements. These statements should be placed in a program product PARMLIB or SYS1.PARMLIB.

Sample Definition

```
TYPE=VIEW
NAME=highlevelindex.view.database
ARCHMSG=LOG
NEWCLASS=T
NEWDEST=
NEWFORM=
NEWPRMOD=
NEWWTR=
CHARS=(GT15,GS15,GU15,GU15)
FORMDEF=A10110
PAGEDEF=V06683
```

The following descriptions explain the FSS device control statements:

ARCHMSG=YES|NO|LOG

Specifies whether a SARFVC22 message is issued every time a SYSOUT data set is archived by CA View.

LOG specifies that no WTO console messages are produced (only SARLOG messages are created, if SARLOG is present).

DEST=DEFAULT|SYSTEM

Specifies a value for the DEST statement, use the value provided by JES, or set the DEST to use the System Name.

DEFAULT

Indicates the normal JCL Destination.

SYSTEM

Indicates the system_name or system_name.dest.

If this statement is not coded, the default value of DEST=DEFAULT is used.

NAME

Specifies the high-level name of the CA View database.

NEWCLASS

Specifies the new SYSOUT CLASS under which to archive.

This class becomes the default SYSOUT CLASS for reprinting. It is not used for archival data created by CA Deliver or CA View Systems extensions.

NEWDEST

Specifies the new SYSOUT DEST under which to archive.

This becomes the default SYSOUT DEST for reprinting. It is not used for archival data created by CA Deliver or CA View Systems extensions.

NEWFORM

Specifies the new SYSOUT FORM under which to archive.

This form becomes the default SYSOUT FORM for reprinting. It is not used for archival data created by CA Deliver or CA View Systems extensions.

NEWPRMOD

Specifies the new SYSOUT process mode under which to archive.

This process becomes the default SYSOUT process mode for reprinting. It is not used for archival data created by CA Deliver or CA View Systems extensions.

NEWWTR

Specifies the new SYSOUT WRITER name under which to archive.

The writer name is used as a SYSOUT ID. It is not used for archival data created by Deliver or CA View Systems extensions.

TYPE=VIEW

Identifies the FSA as an FSS archiver.

Code TYPE=VIEW as the first statement.

CHARS,FORMDEF,PAGEDEF

These statements act as defaults and do not override existing report attributes.

Step 5: Define FSS Report Control Statements

For each SYSOUT data set to be processed by a CA View FSS archiver, a set of control statements may be used to provide other attributes for archival. These control statements are created as members of the SARINDEX PDS, specified in the CA View FSS start procedure. The name of the member is coded on the GROUPID parameter of the //OUTPUT JCL statement for the SYSOUT data set. If the GROUPID parameter is not coded, the name of the member defaults to the job name.

Note: For JES3 sites, the GROUPID parameter is supported in JES3 version 4.2 and higher.

The following FSS report control statements can be coded:

DOWNLOAD

Specifies up to 256 user IDs to which the archived SYSOUT is to be queued for downloading to the OM Document Viewer product.

REPORTID

Specifies a 1- to 32-character name under which the report is to be archived.

If omitted, the job name is used (except for CA Deliver, which uses the CA Deliver report identifier).

Note: The report-id is entered exactly as desired after the REPORTID keyword and can contain spaces or any supported special characters. If the report-id has more than 32-characters, it is truncated at 32-characters.

USERDATA

Specifies 1 to 20 bytes of user data to be stored in the GCRUSER field.

Install the EMC Centera Disk Option

CA View EMC Centera Option enables you to migrate and retrieve reports from a Centera disk cluster in addition to migrating them to the CA View database for viewing or printing.

Note: For more information about installing and configuring the EMC Centera Disk Option, see the chapter "EMC Centera Disk Option" in the *Reference Guide.*

Appendix A: Installation Worksheets

This appendix contains the required worksheets including the SMP and system-related items for the installation and the Expanded Retention Option (ERO) initialization parameters. Fill out these worksheets carefully and retain this information for future reference.

This section contains the following topics:

Data Set Qualifiers and SMP Parameters

- Enter the data set high-level qualifiers you plan to assign to the CA View product libraries.

  Default: **CAI** ='CAI.' **CAI**= _____

- Enter the data set high-level qualifier you plan to assign to the SMP data sets to be used for this installation.

  Default: **CAISMPE** ='CAISMPE.' **CAISMPE**= _____

- Enter the Volser name to be used to allocate the SMP/E VSAM cluster for your CSI..

  Default: **SMPVOL**= **SMPVOL**=_____

- Enter the name of your SMP/E distribution zone.

  Default: **CAID0**= **CAID0** =_____

- Enter the name of your SMP/E target zone.

  Default: **CAIT0**= **CAIT0**=_____

- If you are *not* using SMS, enter the name of the Volser on which to allocate the data sets.

  Default: VOLSER = VOLSER = _____

- If you are using SMS for data set allocations, enter the name of your SMS storage class.

  Default: STORCL = STORCL = _____

- Enter the generic DASD unit name.

  Default: UNIT=SYSDA

  UNIT = _____

- Enter the VTAM application ID for CA View.

  APPLID=_____

- Enter the TSO CLIST name to use to initiate online interaction with CA View. See CAI.CAICLS0 for examples.

  TSOC=_____

- Enter the name of your previous CA View Release load library.

  OLDLOAD=_____

- Enter the DASD volume on which the system databases are to reside.

  SYSVOL= _____

- Conversion data:

Enter the report class/destination/form combination currently being used by the archive criteria.

CLSL= _____
DEST= _____
FORM= _____

Initialization Parameter Worksheet

Review the parameter names in boldface type, if you are installing for the first time. Expanded Retention Option (ERO) initialization parameters are listed in a separate table, following this table.

Parameter	Value
ACIFCOMP	
ACIFRES	
AFPSPACE	
ANNODLFT	
ARCHCOPY	
ARCHMSG	
ARCHSWAP	
BCHMAXRC	
BNDWDAYS	
CCONDISP	

Parameter	Value
CENTADR	
CENTPDSN	
CENTNAME	
CLEAN	
CLSL	
CMAMAX	
CMASPOOL	
CODEPAGE	
DAYS	
DBMSGFRQ	
DBTHRESH	
DEFMODE	
DELETE	
DESC	
DEST	
DIRALLOC	
DRMOD	
DRTAPE	
DRTIDX	
DRTSEQ	
DRUNITB	
DRUNITP	
EASTDPLX	
EASTMAXW	
EASTNAM1- EASTNAM3	
ENCRYPT	
EXPDT	
EXPOPRV	
EXPRESS	

Parameter	Value
EXTPRTn	
FEATURE	
FINDLAST	
FINDLIM	
FINDPREV	
FORM	
FREEPRT	
GEN	
GRPUSER	
HOLDTEMP	
IMMRPT	
INTERVAL	
JCLASS	
JES3ID	
LANGUAGE	
LGNRETRY	
LOGO	
MASTER	
MAXLINES	
MOUNT	
MSORT1 – MSORT5	
NAME	
NARCCLSL	
NBACKUP	
NEWCLSL	
NEWDEST	
NEWFORM	
NEWPASS	
NGEND	

Parameter	Value
NGENI	
NGENT	
OUTLIM	
PAGEMARK	
PRTALL	
PRTASA	
PRTCLSL	
RCVPRIM	
RCVSEC	
RCVSPACE	
RCVUNIT	
REDISP	
RETPD	
ROUT	
ROUTBKP	
SECID	
SECLIST	
SECURITY	
SETPAGE	
SMF	
SMFTYPE	
STACKBU	
START	
STORGRP0	
STORGRX0	
TAPECLSL	
TAPEOPT	
TAPESEQ	
TBACKUP	
TIME	

Parameter	Value
TPO54	
TSOCLS	
TSODEST	
TSOFORM	
TSOSCHED	
UNITSPEC	
UNLOAD	
USERLIB	
USERLVL	
VPRTAPPL	
VPRTMAXO	
VPRTONL	
VPRTPRINT	
VPRTRTRY	
WAIT	
WRITER	
XPRINT	

Expanded Retention Option (ERO) Initialization Parameters

Parameter	Value
DSK2DAYS	
DSK2DRVR	
DSK2INTV	
DSK2MIGD	
DSK2PARM	
DSK2TIME	
EROOPT	

Parameter	Value
EROPRO	
PCOPIES	
PMXTAPES	
PMXYEARS	
POPT	
PRETAIN	
PTEXT1 – PTEXT5	
PTHRESH	
PXCOND	
STORGRP1-9	
STORGRX1-9	

Archival Started Task Worksheet

Use this worksheet to list the data set names used in various steps of the install process.

Accounting Data

DDname: SARACT

Data set name: _____

Create Backup Report

DDname: SARBKLST

Data set name: _____

Create Optical Migration Report

DDname: SARD2LST

Data set name: _____

Tracking Backup Tapes (Highly Recommended)

DDname: SARRECV

Data set name: _____

Exceptional Condition Checking Control Statements

DDname: SARXCTAB

Data set name: _____

Expanded Retention Option (ERO) Control Statements

DDname: SARPATAB

Data set name: _____

Appendix B: Integration with CA OPS/MVS EMA

This section contains the following topics:

Overview

CA View provides seamless integration with CA OPS/MVS by automatically communicating both active status events and heart beat events to CA OPS/MVS. The enabling technology for this is through a generic event API call that CA OPS/MVS provides the other mainframe products so that they can communicate events to CA OPS/MVS.

You do not need to do anything for CA View to enable this event communication interface to CA OPS/MVS. If CA View and CA OPS/MVS are active in the same z/OS image, CA View automatically communicates these automation events to CA OPS/MVS.

By generating active status events CA View and other CA products are able to communicate to CA OPS/MVS's System State Manager (SSM) component when they are starting, up, stopping or down.

SSM is a built-in feature that uses an internal relational data framework to proactively monitor and manage started tasks, online applications, subsystems, JES initiators, and other z/OS resources including your CA mainframe products. SSM compares the current state of online systems, hardware devices, and the other resources with their desired state, and then automatically makes the necessary corrections when a resource is not in its desired state. This provides proactive and reactive state management of critical resources.

Before the CA OPS/MVS interface existed, CA OPS/MVS could automate active status events for your CA products; however this typically required monitoring unique messages for each CA product. With this interface, CA OPS/MVS can capture these events for any of your CA products with a single automation event rule.

With the heart beat event, CA View can communicate a normal, warning, or problem overall health status and reasoning to CA OPS/MVS on a regular interval. Once CA View begins generating heart beat events for CA OPS/MVS, CA OPS/MVS can also react to the lack of a heart beat event from CA View, treating this as an indication that there is either a potential problem with CA View, or there is a larger system-level problem that is taking place.

Ensure that CA OPS/MVS Is Enabled for Capturing These Events

To ensure that this CA OPS/MVS interface is active, make sure the CA OPS/MVS parameter APIACTIVE is set to its default of ON. This allows CA OPS/MVS to acknowledge and process the events generated by CA View and other CA products through this interface.

CA View Active State Events

CA View provides a direct interface to the CA OPS/MVS System State Manager (SSM) application to notify CA OPS/MVS of the current operating state of the given CA View address space. The CA OPS/MVS SSM application can use this information to automatically control the operation of the CA View address space, and any other address space that is dependent upon the CA View address space being active. For more information on using CA OPS/MVS SSM see the CA OPS/MVS User Guide.

The CA View product active state is presented to CA OPS/MVS and can be processed by the following rule:

```
)API CASTATE
```

The available OPS/REXX variables for CA View product state management are:

OPS/REXX Variable	Value
API.APPLICATION	CA View
API.VERSION	Current release
API.LEVEL	00
API.EVENTID	CASTATE
API.MSGID	CASTATE
API.TEXT	State of CA View

The API.TEXT variable has the following format:

State of *appl_id* is *current_state*'

appl_id

Specifies the same value as the API.APPLICATION variable

current_state

STARTING

Indicates that CA View is initializing

UP

Indicates that CA View is active

STOPPING

Indicates that CA View is terminating

DOWN

Indicates that CA View is exiting the system

For more information on how to use the CASTATE API, see the member SSMCAAPI of opsmvsHLQ.STATEMAN.RULES.

CA View Heartbeat Events

CA View provides a continuous heartbeat event directly to CA OPS/MVS. CA OPS/MVS can use this information in several ways to determine the operational health of the CA View product.

CA View issues a heartbeat update every nnnn seconds that notifies CA OPS/MVS of the current operational health of the CA View product.

If CA View detects a health state change, it immediately generates a heartbeat update without waiting for the nnnn second heartbeat interval to expire. In this way, CA View provides CA OPS/MVS with a constant operational health state view of the CA View product.

CA OPS/MVS can also react to the lack of a heartbeat update from CA View and an indication that there is either a potential problem with CA View, or there is a larger system level problem that is taking place.

The CA View product heartbeat event is presented to CA OPS/MVS and can be processed by the following rule:

```
)API CAHEARTBT
```

The available OPS/REXX variables for CA View state management are:

OPS/REXX Variable	Value
API.APPLICATION	CA View
API.VERSION	Current release
API.LEVEL	00
API.EVENTID	CAHEARTBT
API.MSGID	CAHEARTBT
API.TEXT	State of CA View

The API.TEXT variable has the following format:

appl_id Status: *heartbeat*_state Reason: reason_text

appl_id

Specifies the value of the API.APPLICATION variable.

heartbeat_state

Heart_beat_state can be one of the following:

NORMAL

Indicates that CA View is operating normally, without any detected problems.

WARNING

PROBLEM

reason_text

reason_text explains the problem as reported by the event API call.

For information on how you use the CAHEARTBT API, see members APIHRTB1, APIHRTB2, and APIHRTB3 of opsmvsHLQ.SAMPLE.RULES.

Index

G

H

I

J

L

M

N

O

P

R

S

T

V

W

X