CA EPIC™ for z/VSE

Installation and System Guide

r5.2

CA Product References

This document references the following CA products:

- CA EPIC™ for z/VSE
- CA CIS for z/VSE
- CA SORT® for VSE

Contact CA Technologies

Contact Technical Support

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Chapter 1: Installation Worksheets

This section contains the following topics:

Complete the Installation Worksheets

Several questions concerning the environment in which CA EPIC™ for z/VSE (CA EPIC for z/VSE) will be installed should be answered before proceeding with the installation process. A series of worksheets are provided to help you define these items along with checklists to guide you throughout the installation.

Initial Installation Checklist

Preparing for First-Time Installation

Here is a list of the steps to take when installing CA EPIC for z/VSE for the first time. Use this checklist to record completion of each one. Related procedures are described in detail in the rest of this guide.

1. Obtain LMP Key
2. Contact CA EPIC for z/VSE Technical Support
3. Complete the Product Installation Worksheet
4. Meet Operating System Requirements
5. Meet Space Requirements
6. Meet Software Compatibility Requirements
7. Ensure CA GSS r5.0 Availability
8. Install CA EPIC for z/VSE in Test Environment
9. If Automatic Cartridge Library (ACL) support is used, determine the system requirements and identifying information used in the vendor's ACL unit. This information is specific to each ACL vendor.

Installing System Components

1. Install Product Libraries
2. Create the DSN Catalog
3. Create the Recorder File
4. Create the Separate JOBQ File (optional)
5. Create CA EPIC for z/VSE Resource Dataset (required to share tape resources among multiple physical or virtual VSE machines)
6. Create the Online Manager executable files
7. Load CA EPIC for z/VSE transactions to the CICS CSD
8. (Optional) Load CA EPIC for z/VSE message help to VSE EXPLAIN file

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8. (Optional) Configure Vaults and Vaulting Methods

Pre-4.1 Upgrade Checklist

This is a list of the steps necessary to upgrade from a pre-4.1 version of CA EPIC for z/VSE. Use this checklist to certify performance of each step.

Pre-Installation Modifications

1. Obtain LMP Key
2. Contact CA EPIC for z/VSE Technical Support for Upgrades
3. Complete the Product Installation Worksheet
4. Meet Operating System Requirements
5. Meet Space Requirements
6. Meet Software Compatibility Requirements
7. Ensure CA GSS r5.0 Availability
8. If Automatic Cartridge Library (ACL) support is used, determine the identifying information used in the vendor's ACL unit. This information is specific to each ACL vendor.

Installation of Major Datasets

1. Load Library Modules from Distribution Tape
2. Reassemble TSIDPOL Phase
3. Reassemble TSIVDEF Phase
4. Create the Separate JOBQ File (optional)
5. Create CA EPIC for z/VSE Resource Dataset (required to share tape resources among multiple physical or virtual VSE machines)

Update Your ASI Procedure

1. Update SVA Size
2. Increase System GETVIS
3. Increase Partition GETVIS
4. Increase Dynamic Space GETVIS
5. Update LIBDEF Procedures
6. (Optional) Load CA EPIC for z/VSE Message Help
7. Activate CA EPIC for z/VSE
8. Finish CICS Installation

Final Base Installation Procedures

1. Activating CA EPIC for z/VSE Support for Multiple Job Exits
2. Convert DSN Catalog Dataset

CA EPIC for z/VSE Product Installation Worksheet

Description

This worksheet is provided to help you define the items needed for installing the product distribution tape under MSHP. The keywords on the worksheet are the same as the symbolic parameters used in the supplied installation JCL. These keywords will then be used to update the sample installation JCL for proper execution in your environment.

The allocations given specify the library block requirements for installing CA EPIC for z/VSE and include sufficient space to allow for product reinstallation and maintenance.

The calculated file sizes are to be used to complete the worksheet. For installation of CA EPIC for z/VSE, the requirements are as follows:

10,000 1k library blocks

Note: Additional space will be required if other CA products are being installed.

1. Supply the following information used to personalize the CA Production History File:

Description	Keywords
Customer Name	@CUSTNME=_____
Customer Address	@CUSTADD=_____
Customer Phone Number	@CUSTPHN=_____
Programmer Name	@PROGNME=_____

2. Supply the following information used for the Production History File EXTENT:

Description	Keywords
Volume ID of DASD pack	@HISTVOL=_____
Beginning relative track or block	@HISTREL=_____
Number of tracks or blocks	@HISTEXT=_____

3. Supply the following information used for the Install History File EXTENT:

Description	Keywords
Volume ID of DASD pack	@INSTVOL=_____
Beginning relative track or block	@INSTREL=_____
Number of tracks or blocks	@INSTEXT=_____

4. Supply the tape drive address where the installation tape will be mounted:

Description	Keywords
Tape drive address of CUU	@TAPECUU=_____

5. Supply the following information used for the Production Library EXTENT:

Description	Keywords
Volume ID of DASD pack	@DLIBVOL=_____
Beginning relative track or block	@BLIBREL=_____
Number of tracks or blocks	@DLIBEXT=_____

6. Supply the following information used for the Install Library EXTENT

Description	Keywords
Volume ID of DASD pack	@ILIBVOL=_____
Beginning relative track or block	@ILIBREL=_____
Number of tracks or blocks	@ILIBEXT=_____

7. Supply the product name and product code you are installing:

Description	Keywords
Product Name: CA EPIC for z/VSE	@PRODUCT=_____
Product Name: SKX52	@PRODCDE=_____

8. Supply the following only if you are installing from the electronic delivery file using IBM VSE Virtual Tape:

Description	Keywords
IP address of the machine that currently holds the ".AWS" file	@IPADDR =_____
The fully qualified location and name of the CA EPIC for z/VSE .AWS file.	@AWSFILE=_____

Disk Pools Worksheet

Pool Name	Alias	Volid	Start	End	Level	Quiesce	Offline

Pool Name	Alias	Volid	Start	End	Level	Quiesce	Offline

Tape Pools Worksheet

TAPPOL=_____

Tape Pools:

Pool Name	Low Volser	High Volser

To define CA EPIC for z/VSE tape pools to a Memorex ATL, see Memorex ACL Support (see page 192).

TSIDMAP Worksheet

Uncontrolled DTF Names

List the frequently accessed DTF names that CA EPIC for z/VSE does not control. Specify these DTF names on the ILIST parameter. Include DTF names for all CA EPIC for z/VSE system files, including the DSN Catalog(s) (default IJSYSDS), Recorder File (default IJSYSDR), CA EPIC for z/VSE Resource Dataset (set by ERDFILE), and optional separate JOBQ (default IJSYSJQ).

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

DTF Names for No LUB Allocation

List the DTF names for which the LUB allocation will be inhibited. Specify these DTF names on the NLUBDTF parameter. CA EPIC for z/VSE automatically inhibits LUB allocation for specific DTF names. See TSIDMAP for more information.

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

Program Names for No LUB Allocation

List the program names for which the LUB allocation will be inhibited. You specify these names on the NLUBPGM parameter.

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

_____ _____ _____ _____

Program Names for Reblocking with Undefined Record Format

List the program names which support reblocking. Specify these names on the RBLKPGM parameter.

_____ _____ _____ _____

_____ _____ _____ _____

Configuration Options Worksheet

Use this worksheet to record desired values for configuration options. Defaults, if any, are shown in parentheses. See Configuration Option Descriptions (see page 131) for descriptions of the options.

ACCEPT=_____ (YES)

ACLAUTI=_____ (YES)

ACLIBM=_____ (NO)

ACLLIB=_____ (see ACLLIB in Chapter 4)

ACLMEM=_____ (NO)

ACLRECS=_____ (100)

ACLSRVR=_____ (see ACLSRVR in Chapter 4)

ACLTIME=_____ (30)

ALLMALL=_____ (NO)

ALLMSG=_____ (YES)

ALTMSGS=_____ (NO)

AUTOATT=_____ (NO)

AUTOCAT=(_____,_____) (NO,NO)

AUTOLOG=_____ (NO)

AUTOSTP=_____ (NO)

AUTSTPN=_____ (5)

AUTSTPNO=_____ AUTSTPN

AUTSTPT=_____ (10)

AUTSTPTO=_____ AUTSTPT

BYPEXT=_____ (NO)

CANMSG=_____ (NO)

CATRT1=_____ (NO)

CKDFACT=_____ (30)

CMSTAPE=_____ (NO)

CNTRL=_____ (NO)

CPUIDS=_____ (see CPUIDS in Chapter 4)

CWDSPOL=_____ n/a

CYCL=_____ (3)

DDERR=_____ (see DDERR in Chapter 4)

DDGEN=_____ (NO)

DEBUG=_____ (NO)

DEFEXT=_____ n/a

DEFPOL=_____ n/a

DEFTPL=_____ n/a

DEFWPOL=_____ DEFPOL

DISKALL=_____ (YES)

DSKLUB=_____ (YES/100)

DSKRET=_____ (7)

DSNAME=_____ (IJSYSDS)

DSNWARN=_____ (200)

DSNWMSG=_____ (10)

EPICOFF=_____ n/a

ERDFILE=_____ n/a

EURODAT=_____ (NO)

FBAFACT=_____ (0)

FRAG=_____ (NO)

GDI=_____ (YES)

GDIUR=_____ (NO)

JCLAC=_____ (YES)

JCLLANG=_____ (YES)

JCLOPT=_____ (NO)

JCLOVRDE=_____ (NO)

JOBACCT=_____ (YES)

JQNAME=_____ n/a

JQWARN=_____ n/a

JQWMSG=_____ n/a

MINDEX=_____ (NO)

MINRET=_____ (0)

MODE=_____ (D0)

MSG088=_____ (NO)

MULTCPU=_____ (NO)

NCATDSK=_____ (NO)

NOGVIS=_____ (CANCEL)

ONLREWCD=_____ (RUN)

PASSWD=_____ n/a

PREFIX=_____ (EP)

PURBYP=_____ (NO)

RECORD=_____ (YES)

RECSHR=_____ (NO)

RERUN=_____ (YES)

RETEN=_____ (7)

RMNTPRT=_____ (NO)

SHARE=_____ (NO)

SLASIZE=_____ (300)

STRTRK=_____ (1)

TAPCUU=_____ (F00)

TAPE=_____ (YES)

TAPLUB=_____ (YES/10)

TAPPOL=_____ n/a

TSTJOB=_____ n/a

UNCDSK=_____ (NO)

UNCTAP=_____ (NO)

UNCTL=_____ (NO)

UNLABEL=_____ (YES)

UNLOAD=_____ (NO)

VM=_____ (NO)

VSAM=_____ (NO)

Vault Management Worksheet

Vault Number	Vault Name	Starting Slot Number	Ending Slot Number
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			

Cartridges in an ACL are considered to be in the Main Library (Vault 0). For more information, see Vaults and Vaulting Methods (see page 251).

Chapter 2: Installing the Basic System

This chapter contains procedures for installing or upgrading to the current release of CA EPIC for z/VSE. It describes how to restore the installation JCL from the installation tape, how to tailor the JCL, and how to restore the product library to your system using MSHP. Configuration options and the utilities are also described.

This section contains the following topics:

Installing CA CIS for VSE and CA GSS for VSE

The CA EPIC for z/VSE Online Manager (EOM) requires and runs under a CA GSS for VSE subtask. The CA GSS for VSE subtask can be accessed from CICS, VTAM, or CMS (if CA FAQS ASO for VSE is also installed). Before installing CA EPIC for z/VSE, you need to first install CA CIS for VSE and CA GSS for VSE as outlined in the Product Installation Overview topic in Chapter 1 of this guide.

MSHP Considerations

The IBM Maintain System History Program (MSHP) component code for CA EPIC for z/VSE has been changed, in release 5.2, to the 0202 prefix. The 0202 prefix designates a CA product. Previous releases used the prefix 7965, designating a Goal Systems/LEGENT product. With this change, MSHP now views these as two different products rather than a new release of the same product.

If the history file entries for CA EPIC for z/VSE r5.2 are loaded or merged into a history file containing entries for a previous release (for example, release 5.1) of CA EPIC for z/VSE, MSHP may be unable to apply maintenance to CA EPIC for z/VSE r5.2. Error messages such as "M143I AFFECTED LIBRARY MEMBER BELONGS TO ANOTHER COMPONENT" may be generated when you attempt to apply maintenance.

To avoid this situation, do not install CA EPIC for z/VSE r5.2 into an MSHP history file containing entries for a previous release of CA EPIC. Additionally, do not merge MSHP history file entries for CA EPIC for z/VSE r5.2 into a history file that contains entries for a previous release.

If you have a history file containing entries for both release 5.2 and 5.1, you must use the MSHP REMOVE command to delete both the product and component for release 5.1:

```
// EXEC MSHP
REMOVE EPC501
REMOVE 7965-EPC-00-501
/*
```

After running this job, you can no longer apply maintenance to release 5.1. Note that this restriction applies only to releases of CA EPIC prior to 5.2. This restriction does not apply to any subsequent service packs to release 5.2, or any potential releases beyond 5.2.

Product Distribution

The machine-readable program materials required for installation are distributed as a single, unlabeled, multi-file installation tape in IBM Maintain System History (MSHP) BACKUP format. This may either be a physical tape, or a file distributed via electronic delivery. In either case, the layout of the *tape* is the same. One tape unit is required to install the product.

Using MSHP

MSHP is used to perform product installation and maintenance. MSHP provides the ability to control these activities in a consistent manner. This format also provides an installation mechanism that system programmers use to maintain the VSE operating system.

MSHP is used to perform the installation and maintenance of CA EPIC for z/VSE in the same way as the operating system is installed and maintained. When utilizing MSHP to install a product, a MSHP history file is required to archive product information such as product identification and library residence. The history file is subsequently used during maintenance application for product and library identification and for archival of maintenance information.

The distribution tape includes the library containing the CA EPIC for z/VSE product and a corresponding history file for the product. The history file used to install CA EPIC for z/VSE should be kept separate from the operating system's history file. It is also recommended that the CA EPIC for z/VSE target library be kept separate from the VSE system libraries.

Product Installation Tape

The installation tape contains the following files:

File Number	File Description
001	Tape Mark
002	CA EPIC for z/VSE r5.2 history file - MSHP backup format
003	CA EPIC for z/VSE r5.2 library - MSHP backup format
004-007	Reserved use
008	MSHP Installation JCL

CA EPIC for z/VSE Installations Only

Extract the appropriate installation JCL member from the product library specified during the execution of either CAINSTB0 or CAINSTC0. The JCL should be edited according to the worksheet items and the information located in Appendix A. Adhere to the following guidelines when editing the execution JCL:

1. Be certain to limit the scope of editor changes to positions 1 through 71 of the sample JCL
2. Remove the CATALS or CATALOG and BKEND statements that may appear in the beginning and end of each JCL sample.
3. In each JCL sample, change '@*' to '/*', change '@&' to '/&'.

   After you complete all modifications, mount the installation tape (or electronic delivery file) on the specified tape drive and submit the JCL for execution.

Creating the Online Manager Executable Files

Before using the Online Manager, the files need to be built and loaded into the appropriate CA GSS for VSE files. Execute the following JCL to load the CA EPIC for z/VSE Online Manager files into the CA GSS PDS's after substituting the appropriate library names:

```
/&
// JOB EPICOLM
// LIBDEF *,SEARCH=(epic.sublib,gss.sublib),TEMP    <--  EPIC & GSS Install libs
// EXEC GSSUTIL
INSTALL EPIC/VSE
/*
/&
```

Loading CA EPIC for z/VSE Transactions into the CICS CSD

If your installation uses CICS RDO, you can create a resource group that contains all CICS resource definitions needed by CA EPIC for z/VSE. The following sample job can be used to create the EPIC5 group in your CSD. To add the CA EPIC for z/VSE CICS transactions and programs into your CSD file, execute the JCL shown below after substituting the appropriate library name and file label information.

Note: If you are not using RDO you must manually assemble and link-edit your CICS tables to setup the transactions and programs that CA EPIC for z/VSE uses. Refer to "Manual CICS Installation" in this guide for procedures.

```
 // JOB EPICICS
// LIBDEF PROC,SEARCH=library.sublib,TEMP     <-- CA EPIC for z/VSE Install lib
// DLBL DFHCSD,'csd.file-id',,VSAM,CAT=csdcat <-- CSD file
// DLBL csdcat,'csdcat.file-id',,VSAM         <-- CSD VSAM catalog
// EXEC PROC=EPICCSD
/*

/&
```

Use the procedure name EPICCSD for CICS TS. For CICS/VSE 2.3, use the procedure name EPICCSD2. After performing this procedure, use CEDA to add the EPIC5 group to the list specified in your CICS GRPLIST start-up parameter.

Loading CA EPIC for z/VSE Message Help into the VSE Online Messages (EXPLAIN) File

The CA EPIC for z/VSE Help messages can be loaded in the VSE Online Messages (EXPLAIN) File. Execute the following JCL to load the CA EPIC for z/VSE Help messages into the VSE EXPLAIN File, after substituting the appropriate library name.

Note:

- The procedure assumes that a standard label already exists for the VSAM Catalog.
- The EXPLAIN file must be inactive while the messages are being loaded. The procedure prompts for the necessary AR commands to deactivate and reactivate it at the appropriate times.

```
// JOB EPIMSGLD
// LIBDEF PROC,SEARCH=library.sublib,TEMP   <-- CA EPIC for z/VSE Install lib
// EXEC PROC=EPIMSGLD
/*
/&
```

Preparing to Upgrade from the Previous Release

If you are installing CA EPIC for z/VSE for the first time, skip this section.

To upgrade from the previous CA EPIC for z/VSE release:

1. Back up the DSN Catalog and Recorder File. See the chapter Activating and Deactivating CA EPIC for details.
2. Review the Technical Release Notice for special upgrade information.
3. Run a TSIDDEB Summary Report for the current CA EPIC for z/VSE system, as follows:

   ```
   // EXEC TSIDDEB
   SUMMARY=YES
   /*
   ```

4. Refer to special upgrade instructions during the installation procedure.

Upgrading Over More Than One Release

To upgrade from TFAST, DFAST, T/DFAST, or a version of CA EPIC for z/VSE that is more than one release behind CA EPIC for z/VSE's current version, additional steps may be required.

For more information, contact CA Technical Support.

Preparing for First-Time Installation

The following preparations may be required if you are installing CA EPIC for z/VSE for the first time.

Obtaining an LMP Key

If you do not already have an LMP key, contact CA EPIC for z/VSE Support to obtain one for your product.

Test Installation

We recommend that you install and test CA EPIC for z/VSE in a test environment. A test environment allows you to validate CA EPIC for z/VSE's compatibility with other software products and allows you to fine-tune your JCL without affecting your production system.

Operating System Requirements

COBOL Support (All Operating Systems)

Some CA EPIC for z/VSE utilities are written in COBOL. If your installation does not have COBOL, you must catalog the following program to a VSE library that is available whenever the CA EPIC for z/VSE system is active:

```
// OPTION CATAL
   PHASE $$BFCMUL,+0
// EXEC ASSEMBLY
$$BFCMUL  CSECT
          DC   CL8'$$BFCMUL'
          SVC  11
          END
/*
// EXEC LNKEDT
```

If your installation already uses COBOL, do not catalog the program above.

IBM VSE Operating Systems

Some of CA EPIC for z/VSE's optional features require certain functions in the VSE supervisor and/or IPL procedure:

CA EPIC for z/VSE Feature	Required VSE Parameter
Sharing the DSN Catalog and disk pool space between real or virtual machines.	DASDSHR=YES (VSE Supervisor FOPT macro)
Recording job accounting information with the Recorder File, and Job Management Control Language.	JA=YES or n,n,...n (SYS IPL)

IBM ACL

CA EPIC for z/VSE support can be provided in a VSE Guest environment under VM or in a native VSE environment.

In the VSE Guest environment under VM, the IBM VSE Guest Server (VGS) and LIBRCMS product must be installed.

In the native VSE environment, the IBM Library Control Device Driver (LCDD) must be installed.

Note: For more information, see IBM ACL Support (see page 187).

Memorex ACL

CA EPIC for z/VSE support is provided using the VM IUCV facility. CA EPIC for z/VSE must be running on a VSE Guest machine. The Memorex Library Management Software (LMS) product must be operational as a CMS Guest.

Note: For more information, see Memorex ACL Support (see page 192).

Determining Space Requirements

SDL Entries

In release 5.2, 47 available entries are required in the VSE 'System Directory List' (SDL). This is 25 entries more than that were used in release 5.1.

Storage

All GETVIS requirements are in addition to the IBM defaults.

Note: For more information, see Modifying Standard Labels (see page 82).

System Area	24-bit space	ANY (if 31-bit available)
CA EPIC for z/VSE base system ESA 2.x and z/VSE		
SVA	315K + length of TSIDPOL phase	21K
System GETVIS	36K + ((ntasks-255) * 32)	42K + (SLASIZE * 227) + ((ntasks-255) * 81)
QDAS System		
SVA	10K	0K
System GETVIS	0K	(n * 8) where n is the total of all map values in the TSIVDEF macro
ACL Support		
SVA	33K	0K
System GETVIS	0K	0K

Note: *ntasks* = the number of tasks supported by the VSE system. For VSE releases prior to z/VSE 4.2, the number of tasks is always 255. For z/VSE 4.2 and later releases, the number is specified at IPL by the 'NTASKS=' parm of the 'SYSDEF' IPL command. The formulas resolve to zero if the default number of tasks (255) is in effect.

SLASIZE is a CA EPIC for z/VSE configuration option that defaults to 300.

Note: For more information, see Configuration Option Descriptions (see page 131).

TSIDPOL is the pool definition phase. It is usually under 1K.

TSIVDEF is the QDAS definition phase.

Note: For more information, see Defining Disk Volumes to QDAS (TSIVDEF) (see page 79).

Partition GETVIS Required for each Task

26K + (*n* * 8), where *n* is the number of map entries specified in the TSIDMAP macro.

Note: For more information, see Specifying the TSIDMAP Macro (see page 72).

Dynamic Space GETVIS (Dynamic Partitions Only)

60K is required in dynamic partitions only. For each dynamic partition, there is a limitation of 256 labels that cannot be enlarged.

Library Space

10,000 library blocks.

Compatibility with Other Software

This section notes compatibility considerations between CA EPIC for z/VSE and other system software products. It only includes major software products for which special considerations are known. If you are using any software described in this section, you must make the required modifications.

Conversions

Important! If you are converting from another tape and/or disk management system, you must contact CA EPIC for z/VSE Technical Support before attempting installation.

Some fixes that were applied for your current tape or disk management system may inhibit CA EPIC for z/VSE from functioning properly. For instance, a fix applied to make System/Manager and DYNAM/T compatible can interfere with CA EPIC for z/VSE's ability to function. These fixes must be identified and removed. Since software companies continually update their fixes, it is impractical to maintain a current list of problem fixes in printed form. We recommend that you call CA EPIC for z/VSE Technical Support.

Activating Software Before CA EPIC for z/VSE

Activate the following software before CA EPIC for z/VSE is started:

- Abend-AID
- CA-DRIVER
- EXTEND/DASD for VSE
- Global Subsystem for VSE (GSS)

Additional Software Considerations

CA

ALERT: CA EPIC for z/VSE's special option EPS029 is required to run with ALERT.

FAQS ASO and FAQS PCS: Must be started before starting CA EPIC for z/VSE.

GSMTA: For Multiple Transient Area (GSMTA) users, update GSMTA's enqueue table by adding the following parameter to the GSMTA start-up:

```
$$BTSID,NQID=(VTOC)
```

CA LIBRARIAN: Inhibit CA EPIC for z/VSE's LUB allocation for all controlled datasets used with CA LIBRARIAN programs.

CA SORT:

- Set the CA SORT options DYNAM/D and DYNAM/FI to NO. If these options are not deactivated, INVALID DTF TYPE messages can occur.
- Specify the CA SORT macro parameter SPECIAL=2 if CA EPIC for z/VSE controlled tapes are to be accessed by CA SORT.
- If the CA EPIC for z/VSE sort interface program (TSIDSRT) is executed instead of CA SORT, and if the CA SORT RC option is set to NO or is unspecified, set the CA SORT option INVCNCL to YES. INVCNCL=YES causes CA SORT to cancel the job when a critical sort error occurs, just as if CA SORT was executed directly.
- We recommend that you set the CA EPIC for z/VSE special options EPS002, EPS003 and EPS004 to YES. These options permit LUB allocation for SORTIN, SORTOUT, and SORTWK files, thus preventing any potential SYS number conflict that might occur during secondary extent allocations.

CA Easytrieve: Define EASYTRIEVE's CRDWK dataset to CA EPIC for z/VSE's DSN Catalog as a non-generation dataset, and inhibit truncation on the dataset.

CA PANVALET: Inhibit CA EPIC for z/VSE's LUB allocation for all controlled datasets used with PANVALET programs.

IBM

Deactivate CA EPIC for z/VSE in the entire VSE system when applying any VSE maintenance that recatalogs or reloads any CA EPIC for z/VSE-required phases in the SVA.

Note: For more information, see Turning CA EPIC Off (TSIDOFF) (see page 176).

POWER: Start CA EPIC for z/VSE before POWER.

MEMOREX

CA EPIC for z/VSE is compatible with Library Management Software (LMS) releases 2.7 and above for ACL support.

SYNCSORT

To take advantage of CA EPIC for z/VSE's processing capabilities, specify the SYNCSORT installation options below. For more information on these options, refer to the *SYNCSORT Installation Guide.*

- Specify the TMS=EPIC option when using CA EPIC for z/VSE's tape management, so that you do not have to execute TSIDASS for SORTIN or SORTOUT files on tape.
- When using CA EPIC for z/VSE disk management, specify all of the SYNCSORT DSM (disk space management) generation options: DMS=EPIC, OUTRUNC=YES, SECMAX=8, SWKDEL=YES, ICONLUN=IGNORE, and SWKSEC=YES. This enables SORTWK secondary allocations, SORTWK file deletion, and SORTOUT file truncation.
- Ensure that any SYS numbers that SYNCSORT checks during its pre-open processing are permanently assigned to the same type of disk device as the device type in the CA EPIC for z/VSE disk pool used for SORTIN, SORTOUT and SORTWK files. This can be accomplished in a number of different ways. One way is to permanently assign SYS001-SYS005 to a volume in the pool used for work files. If the standard SYNCSORT SYS number defaults are used, this automatically accommodates up to five SORTWK files. Another method is to change the SYNCSORT SYS number defaults to begin with the same SYS number as specified in the CA EPIC for z/VSE DSKLUB configuration option, provided those SYS numbers are permanently assigned to volumes in the work pool. A permanent assignment to every volume in the pool beginning with the SYS number specified for DSKLUB is recommended for optimum performance.
- If you set the PURBYP or CANMSG configuration options to YES, specify the SYNCSORT option VSESPRC=CANCEL. This option causes SYNCSORT to cancel when a critical error occurs, so that special CA EPIC for z/VSE cancellation processing can be performed. If the SYNCSORT option VSESPRC=n is chosen and SYNCSORT decides to terminate, SORTIN files defined as "OLD,DELETE" are deleted regardless of the setting of the CA EPIC for z/VSE PURBYP or CANMSG configuration options.
- We also recommend that you set CA EPIC for z/VSE special options EPS002, EPS003 and EPS004 to YES. These options permit LUB allocation for SORTIN, SORTOUT, and SORTWK files, and prevent any potential SYS number conflict on secondary extent allocations.
- For better performance, SYNCSORT release 2.1D and above can be executed directly (// EXEC SORT instead of // EXEC TSIDSRT).

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BACKUP/RESTORE, DUSP, and MAXBACK: Use CA EPIC for z/VSE's TSIDASS ASSGN function for all tape assignments to satisfy the pre-open checking performed by these products. In addition, inhibit CA EPIC for z/VSE's LUB allocation for all tapes that *do not* use the DTF name SYS000. There are no special considerations for disk datasets.

Reinstalling CA EPIC for z/VSE System Components

In multiple machine environments, following maintenance to z/VSE, CA EPIC for z/VSE or GSS, or when making system configuration changes, it may be necessary to reinstall individual CA EPIC for z/VSE system components. Most major components are conveniently supplied in cataloged procedures in the CA EPIC for z/VSE installation library. Additional JCL required to run these cataloged procedures appears below.

CA EPIC for z/VSE Online Manager

To reload the CA EPIC for z/VSE Online Manager into the GSS PDS files, execute the following JCL after substituting the appropriate library names:

```
// JOB EPICOLM
// LIBDEF *,SEARCH=(epic.sublib,gss.sublib),TEMP    <--  CA EPIC for z/VSE Install
lib & CA GSS lib
// EXEC GSSUTIL
INSTALL EPIC/VSE
/*
/&
```

Ensure that the CA EPIC for z/VSE function or transaction is not in use when running this job or execute it when the GSS subtask is not active. Failure to do so may result in an abend within GSS. If this occurs, recycle the GSS subtask.

CSD File for CA EPIC for z/VSE CICS Transactions

To reload the CSD file for CA EPIC for z/VSE CICS transactions, execute the JCL shown below after substituting the appropriate library name, and file label information:

```
// LIBDEF PROC,SEARCH=library.sublib,TEMP      <== CA EPIC for z/VSE Install lib
// DLBL DFHCSD,'csd.file-id',,VSAM,CAT=csdcat  <== CSD file
// DLBL csdcat,'csdcat.file-id',,VSAM          <== CSD VSAM catalog
// EXEC PROC=EPICCSD
```

Use the procedure name EPICCSD for CICS TS. For CICS/VSE 2.3, use the procedure name EPICCSD2. After performing this procedure, use CEDA to re-install the EPIC5 group to the list specified in your CICS GRPLIST start-up parameter.

CA EPIC for z/VSE Message Help for IBM Online Messages (EXPLAIN)

To reload the CA EPIC for z/VSE message text into the z/VSE Online Message (EXPLAIN) file, execute the JCL shown below after substituting the appropriate library name:

```
// LIBDEF PROC,SEARCH=library.sublib,TEMP     <== CA EPIC for z/VSE Install lib
// EXEC PROC=EPIMSGLD
```

The EXPLAIN file must be inactive while it is being reloaded. The procedure prompts for the necessary AR commands to deactivate and reactivate it at the appropriate times.

CA EPIC for z/VSE Installation Jobstreams

The CA EPIC for z/VSE distribution tape contains all the procedures and jobs necessary to complete CA EPIC for z/VSE installation. No additional JCL is required, but the supplied JCL may need to be modified for your installation.

The procedures and jobs that are cataloged by the installation procedure are:

Name	Type	Use
CATMOVE*n*	SAMPJOB	Moves the DSN Catalog
DAILY*n*	SAMPJOB	Daily catalog maintenance and reports
EPCKDCDK	PROC	Formats a new DSN Catalog: CKD devices
EPCWDS	PROC	Catalogs common work datasets
EPFBACDK	PROC	Formats a new DSN Catalog: FBA devices
EPICCSD	PROC	Loads CA EPIC for z/VSE transactions to CICS TS CSD file
EPICCSD2	PROC	Loads CA EPIC for z/VSE transactions to CICS/VSE 2.3 CSD file
EPICJADB	PROC	Defines job accounting VSAM file
EPICON	PROC	Starts CA EPIC for z/VSE system
EPSTDASS	PROC	Permanent assignments
EPSTDLBL	PROC	Loads standard labels
EPVAULT	PROC	Assembles vault definitions
EPIMSGLD	PROC	Loads CA EPIC for z/VSE message help to EXPLAIN file
RECMOVE*n*	SAMPJOB	Moves the Recorder File
RECOVER*n*	SAMPJOB	Recovers the DSN Catalog
TSIDCLN	PROC	Upgrades DSN Catalog to release 3
TSIDPOL	PROC	Assembles disk/tape pool definitions
TSIVCLR	PROC	Creates QDAS share file
TSIVDEF	PROC	Assembles QDAS definitions

CA EPIC for z/VSE Sample Jobstreams

The CA EPIC for z/VSE distribution tape includes many sample jobstreams showing how CA EPIC for z/VSE can be used in a production environment. The JCL in these examples can also be modified to support CA EPIC for z/VSE production processing.

These sample jobstreams use the file type SAMPJOB. See the file $INDEX SAMPJOB for a reference listing of all the sample jobstreams provided.

To use these procedures and jobs, do the following:

1. Punch the procedure(s) and modify any variables. All variables are marked with asterisks (*).
2. Some members are actual jobs with POWER JECL and VSE "/&" statements. To use these members, some of these statements may need to be shifted left one byte.
3. Recatalog the job or procedure using a different name.

CA EPIC for z/VSE System Datasets

DSN Catalog

CA EPIC for z/VSE uses the DSN Catalog to maintain information about files under its control. Freed records are automatically reused and the file structure is self-reorganizing.

Recorder File

The Recorder File logs changes to the DSN Catalog. The Recorder File serves as security against data loss if the DSN Catalog is damaged. The Recorder File can also be used for CA EPIC for z/VSE's job accounting reports and displays. It should be dumped and cleared on a regular basis.

JOBQ

CA EPIC for z/VSE uses the JOBQ to control job-specific functions such as:

- Purging datasets
- Controlling common workfiles
- Supporting CA EPIC for z/VSE DD statements

The JOBQ can reside within the DSN Catalog (it need not be a separate file), but using a JOBQ that is a separate VSE file can enhance system performance. *If a separate JOBQ is not defined, CA EPIC for z/VSE places the JOBQ in the* DSN *Catalog by default.*

Freed JOBQ records are automatically reused and the file structure is self-reorganizing.

CA EPIC for z/VSE Resource Dataset (ERD)

The CA EPIC for z/VSE Resource Dataset was designed to improve performance in VSE machines that share tape devices. It is required to share tape devices (including ACLs) among multiple VSE machines (physical or virtual).

Activation of the ERD requires setting the ERDFILE configuration option. In addition, the ERD must be formatted and loaded with user definitions for all shared resources.

Note: For more information, see The TSIDSMNT Program (see page 52).

Defining the DSN Catalog

The DSN Catalog can be shared with other CA EPIC for z/VSE systems, including CA EPIC for z/VSE for CMS. When you plan the location and size for the DSN Catalog, the requirements of all systems must be considered. If the DSN Catalog is to be shared with another system, review the sharing requirements at Sharing the DSN Catalog (see page 91).

Space Requirements

Determine the DSN Catalog size requirements.

1. First determine the number of records the DSN Catalog will contain. There will be:
   - two records for each dataset name
   - one record for each extent of a disk file or volume of a tape file for each active version, each "open" or "conditionally cataloged" version, and each scratched tape version

     If the JOBQ is to reside in the DSN Catalog, add the number of records required for the JOBQ (see below).

2. Use one of the following formulas to determine the amount of space to allocate:

   For CKD tracks: $\frac{R+32}{16*B}$ For FBA blocks: $\frac{R+32}{2}$

   where **R** is the estimated number of records the catalog will contain. **B** is the number of blocks per track. Use the following table to determine the value of B:

CKD Device Type	Number of Blocks Per Track
3380	10
3390	12
9345-1	10
9345-2	10

3. Use the following table to determine the number of tracks or FBA blocks to allocate for your DSN Catalog.

Device Type	Number of Records			
	5,000	7,500	10,000	20,000
3380	32	48	63	126
3390	27	40	53	106
9345-1	20	30	40	80
9345-2	14	20	26	52
FBA	2516	3766	5016	10016

The minimum size of the DSN Catalog on a CKD device is 1 cylinder. On an FBA device, the minimum size is 72 FBA blocks.

Placement Considerations

Determine which disk volume will be used for the DSN Catalog. Consider the following:

- The disk volume must be available to all machines running CA EPIC for z/VSE if the catalog is to be shared.
- For performance reasons, the DSN Catalog should be located on a volume, which does not contain heavily accessed datasets such as POWER files.
- The DSN Catalog must be a single extent dataset.
- The DSN Catalog and Recorder File should be placed on different physical devices.

If you will be sharing your DSN Catalog with CA EPIC for z/VSE for CMS, it must reside on a disk volume, which is owned by VSE (with a VSE VTOC) and is also available to CMS.

Note: For more information, see Sharing the DSN Catalog (see page 91).

If the DSN Catalog is to be updated by CA EPIC for z/VSE for CMS, ensure that the disk volume has only one active path to VM/CP.

Important! The Recorder File provides backup security for the DSN Catalog. If the DSN Catalog and Recorder File are both located on the same device and that device is lost or damaged, information vital to recovery of the DSN Catalog is lost.

Defining the Recorder File

Important! *The Recorder File can be shared among CA EPIC for z/VSE systems. However, it cannot be shared with CA EPIC for CMS systems.*

Space Requirements

Estimate the size of the Recorder File.

1. Determine the number of records to be logged each day. One record is logged for
   - each time a job starts or ends
   - each time a program starts or ends
   - each time an extent or reel of a cataloged dataset is opened or closed
   - each time the DSN Catalog is updated using Online Manager, TSIDMNT, or TSIDUTL
2. Use one of the following formulas to determine the amount of space to allocate:

   For CKD tracks $\frac{R+4}{4*B}$ For FBA blocks $\frac{R+4}{2}$

   where **R** equals the estimated number of records to log each day.

   B equals the number of blocks per track.

   Use the following table to determine the value of B.

Device Type	Number of Blocks Per Track
3390	18
3380	18
9345-1	14
9345-2	21

3. Use the following table to determine the number of CKD tracks or FBA blocks to allocate for various Recorder sizes:

Device Type	Number of Records					
3390	10	20	50	75	100	200
3380	10	20	50	75	100	200
9345-1	48	96	240	360	480	960
9345-2	72	144	360	540	720	1440
FBA	668	1336	3340	5010	6680	13360

Placement Considerations

Determine which disk volume will be used for the Recorder File. The Recorder File and DSN Catalog should be placed on different physical devices.

For performance reasons, the Recorder File should be placed on a volume that does not contain heavily accessed datasets such as POWER files.

The Recorder File must be a single extent dataset.

Important! *The Recorder File provides backup security for the DSN Catalog. If the DSN Catalog and Recorder File are both located on the same device and that device is lost or damaged, information vital to recovery of the DSN Catalog will be lost.*

Formatting the DSN Catalog and Recorder File

The DSN Catalog and Recorder File are both formatted using the TSIDCDK utility. If you expect your DSN Catalog to contain more than 30,000 records, we recommend that you create a DSN Catalog with a Master Index. This is done by using the BCAT control statement instead of the CAT control statement on the TSIDCDK control statement.

Procedure

If you are using a CKD device, use the EPCKDCDK procedure to create the necessary JCL. If you are using an FBA device, use the EPFBACDK procedure.

Important! *Different control statements must be used depending on whether a DSN Catalog or Recorder File is being formatted. Use the following:*

To format...	Use...
DSN Catalog	DSN=*dtfname*
Recorder File	REC=*dtfname*

CKD Example

```
*            CREATE CA EPIC for z/VSE DSN CATALOG ON CKD
// ASSGN SYS240,151
// DLBL IJSYSDS,'EPIC.VSE.CATALOG',99/366
// EXTENT SYS240,TSI151,1,0,3750,63
// EXEC TSIDCDK
 CAT=IJSYSDS
/*
*            CREATE CA EPIC for z/VSE RECORDER FILE ON CKD
// ASSGN SYS241,155
// DLBL IJSYSDR,'EPIC.VSE.RECORDER',99/366
// EXTENT SYS241,TSI155,1,0,3900,81
// EXEC TSIDCDK
 REC=IJSYSDR
/*
```

FBA Example

```
*            CREATE CA EPIC for z/VSE DSN CATALOG ON FBA
// ASSGN SYS240,150
// DLBL IJSYSDS,'EPIC.VSE.CATALOG',99/366,,CISIZE=4096
// EXTENT SYS240,TSI150,1,0,5700,1016
// EXEC TSIDCDK
 CAT=IJSYSDS
/*
*            CREATE CA EPIC for z/VSE RECORDER FILE ON FBA
// ASSGN SYS241,155
// DLBL IJSYSDR,'EPIC.VSE.RECORDER',99/366,,CISIZE=2048
// EXTENT SYS241,TSI155,1,0,5700,1002
// EXEC TSIDCDK
 REC=IJSYSDR
/*
```

Defining the JOBQ

If the JOBQ will reside in the DSN Catalog (the default), include the JOBQ size requirements in the overall DSN Catalog size requirements when planning the size of the DSN Catalog. Performance is the only reason to create the JOBQ as a separate file. When the JOBQ is a separate file, the JOBQ is not affected by, and does not affect, activity in the DSN Catalog. *If you create the JOBQ as a separate file, it cannot be shared with any other CPU (each CPU must* have its *own unique JOBQ).*

CA EPIC for z/VSE does not use VSE's "device-reserve" or "external-lock" facilities when accessing the separate JOBQ in a multiple-CPU environment. However, CA EPIC for z/VSE must use these VSE facilities to ensure the integrity of the DSN Catalog when the DSN Catalog is shared in a multiple-CPU environment.

Space Requirements

To determine the size requirements for the JOBQ, first calculate the total number of records as follows:

- Two records per partition
- One record for every dataset flagged for purge
- One record for every CA EPIC for z/VSE DD statement that uses a dataset name longer than 17 characters
- One record for every CA EPIC for z/VSE DD statement that uses a refer-back
- One record for every Common Work Dataset (CWDS) extent

If the JOBQ will reside in the DSN Catalog (the default), add the total number of JOBQ records to the other DSN Catalog requirements. If the JOBQ will be a separate file, use the formulas above to determine the space required for a separate JOBQ.

See the *User Guide* for descriptions of CA EPIC for z/VSE DD statements and Common Work Datasets (CWDS).

Placement Considerations

A z/VSE virtual disk or other high-speed disk is recommended for a separate JOBQ.

Configuration Options

Not required. If a standard label is provided for a separate JOBQ, CA EPIC for z/VSE automatically activates it at start-up.

Formatting the JOBQ

It is not necessary to format a separate JOBQ. CA EPIC for z/VSE formats it at start-up.

Defining the CA EPIC for z/VSE Resource Dataset (ERD)

An ERD file is only required for:

1. sharing tape devices among multiple VSE machines or LPARS.
2. defining required ACL related information.
3. defining the real (3 or 4 digit) device address associated with a virtual device if the AUTOATTACH feature is used.

To share tape devices, a Unit Control Block (UCB) must be created for each tape device (reel or cartridge type) that is accessible by CA EPIC for z/VSE. UCBs contain device number and attribute information that CA EPIC for z/VSE needs for device allocation and deallocation. They are located in the CA EPIC for z/VSE Resource Dataset (ERD).

An ERD is not required for a single-image system that does not use an ACL.

The ERD provides a single repository of tape characteristics and ownership information. Only one ERD is used in a tape-sharing environment. For example, if CPU A, CPU B, and CPU C are sharing a group of tape devices, only one ERD needs to be created. CA EPIC for z/VSE programs running on these CPUs will all use this ERD.

Space Requirements

The file can reside on CKD or FBA devices. The size requirements for the ERD are:

Device Type	Size
FBA	224 blocks
CKD	7 tracks

Configuration Options

The ERDFILE configuration option must be used to identify the DTF name for the ERD.

Formatting the ERD

The ERD is formatted and maintained using the TSIDSMNT program.

The TSIDSMNT Program

The TSIDSMNT program provides ERD file definition, maintenance and reporting functions. TSIDSMNT can be executed from an operator console or by using JCL.

Control Statements

TSIDSMNT control statements can begin in any column. Any information after the end of the parameter list is treated as comments.

Six control statements are used in TSIDSMNT processing. The actions are as follows:

Control Statement	Action
ADD	Adds a UCB definition to the ERD
CTL	Provides the name of the ERD
DEL	Deletes a UCB definition from the ERD
FRE	Frees a UCB definition's ownership
FMT	Creates the ERD
PRT	Prints the ERD

ADD

An ADD control statement is required for each UCB definition that is added to the ERD. ADD control statements can be intermixed in any sequence.

Syntax

```
ADD     (parameters)

Supported parameters:

        UCB=cuu,        (required)
        DEV=iplcode             (required)
        FEAT=fcode              (optional)
        ACLNAME=aclname (optional)
        ACLNUM=aclnum           (optional)
        ACLTYPE=tcode           (optional)
        AFF=CCUU`       (optional)
```

Parameters

The UCB parameter is always required.

The DEV parameter is required unless the AFF parameter is specified. All other parameters are optional.

cuu is the device address of the tape media device. It identifies a REAL or VIRTUAL device address in the context of the VM environment. If it is a virtual address, the real address must have been defined in a previous TSIDSMNT ADD statement and must be referred back to using the AFF parameter. This back-reference is necessary for the communication to the ACL to function properly, since the LMS software only knows its MTUs by their real device addresses.

iplcode refers to the device type in the VSE 'ADD' statement, with these exceptions:

- For 3490E (36 track) specify DEV=3490,FEAT=E
- For 3590 (128 track) specify DEV=3590
- For 3590-E (256 track) specify DEV=3590,FEAT=E
- For 3590H (384 track) specify DEV=3590,FEAT=H
- For 3592 (512 track) specify DEV=3592
- For 3592-E05 (896 track) specify DEV=3592,FEAT=5
- For 3592-E06 (1152 track) specify DEV=3592,FEAT=6

fcode is a 1 to 3 character string of codes describing the device's features. The following characters are supported:

Code	Feature
D	Dual density device (reel tapes)
E	Model-E device (3490-E or 3590-E)
H	Model-H device (3590-H)
I	IDRC capable 3490 (not 3490-E)
5	Model-5 device (3592-E05)
6	Model-6 device (3592-E06)

aclname is the name of the Automated Cartridge Library (ACL) associated with this *cuu*. It is required when an ADD statement defines an ACL device number (*cuu*). *aclname* must be the name specified in the vendor's ACL device. For IBM ACLs:

- In an LCDD environment, *aclname* must be the LCDD LUNAME.
- In a VGS environment, *aclname* must agree with the VSE library name defined in the 'LIBCONFG LIST' configuration member for VGS.

  Note: We recommend that the 'LIBCONFG LIST' always be configured for VGS, even though the IBM documentation says it is optional. VSE will not receive reliable ACL library name information if 'LIBCONFG LIST' is not defined.
- In a TLS environment, *aclname* must agree with the LIBRARY_ID as defined in the TLSDEF.PROC.

aclnum is a device number that identifies the Automatic Cartridge Library. It is required for any ADD statement that defines an ACL device number (*cuu*). It must be identical to the number specified in the vendor's ACL device. For an IBM ACL, the number is arbitrary but required. Specify 1 (one) for the first ACL, 2 (two) for the second, and so on. It cannot be zero (0).

Note: For Memorex ATLs, the LMS "D ALL" command can be used to display the values for *aclname* and *aclnum*.

acltype specifies a one character code that indicates the ACL manufacturer. It is only required when ACLs from more than one manufacturer are in use. For *tcode*, specify 'I' for an IBM ACL, 'S' for an STK ACL, and 'M' for Memorex. If specified for any ACL drive, it must be specified for all ACL drives.

AFF identifies a real device address that is associated with the virtual address from the UCB= parm. It is only required if the AUTOATTACH feature is used and if the virtual and real device addresses are not the same. The REAL device address in the AFF= parm can be 3 or 4 digits long.

Important! A separate UCB must *not* be coded for the real device addressess if the AFF=parm is used.

CTL

The CTL control statement is required if TSIDSMNT is run:

- While CA EPIC for z/VSE is not active and an ERD already exists, or
- To change the ERD deadlock timeout interval (see below)

The CTL control statement is not required while CA EPIC for z/VSE is active, unless it is being used to change the ERD deadlock timeout interval.

When present, the CTL control statement must be first in the input stream. The FMT control statement cannot be used when CTL is used.

Syntax

```
CTL [ NAME=dtf-name ] [ ,DLOCK=n ]
```

Parameters

dtf-name is a 1 to 7-character DTF name.

n is the number of minutes CA EPIC for z/VSE waits for access to the ERD before declaring an access deadlock. The value can be from 5 to 90. Default is 10. When an CA EPIC for z/VSE task cannot obtain update access to the ERD, it waits *n* minutes before issuing the EP541 deadlock message.

DEL

The DEL control statement deletes a UCB definition from the ERD. DEL control statements can be intermixed with ADD control statements in any sequence.

Changing a UCB Definition

If it becomes necessary to change an existing UCB definition, do the following:

1. Delete the existing UCB definition with a DEL statement.
2. Add a new UCB definition with an ADD statement.

Syntax

```
DEL   UCB=cuu
```

Parameters

cuu specifies the address of the device to be deleted. If it is a physical device, CA EPIC for z/VSE checks for any logical devices that refer to it. If any dependent, logical devices are found, the UCB definition is NOT deleted and TSIDSMNT prints a list of all logical devices that point to the physical device.

FMT

The FMT control statement is required to create the ERD. It must be the first statement in the input stream. *Once the ERD is formatted, FMT must not be used again unless the ERD is being recreated.*

Syntax

```
FMT [NAME=filename]
```

Parameters

filename is the 1 to 7-character DTF name of the ERD. The default is IJSYSSP.

FRE

The FRE command is used to unconditionally release ownership of a tape drive's ERD entry when it cannot be released by normal processing. It is intended for use under exceptional circumstances. An example of its use would be to release drives which were in use by a VSE, that came down unexpectedly and could not be restarted.

Important! Ensure that a device which is the target of this command is not actively in use on another system. The command overrides CA EPIC for z/VSE's protection mechanism for shared drives. Failure to follow this warning could result in tapes being overwritten by other VSEs that share the drives.

Syntax

```
FRE   UCB=cuu
```

Parameters

cuu specifies the address of the device whose ownership attributes are to be reset. After the successful completion of the FRE command, CA EPIC for z/VSE will consider the drive to be available for use.

PRT

The PRT control statement prints the contents of the ERD on SYSLST. If used, the PRT control statement must not precede a FMT or CTL statement in the input stream.

Syntax

PRT

Parameters

There are no parameters for this statement.

JCL Examples

Example One

A single CPU is being used. There are eight tape devices, numbered 300 to 307. An ERD is not needed since no device sharing occurs.

Example Two

This example creates the ERD and adds UCB definitions. After the file has been created, the ERD's contents are printed on SYSLST.

The tape device environment is as follows:

- Four 3420 tape devices (300-303), all shared by CPU A and CPU B. Drives have dual-density capability.
- Four 3490E tape devices (400-403) contained within an ACL unit ,all shared by CPU A and CPU B. The ACL Name is ATLJOE, and the ACL Number is 1.
- Two 3480 tape devices (500-501) for use by CPU A only.
- Two 3490 tape devices (600-601) for use by CPU B only. Devices have the IDRC feature.

```
// JOB ERDCREAT
// DLBL ERDFILE,'EPIC.SHARED.RESOURCES.DATASET',99/366,SD
// EXTENT SYS040,SYS251,,,5000,15
// ASSGN SYS040,DISK,VOL=SYS251,SHR
// EXEC TSIDSMNT
FMT NAME=ERDFILE
ADD UCB=300,DEV=3420,FEAT=D
ADD UCB=301,DEV=3420,FEAT=D
ADD UCB=302,DEV=3420,FEAT=D
ADD UCB=303,DEV=3420,FEAT=D
ADD UCB=400,DEV=3490,FEAT=E,ACLNAME=ATLJOE,ACLNUM=1
ADD UCB=401,DEV=3490,FEAT=E,ACLNAME=ATLJOE,ACLNUM=1
ADD UCB=402,DEV=3490,FEAT=E,ACLNAME=ATLJOE,ACLNUM=1
ADD UCB=403,DEV=3490,FEAT=E,ACLNAME=ATLJOE,ACLNUM=1
ADD UCB=500,DEV=3480
ADD UCB=501,DEV=3480
ADD UCB=600,DEV=3490,FEAT=I
ADD UCB=601,DEV=3490,FEAT=I
PRT
/*
/&
```

Even though devices 500-501 and 600-601 are not shared between CPU A and CPU B, they must still be included in the ERD. *If an ERD is used, all tape devices must be described in it, whether shared or not.*

Example Three

In this example, the ERD name IJSYSSP was used when the ERD was originally defined.

Two additional tape devices are defined.

```
// JOB CREATFIL
// EXEC TSIDSMNT
ADD UCB=304,DEV=3420,FEAT=D
ADD UCB=305,DEV=3420,FEAT=D
/*
/&
```

Example Four

In this example, the ERD name IJSYSSP was not used when the ERD was originally defined. The name ACFERD was used.

One device (305) is being removed and another device (303) is having the dual density feature removed. The ERD's contents are printed after the maintenance has been completed.

```
// JOB ERDMAINT
// EXEC TSIDSMNT
CTL NAME=ACFERD
DEL UCB=303
ADD UCB=303,DEV=3420
DEL UCB=305
PRT
/*
/&
```

Example Five

In this example, the label information is not in the Standard Label Area.

```
// JOB CREATFIL
// DLBL FILE03A,'FILE.FOR.UCB.SHARING'
// EXTENT SYS050,USER01,1,0,3336,6
// ASSGN SYS050,DISK,VOL=USER01,SHR
// EXEC TSIDSMNT
CTL NAME=FILE03A,DLOCK=5
ADD UCB=300,DEV=3420,FEAT=IED
DEL UCB=402
/*
/&
```

Defining the CA EPIC for z/VSE Environment

Creating the TSIDPOL Phase

Display or print the TSIDPOL procedure which was cataloged during the CA EPIC for z/VSE installation procedure. The TSIDPOL phase is required to enable CA EPIC for z/VSE's disk management services. It is also required if you want to use the tape pooling facility.

To create the TSIDPOL phase, you must assemble and link the TSIDPOL and TSIDMAP macros. This is accomplished through six separate tasks in this installation procedure:

- Designing disk pools
- Creating disk pool statements
- Designing tape pools
- Creating tape pool statements
- Specifying the TSIDMAP macro
- Assembling the macros and cataloging the TSIDPOL phase

Important! If you are upgrading from an earlier release of CA EPIC for z/VSE, you must reassemble the TSIDPOL phase.

Activating a New TSIDPOL Phase

You can change the options you specify in the TSIDPOL and TSIDMAP macros at any time. However, since TSIDPOL resides in the SVA, activating a new pool definition while CA EPIC for z/VSE is active requires the following procedure:

1. IPL
2. Turn CA EPIC for z/VSE off.
3. Execute a SET SDL in the BG partition to reload the new TSIDPOL phase into the SVA.
4. Turn CA EPIC for z/VSE back on again.

Example

```
// JOB ACTIVATE NEW TSIDPOL
// EXEC TSIDOFF
SET SDL
TSIDPOL,SVA
/*
// EXEC PROC=EPICON
/&
```

Designing Disk Pools

The TSIDPOL macro defines each disk pool. As you design your disk pools, keep the following in mind:

- Each disk dataset must be assigned to a pool.
- Uncontrolled datasets are allowed in pool areas.
- You can define as many disk pools as you wish.
- Choose disk volumes that have the most contiguous free space for your initial pool(s).
- You can use a whole volume or only a partial volume in a pool. However, you can only define one volume area per pool. If you wish, you can divide the volume into multiple pools.
- Each pool can contain multiple volumes. If you plan to use Start Track 1 datasets, remember that CA EPIC for z/VSE must search the VTOC to find the dataset's extents. If you have multiple volumes in the pool, CA EPIC for z/VSE searches each volume's VTOC in sequence until it finds the first extent. To improve performance, keep the number of volumes small for pools which will contain Start Track 1 datasets.
- Do not mix device types in a pool. Although CA EPIC for z/VSE allows you to do so, VSE does not support it.
- Do not mix disk devices of the same type but different capacities in the same pool. For example, do not put 3380 single, dual and triple-density volumes (or any combination of these) in the same pool. If a pool is to contain VM mini-disks, all the disks in the pool must be of the same size. If you do not observe this rule, you may find that VSE is unable to process some multi-extent files.
- Leveling is activated by pool.
- Disk pools can be shared by any number of partitions or CPUs.
- Disk pools can also be shared between multiple real and virtual VSE machines if you define a VSE LOCK file and add the volumes to VSE as SHR. See Sharing the DSN Catalog (see page 91) for details.
- If you share your DSN Catalog between machines, you must also share the volumes in your disk pools between your VSE machines. However, you are not required to share your pools. You can create a separate TSIDPOL phase for any machine. Simply place the TSIDPOL phase in a library which is searched before the library in which you have installed CA EPIC for z/VSE.
- You can deactivate a specific volume in a pool at any time by using the OFFLINE function of TSIDMNT. If a pool volume is in VSE's "device down" (DVCDN) status, you must place it offline to CA EPIC for z/VSE. You can reserve a volume for future use as an CA EPIC for z/VSE pool volume. To do this, define the volume in the TSIDPOL macro and place it offline. CA EPIC for z/VSE ignores the volume until you place it online again with the ONLINE function of TSIDMNT.

Procedure

Obtain a VTOC listing of all potential pool volumes. For each pool, perform the steps below.

1. Choose the pool name and write it on the Disk Pool Worksheet. Pools are referenced by six-character names. Use a real volume serial number or any other six-character name for a disk pool.
2. Write "alias" pool names on the worksheet. Using aliases helps to avoid JCL changes. Existing JCL can reference real disk volume serial numbers, and CA EPIC for z/VSE considers those references to be pool names. By making each volume serial number an alias for the pool that contains the actual volume, the JCL will automatically refer to the correct pool. An alias can also be used to easily change a pool name once it has become established in the system.
3. Choose the disk volumes for the pool and write each volume serial number on the worksheet.
4. When you cannot use an entire volume in a pool area, write the starting and ending address of the space to use next to the volume serial number on the worksheet.

   Remember that a specific volume can be defined only once in a given pool. If you want to pool multiple areas on a volume, you must place each area on that volume in a separate pool.

Creating Disk Pool Statements

Disk pools can be defined using the following syntax. A separate TSIDPOL statement is required for each disk pool. You can use the TSIDPOL procedure as a model.

Syntax for Disk Pools

```
[poolname] TSIDPOL (volser1[,start1][,end1][,vol-restriction])
                [,(volser2[,start2][,end2][,vol-restriction])]
                [,LEVEL=YES|NO]
                [,POLNAME=numeric-poolname]
```

You can also define pool name aliases if you wish, as shown below.

Syntax for Alias Pool Names

```
alias-name TSIDPOL EQU=poolname
```

Parameters

Parameter	Required?	Values	Default
poolname	For alpha	6 characters	None
volser	Yes	6 characters	None
start	No	valid address	None
end	No	valid address	None
vol-restriction	No	QUIESCE or OFFLINE	None
LEVEL	No	Yes or No	No
numeric-poolname	For numeric	6 digits	None
alias-name	For alias	6 characters	None

poolname specifies an alphanumeric pool name. For numeric pool names, use the POLNAME parameter instead.

volser specifies the six-character serial number of a real disk volume. The remaining parameters are optional but positional, so if one is skipped, its comma must be specified; only trailing commas can be omitted. The parameters for each disk volume must be enclosed in a set of parentheses. You can specify the same volume serial number only once per pool. You can specify as many volsers as you like on a single statement, subject to the VSE Assembler rules for macros.

start specifies track or block where the pool area begins. If omitted, the pool area begins at the lowest address on the volume.

end specifies the track or block where the pool area ends. If omitted, the pool area ends at the highest address on the volume.

If start and end track or block addresses are not specified, they will appear as 0 and 15728641 on the TAID transaction's pool display panel and on the TSIDDEB Summary Report until the first allocation occurs on the volume after an IPL. The first allocation forces CA EPIC for z/VSE to read the volume's VTOC and set the start and end track or block addresses based on the volume's actual capacity.

vol-restriction can be used to place the volume in QUIESCE or OFFLINE status. If QUIESCE is specified, CA EPIC for z/VSE will provide access to existing files on this volume but will not allocate any new files to the volume. If OFFLINE is specified, CA EPIC for z/VSE will not provide access to any files on this volume. You can also place a volume in QUIESCE or OFFLINE status with TSIDMNT or Online Manager. Volumes can be placed online again using the ONLINE function.

LEVEL specifies whether leveling is active for the pool.

POLNAME=*numeric-poolname* must be used to specify a pool name such as 111111. If you use POLNAME=*numeric-poolname*, do not specify the *poolname* label before TSIDPOL.

alias-name is used to specify an alias name for a pool.

Examples

The following example specifies that the areas from tracks 1 through 5000 on volume SYSWK2, and from tracks 1 through 9500 on SYSWK3 will make up the pool known as POOL01.

```
POOL01 TSIDPOL (SYSWK2,1,5000),(SYSWK3,1,9500),LEVEL=YES
```

The following example specifies that all space from track 1000 through the end of the volume on volume WORK09, all space on volume WORK10, and all space on volume WORK11 will make up the pool known as POOL02.

```
POOL02 TSIDPOL (WORK09,1000),(WORK10),(WORK11),LEVEL=YES
```

The following example defines alias names for POOL02 so that JCL references to POOL02 can be made with these names. By choosing pool aliases that are the same as the volsers used to define POOL02, JCL that used to reference volsers can now reference entire pools.

```
WORK09 TSIDPOL EQU=POOL02

WORK10 TSIDPOL EQU=POOL02

WORK11 TSIDPOL EQU=POOL02
```

Designing Tape Pools

Tape pooling is a useful feature designed to enable additional control of tape libraries. Using tape pooling, a dataset can be restricted to a particular set of tapes. For example, the dataset 'BACKUP.TAPE' could be limited to volume serial numbers within the range 990000 to 999000. Some reasons for using this extra form of control include:

- Restricting datasets to tapes of a specific size
- Reserving volumes for backup use
- Reserving volumes for offsite shipment
- Reserving volumes for unlabeled files

When a tape pool is specified as part of a dataset definition, CA EPIC for z/VSE only allows output for that dataset on tapes in the specified pool. Conversely, when a dataset is defined without a tape pool, CA EPIC for z/VSE prevents output for that dataset on all pool tapes.

Configuration Options

Tape pooling requires the use of the TAPPOL configuration option.

Note: For more information, see TAPPOL (see page 150).

Rules for Tape Pools

As you design your tape pools, keep the following in mind.

- Tape pools are optional. Datasets assigned to a tape pool can only be created on tape volumes that belong to that pool. Datasets not assigned to a pool can only be created on tape volumes that do not belong to *any* pool.
- Up to 36 tape pools are allowed. A tape pool is identified by a single alphanumeric character (A-Z or 0-9).
- A tape pool is defined with volume serial number ranges which can be alphanumeric. A single pool can contain multiple volume serial number ranges.
- If Memorex ATLs are supported, one or more CA EPIC for z/VSE tape pools can be defined for ATL-resident cartridges. To define the corresponding LMS tape pools in the ATL, see CA EPIC and LMS Tape Pools (see page 192).

Procedure

1. Write the name of each tape pool on the Tape Pool Worksheet.
2. Write the low and high volume serial numbers for each range of each pool.

Creating Tape Pool Statements

Tape pools are defined using the TSIDPOL macro. The TSIDPOL procedure can be used as a model.

All tape pools which will be active concurrently must be specified on the same TSIDPOL macro. Each TSIDPOL macro defines a *tape pool group*. When CA EPIC for z/VSE is started, only one tape group can be active; all others are ignored.

When you assemble the TSIDPOL phase, tape pool statement(s) must be placed after all disk pool statements.

Syntax

```
tappol TSIDPOL (poolname,low-volser,high-volser) ,TAPE=YES
```

Parameters

Parameter	Required?	Values	Default
tappol	Yes	6 characters	None
poolname	Yes	1 character	None
low-volser	Yes	6 characters	None
high-volser	Yes	6 characters	None

tappol specifies a group name to identify the tape pools on the TSIDPOL macro. Write this name as the TAPPOL configuration option on the worksheet.

poolname specifies the name of the tape pool. Valid tape pool names are one character: A-Z or 0-9. Repeat this name with each range if the pool has multiple ranges.

low-volser specifies the lowest volume serial number in the range.

high-volser specifies the highest volume serial number in the range.

TAPE=YES is required to distinguish tape pools from disk pools. It is specified only once.

Examples

The following example specifies that tape volumes 005000 through 005500 belong to tape pool W.

```
POOLW  TSIDPOL (W,005000,005500),TAPE=YES
```

The following example specifies that tape volumes PR0001 through PR9999, and PY0001 through PY0200, belong to tape pool P.

```
POOLP  TSIDPOL  (P,PR0001,PR9999),(P,PY0001,PY0200),TAPE=YES
```

The following example specifies that the tape volumes 010000 through 019999 belong to tape pool K, and tape volumes 020000 through 029999 belong to tape pool L. Tape pools K and L belong to tape pool group POOL2.

```
POOL2  TSIDPOL (K,010000,019999),(L,020000,029999),TAPE=YES
```

Specifying the TSIDMAP Macro

Description

The TSIDMAP macro is always required when specifying pools. It specifies:

- DTF names that must be uncontrolled (ignored by CA EPIC for z/VSE)
- DTF names for which LUB allocation must be inhibited
- Programs for which LUB allocation must be inhibited (this affects every dataset the program opens)
- The size of the work area to be used to map disk devices.

See Chapter 1 of the CA EPIC for z/VSE *User Guide* for an explanation of CA EPIC for z/VSE LUB allocation.

Syntax

```
TSIDMAP [ nnn ]
         [,ILIST=(dtfname,dtfname,...)
          ,NLUBDTF=(dtfname,dtfname,...)
          ,NLUBPGM=(program,program,...)
          ,RBLKPGM=(program,program,...) ]
         ,END=YES
```

Parameters

Parameter	Required?	Values	Default
nnn	No	300-32767	300
ILIST	No	1 to 7 characters	None
NLUBDTF	No	1 to 7 characters	None
NLUBPGM	No	1 to 8 characters	None
RBLKPGM	No	1 to 8 characters	None
END	Yes	Yes	None

nnn indicates the maximum number of unexpired extents to support on any controlled disk volume in any defined pool. CA EPIC for z/VSE uses this number to reserve space in the VSE Partition GETVIS area for the map table it uses to allocate disk datasets. If the map table capacity is exceeded during allocation processing, CA EPIC for z/VSE cancels the job.

The number you specify should be at least 300. Generally, a map specification of 800 is sufficient for large devices (for instance, FBA or 3380). However, because 255 extents per file are supported, under allocated files that are allowed to fragment could easily fill an inadequate map table capacity. So, be generous! If you use more than one TSIDMAP macro statement, specify this parameter only on the first one.

For ILIST, NLUBDTF, and NLUBPGM: You can specify up to 31 items per parameter. Use multiple TSIDMAP statements if you want to specify more than 31 items. These parameters are mutually exclusive. Use separate TSIDMAP macro statements to specify each one.

ILIST specifies the DTF names that CA EPIC for z/VSE should ignore. Datasets processed with these DTF names are uncontrolled. This list should include the names of the CA EPIC for z/VSE system files, including the DSN Catalog(s) (default IJSYSDS) and the Recorder File (IJSYSDR), and VSE system files, such as IJSYSRS, IJSYSRC, and the names of POWER files such as IJQFILE and IJDFILE.

NLUBDTF specifies DTF names for which LUB allocation is to be inhibited. CA EPIC for z/VSE automatically inhibits LUB allocation for the following DTF names:

- UIN
- UOUT
- IJSYSxx
- SYS000
- SORTxxx (unless TSIDSRT is executed in place of SORT)

NLUBPGM specifies program names for which LUB allocation is to be inhibited. We suggest that you specify programs known to use physical IOCS (PIOCS).

RBLKPGM specifies the names of programs that reblock files using an undefined record format.

END=YES must be specified on the last TSIDMAP macro statement.

Procedure

1. Decide which DTF names and programs should not be controlled by CA EPIC for z/VSE. Write them on the TSIDMAP worksheet.
2. Decide which DTF names and programs should not use CA EPIC for z/VSE's LUB allocation. Write them on the TSIDMAP worksheet.
3. Specify your TSIDMAP macro statements using the format below. The TSIDPOL procedure contains an example of the TSIDMAP macro.

   Place TSIDMAP statements after all TSIDPOL statements. You must use at least one TSIDPOL statement.

Assembling the Macros

The TSIDPOL and TSIDMAP macros must be assembled and linked together to create the TSIDPOL phase. *If you will be using CA EPIC for z/VSE only for tape management, and you will not be using tape pools, the TSIDPOL* phase is not *required.*

TSIDPOL must reside in the SVA.

Activating a New TSIDPOL Phase

You can change the options you specify in the TSIDPOL and TSIDMAP macros at any time. However, since TSIDPOL resides in the SVA, activating a new pool definition while CA EPIC for z/VSE is active requires the following procedure:

1. IPL
2. Turn CA EPIC for z/VSE off.
3. Execute a SET SDL in the BG partition to reload the new TSIDPOL phase into the SVA.
4. Turn CA EPIC for z/VSE back on again.

Example

```
// JOB ACTIVATE NEW TSIDPOL
// EXEC TSIDOFF
SET SDL
TSIDPOL,SVA
/*
// EXEC PROC=EPICON
/&
```

TSIDPOL Example

```
* $$ JOB JNM=TSIDPOL,CLASS=A,DISP=D
* $$ LST CLASS=A,DEST=(*,USERID)
// JOB TSIDPOL
*
* ------------------------------------------------------+
*  FOLLOWING IS A SHELL FOR THE TSIDPOL MACRO.          |
*    A) MODIFY IT TO SUIT YOUR INSTALLATION REQUIREMENTS |
*    B) PROVIDE A SUBLIBRARY TO CATALOG THE PHASE INTO   |
*    C) RUN THIS JOB TO ASSEMBLE AND CATALOG THE PHASE   |
*                                                        |
*  CONSULT THE CA EPIC INSTALLATION AND SYSTEM GUIDE FOR    |
*  EXPLANATIONS OF ALL TSIDPOL MACRO PARAMETERS.         |
*                                                        |
*         PARAMETERS SURROUNDED BY ASTERISKS NEED TO BE  |
*         REPLACED                                       |
* ------------------------------------------------------+
// PAUSE
*
// LIBDEF PHASE,CATALOG=*LIB.SUBLIB*   CA EPIC INSTALL LIBRARY
// LIBDEF *,SEARCH=*LIB.SUBLIB*        CA EPIC INSTALL LIBRARY
*
* ------------------------------------------------------+
*  THE TSIDPOL.PHASE IS USUALLY CATALOGED INTO THE CA EPIC  |
*  INSTALLATION LIBRARY                                  |
* ------------------------------------------------------+
*
// PAUSE
*
// OPTION CATAL
// EXEC ASSEMBLY
*********************************************************************
*  POOL01 CONTAINS ALL OF VOLUMES *VOL1* AND *VOL2*                 *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====              *
*********************************************************************
POOL01   TSIDPOL (*VOL1*),(*VOL2*)
*********************************************************************
*  POOL02 IS THE SAME AS POOL01                                     *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====              *
*********************************************************************
POOL02   TSIDPOL EQU=POOL01
*********************************************************************
*  POOL03 CONTAINS *VOL1* FROM TRACK 15 TO 13274 AND *VOL2* FROM    *
*  TRACK 15 TO 13274. LEVELING WILL BE PERFORMED ON POOL03.      *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====              *
*********************************************************************
```

```
POOL03   TSIDPOL (*VOL1*,00015,13274),                          X
                 (*VOL2*,00015,13274),                          X
                 LEVEL=YES
POOL04   TSIDPOL (*VOL3*,00030,16619),                          X
                 (*VOL4*,00030,16619),                          X
                 LEVEL=YES
POOL05   TSIDPOL EQU=POOL04
*****************************************************************
*  *VOL1* IS DEFINED AS A SINGLE PACK POOL BELOW.               *
*  IF A DATASET IS CATALOGED WITH POL=*VOL1*, THE FILE WILL BE   *
*  ALLOCATED ON VOLSER *VOL1*.                                  *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====          *
*****************************************************************
*VOL1*   TSIDPOL (*VOL1*)
*****************************************************************
*  TAPPOL BELOW SPECIFIES THAT ANY TAPE DATASET CATALOGED WITH TPL=A
*  CAN USE ONLY VOLSERS IN THE RANGE 990000-990100 INCLUSIVE     *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====          *
*****************************************************************
TAPPOL   TSIDPOL (A,990000,990100),TAPE=YES
*****************************************************************
*  CONSULT THE CA EPIC INSTALLATION AND SYSTEM GUIDE FOR            *
*  EXPLANATIONS OF TSIDMAP PARAMETERS.                          *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====          *
*****************************************************************
         TSIDMAP *400*
         TSIDMAP ILIST=(*ENTRY1*,*ENTRY2*,...)
         TSIDMAP ILIST=(*ENTRYA*,*ENTRYB*,...)
         TSIDMAP NLUBPGM=(*PROGX*)
         TSIDMAP NLUBDTF=(*NLUBDTF*,*NLUBTAP*)
         TSIDMAP END=YES
         END
/*
// EXEC LNKEDT
/*
/&
* $$ EOJ
```

Quick DASD Allocation System (QDAS)

The CA EPIC for z/VSE Quick DASD Allocation System (QDAS) maps disk space usage in virtual storage to drastically decrease the number of I/O operations required to allocate an output disk extent, thus improving your system's performance. Because of the potential performance advantage, we recommend that you activate QDAS in all your VSE machines in which CA EPIC for z/VSE will be used.

Only disk volumes that are defined to CA EPIC for z/VSE pools can realize a performance improvement when defined to QDAS.

See Chapter 1 of the CA EPIC for z/VSE *User Guide* for more information about QDAS.

Sharing Disk Volumes

If your disk volumes are available to multiple VSE machines, you must:

- Create a QDAS Share File for each shared volume.
- Activate QDAS in every machine that shares the volume.

Important! Failure to meet either of the requirements above can result in disk dataset corruption.

Creating QDAS Share Files

The Share File allows QDAS to access and update its space usage map from multiple machines. A Share File is required for each volume that has been defined to QDAS and is accessed by more than one machine. TSIVCLR initializes the Share Files. See the TSIVCLR procedure which was cataloged during the basic installation procedure.

The name of each Share File in a VTOC is *volid*.QDAS.RELx.SHARE.FILE where *volid* is the volume serial number of the QDAS-controlled volume. The Share File is given an expiration date of 99366 (permanent retention).

Initialize a Share File for each shared volume with the TSIVCLR utility, as shown below.

```
// DLBL TSIVFLE,'volid.REL4.SHARE.FILE'
// EXTENT SYSnnn,volid,1,0,n,1
// ASSGN SYSnnn,DISK,VOL=volid,SHR
// EXEC TSIVCLR
MAP=nnnnn
/*
```

You must define the QDAS Share File with a DLBL statement, using the DTF name TSIVFLE. You can specify any dataset name; TSIVCLR assigns the actual name in the format shown above.

Use standard complete EXTENT and ASSGN statements to complete the definition of TSIVFLE.

Important! Failing to create a QDAS Share File on a shared volume may result in disk dataset corruption on that volume.

Control Statements

The required MAP control statement specifies the number of VTOC entries (active extents) that the QDAS Share File supports. Its value must not be less than the value of the TSIVDEF MAP parameter for the same volume (see below).

Syntax

MAP=*nnnn*

MAP Parameter

Parameter	Required?	Values	Default
MAP	Yes	1-2044	None

Important! If you are upgrading from a previous release of CA EPIC for z/VSE, you must reformat all QDAS Share Files.

Example

In the example below, TSIVCLR creates a Share File on SYS2A1 at track 30 with the dataset name SYS2A1.QDAS.RELx.SHARE.FILE which supports 300 extents.

```
// JOB TSIVCLR
// DLBL TSIVFLE,'QDAS.SHARE.FILE'
// EXTENT SYS040,SYS2A1,1,0,30,1
// ASSGN SYS040,DISK,VOL=SYS2A1,SHR
// EXEC TSIVCLR
MAP=300
/&
```

Defining Disk Volumes to QDAS (TSIVDEF)

You define volumes to QDAS with the TSIVDEF macro. The TSIVDEF procedure contains an example of the TSIVDEF macro.

Syntax

```
TSIVDEF VOL=volser,MAP=n,SHARE=,LAST=
```

Parameters

Parameter	Required?	Values	Default
VOL	Yes	6 characters	None
MAP	Yes	1-32767 (2044 if shared)	None
SHARE	No	NO or YES	NO
LAST	No	NO or YES	NO

VOL specifies the volume serial number of the disk volume to be placed under QDAS control.

MAP specifies the maximum number of extents (not files) to support on the disk volume being defined. If the number of extents on the volume ever exceeds the number, you specify here, QDAS issues an error message, and the volume is removed from QDAS control.

SHARE indicates whether this volume is to be shared by multiple VSE machines. If YES, you must create the QDAS Share File for the volume (see above), and all machines accessing the volume must use QDAS.

LAST indicates whether this is the last volume to be defined to QDAS. Specify LAST=YES on the statement that defines the last volume.

Important! When SHARE=YES, the TSIVDEF MAP value must not be greater than the TSIVCLR MAP value for the same volume. In addition, the TSIVDEF MAP value for any QDAS-controlled volume must not be greater than the TSIDMAP value in the TSIDPOL disk pool definition phase.

Note: For more information, see Specifying the TSIDMAP Macro (see page 72).

TSIVDEF Example

```
* $$ JOB JNM=TSIVDEF,CLASS=A,DISP=D
* $$ LST CLASS=A,DEST=(*,USERID)
// JOB TSIVDEF
*
* ------------------------------------------------------------+
*  FOLLOWING IS A SHELL FOR THE TSIVDEF MACRO. MODIFY IT      |
*    TO SUIT YOUR INSTALLATION REQUIREMENTS AND THEN RUN      |
*    THE JOB TO ASSEMBLE AND CATALOG IT TO THE EPIC INSTALL   |
*    LIBRARY.                                                 |
*                                                             |
*  CONSULT THE INSTALLATION AND MAINTENANCE GUIDE FOR         |
*    EXPLANATIONS OF ALL TSIVDEF MACRO PARAMETERS.            |
*                                                             |
*         PARAMETERS SURROUNDED BY ASTERISKS NEED TO BE       |
*         REPLACED                                            |
* ------------------------------------------------------------+
// PAUSE
*
// LIBDEF PHASE,CATALOG=*LIB.SUBLIB*   CA EPIC INSTALL LIBRARY
// LIBDEF *,SEARCH=*LIB.SUBLIB*        CA EPIC INSTALL LIBRARY
*
* ------------------------------------------------------------+
*  LIBRARIES ABOVE ARE THE CA EPIC INSTALL LIBRARIES          |
* ------------------------------------------------------------+
// PAUSE
*
// OPTION CATAL
// EXEC ASSEMBLY
*****************************************************************
*  VOL=    - THE VOLUME TO BE DEFINED                           *
*  MAP=    - THE MAXIMUM NUMBER OF EXTENTS ALLOWED ON THE VOLUME*
*  SHARE= - IS THIS VOLUME SHARED?  IF SO, BE SURE TO RUN TSIVCLR *
*           TO CREATE THE 'QDAS.SHARE.FILE' ON THE VOLUME.      *
*  LAST=   - IS THIS THE LAST VOLUME TO BE DEFINED TO QDAS?     *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====         *
*****************************************************************
          TSIVDEF VOL=*VOL1*,MAP=*400*,SHARE=YES
          TSIVDEF VOL=*VOL2*,MAP=*400*,SHARE=YES
          TSIVDEF VOL=*VOL3*,MAP=*400*,SHARE=YES
          TSIVDEF VOL=*VOL4*,MAP=*400*,SHARE=YES
          TSIVDEF VOL=*VOL5*,MAP=*400*,SHARE=YES,LAST=YES
          END
/*
// EXEC LNKEDT
/*
/&
* $$ EOJ
```

Updating the ASI Procedure

This section describes several changes that need to be made to your ASI procedure. After you have made these changes, recatalog your ASI procedure.

Partition Updates

Permanent assignments for SYSLNK and SYS001-SYS007 must point to one of the volumes in the disk pool used for compiler and SORTWK areas. These assignments are designed to satisfy the pre-open requirements for the compilers and SORTWK packages.

In addition, the lib.sublib where CA EPIC for z/VSE is installed must be added to the LIBDEF search chain.

Modifying Standard Labels

Define your compiler and sort work areas using CA EPIC for z/VSE's Common Work Dataset (CWDS) feature (see Chapter 7 in the *User Guide*). The EPCWDS procedure can be used for this purpose.

You must add labels for the DSN Catalog, Recorder File, CA EPIC for z/VSE Resource Dataset (if used), and separate JOBQ (if used) to the VSE Standard Label Area. We also strongly recommend that you also add labels for your compiler and sort work areas.

Procedure

1. Locate your STDLABEL procedure.
2. Create a DLBL and EXTENT for the DSN Catalog, Recorder File, separate JOBQ (if used), CA EPIC for z/VSE Resource Dataset (if used), and for your compiler and sort work areas. The EPSTDLBL procedure contains sample standard labels for these files.
3. For the DSN Catalog, Recorder File, CA EPIC for z/VSE Resource Dataset (if used), and separate JOBQ (if used), specify the disk volume serial number but omit the SYS number. Use the same dataset names for the DSN Catalog, Recorder File, CA EPIC for z/VSE Resource Dataset (if used), and those used when these files were created.

DTF Names

The default DTF name for the DSN Catalog is **IJSYSDS**. If necessary, you can change this by using the DSNAME configuration option.

The DTF name for the Recorder File must be **IJSYSDR**.

The default DTF name for the separate JOBQ is **IJSYSJQ**. If necessary, you can change this by using the JQNAME configuration option.

There is no default DTF name for the CA EPIC for z/VSE Resource Dataset. The ERDFILE configuration option must be used to specify one. We recommend using IJSYSSP (the TSIDSMNT default).

Always record any DTF name changes on the Configuration Options Worksheet.

Work Files

The EPSTDLBL procedure uses common work file names in the labels. For COBOL II support, you must add a dummy EXTENT for the IJSYS01 dataset.

CKD Example

```
// OPTION STDLABEL
// DLBL IJSYSDS,'EPIC.VSE.CATALOG',99/366
// EXTENT ,TSI150,1,0,3750,90
// DLBL IJSYSDR,'EPIC.VSE.RECORDER',99/366
// EXTENT ,TSI158,1,0,3900,57
// DLBL IJSYSSP,'EPIC.RESOURCE.DATASET',99/366
// EXTENT ,TSI161,1,0,3840,10
// DLBL IJSYSJQ,'EPIC.VSE.JOBQ',99/366
// EXTENT ,TST160,1,0,1300,5
// DLBL IJSYSLN,'$$$.IJSYSLN'
// DLBL IJSYS01,'$$$.IJSYS01'
// EXTENT SYS001
// DLBL IJSYS02,'$$$.IJSYS02'
// EXTENT SYS002
// DLBL IJSYS03,'$$$.IJSYS03'
// EXTENT SYS003
// DLBL IJSYS04,'$$$.IJSYS04'
// EXTENT SYS004
// DLBL IJSYS05,'$$$.IJSYS05'
// EXTENT SYS005
// DLBL IJSYS06,'$$$.IJSYS06'
// EXTENT SYS006
// DLBL IJSYS07,'$$$.IJSYS07'
// EXTENT SYS007
// DLBL SORTWK1,'$$$.SORTWK1,(D)'

// EXTENT SYS001
```

FBA Example

```
// OPTION STDLABEL
// DLBL IJSYSDS,'EPIC.VSE.CATALOG',99/366,,CISIZE=4096
// EXTENT ,TSI150,1,0,3750,1024
// DLBL IJSYSDR,'EPIC.VSE.RECORDER',99/366,,CISIZE=2048
// EXTENT ,TSI158,1,0,3900,1024
// DLBL IJSYSSP,'EPIC.RESOURCE.DATASET',99/366
// EXTENT ,TSI161,1,0,3840,96
// DLBL IJSYSJQ,'EPIC.VSE.JOBQ',99/366,,CISIZE=2048
// EXTENT ,TST160,1,0,1300,96
// DLBL IJSYSLN,'$$$.IJSYSLN'
// DLBL IJSYS01,'$$$.IJSYS01'
// EXTENT SYS001
// DLBL IJSYS02,'$$$.IJSYS02'
// EXTENT SYS002
// DLBL IJSYS03,'$$$.IJSYS03'
// EXTENT SYS003
// DLBL IJSYS04,'$$$.IJSYS04'
// EXTENT SYS004
// DLBL IJSYS05,'$$$.IJSYS05'
// EXTENT SYS005
// DLBL IJSYS06,'$$$.IJSYS06'
// EXTENT SYS006
// DLBL IJSYS07,'$$$.IJSYS07'
// EXTENT SYS007
// DLBL SORTWK1,'$$$.SORTWK1,(D)'

// EXTENT SYS001
```

Step 3

Define the work files to the DSN Catalog using TSIDMNT or Online Manager (see Chapters 2 and 3 of the *User Guide*).

Example

```
// EXEC TSIDMNT
 CAT '$$$.IJSYSLN',WRK=YES,POL=POOL01,EXT=200
 CAT '$$$.IJSYS01',WRK=YES,POL=POOL01,EXT=200,SYS001
 CAT '$$$.IJSYS02',WRK=YES,POL=POOL01,EXT=200,SYS002
 CAT '$$$.IJSYS03',WRK=YES,POL=POOL01,EXT=200,SYS003
 CAT '$$$.IJSYS04',WRK=YES,POL=POOL01,EXT=200,SYS004
 CAT '$$$.IJSYS05',WRK=YES,POL=POOL01,EXT=200,SYS005
 CAT '$$$.IJSYS06',WRK=YES,POL=POOL01,EXT=200,SYS006
 CAT '$$$.IJSYS07',WRK=YES,POL=POOL01,EXT=200,SYS007
 CAT '$$$.SORTWK1',WRK=YES,POL=POOL01,EXT=200

/*
```

Adding a Dummy Tape Device and Modifying Tape Modes

If you use CA EPIC for z/VSE's tape management, you must define a dummy (non-existent) tape device. The TSIDASS utility uses this dummy device to satisfy the pre-open checking that is done by many generalized utility programs, such as SORT.

Important! Do not issue the VSE DVCUP command for this tape device; errors will occur.

Step1

Locate the ADD statements in your ASI procedure.

Step 2

Add a PUB entry for a dummy tape device. For example:

```
ADD F00,3420T9
```

Any valid tape device type (and mode) can be specified. The dummy tape device is only referenced by programs that do pre-open checking to determine device category (tape, disk, printer, and so on). The actual tape device is selected by CA EPIC for z/VSE based on the mode requested when a program issues an OPEN request.

Step 3

Write the dummy device address you used on your configuration option worksheet (the TAPCUU option).

Step 4

For dual density tape drives, specify the highest available mode setting on the ADD statement that defines the drive. For example:

```
ADD 880:884,3420T9,D0          (6250 BPI on a 1600/6250 drive)
```

Updating SVA Size

CA EPIC for z/VSE automatically loads its modules into appropriate 24-bit or 31-bit SVA. See the section Determining Space Requirements (see page 35) and if needed, change the parameters on the SVA statement in your IPL procedure, as shown below.

Procedure

1. Display the SVA free space and SDL entries using the following:

   ```
   // EXEC LIBR
   LISTDIR SDL
   /*
   ```

   If the SVA size must be increased, update the PSIZE value on the SVA statement in your ASI procedure.

   47 free SDL entries must be available for use by EPIC.

2. If IBM or Memorex ACL support is being used, add 33K.

3. Using the listing produced in Step 1, determine if the number of current SDL entries plus the total of new entries exceeds the SDL value on the SVA statement. If the number of entries needs to be increased, increase the SDL value on the SVA statement accordingly.

GETVIS Considerations

Increasing System GETVIS

CA EPIC for z/VSE acquires storage for its tables and some modules from system 24-bit and 31-bit GETVIS. Refer to "Determining Space Requirements" to determine required system GETVIS and update the GETVIS parameter on the SVA statement in your IPL procedure.

Increasing Partition GETVIS

CA EPIC for z/VSE acquires Partition GETVIS for task dependent data. We recommend that you permanently increase the Partition GETVIS in each partition.

Use the following formula to determine CA EPIC for z/VSE's Partition GETVIS requirements:

```
EPIC Partition GETVIS = 26K+(n * 8)
```

where *n* is the number specified for the map table size in the TSIDMAP macro. While this calculation is sufficient for most installations, yours may require more. Optional file reblocking also requires Partition GETVIS.

Decrease the VSE SIZE parameter for each partition in the ASI procedure by the number you calculated above, or increase the size of the partition by that number.

Dynamic Space GETVIS

Refer to "Determining Space Requirements." If you use IPF dialog panels, the dynamic space GETVIS size can be increased using the Maintain Dynamic Partitions panel. If you are not using the IPF dialog panels, you can update the dynamic space GETVIS size by updating the DTR$DYNC procedure. The default member is included in the z/VSE system library (IJSYSRS.SYSLIB) as member DTR$DYNC.Z.

Updating LIBDEF Procedures

Update your library search chains to include the CA EPIC for z/VSE installation library.

Insert the name of the CA EPIC for z/VSE installation library in the LIBDEF search chain before the SET SDL statement in the ASI procedure.

Example

```
// LIBDEF PHASE,SEARCH=(VENDOR.EPIC,PRD1.XXX,PRD2.XXX,...)
```

Additional System Considerations

Activating CA EPIC for z/VSE Support for Multiple Job Exits

IBM provides support for multiple job exits for VSE/ESA 1.2.0 and above. This IBM feature is optional. If your installation uses this support, you must place CA EPIC for z/VSE in the list of job exits called, using the following procedure. If you do not use multiple job exit support, you can skip this task. In this section, we assume familiarity with IBM's requirements for multiple job exits.

Step 1

Update the $JOBEXIT user exit list, as described in the IBM *Guide to System Functions*. Choose a $JOBEXnn phase name that is not yet in use. For example purposes, $JOBEX01 is used. Add the following two statements to your $JOBEXIT user exit list: The TSIDJCL identifier allows CA EPIC for z/VSE to identify its own job exit. This information is required at CA EPIC for z/VSE activation.

```
DC   CL8'$JOBEX01'         CA EPIC for z/VSE job exit name

DC   CL8'TSIDJCL'          CA EPIC for z/VSE job exit identifier
```

Example

In this example, the CA EPIC for z/VSE jobexit is first in the list, preceding the accounting and job scheduling exits.

```
// OPTION CATAL
// EXEC ASSEMBLY
PUNCH ' PHASE $JOBEXIT,S,SVA '
       START 0
       DC    CL8'JCLLUSEX'    Identifier of user exit list
       DC    CL8'$JOBEX01'    CA EPIC for z/VSE jobexit name
       DC    CL8'TSIDJCL'     CA EPIC for z/VSE jobexit identifier
       DC    CL8'$JOBEX03'    Accounting jobexit name
       DC    CL8'ACCOUNT'     Accounting jobexit identifier
       DC    CL8'$JOBEX05'    Scheduling jobexit name
       DC    CL8'SCHED'       Scheduling jobexit identifier
       DC    X'FFFFFFFF'      End of table
       END
/*

// EXEC LNKEDT
```

Step 2

Rename the TSIDJUX module to the $JOBEXnn name you used in Step 1, using the LIBR RENAME function.

Example

In this example, the TSIDJUX phase name is changed to $JOBEX01.

```
// EXEC LIBR,PARM='MSHP'
 ACCESS S=lib.sublib
 RENAME TSIDJUX.PHASE:$JOBEX01.PHASE

/*
```

Step 3

Update your SVA/SDL load procedure accordingly and recatalog your SVA/SDL load procedure. Change the statement reading "$JOBEXnn, SVA" to reflect the job exit phase number selected for CA EPIC for z/VSE. For this example, the statement would be:

```
$JOBEX01,SVA
```

COBOL II Support (z/VSE)

When IBM's LE/370 is installed, CA EPIC for z/VSE uses the standard vendor exits for COBOL II, C/370, PL/1 II, and RPG-II support. In that case, the COBOL II requirements (below) are not required. If IBM's LE/370 is not installed, a separate interface must be installed.

CA EPIC for z/VSE requires COBOL II programs to invoke the VS COBOL II Library Management Feature. COBOL II programs must be compiled with the CBL RES option to invoke the Library Management Feature. See the IBM publication *VS COBOL II Installation and Customization for VSE*.

You may have software written in COBOL II, which was not compiled to invoke the Library Management Feature, but you have no access to the source code. To run these programs using CA EPIC for z/VSE's services, see "Processing with COBOL II" in Chapter 7 of the CA EPIC for z/VSE *User Guide*.

To enable CA EPIC for z/VSE's COBOL II support, perform the steps shown below.

Step 1

1. For COBOL II Release 3 and below, punch the IBM-supplied job IGZCPCO.Z from your COBOL II library using the LIBR PUNCH function. *For COBOL II Release 4 and above, punch IGZWEOPC.Z instead.*
2. Delete the INCLUDE IGZEQOC statement from the IGZCPCO.Z (or IGZWEOPC.Z) job stream.
3. Recatalog and execute the modified IGZCPCO.Z (or IGZWEOPC.Z) jobstream.

Step 2

1. Punch IGYCOPTV.A from your COBOL II library using the LIBR PUNCH function.
2. If the RES parameter in IGYCOPTV specifies RES=YES, no further action is necessary at this point to enable CA EPIC for z/VSE's COBOL II support.

   If RES=NO has been specified, change RES=NO to RES=YES. This forces the CBL RES option for all COBOL II compiles, and all COBOL II programs you compile after Step 4 below will invoke the VS COBOL II Library Management Feature.
3. Recatalog the updated IGYCOPTV.A.
4. For COBOL II Release 3 and below, use the IBM-supplied job IGYCDOPT.Z in your COBOL II library to assemble and link the updated IGYCOPTV. *For COBOL II Release 4 and above, use IGYWEOP1.Z instead.*
5. Recompile and link all your COBOL II programs that will require CA EPIC for z/VSE's services.

Multi-Partition/CPU Environments

Sharing the DSN Catalog

CA EPIC for z/VSE automatically operates in a multi-partition environment. The number of partitions is restricted only by the VSE supervisor. CA EPIC for z/VSE can also run in a multi-CPU environment. The DSN Catalog can be shared among real and virtual machines, under VSE and VM/CMS. For CA EPIC for z/VSE in any machine to share the DSN Catalog with another CA EPIC for z/VSE, or CA EPIC for z/VSE for CMS, in another machine, some VSE and CA EPIC for z/VSE features must be activated to ensure the integrity of devices and datasets. We recommend that you share one DSN Catalog in a multi-CPU environment, instead of creating separate DSN Catalogs. If you share the DSN Catalog, you must also share the volumes in your disk pools.

CA EPIC for z/VSE uses IBM's LOCK file mechanism (VSE LOCK/UNLOCK) and RESERVE/RELEASE facilities to ensure catalog integrity between machines and operating systems. The CMSTAPE and MULTCPU configuration options are used to enable these facilities.

Write the configuration option changes on your worksheet. See Operating System Requirements (see page 33) to ensure that the required operating system options are contained in your VSE supervisor. The following instructions pertain to sharing catalogs and tape drives between multiple virtual or real machines.

Sharing a DSN Catalog Between VSE and CMS

In CA EPIC for z/VSE...	In CA EPIC for z/VSE for CMS...
Specify CMSTAPE=YES	On the System Options Panel: 1. Enter the DOS CATALOG specifications 2. Set ALLOW DOS/CA EPIC for z/VSE TAPES to 'Y'

The DSN Catalog must be on a VSE disk volume (with a VSE VTOC). The DSN Catalog can be on a minidisk. *If so, its minidisk must be linked to all VSE machines that access it with the MWV option.* For best performance, we recommend that the DSN Catalog be the only dataset on the minidisk.

Sharing a DSN Catalog Among Multiple VSE Machines (Physical or Virtual)

CA EPIC for z/VSE (1)	CA EPIC for z/VSE (2)	CA EPIC for z/VSE (*n*)
MULTCPU=YES	MULTCPU=YES	MULTCPU=YES

If you are also sharing tape drives between physical CPUs or LPARs:

CA EPIC for z/VSE (1)	CA EPIC for z/VSE (2)	CA EPIC for z/VSE (*n*)
SHARE=YES	SHARE=YES	SHARE=YES

If you only plan to share tape drives among multiple VSE virtual machines (*not* different physical CPUs or LPARs), set SHARE=NO.

Sharing Disk Volumes Among Multiple VSE Machines

Specify SHR on the ADD statement for each shared volume in your ASI procedure.

Example

```
ADD 120:124,3380,SHR
```

Sharing the Recorder File Among VSE Machines

CA EPIC for z/VSE (1)	CA EPIC for z/VSE (2)	CA EPIC for z/VSE (n)
RECSHR=YES	RECSHR=YES	RECSHR=YES

An CA EPIC for z/VSE Recorder File *cannot* be shared with CA EPIC for CMS.

Sharing the CA EPIC for z/VSE Resource Dataset Among VSE Machines

No additional configuration options are required.

Activating CA EPIC for z/VSE Online Components

Installing Online Manager for FAQS

There are two ways to execute the Online Manager from a FAQS panel.

- Type .P=TSIO0001 on the FAQS command line and press ENTER.
- Create a FAQS online command. To do this, you must be running FAQS ASO release 3.6 or later, and have security access to create such a command. The following steps describe how to do it:

Procedure

1. Enter AO from the FAQS command line to display the FAQS ASO main menu.
2. From the FAQS ASO Main Menu, select *I* (Initialization and Configuration) and press ENTER.
3. From the FAQS ASO Initialization and Configuration panel, select *O* (FAQS Online Command Definition and Maintenance).
4. On the FAQS Online Command Definition and Maintenance panel, press PF6 to get the current definition. This panel is called FAQS ASO - Online Commands Directory List.
5. On the FAQS ASO - Online Commands Directory List panel, type *A* beside any online command file and press ENTER. The FAQS ASO Online Command Definition panel is displayed.
6. The FAQS ASO Online Command Definition panel uses a number of input fields to define the CA EPIC for z/VSE online command. Use them as follows:
   a. Enter the CPU ID in the FILE field at the top right.
   b. In the COMMAND field, type CA EPIC for z/VSE.
   c. In the DESCRIPTION field, type CA EPIC for z/VSE Online Manager (or some other description).
   d. In the NEW COMMAND field, type .P=TSIO0001.
   e. Press PF5 to save the new command. Then press PF3 to return to the FAQS ASO Online Command Definition panel. Review the new CA EPIC for z/VSE online command. Press PF6 to load the new FAQS directory list.
7. Press PF3 twice to exit FAQS ASO.
8. After the online command has been installed, type CA EPIC for z/VSE on any FAQS command line to access Online Manager.

Accessing Online Manager using VTAM

There are two different methods for accessing the CA EPIC for z/VSE Online Manager using VTAM, depending on whether or not you are using FAQS ASO.

If You Are Using FAQS ASO

Select option 'O' at the DCMTDRIV Main Menu panel.

If You Are Not Using FAQS ASO

Use the GSS "P=" parameter in the VTAM "LOGON" procedure, as shown in the following example:

```
LOGON APPLID(DCMTDRI) DATA('P=TSIO0001')
```

Installing Online Manager for CICS

Online Manager members are installed in two areas of the VSE environment:

- In the GSS datasets SYS$VIO and SYS$MON. The appropriate Online Manager members are automatically cataloged into these datasets when the CA EPIC for z/VSE installation tape is processed.
- In the CICS System Definition file (CSD) (or individual Processing Program Table (PPT) and Program Control Table (PCT) entries if the CSD file is not used).

When the CA EPIC for z/VSE installation tape is processed, you are given the option to select the CICS Quick Installation method. If you select the Quick Installation method, the appropriate CSD entries are made automatically. If you do not use the Quick Installation method, you must make PCT and PPT entries and reassemble the two tables. In either case, the "Completing CICS Installation" section of this chapter describes how to make the Online Manager environment available to CICS users.

Online Manager operates as a CICS subtask and uses GSS to perform its functions.

Memory that is required for Online Manager processing can be obtained from either of two sources: the CICS partition or the batch partition in which the Online Manager resides.

CICS Partition

This is the most efficient, but you may want to consider the other source for memory if you have a limited amount of CICS DSA storage.

Batch Partition

If the batch partition is selected as the memory source, Online Manager memory is allocated from it. A batch partition must be dedicated to Online Manager processing when CICS is running. VSE's XPCC facility is used to communicate between Online Manager components in the CICS and batch partitions.

Starting Online Manager with CICS Partition Memory

Method 1: CICS Start-up

Add the following statements immediately after the $END statement in the CICS start-up job stream (statements begin in column 1):

```
DCMPLT ATTACH DCMTDRIV

DCMPLT END
```

If start-up overrides are specified in the PARM parameter of // EXEC DFHSIP, do the following:

1. If an $END is present in the PARM parameter, remove it from the PARM.
2. Add SI to the PARM ("SI" stands for SYSIPT).
3. Add an $END immediately after the // EXEC DFHSIP.
4. Add the two DCMPLT statements described above.
5. Add a /* to terminate the SYSIPT data.

Add the following entry to the CICS Post-Initialization Program List Table (PLTPI) and reassemble it:

```
DFHPLT TYPE=ENTRY,PROGRAM=DCMPLT
```

If you select this method, Online Manager functions are available as soon as the CICS PLTPI processing completes.

Method 2: CICS Terminal or Console

Enter the following from a CICS Terminal:

```
DCMP ATTACH DCMTDRIV
```

If you select this method, Online Manager functions are available only after the DCMP transaction has completed.

Note: For more information about each of these methods, see the "DCMPLT" chapter of the *CA GSS for VSE Getting Started guide*.

Starting Online Manager with Batch Partition Memory

Select a partition that can be dedicated to Online Manager for the same amount of time that CICS will require Online Manager services. Submit the following job to that partition:

```
// JOB DCMBATCH   BATCH MEMORY INTERFACE TO CICS PARTITION
// EXEC DCMTDRIV,SIZE=DCMTDRIV
/*                       (the slash asterisk is required)
/&
```

CICS can be started either before or after this job is submitted, but Online Manager functions are not available until this job has begun execution.

To terminate Online Manager and free its partition, enter the following at the console:

```
MSG partition-id
```

This ends DCMTDRIV processing and makes Online Manager functions unavailable.

Example

When DCMTDRIV is executing in the F8 partition, the following command ends its execution:

```
MSG F8
```

Note: For more information about this technique, see the "Online Interfaces" chapter of the *CA GSS for VSE Getting Started guide*.

Completing CICS Installation

Activating CICS Quick Installation

To activate the CSD entries loaded by the CICS Quick Installation option, perform the procedure below.

To load the CSD entries for CICS Quick Installation when CA EPIC for z/VSE is already installed, see Reinstalling CA EPIC System Components (see page 41).

Procedure

1. Run the CICS CEDA transaction.
2. Add GROUP(EPIC5) LIST(listname) where listname is the GRPLIST specified in your DFHSIP start-up.
3. Install GROUP(EPIC5).
4. The EPIC, TVTO, TAID and TOJA transactions can be activated.

Manual CICS Installation

Follow the manual CICS installation procedures below. Then go to to complete CICS installation.

With a manual installation, all transactions are optional. However, we strongly recommend installing the TAID transaction. If disk management is used, we recommend installing TVTO.

TOJA is written in command level COBOL. Do not install it unless your installation supports command-level COBOL.

While this procedure describes how to install all transactions at once, individual transactions can be installed at any time. Perform only the tasks related to the transactions desired.

Update PPT Tables

1. Locate your current PPT assembly JCL.
2. Add entries to the PPT assembly for any transactions you wish to install.

For Transaction...	Add...
TAID	COPY TSAIDPPT
TOJA	COPY TSOJAPPT
TPRT	COPY TSPRTPPT
TVTO	COPY TSVTOPPT
Online Manager programs	COPY TSDCMPPT

3. Assemble and recatalog the PPT table.

Update PCT Tables

1. Locate your current PCT assembly JCL.
2. Add entries to the PCT assembly for any transactions you wish to install.

For Transaction...	Add...
TAID	COPY TSAIDPCT
TOJA	COPY TSOJAPCT
TPRT	COPY TSPRTPCT
TVTO	COPY TSVTOPCT
CA EPIC for z/VSE (Online Manager)	COPY TSDCMPCT

3. Assemble and recatalog the PCT table.
4. See the standard installation procedures listed in Transactions Notes (see page 107).

CICS Installation Table Entries

The following sections contain the table entries required to install CA EPIC for z/VSE CICS features.

Event Posting

PPT Entry

```
TSIDCLOC  DFHPPT TYPE=ENTRY,PGMLANG=ASSEMBLER,PROGRAM=TSIDCLOC,   X
                PGMSTAT=ENABLED,RELOAD=NO,RES=NO                  X
TSIDCCHK  DFHPPT  TYPE=ENTRY,PGMLANG=ASSEMBLER,PROGRAM=TSIDCCHK,  X
                PGMSTAT=ENABLED,RELOAD=NO,RES=NO                  X
TSIDCREL  DFHPPT  TYPE=ENTRY,PGMLANG=ASSEMBLER,PROGRAM=TSIDCREL,  X
                PGMSTAT=ENABLED,RELOAD=NO,RES=NO                  X
TSIDCUNL DFHPPT TYPE=ENTRY,PGMLANG=ASSEMBLER,PROGRAM=TSIDCUNL,    X
                PGMSTAT=ENABLED,RELOAD=NO,RES=NO                  X
```

TOJA

PPT Entries

```
TSIDOJA  DFHPPT  TYPE=ENTRY,PROGRAM=TSIDOJA,           X
                 PGMLANG=COBOL,PGMSTAT=ENABLED,        X

                 RELOAD=NO,RES=NO
TSIDOMM  DFHPPT  TYPE=ENTRY,PROGRAM=TSIDOMM,           X
                 PGMLANG=ASSEMBLER,PGMSTAT=ENABLED,    X

                 RELOAD=NO,RES=NO
TSIDOMAM  DFHPPT  PGMLANG=ASSEMBLER,PGMSTAT=ENABLED,   X
                 PROGRAM=TSIDOMAM,TYPE=ENTRY,          X

                 RELOAD=NO,RES=NO
```

PCT Entries

```
TOJA  DFHPCT  TYPE=ENTRY,PROGRAM=TSIDOJA,              X
                TRANSID=TOJA,TWASIZE=0,                X
                CLASS=SHORT,PRIVATE=YES,               X
                SPURGE=YES,TPURGE=YES,                 X

                TRNSTAT=ENABLED
TOJ1  DFHPCT  TYPE=ENTRY,PROGRAM=TSIDOJA,              X
                TRANSID=TOJ1,TWASIZE=0,                X
                CLASS=SHORT,PRIVATE=YES,               X
                SPURGE=YES,TPURGE=YES,                 X

                TRNSTAT=ENABLED
```

FCT Entry

```
TSIJADB  DFHFCT  TYPE=DATASET,                         X
                 DATASET=TSIJADB,                      X
                 ACCMETH=(VSAM,KSDS),                  X
                 SERVREQ=(GET,BROWSE),                 X
                 OPEN=INITIAL,                         X
                 JID=NO,                               X
                 LOG=NO                                X
                 RECFORM=(VARIABLE,UNBLOCKED),         X
                 BUFND=4,                              X
                 BUFNI=3,                              X

                 STRNO=3
```

TPRT

The DCT for TSPR must supply the program's transaction ID, and a trigger level of one (1) or greater to AUTOSTART the transaction. In addition, TRMINDNT=TSPR must be added to the TCT for the label printer.

PCT Entry

```
DFHPCT  TYPE=ENTRY,PROGRAM=TSIDPRT,                          X
              TRANSID=TPRT,TWASIZE=0,                        X
              SPRUGE=YES,CLASS=LONG,                         X

              TRANSTAT=ENABLED


DFHPCT  TYPE=ENTRY,PROGRAM=TSIDLPRT,                         X
              TRANSID=TSIL,TWASIZE=0,                        X
              SPURGE=YES,CLASS=LONG,                         X
              ANTICPG=1,DTB=NO,DUMP=YES,                     X
              RESTART=NO,FDUMP=ASRA,DVSUPRT=ALL,             X
              PRIVATE=YES,RTIMOUT=NO,DTIMOUT=NO,             X
              TPURGE=YES,TCLASS=NO,TRANSEC=1,                X

              TRNPRTY=1,TRNSTAT=ENABLED
```

PPT Entry

```
DFHPPT  TYPE=ENTRY,PROGRAM=TSIDPRT,                          X
              PGMSTAT=ENABLED,                               X

              RES=YES,RELOAD=NO


DFHPPT  TYPE=ENTRY,PGMLANG=COBOL,                            X
              PROGRAM=TSIDLPRT,PGMSTAT=ENABLED,              X

              RELOAD=NO,RES=NO
```

DCT Entry

```
DFHDCT  TYPE=INTRA,DESTID=TSPR,TRANSID=TSIL
```

PLT Entry (Optional)

```
DFHPLT  TYPE=ENTRY,PROGRAM=TSIDPRTS
```

TCT Entry

```
Add TRMINDNT=TSPR to your printer's TCT.
```

TVTO

PPT Entry

```
DFHPPT  TYPE=ENTRY,PROGRAM=TSIDVTO
```

PCT Entry

```
DFHPCT  TYPE=ENTRY,                                    X
              CLASS=SHORT,                             X
              PROGRAM=TSIDVTO,                         X
              SPURGE=YES,                              X
              TPURGE=YES,                              X
              TWASIZE=2000,                            X

              TRANSID=TVTO
```

TAID

PCT Entry

```
DFHPCT  TYPE=ENTRY,                                    X
              TRANSID=TAID,                              X
              PROGRAM=TSIDCAI,                           X
              PGMLANG=ASSEMBLER,                         X
              SPURGE=YES,                                X
              CLASS=SHORT,                               X

              TRNSTAT=ENABLED
```

PPT Entry

```
DFHPPT  TYPE=ENTRY,PROGRAM=TSIDCAI,                    X
              PGMSTAT=ENABLED,                           X

              RES=YES,RELOAD=NO
```

EPIC

EPIC Transaction

```
DCMOCIXP DFHPPT TYPE=ENTRY,PGMLANG=ASSEMBLER,PROGRAM=DCMOCIXP,     X

                RES=YES,RSL=PUBLIC
DCMPLT   DFHPPT TYPE=ENTRY,PGMLANG=ASSEMBLER,PROGRAM=DCMPLT,      X

                RES=YES,RSL=PUBLIC
DCMP   DFHPCT TYPE=ENTRY,                                         X
              PROGRAM=DCMPLT,                                     X
              TRANSID=DCMP,                                       X
              DTB=NO,                                             X
              RSL=PUBLIC,                                         X
              SPURGE=YES,                                         X
              TPURGE=YES,                                         X

              TRNPRTY=100
EPIC   DFHPCT TYPE=ENTRY,                                         X
              PROGRAM=DCMOCIXP,                                   X
              TRANSID=EPIC,                                       X
              DTB=NO,                                             X
              RSL=PUBLIC,                                         X
              SPURGE=YES,                                         X
              TPURGE=YES,                                         X

              TRNPRTY=100
```

Transactions Notes

Many transactions have special requirements or characteristics. Some of them require configuration options to be set. This section presents special notes on each of these transactions.

TVTO Installation

TVTO is an online VTOC display utility. It is written in assembler language and does its own screen mapping. It requires a transaction work area of 2K bytes and executes in pseudo-conversational mode. The CICS Quick Installation method satisfies these requirements automatically.

TOJA Installation

The TOJA transaction provides online access to the Job Accounting database.

You should create two transactions for online job accounting: TOJA (the normal TRANSID for displaying job accounting data) and TOJ1 (a TRANSID you can use to purge queues if you cannot reactivate TOJA after a failure). We recommend that you put TOJ1 in your PCT tables, though it is not required. The CICS Quick Installation satisfies these requirements automatically.

TOJA is written in COBOL and uses unaligned BMS maps. It executes in pseudo-conversational mode.

TPRT Installation

Online label printing support must be activated with the RMNTPRT=YES configuration option.

TAID Installation

TAID is a system programmer's tool to display and update resident CA EPIC for z/VSE components. It is written in assembler language and does its own screen mapping. It executes in conversational mode.

Initializing the Job Accounting Database

The Job Accounting database provides data for the TOJA transaction and any applications you may wish to write, using the Recorder File backup or history tape as input.

Before you can build the job accounting database, you must define the database file. Use the EPICJADB procedure to do so.

Procedure

1. Punch the EPICJADB procedure from the CA EPIC for z/VSE library.
2. Update the IDCAMS DELETE/DEFINE/CATALOG statements to reflect your VSAM configuration.
3. Recatalog the EPICJADB procedure with a different name.
4. Execute your updated procedure to initialize the database. You can re-execute this procedure to re-initialize the database at any time.
5. Use the TSIDJLD utility to create the job accounting database. See Chapter 11 of the *User Guide* for more information.

Modifying CICS Start-Up JCL

Include a label for the job accounting database in your CICS job stream.

Example

```
// JOB CICS STARTUP
...
*  LABELS FOR JOB ACCOUNTING DATABASE
// DLBL TSIJADB,'TSIJADB,JOB.ACCNT',99/365,VSAM,CAT=IJSYSCT
...
// EXEC DFHSIP
( CICS STARTUP PARAMETERS )
$END
DCMPLT ATTACH DCMTDRIV
DCMPLT END

/*
```

Modifying the FCT Table

TOJA requires an FCT entry.

Procedure

1. Locate your current FCT assembly JCL.
2. Add the statement COPY TSOJFC17 (or COPY TSOJACFT if you are using CICS 1.6 or earlier).
3. Reassemble and catalog the FCT table.

Modifying DCT Entries

TPRT requires a DCT entry.

Procedure

1. Locate your current DCT assembly JCL.
2. Punch the source book TSPRTDCT.A.
3. Supply your program's transaction ID in TRANSID=xxxx. Also add a trigger level of one or greater to AUTOSTART your transaction. The supplied DCT book A.TSPRTDCT uses the transaction ID TSIL.
4. Recatalog the source book.
5. Add the following statement to your DCT assembly:
   ```
   COPY  TSPRTDCT
   ```
6. Reassemble and catalog the DCT table.

Modifying the TCT Table

TSIDPRT requires a TCT entry for the printer that will be used to print tape labels. This TCT entry must specify TRMIDNT=TSPR.

Procedure

1. Locate your current TCT assembly JCL. Find the TCT for the printer you will use to print labels.
2. Add TRMIDNT=TSPR.
3. Reassemble and catalog the TCT table.

Modifying the PLTPI Table

You can create a PLT entry for TPRT.

If TPRT is started through the PLT, it does not require a dedicated terminal, but it requires a dedicated printer port. That port cannot be detached unless the PLT entry is deleted.

If TPRT does not have a PLT entry, it must be started from a terminal using the TPRT transaction. In this case, it requires a dedicated terminal, but not a dedicated printer port.

Procedure

Use the following steps to start TSIDPRT through the PLT, if you wish.

1. Locate your current PLT assembly JCL.
2. Add the following statement to your PLT:
   ```
   COPY  TSPRTPLT
   ```
3. Reassemble and catalog the PLT table.

Post-Installation Procedures

Creating Maintenance JCL

Create JCL for regular CA EPIC for z/VSE maintenance. Such maintenance includes daily DSN Catalog backups, Recorder File maintenance, daily reports, and emergency DSN Catalog recovery. The CA EPIC for z/VSE distribution tape provides examples of these procedures under the file type SAMPJOB.

Maintenance procedures are described in more detail in Regular Maintenance (see page 205). At a minimum, do the following procedure:

Procedure

1. Use the DAILY1 or DAILY2 procedure as a model to create daily maintenance JCL.
2. Decide which reports to print regularly by reviewing the report examples in the CA EPIC for z/VSE *User Guide*. Create report JCL and add it to your DAILY procedure.
3. Use the RECOVER1 or RECOVER2 procedure as a model to create JCL for an emergency DSN Catalog recovery.

Converting a CA EPIC for z/VSE 5.1 DSN Catalog (TSIDCLN)

If you are upgrading from CA EPIC for VSE Version 5.1, do the following:

- Activate the new version of CA EPIC for z/VSE
- Run the TSIDCLN utility to initialize new fields in your version 5.1 DSN Catalog. TSIDCLN can be rerun as needed.

Example

```
// JOB TSIDCLN
// EXEC TSIDCLN
 UPGRADE 52
/*

/&
```

Converting from Another Tape/Disk Manager

See the *Conversion Guide* for conversion procedures.

For more information about converting to CA EPIC for z/VSE, contact the CA EPIC for z/VSE Conversion Team.

Modifying the EPICON Procedure

The EPICON procedure contains an execution of TSIDON, including configuration options. It also contains an execution of TSIDRFS and TSIVON. TSIDON activates and configures CA EPIC for z/VSE. TSIDRFS activates the Recorder. TSIVON activates QDAS. These programs and their configuration options are described in Chapter 5.

Step 1

Ensure that DATA=YES has been specified on the CATALOG or CATALP statement in your $nJCLxxx procedure.

Step 2

Complete your configuration option worksheet. The requirements of a few common features are listed below.

To enable..	Set...
Recorder File logging	RECORD=YES
Job accounting	RECORD=YES JOBACCT=YES
Autoattach	AUTOATT=YES
VM support	VM=YES
CICS transactions	RMNTPRT=YES

Step 3

Update the configuration options in your EPICON procedure. Add any special configuration options you require.

Step 4

The EPICON procedure should be executed in BG, before POWER starts and after most other software is activated. See Compatibility with Other Software (see page 37) for software that should be activated before CA EPIC for z/VSE.

Insert a PAUSE in your ASI procedure where the EPICON procedure should be executed.

Step 5

IPL your system and execute the EPICON procedure. If CA EPIC for z/VSE and its features are successfully activated, add the execution of the EPICON procedure to your ASI procedure in place of the PAUSE statement.

TSIDON Example

```
// EXEC TSIDON
 /*                                                          */
 /*    THE FOLLOWING OPTIONS HAVE BEEN COMMENTED OUT BECAUSE  */
 /*    THEY DO NOT HAVE DEFAULT VALUES OR THEY HAVE SYSTEM-   */
 /*    GENERATED DEFAULT VALUES.                             */
 /*                                                          */

 /*    OPTION ACLLIB=                                        */
 /*    OPTION ACLSRVR=                                       */
 /*    OPTION CPUIDS=                                        */
 /*    OPTION CWDSPOL=                                       */
 /*    OPTION DEFPOL=                                        */
 /*    OPTION DEFTPOL=                                       */
 /*    OPTION DEFWPOL=                                       */
 /*    OPTION EPICOFF=                                       */
 /*    OPTION ERDFILE=                                       */
 /*    OPTION JQNAME=                                        */
 /*    OPTION JQWARN=                                        */
 /*    OPTION JQWMSG=                                        */
 /*    OPTION PASSWD=                                        */
 /*    OPTION TAPPOL=                                        */
 /*    OPTION TSTJOB=                                        */
 /*                                                          */
 /*                                                          */
 /*    THE FOLLOWING OPTIONS ARE SYSTEM DEFAULTS             */
 /*                                                          */

 OPTION ACCEPT=YES
 OPTION ACLAUTI=YES
 OPTION ACLIBM=NO
 OPTION ACLMEM=NO
 OPTION ACLRECS=100
 OPTION ACLTIME=180
 OPTION ALLMALL=NO
 OPTION ALLMSG=YES
 OPTION ALTMSGS=NO
 OPTION AUTOATT=NO
 OPTION AUTOCAT=(NO,NO)
 OPTION AUTOLOG=NO
 OPTION AUTOSTP=NO
 OPTION AUTSTPN=5
 OPTION AUTSTPNO=5
 OPTION AUTSTPT=10
 OPTION AUTSTPTO=10
 OPTION BYPEXT=NO
```

```
OPTION CANMSG=NO
OPTION CATRT1=NO
OPTION CKDFACT=30
OPTION CMSTAPE=NO
OPTION CNTRL=NO
OPTION CYCL=3
OPTION DDERR=IGNORE
OPTION DDGEN=NO
OPTION DEBUG=NO
OPTION DEFEXT=0
OPTION DISKALL=YES
OPTION DSKLUB=100
OPTION DSKRET=7
OPTION DSNAME=IJSYSDS
OPTION DSNWARN=200
OPTION DSNWMSG=10
OPTION EURODAT=NO
OPTION FBAFACT=0
OPTION FRAG=NO
OPTION GDI=YES
OPTION GDIUR=YES
OPTION JCLAC=YES
OPTION JCLLANG=YES
OPTION JCLOPT=NO
OPTION JCLOVRDE=NO
OPTION JOBACCT=YES
OPTION MINDEX=NO
OPTION MINRET=0
OPTION MODE=D0
OPTION MSG088=NO
OPTION MULTCPU=NO
OPTION NCATDSK=NO
OPTION NOGVIS=CANCEL
OPTION ONLREWCD=RUN
OPTION PREFIX=EP
OPTION PURBYP=NO
OPTION RECORD=YES
OPTION RECSHR=NO
OPTION RERUN=YES
OPTION RETEN=7
OPTION RMNTPRT=NO
OPTION SHARE=NO
OPTION SLASIZE=300
OPTION STRTRK=1
OPTION TAPCUU=F00
OPTION TAPE=YES
OPTION TAPLUB=10
```

```
 OPTION UNCDSK=NO
 OPTION UNCTAP=NO
 OPTION UNCTL=NO
 OPTION UNLABEL=YES
 OPTION VM=NO
 OPTION VSAM=NO
/*
*
// EXEC TSIDRFS
 START
/*
*
// EXEC TSIVON

/*
```

Chapter 3: Installing the Autoattach Feature

For instructions on installing the Autoattach feature, call CA Technical Support.

Chapter 4: Activating and Deactivating CA EPIC for z/VSE

This chapter describes programs that activate, configure, and deactivate CA EPIC for z/VSE system features. If you have not yet customized the EPICON procedure, see the section Modifying the EPICON Procedure (see page 117) before continuing with this chapter.

This section contains the following topics:

Turning CA EPIC for z/VSE On (TSIDON)

CA EPIC for z/VSE is activated and configured by using the TSIDON program.

Once CA EPIC for z/VSE is activated in a single partition, it becomes active in the rest of your partitions when the first dataset is opened. Once activated, CA EPIC for z/VSE remains active until VSE is IPLed or until CA EPIC for z/VSE is deactivated. You can turn CA EPIC for z/VSE off and back on in a partition by using TSIDDEB.

TSIDON is usually executed from the EPICON procedure. It can also be executed from the operator console or from JCL. When you execute TSIDON from a procedure, the procedure must be cataloged with DATA=YES.

Processing Note

We recommend that you execute TSIDON immediately after starting the first partition during an IPL, and before you activate any other partition. Execute TSIDON before activating most other software. For the exceptions, see Compatibility with Other Software (see page 37).

Executing from the Console

If you are executing TSIDON from the operator console, CA EPIC for z/VSE issues console messages to request control statements. Enter the enter configuration options. You do not have to type OPTION in front of the configuration options (for example, ACCEPT=NO). You can enter as many options as you wish, separating the options with commas. When you are finished, press ENTER.

Configuration options remain in effect only as long as CA EPIC for z/VSE remains active. We recommend that you submit configuration options from the EPICON procedure (not from the operator console) to ensure a standard configuration every time CA EPIC for z/VSE is activated.

Note: For more information, see the OPTION (see page 127) control statement and Configuration Option Descriptions (see page 131).

JCL Requirements

```
// EXEC TSIDON
OPTION control statements

/*
```

Dataset Requirements

IJSYSDS defines the DSN Catalog. You can use a different DTF name if you specify it in the DSNAME configuration option. It can be defined with standard assignments and labels.

Control Statements

TSIDON control statements are required.

OPTION control statements are used to define CA EPIC for z/VSE configuration options. Parameters for these statements can be specified in any order.

You can specify multiple parameters on any control statement. Separate parameters from each other with a comma. Only columns 1 through 72 are valid. Parameters beginning in column 73 and beyond are ignored.

Control statements cannot be continued. However, you can use as many statements as you need.

To specify a comment, begin the statement with "/*" in column 2 or beyond. End the statement with "*/".

OPTION Control Statement

OPTION control statements are used to supply CA EPIC for z/VSE configuration options. OPTION statements begin with the word OPTION, followed by a space and one or more option expressions. One OPTION statement can define multiple options, but OPTION statements cannot be continued. For a full description of each configuration option, see the next section.

Syntax

```
OPTION option=value[,option=value...]
```

Parameters

In the following table, Scope indicates whether the option applies to Tape only, to Disk only, or to the System as a whole. CA EPIC for z/VSE uses the default when no value is supplied using an OPTION statement.

option	**Scope**	***value***	**Default**
ACCEPT	Tape	YES or NO	YES
ACLAUTI	Tape	YES or NO	NO
ACLIBM	Tape	YES or NO	NO
ACLLIB	Tape	VSE Library & Sublibrary for use by CA EPIC for z/VSE Dispatcher when processing ACL-related scratch, retain, and eject requests.	None
ACLMEM	Tape	YES or NO	NO
ACLRECS	Tape	Number of records written to VSE ACL Inventory Management Library before sending to CA EPIC for z/VSE Dispatcher for ACL processing.	100
ACLSTK	Tape	YES or NO	NO
ACLSRVR	Tape	CMS server ID for IBM, Memorex, or STK ACL	None
ACLTIME	Tape	Number of seconds since last record was written to VSE ACL Inventory Management Library before sending to CA EPIC for z/VSE Dispatcher for ACL processing.	180
ALLMALL	Disk	YES or NO	NO
ALLMSG	Disk	YES or NO	YES
ALTMSGS	System	YES or NO	NO
AUTOATT	Tape	YES or NO	NO
AUTOCAT	System (tape,disk)	YES or NO or *sysparm* YES or NO or *sysparm*	(NO,NO)
AUTOLOG	Tape	YES or NO or *sysparm*	NO
AUTOSTP	Tape	YES or NO	NO

option	Scope	*value*	Default
AUTSTPN	Tape	1 to 999	5
AUTSTPNO	Tape	1 to 999	AUTSTPN value
AUTSTPT	Tape	1 to 999	10
AUTSTPTO	Tape	1 to 999	AUTSTPT value
BYPEXT	Disk	YES or NO	NO
CANMSG	System	YES or NO	NO
CATRT1	Disk	YES or NO	NO
CKDFACT	Disk	any number	30
CMSTAPE	System	YES or NO	NO
CNTRL	Tape	YES or NO or CANCEL	NO
CPUID[S]	System	A-Z, 0-9	Last digit of CPU serial number
CWDSPOL	Disk	6 characters	None
CYCL	System	1 to 999	3
DDERR	System	CANCEL|IGNORE|OPCORR	IGNORE
DDGEN	System	YES or NO	NO
DEBUG	System	YES or NO	NO
DEFEXT	Disk	1-999999	None
DEFPOL	Disk	6 characters	None
DEFTPL	Tape	NO or 1 byte pool ID	NO
DEFWPOL	Disk	6 characters	DEFPOL value
DISKALL	Disk	YES or NO	YES
DSKLUB	Disk	YES or NO or 1-255	YES (100)
DSKRET	Disk	1 to 999	7
DSNAME	System	1 to 7 characters	IJSYSDS
DSNWARN	System	1 to 999	200
DSNWMSG	System	1 to 999	10
EPICOFF	System	2 characters	None
ERDFILE	Tape	1 to 7 characters	None

option	Scope	*value*	Default
EURODAT	System	YES or NO	NO
FBAFACT	Disk	0 to 999	0 (zero)
FRAG	Disk	YES or NO	NO
GDI	System	YES or NO	YES
GDIUR	System	YES or NO	YES
JCLAC	System	YES or NO	YES
JCLLANG	System	YES or NO	YES
JCLOPT	Tape	YES or NO	NO
JCLOVRDE	System	YES or NO	NO
JOBACCT	System	YES or NO	YES
JQNAME	System	1 to 7 characters	None
JQWARN	System	1 to 999	None
JQWMSG	System	1 to 999	None
MINDEX	System	YES or NO	NO
MINRET	Disk	0 to 999	0 (zero)
MODE	Tape	Valid density code	D0
MSG088	Tape	YES or NO	NO
MULTCPU	System	YES or NO	NO
NCATDSK	Disk	YES or NO	NO
NOGVIS	System	CANCEL or IGNORE	CANCEL
ONLREWCD	System	RUN or REW	RUN
PASSWD	System	1 to 8 characters	None
PREFIX	System	2 characters	EP
PURBYP	Disk	YES or NO	NO
RECORD	System	YES or NO	YES
RECSHR	System	YES or NO	NO
RERUN	Tape	YES or NO	YES
RETEN	System	1 to 999	7
RMNTPRT	Tape	YES or NO	NO
SHARE	Tape	YES or NO	NO
SLASIZE	System	1 to 32767	300

option	Scope	*value*	Default
STRTRK	Disk	NO or 1 to 99999	1
TAPCUU	Tape	3 characters	F00
TAPE	Tape	YES or NO	YES
TAPLUB	Tape	YES or NO or 001-255	YES (010)
TAPPOL	Tape	6 characters	None
TSTJOB	System	1 to 8 characters	None
UNCDSK	Disk	YES or NO	NO
UNCTAP	Tape	YES or NO	NO
UNCTL	Tape	YES or NO	NO
UNLABEL	Tape	YES or NO	YES
UNLOAD	Tape	YES or NO	NO
VM	System	YES or NO or SVC no.	NO
VSAM	Disk	YES or NO	NO

Configuration Option Descriptions

ACCEPT

Determines whether ACCEPT is a valid response to EP009 INCORRECT DATASET/VERSION. If ACCEPT=YES, ACCEPT is a valid response to EP009, and CA EPIC for z/VSE will accept the mounted tape regardless of tape contents. Under certain conditions, EPS067 (see page 166) is required for the EP009 message to be issued.

If ACCEPT=NO, ACCEPT is not a valid response, so you must mount the correct tape. ACCEPT=NO is required in order to set EPS032=YES.

Related Special Options: EPS032, EPS040, EPS067

Related Messages: EP009, EP034

ACLAUTI

Determines whether uninitialized tapes that reside in an IBM ACL are automatically initialized during an ACL SYNC operation. If ACLAUTI=YES, any uninitialized tape found in an IBM ACL during an ACL SYNC operation will be initialized with VOL and HDR records and placed into the CA EPIC for z/VSE DSN. The volume serial number is set to the tape's bar code serial number. If tape pools are used, the tape's bar code serial number must be within a pool definition.

If ACLAUTI=NO (the default), tapes are not initialized during an ACL SYNC operation.

When multiple VSE guests use the 3494, each sublibrary name must be unique. For example:

```
VSEPROD1OEM.VSEPROD1

VSEPROD2OEM.VSEPROD2
```

Related Configuration Options: ACLIBM

ACLIBM

Determines whether the IBM ACL Tape Library Dataserver is supported. If ACLIBM=NO (the default), the IBM ACL is not supported.

If ACLIBM=YES, the IBM ACL is supported. MSG088=YES, ACLMEM=NO, and ACLSTK=NO are also required.

Related Configuration Options: ACLAUTI, ACLLIB, ACLMEM, ACLRECS, ACLSTK, ACLSRVR, ACLTIME, ERDFILE, MSG088, VM

ACLLIB

ACLLIB=*lib.sublib* specifies the VSE Library and Sublibrary to be used to manage the cartridge statuses and inventory of ACL units.

For Memorex and STK ACL's, *lib.sublib* can be any valid VSE library and sublibrary.

Naming requirements for IBM ACL's are:

- If the IBM Library Control Device Driver (LCDD) for z/VSE is used as the ACL manager, *sublib* must be the same name as that used in the LUNAME parameter to identify the 3494 in the LCDD configuration.
- If the IBM VSE Guest Server (VGS) is being used as the ACL manager (in a VSE Guest environment), *sublib* can be any name. For consistency and ease of cross-reference, we recommend using the server name specified in the LIBRCMS SRVNAMES member entry for the VSE Guest. This member is on the VGINVHLP A-disk.

In all cases, we recommend that the sublibrary be used for ACL support only.

The sublibrary has members used by the CA EPIC for z/VSE Dispatcher to process ACL-related scratch, retain, eject, add, purge, and other requests made as a result of TSIDMNT, TSIDUTL and TSIDVLT processing against the CA EPIC for z/VSE DSN Catalog.

Related Configuration Options: ACLIBM

ACLMEM

Determines whether the Memorex Automatic Tape Library (ATL) is supported. If NO (the default), ATL is not supported.

If ACLMEM=YES, the Memorex ATL is supported. MSG088=YES, ACLIBM=NO, and ACLSTK=NO are also required.

Related Configuration Options: ACLIBM, ACLLIB, ACLRECS, ACLSTK, ACLSRVR, ACLTIME, ERDFILE, MSG088, VM

ACLRECS

Specifies the number of records written to VSE ACL Inventory Management Library before submission to an ACL for processing. The default is 100. Records are written to the library from executions of TSIDMNT, TSIDVLT and TSIDUTL.

Related Configuration Options: ACLTIME

ACLSRVR

If IBM ACLs are supported using the IBM VSE Guest Server (VGS), ACLSRVR specifies the CMS Logon name of the VGS machine. *If IBM ACLs are being supported using the IBM Library Control Device Driver for z/VSE (LCDD),* do not *use the ACLSRVR option.*

If Memorex ACLs are supported, ACLSRVR specifies the CMS Logon name of the Memorex Library Management Software (LMS) server. CA EPIC for z/VSE uses this name to establish an IUCV connection during activation.

If STK ACLs are supported, ACLSRVR specifies the STK Host Software Component (HSC) server.

Related Configuration Options: ACLIBM, ACLMEM, ACLSTK, ERDFILE, MSG088, VM

ACLSTK

Determines whether the STK ACL is supported. If NO (the default), the STK ACL is not supported.

If ACLSTK=YES, the STK ACL is supported. MSG088=YES, ACLIBM=NO, and ACLMEM=NO are also required.

Related Configuration Options: ACLIBM, ACLLIB, ACLMEM, ACLRECS, ACLSRVR, ACLTIME, ERDFILE, MSG088, VM

ACLTIME

Specifies the number of seconds that can elapse since the last record was written to the VSE ACL Inventory Management Library, before records are submitted to an ACL for processing. The default is 180. Records are written to the library from executions of TSIDMNT, TSIDVLT and TSIDUTL.

Related Configuration Options: ACLRECS

ALLMALL

Determines whether all disk messages are issued for every file.

If ALLMALL=YES,all disk messages are issued.

If ALLMALL=NO (the default), disk messages are not issued. ALLMALL=NO can be overridden for a single disk dataset by using DLBL option 'M' or DD OPTION=ALLMSGS, either of which cause all disk messages for the dataset to be issued for a single job step.

Related Configuration Options: DISKALL

Related Special Options: EPS044

Related Messages: EP039, EP051, EP052, EP053, EP090

ALLMSG

Determines whether the disk allocation message EP039 ALLOCATED is issued for output disk files.

If ALLMSG=YES (the default), EP039 is enabled regardless of any other settings.

If ALLMSG=NO, EP039 is disabled, and EP052 is also disabled unless special option EPS044=YES has been specified. You can override ALLMSG=NO for a specific file by using the DLBL 'M' option or DD OPTION=ALLMSGS.

Related Configuration Options: DISKALL

Related Special Options: EPS044

Related Messages: EP039, EP052

ALTMSGS

Determines whether extended message information is displayed for certain messages when it is available, and the full dataset name (with generation number if applicable).

Related Messages: EP005, EP022, EP029, EP033, EP035, EP039, EP040, EP041, EP045, EP047, EP048, EP051, EP052, EP053, EP059

AUTOATT

Activates the CA EPIC for z/VSE Autoattach feature. AUTOATT=YES should only be specified when Autoattach has been properly installed. Refer to "Autoattach Installation."

Related Configuration Options: VM

AUTOCAT

Determines whether output datasets are automatically cataloged. The CYCL and RETEN options determine what retention criteria are put in the dataset definition.

Specify two values separated by a comma. The first value applies to tape datasets. The second applies to disk.

If AUTOCAT=(YES,YES), all uncataloged datasets are cataloged automatically.

If AUTOCAT=(sysparm,sysparm), only uncataloged datasets processed in a job with sysparm are automatically cataloged.

If AUTOCAT=(NO,NO) (the default), no automatic cataloging is done.

Related Configuration Options: AUTOLOG, BYPEXT, CATRT1, CYCL, NCATDSK, RETEN

Related Special Options: EPS018

AUTOLOG

Parallel to the AUTOCAT function, for input tape datasets. Automatically catalogs input tape datasets. See AUTOCAT for a complete explanation.

Related Configuration Options: AUTOCAT, CYCL

AUTOSTP

AUTOSTP=YES enables the AutoStop feature, which controls periodic Automatic Volume Recognition (AVR) scanning for tapes. Default is NO (AutoStop is inactive).

Related Configuration Options: AUTSTPN, AUTSTPNO, AUTSTPT, AUTSTPTO, ERDFILE, TAPE

Related Special Options: EPS078

AUTSTPN

Determines the number of times the AutoStop feature rescans the tape drives before operator intervention is required when looking for an input tape. The value specified must be a number between 1 and 999. The default is 5. If AUTSTPNO, is not specified, AUTSTPN also applies to output. Valid only with AUTOSTP=YES.

Related Configuration Options: AUTOSTP, AUTSTPNO, AUTSTPT, AUTSTPTO, ERDFILE, TAPE

AUTSTPNO

Determines the number of times the AutoStop feature rescans the tape drives before operator intervention is required when looking for an output tape. The value specified must be a number between 1 and 999. If AUTSTPNO is not specified, it defaults to the AUTSTPN value.

Related Configuration Options: AUTOSTP, AUTSTPN, AUTSTPT, AUTSTPTO, ERDFILE, TAPE

AUTSTPT

Determines the time interval (in seconds) between tape drive scans during AutoStop processing when looking for an input tape. If AUTSTPTO is not specified, AUTSTPT also applies to output tapes. The value specified must be a number between 1 and 999. The default is 10. Valid only with AUTOSTP=YES. If running under VM, be sure REALTIMER has been specified in the VM directory.

Related Configuration Options: AUTOSTP, AUTSTPN, AUTSTPNO, AUTSTPTO, ERDFILE, TAPE

AUTSTPTO

Determines the time interval (in seconds) between tape drive scans during AutoStop processing when looking for an output tape. The value specified must be a number between 1 and 999. If this option is not specified, it defaults to the AUTSTPT value.

Related Configuration Options: AUTOSTP, AUTSTPN, AUTSTPNO, AUTSTPT, ERDFILE, TAPE

BYPEXT

Determines whether CA EPIC for z/VSE bypasses the DSN Catalog if a complete EXTENT statement is specified.

If BYPEXT=YES, CA EPIC for z/VSE bypasses the DSN Catalog search at OPEN when you specify a complete EXTENT for the file. It accesses the DSN Catalog only when there is no EXTENT or when Start Track 1 datasets are used.

If BYPEXT=NO (the default), CA EPIC for z/VSE always accesses the DSN Catalog for disk files.

Related Configuration Options: AUTOCAT, DISKALL

CANMSG

Determines whether EP065 JOB CANCELLED is issued for cancelled jobs. EP065 requires an operator response before EOJ processing can be completed, and ensures that Operations is aware that the job was canceled.

If CANMSG=YES, EP065 is issued.

If CANMSG=NO (the default), EP065 is suppressed.

Related Messages: EP065

CATRT1

Determines whether Start Track 1 datasets are automatically cataloged. CA EPIC for z/VSE does not issue EP023 for datasets cataloged in this manner.

If CATRT1=YES, Start Track 1 datasets are autocataloged. The dataset is defined as WRK=YES. In addition, it specifies CYCL=0, unless you set EPS059 to YES which changes it to CYCL=1. It also specifies RET=0, unless you set EPS062 to YES which changes it to the value specified on the RETEN configuration option.

If you set CATRT1=YES, NCATDSK must be set to NO.

If CATRT1=NO (the default), Start Track 1 datasets are not automatically cataloged.

Related Configuration Options: DISKALL, NCATDSK, RETEN

Related Special Options: EPS059, EPS062

Related Messages: EP023

CKDFACT

Calculates the actual size of the space allocation when:

The dataset is labeled with DD statements

The space request is in cylinders

The pool uses FBA devices

CKDFACT converts the number of cylinders to tracks before using the value specified in FBAFACT to convert the allocation to FBA blocks.

Related Configuration Options: FBAFACT

CMSTAPE

Indicates whether the DSN Catalog is shared with an CA EPIC for CMS system.

Set CMSTAPE= YES if the DSN Catalog is shared. See "Multi-CPU Environments" in Chapter 2 for catalog sharing requirements.

If CMSTAPE=NO, the DSN Catalog can be shared with other VSE machines only.

CNTRL

Determines how CA EPIC for z/VSE responds to uncontrolled tape datasets.

If CNTRL=YES, CA EPIC for z/VSE issues the EP022 message to notify the operator that an uncontrolled tape file is being accessed.

If CNTRL=NO (the default), CA EPIC for z/VSE does not issue the EP022 message, and the dataset is processed as usual.

If CNTRL=CANCEL, CA EPIC for z/VSE issues the EP022 message and cancels the job.

Related Messages: EP022

CPUIDS

Specifies the one-character CPU ID code to be used for the common workfile and CPU independence features. If you don't specify anything, CA EPIC for z/VSE uses the last digit of the CPU serial number as the CPU ID.

Ensure that CA EPIC for z/VSE machines which share the DSN Catalog have different CPU IDs.

CA EPIC for z/VSE supports multiple forms of the CPUIDS configuration option. The possible options are:

`CPUID=`*x*

`CPUIDS=`*x*

`CPUIDS=(`*nnnnnn*`,`*x*`,`*nnnnnn*`,`*x*`,`*nnnnnn*`,`*x* `...)`

where *nnnnnn* is a real CPU ID and *x* is a CPU ID code.

CWDSPOL

Identifies the default disk pool to be used for Common Workfile datasets. When specified, this disk pool is used instead of the disk pool associated with the CA EPIC for z/VSE dataset definition (EDD). If there is insufficient space in the CWDSPOL disk pool, or if the pool packs are not found, the EDD disk pool is used.

CYCL

Determines the value of the CYC parameter for autocataloged datasets. Valid only if AUTOCAT or AUTOLOG is turned on.

Related Configuration Options: AUTOCAT, AUTOLOG

DDERR

Determines how CA EPIC for z/VSE handles errors that it detects on CA EPIC for z/VSE DD statements. DDERR can take one of the following three values:

When DDERR=...	CA EPIC for z/VSE...
CANCEL	Cancels the job if any error is found on a DD statement.
IGNORE	Ignores any unrecognized parameters and subparameters. No message is issued, and CA EPIC for z/VSE processes all parameters that it recognizes. IGNORE provides maximum compatibility with MVS DD statements. Its disadvantage is that misspelled parameters are ignored.
OPCORR	Issues a message identifying any errors and allows the operator to enter a correction.

Note: If the VSE option JCANCEL is in effect, IGNORE and OPCORR are overridden, so that the job is cancelled as if DDERR=CANCEL.

Related Configuration Options: JCANCEL (VSE)

DDGEN

Determines how a dataset autocataloged using CA EPIC for z/VSE DD statements can be defined as a generation dataset (WRK=NO).

If DDGEN=NO:

- Tape is autocataloged as generation
- Disk is autocataloged as non-generation (work datasets) unless the DOS DD parameter LABEL=RETPD is specified. In this case, the dataset is autocataloged as generation.

If DDGEN=YES:

- Tape is autocataloged as generation only when a plus (+) sign is found in the dataset name. Otherwise, tape is autocataloged as work.
- Disk is autocataloged as generation only when a plus (+) sign is found in the dataset name. Otherwise, disk is autocataloged as work.

Examples

In the following example, if DDGEN=NO, DISK.FILE is autocataloged as a work (non-generation) file. If DDGEN=YES, DISK.FILE is autocataloged as a generation file.

```
* //DISKOUT DD DSN='DISK.FILE(+1)'

* //           DISP=(NEW,CATLG),

* //           UNIT=DISK
```

In the following example, if DDGEN=NO, TAPE.FILE is autocataloged as a generation file. If DDGEN=YES, TAPE.FILE is autocataloged as a work file.

```
* //TAPEOUT DD DSN='TAPE.FILE'
* //           DISP=(NEW,CATLG),

* //           UNIT=TAPE
```

DDGEN also affects the DISP DD parameter. See the DDGEN deletion table in Chapter 6 of the CA EPIC for z/VSE *User Guide*.

DEBUG

Determines whether CA EPIC for z/VSE produces a dump when a job is cancelled or when the operator responds CANCEL to a CA EPIC for z/VSE message.

Related Messages: EP065, EP094

DEFEXT

Specifies a default primary extent size for CA EPIC for z/VSE-controlled disk datasets under the following conditions:

If there is no extent size indicated on the label for new datasets to be automatically cataloged

If there is no primary size specified in the definition for datasets already in the catalog. CA EPIC for z/VSE updates the dataset definition with size at output. Functions in concert with DEFPOL.

Related Configuration Options: AUTOCAT, DEFPOL

DEFPOL

Specifies a default disk pool. Functions in concert with DEFEXT.

Related Configuration Options: AUTOCAT, DEFEXT, DEFWPOL

DEFTPL

Defines a 1 digit tape pool ID to be used as a global default for those datasets that lack a catalog 'TPL=' specification. If DEFTPL= is omitted or coded as 'NO', there is no default tape pool.

DEFWPOL

Defines a default disk pool to be used for WRK=YES datasets and Start Track 1 datasets. Generation datasets use the default pool specified by the DEFPOL option. If DEFWPOL is not specified, it defaults to the pool specified by the DEFPOL option.

Related Configuration Options: AUTOCAT, DEFPOL

DISKALL

Determines whether CA EPIC for z/VSE controls disk datasets. Must be NO if only CA EPIC for z/VSE tape management is desired.

Related Configuration Options: TAPE

DSKLUB

Determines how LUB allocation is handled for disk.

If DSKLUB=YES (the default), CA EPIC for z/VSE assigns SYS numbers beginning at SYS100.

If DSKLUB=n, CA EPIC for z/VSE assigns SYS numbers beginning with n. Choose a number that cannot be reassigned by user JCL.

Specify DSKLUB=NO only if DISKALL=NO.

Related Configuration Options: DISKALL

DSKRET

Specifies a default retention period for Start Track 1 datasets. If DSKRET is not used, their default retention period is seven (7) days.

Related Special Options: EPS060

DSNAME

Specifies the DTF name for the DSN Catalog.

DSNWARN

Specifies when to issue EP402 n FREE RECORDS REMAINING. CA EPIC for z/VSE issues the EP402 message when there are n free records left in the DSN Catalog.

Related Configuration Options: DSNWMSG

Related Messages: EP402

DSNWMSG

Determines the interval for reissuing EP402 n FREE RECORDS REMAINING after the DSNWARN value is reached. EP402 is reissued each time the number of remaining free records decreases by n. For example, if DSNWARN=200 and DSNWMSG=10, EP402 is issued at 200 free records, 190 free records, 180 free records, and so on.

Related Configuration Options: DSNWARN

Related Messages: EP402

EPICOFF

Prevents CA EPIC for z/VSE from becoming active in a static partition. Supply the ID of the partition you want to exclude. For example, to exclude the BG partition, specify EPICOFF=BG.

CA EPIC for z/VSE cannot be deactivated for z/VSE dynamic partitions during system initiation. You must execute TSIDDEB with an OPTION EPICOFF statement to deactivate CA EPIC for z/VSE in dynamic partitions, either in the partition initiation procedure or as a separate step in the job.

ERDFILE

Specifies the 1 to 7-character name of the CA EPIC for z/VSE Resource Dataset (ERD).

An ERD is required to share tape devices (including ACLs) among multiple VSE machines (physical or virtual).

Related Configuration Options: ACLMEM, ACLSRVR, AUTOSTP, AUTSTPxx, MSG088, SHARE, VM

EURODAT

Enables European date format (dd/mm/yy) for display and reporting.

If EURODAT=NO (the default), U.S. date format (mm/dd/yy) is used.

FBAFACT

Determines how CA EPIC for z/VSE handles allocations to an FBA device when the allocation size is specified on a DD statement SPACE parameter.

If FBAFACT=0, CA EPIC for z/VSE uses the allocation size as it is specified.

If FBAFACT>0, CA EPIC for z/VSE converts the number specified in tracks or cylinders to an equivalent number of FBA blocks. It multiplies the allocation size on the SPACE parameter by n. For example, if you specify SPACE=(TRK,10) and FBAFACT=90, CA EPIC for z/VSE allocates 900 FBA blocks.

Related Configuration Options: CKDFACT

FRAG

Determines whether extent fragmentation can be done automatically.

If FRAG=NO, you must explicitly allow fragmentation with a label option or by answering FRAG to the insufficient space message.

Related Options: DLBL 'H', DD SPACE parameter (CONTIG subparameter)

GDI

Determines whether generic device independence is allowed. Must be YES to use the TSIDSRT sort interface (TSIDDTD).

Related Programs: TSIDSRT

GDIUR

Determines whether generic device independence is allowed for unit record devices.

Related Messages: EPS069

JCLAC

Determines if DD statements with DISP=(NEW,CATLG) are autocatalogued. If YES (the default) any dataset with a DISP=(NEW,CATLG) is autocatalogued. If NO, any dataset with DISP=(NEW,CATLG) is treated as if the DISP parameter was (NEW,KEEP).

JCLLANG

JCLLANG=YES (the default) activates CA EPIC for z/VSE's Job Management Control Language (JMCL).

JCLOPT

Determines whether alphabetic TLBL options are allowed and whether EP033 ACCESSING and EP047 CATALOG COMPLETE can be issued.

Related Special Options: EPS026, EPS042

Related Messages: EP033, EP047

JCLOVRDE

Updates an existing DSN Catalog entry for datasets defined with DD statements or with System Manager JCL, if DISP=(x,CATLG) is specified. EPM32 UPDATED CATALOG is issued when the update occurs.

Related Messages: EPM32

JOBACCT

Activates job accounting. Job accounting information is logged in the Recorder File.

If JOBACCT=YES (the default), you must set JA=YES in the IPL SYS statement.

JOBACCT should be set to YES unless you are otherwise instructed by CA EPIC for z/VSE Technical Support.

Related Configuration Options: RECORD

Related Programs: TSIDARP, TSIDBRP, TSIDJAC, TSIDJLD, TSIDTAC

JQNAME

Specifies the one to seven-character DTF name for the separate JOBQ File. Use this option only when using a separate JOBQ File. If this option is not used, the JOBQ records are placed in the DSN Catalog.

Related Messages: EP442

JQWARN

Specifies when to issue EP402 n FREE RECORDS REMAINING. CA EPIC for z/VSE issues the EP402 message when the number of free records left in the separate JOBQ File matches this number. Use this option only when using a separate JOBQ File. There is no default.

Related Messages: EP402

JQWMSG

Determines the interval at which the EP402 message is reissued after the JQWARN value is reached. The message is issued each time the number of free records in the JOBQ file is decreased by the number you set. Use this option only when using a separate JOBQ file. There is no default for this option.

Related Messages: EP402

MINDEX

Requests creation and use of master index for DSN Catalog.

MINDEX=YES indicates master index is used.

MINDEX=NO (the default) indicates that no master index is used.

Related Programs: TSIDCDK

MINRET

Defines the minimum retention period (in days) for Start Track 1 datasets. If the retention period specified on the label statement is less than the value specified here, the retention period is forced to this value.

MODE

MODE defines the default tape density to be used unless specifically specified in the DSN Catalog entry or on an ASSGN statement override.

Related Special Options: EPS073, EPS075, EPS078

MSG088

Determines whether EP088 DISMOUNT CARTRIDGE is issued. If MSG088=NO (the default), this message is not issued.

If MSG088=YES, EP088 is issued each time a tape volume is dismounted from a cartridge device. The CA EPIC for z/VSE Resource Dataset (ERD) is updated at dismount time. MSG088=YES is required if ACLIBM=YES or ACLMEM=YES are specified.

Related Configuration Options: ACLIBM, ACLMEM, ACLSRVR, ERDFILE, VM

Related Messages: EP088

MULTCPU

Specifies whether the DSN Catalog is shared between multiple CPUs. *If you are sharing your DSN Catalog, MULTCPU must be set to YES.*

If MULTCPU=YES, see Sharing the DSN Catalog (see page 91) for more information on DSN Catalog sharing requirements.

Related Special Options: EPS076

NCATDSK

Specifies whether the DSN Catalog is searched when processing Start Track 1 datasets.

If NCATDSK=YES, the DSN Catalog is not searched if the starting track is 1. The file is allocated using the information on the EXTENT statement alone. YES is valid only if CATRT1 and the disk parameter of AUTOCAT are both set to NO.

If NCATDSK=NO (the default), CA EPIC for z/VSE searches the catalog. If there is an existing dataset definition, that definition is used to allocate the dataset. If no definition exists, the dataset is allocated using the information from the EXTENT statement.

Related Configuration Options: AUTOCAT, CATRT1

NOGVIS

Determines how CA EPIC for z/VSE responds to insufficient partition GETVIS during an open. It does not affect insufficient GETVIS for reblocking, generic device independence, or data encryption.

If NOGVIS=CANCEL (the default), CA EPIC for z/VSE cancels the job.

If NOGVIS=IGNORE, CA EPIC for z/VSE ignores all processing in the partition. It does not control or provide protection for any dataset opened.

ONLREWCD

Specifies the rewind code used when closing the offload tape after the file is reloaded for use by a job. The default is RUN (unload) and can be changed to REW by the user.

PASSWD

Determines whether password protection is invoked for DSN Catalog management. To invoke password protection, specify PASSWD=*password*.

PREFIX

Specifies the first two characters for CA EPIC for z/VSE error messages.

PURBYP

Determines how disk files flagged for purge are handled if the job cancels.

If PURBYP=YES, the files are retained (the purge is bypassed).

If PURBYP=NO (the default), the files are purged.

RECORD

Specifies whether you want the Recorder to log all DSN Catalog activity. RECORD does not turn on the Recorder.

Important! RECORD should always be set to YES. The Recorder logs information about your DSN Catalog which is essential for full recovery in an emergency.

Related Configuration Options: JOBACCT, RECSHR

Related Programs: Job Accounting

RECSHR

Specifies whether the Recorder File is shared between VSE machines.

RERUN

Determines whether RERUN is a valid response to the EP001 MOUNT message.

Related Messages: EP001, EP067

RETEN

Specifies retention period (in days) to be used for autocataloged datasets.

Related Configuration Options: AUTOCAT

RMNTPRT

Enables you to print dataset labels for tape datasets at open.
For VSE/SP1 and below, YES requires XECB support.

SHARE

Allows tape drives to be shared among physical VSE machines.

Related Configuration Options: ERDFILE

Related Special Options: EPS008, EPS074

Important! If you are sharing tape drives among physical CPUs, SHARE must be set to YES.

SLASIZE

Specifies the total number of labels for all static partitions combined. Label entries reside in the Label Interface Table, which is allocated in system GETVIS (31-bit GETVIS if available). Default is 300. An active label exists for each CA EPIC for z/VSE-controlled dataset opened by a program that is still running. One table entry is required for every label. Each entry requires 227 bytes.

For each dynamic partition, there is a limitation of 256 labels which cannot be enlarged.

STRTRK

If you specify a number, this option determines what starting track or block address on an EXTENT statement defines a Start Track 1 dataset. This value must be a number greater than 0. If STRTRK=NO, this option prohibits the use of Start Track 1 datasets, including controlled uncataloged disk files defined by DD statements.

Related Programs: Offload

TAPCUU

Indicates the address of your dummy tape device. See "Adding a Dummy Tape Device and Modifying Tape Modes" for more information about the dummy tape device.

TAPE

Determines whether CA EPIC for z/VSE controls tape datasets. Must be NO if only CA EPIC for z/VSE disk management is desired.

Related Configuration Options: DISKALL.

TAPLUB

Determines how LUB allocation is handled for tape files.

If TAPLUB=YES (the default), LUB allocation is activated and CA EPIC for z/VSE assigns SYS numbers beginning at SYS010.

If TAPLUB=NO, LUB allocation is inhibited. TAPLUB=NO is required in order to set EPS032=YES.

If TAPLUB=*number*, LUB allocation is activated and CA EPIC for z/VSE assigns SYS numbers beginning with *number*, which can be from 001 to 255.

Related Special Options: EPS032

TAPPOL

Specifies which tape pool group to activate when starting CA EPIC for z/VSE. Required for tape pooling. You must define at least one tape pool group and assemble the TSIDPOL macro before activating CA EPIC for z/VSE with the TAPPOL option.

Note: For more information, see Creating Tape Pool Statements (see page 70). *Do not specify TAPPOL if you are not using tape pools.*

TSTJOB

Defines the job name that activates the Testjob feature.

You can use wildcard characters(*) and (?) to define the TESTJOB name. A question mark (?) specifies that any character in that position is a valid character. An asterisk (*) specifies that all characters in that position and following are valid.

For example, if you specify TSTJOB=A*, all job names beginning with A activate the TESTJOB feature. If you specify TSTJOB=A?AAAA, the job names ABAAAA, ACAAAA, and AXAAAA activate the TESTJOB feature. If you specify TSTJOB=A?A*, the job names ADAAJA, AFA, and AZAWS activate the TESTJOB feature.

UNCDSK

Determines whether LUB allocation, AVR, and device independence is invoked for uncontrolled disk files.

UNCTAP

Determines whether tape drives are released at close for uncontrolled tape files and if TLBL options codes are honored for uncontrolled files. This includes both early drive release and Autoattach's DETACH. UNCTAP=YES is required to honor TLBL option codes for uncontrolled files.

Alternate ASSGN statements or the TLBL option 8 bypasses this feature (override UNCTAP=YES).

Related Configuration Options: AUTOATT

Related Special Options: EPS063, EPS081

UNCTL

Specifies whether controlled scratch tapes can be used to write uncontrolled files.

If UNCTL=YES and a controlled tape is used for an uncontrolled file, CA EPIC for z/VSE purges its volume serial number from the DSN Catalog.

UNLABEL

UNLABEL=YES (the default) permits writing unlabeled tapes and ASCII tapes on CA EPIC for z/VSE-controlled standard label tapes.

If UNLABEL=NO, unlabeled and ASCII output is not allowed on CA EPIC for z/VSE-controlled standard label tapes. In addition, EPS064 has no effect.

Related Special Options: EPS058, EPS064

Related Messages: EP004

UNLOAD

Specifies default positioning for tape close.

UNLOAD=YES causes tapes to be unloaded at close automatically, unless there is already a TLBL option code 1 (rewind), 2 (unload) or 3 (no rewind) in effect. UNLOAD=YES overrides any explicit or default rewind options specified in the DTF.

UNLOAD=NO (the default) causes CA EPIC for z/VSE to honor any rewind options specified in the DTF unless they are specifically overridden by a TLBL option code.

VM

Activates VM support. Phase TSIDVMS must be loaded in the SVA.

VM support is required for Autoattach and JMCL CP command processing.

VM support is also recommended for VSE guest machines running under VM even if autoattach is not being used. In this type of environment, VM support causes CA EPIC for z/VSE to limit AVR scans to tape drives already attached to the VSE guest. Without VM support, tape drives defined to the VSE guest but not attached to a real device must be "deviced down" to prevent CA EPIC for z/VSE access during AVR scans. Failure to do so results in the VSE error OP31A DVC NOT OP on any VSE tape drive not attached to a real device.

YES activates VM support with a supervisor call of 111.

n activates VM support with a supervisor call of your choice. Use this option if SVC 111 is already being used for another call. Specify a free SVC number for n.

Note: If the SVC number activated is already in use, CA EPIC for z/VSE issues an error message. It does not overlay existing SVC code. If this occurs, choose a new SVC number with the n option.

NO deactivates VM support.

Related Configuration Options: ACLMEM, ACLSRVR, AUTOATT, ERDFILE, MSG088

VSAM

Determines whether VSAM file activity is reported in the DSN Catalog. Information is captured at file close.

Note: VSAM=YES is not supported for VSE releases above z/VSE r4.2.

Special Options

CA EPIC for z/VSE provides special configuration options to meet a wide range of special user requirements. Review each special option to determine whether it is needed at your site.

Special options can be used to implement the following types of features:

- Special CA EPIC for z/VSE Functions
- IBM Product Interfaces
- Non-IBM Product Interfaces
- Conversions

Submitting Special Options

Special configuration options are submitted on OPTION control statements to TSIDON or TSIDDEB, just like regular configuration options.

Format

Parameter	Required?	Values	Default
EPS*nnn*	No	YES or NO	NO

Example

```
// EXEC TSIDON
OPTION EPS002=YES,EPS003=YES
OPTION EPS005=YES
/*
```

Supported Uses

Special configuration options support the following operational categories:

- **Disk Management**

  EPS009

  EPS010

  EPS011

  EPS021

  EPS023

  EPS024

  EPS025

  EPS041

  EPS044

  EPS065

  EPS069

- **Start Track 1 Datasets**

  EPS059

  EPS060

  EPS062

- **Tape Management**

  EPS008

  EPS012

  EPS014

  EPS015

  EPS019

  EPS020

  EPS027

  EPS028

  EPS032

  EPS033

  EPS035

  EPS040

  EPS042

  EPS043

  EPS045

  EPS058

  EPS063

  EPS064

  EPS067

  EPS071

  EPS073

  EPS074

  EPS075

  EPS078

  EPS104

  EPS105

  EPS106

  EPS107

  EPS108

- **JCL, DD Statements and JMCL**

  EPS005

  EPS017

  EPS018

  EPS022

  EPS026

  EPS036

  EPS059

  EPS062

- **LUB Allocation**

  EPS001

  EPS002

  EPS003

  EPS004

  EPS030

  EPS031

  EPS039

  EPS057

  EPS061

  EPS068

- **Non-IBM Product Interfaces**

  EPS006

  EPS007

  EPS029

  EPS072

Conversions

- **CA DYNAM®**

  EPS046

  EPS047

  EPS055

- **CA Super-EPAT®**

  EPS048

  EPS055

- **CA System/Manager®**

  EPS049

  EPS051

  EPS052

  EPS053

  EPS054

  EPS059

  EPS062

  EPS077

- **IBM Tape**

  EPS066

Special Option Descriptions

The following are the various special option descriptions.

EPS001

Permits LUB allocation for the DTF names UIN and UOUT.

EPS002

Permits LUB allocation for SORTWK DTF names.

EPS003

Permits LUB allocation for SORTIN or SORTOUT DTF names.

EPS004

Permits LUB allocation for non-standard SORTIN DTF names processed through TSIDSRT.

Related Program: TSIDSRT

EPS005

Prevents CA EPIC for z/VSE from honoring an ASSGN IGNORE for the SYS number used by the DTF or EXTENT statement unless LUB allocation is also inhibited.

EPS006

Activate for compatibility with PSAM from Universal Software.

EPS007

Allows use of physical backup utilities to back up Start Track 1 datasets. EPS007=YES bypasses the check for USRLABL=YES in the DTF and resolves VSE messages 4359I INVALID EXTENT and 4342D NO MATCHING EXTENT when backing up Start Track 1 datasets. EPS007=YES is not required for backing up cataloged files. Products known to require EPS007=YES include Westinghouse DUSP, Doctor D, and Blueline MAXBACK.

EPS008

If SHARE=NO, EPS008=YES allows use of tapes in open status by the job name that opened the tape.

Related Configuration Options: SHARE

Related Special Options: EPS074

EPS009

EPS009=YES suppresses allocation of an EOF extent when the DLBL 'N' option is specified.

EPS010

Bypasses normal ISAM and DA checks for FBA devices. EPS010=YES suppresses EP070 DTF TYPE NOT SUPPORTED ON FBA when DTFIS or DTFDA is opened on an FBA disk device. When EPS010=YES, CA EPIC for z/VSE allocates a direct access or ISAM file on an FBA device, even though VSE LIOCS does not support it. EPS010=YES can be required for some software products using PIOCS, including ADR's DATA-REPORTER.

Related Messages: EP070

EPS011

Searches every pool volume to delete any equal file IDs for cataloged non-generation files on output. This is the same process CA EPIC for z/VSE uses for Start Track 1 datasets.

EPS011=YES can be necessary to prevent duplicate VTOC entries if you share your DSN Catalog between machines, but your pool volumes are not defined as shared to all the VSE machines with access to that DSN Catalog. This situation is encountered with some CA DYNAM conversions.

Important! EPS011=YES significantly increases CA EPIC for z/VSE overhead. As a more desirable alternative to EPS011, we recommend that you define all CA EPIC for z/VSE pool volumes as shared to all VSE machines accessing the same DSN Catalog.

EPS012

Allows tapes to be scratched at close (both output and input) when you specify TLBL option 4.

EPS014

When set to YES, EPS014 prevents tapes initialized by DITTO from being used as scratch tapes.

Related Special Options: EPS033 (mutually exclusive)

Related Messages: EP096

EPS015

EPS015=YES honors the rewind options on TLBL and DD statements for all multi-volume tapes, both input and output, and prevents VSE from automatically unloading multi-volume tapes at EOV.

EPS017

Causes the dataset name to default to the DTF name if no dataset name is specified. The normal default is blanks.

EPS018

Reverses the way AUTOCAT=*sysparm* works. Normally, a dataset is cataloged when the VSE SYSPARM matches the AUTOCAT value. With this option, the dataset is cataloged when the VSE SYSPARM does not match the AUTOCAT *sysparm*.

Related Configuration Options: AUTOCAT

EPS019

Prevents tapes in open or conditional catalog status from being used as scratch tapes.

EPS020

EPS020 determines which field takes priority when a TLBL contains both a dataset name and a volume serial number.

When EPS020=YES, the dataset name is ignored and the volume serial number is used to determine whether a dataset is controlled or uncontrolled.

When EPS020=NO (the default), the dataset name is used to determine if a dataset is controlled or uncontrolled. If the dataset is controlled, the volume serial number must be a valid version of that dataset, or the job is cancelled.

EPS021

Bypasses issuing of EP081 INVALID EXTENT when a requested extent is not found in the VTOC. It forces EOF if the next extent sequence is not found in the VTOC, even though it is shown in the DSN Catalog.

Related Messages: EP081

EPS022

Bypasses issuing of EP077 REBLOCK INVALID FOR UNBLOCKED DTF when CA EPIC for z/VSE is not able to reblock the DTF. User programs can subsequently cancel with a wrong length record error.

Use EPS022=YES only if EP077 is issued and cannot be circumvented.

Related Messages: EP077

EPS023

- Permits reusing the same extent when the current extent has been truncated. This is valid for a TYPEFLE=WORK DTF and a DLBL 'S' option.
- Bypasses the truncation check when accessing a sequential file as direct access. This option circumvents the EP046 FILE NOT FOUND message which is normally issued. When accessing files with a DA label, EP046 occurs if the file was written with an SD DTF and truncated at close. The proper solution is to inhibit truncation at close.

  Related Messages: EP046

EPS024

Bypasses forced deblocking when CISIZE is specified.

EPS025

Bypasses checking and recalculation of CISIZE. Some programs perform logical opens but do their own deblocking (similar to PIOCS).

EPS026

EPS026=YES replaces a single ampersand (&) found in the dataset name on a TLBL with the CPUID. You must also specify JCLOPT=YES. The proper solution is to code a single equal sign (=).

Related Configuration Options: JCLOPT

EPS027

EPS027=YES disables revolving tape control. This option bypasses EP085 REVOLVING TAPE INVALID and allow non-revolving tapes to used for revolving datasets.

Related Messages: EP085

EPS028

EPS028=YES allows you to use single-digit owner IDs.

EPS029

Activates compatibility with CA's ALERT product. EPS029=YES leaves the dataset name in tape labels instead of clearing it to blanks. This allows ALERT to perform its security check on the dataset. However, VSE issues the 4132D ERROR IN FILE-ID message every time you process tape datasets that have been renamed or that were originally created under CA-Super-EPAT.

EPS031

Provides GDIUR support for CICS 1.7 pre-processor programs. Set EPS031=YES only if the first record output to a GDIUR file by a CICS 1.7 pre-processor program contains binary zeros.

Related Configuration Options: GDIUR

EPS032

Performs an AVR scan even if the ASSGN statement is specified. This prevents the issuing of EP009 WRONG DATASET/VERSION if an ineligible tape was mounted on the assigned drive. ACCEPT=NO and TAPLUB=NO must also be specified.

Related Configuration Options: ACCEPT, TAPLUB

Related Messages: EP009

EPS033

Allows only tapes with volume serial numbers entered in the DSN Catalog to be used as scratch tapes. The tape does not have to contain an CA EPIC for z/VSE VOL1 label. If the tape volser is entered in the DSN Catalog but the tape does not yet have an CA EPIC for z/VSE label, CA EPIC for z/VSE allows it to be used for uncontrolled output. This option also prevents issuing of EP003 VERIFY SERIAL NUMBER. Normally, CA EPIC for z/VSE accepts any CA EPIC for z/VSE or DITTO-initialized tape and adds unknown volume serial numbers to the DSN Catalog.

Related Special Options: EPS014 (mutually exclusive)

Related Messages: EP003, EP004, EP096

EPS035

Emphasizes the EP001 and EP002 mount messages. EPS035=YES rings the console bell and sets non-deletable flags when these messages are issued after an unsuccessful AVR scan. *Not supported on ESA 2 and above.*

Related Messages: EP001, EP002

EPS036

Displays JMCL and CP statements on the console and/or SYSLST (depending on OPTION LOG settings). These statements are normally suppressed.

EPS039

Bypasses * CP commands after a cancellation. The * CP commands must appear in the job stream before the /&.

Related Configuration Options: VM

EPS040

Does not search the catalog for the tape volser after you respond ACCEPT to EP009 INCORRECT DATASET/VERSION if the tape does not have CA EPIC for z/VSE VOL1/HDR1 labels.

Related Configuration Options: ACCEPT

Related Messages: EP009

EPS041

EPS041=YES changes CA EPIC for z/VSE calculations to correctly determine the high extent address on minidisks that do not occupy a full volume and are in an CA EPIC for z/VSE pool. Normally, the default number of alternate cylinders is subtracted from the total number of cylinders when calculating the size of the disk volume. However, on a minidisk that does not occupy a full volume, this can cause the calculated extent address to be lower than the actual usable high extent number. EPS041=YES causes CA EPIC for z/VSE to use the actual number of alternate tracks remaining.

EPS042

Enables the EP033 ACCESSING and EP047 CATALOG COMPLETE messages even though the JCLOPT configuration option is set to NO. Use this option when you have tape dataset names containing commas (which forces you to code JCLOPT=NO) but you still want these messages issued.

Related Configuration Options: JCLOPT

Related Messages: EP033, EP047

EPS043

EPS043=YES enables the EP005 LABEL message for work tapes.

Related Messages: EP005

EPS044

Enables issuing of message EP052 TRUNCATED TO regardless of any configuration option settings.

Related Configuration Options: ALLMALL

Related Messages: EP052

Related Functions: DLBL, DD

EPS045

EPS045=YES prevents CA EPIC for z/VSE control (input verification or output qualification) of 7-track tape drives that are already assigned using JCL. When EPS045=YES, 7-track tapes must be controlled manually. This option is used primarily for printing subsystems attached as 7-track tape drives.

EPS046

Processes scratch tapes that have DYNAM/CMS VOL1 labels.

EPS047

Automatically changes EXEC TDYNASN to EXEC TSIDASS. EPS047=YES allows CA EPIC for z/VSE to process scratch tapes with DYNAM/T (VSE) HDR1 labels.

Related Programs: TDYNASN, TSIDASS

EPS048

1. Processes scratch tapes with CA-Super-EPAT VOL1 labels.

2. Automatically changes EXEC DSCASSGN to EXEC TSIDASS and EXEC DSCTPTP to EXEC TSIDDTD.

3. Moves the primary dataset name from the HDR1 record into the label for EPAT input tapes. This circumvents the VSE message 4132D ERROR IN FILE ID which would normally occur if CA-Super-EPAT options were specified when the tape was created.

Related Programs: TSIDASS, TSIDDTD

EPS049

EPS049=YES allows CA EPIC for z/VSE to process scratch tapes with CA-System/Manager HDR1 labels and automatically converts CA-System/Manager labels and step cards.

EPS051

EPS051=YES causes CA EPIC for z/VSE to append the string ".===" on the end of a CA-System/Manager dataset name if certain conditions are met. To be eligible, the dataset cannot have the KEEP, GEN, or PIND parameter specified on its System/Manager label. The string '.===' is appended if the NEW parameter is specified on the System/Manager label, or if the dataset name cannot be found in the DSN Catalog.

Action of EPS051=YES is modified when EPS077=YES. See EPS077 for more information.

Related Special Options: EPS077

EPS052

EPS052=YES causes CA EPIC for z/VSE to release the drive assignment when the REW parameter is specified with the SYSnnn parameter on a CA-System/Manager TLBL. This differs from normal CA-System/Manager operation which releases the assignment only if the RUN parameter is specified with the SYSnnn parameter.

EPS053

EPS053=YES causes CA EPIC for z/VSE to release the drive assignment whenever the SYSnnn parameter is specified on a CA-System/Manager TLBL statement, no matter what rewind options are specified.

Note: To stack multiple files on the same tape with EPS053=YES, you must rewind to load point after every file. CA EPIC for z/VSE automatically repositions the tape after rewind. However, this can increase run time significantly.

EPS054

EPS054=YES causes the tape drive assignment to be held when NOREW is specified on a CA-System/Manager TLBL.

EPS055

EPS055=YES supports &P, &&P, &P@, CPU--, @== and/or ==@ in the dataset name. JCLOPT=YES is also required to support these variables on TLBL statements.

Related Configuration Options: JCLOPT

EPS057

EPS057=YES permits LUB allocation for direct access files.

EPS058

EPS058=YES allows CA EPIC for z/VSE to support 7-track tape drives.

EPS059

EPS059=YES forces CYC=1 retention for datasets automatically cataloged with the CATRT1 configuration option, with DD statements, or with non-generation disk datasets cataloged with CA-System/Manager DLBLs (NEW datasets that do not have KEEP or GEN).

Related Configuration Options: CATRT1

EPS060

EPS060=YES forces the retention period for Start Track 1 datasets to the DSKRET value. The retention on the DLBL statement is ignored.

Related Configuration Options: DSKRET

EPS061

EPS061=YES forces LUB allocation for tapes even if the logical unit specification in the DTF is available.

EPS062

EPS062=YES causes CA EPIC for z/VSE to use the period retention specified by the RETEN configuration option, rather than a retention period of zero (0), when automatically cataloging non-generation disk datasets with the CATRT1 configuration option, DD statements, or CA-System/Manager DLBLs. A retention period on the DLBL still overrides the default retention period in the autocataloged dataset definition.

Related Configuration Options: CATRT1, RETEN

EPS063

EPS063=YES releases the tape drive on close for uncontrolled, unlabeled tapes when there is no TLBL for the tape. Normally, the assignment is held until EOJ if no TLBL is specified. UNCTAP must also be set to YES.

Related Configuration Options: UNCTAP

EPS064

If EPS064=YES and UNLABEL=YES, CA EPIC for z/VSE allows AVR to use CA EPIC for z/VSE-controlled standard label scratch tapes when creating an unlabeled tape. If UNLABEL=NO, EPS064 has no effect.

Related Configuration Options: UNLABEL

EPS065

EPS065=YES causes TVTO displays to default to tracks instead of cylinders.

EPS066

EPS066=YES allows CA EPIC for z/VSE to process scratch tapes with HDR1 labels created by the IBM TAPE management product.

EPS067

Enables issuing of EP093 ACCESSING PRIOR VERSION.

If EPS067=YES, the message EP009 INCORRECT DATASET/VERSION is issued, requiring operator response to continue. Set to YES when:

(a) primary access to subdatasets is random, and

(b) multiple versions of the same subdataset reside on the same tape.

When EPS067=NO, CA EPIC for z/VSE does not issue the EP009 message when the volser of a currently assigned, mounted and positioned tape is different from the volser of the version requested through JCL. This permits the RERUN and ACCEPT features, used with the first file opened, to control subsequent access of additional files on the tape. EP093 ACCESSING PRIOR VERSION is issued when a different version of the requested dataset is accessed automatically as a result of EPS067=NO. Set to NO when the primary access of subdatasets is sequential.

Related Configuration Options: ACCEPT, RERUN

Related Messages: EP009, EP093

EPS068

Suppresses SYS number conflict detection and the following messages:

- EP089 LOGICAL UNIT ALREADY IN USE
- EP090 POOL LEVELING INHIBITED

SYS number conflict detection is only a consideration if the following are true:

- the VSE DASD file protect feature is active
- LUB allocation is being inhibited

EPS069

EPS069=YES changes print line length to 121 characters when routing SYSLST output from CA EPIC for z/VSE utilities to disk with a VSE DLBL. When using CA EPIC for z/VSE's GDIUR support, EPS069=YES is not needed and the full 133-character print line can be redirected to disk.

Related Configuration Options: GDIUR

EPS071

Permits tapes ending in 'S' to be used with datasets that have been cataloged with SIZ=LARGE (the default size).

EPS072

EPS072=YES bypasses updating BLKSIZE, LRECL and RECFM=UNDEF in version records if the DTF was originally opened as RECFM=FIXBLK but the block size was not a multiple of the LRECL.

EPS073

Bypasses 9348/3424 devices during AVR if mode is 00.

Related Configuration Options: MODE

Related Special Options: EPS075

EPS074

If SHARE=NO and EPS008=YES, EPS074=YES allows tapes in conditional status to be reused for output by the job name that originally created them. EPS008=YES is also required for EPS074=YES to take effect.

Related Configuration Options: SHARE

Related Special Options: EPS008

EPS075

EPS075=YES uses the value in the MODE configuration option to set a default density for uncontrolled datasets when only a response of cuu is given to EP011 UNASSIGNED INPUT/OUTPUT or EP073 TAPE UNIT NOT READY. However, a mode that is explicitly specified in the response (cuu,mm) overrides the default density.

Related Special Options: EPS073, EPS078

Related Messages: EP011, EP073

EPS077

EPS077=YES modifies the use of EPS051 by ignoring the NEW parameter and the DSN Catalog. As long as neither KEEP, GEN, nor PIND appears on the System/Manager label, CA EPIC for z/VSE appends ".===" to the dataset name.

Related Special Options: EPS051

EPS078

EPS078=YES bypasses output tape AVR scan if there is no density specified in the TLBL (via override), in the dataset definition (in the DSN catalog), or as the CA EPIC for z/VSE system default (on the MODE option for TSIDON). When EPS078=YES, we recommend that the AUTOSTP configuration option be set to NO.

Related Configuration Options: AUTOSTP, MODE

Related Special Options: EPS073, EPS075

EPS081

If EPS081 is set to YES, when a label mismatch is found on an uncontrolled input tape and CA EPIC for z/VSE configuration option UNCTAP=YES, the IBM message 4132D is not issued.

Related Configuration Options: UNCTAP

EPS082

Determines whether leading tapemarks are written to unlabeled tapes that are created using the standard-label-to-unlabeled tape conversion feature.

If EPS082=YES, unlabeled tapes are created with leading tapemarks.

If EPS082=NO (the default), the unlabeled tapes are created without leading tapemarks.

EPS083

Changes "SORT" to "TSIDSRT" in EXEC statements. This is intended for use by conversion sites that run CA-SORT or IBM's SM-2 sort and have not converted their JCL. *If EPS083=YES, it is not possible to execute SORT directly* unless *CA EPIC for z/VSE is turned off in the partition, or the sort program is relinked under a name other than SORT. But do not simply rename SORT because all internal programs call it that, including TSIDSRT.*

Related Program: TSIDSRT

EPS084

EPS084=YES forces CA EPIC for z/VSE to function as it did prior to Version 5.1 with regard to tape disposition at end of job.

Beginning in Version 5.1, if a tape drive is owned by the partition at EOJ (/& or a new JOB card), CA EPIC for z/VSE will unload the tape. If AUTOATTACH is in use, CA EPIC for z/VSE will DETACH the drive.

Before Version 5.1, if at EOJ a tape drive was left assigned due to cancellation or user error, the tape would stay attached and positioned as it was left by the program.

EPS086

When set to YES, EPS086 forces all disk datasets that are cataloged using TSIDSPM to be cataloged as WORK.

EPS087

When set to YES, EPS087 causes SYSLOG messages **EP037 AVR** and **EP037 REL** to be issued each time a tape drive is selected for AVR.

EPS088

When set to YES, EPS088 allows support of EPIC tape rewind codes for uncontrolled tapes, even if option UNCTAP=NO is in effect.

EPS091

When set to YES, EPS091 modifies the release 5.1 default of rewinding and unloading tapes not closed at end of job. With EPS091=YES, the tapes are rewound but not unloaded, If EPS084=YES has been specified to bypass the tape cleanup that EPIC does at end of job,EPS091 has no effect.

EPS094

EPS094 can be used to modify the default disposition when the DD statement 'DISP=' parm is omitted. If EPS094=NO, the default disposition when 'DISP='is omitted is (NEW,PASS),which results in the file being purged at end of job. If EPS094=YES,the default disposition is changed to (NEW,KEEP,KEEP).

EPS095

When set to YES, EPS095 appends an action message suffix to the EP001 and EP002 'mount' messages. Those messages requiring a response will be suffixed with a 'D' ('EP001D' or 'EP002D'). Information-only mount messages will be suffixed with an 'I'.

EPS096

When set to YES, EPS096 prevents the DELETE or PURGE commands from erasing catalogued datasets that have active versions. Message EP223 will be issued and the command will be rejected. This applies to the Online Manager and batch TSIDMNT commands.

EPS098

When set to YES, EPS098 causes CA EPIC for z/VSE to disregard differences between model types while performing AVR for 3590 drives. For example, with EPS098=YES, specifying a catalog density of 10M would allow a 3590-E or 3590-H to be selected by AVR. With EPS098=NO (the default), only 3590 standard models would be selected.

Important! EPS098=YES should never be specified if a client utilizes a mix of different 3590 model types, because it disables CA EPIC for z/VSE's ability to distinguish between them.

EPS099

When set to YES, EPS099 increases the number of tapepools allowed by CA EPIC for z/VSE for an IBM 3494 ACL supported by VGS (VSE Guest Server) and DFSRMS/VM. The normal range of tapepools allowed is 15 (pools 1 thru 9 and A thru F). This corresponds to the VGS scratch categories SCRATCH1 thru SCRATCHF. With EPS099=YES, the number of pools allowed for use with the VGS supported 3494 is 31 (pools 1 thru 9 and A thru V). For a 3494 robot supported by LCDD or native VSE, 31 tape pools are already supported and EPS099=YES has no effect.

Important! The 3494 categories used for the additional pools are normally reserved by IBM for LCDD or native VSE support of the robot. Before setting EPS099=YES, clients should verify that the use of the categories by CA EPIC for z/VSE will not conflict with any systems that share the robot using LCDD or native VSE support. The following table shows the use of 3494 categories with assorted IBM and CA EPIC for z/VSE support options. It shows that the potential for conflict arises when all of these conditions are true:

- A CA EPIC for z/VSE system using VGS 3494 support shares the robot with a VSE system using LCDD or native VSE 3494 support. The LCDD system may or may not be running CA EPIC for z/VSE.
- The EPIC VGS system sets EPS099=YES to allow access to tapepool(s) in the 'G' thru 'V' range, and the LCDD system uses a scratch category in the SCRATCH16 thru SCRATCH31 range.
- The VGS EPIC tapepool and the LCDD scratch category tie back to the same 4-digit internal 3494 category.

For example, if the EPIC/VGS system used tapepool 'G', and the LCDD system used SCRATCH16, then both would be utilizing the 3494 internal catagory '00B0'.

If these conditions are all true, then all of the systems must run CA EPIC for z/VSE and share the same DSN catalog to prevent the systems from overwriting each other's tapes.

3494	LCDD -or- native VSE		VSE/VGS and DFSMSRMS/VM	
Internal Category	**Scratch Category**	**CA EPIC for z/VSE Tapepool**	**Scratch Category**	**CA EPIC for z/VSE Tapepool**
0080	not used	not used	SCRATCH0	no tapepool
0081	not used	not used	SCRATCH1	1
0082	not used	not used	SCRATCH2	2
0083	not used	not used	SCRATCH3	3
0084	not used	not used	SCRATCH4	4
0085	not used	not used	SCRATCH5	5
0086	not used	not used	SCRATCH6	6
0087	not used	not used	SCRATCH7	7
0088	not used	not used	SCRATCH8	8
0089	not used	not used	SCRATCH9	9
008A	not used	not used	SCRATCHA	A
008B	not used	not used	SCRATCHB	B
008C	not used	not used	SCRATCHC	C
008D	not used	not used	SCRATCHD	D
008E	not used	not used	SCRATCHE	E
008F	not used	not used	SCRATCHF	F

3494	LCDD -or- native VSE		VSE/VGS and DFSMSRMS/VM	
Internal Category	**Scratch Category**	**CA EPIC for z/VSE Tapepool**	**Scratch Category**	**CA EPIC for z/VSE Tapepool**
00A0	SCRATCH00	no tapepool	not used	not used
00A1	SCRATCH01	1	not used	not used
00A2	SCRATCH02	2	not used	not used
00A3	SCRATCH03	3	not used	not used
00A4	SCRATCH04	4	not used	not used
00A5	SCRATCH05	5	not used	not used
00A6	SCRATCH06	6	not used	not used
00A7	SCRATCH07	7	not used	not used
00A8	SCRATCH08	8	not used	not used
00A9	SCRATCH09	9	not used	not used
00AA	SCRATCH10	A	not used	not used
00AB	SCRATCH11	B	not used	not used
00AC	SCRATCH12	C	not used	not used
00AD	SCRATCH13	D	not used	not used
00AE	SCRATCH14	E	not used	not used
00AF	SCRATCH15	F	not used	not used

3494	LCDD -or- native VSE		VSE/VGS and DFSMSRMS/VM	
Internal Category	**Scratch Category**	**CA EPIC for z/VSE Tapepool**	**Scratch Category**	**CA EPIC for z/VSE Tapepool**
00B0	SCRATCH16	G	G	(if EPS099=YES)
00B1	SCRATCH17	H	H	(if EPS099=YES)
00B2	SCRATCH18	I	I	(if EPS099=YES)
00B3	SCRATCH19	J	J	(if EPS099=YES)
00B4	SCRATCH20	K	K	(if EPS099=YES)
00B5	SCRATCH21	L	L	(if EPS099=YES)
00B6	SCRATCH22	M	M	(if EPS099=YES)
00B7	SCRATCH23	N	N	(if EPS099=YES)
00B8	SCRATCH24	O	O	(if EPS099=YES)
00B9	SCRATCH25	P	P	(if EPS099=YES)
00BA	SCRATCH26	Q	Q	(if EPS099=YES)
00BB	SCRATCH27	R	R	(if EPS099=YES)
00BC	SCRATCH28	S	S	(if EPS099=YES)
00BD	SCRATCH29	T	T	(if EPS099=YES)
00BE	SCRATCH30	U	U	(if EPS099=YES)
00BF	SCRATCH31	V	V	(if EPS099=YES)

EPS100

When set to YES, option EPS100 removes CA EPIC for z/VSE's requirement for the AUTOATTACH feature in order to support an IBM ACL through the VSE Guest Server (VGS) interface. For ACLs accessed through LCDD or native VSE, this option has no effect.

Important! Do not specify this option for STK or MEMOREX ACLs.

EPS102

When set to YES, EPS102 allows AUTOATTACH to be used without modifications to the VM/CP nucleus. AUTOATTACH will use standard CP 'ATTACH' and 'DETACH' commands rather than EPIC's 'VATTACH' and 'VDETACH'. The 'DETACH' command will include the 'LEAVE' option to prevent mounted tapes from unloading during an AVR scan (except for TSIDINIT). VM/ESA or higher is required for the 'LEAVE' option.

Note: For more information, see AUTOATT, EPS103.

EPS103

EPS103='Y' specifies the use of the 'SILENTLY' prefix on the CP ATTACH and DETACH commands that are generated when option EPS102='Y'. This will suppress message traffic related to EPIC's ATTACH and DETACH commands on the VM Operator console. Z/VM 4.4 or later release is required for this option. EPS103='Y' does not have any effect unless EPS102='Y'.

The 'SILENTLY' prefix invoked by EPS103='Y' must be enabled after each VM IPL with the following class 'A' CP commands:

```
'CP MODIFY COMMAND ATTACH SILENT'

'CP MODIFY COMMAND DETACH SILENT'
```

We recommend placing them in AUTOLOG1'S profile exec.

Note: For more information, see AUTOATT, EPS102.

EPS104

When set to YES, option EPS104 relaxes CA EPIC for z/VSE's tape label checking for SCRATCH mounts under these conditions...

- The tape has been mounted by an ACL in response to a MOUNT SCRATCH request.
- The volser is controlled by CA EPIC for z/VSE and is in SCRATCH status.

CA EPIC for z/VSE will bypass the checking for the recognition characters that the product places in a tape volume's internal label.

The setting is intended for use with an IBM VTS which uses the 'FASTREADYMOUNT' option. That VTS performance option speeds scratch mount processing by skipping the fetch of the prior tape image from archive. The virtual tape image that is presented to VSE lacks CA EPIC for z/VSE's recognition characters, and it will be rejected if EPS104=N, which is the default.

EPS105

EPS105='Y' specifies the use of the 'NOASSIGN' suffix on the CP ATTACH commands that are generated by the AUTOATTACH feature. EPS105='Y' does not have any effect unless EPS102='Y'. See the VM 'CP Command and Utility Reference' for more information on the 'WITH NOASSIGN' parameter.

EPS106

When set to YES, EPS106 causes details of CA EPIC for z/VSE's internal processing of 3592 tape encryption processing to be written to the console. Under normal conditions, this level of detail is not needed or desirable. The option should be specified only at the request of CA Technical Support for use in problem determination.

EPS107

When set to YES, EPS107 suppresses the use of tape block sizes greater than 32k in CA EPIC for z/VSE r5.2. This may be useful to customers who share a catalog between 5.2 and 5.1 releases.

EPS108

When set to YES, EPS108 causes details of CA EPIC for z/VSE's communications with an ACL to be written to the console. Under normal conditions, this level of detail is not needed or desirable. The option should be specified only at the request of CA Technical Support for use in problem determination.

EPS109

Important! Option EPS109=Y should be specified only at the request of CA Technical Support for problem resolution.

When set to YES, EPS109 causes CA EPIC for z/VSE to bypass validation of the ACL library name used in communications with an IBM ACL. With this option, only one ACL library is supported.

The option is intended for situations where the library name returned by the LIBSERV 'AQUERY' command is not valid. This can happen in a VSE Guest Server environment when the 'LIBCONFG LIST' library customization member has not been defined for VGS. In a VGS environment, we strongly recommend that the 'LIBCONFG LIST' member be defined for the VGS server, even though the IBM documentation says that the member is optional with only one ACL.

EPS110

When set to 'Y', option EPS110 will suppress CA EPIC's checking for automatic file close from abended Language Environment (L.E.) programs. Automatic close may cause tape and disk generations to catalog as valid CA EPIC versions even though the program cancelled without closing the files.

With the default, EPS110=N, CA EPIC will detect automatic CLOSE operations from L.E abend cleanup and ensure that the generation remains in Open (O) status. This is consistent with the behavior of non-L.E. programs.

Turning CA EPIC for z/VSE Off (TSIDOFF)

Deactivation Requirements

CA EPIC for z/VSE remains active until VSE is IPLed or until CA EPIC for z/VSE is deactivated with TSIDOFF. You can deactivate CA EPIC for z/VSE as a whole or by partition. To deactivate CA EPIC for z/VSE by partition, use TSIDDEB.

Before deactivating CA EPIC for z/VSE, be sure to deactivate any systems software that was activated after CA EPIC for z/VSE was activated, in the reverse order of their activation. You do not need to IPL VSE.

Deactivate CA EPIC for z/VSE before reloading any transient loaded into the SVA for CA EPIC for z/VSE.

Using QDAS with CA EPIC for z/VSE Off

QDAS is the only CA EPIC for z/VSE function that is available after CA EPIC for z/VSE deactivation. QDAS can still run even when CA EPIC for z/VSE is inactive.

JCL Requirements

```
// EXEC TSIDOFF
/*
```

Maintaining the Recorder File

TSIDRFS Program

TSIDRFS is the Recorder File maintenance utility. It activates and deactivates the Recorder. It also backs up and reformats the Recorder File, and logs user comments.

Control Statements

TSIDRFS functions are activated by control statements:

Statement	Action
START	Activates Recorder logging
END	Deactivates Recorder logging
BACKUP	Backs up the Recorder File
CLEAR	Initializes or clears the Recorder File
MAINT	Performs daily maintenance functions
RECORD	Records user comments in the Recorder File

The Recorder is normally activated through the EPICON procedure. It is normally maintained through the DAILY1 procedure. These procedures were shipped on the distribution tape and can be located in your CA EPIC for z/VSE installation library. See Chapter 2 for more information.

JCL Requirements

```
// TLBL RFBKUP,'recorder.backup.dataset',...
// EXEC TSIDRFS
control-statements

/*
```

Dataset Requirements

IJSYSDR identifies the Recorder File. It is required for all functions.

RFBKUP identifies the Recorder File backup dataset. It is required only with the BACKUP and MAINT control statements.

BACKUP

The Recorder File must be backed up to tape or disk before it can be used to restore the DSN Catalog or to make any reports. Before the Recorder File can be backed up, logging must be deactivated with the END control statement. In addition, before you re-start the Recorder, you should re-initialize the Recorder File with CLEAR.

BACKUP uses the DTF name RFBKUP to identify the backup.

For one-step backup processing, use the MAINT control statement.

Important!

- The Recorder File must be backed up, cleared, and restarted at the same time the DSN Catalog is backed up. If your DSN Catalog and Recorder backups are not synchronized, errors or missing data can result when you do an emergency recovery of the DSN Catalog. BACKUP should be executed in the same job stream with, and in the step immediately following, TSIDUTL BACKUP or FASTBU.
- If you are running in a multi-CPU environment, you must use the TSIDRFS MAINT function to maintain the Recorder File.

Syntax

```
BACKUP
```

Example

```
// JOB RFBACK
// TLBL RFBKUP,'RECORDER.BACKUP'
// EXEC TSIDRFS
END
BACKUP
/*
/&
```

CLEAR

CLEAR clears the Recorder File for the resumption of logging. It should be executed after TSIDRFS BACKUP. Before the Recorder can be cleared, logging must be deactivated with the END control statement.

Syntax

```
CLEAR
```

Example

```
// JOB RFCLEAR
// EXEC TSIDRFS
END
CLEAR
/*
/&
```

END

END deactivates the Recorder. DSN Catalog activity occurring while the Recorder is off will not be logged.

Syntax

```
END
```

Example

```
// JOB RFOFF
// EXEC TSIDRFS
END
/*
/&
```

MAINT

MAINT performs the regular Recorder maintenance routine in one step. It executes the END, BACKUP, CLEAR, and START commands in order. It also provides essential protection in a multi-CPU environment.

MAINT uses the DTF name RFBKUP to identify the backup dataset.

Important! The Recorder File must be backed up, cleared, and restarted immediately after the DSN Catalog is backed up. If your DSN Catalog and Recorder backups are not synchronized, you will get errors or missing data will result when you do an emergency recovery of the DSN Catalog. So, MAINT should be executed in the same job stream, in the step immediately following, TSIDUTL BACKUP or FASTBU.

Syntax

```
MAINT
```

Example

```
// JOB RFMAINT
// TLBL RFBKUP,'RECORDER.BACKUP.DATASET'
// EXEC TSIDRFS
MAINT
/*
/&
```

RECORD

RECORD logs user comments in the Recorder File. The control statement must begin with the keyword RECORD. However RECORD does not have to start in column 1. Begin the user comment at least one space following RECORD: it can extend up to and including column 80. For long comments, use multiple RECORD statements.

Syntax

```
RECORD user-comment
```

Example

This job logs the comment "IPL CAUSED BY POWER FAILURE".

```
// JOB RFREC
// EXEC TSIDRFS
RECORD IPL CAUSED BY POWER FAILURE
/*
/&
```

START

START activates Recorder logging after it has been deactivated with the END command.

START is required to restart the Recorder even if the RECORD configuration option is specified as YES, since RECORD=YES only activates the Recorder at CA EPIC for z/VSE start-up.

Syntax

```
START
```

Example

```
// JOB RFSTRT
// EXEC TSIDRFS
START
/*
/&
```

Activating and Deactivating QDAS

TSIVON and TSIVOFF

QDAS is activated using the TSIVON program and deactivated using the TSIVOFF program.

Activating QDAS (TSIDON)

TSIVON activates QDAS. It is normally executed in the EPICON procedure, which was created during installation.

TSIVON should be executed during IPL, after assignments are made to the volumes under QDAS control, and after TSIDON and TSIDRFS are executed. QDAS remains active until it is turned off with TSIVOFF or until VSE is IPLed. CA EPIC for z/VSE does not have to be active for QDAS to run.

If you reinitialize any of your disk volumes, run TSIVON afterwards. QDAS then recreates its maps.

Important! When QDAS is active on a shared volume in one machine, it must be active for all machines sharing that volume. If you fail to activate QDAS on all machines sharing the volume, you will experience VTOC corruption.

JCL Requirements

```
// EXEC TSIVON
```

Deactivating QDAS (TSIVOFF)

TSIVOFF deactivates QDAS. You can execute this program any time. You do not need to IPL VSE after deactivation.

JCL Requirements

```
// EXEC TSIVOFF
```

CA EPIC for z/VSE Dispatcher

The CA EPIC for z/VSE Dispatcher executes as a "never–ending" program in a z/VSE dynamic or static partition. It accepts and processes various CA EPIC for z/VSE requests that may be long–running. As work is being done, various subtasks are automatically initiated by the CA EPIC for z/VSE Dispatcher. Once a subtask begins, it remains in the CA EPIC for z/VSE Dispatcher environment until explicitly ended with an EP ST*name* command or until the CA EPIC for z/VSE Dispatcher is ended.

When ACLs are being supported, the CA EPIC for z/VSE Dispatcher must be started before any inventory or volume status changes can be reported to the ACL.

JCL Requirements

The JCL to initiate the CA EPIC for z/VSE Dispatcher is:

```
// JOB TSIDTASK
// SETPFIX LIMIT=100K          ( IBM ACL support for VSE Guest only)
// EXEC TSIDTASK,SIZE=TSIDTASK
/&
```

CA EPIC for z/VSE uses the IBM LBSERV macro to make requests to an IBM ACL. When IBM ACLs are being supported in a VSE Guest environment, the SETPFIX JCL statement is required to allow the macro to PFIX storage.

EP Commands

The following Attention Routine commands are available to manage the CA EPIC for z/VSE Dispatcher environment:

Command	Action
EP TSTAT	Displays any work requests waiting to be processed by the CA EPIC for z/VSE Dispatcher.
EP TRQ CANCEL *n*	Deletes a work request that has not been processed by the CA EPIC for z/VSE Dispatcher. *n* is the identification number of the request to be deleted. It is obtained using the EP TSTAT command.
EP END TASK	Ends CA EPIC for z/VSE Dispatcher processing
EP END ST*name*	Terminates an CA EPIC for z/VSE Dispatcher subtask. *This command should be used only when directed by CA EPIC for z/VSE Technical Support. name* is the name of the subtask being ended. ACL is a valid subtask name.

Example

The following command ends the ACL support subtask.

```
EP END STACL
```

Shutting Down the Dispatcher

The EPIC Dispatcher partition can be shut down with the AR command:

```
EP  END  TASK
```

IBM ACL Support

General Requirements

In this section, the term ACL refers to Automatic Cart Loader systems such as the IBM 3494 Tape Library Dataserver. With z/VSE, IBM ACLs can operate in one of the following support environments:

- the *LCDD environment* uses the IBM Library Control Device Driver (LCDD) as the ACL Manager for native z/VSE or VM/VSE.
- the TLS environment is available in z/VSE 3.1 and up as a native VSE ACL manager.
- the *VGS environment* uses IBM VSE Guest Server (VGS) as the ACL Manager for VM/VSE.

The appropriate IBM ACL support environment must have been installed and configured before CA EPIC for z/VSE is configured for ACL support.

The CA EPIC for z/VSE Dispatcher must be activated before any ACL inventory request is made or any EP ACL command is issued. The POWER start–up process is a good place to do this.

Note: For more information, see CA EPIC Dispatcher (see page 185).

If a cartridge is being used in a IBM ACL drive, CA EPIC for z/VSE always unloads it at Close unless the "hold assignment at close" option is specified on the dataset's TLBL (8 or H) or DD statement (FREE=END).

Revolving tape datasets cannot be present in an ACL.

LCDD Environment

In this environment, the LCDD must be active before any CA EPIC for z/VSE support will be effective. Refer to the appropriate IBM documentation for further information.

VGS Environment

A SETPFIX LIMIT=100K,PERM JCL statement must be present in each static and dynamic partition's ASI initialization. This is a requirement of the IBM LBSERV macro which CA EPIC for z/VSE uses to make its ACL requests.

The IBM VGS and Inventory servers must be active at the time CA EPIC for z/VSE is started. IBM's LIBRCMSV program must be active before any ACL inventory request or cartridge status changes (Scratch, Retain, Delete, Eject...) are made. Refer to the appropriate IBM documentation for more information.

Required Configuration Options

For both support environments, the following configurations options are required:

- ACLAUTI=YES|NO (or take the default)
- ACLIBM=YES
- ACLLIB=*lib.sublib*
- ACLRECS=*nn* (or take the default)
- ACLTIME=*nn* (or take the default)
- ERDFILE=*erdname*
- MSG088=YES

For the VGS environment, the following options are also required:

- ACLSRVR=*VGS-server-name*
- VM=YES
- AUTOATT=YES -OR- EPS100=YES
- (Optional) EPS099=YES (do not use unless more than 15 tapepools are needed)

Note: For more information, see Configuration Option Descriptions (see page 131).

Library Requirements

ACL Inventory functions use z/VSE Librarian members as a source of input for cartridge status changes (scratch, retain, eject,...) and a place for storing the results of an inventory request.

At CA EPIC for z/VSE start–up, the names of an existing VSE Library and Sublibrary must be specified in the configuration options. Although it is not required, we recommend that the specified Sublibrary is used for ACL support only. To make it easier to apply CA EPIC for z/VSE upgrades, this Sublibrary should *NOT* be the one used to contain CA EPIC for z/VSE members.

In an LCDD environment, the *sublib* portion of the ACLLIB configuration parameter must be the same as the LCDD LUNAME parameter. For more information, see the ACLLIB (see page 132) configuration option.

In a TLS envirionment, the ‘lib’ portion of the of the ACLLIB configuration option must agree with the ‘QUERY_INV_LISTS’ parameter in the TLSDEF.PROC. The ‘sublib’ portion must agree with the ‘LIBRARY_ID’ in that same proc.

For each ACL cartridge drive (cuu) defined in the CA EPIC for z/VSE Resource Dataset (ERD), the ACLNAME parameter must be the same as the following:

- LUNAME (for LCDD)
- LIBRARY_ID in the TLSDEF.PROC (for TLS)
- 'LIBCONFG LIST' (for VGS)

Note: For more information, see Defining the CA EPIC for z/VSE Resource Dataset (see page 51).

CA EPIC for z/VSE Tape Pool Definitions

If tape pools are used for cartridges residing in an ACL, they must meet the following criteria:

- Non-ACL-resident cartridges cannot be part of the pool or pools designated for ACL-resident cartridges.
- For native VSE environments, the pool names must be 1-9 or A-V.
- For VSE/Guest environments, the pool names must be 1-9 or A-F, unless CA EPIC for z/VSE special option EPS099=YES has been specified. With EPS099=YES, pool names 1-9 or A-V may be used.

  There are special restrictions on the use of EPS099=YES if the 3494 is shared with other VSE systems that use native VSE support. For more details see the description of option EPS099=YES in the 'Activating and Deactivating CA EPIC for z/VSE' section.

In both environments, SCRATCH0 is used as the "default scratch" category. If a scratch volume serial number is not in an CA EPIC for z/VSE tape pool, it is assigned to SCRATCH0.

When the EP ACL SYNC command is used to reconcile the ACL contents with the DSN Catalog, if a catalog entry for an ACL–resident volume has an CA EPIC for z/VSE tape pool ID outside one of these ranges, a console message is displayed asking whether the cartridge is to be ejected from the ACL, or whether EP ACL SYNC processing is to be cancelled.

Synchronization of CA EPIC for z/VSE DSN Active Tape and Scratch Pool Inventories

CA EPIC for z/VSE's EP ACL SYNC command is used to reconcile the ACL cartridge inventory with the CA EPIC for z/VSE/VSE catalog. It can be issued from the console at any time.

Whenever a TSIDUTL SCRATCH function is executed, TSIDUTL will automatically issue the EP ACL SYNC command at the end of its processing.

Ejecting Cartridges from an ACL

Description

Cartridges can be ejected from an ACL on a "one-at-a-time" or a "many-at-a-time" basis. Since cartridge ejection is very time–consuming, we recommend using the "many at a time" method at times when other ACL processing is at a minimum.

Whichever method is used, CA EPIC for z/VSE reads the list of volume serial numbers contained in the VSE sublibrary and submits the new status to the ACL.

Many-at-a-Time Method

When the TSIDVLT utility is executed, the volume serial number of any ACL–resident cartridge that is moved from the main vault (Vault 0) is written to the ACL Inventory Management Library.

Use the EP ACL EJECT command or TSIDUTL ACLEJECT control statement to eject these cartridges. This technique allows ejections to be scheduled at an appropriate time. See the *User Guide* for a full description of the vaulting process.

One-at-a-Time Method

Use the EP ACL EJECT command (below) to eject the desired cartridge from the ACL. A separate EP ACL EJECT command must be used for each cartridge that is to be ejected.

Status Changes to ACL-Resident Cartridges

Whenever a TSIDMNT command is used to change the DSN Catalog status of cartridges that are resident in an ACL, the cartridge's volume serial number and new status are written to the VSE Library/Sublibrary designated for ACL use in the CA EPIC for z/VSE configuration options. The status change request is not made to the ACL until one of the following occurs:

- The time limit specified in ACLTIME configuration is reached.
- The number of records specified in the ACLRECS configuration option has been reached.
- The EP ACL PROCESS command is issued.

EP Commands

The following EP commands are used in the CA EPIC for z/VSE support process for IBM ACLs:

Command	Action
EP ACL EJECT	Causes ejection from the ACL of all cartridges that have been written to the ACL Inventory Management Library by the TSIDVLT program. Can be used in place of the TSIDUTL ACLEJECT control statement.
EP ACL EJECT volser	Causes the ejection from the ACL of the cartridge whose serial number is specified in volser.
EP ACL PROCESS	Reads the list of volume serial numbers and status change requests from the VSE sublibrary designated for CA EPIC for z/VSE ACL support in the ACLLIB configuration option and posts the new status to the ACL.
EP ACL SYNC (This command is issued automatically after the TSIDUTL SCRATCH function is performed.)	1) Obtains an inventory of all cartridges in the ACL. 2) Checks each ACL volume to see if it is in the DSN Catalog. *Result*—If the ACL volume is not in the DSN and the ACLAUTI configuration option is “Y", the tape is initialized with a VOL and HDR records and the serial number is added to the DSN. *Result*—If the ACL volume is not in the DSN Catalog and the ACLAUTI configuration option is “N", no action is taken. 3) If the ACL volume is in the DSN Catalog, its ACL status is compared with its status in the DSN Catalog. *Result*—If the ACL status is not the same as the DSN Catalog status, the ACL status is set to be the same as the DSN Catalog status.

Memorex ACL Support

General Requirements

When CA EPIC for z/VSE is running on a VSE Guest machine, support for the Memorex Automatic Tape Library (ATL) is provided using the VM IUCV facility.

The Memorex Library Management Software (LMS) product must be operational as a CMS Guest. Both LMS and the ATL must be active at the time CA EPIC for z/VSE is started.

Revolving tape datasets cannot be present in an ATL.

The CA EPIC for z/VSE Dispatcher must be activated before any ACL inventory request is made or any EP ACL command is issued. The POWER start–up process is a good place to do this.

Note: For more information, see CA EPIC Dispatcher (see page 185).

If a cartridge is being used on an ATL drive, CA EPIC for z/VSE unloads it at Close unless the "Hold assignment at close" option is specified on the dataset's TLBL (8 or H) or DD statement (FREE=END).

Required Configuration Options

If a Memorex ATL is being supported, the following options must be present when CA EPIC for z/VSE is activated:

- ACLLIB=*lib.sublib*
- ACLMEM=YES
- ACLRECS=*nn* (or take the default)
- ACLSRVR=*LMS-server-name*
- ACLTIME=*nn* (or take the default)
- MSG088=YES
- VM=YES

In addition, to share the ATL (or other tape devices) among more than one machine (physical or virtual), the following must also be defined:

- ERDFILE=erdname

Note: For more information, see Configuration Option Descriptions (see page 131).

VM Directory Entry Requirements

LMS Server

The VM Directory entry for the LMS server must allow an IUCV connection from the VSE Guest(s) in which CA EPIC for z/VSE is executing. This can be done in either of the two ways described below. The first method requires less VM Directory maintenance as VSE Guests are added or deleted in the VM Directory.

Method 1

This method accepts IUCV communications from any virtual machine.

```
IUCV ALLOW MSGLIMIT n
```

n is the maximum number of messages that can be outstanding on any path connected to the server. It should be at least one per VSE partition (including dynamic partitions). If the value is too small, CA EPIC for z/VSE requests may be lost.

Method 2

This method accepts IUCV communications only from the *userid* virtual machine.

```
IUCV userid MSGLIMIT n
```

userid must be the name of the VSE guest in which CA EPIC for z/VSE is executing. If CA EPIC for z/VSE is executing in more than one VSE Guest that requires ATL support, then an IUCV userid entry is required for each VSE Guest.

n is the same as described in the preceding definition.

VSE Guests

Establishing an IUCV Connection

Where ATL support is required and CA EPIC for z/VSE is running, the VM Directory for each VSE Guest must be able to make an IUCV connection to the LMS server. This can be done in either of the two ways described below. Method 1 requires less VM Directory maintenance as VSE Guests are added or deleted.

Method 1

This method can initiate an IUCV connection with any virtual machine.

```
IUCV ANY
```

Method 2

This method can initiate an IUCV communications only to the *userid* virtual machine. *userid* is the id of the LMS Server.

```
IUCV userid
```

What If the IUCV Path is Severed?

Occasionally, the IUCV Path between the VSE Guest and LMS Server machines may be severed. The IUCV path can be re-established after it has been severed. However, every effort should be made to determine the cause of the failure and to correct it.

Some causes of this include:

- cycling the LMS Server machine
- time-out by the LMS Server
- processing errors by one of the IUCV partners

The severed path can be re-established by either of the following:

- Turning CA EPIC for z/VSE off and then back on
- Using the CA EPIC for z/VSE TSIDDEB utility

Turning CA EPIC for z/VSE off and on is the preferred method, but this may not be practical if ongoing VSE processing requires CA EPIC for z/VSE services. In such cases, use the TSIDDEB procedure below.

TSIDDEB Procedure

Method 1: VSE Console

1. From a "Pause" job on the VSE Operator's console, enter:
   ```
   // EXEC TSIDDEB
   ```
   A list of selection choices will be displayed.
2. Select "F. RE-ESTABLISH IUCV PATH WITH ACL SERVER"

   TSIDDEB will respond with:

   ENTER 'MEMSERVER=SERVERNAME' OR 'STKSERVER=SERVERNAME'
3. Enter as follows:
   a. For MEMOREX, enter "MEMSERVER=servername" where servername is name of the LMS machine.
   b. For STK, enter "STKSERVER=servername" where servername is name of the HSC machine.

Method 2: JCL

```
// JOB jobname
// EXEC TSIDDEB
MEMSERVER=servername
/*
/&
```

OR

```
// JOB jobname
// EXEC TSIDDEB
STKSERVER=servername
/*
/&
```

CA EPIC for z/VSE and LMS Tape Pools

CA EPIC for z/VSE uses single-character tape pool names (A-Z and 0-9). LMS allows longer pool names which are not recognized by CA EPIC for z/VSE. For this reason, each LMS tape pool that is to be used by CA EPIC for z/VSE must be defined to LMS as a primary pool using the following format:

POOL-*x*

where "POOL-" is a constant. *x* is the one-character name of the corresponding CA EPIC for z/VSE tape pool.

Example

CA EPIC for z/VSE Tape Pool	LMS Primary Pool
J	POOL-J
R	POOL-R

Synchronizing CA EPIC for z/VSE and LMS Scratch Pool Inventories

Both CA EPIC for z/VSE and Memorex LMS support tape pools. If tape pools are not used, LMS uses its default scratch pool to satisfy CA EPIC for z/VSE "mount scratch" requests. If tape pools are used, pool definitions in CA EPIC for z/VSE and LMS must agree.

If a Memorex Automatic Tape Library is in use, the DSPLY SCRATCH function of the TSIDUTL program is used to keep CA EPIC for z/VSE and LMS scratch inventories synchronized.

As this is being written, Memorex LMS does not provide notification of ACL cartridge insertion and ejection. This means that the CA EPIC for z/VSE and LMS scratch cartridge inventories are not always synchronized.

To synchronize them, execute the DSPLY SCRATCH function of the TSIDUTL program.

Note: For more information, see DSPLY and BDSPLY (see page 223).

For each tape volume that is in "scratched" status in the DSN Catalog, CA EPIC for z/VSE instructs LMS to post the volume as "scratched" in the LMS Control Dataset (CDS). Since DSPLY SCRATCH does not enqueue the DSN Catalog, it can be run at any time without degrading other processing. We recommend that DSPLY SCRATCH be run at least once a day, or after cartridges have been inserted into the ACL.

Ejecting Cartridges from an ATL

Cartridges can be ejected from an ACL on a "one-at-a-time" or a "many-at-a-time" basis. Since cartridge ejection is very time–consuming, we recommend using the "many at a time" method at times when other ACL processing is at a minimum.

Whichever method is used, CA EPIC for z/VSE reads the list of volume serial numbers contained in the VSE sublibrary and submits the new status to the ACL.

Many-at-a-Time Method

When the TSIDVLT utility is executed, the volume serial number of any ACL–resident cartridge that is moved from the main vault (Vault 0) is written to the ACL Inventory Management Library.

Use the EP ACL EJECT command (below) or ACLEJECT control statement to eject these cartridges. This technique allows ejections to be scheduled at an appropriate time. Refer to the *User Guide* for a full description of the vaulting process.

One-at-a-Time Method

Use the EP ACL EJECT command (below) to eject the desired cartridge from the ACL. A separate EP ACL EJECT command must be used for each cartridge that is to be ejected.

Status Changes to ACL-Resident Cartridges

Whenever a TSIDMNT command is used to change the DSN Catalog status of cartridges that are resident in an ACL, the cartridge's volume serial number and new status are written to the VSE Library/Sublibrary designated for ACL use in the CA EPIC for z/VSE configuration options. The status change request is not made to the ACL until one of the following occurs:

- The time limit specified in ACLTIME configuration is reached.
- The number of records specified in the ACLRECS configuration option has been reached.
- The EP ACL PROCESS command is issued.

EP Commands

The following EP commands are used in the CA EPIC for z/VSE support process for Memorex ATLs:

Command	Action
EP ACL EJECT	Causes ejection from the ACL of all cartridges that have been written to the ACL Inventory Management Library by the TSIDVLT program. Can be used in place of the TSIDUTL ACLEJECT control statement.
EP ACL EJECT *volser*	Causes the immediate ejection from the ACL of the cartridge whose serial number is specified in *volser*.
EP ACL PROCESS	Reads the list of volume serial numbers and status change requests from the VSE sublibrary designated for CA EPIC for z/VSE ACL support in the ACLLIB configuration option and posts the new status to the ACL.

STK ACL Support

General Requirements

When CA EPIC for z/VSE is running on a VSE Guest machine, support for the STK ACL is provided using the VM IUCV facility.

The STK Host Software Component (HSC) for VM must be operational as a CMS Guest. Both HSC and the ACL must be active at the time CA EPIC for z/VSE is started.

Revolving tape datasets cannot be present in an ACL.

The CA EPIC for z/VSE Dispatcher must be activated before any ACL inventory request is made or any EP ACL command is issued. The POWER start–up process is a good place to do this.

Note: For more information, see CA EPIC Dispatcher (see page 185).

If a cartridge is being used on an ACL drive, CA EPIC for z/VSE unloads it at Close unless the "Hold assignment at close" option is specified on the dataset's TLBL (8 or H) or DD statement (FREE=END).

Required Configuration Options

If a STK ACL is being supported, the following options must be present when CA EPIC is activated:

- ACLLIB=*lib.sublib*
- ACLSTK=YES
- ACLRECS=*nn* (or take the default)
- ACLSRVR=*HSC-server-name*
- ACLTIME=*nn* (or take the default)
- ERDFILE=*erdname*
- MSG088=YES
- VM=YES

Note: For more information, see Configuration Option Descriptions (see page 131).

VM Directory Entry Requirements

HSC Server

The VM Directory entry for the HSC server must allow an IUCV connection from the VSE Guest(s) in which CA EPIC for z/VSE is executing. This can be done in either of the two ways described below. The first method requires less VM Directory maintenance as VSE Guests are added or deleted in the VM Directory.

Method 1

This method accepts IUCV communications from any virtual machine.

```
IUCV ALLOW MSGLIMIT n
```

n is the maximum number of messages that can be outstanding on any path connected to the server. It should be at least one per VSE partition (including dynamic partitions). If the value is too small, CA EPIC for z/VSE requests may be lost.

Method 2

This method accepts IUCV communications only from the *userid* virtual machine.

```
IUCV userid MSGLIMIT n
```

userid must be the name of the VSE guest in which CA EPIC for z/VSE is executing. If CA EPIC for z/VSE is executing in more than one VSE Guest that requires ACL support, then an IUCV userid entry is required for each VSE Guest.

n is the same as described in the preceding definition.

HSC Authorization

Each VSE Guest that will use the ACL must have an AUTHORIZE statement in the HSC ACS SYSPROF member.

VSE GUESTS

Establishing an IUCV Connection

Where ACL support is required and CA EPIC for z/VSE is running, the VM Directory for each VSE Guest must be able to make an IUCV connection to the HSC server. This can be done in either of the two ways described below. Method 1 requires less VM Directory maintenance as VSE Guests are added or deleted.

Method 1

This method can initiate an IUCV connection with any virtual machine.

```
IUCV ANY
```

Method 2

This method can initiate an IUCV communications only to the *userid* virtual machine. *userid* is the id of the HSC Server.

```
IUCV userid
```

What If the IUCV Path is Severed?

Occasionally, the IUCV Path between the VSE Guest and HSC Server machines may be severed. The IUCV path can be re-established after it has been severed. However, every effort should be made to determine the cause of the failure and to correct it.

Some causes of this include:

- cycling the HSC Server machine
- time-out by the HSC Server
- processing errors by one of the IUCV partners

The severed path can be re-established by either of the following:

- Turning CA EPIC for z/VSE off and then back on
- Using the CA EPIC for z/VSE TSIDDEB utility

Turning CA EPIC for z/VSE off and on is the preferred method, but this may not be practical if ongoing VSE processing requires CA EPIC for z/VSE services. In such cases, use the TSIDDEB procedure below.

TSIDDEB Procedure

Method 1: VSE Console

1. From a "Pause" job on the VSE Operator's console, enter:
   ```
   // EXEC TSIDDEB
   ```
   A list of selection choices will be displayed.
2. Select "F. RE-ESTABLISH IUCV PATH WITH ACL SERVER"

   TSIDDEB will respond with:

   ENTER 'MEMSERVER=SERVERNAME' OR 'STKSERVER=SERVERNAME'
3. Enter "STKSERVER=servername" where servername is name of HSC machine.

Method 2: JCL

```
// JOB jobname
// EXEC TSIDDEB
STKSERVER=servername
/*
/&
```

CA EPIC for z/VSE and HSC Tape Pools

CA EPIC for z/VSE uses single-character tape pool names (A-Z and 0-9). HSC allows longer pool names which are not recognized by CA EPIC for z/VSE. For this reason, each HSC tape pool that is to be used by CA EPIC for z/VSE must be defined to HSC as a pool using the following format:

EPICTAPEPOL-*x*

where "EPICTAPEPOL-" is a constant. *x* is the one–character name of the corresponding CA EPIC for z/VSE tape pool.

Example

CA EPIC for z/VSE Tape Pool	HSC Pool
J	EPICTAPEPOL-J
R	EPICTAPEPOL-R

Synchronizing CA EPIC for z/VSE and HSC Scratch Pool Inventories

Both CA EPIC for z/VSE and STK support tape pools. If tape pools are not used, HSC uses its default scratch pool to satisfy CA EPIC for z/VSE "mount scratch" requests. If tape pools are used, pool definitions in CA EPIC for z/VSE and HSC must agree.

If a STK ACL is in use, the DSPLY SCRATCH function of the TSIDUTL program is used to keep CA EPIC for z/VSE and HSC scratch inventories synchronized.

As this is being written, STK HSC does not provide notification of ACL cartridge insertion and ejection. This means that the CA EPIC for z/VSE and HSC scratch cartridge inventories are not always synchronized.

To synchronize them, execute the DSPLY SCRATCH function of the TSIDUTL program.

Note: For more information, see DSPLY and BDSPLY (see page 223).

For each tape volume that is in "scratched" status in the DSN Catalog, CA EPIC for z/VSE instructs HSC to post the volume as "scratched" in the HSC Control Dataset (CDS). Since DSPLY SCRATCH does not enqueue the DSN Catalog, it can be run at any time without degrading other processing. We recommend that DSPLY SCRATCH be run at least once a day, or after cartridges have been inserted into the ACL.

Ejecting Cartridges from an ACL

Cartridges can be ejected from an ACL on a "one-at-a-time" or a "many-at-a-time" basis. Since cartridge ejection is very time–consuming, we recommend using the "many at a time" method at times when other ACL processing is at a minimum.

Whichever method is used, CA EPIC for z/VSE reads the list of volume serial numbers contained in the VSE sublibrary and submits the new status to the ACL.

Many-at-a-Time Method

When the TSIDVLT utility is executed, the volume serial number of any ACL–resident cartridge that is moved from the main vault (Vault 0) is written to the ACL Inventory Management Library.

Use the EP ACL EJECT command (below) or ACLEJECT control statement to eject these cartridges. This technique allows ejections to be scheduled at an appropriate time. Refer to the *User Guide* for a full description of the vaulting process.

One-at-a-Time Method

Use the EP ACL EJECT command (below) to eject the desired cartridge from the ACL. A separate EP ACL EJECT command must be used for each cartridge that is to be ejected.

Status Changes to ACL-Resident Cartridges

Whenever a TSIDMNT command is used to change the DSN Catalog status of cartridges that are resident in an ACL, the cartridge's volume serial number and new status are written to the VSE Library/Sublibrary designated for ACL use in the CA EPIC for z/VSE configuration options. The status change request is not made to the ACL until one of the following occurs:

- The time limit specified in ACLTIME configuration is reached.
- The number of records specified in the ACLRECS configuration option has been reached.
- The EP ACL PROCESS command is issued.

EP Commands

The following EP commands are used in the CA EPIC for z/VSE support process for STK ACLs:

Command	Action
EP ACL EJECT	Causes ejection from the ACL of all cartridges that have been written to the ACL Inventory Management Library by the TSIDVLT program. Can be used in place of the TSIDUTL ACLEJECT control statement.
EP ACL EJECT *volser*	Causes the immediate ejection from the ACL of the cartridge whose serial number is specified in *volser*.
EP ACL PROCESS	Reads the list of volume serial numbers and status change requests from the VSE sublibrary designated for CA EPIC for z/VSE ACL support in the ACLLIB configuration option and posts the new status to the ACL.

Chapter 5: Maintenance Procedures

This section contains the following topics:

Regular Maintenance

Overview

The DAILY1 (or DAILY2) procedure provides an example of how to perform these tasks. The DAILYn SAMPJOB procedures are supplied on the CA EPIC for z/VSE distribution tape.

Expired datasets can be scratched using the SCRATCH function of the TSIDUTL program.

Vault rotation can be performed using the TSIDVLT program.

Important! The Recorder must be backed up, cleared, and restarted whenever the DSN Catalog is backed up. If the DSN Catalog and Recorder File are not backed up at the same time, data can be missing after you do an emergency recovery of the DSN Catalog. BACKUP should therefore be executed in the same job stream, in the step immediately following the BACKUP or FASTBU function of the TSIDUTL program.

Procedure

1. Back up the DSN Catalog daily using the FASTBU or BACKUP function of the TSIDUTL program.
2. Back up, reinitialize, and restart the Recorder File using the MAINT function of the TSIDRFS program.
3. Check DSN Catalog integrity regularly (preferably weekly) with the BACKUP (not FASTBU) function of the TSIDUTL program.
4. Whenever a large number of new datasets or tapes have been added to the DSN Catalog, re-index the DSN Catalog using the INDEX function of the TSIDUTL program.

DAILY1 Example

```
// JOB DAILY1
/*
/* PURPOSE: EPIC DAILY MAINTENANCE AND REPORTING USING VSE LABELS.
/*
/* PREREQ:    z/VSE
/*
/* THE FOLLOWING TSIDMNT CONTROL STATEMENTS WILL CREATE THE REQUIRED
/* EPIC/VSE DATASET DEFINITIONS FOR THIS EXAMPLE. CODE ADDITIONAL
/* OPERANDS AS NEEDED.
/*
/*    CAT 'EPIC.CAT.BACKUP'
/*    CAT 'EPIC.REC.BACKUP'
/*    CAT 'EPIC.REC.HISTORY'
/*    CAT 'EPIC.UTL.WORK' POL=POOLNM EXT=N WRK=YES
/*    CAT 'EPIC.ACL.EJECT' POL=POOLNM EXT=N
/*    CAT 'EPIC.ARP.XREF' POL=POOLNM EXT=N
/*    CAT 'EPIC.BRP.XREF.WORK' POL=POOLNM EXT=N WRK=YES
/*    CAT '$$$.SORTWK1' POL=POOLNM EXT=N WRK=YES
/*
* STEP DAILY1.000 TSIDUTL
/*
/* BACKUP THE EPIC CATALOG TO TAPE AND VALIDATE CATALOG INTEGRITY.
/* THE OUTPUT MAY SPAN MORE THAN ONE OUTPUT TAPE VOLUME AND WILL
/* DEFAULT TO UNLOAD WHEN THEN THE BACKUP TAPE IS CLOSED.
/*
// TLBL BACKUP,'EPIC.CAT.BACKUP'
// EXEC TSIDUTL
BACKUP
/*
* STEP DAILY1.005 TSIDRFS
/*
/* PERFORM MAINTENANCE ON THE EPIC RECORDER FILE. THIS MAINTENANCE
/* COMBINES THE END, BACKUP, CLEAR, AND START COMMANDS INTO A
/* SINGLE COMMAND TO ENSURE THAT ALL THESE REQUIRED FUNCTIONS ARE
/* ALWAYS PERFORMED AND IN THE CORRECT ORDER. OUTPUT MAY SPAN MORE
/* THAN ONE OUTPUT TAPE VOLUME AND WILL DEFAULT TO REWIND WHEN THE
/* BACKUP TAPE IS CLOSED.
/*
// TLBL RFBKUP,'EPIC.REC.BACKUP'
// EXEC TSIDRFS
MAINT
/*
* STEP DAILY1.010 TSIDUTL
/*
/* DO DAILY SCRATCH FUNCTION AND PRODUCE TYPICAL AND RECOMMENDED
/* CATALOG LISTINGS.
/*
// DLBL WORK,'EPIC.UTL.WORK(D)'
```

```
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDUTL
SCRATCH
DSPLY ALL,SEQ=DSN
DSPLY ALL,SEQ=SERIAL
/*
* STEP DAILY1.015 TSIVON
/*
/* REFRESH QDAS TABLES. REMOVE THIS STEP IF NOT RUNNING QDAS.
/*
// EXEC TSIVON
/*
* STEP DAILY1.020 TSIDVLT
/*
/* DO VAULT MOVEMENT. THE LABEL FOR ACLFIL1 IS REQUIRED ONLY
/* IF OPTION ACLMEM=YES (SUPPORT FOR THE MEMOREX AUTOMATIC
/* TAPE LIBRARY) HAS BEEN SPECIFIED FOR YOUR EPIC SYSTEM.
/*
// DLBL ACLFIL1,'EPIC.ACL.EJECT'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDVLT
MOVESER
/*
* STEP DAILY1.025 TSIDUTL
/*
/* EJECT ACL VOLUMES FLAGGED FOR VAULT MOVEMENT. REMOVE THIS
/* JOB STEP IF 'OPTION ACLMEM=YES' HAS NOT BEEN SPECIFIED FOR YOUR
/* EPIC SYSTEM.
/*
// DLBL ACLFIL1,'EPIC.ACL.EJECT(D)'
// EXEC TSIDUTL
ACLEJECT
/*
* STEP DAILY1.030 TSIDSRT
/*
/* COMBINE CURRENT RECORDER FILE WITH PRIOR RECORDER FILE HISTORY
/* GIVING AN UPDATED RECORDER FILE HISTORY THAT CAN BE USED FOR
/* ANY PURPOSE. THIS EXAMPLE USES SORT TO COMBINE THE RECORDER
/* FILES INTO A COMBINED RECORDER FILE HISTORY. HOWEVER, ANY
/* PREFERRED MECHANISM (INCLUDING TSIDDTD) CAN BE USED TO MAINTAIN
/* THE HISTORY FILE USING ANY DESIRED FREQUENCY.
/*
// TLBL SORTIN1,'EPIC.REC.BACKUP'
// TLBL SORTIN2,'EPIC.REC.HISTORY',,,,,2
// TLBL SORTOUT,'EPIC.REC.HISTORY',,,,,2
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDSRT
 SORT FIELDS=(25,2,A,21,6,A,17,4,A),FILES=2,FORMAT=BI,WORK=1
 RECORD TYPE=F,LENGTH=338
```

```
 INPFIL BLKSIZE=5746
 OUTFIL BLKSIZE=5746
 END
/*
* STEP DAILY1.035 TSIDARP
/*
/* PRODUCE THE ACTIVITY LOG REPORT SHOWING OPEN AND CLOSE ACTIVITY
/* FOR CA EPIC for z/VSE-CONTROLLED DATASETS, SORTED BY SYSTEM ID, DATE, TIME,
/* AND JOB NAME. REMOVE THIS STEP IF THIS REPORT AND THOSE
/* GENERATED BY THE FOLLOWING TSIDBRP PROGRAM ARE NOT DESIRED.
/*
// ASSGN SYS003,SYSIPT
// ASSGN SYS004,SYSLST
// DLBL SYS002,'EPIC.ARP.XREF'
// TLBL SYS005,'EPIC.REC.BACKUP'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDARP
/*
* STEP DAILY1.040 TSIDBRP
/*
/* PRODUCE THE DSN/JOB CROSS-REFERENCE AND ACCEPTED TAPES REPORTS.
/* REMOVE THIS STEP IF THESE REPORTS ARE NOT DESIRED.
/*
// ASSGN SYS004,SYSLST
// DLBL SYS002,'EPIC.ARP.XREF(D)'
// DLBL SYS005,'EPIC.BRP.XREF.WORK(D)'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDBRP
/*
* STEP DAILY1.045 TSIDJAC
/*
/* PRODUCE THE JOB TIME ACTIVITY REPORT SHOWING USAGE STATISTICS
/* BY JOB. REMOVE THIS STEP IF THIS REPORT IS NOT DESIRED.
/*
// ASSGN SYS004,SYSLST
// TLBL SYS005,'EPIC.REC.BACKUP'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDJAC
/*
* STEP DAILY1.050 TSIDTAC
/*
/* PRODUCE THE DATE TIME ACTIVITY REPORT SHOWING USAGE STATISTICS
/* BY PARTITION. REMOVE THIS STEP IF THIS REPORT IS NOT DESIRED.
/*
// ASSGN SYS004,SYSLST
// TLBL SYS005,'EPIC.REC.BACKUP'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDTAC
/*
```

```
* STEP DAILY1.055 TSIDJLD
/*
/* MAINTAIN THE EPIC JOB ACCOUNTING DATABASE. REMOVE THIS STEP IF
/* THIS FILE IS NOT DESIRED. A SAMPLE IDCAMS DEFINITION FOR THE
/* TSIJACB.JOB.ACCOUNT VSAM KSDS FILE IS FOUND IN TSIJADB.SAMPJOB.
/* CORRECT OR REMOVE CAT= VALUE AS APPROPRIATE.
/*
// ASSGN SYS003,SYSIPT
// ASSGN SYS004,SYSLST
// DLBL SORTWK1,'$$$.SORTWK1'
// TLBL SYS005,'EPIC.REC.BACKUP',,,,,,2
// DLBL TSIJADB,'TSIJADB.JOB.ACCOUNT',,VSAM,CAT=USRCAT,BUFSP=32768
// EXEC TSIDJLD
ADD
/*
/&
```

Moving and Changing the Size of the DSN Catalog

The CATMOVE1 (or CATMOVE2) procedure provides an example of the procedure you should use if you need to move or change the size of your DSN Catalog. If your DSN Catalog was accidentally destroyed, use the procedure for emergency recovery. The CATMOVEn SAMPJOB procedures are supplied on the CA EPIC for z/VSE distribution tape.

Procedure

1. Deactivate CA EPIC for z/VSE with TSIDOFF in all machines which share the catalog except the machine you are using to move the DSN Catalog.
2. Back up the DSN Catalog with the BACKUP function of the TSIDUTL program.
3. Perform Recorder File maintenance and backup using the TSIDRFS program.
4. Turn CA EPIC for z/VSE off using TSIDOFF.
5. Format the new DSN Catalog using the TSIDCDK program.
6. If moving to a new volume, update Standard Labels in all machines that share this DSN Catalog.
7. Activate CA EPIC for z/VSE in the machine you are using to move the DSN Catalog.
8. Restore the DSN Catalog using the backup created in Step 2 above.
9. Reactivate CA EPIC for z/VSE in all machines that share this DSN Catalog.

Moving and Changing The Size of the Recorder File

The RECMOVE1 (or RECMOVE2) procedure provides an example of the procedure you should use if you need to move or change the size of your Recorder File. The RECMOVEn SAMPJOB procedures are supplied on the CA EPIC for z/VSE distribution tape.

Procedure

1. Deactivate CA EPIC for z/VSE with TSIDOFF in all machines which share the Recorder File EXCEPT the machine you are using to move the Recorder File.
2. Backup the catalog with the BACKUP function of the TSIDUTL program.
3. Perform Recorder File maintenance and backup using the TSIDRFS program.
4. Format the new Recorder File using the TSIDCDK program.
5. If moving to a new volume, update Standard Labels in all machines sharing this Recorder File.
6. Activate CA EPIC for z/VSE in a machine you are using to move the Recorder File.
7. Reactivate CA EPIC for z/VSE in all machines that share this Recorder File.

Emergency Recovery of the DSN Catalog

Use the procedure below to recreate the DSN Catalog after it has been accidentally destroyed.

The RECOVER1 (or RECOVER2) procedure contains all of the steps necessary to recover the DSN Catalog. The RECOVERn SAMPJOB procedures are supplied on the CA EPIC for z/VSE distribution tape.

Procedure

1. Using TSIDOFF, deactivate CA EPIC for z/VSE in all machines which share the DSN Catalog to be recovered.
2. Deactivate all Recorder systems.
3. Reactivate CA EPIC for z/VSE in the VSE machine being used to perform the recovery. Use the EPICON procedure normally used to bring up the machine. Ensure that no other processing takes place except the recovery.
4. Restore the DSN Catalog in the reactivated machine using the RESTORE function of TSIDUTL.
5. Back up the Recorder File(s) using the MAINT function of TSIDRFS. Use tapes that are uncontrolled (not listed in the DSN Catalog).
6. Perform forward recovery of the CA EPIC for z/VSE DSN Catalog using the specified datasets. To recover the DSN Catalog, set the UPSI switches to indicate which Recorder Files to use as input.

   Important! Do not execute TSIDBLD from the VSE operator console.
7. Close the backup dataset with the CLOSE function of Online Manager or TSIDMNT.
8. Back up the recovered DSN Catalog using the BACKUP function of TSIDUTL.
9. Reactivate CA EPIC for z/VSE in all machines which share the DSN Catalog.
10. Rerun TSIDVLT if it has been run since the last DSN Catalog backup was performed. TSIDVLT updates are not reflected after an emergency recovery.

UPSI Settings

The USPI switches are set as follows:

Switch	Description
UPSI 1xx	CA EPIC for z/VSE Recorder File (SYS005 = VSEBKUP)
UPSI x1x	CA EPIC for CMS Recorder File (SYS006 = CMSBKUP)

If the DSN Catalog is used by a single VSE system, the following is used:

```
// UPSI  100    (VSE ONLY)

// TLBL  VSEBKUP
```

If the DSN Catalog is shared between VSE and CMS, the following is used:

```
// UPSI  110    (VSE & CMS)
// TLBL  VSEBKUP

// TLBL  CMSBKUP
```

When sharing the DSN Catalog among mixed releases of CA EPIC for z/VSE, any CA EPIC for z/VSE Recorder File prior to Release 4.1 must be treated as a CMS Recorder File, with the appropriate UPSI switches and TLBL included in the JCL.

RECOVER1 Example

```
// JOB RECOVER1
/*
/* PURPOSE:   RECOVER THE EPIC/VSE CATALOG USING VSE LABELS.
/*
/* PREREQ:    z/VSE
/*
/* THE FOLLOWING TSIDMNT CONTROL STATEMENTS WILL CREATE THE REQUIRED
/* EPIC/VSE DATASET DEFINITIONS FOR THIS EXAMPLE. CODE ADDITIONAL
/* OPERANDS AS NEEDED.
/*
/*    CAT 'EPIC.CAT.BACKUP'
/*    CAT 'EPIC.VSE.BACKUP'
/*    CAT 'COMB.VSE.BACKUP'
/*    CAT 'EPIC.CMS.BACKUP'
/*    CAT 'COMB.CMS.BACKUP'
/*    CAT '$$$.SORTWK1' POL=POOLNM EXT=N WRK=YES
/*
/* EPIC MUST BE TURNED ON IN YOUR SYSTEM. IF UNABLE TO INITIALIZE
/* EPIC BECAUSE NO CATALOG CURRENTLY EXISTS, REFER TO THE EPIC
/* INSTALLATION GUIDE FOR INITIALIZING A NEW CATALOG. DO NOT
/* INITIALIZE THE RECORDER FILE. THE DATA CURRENTLY RESIDING IN THAT
/* FILE IS CRITICAL TO THIS RECOVERY PROCEDURE.
/*
* STEP RECOVER1.000 PAUSE
/*
/* TURN EPIC OFF IN ALL OTHER SYSTEMS WHICH SHARE THIS EPIC
/* CATALOG. ONCE THIS STEP IS COMPLETED, THIS WILL BE THE ONLY
/* ACTIVE SYSTEM THAT HAS ACCESS TO THIS EPIC CATALOG.
/*
// PAUSE TURN EPIC OFF ON ALL OTHER MACHINES SHARING THIS CATALOG
/*
* STEP RECOVER1.005 TSIDDEB
/*
/* ASSURE THAT START-TRACK-1 (OR START-BLOCK-1) DATASETS WILL BE
/* SUPPORTED BY YOUR EPIC/VSE SYSTEM. SINCE THE TSIDUTL RESTORE
/* FUNCTION WILL AUTOMATICALLY CLEAR THE EPIC/VSE CATALOG OF ALL
/* ENTRIES IN PREPARATION OF THE ACTUAL CATALOG RESTORE, NO DATASET
/* DEFINITIONS EXIST WHEN THE WORK AND SORTWK1 FILES ARE OPENED.
/* THEREFORE, THESE TWO FILES ARE IDENTIFIED USING TEMPORARY STRTK=1
/* DEFINITIONS AND BOTH WILL BE AUTOMATICALY DELETED WHEN THIS JOB
/* STREAM COMPLETES.
/*
/* ALSO, ENSURE A RESPONSE OF 'ACCEPT' IS ALLOWED IF MESSAGE
/* 'EP011 UNASSIGNED INPUT BACKUP ...' OCCURS WHEN ATTEMPTING THE
/* TSIDUTL FUNCTION.
/*
// EXEC TSIDDEB
OPTION STRTK=1,ACCEPT=YES
```

```
/*
* STEP RECOVER1.010 TSIDUTL
/*
/* RESTORE THE EPIC CATALOG. IF THE DATASET NAME REFERENCED IN THE
/* 'BACKUP' LABEL DOES NOT EXIST IN THE EPIC CATALOG, MESSAGE 'EP011
/* UNASSIGNED INPUT BACKUP ...' MAY APPEAR. THIS SHOULD BE ANSWERED
/* WITH THE CUU OF THE TAPE DRIVE WHERE THE CORRECT EPIC/VSE CATALOG
/* BACKUP HAS BEEN MOUNTED. IF THE MESSAGE 'EP001 MOUNT TAPE...'
/* IS ISSUED CALLING OTHER THAN THE VOLSER OF THE DESIRED EPIC
/* CATALOG BACKUP, RESPOND WITH THE CUU OF THE PHYSICAL TAPE DRIVE WHERE
/* THAT CORRECT BACKUP IS MOUNTED AND THEN RESPOND 'ACCEPT' TO MESSAGE
/* 'EP009 INCORRECT DATASET/VERSION ...' WHICH MAY ALSO OCCUR.
/*
// TLBL BACKUP,'EPIC.CAT.BACKUP',,,,,,2
// DLBL WORK,'EPIC.UTL.WORK(D)'
// EXTENT SYS002,POOLNM,,,1,15          <======= FIX ME!
// DLBL SORTWK1,'===.SORTWK1(X)'
// EXTENT SYS001,POOLNM,,,1,100         <======= FIX ME!
// EXEC TSIDUTL
RESTORE
/*
* STEP RECOVER1.015 TSIDMNT
/*
/* CHANGE STATUS OF THE EPIC.CAT.BACKUP TO CLOSED. THIS STEP IS NEEDED
/* SINCE THE STATUS OF THIS VERSION WAS OPEN WHILE THE CATALOG WAS BEING
/* COPIED TO TAPE.
/*
// EXEC TSIDMNT
CLOSE 'EPIC.CAT.BACKUP'
/*
* STEP RECOVER1.020 TSIDRFS
/*
/* PERFORM MAINTENANCE ON THE EPIC/VSE RECORDER FILE. THIS MAINTENANCE
/* COMBINES THE 'END', 'BACKUP', 'CLEAR', AND 'START' COMMANDS INTO A
/* SINGLE COMMAND WHICH ASSURES THAT ALL THESE REQUIRED FUNCTIONS ARE
/* ALWAYS PERFORMED AND IN THE CORRECT ORDER. THE OUTPUT MAY SPAN MORE
/* THAN ONE OUTPUT TAPE VOLUME.
/*
// TLBL RFBKUP,'EPIC.VSE.BACKUP'
// EXEC TSIDRFS
MAINT
/*
* STEP RECOVER1.025 TSIDSRT
/*
/* IF MORE THAN ONE EPIC/VSE RECORDER FILE BACKUP TAPE IS REQUIRED FOR
/* INPUT TO THIS RECOVERY PROCEDURE, USE JCL SIMILAR TO THIS TSIDSRT TO
/* COMBINE THEM INTO A SINGLE DATASET AS REQUIRED BY THE TSIDBLD
/* PROGRAM. IF ONLY THE 'EPIC.REC.BACKUP' DATASET VERSION CREATED ABOVE
/* IS REQUIRED AS INPUT TO THIS RECOVERY PROCEDURE, SKIP THIS STEP.
```

```
/*
// TLBL SORTIN1,'EPIC.VSE.BACKUP',,,,,1,2
// TLBL SORTIN2,'EPIC.VSE.BACKUP',,,,,2,2
// TLBL SORTOUT,'COMB.VSE.BACKUP'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDSRT
 SORT FIELDS=(29,5,CH,A,17,4,CH,A),WORK=1,FILES=2
 RECORD TYPE=F,LENGTH=338
 INPFIL BLKSIZE=5746
 OUTFIL BLKSIZE=5746
 OPTION PRINT=ALL,ROUTE=LST
 END
* STEP RECOVER1.030 EPIC/CMS
/*
/* IF EPIC/CMS IS UTILIZED, ACCOMPLISH THE CA EPIC for z/VSE/CMS RECORDER COMMAND TO
/* PERFORM THE 'MAINT' FUNCTION WHICH INCLUDES CREATING AN EPIC/CMS
/* RECORDER FILE BACKUP TO TAPE. THIS SAMPLE JOB ASSUMES THE DATASET
/* NAME FOR THIS EPIC/CMS RECORDER FILE BACKUP IS 'EPIC.CMS.BACKUP'.
/*
// PAUSE ACCOMPLISH EPIC/CMS RECORDER FILE BACKUP, IF APPROPRIATE.
/*
* STEP RECOVER1.035 TSIDSRT
/*
/* IF MORE THAN ONE EPIC/VSE RECORDER FILE BACKUP TAPE IS REQUIRED FOR
/* INPUT TO THIS RECOVERY PROCEDURE, USE JCL SIMILAR TO THIS TSIDSRT
/* TO COMBINE THEM INTO A SINGLE DATASET AS REQUIRED BY THE TSIDBLD
/* PROGRAM. IF ONLY THE 'EPIC.CMS.BACKUP' DATASET VERSION CREATED
/* ABOVE IS REQUIRED AS INPUT TO THIS RECOVERY PROCEDURE, OR
/* EPIC/CMS IS NOT UTILIZED, SKIP THIS STEP.
/*
// TLBL SORTIN1,'EPIC.CMS.BACKUP',,,,,1,2
// TLBL SORTIN2,'EPIC.CMS.BACKUP',,,,,2,2
// TLBL SORTOUT,'COMB.CMS.BACKUP'
// DLBL SORTWK1,'$$$.SORTWK1'
// EXEC TSIDSRT
 SORT FIELDS=(29,5,CH,A,17,4,CH,A),WORK=1,FILES=2
 RECORD TYPE=F,LENGTH=241
 INPFIL BLKSIZE=2410
 OUTFIL BLKSIZE=2410
 OPTION PRINT=ALL,ROUTE=LST
 END
* STEP RECOVER1.040 TSIDBLD
/*
/* ACCOMPLISH THE EPIC CATALOG RECOVERY PROGRAM. THIS SAMPLE JCL
/* NEEDS TO BE MODIFIED AS FOLLOWS:
/*
/*      // UPSI 10   USE IF ONLY EPIC/VSE IS UTILIZED
/*      // UPSI 11   USE IF BOTH EPIC/VSE AND EPIC/CMS ARE UTILIZED
/*
```

```
/* FOR // UPSI 10 ONLY, REMOVE THE LABEL FOR CMSBKUP.
/*
/* FOR BOTH // UPSI 10 AND // UPSI 11, CORRECT THE FILE-ID FOR VSEBKUP
/* IF MORE THAN ONE EPIC/VSE RECORDER FILE WAS COMBINED ABOVE.
/*
/* FOR // UPSI 11 ONLY, CORRECT THE FILE-ID FOR CMSBKUP IF MORE THAN
/* ONE EPIC/CMS RECORDER FILE WAS COMBINED ABOVE.
/*
// UPSI ??
// TLBL VSEBKUP,'EPIC.VSE.BACKUP'
// TLBL CMSBKUP,'EPIC.CMS.BACKUP'
// EXEC TSIDBLD
/*
// UPSI 00
/*
* STEP RECOVER1.045 TSIDUTL
/*
/* BACKUP THE NEWLY RECOVERED EPIC/VSE CATALOG TO TAPE.
/*
// TLBL BACKUP,'EPIC.CAT.BACKUP'
// EXEC TSIDUTL
BACKUP
/*
* STEP RECOVER1.050 PAUSE
/*
/* THE RECOVERY PROCEDURE HAS BEEN COMPLETED. BE SURE TO CHECK EACH
/* TSIDBLD PRINTED PAGE FOR CORRECTNESS.
/*
// PAUSE RECOVERY COMPLETE - BE SURE TO REVIEW OUTPUT.
/*
/&
```

Chapter 6: Additional CA EPIC for z/VSE Utilities

This section contains the following topics:

Maintaining the DSN Catalog (TSIDUTL)

TSIDUTL is a general catalog maintenance utility.

Note: For report examples, see "TSIDUTL Reports" in Appendix A of the *User Guide*.

Introduction

TSIDUTL performs functions related to the DSN Catalog as a whole, specifically:

Command	Function
ACLEJECT	Ejects vaulted tape volumes from an ACL
BACKUP and FASTBU	Backs up the DSN Catalog
DSCRATCH	Scratches expired disk datasets only
DSPLY	Displays dataset and version entries
INDEX	Reorganizes the index
PSCRATCH	Reports datasets that will scratch on a specified date
RESTORE and FASTRS	Restores or moves the DSN Catalog

Command	Function
SCRATCH	Scratches all expired datasets
TSCRATCH	Scratches expired tape datasets only

TSIDUTL can be executed from a batch job or from the operator console. In batch mode, control statements are read from SYSIPT. If it is executed from the console, statements are entered at the console (SYSLOG).

UPSI Values

Only the DSPLY and scratch functions depend on UPSI values. These values are listed in the individual sections describing the functions.

Dataset Requirements

SORTWK1 identifies a work dataset required for the INDEX, RESTORE, SCRATCH, PSCRATCH, TSCRATCH, and the DSPLY SEQ parameters.

BACKUP identifies the DSN Catalog backup for BACKUP and RESTORE.

FASTDS identifies the DSN Catalog backup for FASTBU and FASTRS.

IJSYSDS identifies the DSN Catalog dataset, sometimes required for FASTBU and FASTRS.

WORK identifies a temporary dataset required by the scratch and restore functions (SCRATCH, TSCRATCH, DSCRATCH, PSCRATCH, RESTORE, and FASTRS). Its size is dependent on the number of tape volumes containing OFFLOAD, MCAT, or sub-dataset versions. Allow 50 bytes per volume.

Control Statements and Examples

TSIDUTL functions are dictated by control statements. You may specify as many functions per execution as you wish. Individual control statements and TSIDUTL examples are presented in the following sections.

ACLEJECT

ACLEJECT ejects tape cartridges from an Automated Cartridge Library by reading the ACL Inventory Management Library created by TSIDVLT.

Whenever TSIDVLT is executed and any other tape volumes are moved from the main Vault (Vault 0) to another vault, TSIDVLT writes the volume serial number(s) to the ACL Management Library for later ejection through use of ACLEJECT control statement or the EP ACL EJECT command. This action allows operations staff to schedule the ejections based on workload considerations.

Syntax

```
ACLEJECT
```

UPSI Values

None

Dataset Requirements

SORTWK1 describes a required work dataset.
WORK describes a required work dataset.

Example

This execution ejects vaulted cartridges from an ACL.

```
// JOB ACLEJECT
// DLBL SORTWK1,'$$$.SORTWK1,(D)'
// EXTENT SYS001
// DLBL WORK,'$$$.SCRATCH.WORK,(D)'
// EXEC TSIDUTL
ACLEJECT

/*

/&
```

BACKUP

BACKUP performs a logical record backup of the DSN Catalog. DSN Catalog access is denied to other jobs while BACKUP is running. BACKUP tests record pointers to ensure catalog integrity. If any errors are detected, a diagnostic report is produced.

After BACKUP is run, we recommend backing up and clearing the Recorder File. For increased security, perform the two backups on separate tapes.

Catalogs backed up with the BACKUP function can only be restored with RESTORE. RESTORE can be used to create a DSN Catalog with a different size and location.

More information:

RESTORE (see page 230)

Syntax

```
BACKUP
```

UPSI Values

None

Dataset Requirements

No label information for the DSN Catalog is needed. BACKUP accesses the currently active catalog (the one that was opened when CA EPIC for z/VSE was started).

The backup dataset can be a controlled dataset, but it must be available even when CA EPIC for z/VSE is not running, so be sure to manually record the volume serial number on which the backup is written. A TLBL or DD statement for BACKUP is required.

Important! The backup dataset must not be reblocked. A reblocked backup dataset cannot be used to restore the DSN Catalog.

Example

This example produces a backup on tape.

```
// JOB  BACKUP DSN CATALOG
// TLBL BACKUP,'DSN.CATALOG.BKUP'
// EXEC TSIDUTL
BACKUP
/*
/&
```

DSPLY and BDSPLY

DSPLY produces reports listing all datasets or groups of datasets in the DSN Catalog. In most cases, a full report of each dataset's catalog entry is produced, with the CA EPIC for z/VSE dataset definition (EDD) highlighted for readability.

If a Memorex Automatic Tape Library is in use, DSPLY SCRATCH is used to synchronize the CA EPIC for z/VSE and Memorex LMS scratch pool inventories. Refer to for further information.

BDSPLY produces reports listing all datasets or groups of datasets in a DSN Catalog backup dataset created by TSIDUTL BACKUP. BDSPLY runs faster than DSPLY because it processes an image of the DSN Catalog, thus eliminating catalog contention.

UPSI Values

UPSI 1xxxxxxx prints dates in European format (DD/MM/YY).

UPSI x1xxxxxx suppresses EDD highlighting.

UPSI xxx1xxxx suppresses DSN Catalog update for the NEW subparameter.

UPSI xxxx1xxx bypasses CMS archive files.

Dataset Requirements

If the SEQ parameter is used, SORTWK1 is required. If BDSPLY is used, DSPWORK is required. DSPWORK can be any backup tape created by the BACKUP function (FASTBU tapes are not allowed).

Syntax

```
DSPLY dataset-qualifier [,report-qualifier]
         [,SEQ=sort-sequence]
BDSPLY dataset-qualifier [,report-qualifier]
         [,SEQ=sort-sequence]
```

dataset-qualifier is required. It must be one of the following:

Qualifier	Causes printing of...
ACTIVE	Active datasets only
ALL	All datasets in the DSN Catalog
DISK	Disk datasets only
DSN='*dataset-name*' (DSPLY only)	*Dataset-name* (not valid with BDSPLY)
NEW (DSPLY only)	Dataset versions created since the last time a DSPLY NEW report was run. NEW can be used to track the datasets created within a given period of time. The DSN Catalog is updated so that NEW reports only new versions the next time it is run. To bypass this update and continue accumulation of new versions for a future report, execute TSIDUTL with UPSI xxx1x. Not valid with BDSPLY.
PULL	The latest version of all datasets
PULL,DSN='*dataset-name*' (DSPLY only)	The latest version of *dataset-name* (not valid with BDSPLY)
SCRATCH	Scratch tapes. If a Memorex ATL is in use, DSPLY SCRATCH is used to keep the CA EPIC for z/VSE and Memorex LMS scratch pool inventories synchronized. Refer to "Synchronization of CA EPIC for z/VSE and Memorex LMS Scratch Pool Inventories" for further information.
TAPE	Tape datasets only
TAPEPOOL	Tapes in each tape pool. Page breaks occur between tape pools.
VAULT	Tapes stored in each offsite vault. Page breaks occur between vaults.

report-qualifier is optional. If used, it must be one of the following:

Qualifier	Causes printing of...
OWNER=*oid*	Only datasets with the specified Owner ID
SYSID=*sid*	Only datasets with the specified System ID
TPL=*tapepool*	Only tapes within *tapepool*
USERID=*uid*	Only datasets with the specified User ID
VLT=*vault*	Only datasets stored in *vault*

SEQ is optional. If it is not used, datasets are printed in the order in which they occur in the index. If SEQ is used, it must be the last parameter on the statement. *sort-sequence* must be one of the following:

Qualifier	Sorts by...
CDATE	Creation date
CJOB	Creation job name
DSN	Dataset name
ERROR	Total errors
SERIAL	Tape volume serial number
TAPEPOOL	Tape pool ID
VAULT	Vault and slot number
XDATE	Expiration date

Examples

The following job produces a report listing all datasets belonging to the system ID **TS** and the user ID **MR**. They are listed in the order in which they are found in the index.

```
// JOB DISPLAY DSN CATALOG
// EXEC TSIDUTL
DSPLY ALL,SYSID=TS,USERID=MR
/*
/&
```

The following job produce a report listing all vaulted tapes from a backup tape created two cycles ago. Within each vault number, tapes are listed in dataset name sequence.

```
// JOB DISPLAY DSN CATALOG
// ASSGN SYS001,DISK,SHR
// DLBL SORTWK1,'===.SORTWK1,(X)'
// EXTENT SYS001
// TLBL DSPWORK,'DSN.CATALOG.BACKUP,(V=3)',,,,,,2
// EXEC TSIDUTL
BDSPLY VAULT,SEQ=DSN
/*

/&
```

FASTBU

FASTBU performs a physical backup of the DSN Catalog. DSN Catalog access is denied to other jobs while FASTBU is running. Because FASTBU does not check record pointers, it should be used for problem determination only. Use the BACKUP function for daily backups.

To restore a catalog backed up with FASTBU, use FASTRS. FASTRS can be used to change the location of the DSN Catalog, but not its size.

More information:

FASTRS (see page 227)

Syntax

```
FASTBU
```

UPSI Values

None

Dataset Requirements

No label information for the DSN Catalog is neededBACKUP accesses the currently active catalog (the one that was opened when CA EPIC was started).

The backup dataset can be a controlled dataset, but it must be available even when CA EPIC is not running, so be sure to manually record the volume serial number on which the backup is written. A TLBL or DD statement for BACKUP is required. A TLBL or DD statement for FASTDS is required.

Important! The backup dataset must not be reblocked. A reblocked backup dataset cannot be used to restore the DSN Catalog.

Example

```
// JOB FAST BACKUP OF DSN Catalog
// TLBL FASTDS,'DSN.CATALOG.BKUP'
// EXEC TSIDUTL
FASTBU
/*
/&
```

FASTRS

FASTRS restores the DSN Catalog from a dataset created with FASTBU. FASTRS does not repair errors or reorganize the DSN Catalog. FASTRS can be used to change the location of the catalog, but not its size.

If the catalog was backed up with the BACKUP function, the RESTORE function must be used instead of FASTRS.

Note: For complete restore procedures in an emergency, see Emergency Recovery of the DSN Catalog (see page 212).

More information:

FASTBU (see page 226)

Syntax

FASTRS

Important! When running FASTRS, no other job or CPU should access the DSN Catalog.

UPSI Values

None

Dataset Requirements

There is no usable DSN Catalog at this time, so a TLBL and an ASSGN for the FASTDS backup dataset are required.

Example

```
// JOB RESTORE DSN CATALOG FROM FAST BACKUP
// TLBL FASTDS,'DSN.CATALOG.BKUP'
// ASSGN SYS005,cuu     (backup dataset)
// EXEC TSIDUTL
FASTRS
/*

/&
```

INDEX

INDEX reorganizes the index component of the DSN Catalog. Reorganization improves performance when accessing the DSN Catalog and provides better sorting for reports that have no sequence parameters (for instance, reports produced by TSIDMNT).

We recommend executing the INDEX function if a significant number of new datasets or tapes have been added to, or deleted from, the DSN Catalog. Normally, running CA EPIC for z/VSE with a stable DSN Catalog does not require an INDEX execution.

Syntax

```
INDEX
```

UPSI Values

None

Dataset Requirements

SORTWK1 is required. It must be either a Start Track 1 or uncontrolled dataset.

Example

```
// JOB INDEX DSN CATALOG
// DLBL SORTWK1,'===.SORTWK1,(D)'
// EXTENT SYS001,SYSWK1,1,0,1,15
// EXEC TSIDUTL
INDEX
/*

/&
```

RESTORE

RESTORE restores and reorganizes the DSN Catalog from a backup dataset created using TSIDUTL BACKUP. RESTORE can be used to create a DSN Catalog with a different size and location.

Note: For complete restore procedures in an emergency, see Emergency Recovery of the DSN Catalog (see page 212).

Important! When running a RESTORE, no other job or CPU should access the DSN Catalog. Do not attempt to back up and restore the DSN Catalog in the same TSIDUTL execution.

More information:

BACKUP (see page 222)

Syntax

```
RESTORE
```

UPSI Values

None

Dataset Requirements

SORTWK1 is required. SORTWK1 must be specified as either Start Track 1 or uncontrolled. SORTWK1 must be large enough to contain a 50-byte record for every dataset name and volume serial number in the DSN Catalog.

BACKUP is required. Its tape volume serial number or disk location must be identified.

WORK is required. WORK must be specified as either Start Track 1 or uncontrolled. WORK must be large enough to contain an 50-byte record for each subdataset (NSU) in the DSN Catalog. For tape-only systems, if a VSAM/SAM dataset is used for the WORK dataset, specify RECSIZE=50.

Example

```
// JOB  RESTORE DSN CATALOG
// ASSGN SYS001,DISK,VOL=SYSWK1,SHR
// ASSGN SYS002,DISK,VOL=SYSWK2,SHR
// DLBL SORTWK1,'===.SORTWK1,(X)'
// EXTENT SYS001,SYSWK1,1,0,1,300
// DLBL WORK,'===.RESTORE.WORK,(X)'
// EXTENT SYS002,SYSWK2,1,0,1,15
// TLBL BACKUP,'DSN.CATALOG.BKUP'
// EXEC TSIDUTL
RESTORE
/*

/&
```

VSAM WORK Dataset Example

```
// DLBL WORK,'%WORK',,VSAM,CAT=VSESPUC,DISP=OLD,                    X

        RECORDS=(500,250),RECSIZE=50
```

Scratch Functions

CA EPIC for z/VSE does not automatically scratch datasets. When a dataset version has satisfied all its retention criteria, it becomes *eligible* for scratch. For information about scratch eligibility, see "Rules for Dataset Retention" in the *User Guide*.

Running a scratch through the entire catalog may not always be suitable, and there are alternatives. If you wish to scratch a single dataset only, use the SCRATCH function of TSIDMNT. If you want a list of current scratch tapes, you can use the DSPLY SCRATCH function of TSIDUTL.

CA EPIC for z/VSE can now scratch backup/archive datasets created by CA EPIC for CMS. CA EPIC for CMS is responsible for placing then in scratch status.

TSIDUTL Scratch Functions

Function	Action
SCRATCH	Puts all eligible dataset versions in scratch status and produces a report of all new scratch tapes.
DSCRATCH	Scratches disk datasets only.
TSCRATCH	Scratches tape datasets only and produces a report of all new scratch tapes.
PSCRATCH	Produces a report projecting which datasets and tapes will be scratched by any date you specify. PSCRATCH does not project the expiration of disk datasets.

While SCRATCH, DSCRATCH, or TSCRATCH are running, no other partition should access the DSN Catalog.

For another CPU to access the DSN Catalog while SCRATCH, DSCRATCH, or TSCRATCH are running, the MULTCPU configuration option must be set to YES.

If Automatic Cartridge Libraries (ACL) are being supported, SCRATCH and TSCRATCH will set scratched tape volumes to "scratched" status in the ACL inventory.

UPSI Values

Switch	Action
UPSI xx1xxxxx	Prevents scratch of open datasets.
UPSI xxxxx1xx	Prevents scratch of any dataset created today.

Dataset Requirements

SORTWK1 is required. SORTWK1 must be large enough to contain a 300-byte record for every tape volume serial number to be scratched or projected as scratch.

WORK is required. WORK must be large enough to contain an 50-byte record for every multi-dataset tape volume serial number to be scratched or projected as scratch. For tape-only systems, if a VSAM/SAM dataset is used for the WORK dataset, specify RECSIZE=50.

Syntax

```
SCRATCH  [ SYSID=xx ][ ,USERID=yy ][ ,TIME ][ ,NOTFND ]

         [ ,THLDOPEN=nn ][ ,DHLDOPEN=nn ][ ,APURG=nnn ][ ,SCRCMS]
DSCRATCH  [ SYSID=xx ][ ,USERID=yy ][ ,TIME ][ ,NOTFND ]

          [ ,DHLDOPEN=nn ]

TSCRATCH  [ SYSID=xx ][ ,USERID=yy ][ ,TIME ][ ,THLDOPEN=nn ]

PSCRATCH  date-identifier [ ,SYSID=xx ][ ,USERID=yy ]
```

Parameters

APURG deletes CA EPIC for z/VSE dataset definitions (EDDs) that do not have any versions associated with them, if no versions of those datasets have been processed in the last nnn days. If you do not use the APURG parameter, these definitions remain in the DSN Catalog. TSIDUTL lists the deleted EDDs in the Scratch Report.

DHLDOPEN and THLDOPEN determine the number of days to hold (retain) datasets in open status. Specify the number of days after their creation date you want open datasets to be retained. DHLDOPEN applies to disk datasets. THLDOPEN applies to tape datasets.

NOTFND (valid with SCRATCH and DSCRATCH only) removes disk versions from the DSN Catalog even if their VTOC entries have already been erased or if the disk volume is not mounted. A warning message will be issued for each version affected.

SCRCMS allows scratching of tapes used for CA EPIC for CMS backup/archive files. Using this parameter creates an EDD named '*EPIC/CMS.SCRATCH.DSN*' and adds a version for every CA EPIC for CMS tape scratched. This information will be used to clean up the CMS minidisk area used for backup information.

SYSID limits the execution to datasets belonging to the specified system ID.

TIME forces a minimum retention of 24 hours for all generation datasets.

USERID limits the execution to datasets belonging to the specified user ID.

date-identifier specifies the date for which PSCRATCH will calculate projected generations to be scratched. The date may be specified as:

- A Julian date in the form yyyyddd (or yyddd)
- The literal 'TODAY' indicating the current date
- The literal 'TODAY+nnn', where nnn is a three digit number of days into the future to be used as a basis for the projected scratch

Examples

The following example scratches eligible datasets with the TR user ID. Disk versions will be protected from scratching for 1 day after their creation dates.

```
// JOB DISPLAY DSN CATALOG
// DLBL SORTWK1,'$$$.SORTWK1,(D)'
// EXTENT SYS001
// DLBL WORK,'$$$.SCRATCH.WORK,(D)'
// EXEC TSIDUTL
SCRATCH,USERID=TR,DHLDOPEN=1
/*

/&
```

The following example prints a report of all datasets eligible to be scratched on January 1, 1995.

```
// JOB DISPLAY DSN CATALOG
// DLBL SORTWK1,'$$$.SORTWK1,(D)'
// EXTENT SYS001
// DLBL WORK,'$$$.SCRATCH.WORK,(D)'
// EXEC TSIDUTL
PSCRATCH 95001
/*

/&
```

VSAM WORK Example

```
// DLBL WORK,'%WORK',,VSAM,CAT=VSESPUC,DISP=OLD,                    X
        RECORDS=(500,250),RECSIZE=50
```

Formatting the DSN Catalog and Recorder File (TSIDCDK)

Introduction

TSIDCDK creates and formats the DSN Catalog and the Recorder File. Only one of these files is formatted per execution. See the EPCKDCDK and EPFBACDK procedures in the CA EPIC for z/VSE installation library.

UPSI Values

None

Dataset Requirements

IJSYSDS identifies the DSN Catalog. The DSNAME configuration option does not affect this DTF name. If the DSN Catalog is to reside on an FBA device, specify CISIZE=4096.

IJSYSDR identifies the Recorder File. You may use the REC control statement to change this DTF name if necessary. If the Recorder File is to reside on an FBA device, specify CISIZE=2048.

See CA EPIC System Datasets (see page 44) for complete dataset requirements and recommendations.

Control Statements

You may specify only one control statement per execution. CAT creates the DSN Catalog. BCAT creates a DSN Catalog with a Master Index. A DSN Catalog created with BCAT is incompatible with CA EPIC systems that are earlier than Release 4.1. REC creates the Recorder File.

Syntax

```
CAT [=dtfname]
BCAT [=dtfname]
REC=IJSYSDR
```

dtfname indicates the DTF name of the DSN Catalog. This parameter must match the value on the DSNAME configuration option. The default is IJSYSDS. The Recorder File DTF name must be IJSYSDR.

CKD Example

```
*             CREATE EPIC DSN CATALOG
// ASSGN SYS240,150
// DLBL IJSYSDS,'EPIC.VSE.CATALOG',99/366
// EXTENT SYS240,TSI150,1,0,3750,1024
// EXEC TSIDCDK
 CAT=IJSYSDS
/*
*             CREATE EPIC RECORDER
// ASSGN SYS241,155
// DLBL IJSYSDR,'EPIC.VSE.RECORDER',99/366
// EXTENT SYS241,TSI155,1,0,3900,1024
// EXEC TSIDCDK
 REC=IJSYSDR

/*
```

FBA Example

```
// ASSGN SYS240,150
// DLBL IJSYSDS,'EPIC.VSE.CATALOG',99/366,,CISIZE=4096
// EXTENT SYS240,TSI150,1,0,5700,1024
// EXEC TSIDCDK
 CAT=IJSYSDS
/*
// ASSGN SYS241,155
// DLBL IJSYSDR,'EPIC.VSE.RECORDER',99/366,,CISIZE=2048
// EXTENT SYS241,TSI155,1,0,5700,1024
// EXEC TSIDCDK
 REC=IJSYSDR

/*
```

Rebuilding the DSN Catalog in an Emergency (TSIDBLD)

The TSIDBLD Program

TSIDBLD uses the Recorder File backup dataset to rebuild the DSN Catalog in the emergency recovery procedure. It updates the new DSN Catalog with activity that occurred since the last DSN Catalog backup.

Do not execute TSIDBLD from the VSE operator console.

See Emergency Recovery of the DSN Catalog (see page 212) for complete recovery procedures.

JCL Requirements

```
// UPSI xxx
// TLBL VSEBKUP,'VSE.recorder.backup'
// TLBL CMSBKUP,'CMS.recorder.backup'
// ASSGN SYS005,cuu    (VSEBKUP)
// ASSGN SYS006,cuu    (CMSBKUP)

// EXEC TSIDBLD
```

UPSI Values

Switch	Action
1x	Use VSEBKUP as input
x1	Use CMSBKUP as input

Dataset Requirements

VSEBKUP identifies the VSE Recorder File backup dataset.

CMSBKUP identifies the CMS Recorder File backup dataset.

Example

```
// UPSI 100            VSE Recorder File only

// UPSI 110            VSE and CMS Recorder Files
```

Reconfiguring CA EPIC for z/VSE Dynamically (TSIDDEB)

The TSIDDEB utility performs the following functions:

- Reporting on the operating environment
- Deactivating and reactivating CA EPIC for z/VSE by partition and by job
- Changing configuration option settings

TSIDDEB can be executed from the operator console or in a batch job. The TSIDDEB Summary Report provides a comprehensive view of the operating environment.

JCL Requirements

```
// EXEC TSIDDEB
control-statements

/*
```

Reporting Capabilities

TSIDDEB can produce the following reports:

- Summary Report
- Module dump
- Dump of a DSN Catalog entry
- Dump of entire DSN Catalog

The Summary Report provides a review of CA EPIC for z/VSE configuration options and miscellaneous information about the operating environment.

All output is directed to SYSLST. Tape output may be created by assigning SYSLST to an unlabeled tape before executing TSIDDEB.

Control Statements

Reports must be specifically requested using one of the following:

SUMMARY=YES requests a Summary Report. CA EPIC for z/VSE Technical Support requires this report for service purposes.

MODS=*module* requests a dump. MODS=ALL requests a dump of all modules. MODS=TSIDRVA dumps only the TSIDRVA module.

DSN=*dataset-name* prints the DSN Catalog records of one dataset entry.

DSN=ALL prints all DSN Catalog records.

DSN=*JOBQ* prints the JOBQ for the partition.

Deactivating and Reactivating CA EPIC for z/VSE by Partition

TSIDDEB deactivates and reactivates CA EPIC for z/VSE by partition. It can also be used if it is necessary to turn CA EPIC for z/VSE off to run a job. CA EPIC for z/VSE must be reactivated when the job is finished.

EPICOFF deactivates CA EPIC for z/VSE in a partition. *xx* specifies the partition ID. If you don't specify a partition ID, CA EPIC for z/VSE is deactivated in the partition in which TSIDDEB is run. For dynamic partitions, do not include the partition ID. Deactivation in dynamic partitions is effective only until end of job.

EPICON activates CA EPIC for z/VSE in a partition. *xx* specifies the partition ID. If you don't specify a partition name, CA EPIC for z/VSE is activated in the partition in which TSIDDEB is run. For dynamic partitions, do not include the partition ID.

Syntax

```
OPTION  EPICOFF=xx

OPTION  EPICON=xx
```

Examples

The following example deactivates CA EPIC for z/VSE in the BG partition.

```
// EXEC TSIDDEB
OPTION EPICOFF=BG

/*
```

The following example activates CA EPIC for z/VSE in the partition in which TSIDDEB is run.

```
// EXEC TSIDDEB
OPTION EPICON

/*
```

Overriding Configuration Options

TSIDDEB can be used to override many configuration options when CA EPIC for z/VSE is active. These overrides are active until CA EPIC for z/VSE is restarted, or until they are reset by another execution of TSIDDEB.

Options That TSIDDEB Cannot Modify

The following configuration options cannot be overridden by TSIDDEB. They can be redefined by modifying the option values in the ASI procedure and restarting CA EPIC for z/VSE.

Option	Description
ACLMEM	Memorex ATL support
ACLSRVR	Memorex LMS server name
AUTOATT	Autoattach
DISKALL	Disk control
DSNAME	DSN Catalog dataset name
ERDFILE	ERD DTF name
JOBACCT	Job accounting activation
JQNAME	JOBQ dataset name
PASSWD	Password protection
SLASIZE	Label interface table size
TAPE	Tape control
TAPPOL	Tape pool dataset name
VM	VM support

Control Statements

If you are executing TSIDDEB in a batch job, you must include the word OPTION followed by at least one blank. You can specify more than one configuration option per statement, up to column 72. Separate multiple configuration options by commas. You can use any number of control statements in a single execution.

If you are executing TSIDDEB from the operator console, you only need to enter the configuration option (for example, ACCEPT=NO instead of OPTION ACCEPT=NO). You may enter as many options as you wish at this time. Enter a null response (EOB on an empty line) to stop entering overrides.

Example

```
// JOB OPTION OVERRIDES
// EXEC TSIDDEB
OPTION ACCEPT=YES
OPTION TAPLUB=NO,AUTOSTP=YES,CANMSG=YES
/*

/&
```

Using the Operator Console

When TSIDDEB is executed from the operator console, the following menu is displayed:

```
***** TSIDDEB DEBUGGING UTILITY OPTION MENU *****

      A. SUMMARY REPORT

      E. MODULE DUMPS

      C. DSN CATALOG DUMP

      D. MODIFY PROCESSING OPTIONS

      E. ERD SHARE FILE OPTIONS

      F. RE-ESTABLISH IUCV PATH WITH ACL SERVER

ENTER LETTER OF REQUIRED OPTION OR (EOB) TO END
```

TSIDDEB Options

TSIDDEB requires a single-character response to activate processing. Processing options are described in the following table:

Option	Action
A	Produces the Summary Report on SYSLST
B	Produces a module dump on SYSLST. Includes submenus.
C	Produces a dump of one or all DSN Catalog entries on SYSLST. Includes submenus.
D	Allows dynamic modification of configuration options
E	Allows printing of ERD options on SYSLST. Includes submenus.
F	Allows re-establishment of the IUCV Path between CA EPIC for z/VSE and an ACL server. For more information about re-establishing the path, see VSE Guests (see page 194).

When TSIDDEB is executed in a batch job, CA EPIC for z/VSE automatically prints only the first page of the TSIDDEB Summary Report. When TSIDDEB is executed from the operator console, the Summary Report must be requested specifically.

Printing the Summary Report

The TSIDDEB Summary Report displays information about the operating environment.

Report Page 1

The first page of the Summary Report displays the current status of the operating environment in the following four areas:

Page 1 Area	Description
A. Processing Options	Available options and current settings
B. General Specifications	CA EPIC for z/VSE general environment and module addresses. Also PTFs and Special Options in effect.
C. System Dataset Specifications	Characteristics of CA EPIC for z/VSE system datasets that are active.
D. ACL Support Specifications	ACL information and current settings.

Page 1 Example

```
TSIDDEB                                  CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                          PAGE #      1
 TIME  14:28:45                                                                                            DATE 09/07/10

  A.  PROCESSING OPTIONS:

      ACCEPT  = YES            CATRT1  = NO           DSNAME  = IJSYSDS       MINRET  =     0          TAPE    = YES
      ACLAUTI = NO             CKDFACT =    30        DSNWARN =   200         MODE    = D0           TAPLUB  =    10
      ACLLIB  = EPTEST.ACLEPIC CMSTAPE = NO          DSNWMSG =    10         MSG088  = YES          TAPPOL  = TAPOLA
      ALLMALL = YES            CNTRL   = NO          EURODAT = NO           MULTCPU = YES          TSTJOB  =
      ALLMSG  = YES            CPUIDS  = 6           FBAFACT =     0        NCATDSK = NO           UNCDSK  = YES
      ALTMSGS = YES            CWDSPOL = POOL01      FRAG    = NO           NOGVIS  = CANCEL       UNCTAP  = YES
      AUTOATT = NO             CYCL    =     3       GDI     = YES          PREFIX  = EP           UNCTL   = NO
      AUTOCAT = NO   (TAPE)    DDERR   = IGNORE      GDIUR   = YES          PURBYP  = NO           UNLABEL = NO
      AUTOCAT = NO   (DISK)    DDGEN   = YES         JCLAC   = YES          RECORD  = YES          UNLOAD  = NO
      AUTOLOG = NO   (TAPE)    DEBUG   = NO          JCLLANG = YES          RECSHR  = YES          VM      =   111
      AUTOSTP = YES            DEFEXT  =     0       JCLOPT  = YES          RERUN   = YES          VSAM    = NO
      AUTSTPN =     3          DEFPOL  =             JCLOVRDE= NO           RETEN   =     7
      AUTSTPNO=     0          DEFTPL  =             JOBACCT = YES          RMNTPRT = NO
      AUTSTPT =     5          DEFWPOL =             JQNAME  = IJSYSJQ      SHARE   = NO
      AUTSTPTO=     0          DISKALL = YES         JQWARN  =     0        SLASIZE =   300
      BYPEXT  = NO             DSKLUB  =   100       JQWMSG  =     0        STRTRK  =     1
      CANMSG  = NO             DSKRET  =     7       MINDEX  = NO           TAPCUU  = F00


   B. GENERAL SPECIFICATIONS:                  C. SYSTEM DATASET SPECIFICATIONS:              D. ACL SUPPORT SPECIFICATIONS:

      SERIAL NUMBER 00122                        ---------  MASTER CATALOG  ---------            SUPPORT  ACTIVE :         N
      VERSION  5.2 1007   SP00                   DTFNAME          =  IJSYSDS                     SUPPORT  VIA VM :         N
      SYSTEM IS ACTIVE                           DEVICE ADDRESS   =      247                    TSIDIUCV ADDRESS:
      RECORDER SUBSYSTEM IS ACTIVE               DEVICE TYPE      =     3380                    TSIDIUCA ADDRESS:
      QDAS SUBSYSTEM IS ACTIVE                   WARNING START    =      200                    TSIDMRXA ADDRESS:
      PARTITION GETVIS 29664 BYTES               WARNING EVERY    =       10                    TSIDIBMA ADDRESS:
      SLA TABLE SIZE   68102 BYTES               MASTER  INDEX    =       NO                    TSIDSTKA ADDRESS:
                                                 START ADDRESS (CCHH/BLOCK) =  274.00           MEMOREX  ATL'S  :         N
                                                 END ADDRESS   (CCHH)       =  280.14           IBM      ATL'S  :         N
      TSIDSVA  LOAD ADDRESS   2143A8             ----------  JOBQ CATALOG  ----------           STK      ATL'S  :         N
      TSIDSRV  LOAD ADDRESS   2300D8             DTFNAME          =  IJSYSJQ                    ACL      LIBRARY:   EPTEST
      TSIDRVA  LOAD ADDRESS   272788             DEVICE ADDRESS   =      400                    ACL   SUBLIBRARY:   ACLEPIC
      TSIDJCL  LOAD ADDRESS   257770             DEVICE TYPE      =     FBAV                    REQUEST REGISTER:
      TSIDJCLM LOAD ADDRESS  8B1EDB0             WARNING START    =        0                    IUCV  PATH TABLE:
      TSIDOPE  LOAD ADDRESS   240508             WARNING EVERY    =        0                    ACLTIME          :         2
      TSIDDSN  LOAD ADDRESS   25DBF0             MASTER  INDEX    =       NO                    ACLRECS          :       100
      TSIDDSNM LOAD ADDRESS  8B27DB0             START ADDRESS (CCHH/BLOCK) =       2          ACLAUTI          :         N
              SLATABLE ADDR  8B055E0             NUMBER OF BLOCKS           =     472          ACLTPLDE         :         N
              PARTABLE ADDR  8B16000             ----------  RECORDER FILE  ----------         ACL SERVER ID    :
              UCBTABLE ADDR  8B03F10             DTFNAME          =  IJSYSDR
      TSIDTAP  LOAD ADDRESS   255DD8             DEVICE ADDRESS   =      247
      TSIDJOB  LOAD ADDRESS   25DF98             DEVICE TYPE      =     3380
      TSIDOSJ  LOAD ADDRESS   242FD8             START ADDRESS (CCHH/BLOCK) =  281.00
      TSIDSPM  LOAD ADDRESS   257958             END ADDRESS   (CCHH)       =  283.14
      TSIDTPA  LOAD ADDRESS  8B1B0C0             --------  ERD SHARED FILE  ---------
                                                 DTFNAME          =  IJSYSSP
                                                 DEVICE ADDRESS   =      247
                                                 DEVICE TYPE      =     3380
      PTF HISTORY:                               WARNING START    =        0
                                                 WARNING EVERY    =        0
                                                 START ADDRESS (CCHH/BLOCK) =  227.08
                                                 END ADDRESS   (CCHH)       =  227.14
```

Report Page 2

This page displays the Special Options currently in effect.

```
TSIDDEB                                CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                        PAGE #      2
TIME  14:28:45                                                                                        DATE 09/07/10

     SPECIAL OPTIONS IN EFFECT:

     EPS002 EPS003 EPS004 EPS280
     EPS281 EPS282 EPS284 EPS285
     EPS286 EPS289 EPS290
```

Report Page 3

This page displays the tape and disk pools defined to CA EPIC for z/VSE.

```
TSIDDEB                                CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                        PAGE #      3
 TIME  14:28:45                                                                                       DATE 09/07/10

                                      ********** TSIDPOL SUMMARY  **********

                                         POOL START ADDRESS       250528
                                         MAXIMUM MAP ENTRIES         400
                                         ILIST ADDRESS            250C60
                                         NLUBDTF ADDRESS          250C57
                                         NLUBPGM ADDRESS          250C4E
                          LOW        HIGH          VOLSER    LEVEL
          POOLID     VOLSER     ADDRESS     ADDRESS      STATUS    (Y/N)                    ILIST     NLUBDTF   NLUBPGM
          POOL01     EPC229           1        4499                  Y                     IJSYSRS   NLUBDTF   KJNLUB
                     EPC247           1        4499                                        IJSYSR1
                     EPC232           1        4499                                        IJSYSR2
                     EPC181           1        4499                                        IJSYSR3
                     EPC182           1        4499                                        IJSYSR4
          FBAVPL     EPV400           1     5728640                  N                     IJSYSRC
                     EPV401           1     5728640                                        IJQFILE
                     SYS2A1           1     5728640                                        IJDFILE
                     SYS2B1           1     5728640                                        IJAFILE
          POOL90     EPC241           1     5728640                  N                     EPLIB
          EPC129     EPC129           1     5728640                  N                     EXPLORE
          SYSWK0     SYSWK0           1     5728640                  N                     PRD1
          EPC181     EPC181           1     5728640                  N                     PRD2
          EPC182     EPC182           1     5728640                  N                     ISMDEV
          EPC229     EPC229           1     5728640                  N                     ISMINST
          EPC232     EPC232           1     5728640                  N                     ISMLIB
          EPC247     EPC247           1     5728640                  N                     ILDTF
          EPC360     EPC360           1     5728640                  N
          EPV400     EPV400           1     5728640                  N
          SYS2A1     SYS2A1           1     5728640                  N
          POOL50     POOL01                           EQUATED
          POOL80     POOL01                           EQUATED
          POLFBA     POOL01                           EQUATED
          EPC241     POOL90                           EQUATED
          TAPOLA     A           990000      990099   TAPE POOL
                     B           990100      990199
                     C           990200      990299
                     D           VW4980      VW4989
                     E           VW4910      VW4914
                     J           KC1100      KC1199
                     K           KC1000      KC1099
```

Report Page 4

This page displays the current QDAS operating environment.

```
TSIDDEB                              CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                              PAGE #      4
TIME  14:28:45                                                                                             DATE 09/07/10

                                      ********** QDAS VOLSER SUMMARY **********

                                          $IJJHCVH START ADDRESS   139950
                                          TSIVSVA  START ADDRESS   273D98
                                          TSIVDEF  START ADDRESS   273CF8
                                  VOLSER     MAPSIZE     MAPAREA      STATUS
                                  EPV400       400       8B53028                      FBA
                                  EPC232       400       8B02378      SHARED          CKD
                                  EPC247       400       8B016E8      SHARED          CKD
                                  EPC229       400       8B00A58      SHARED          CKD
                                  EPC181       400       8AFFDC8      SHARED          CKD
                                  EPC182       400       8AFF138      SHARED          CKD
                                  SYSWK0       400       8AFE4A8      SHARED          CKD
```

Report Page 5

This page displays the current VSE operating environment.

```
TSIDDEB                              CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                              PAGE #      5
TIME  14:28:45                                                                                             DATE 09/07/10

                                      ********** OPERATING ENVIRONMENT **********

                                      Z/VSE RELEASE   4.2.0         MAX TASKS =   255
                                      VSE/AF  RELEASE 8.2.0
                                      EXECUTION IN MODE = ESA       MACHINE=TECHEPIC
                                      CPUID   FF61008A20978000
                                      LPAR MODE NOT ACTIVE
                                      TURBO DISPATCHER IS ACTIVE
                                      UNI-PROCESSOR SUPPORT
                                      DASDSHR IS SUPPORTED
                                      VSE SECURITY IS NOT ON
                                      DASD FILE PROTECT NOT SUPPORTED
                                      JOB ACCOUNTING IS SUPPORTED

                                      CVT ADDRESS                      A0B0
                                      LTA ADDRESS                      8218
                                      PUB TABLE ADDRESS                53B8
                                      TOTAL NUMBER OF PUBS GENED       1024
                                      SVA PHASE AREA        (LOW)      D6000
                                      SVA PHASE AREA SIZE   (LOW)       5032K
                                      SVA PHASE AREA        (HIGH)   8000000
                                      SVA PHASE AREA SIZE   (HIGH)     12288K
                                      SYSTEM GETVIS ADDRESS (LOW)     387000
                                      SYSTEM GETVIS SIZE    (LOW)       2040K
                                      SYSTEM GETVIS ADDRESS (HIGH)   8372000
                                      SYSTEM GETVIS SIZE    (HIGH)     8760K
                                      EXTERNAL NEW PSW                 EEAE
                                      SVC      NEW PSW               8000E9AA
                                      PROGRAM  NEW PSW                 F21A
```

Report Page 6

This page displays current partition status.

```
TSIDDEB                                  CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                          PAGE #      6
TIME  14:28:45                                                                                             DATE 09/07/10

                                        ********** STATIC  PARTITIONS SUMMARY  **********
        ----- PARTITION ----   ------ GETVIS ------
 PART      START       SIZE       START       SIZE      COMREG   JOBNAME    NPGR   NSYS   LUBTAB   STASK   STATUS
  BG      800000       1024K     900000       3072K        5D0   PAUSEBG    255    050      21BC           EPIC IS ACTIVE
  FB                                                                                                       INACTIVE
  FA                                                                                                       INACTIVE
  F9                                                                                                       INACTIVE
  F8                                                                                                       INACTIVE
  F7                                                                                                       INACTIVE
  F6      800000       5120K     D00000      27648K       4638   NO NAME    255    050      3008           EPIC IS ACTIVE
  F5      800000       5632K     D80000      59904K       44E8   TSIDDEB    255    050      2DA6           EPIC IS ACTIVE
  F4      800000       2048K     A00000       2048K       4398   FAQSPCS    255    050      2B44       2   EPIC IS ACTIVE
  F3      800000       3072K     B00000       4096K       4248   VTAM       255    050      28E2       5   EPIC IS ACTIVE
  F2      800000       3072K     B00000       2048K       40F8   FAQS       255    050      2680       6   EPIC IS ACTIVE
  F1      800000       1024K     900000       2048K       3FA8   IPWPOWER   255    050      241E       1   EPIC IS ACTIVE
                                        ********** DYNAMIC CLASS TABLE SUMMARY **********
 CLASS   PART   NPGR     SIZE     ALLOC    SP-GVIS    PROFILE       MEMBER      STATUS
   T       9    255     01024K     6M       256K     TEPC3DYN     DTR$DYNE     ENABLED
   U      16    255     00512K     2M       128K     TEPC3DYN     DTR$DYNE     ENABLED
   V       9    255     02048K     4M       256K     TEPC3DYN     DTR$DYNE     ENABLED
   Y       9    255     02048K     20M      256K     TEPC3DYN     DTR$DYNE     ENABLED
                                        ********** DYNAMIC PARTITIONS SUMMARY  **********
        ----- PARTITION ----   ------ GETVIS ------
 PART      START       SIZE       START       SIZE      COMREG   JOBNAME                          STASK   STATUS
  Y1      840000       2048K     A40000      18176K     43C4F0   TCPIP00                              6   EPIC IS ACTIVE
```

Report Page 7

This page lists tape and disk devices attached to the current operating environment.

```
TSIDDEB                                  CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                    PAGE #      7
TIME  14:28:45                                                                                       DATE 09/07/10

  CUU   DEVICE TYPE   MODE/SER   ATTRIBUTES      PUB      PUB2      PUBX      INDEX    ACLNAME

  121    3380         SYSWK0     R     M        55F0     8D13C     922B4        47
  128    3380                    * DOWN *       55F8     8D14C     923B4        48
  129    3380         EPC129     R A   M        5600     8D15C     924B4        49
  181    3380         EPC181     R     M        5608     8D16C     925B4        4A
  182    3380         EPC182     R     M        5610     8D17C     926B4        4B
  183    3380         VSDAT2     R     M        5618     8D18C     927B4        4C
  202    FBA                     * DOWN *       5620     8D19C     928B4        4D
  203    FBA                     * DOWN *       5628     8D1AC     929B4        4E
  205    3380         OEMSP1     R     M        5630     8D1BC     92AB4        4F
  209    3390         CAISP6     R              5638     8D1CC     92BB4        50
  211    3380         IBMSP3     R     M        5640     8D1DC     92CB4        51
  212    3390         IBMSP1     R     M        5648     8D1EC     92DB4        52
  214    3380         CAISP8     R              5650     8D1FC     92EB4        53
  218    3390         IBMSP7     R     M        5658     8D20C     92FB4        54
  229    3380         EPC229     R A   M        5660     8D21C     930B4        55
  232    3380         EPC232     R A   M        5668     8D22C     931B4        56
  241    3390         EPC241     R     M        5670     8D23C     932B4        57
  243    3380         DEV243     R              5678     8D24C     933B4        58
  246    3380         EPC246     R     M        5680     8D25C     934B4        59
  247    3380         EPC247     R     M        5688     8D26C     935B4        5A
  260    ECKD                    * DOWN *       5690     8D27C     936B4        5B
  270    3390         V27EPC     R     M        5698     8D28C     937B4        5C
  280    3390         V31EPC     R     M        56A0     8D29C     938B4        5D
  507    ECKD                    * DOWN *       5868     8D87A     97194        96
  508    3390                    * DOWN *       5870     8D88A     97294        97
  540    3590-IDRC    18M                       5878     8D89A     97394        98
  541    3590-IDRC    18M                       5880     8D8B5     974B4        99
  542    3590-IDRC    18M                       5888     8D8D0     975D4        9A
  543    3590-IDRC    18M                       5890     8D8EB     976F4        9B
  544    3590-IDRC    18M                       5898     8D906     97814        9C
  550    3592-IDRC    11W                       58A0     8D921     97934        9D
  580    3480-IDRC    00                        58A8     8D93C     97A54        9E
  581    3480-IDRC    00                        58B0     8D957     97B5C        9F
  582    3480-IDRC    08                        58B8     8D972     97C64        A0
  583    3480-IDRC    08                        58C0     8D98D     97D6C        A1
  584    3480-IDRC    00                        58C8     8D9A8     97E74        A2
  585    3480-IDRC    00                        58D0     8D9C3     97F7C        A3
  590    3480-IDRC    08                        58D8     8D9DE     98084        A4
  591    3480-IDRC    08                        58E0     8D9F9     9818C        A5
  592    3490-E       08                        58E8     8DA14     98294        A6
  593    3490-E       08                        58F0     8DA2F     983B4        A7
  5A0    3480-IDRC    00                        58F8     8DA4A     984D4        A8
  5A1    3480-IDRC    00                        5900     8DA65     985DC        A9
  5A2    3480-IDRC    00                        5908     8DA80     986E4        AA
  5A3    3480-IDRC    00                        5910     8DA9B     987EC        AB
  5A4    3480-IDRC    00                        5918     8DAB6     988F4        AC
  5A5    3480-IDRC    00                        5920     8DAD1     989FC        AD
  5A6    3480-IDRC    00                        5928     8DAEC     98B04        AE
  5A7    3480-IDRC    00                        5930     8DB07     98C0C        AF
  5B0    3490-E       08                        5938     8DB22     98D14        B0
```

Report Page 8

This page displays the vendor products identified by CA EPIC.

```
TSIDDEB                                CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                        PAGE #      8
TIME  14:28:45                                                                                        DATE 09/07/10

                                                VENDOR PRODUCTS IDENTIFIED
     COMPANY           PRODUCT           RELEASE                 COMPANY           PRODUCT           RELEASE
     CA                SYSADAPTER        6 1 0                   CA                CATLG/MGMT        6 0 0
     CA                CAISPACE          1 1 0                   CA                CCI/VSE           1 1 0
     CA                ENF/VSE           1 0 0                   CA                SORT              9 0 0
     CA                GSS/VSE           5 0 0                   CA                IUCV              6 1 0
     CA                FAQS/ASO GSFAQS   5 0 0                   Computer Assoc    FAQS/PCS          5 0 0
     CA                FAQS ASO GSFTL    5 0 0                   CA                EPIC/VSE          5 2 0
     CSI Internat'l    TCP/IP, SYSID=00  1.5F G
```

Report Page 9

This page displays what system interfaces are available.

```
TSIDDEB                                CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                        PAGE #      9
TIME  14:28:45                                                                                        DATE 09/07/10

                                                  SYSTEM INTERFACES
                                                 ------------ ADDRESSES -----------
     INTERFACE       STATUS       TYPE     EPIC MOD      PRIOR         NEW         CURRENT
     AR              ACTIVE       EXIT     TSIDEAR                                 80250CF0
     PRE-OPEN        ACTIVE       EXIT     TSIDEO1                                 88284298
     POST-OPEN       ACTIVE       EXIT     TSIDEO2                                 882847F8
     PRE-CLOSE       ACTIVE       EXIT     TSIDEC1                                 88284E68
     POST-CLOSE      ACTIVE       EXIT     TSIDEC2                                 882854F8
     EOX             ACTIVE       EXIT     TSIDEOX                                 88285B60
     EOV             ACTIVE       SWAP     TSIDTAP      0013CC80     00255DD8      0013CC80
     VMSVC           ACTIVE       SWAP     TSIDVMS                                 0041F8D0
     IUCV            INACTIVE
     JOBEXIT         ACTIVE       EXIT     $JOBEX02                                001E09F8
     JOBACCT         ACTIVE       SWAP     TSIDJOB      00202148     0025DF98      0025DF98
     SLA             ACTIVE       SWAP     TSIDDSN      001126E8     0025DBF0      0025DBF0
     CVH             ACTIVE       SWAP     TSIVSVA      00139950                   00273D98
     LE/VSE          ACTIVE       EXIT     TSIDELE                                 80253CB8
     COBOL-II        INACTIVE
```

Report Page 10

This page displays the EPIC Dispatcher environment.

```
TSIDDEB                                CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                        PAGE #     10
TIME  14:28:45                                                                                        DATE 09/07/10

                                              EPIC DISPATCHER ENVIRONMENT

                                    ROLLING QUEUE     00000000
                                    REQUEST QUEUE     00000000
                                    TASK TABLE        00214B10

                                    TASK/SUBTASK                   TID     STATUS

                                    TASK                                   INACTIVE
```

Report Page 11

This page provides addresses of CA EPIC for z/VSE modules.

```
TSIDDEB                                CA EPIC FOR Z/VSE  -  DEB SUMMARY REPORT                                PAGE #     11
TIME  14:28:45                                                                                                  DATE 09/07/10

                                    ********** MODULE CROSS REFERENCE  **********
   MODULE      LOAD ADR    MODULE      LOAD ADR    MODULE      LOAD ADR    MODULE      LOAD ADR    MODULE      LOAD ADR
   ACLMNT        260F38    ALLOCRE       228820    BLDDDSN       2635F0    BLDTDSN       26F2A8    CALCSPCE      2297A8
   CANCEL        218E88    CATAUTO       21B298    CATNR         22BFB0    CATNV         22C148    CATRD         22C5A8
   CATRE         22C6E0    CATRR         22C2E0    CATRW         22C478    CATSVA        22C820    CHKHDR        22D600
   CLEANTBL      220768    CLODSN1       22F358    CLOSEDSK      261AA0    CLOSETAP      262698    CONLUBS       21FF48
   CONSOLE       21CBF0    CVTOC         21F498    DECDDTF       21A0E8    DECDLBL       263C18    DECDDLB       265DE0
   DECDLUB       21D1C0    DECDTLB       271208    DELEQUAL      220190    DEVIND        222D60    DFAST         264368
   DFASTIN       2650A8    DFCKREL       22AD38    DONTLAS       26CB68    DSPLY         21DFA0    ENCODE        227B28
   ERASELBL      224B38    FINDDSN       21A3A0    FINDERR       224E40    FINDF1        228428    FINDLUB       21C968
   FINDPOOL      220898    FINDPUB       2192D0    FINDRIVE      26E2D8    FNDSPAC       2671D0    FREER         266900
   GDIDKTP       221130    GDIOFF        22E440    GDITPDK       226498    GDIURTP       229DC8    GETLABEL      267D38
   GETVCE        21FAA8    GETVIS        2190F8    GETVSER       22B550    GINTER        22BA70    GVTAB         416010
   GVTABE        417FF0    IGNMOD        22A978    INIT          218410    INTVREQ       22D328    ISSUEMNT      2242C0
   ISSUEM1       22B7A8    JIBIT         21D328    JQNR          22C958    JQNV          22CAE0    JQRR          22CC68
   JQRW          22CDF0    JQTPOPN       22D140    KEY0OFF       219FD8    KEY0ON        219EC8    LBL2DISK      226258
   LBL2TAPE      2230D0    LCDSPLY       225568    LOCBLK        22E220    LSTPAT        216480    LUBALL        21C2E0
   MAKEMAN       268A00    MODDTF        225910    MT02I         22EF58    OVTOC         21F660    PATAREA       2166E0
   PATARE2       217410    POSTOPN       22DE08    PROWNER       2291A8    PVTOC         21F000    QUALTAP1      223AD0
   RDBLKID       22E0A8    READCON       21CE58    READHDR       225258    REBLKDSK      223408    REBLOCK       227618
   RECORDIT      21D5E8    RELEASE       219A98    REMVSER       22D888    RESERVE       219898    REWTAPE       224F68
   REWTTLBL      272278    RUNTAPE       225090    RWLBL2        26D2F8    SENSE         26DF60    SETCONC       220D60
   SETMSG        2696E8    SERVICE       22DA50    SIEZE         219C18    STARTIO       21D0C0    STRPDTF       26D838
   ST1IN         21DA68    SVAMAIN       216048    TFAST         26FE68    TFASTIN       270D10    TIMEOUT       224C90
   TPOPEN1       223790    TRUNK         21E890    UNASSGN       271D40    UNCLUB        21BC50    UNSIEZE       219DA8
   VALIDX        22CF18    VSAMDS        228C98    WRITHDR       2256E8    WRTF1LB       21ED40    XECBTF        21C198
   MODCTB        22F8B8
   TFVSEOPE      240508    TFVSERD       240A50    TFVSERE       240AAC    TFVSERW       241188    TFVSENV       240B58
   TFVSENR       240B00    TFVSEFR       240D3C    TFVSERR       240D4A    TFVSESR       24196C    TFVSESC       240BBC
   $SYSIDNT      23E8B0    $SYSGVIS      23E618    $SYSFVIS      23E390    $PREOPEN      23AEF0    $MNTINTF      2389E8
   $USEREXI      240160    $ACLSRV       231F18    $UCBSRV       23EA70    $SPINLOK      23C820    $JQUPD        237950
   $POLSCAN      23AD10    $JCLINFO      232178    $PARSE        238F18    $SECURE       23C6F0
```

Vaults and Vaulting Methods

The CA EPIC for z/VSE vaulting subsystem is configured using the VAULTDEF and METHOD macros. You can change the vaulting configuration by re-assembling and linking these macros. The changes are recognized the next time TSIDVLT is run. At that time, the Vault Movement Report lists all tapes that must be moved to reflect the changes.

Overview

Standard IBM macro coding rules apply to both macros. All VAULTDEF and METHOD macro statements must be assembled and link-edited together to create the TFVAULT module. The TFVAULT module must be in a library which is accessible to CA EPIC for z/VSE utility programs during execution.

Macro statements are restricted to 256 characters in length.

The TFVAULT module is created in three steps:

1. Define vault locations.
2. Define vaulting methods.
3. Assemble and link the VAULTDEF and METHOD macros.

Defining Vault Locations

Define each automatically controlled vault with the VAULTDEF macro. The EPVAULT procedure contains a shell for the VAULTDEF macro.

You can create as many as 65,535 automatically controlled vaults. Vaults are identified by number. The main library is always vault 0 (zero). CA EPIC for z/VSE assigns the other vault numbers to each vault in the sequence. They are specified in the VAULTDEF macro.

You can define the number of slots in each vault if you wish. If defined, the total number of slots in all vaults is limited to 32,767.

Syntax

```
VAULTDEF 'vault-name' [ ,ss,ns ][ ,AVAULTS= ]
```

Parameters

Parameter	Required?	Values	Default
vault-name	Yes	1 to 24 characters	None
ss	No	Any number	None
ns	No	Any number	None
AVAULTS	No	1 to 65535	100

vault-name specifies the 1 to 24-character name of the vault being defined. Enclose the name in apostrophes. You can define only one vault per VAULTDEF statement.

ss specifies the starting slot number. Use it to assign slot numbers to the vault. If *ss* and *ns* are not supplied, there is no limit to the number of tapes the vault can contain.

ns specifies the number of slots in the vault. It must be supplied when you use the *ss* parameter.

AVAULTS specifies the number of automatic vaults. Vaults with a number greater than the number specified here are manually controlled vaults (see "Manually Controlled Vaults," in the *User Guide*). AVAULTS is valid only when specified on the first VAULTDEF macro statement.

Examples

The following statement defines the vault named ACME Vault-1. It has room for 2,000 tapes and has slots numbered from 5000 to 6999.

```
VAULTDEF 'ACME VAULT-1',5000,2000
```

The following statement defines the KEARNEY vault. The AVAULTS parameter specifies that automatic vaults can number up to 500. It is valid if this is the first VAULTDEF statement.

```
VAULTDEF 'KEARNEY',AVAULTS=500
```

Defining Vaulting Methods

Vaulting methods are defined with METHOD macro statements. The EPVAULT procedure contains a shell of the METHOD macro.

You can define up to 255 vaulting methods. Specify vault method statements in ascending order by method number without any gaps between numbers. If you specify statements out of sequence or with gaps in the sequence, MNOTE errors will occur.

Syntax

```
METHOD method,version1,version2,...,version198
```

Parameters

Parameter	Required?	Values	Default
method	Yes	1-255	None
versionn	Yes	1-198	None

method specifies the number of the vaulting method being defined.

versionn specifies the number of the vault to which a dataset version is to be moved. Vault location numbers are positional: the first specifies the vault location of the first version, the second specifies the location of the second version, and so on. Only versions explicitly coded in the method are vaulted. Tape versions exceeding the number you specify in the method are returned to the main library.

Example

The following statement defines vaulting method number 2. Version 1 is located in the main library. Version 2 is moved to vault number 1. Version 3 is kept in vault number 1; version 4 is moved to vault 3; version 5 is kept in vault 3; version 6 is moved back to the main library.

```
METHOD 2,0,1,1,3,3
```

Assembling and Linking VAULTDEF and METHOD Macros

Using the JCL example, assemble and link-edit VAULTDEF and METHOD macros.

```
* $$ JOB JNM=EPVAULT,CLASS=A,DISP=D
* $$ LST CLASS=A,DEST=(*,USERID)
// JOB EPVAULT
*
* ------------------------------------------------------+
*  FOLLOWING IS A SHELL FOR THE VAULTDEF AND METHOD MACROS. !
*    MODIFY IT TO SUIT YOUR INSTALLATION REQUIREMENTS AND   |
*    THEN RUN THE JOB TO ASSEMBLE AND CATALOG IT TO THE EPIC|
*    INSTALL LIBRARY.                                       |
*                                                           |
*  CONSULT THE SYSTEM PROGRAMMER'S GUIDE FOR EXPLANATIONS OF|
*    ALL VAULTDEF AND METHOD MACRO PARAMETERS.              |
*                                                           |
*         PARAMETERS SURROUNDED BY ASTERISKS NEED TO BE     |
*         REPLACED                                          |
* ------------------------------------------------------+
*
// LIBDEF PHASE,CATALOG=*LIB.SUBLIB*   CA EPIC for z/VSE INSTALL LIBRARY
// LIBDEF *,SEARCH=*LIB.SUBLIB*        CA EPIC for z/VSE INSTALL LIBRARY
*
* ------------------------------------------------------+
*  LIBRARIES ABOVE ARE THE CA EPIC for z/VSE INSTALL LIBRARIES        |
* ------------------------------------------------------+
// PAUSE
*
// OPTION CATAL
// EXEC ASSEMBLY
*********************************************************************
*  VAULT 1 HAS 200 SLOTS NUMBERED 1 TO 200. DATASETS CATALOGED WITH*
*METHOD 1 WILL KEEP VERSIONS 1 AND 3 IN VAULT 1, VERSION 4 IN VAULT*
*  3 AND VERSION 2 IN THE MAIN TAPE LIBRARY.                      *
*  ====> ERASE THIS COMMENT BOX BEFORE ASSEMBLY <=====            *
*********************************************************************
         VAULTDEF 'VAULT 1',1,200
         VAULTDEF 'VAULT 2',1,500
         VAULTDEF 'VAULT 3',50,50
         METHOD 1,0,1,2
         METHOD 2,1,2,3,0
         METHOD 3,0,0,3,1,0
         END
/*
// EXEC LNKEDT
/*
/&
* $$ EOJ
```

Additional CA EPIC for z/VSE Macros

Sort Interface Macro (TSSRTDEF)

The TSSRTDEF macro defines how CA EPIC for z/VSE's TSIDSRT sort interface operates. It defines default logical unit numbers for SORTIN, SORTOUT, and SORTWK and specifies whether the EP242 RECORDS WRITTEN TO OUTPUT message is issued

A default macro is provided during installation. If you want to change the default options, modify, re-assemble, and link-edit the TSSRTDEF macro.

You must update the macro if the default SYS numbers specified for your SORT package differ from the macro's defaults. The macro's defaults are the same as the distributed defaults for each SORT package:

- SORTOUT=1
- SORTIN1=2
- SORTWK=Last SORTIN logical unit number +1

To simplify coding, the TSSRTDEF.A copybook is cataloged to the CA EPIC for z/VSE installation library.

Format

```
TSSRTDEF BYPWRKO=NO,                              X
         PRINT=NO,                                X
         ROUTE=BOTH,                              X
         SORTCTL=NO,                              X
         SORTIN=(n,n,n,...),                      X
         SORTOUT=n,                               X
         SORTWK=(n,n,n,...)
```

Parameters

Parameter	Required?	Values	Default
BYPWRKO	No	NO or YES	NO
PRINT	No	NO or YES	NO
ROUTE	No	BOTH, LST, or LOG	BOTH
SORTCTL	No	NO or YES	NO
SORTIN	No	1 to 255	2
SORTOUT	No	1 to 255	1
SORTWK	No	1 to 255	last + 1

BYPWRKO specifies whether TSIDSRT is to bypass the pre-open for SORTWK areas before invoking SORT. If NO, TSIDSRT pre-opens the SORTWK areas to ensure that proper assignments and extent information is available to the SORT. If YES, TSIDSRT bypasses the pre-open check, and all SORTWK assignments and extents must be properly supplied.

PRINT specifies whether the EP242 message is to be issued. NO suppresses the message. You can cause the message to be issued by supplying a SORT OPTION statement with PRINT=ALL. YES causes the message to be issued. You can suppress the message by supplying a SORT OPTION statement with PRINT=NONE or PRINT=CRITICAL.

ROUTE specifies where the EP242 message is to be issued. ROUTE=BOTH causes the message to be issued on both SYSLST and SYSLOG. ROUTE=LST causes the message to be issued only on SYSLST. ROUTE=LOG causes the message to be issued only on SYSLOG.

SORTCTL specifies whether the SORT control statements are to be displayed on SYSLST. NO suppresses display of the SORT control statements. YES enables display of the SORT control statements. The messages will be prefixed with the message number EP246. SORTCTL does not affect OPTION PRINT=ALL or your standard SORT configuration with respect to displaying the SORT control statements.

SORTIN specifies the default logical unit numbers for SORTIN1 through SORTIN9. Supply the logical unit number for SORTIN1 first, SORTIN2 second, etc. You can specify up to nine logical unit numbers. SORT OPTION statements override these numbers.

SORTOUT specifies the default logical unit numbers for SORTOUT. You can specify one logical unit number. SORT OPTION statements override this number.

SORTWK specifies the default logical unit numbers for SORTWK1 through SORTWK9. Supply the logical unit number for SORTWK1 first, SORTWK2 second, etc. You can specify up to nine logical unit numbers. SORT OPTION statements override these numbers.

Example

This example changes the default logical unit numbers to SYS010 through SYS016 for SORTIN1 through SORTIN7, to SYS020 for SORTOUT, and to SYS030 through SYS032 for SORTWK1 through SORTWK3. The EP242 message will be issued on both SYSLST and SYSLOG. SORT control statements will be displayed on SYSLST.

```
// OPTION CATAL
// EXEC ASSEMBLY
   TSSRTDEF SORTOUT=20,                              X
       SORTIN=(10,11,12,13,14,15,16),                X
       SORTWK=(30,31,32),                            X
       ROUTE=BOTH,                                   X
       PRINT=YES,                                    X
       SORTCTL=YES,                                  X
       BYPWRKO=NO
   END
/*
// EXEC LNKEDT
```

Job Scheduling Macro (TSIDFAV)

The TSIDFAV macro creates the TSIDFAVU phase containing user overrides of several TSIDFAV options.

If the TSIDFAV macro is not coded and assembled, default values are used.

Format

```
TSIDFAV  TYPE=NAME,NAME='report-heading'
         TYPE=LOC,LOC=column
         TYPE=EOF,EOF=eof-characters
         TYPE=SLI,SLI=sublibrary
         TYPE=FINAL
```

Parameters

report-heading is limited to 20 characters. The default is spaces.

column is the location (column) of the input/output code on the TLBL or DLBL statement. The default is 50. Possible code values are:

Value	Description
I	Input file
O	Output file
B	Both input and output. If B is specified, the next card column must contain the correct code for the direction of the first open. BI is input first, BO is output first.

eof-characters are the two characters in columns 1 and 2 indicating end-of-file. The default is two dashes (--).

sublibrary is the default source statement sublibrary used when processing POWER SLIs if no sublibrary is specified on the SLI statement. *sublibrary* must be identical to that specified during POWER installation. The default is G.

TYPE=FINAL must be coded last.

Example

```
// OPTION CATAL
// EXEC ASSEMBLY
   TSIDFAV TYPE=NAME,NAME='COMPUTER ASSOCIATES'
   TSIDFAV TYPE=SLI,SLI=K
   TSIDFAV TYPE=FINAL
   END
/*

// EXEC LNKEDT
```

Coding the Label Print Subroutine

You can use CA EPIC for z/VSE to create gummed dataset labels for output tapes automatically.

A CA EPIC for z/VSE program gathers information about a tape dataset when it is opened. You write a subroutine that formats the information and prints the label.

When an output tape dataset is opened, CA EPIC for z/VSE creates the following 58-byte record:

Field	Length
Dataset name	17 bytes
Volume serial number	6 bytes
Job name	8 bytes
Partition ID	2 bytes
Date	8 bytes (mm/dd/yy)
Time	6 bytes (hhmmss)
Tape device number (cuu)	3 bytes
Density	2 bytes (C0, C8, D0, and so on)
CPUID	4 bytes (binary)
Tape volume sequence	2 bytes (binary)

CA EPIC for z/VSE then passes the record and control to your subroutine. Your subroutine formats and prints the label, and then passes control back to CA EPIC for z/VSE.

You can print labels from CICS or in batch mode. Printing dataset labels in batch mode requires a dedicated printer and a dedicated partition. To print dataset labels online requires a dedicated printer and a dedicated terminal unless you start the transaction through the PLT. If you start the transaction through the PLT, you must dedicate a printer port to the transaction. That printer port can be freed by deleting the transaction from the PLT or by running the batch program ‘TSIDPEN’ as shown below:

```
// EXEC TSIDPEN
/*
```

The RMNTPRT configuration option must be set to YES.

You can write your subroutine in either COBOL or Assembler. You can use the copybook record layout TSIDBPR.C or TSIDPRT.A. Sample Assembler and COBOL subroutines are provided to demonstrate the coding technique required to print tape labels in a batch partition. These programs can be found in the CA EPIC for z/VSE installation library under the names TSIDPR.C and TSIDPR.A (COBOL and Assembler respectively). Both Assembler and COBOL subroutines should open the printer file (DTF) only once to avoid depletion of Partition GETVIS. The COBOL subroutine program ID must be TSIDPR to avoid a conflict with the entry point name which must be defined as TSIDPR1.

Printing Labels In Batch Mode

If you are running under VM and processing with VIRTUAL=REAL (instead of VIRTUAL=VIRTUAL), we recommend that you use CICS for your label printing.

1. Create your subroutine to format and print the label from the record passed by TSIDBPR. Use the sample programs found in the CA EPIC for z/VSE installation library as examples. Both an Assembler example, TSIDPR.A, and a COBOL example, TSIDPR.C, are provided.
2. Assemble or compile your subroutine, and then catalog it into the CA EPIC for z/VSE library as TSIDPR.OBJ.
3. Link TSIDPR with TSIDBPR and catalog the phase into the CA EPIC for z/VSE library. TSIDBPR uses standard linkage conventions. The following JCL example can be used to catalog the phase.

```
// JOB CATALOG TSIDBPR
// OPTION CATAL
 ACTION CLEAR
 INCLUDE TSIDBPR
 INCLUDE TSIDPR
/*
// EXEC LNKEDT
/*
/&
```

4. Execute the TSIDBPR program in any available partition.
5. To terminate the label printing function, execute the TSIDPEN program in any available partition.

Printing Labels Using CICS

1. Code your subroutine to format and print the label from the record passed by TSIDPRT. Use the sample COBOL program TSIDLPRT.C in the CA EPIC for z/VSE installation library. TSIDPRT passes the dataset record to your program through the transient data file. It uses XECBs or XPCCs to communicate between programs.
2. Compile your subroutine and catalog it into the CA EPIC for z/VSE installation library as TSIDLPRT.OBJ.

3. Link TSIDLPRT and catalog the phase into the CA EPIC for z/VSE installation library. TSIDPRT uses standard linkage conventions. The following JCL can be used to catalog the phase.

```
// JOB CATALOG TSIDLPRT
// OPTION CATAL
 ACTION CLEAR
 INCLUDE TSIDLPRT
/*
// EXEC LNKEDT
/*
/&
```

4. The TPRT transaction must be installed to print labels online. If TPRT is not installed, install it now. See Manual CICS Installation (see page 98) for procedures.

5. If you did not start the TSIDPRT program from the PLT table, then start the TPRT transaction from any available terminal. (This terminal is not released until CICS is cycled or when the batch program TSIDPEN is executed in any available partition).

User Exits

CA EPIC for z/VSE can extend the capabilities of security packages and job schedulers. It provides skeleton user exits for these interfaces, as well as a VSE Label utility.

Interfacing to Your Security Package (TSIDSEC)

At activation, CA EPIC for z/VSE looks for module TSIDSEC in the SVA. If this module is found, CA EPIC for z/VSE transfers control to TSIDSEC before opening disk dataset extents or tape dataset volumes.

CA EPIC for z/VSE passes a parameter list containing information about the dataset and function requested. The parameter list fields are defined in the EIM macro, which can be used as a DSECT.

You must insert code into the CA EPIC for z/VSE skeleton user exit TSIDSEC. Your code accesses your security package and requests it to determine whether the function is approved. Then your security package must either cancel the job or pass a return code indicating what CA EPIC for z/VSE is to do with the function.

TSIDSEC is written in ASSEMBLER. CA EPIC for z/VSE branches to TSIDSEC with Register 15 pointing to the entry point. It returns through Register 14. The address of the parameter list is passed in Register 1. Register 13 points to a 9-doubleword save area.

See the expansion of the EIM macro for more information on the use of registers, fields and values, and return codes.

Important! *Coding this user exit incorrectly can make CA EPIC for z/VSE inoperable. Do not undertake this task without adequate knowledge of CA EPIC for z/VSE and your security package.*

Procedure

Update the TSIDSEC exit as follows:

1. Punch the module TSIDSEC.A from the CA EPIC for z/VSE installation library.
2. Beginning at the area stating " PLACE ASSEMBLER CODE HERE FOR YOUR OWN SECURITY EXIT," call your security program and process as necessary.
3. If the function is approved, place a X'00' return code in the EIMRC field and pass control back to TSIDSEC.
4. If the function is not approved, your security program should cancel the job. If you want CA EPIC for z/VSE to cancel the job, place a X'10' in the EIMRC field.
5. Assemble and catalog TSIDSEC into the CA EPIC for z/VSE installation library.
6. Add the following entry to your SDL load procedure:
   ```
   TSIDSEC,SVA
   ```

Interfacing to Your Job Scheduling Package (TSIDPCS)

At activation, CA EPIC for z/VSE looks for the TSIDPCS module in the SVA. If this module is found, CA EPIC for z/VSE transfers control to TSIDPCS at close for tape and disk datasets and tape volumes. CA EPIC for z/VSE passes a parameter list containing information about the dataset or volume serial number processed. The parameter list fields are defined in the EIM macro, which can be used as a DSECT.

You must insert code into the CA EPIC for z/VSE skeleton user exit (TSIDPCS). Your code interfaces with your job scheduling package and processes as necessary.

TSIDPCS is written in Assembler. CA EPIC for z/VSE branches to TSIDPCS with Register 15. It returns through Register 14. The address of the parameter list is passed in Register 1. Register 13 points to a 9-doubleword save area.

See the expansion of the EIM macro for more information on the use of registers, fields and values, and return codes.

Important! Coding this user exit incorrectly can make CA EPIC for z/VSE inoperable. Do not undertake this task without adequate knowledge of CA EPIC for z/VSE and your scheduler.

Procedure

Update the TSIDPCS exit as follows:

1. Punch the module TSIDPCS.A from the CA EPIC for z/VSE installation library.
2. Beginning at the area stating " PLACE ASSEMBLER CODE HERE FOR YOUR OWN JOB SCHEDULING EXIT," call your scheduler and process as necessary.
3. Assemble and catalog TSIDPCS into the CA EPIC for z/VSE installation library.
4. Add the following entry to your SDL load procedure:
   ```
   TSIDPCS,SVA
   ```

Reading and Modifying a VSE Label

CA EPIC for z/VSE provides the TSIDUXI label exit to read and update a VSE label.

Using TSIDUXI, any field in a VSE label can be modified except the following:

- The 13-byte system code field
- File name (DTF name)
- Any field in the LPL

The TSIDUXI.A module is distributed as a basis for coding your exit routine.

Processing

The Label Exit must reside in 24-bit SVA. At activation, CA EPIC for z/VSE looks for module TSIDUXI in the SVA. Later, CA EPIC for z/VSE transfers control to it during open processing when a VSE label is retrieved from the Label Area. Standard calling conventions are used when CA EPIC for z/VSE passes control to TSIDUXI.

Registers

TSIDUXI uses the following registers:

Register	Points to...
1	Parameter list addressed by the EPLI macro
13	Save area
14	Return address
15	Base address

EPLI Macro and Parameter List

All communication between CA EPIC for z/VSE and the TSIDUXI exit uses a parameter list passed in Register 1. CA EPIC for z/VSE provides the EPLI macro to define this parameter list. The parameter list contains:

- The function code indicating the type of call
- The address of a work area
- The address of the parameter list applicable to each exit call

Installation Procedure

To install the TSIDUXI user exit routine, do the following steps:

1. Modify the TSIDUXI exit as desired.
2. Catalog TSIDUXI into a library which is available when the SVA is loaded.
3. Add the following statement to your SET SDL procedure:
   ```
   TSIDUXI,SVA
   ```
4. IPL

Displaying Tapes Required By a Job (TSIDLST)

The TSIDLST Program

The TSIDLST program displays the volume serial numbers of tapes required for the running of a specific application. The input to TSIDLST program consists of user-specifiable control statements. TSIDLST obtains the volume serial numbers from the DSN Catalog based on the dataset names in the D statements (see below). The TSIDLST parameters are:

- TITLE=*report-title*
- STEP=*step-name*
- D='*dataset-name*' [,V=*version-number*]
- NOTE=*user-comment*

All of these parameters can be combined on the same control statement if you wish.

Example

```
* $$ JOB JNM=JOHNM,CLASS=A,PRI=3
* $$ LST CLASS=A,DEST=(*,JOHNM)
// JOB JOHN
// EXEC TSIDLST
TITLE=THIS IS A TITLE STATEMENT - TEST OF TSIDLST
NOTE=THIS IS A TEST STATEMENT
D='JOHN.NAME.DISK',V=1
D='JOHN.NAME.DISK',V=1
D='JOHN.NAME.DISK1',V=1
D='JOHN.NAME.TAPE1',V=1
/*
/&

* $$ EOJ
```

Updating VTOC Entries (TSIDVUT)

TSIDVUT allows you to view and update existing VTOC entries. It performs the following functions:

Function	Action
DELETE	Deletes the VTOC entry.
PACKSCAN	Displays VTOC entries and allows you to perform any TSIDVUT update function from the operator console.
PERM	Changes the dataset's expiration date to 99366. This retains the dataset permanently and makes the dataset ineligible for deletion with the TSIDVUT ALL function or from the operator console.
RENAME	Changes the name in the VTOC entry.
RENUM	Increments the extent sequence by 1 (one). This is necessary to place uncontrolled datasets under CA EPIC for z/VSE control.
RENUMB	Decrements the extent sequence by 1 (one). This is necessary when taking datasets out of CA EPIC for z/VSE control.
RETAIN	Changes the dataset's expiration date to 99365.

TSIDVUT does no DSN Catalog processing. If it is used to update the entry of a cataloged dataset, the DSN Catalog and the VTOC will not agree and the results are unpredictable. Use Online Manager or TSIDMNT to update datasets in the DSN Catalog.

Important! Use TSIDVUT to update the entries of uncataloged datasets only.

JCL Requirements

```
// EXEC TSIDVUT
control statements

/*
```

UPSI Values

None

Dataset Requirements

None

Control Statements

TSIDVUT functions are specified on control statements. They can be entered as SYSIPT data or from the console.

All parameters are positional and must be separated by commas. All dataset names must be enclosed in apostrophes. Except for the PACKSCAN command, all control statements must include the following items:

command [*device-number*],*volser*,'*dataset-name*'[,G=*n*]

PACKSCAN Command

Use the PACKSCAN command to display and update VTOC entries from the operator console. You can perform any TSIDVUT update function, plus ADD, an additional function available only with the PACKSCAN command. ADD reactivates VTOC entries that have been marked as "deleted". Only datasets with less than four extents per volume can be reactivated.

When PACKSCAN is executed, TSIDVUT issues messages on the operator console and wait for operator responses. PACKSCAN processing is described below. See *Messages and Codes* for descriptions of the messages issued.

Syntax

PACKSCAN

EP766 Message

When you issue the PACKSCAN command, TSIDVUT issues message EP766. At this stage you identify the type of search you want (dataset or volid), or request the ADD function, or exit PACKSCAN.

Respond with any of the following:

- SEARCH='dsn' (to display the requested dataset)
- SEARCH='dsn.ALL' (to display all versions of the requested dataset)
- volid (to display all the datasets on the volume)
- ADD (to add a new VTOC entry)
- END (to exit PACKSCAN)

EP767 Message

Both SEARCH='dsn' and SEARCH='dsn.ALL' cause message EP767 to be issued. Respond with any of the following:

- volid (to identify the disk volume to search)
- NEWFILE (to request a new PACKSCAN function)
- END (to exit PACKSCAN)

If you entered a volid, see below. If you entered "NEWFILE", message EP766 will be issued (see above).

Volid

When you enter a volid, TSIDVUT displays the VTOC entries from that volume. If you entered SEARCH='dsn' previously, TSIDVUT searches only for the dataset you requested. If you entered SEARCH='dsn.ALL' previously, TSIDVUT searches for all matching datasets.

If there is no match for your dataset name or there are no VTOC entries on this volume, TSIDVUT issues EP767. See above for responses.

If there is a VTOC entry or a matching VTOC entry, TSIDVUT issues messages EP771 and EP772.

To change the VTOC entry, respond with any of the following:

- DELETE
- RENAME
- RENUM
- RENUMB
- PERM

These commands perform the same function in PACKSCAN as they do when specified on a TSIDVUT control statement. See the section that describes each individual command for more information on its use.

If you don't want to change the entry, you can respond with any of the following:

- [ENTER] to skip to the next match
- NEWFILE to request a new PACKSCAN function
- END to exit PACKSCAN

When all the matches or VTOC entries have been displayed, TSIDVUT issues message EP792. See above for responses.

ADD

When you request the ADD function, TSIDVUT issues message EP767. You can respond with any of the following:

- volid (to identify the disk volume you want to add the entry to)
- NEWFILE (to request a new PACKSCAN function)
- END (to exit PACKSCAN)

If you enter a volume, TSIDVUT issues several messages requesting information about the VTOC entry you want to create, beginning with message EP783. Enter the name of the dataset.

Next TSIDVUT issues message EP784. Enter the volume sequence number (from 1 to 9) for the volume.

If this is an FBA volume, TSIDVUT issues message EP790. Enter the number of blocks per control interval.

Next TSIDVUT issues message EP785. Enter the three-digit extent sequence number (from 000 to 255). If the dataset is controlled, the first extent sequence number is 001.

If this is an FBA volume, TSIDVUT issues message EP786. If not, TSIVUT issues message EP791. In both cases, enter the starting and ending addresses of the extent.

Next TSIDVUT re-issues message EP785. If there is another extent, enter the extent sequence number. If you have entered all the extents for this volume, enter PUTV.

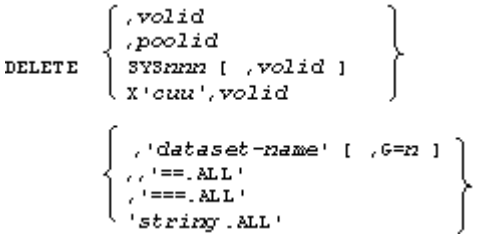
When you enter PUTV, TSIDVUT creates the VTOC entry and issues message EP766. See "PACKSCAN" (above) for responses.

DELETE Command

Use the DELETE command to delete an entry from the VTOC. This can be necessary when a dataset has been deleted from the DSN Catalog, but not from the VTOC. Because CA EPIC for z/VSE writes an expiration date of 99365 on all the labels created under its control, when the VTOC and the DSN Catalog do not agree, disk datasets must be manually deleted from the VTOC using the DELETE command.

You can also use DELETE to delete a non-CA EPIC for z/VSE dataset which is no longer needed but has not yet met its expiration date.

Syntax



Parameters

Parameter	Required?	Values	Default
Specify only one of the following four (required):			
volid		1 to 6 characters	None
poolid		1 to 6 characters	None
SYS*nnn*		000 to 254	None
X'*cuu*'		Any valid device address	None
Specify only one of the following four (required):			
dataset-name G=*n*	 No	1 to 44 characters 1 to 999999	None None
==.ALL		None	OFF
===.ALL		None	OFF
string.ALL		1 to 40 characters for the string. Not valid for generation datasets.	None

volid specifies the disk volume by volume serial number.

poolid specifies a disk pool. If *poolid* is specified, do not specify either SYS*nnn* or X'*cuu*'.

SYS*nnn* specifies the disk volume by logical unit number. If this operand is used, the logical unit number must already be assigned to the device. You can specify a volume in addition to the SYSnnn parameter. If both are specified, TSIDVUT processes the command only if the volume and logical unit number refer to the same volume.

X'*cuu*' specifies the disk volume by physical device address. You must also specify the volume.

'*dataset-name*' specifies a single dataset by name.

G=*n* specifies the generation number of the dataset to be processed. Use the G=n parameter in conjunction with the 'data.set.name' parameter when processing generation datasets.

'==.ALL' specifies all datasets that were created (1) using partition independence and (2) in the same partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition, all datasets beginning with BG will be processed.

'===.ALL' specifies all datasets that were created (1) using CPU and partition independence and (2) in the same CPU and partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition of CPU ID 2, all datasets beginning with BG2 will be processed.

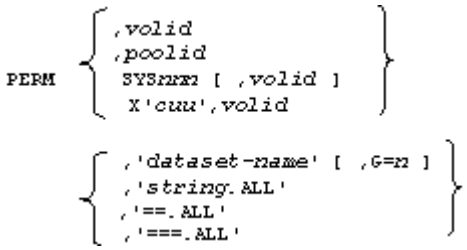
'*string*.ALL' specifies all datasets beginning with the character *string*. This option is not valid for generation datasets.

PERM Command

Use the PERM command to give a dataset permanent retention (expiration date 99366). Datasets that are permanently retained cannot be deleted in response to message EP038 INSUFFICIENT SPACE IN POOL. The DISPLAY response still lists all datasets in the pool.

You can also assign permanent retention to any controlled dataset by setting its Days Retention to PERM or by setting its expiration date to 99366.

Syntax



Parameters

volid specifies the disk volume by volume serial number.

poolid specifies a disk pool. If *poolid* is specified, do not specify either SYS*nnn* or X'c*uu*'.

SYS*nnn* specifies the disk volume by logical unit number. If this operand is used, the logical unit number must already be assigned to the device. You can specify a volume in addition to the SYSnnn parameter. If both are specified, TSIDVUT processes the command only if the volume and logical unit number refer to the same volume.

X'*cuu*' specifies the disk volume by physical device address. You must also specify the volume.

'*dataset-name*' specifies a single dataset by name.

G=*n* specifies the generation number of the dataset to be processed. Use the G=n parameter in conjunction with the 'data.set.name' parameter when processing generation datasets.

'==.ALL' specifies all datasets that were created (1) using partition independence and (2) in the same partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition, all datasets beginning with BG will be processed.

'===.ALL' specifies all datasets that were created (1) using CPU and partition independence and (2) in the same CPU and partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition of CPU ID 2, all datasets beginning with BG2 will be processed.

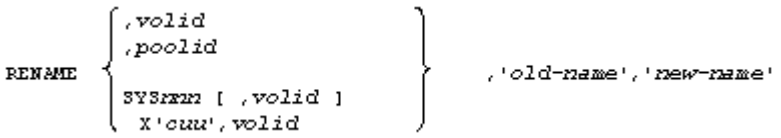
'*string*.ALL' specifies all datasets beginning with the character *string*. This option is not valid for generation datasets.

RENAME Command

Use RENAME to change the name in a dataset's VTOC entry.

Important! RENAME does not check for duplicate dataset names. You must be sure that the new name is not the same as the name of any existing dataset on the volume.

Syntax



Parameters

Parameter	Required?	Values	Default
Specify only one of the following four (required):			
volid		1 to 6 characters	None
poolid		1 to 6 characters	None
nnn		000 to 254	None
cuu		Any valid device address	None
old-name	Yes	1 to 44 characters	None
new-name	Yes	1 to 44 characters	None

volid specifies the disk volume by volume serial number.

poolid specifies a disk pool.If *poolid* is specified, do not specify either SYS*nnn* or X'*cuu*'.

SYS*nnn* specifies the disk volume by logical unit number. If this operand is used, the logical unit number must already be assigned to the device. You can specify a volume in addition to the SYSnnn parameter. If both are specified, TSIDVUT processes the command only if the volume and logical unit number refer to the same volume.

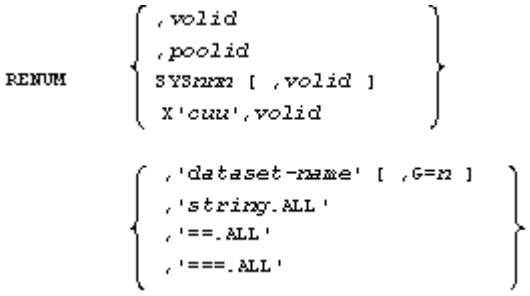
X'*cuu*' specifies the disk volume by physical device address. You must also specify the volume.

old-name and *new-name* specify first the current name, then the new name.

RENUM Command

Use RENUM when you place existing, uncontrolled disk datasets under CA EPIC for z/VSE control. CA EPIC for z/VSE disk extents start at one (1), so CA EPIC for z/VSE does not control datasets with extent sequences beginning at zero (0). RENUM increments such disk extent sequences so that they begin at one (1). RENUM is a conversion tool for new CA EPIC for z/VSE users.

Syntax



Parameters

Parameter	Required?	Values	Default
Specify only one of the following four (required):			
volid		1 to 6 characters	None
poolid		1 to 6 characters	None
nnn		000 to 254	None
cuu		Any valid device address	None
dataset-name	Yes	1 to 44 characters	None
n	No	1 to 999999	None

volid specifies the disk volume by volume serial number.

poolid specifies a disk pool. If *poolid* is specified, do not specify either SYS*nnn* or X'*cuu*'.

SYS*nnn* specifies the disk volume by logical unit number. If this operand is used, the logical unit number must already be assigned to the device. You can specify a volume in addition to the SYSnnn parameter. If both are specified, TSIDVUT processes the command only if the volume and logical unit number refer to the same volume.

X'*cuu*' specifies the disk volume by physical device address. You must also specify the volume.

'*dataset-name*' specifies a single dataset by name.

G=*n* specifies the generation number of the dataset to be processed. Use the G=n parameter in conjunction with the 'data.set.name' parameter when processing generation datasets.

'==.ALL' specifies all datasets that were created (1) using partition independence and (2) in the same partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition, all datasets beginning with BG will be processed.

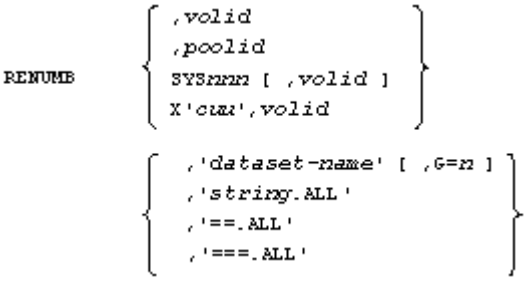
'===.ALL' specifies all datasets that were created (1) using CPU and partition independence and (2) in the same CPU and partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition of CPU ID 2, all datasets beginning with BG2 will be processed.

'*string*.ALL' specifies all datasets beginning with the character *string*. This option is not valid for generation datasets.

RENUMB Command

Use RENUMB to remove controlled disk datasets from CA EPIC for z/VSE control. RENUMB decrements disk extent sequences that begin at one (1) so that they begin at zero (0).

Syntax



Parameters

Parameter	Required?	Values	Default
Specify only one of the following four (required):			
volid		1 to 6 characters	None
poolid		1 to 6 characters	None
nnn		0000 to 254	None
cuu		Any valid device address	None
dataset-name	Yes	1 to 44 characters	None
n	No	1 to 999999	None

volid specifies the disk volume by volume serial number.

poolid specifies a disk pool. If *poolid* is specified, do not specify either SYS*nnn* or X'*cuu*'.

SYS*nnn* specifies the disk volume by logical unit number. If this operand is used, the logical unit number must already be assigned to the device. You can specify a volume in addition to the SYSnnn parameter. If both are specified, TSIDVUT processes the command only if the volume and logical unit number refer to the same volume.

X'*cuu*' specifies the disk volume by physical device address. You must also specify the volume.

'*dataset-name*' specifies a single dataset by name.

G=*n* specifies the generation number of the dataset to be processed. Use the G=n parameter in conjunction with the 'data.set.name' parameter when processing generation datasets.

'==.ALL' specifies all datasets that were created (1) using partition independence and (2) in the same partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition, all datasets beginning with BG will be processed.

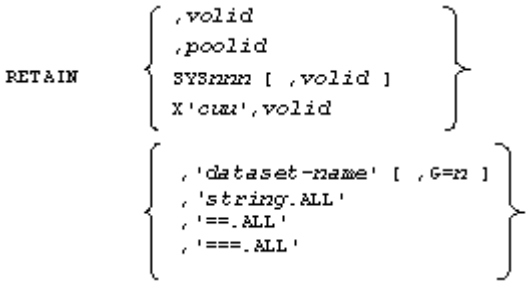
'===.ALL' specifies all datasets that were created (1) using CPU and partition independence and (2) in the same CPU and partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition of CPU ID 2, all datasets beginning with BG2 will be processed.

'*string*.ALL' specifies all datasets beginning with the character *string*. This option is not valid for generation datasets.

RETAIN Command

Use RETAIN to change a dataset's expiration date to 99365. The dataset will be eligible for deletion in response to message EP038.

Syntax



Parameters

Parameter	Required?	Values	Default
Specify only one of the following four (required):			
volid		1 to 6 characters	None
poolid		1 to 6 characters	None
nnn		000 to 254	None
cuu		Any valid device address	None
Code only one of the following four (required):			
dataset-name		1 to 44 characters	None
n	No	1 to 999999	None
string.ALL		1 to 40 characters for the string	None
==.ALL		None	OFF
===.ALL		None	OFF

volid specifies the disk volume by volume serial number.

poolid specifies a disk pool. If *poolid* is specified, do not specify either SYS*nnn* or X'c*uu*'.

SYS*nnn* specifies the disk volume by logical unit number. If this operand is used, the logical unit number must already be assigned to the device. You can specify a volume in addition to the SYSnnn parameter. If both are specified, TSIDVUT processes the command only if the volume and logical unit number refer to the same volume.

X'*cuu*' specifies the disk volume by physical device address. You must also specify the volume.

'*dataset-name*' specifies a single dataset by name.

G=*n* specifies the generation number of the dataset to be processed. Use the G=n parameter in conjunction with the 'data.set.name' parameter when processing generation datasets.

'==.ALL' specifies all datasets that were created (1) using partition independence and (2) in the same partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition, all datasets beginning with BG will be processed.

'===.ALL' specifies all datasets that were created (1) using CPU and partition independence and (2) in the same CPU and partition in which TSIDVUT is executed. For example, if you execute TSIDVUT in the BG partition of CPU ID 2, all datasets beginning with BG2 will be processed.

'*string*.ALL' specifies all datasets beginning with the character *string*. This option is not valid for generation datasets.

Appendix A: Sample JCL

This section contains the following topics:

Extract the Product Installation JCL

Overview

This appendix provides the instructions you need to follow to perform the following tasks:

- Extract the product installation JCL from a physical installation tape or electronic software delivery (ESD) file
- Install the product into test libraries so that you can verify and test before migrating into the production libraries
- Migrate the product from the validation/test environment into the production libraries

Extracting the Product Installation JCL

The job you use to extract the installation JCL depends on the medium on which the product is delivered. It is one of the following:

- CAINSTB0—Use this job if your product is delivered on a physical tape
- CAINSTC0—Use this job if your product is delivered as an ESD file

These jobs are described in detail in the sections that follow.

From the Physical Tape

Use the following JCL to extract the installation JCL from the physical tape.

```
* ****************************************************************
* ***                                                          ***
* ***    Update the following SETPARM statements:              ***
* ***                                                          ***
* ***    @LIBNAME   to the name of the library you are using   ***
* ***                                                          ***
* ***    @SUBNAME   to the name of the sublibrary you are      ***
* ***               using.                                     ***
* ***                                                          ***
* ***    @TAPECUU   to the tape drive address where the        ***
* ***               physical tape is mounted.                  ***
* ***                                                          ***
* ****************************************************************

    // JOB     CAINSTB0          CATAL INSTALL JCL TO LIBRARY
    // SETPARM LIBNAME=@LIBNAME  replace with library name
    // SETPARM SUBNAME=@SUBNAME  replace with sublibrary name
    // SETPARM TAPECUU=@TAPECUU  replace with install tape address
    // MTC     FSF,&TAPECUU,7
    // ASSGN   SYSIPT,&TAPECUU
    // EXEC LIBR,SIZE=256K,PARM='ACCESS SUBLIB=&LIBNAME..&SUBNAME'
    // RESET   SYSIPT
    /&
```

From Electronic Delivery File

Use the following JCL to extract the installation JCL from the electronic delivery file.

```
* ************************************************************
* ***                                                      ***
* ***   Update the following SETPARM statements:           ***
* ***                                                      ***
* ***    @LIBNAME   to the name of the library you are using. ***
* ***                                                      ***
* ***    @SUBNAME   to the name of the sublibrary you are    ***
* ***               using.                                 ***
* ***                                                      ***
* ***    @TAPECUU   to the tape drive address of the IBM     ***
* ***               virtual tape used to read the .AWS file. ***
* ***                                                      ***
* ***    @IPADDR    to the IP address of the machine that    ***
* ***               currently holds the .AWS file, and that ***
* ***               has the IBM Virtual Tape Server running ***
* ***               in JAVA. This value must be enclosed in ***
* ***               single quote marks ('). For example:    ***
* ***               '123.231.132.321'                      ***
* ***                                                      ***
* ***    @AWSFILE   to the fully qualified location and name ***
* ***               of the CA Product .AWS file. This value ***
* ***               must be enclosed in single quote        ***
* ***               quote marks ('). For example:          ***
* ***               'E:\filename.AWS'                      ***
* ***                                                      ***

* ************************************************************
```

```
// JOB     CAINSTC0              CATAL INSTALL JCL TO LIBRARY
// SETPARM LIBNAME=@LIBNAME
// SETPARM SUBNAME=@SUBNAME
// SETPARM TAPECUU=@TAPECUU
// SETPARM IPADDR=@IPADDR
// SETPARM AWSFILE=@AWSFILE
// ON $CANCEL GOTO RELTAP
DVCDN &TAPECUU
VTAPE START,UNIT=&TAPECUU,LOC=&IPADDR,                                  x
               FILE='&AWSFILE',READ
DVCUP &TAPECUU
// MTC REW,&TAPECUU
// MTC FSF,&TAPECUU,7
// ASSGN SYSIPT,&TAPECUU
// EXEC LIBR,SIZE=256K,PARM='ACCESS SUBLIB=&LIBNAME..&SUBNAME'
// RESET SYSIPT
/. RELTAP
DVCDN &TAPECUU
VTAPE STOP,UNIT=&TAPECUU
DVCUP &TAPECUU
/&
```

Installing the CA Product

The job you use to install the product depends on the medium on which the product is delivered:

- CAINSTB2—Use this job if your product is delivered on a physical tape
- CAINSTC2—Use this job if your product is delivered as an ESD file

Either job installs the CA product into test libraries, so that you can perform installation verification and testing before migrating the product into the production libraries. (Product migration is discussed later in this appendix.) If you prefer to install the product directly into an existing library and history file, see Performing a Direct CA Installation later in this appendix.

CAINSTB2 and CAINSTC2 are described in detail in the sections that follow.

Installing from a Physical Tape: CAINSTB2

The following sections explain installing from a physical tape: CAINSTB2.

Installation JCL - CAINSTB2

CAINSTB2 is used to install a product from a physical tape into test libraries to allow installation verification and testing before migration into the production libraries.

After the product tape is successfully installed, proceed with the steps in this guide.

The following table provides you with the variable symbols for JOB CAINSTB2.

Variable	Description
@CUSTNME	Customer name used to personalize the MSHP history file.
@CUSTADD	Customer address used to personalize the MSHP history file.
@CUSTPHN	Customer phone # used to personalize the MSHP history file.
@PROGNME	Customer programmer name used to personalize the history file.
@INSTVOL	Volume serial # where the CA product installation history file will reside.
@INSTREL	Relative track or block where the CA product installation history file is to begin.
@INSTEXT	Number of tracks or blocks to be allocated to the CA product installation history file.
@ILIBVOL	Volume serial # where the CA product installation library will reside.
@ILIBREL	Relative track or block where the CA product installation library is to begin.
@ILIBEXT	Number of tracks or blocks to be allocated to the CA product installation library.
@PRODCDE	The CA product code for CA EPIC for z/VSE: (SKX52)
@PRODUCT	Product name: CA EPIC for z/VSE.
@TAPECUU	The device address where the product tape will be mounted

CAINSTB2 Execution

CAINSTB2 performs the following functions:

1. Open SYSPCH using the extents of the history file. This is a precautionary measure to avoid errors when the history file extent resides on a newly defined VM minidisk.
2. Create the CA installation libraries and history file for the product tape being installed.
3. Install the product tape to the installation history file and libraries.

Installing from an ESD File: CAINSTC2

Use the CAINSTC2 JCL to install the product from an ESD file into test libraries for verification and testing.

The following table describes the variable symbols for CAINSTC2.

Variable	Description
@PRODCDE	The CA product code for CA EPIC for z/VSE: (SKX52).
@INSTVOL	The volume serial number where the installation CA history file will reside.
@INSTREL	Relative track or block number for the start of the installation CA history file.
@INSTEXT	The number of tracks or blocks to be allocated to the installation CA history file.
@TAPECUU	The device address of the IBM VSE Virtual Tape used to read the .AWS file.
@ILIBVOL	The volume serial number where the installation CA library will reside.
@ILIBREL	Relative track or block number from where the installation CA library is to begin.
@ILIBEXT	The number of tracks or blocks to be allocated to the installation CA library.
@IPADDR	The IP address of the machine that currently holds the .AWS file, and that has the IBM VSE Virtual Tape Server running in JAVA. This value must be enclosed in single quote marks ('). For example: '123.231.132.321'
@AWSFILE	The fully qualified location and name of the CA EPIC for z/VSE .AWS file. This value must be enclosed in single quote marks ('). For example: 'E:\filename.AWS'
Also Change the Following	Change each './' to a '// ' Change each '.*' to a '/* Change each '.&' to a '/&'

CAINSTC2 Execution

CAINSTC2 performs the following functions:

1. Open SYSPCH using the extents of the history file. This is a precautionary measure to avoid errors when the history file extent resides on a newly defined VM minidisk.

2. Create the CA installation libraries and history file for the product being installed from the electronic delivery file.
3. Install the product to the installation history file and library from the electronic delivery file.

Migration of CA Products into Production

Installation JCL— CAINSTB3

CAINSTB3 is used to migrate a product into the production libraries and history file when a product was installed into installation libraries and history file using either CAINSTB2 or CAINSTC2. This step should only be executed after product installation, customization, verification and testing are complete.

The sample JCL member CAINSTB3.Z is located in the library specified when either job CAINSTB0 or CAINSTC0 was executed.

After this process is complete, the installation libraries and history file can be deleted.

The following table describes the variable symbols for CAINSTB3.

Variable	Description
@HISTVOL	Volume serial # where the CA production history file will reside.
@HISTREL	Relative track or block where the CA production history file is to begin.
@HISTEXT	Number of tracks or blocks to be allocated to the CA production history file.
@DLIBVOL	Volume serial # where the CA production library will reside.
@INSTVOL	Volume serial # where the CA product installation history file resides.
@INSTREL	Relative track or block where the CA product installation history file begins.
@INSTEXT	Number of tracks or blocks allocated to the CA product installation history file.
@ILIBVOL	Volume serial # where the CA product installation library resides.

CAINSTB3 Execution

CAINSTB3 merges the tested product or products into the production libraries and history file.

Performing a Direct CA Product Installation

A *direct* product installation installs the CA product into an existing library and history file. The job you use to install the product depends on the medium on which the product is delivered. It is one of the following:

- CAINSTQ4—Use this job if your product is delivered on a physical tape
- CAINSTC4—Use this job if your product is delivered as an ESD file

CAINSTQ4 and CAINSTC4 are described in detail in the sections that follow.

Direct CA Product Installation from Electronic Delivery Files ONLY

Installation JCL - CAINSTC4

CAINSTC4 is used to install the product (distributed as an electronic file) using IBM VSE Virtual Tape directly into an existing library and history file.

After the product is successfully installed from the electronic delivery file via IBM VSE Virtual Tape, proceed with the steps in this guide.

The following table describes the variable symbols for CAINSTC4.

Variable	Description
@DLIBVOL	The volume serial number of the location of the library you are using.
@DLIBNAM	The file name of the library you are using.
@DLIBID	The file-id of the library being used. This must be enclosed in single quote marks ('). For example: 'CAI.PRODUCT.LIBRARY'
@HISTVOL	The volume serial number of the location of the history file being used.
@HISTREL	The starting track or block number for the history file being used.
@HISTEXT	The number of tracks or blocks allocated for the history file being used.
@HISTID	The file-id of the history file being used. This must be enclosed in single quote marks ('). For example: 'CAI.PRODUCT.HISTORY.FILE'
@TAPECUU	The device address of the IBM VSE Virtual Tape used to read the .AWS file.
@IPADDR	The IP address of the machine that currently holds the .AWS file, and that has the IBM VSE Virtual Tape Server running in JAVA. This value must be enclosed in single quote marks ('). For example: '123.231.132.321'
@AWSFILE	The fully qualified location and name of the CA EPIC for z/VSE .AWS file. This value must be enclosed in single quotation marks ('). For example: 'E:\filename.AWS'
Also Change the Following	Change each './' to a '//' Change each '.*' to a '/*' Change each '.&' to a '/&'

CAINSTC4 Execution

Installs CA EPIC for z/VSE to an existing library and history file from an electronic delivery file.

Direct CA Product Installation from Physical Tape

Installation JCL - CAINSTQ4

CAINSTQ4 is used to install the product from physical tape directly into an existing library and history file.

After the product is successfully installed from the tape, proceed with the steps in this guide.

The following table describes the variable symbols for CAINSTQ4.

Variable	Description
@DLIBVOL	The volume serial number of where the production CA library resides.
@DLIBREL	The starting track or block number for the production CA library.
@DLIBEXT	The number of tracks or blocks allocated to the production CA library.
@HISTVOL	The volume serial number of where the production CA history file resides.
@HISTREL	The starting track or block number for the production CA history file.
@HISTEXT	The number of tracks or blocks allocated to the production CA history file.
@TAPECUU	The device address where the physical tape is mounted.
Also Change the Following	Change each './' to a '//' Change each '.*' to a '/*' Change each '.&' to a '/&'

CAINSTQ4 Execution

Execute CAINSTQ4 to perform the following function:

Installs CA EPIC for z/VSE to an existing library and history file from a physical tape.

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