CPMS®/SYSD®

SYSD

CICS-based Development, Print Management, and Utilities System

CPMS

CICS Print Management System

Release 6.4.2

Installation Manual

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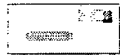
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About this Manual

The *CPMS/SYSD Installation Manual* provides instructions for installing CPMS/SYSD, discusses issues you need to consider when operating SYSD, describes the commands the administrator uses to control the system, and describes the batch work file utility. It also provides instructions for installing the SYSD/JFT (Job and File Tailoring) option.

This manual is used by the CICS systems programmer who installs and maintains CPMS/SYSD and the person who administers the system.

Manual Organization

The *CPMS/SYSD Installation Manual* is organized as follows.

Chapter 1, Introduction

Introduces CPMS/SYSD and explains the differences between the two products. It also introduces the two options for CPMS/SYSD—SYSD/JFT (Job and File Tailoring) and SYSD/ATP (Access to CA-Panvalet).

Chapter 2, Installing CPMS/SYSD

Provides instructions for installing CPMS/SYSD and testing the installation.

Chapter 3, Operational Considerations

Discusses some issues you need to consider when operating CPMS/SYSD, including setting up basic and advanced security; maintaining user profiles; using the MVS Spool Display facility for JES2; using FCBs with spool print; interacting with CICS, MVS, and JES2; using the editor; and using SYSD/ATP.

Chapter 4, Administering CPMS/SYSD

Describes the commands the CPMS/SYSD administrator uses to control the system.

Chapter 5, Batch Work File Utility

Describes the Batch Work File utility that lets you control the SYSD work file from the batch environment.

Chapter 6, Installing SYSD/JFT

Provides instructions for installing SYSD/JFT, the Job and File Tailoring option for both CPMS and SYSD.

Appendix A, STAGE1 Parameters

Describes the parameters in SYSD.USRLIB(STAGE1) you use to define JCL parameters and dataset names.

Appendix B, SYSDSETS Parameters

Describes the parameters in SYSD.USRLIB(SYSDSETS) you use to set CPMS/SYSD's installation-dependent options.

Appendix C, PTBLMAIN Parameters

Describes the parameters for the $PTBL macro you use to define the terminals users will print to.

Appendix D, INITMAIN Parameters

Describes how to change CPMS/SYSD's default security level and disable selected functions.

Appendix E, SYSD.USRLIB Members

Lists the members in SYSD.USRLIB you use to set options, submit installation jobs, and tailor CPMS/SYSD through user exits.

Appendix F, Editor and Browse Work Files

Describes how to define the SYSD editor work files and the SYSD/ATP browse work files.

Appendix G, Summary of Program Modules

Lists CPMS/SYSD's program modules, describes their functions, and identifies the operating environments they run in.

Appendix H, System Abends and Error Codes

Lists the CICS and system abends, briefly describes them, and provides corrective actions for each one.

Conventions

The *CPMS/SYSD Installation Manual* uses the following conventions.

Text and Keyboard Conventions

This kind of text	*Identifies*
BOLD bold	Commands and text you type. Uppercase bold text represents information you must type exactly as it appears. Lowercase bold text represents information you must substitute with the appropriate text. For example, when you see **ddname** in an instruction, type the appropriate DDNAME.
italic	Field names, manual titles, and system messages. It is also used to introduce new words.
[parameter]	An optional parameter in a command format.
parm1 | parm2	An either/or situation in a command format. You can specify one parameter or the other, but not both.
...	A parameter in a command format you can repeat.
Enter	Special keys on the keyboard you press. The example here represents the Enter key.

Symbol Conventions

This symbol	*Identifies*
➤	Instructions for performing special functions.
❑	Steps in the installation instructions. The box lets you check off when you have completed a step.
Note	Additional information that may be of value.

This symbol	*Identifies*
(Tip)	Tips or suggestions about using a particular feature.
Caution ►	Important information you need to know about a feature or procedure.

Related Publications

For more information, see the following publications:

H&W manuals

- *CPMS/SYSD Reference Manual*
- *SYSD/JFT Reference Manual*

IBM manuals

- *CICS System Programmer's Manual*
- *MVS Systems Programming Library: Data Management*
- *OS/MVS Systems Programming Library: Job Management*

Chapter 1
Introduction

CPMS/SYSD is a powerful set of CICS tools that lets you do everything from display the spool and control CICS printers to develop and debug application programs. CPMS/SYSD can increase the productivity of everyone in your IS department: CPMS/SYSD lets:

♦ Application programmers use the ISPF-like editor and debugging facilities to develop and test online and batch programs.

♦ Systems programmers use the CICS management facilities to display the status of CICS and dynamically change the CICS tables. They can also use the CORE functional command to dynamically display and change memory.

♦ Computer operators reply to outstanding operator requests and monitor the status of CICS.

♦ Data control personnel submit jobs, display the output before printing, and control their CICS printers.

♦ End users display and change batch JCL, submit jobs, and display and/or route the output.

In short, CPMS/SYSD provides features that were previously available only with a combination of separate packages—or not at all. You can dynamically control the operating environment, perform dataset utilities, develop programs, and view and print reports—all in real time and all under CICS.

This chapter explains the difference between SYSD and CPMS. It also introduces the two options for CPMS/SYSD—SYSD/JFT (Job and File Tailoring) and SYSD/ATP (Access to CA-Panvalet).

SYSD

SYSD lets you submit batch jobs, develop programs, and display and maintain MVS and CICS. SYSD includes the spool display and CICS printer management facilities of CPMS as well as:

* ISPF-like editor and browse facility
* DASD and dataset management facilities
* CICS internals management facilities
* CICS debugging aids

ISPF-like Editor and Browse Facility

SYSD's ISPF-like editor lets you create and update PDS members and sequential datasets in real time under CICS. An optional SYSD/ATP (Access to CA-Panvalet) interface lets you edit and browse CA-Panvalet members as well.

SYSD uses a unique work file concept that provides security, recovery, and other benefits. You can:

* Work on a PDS member or sequential dataset without updating the original until you are ready.

* Create temporary sessions where you can change and submit JCL without changing the base member.

* Edit existing PDS members or sequential datasets, create new ones, or cut and paste data from several source datasets.

DASD and Dataset Management Facilities

SYSD makes it easy to manage your OS DASD datasets. SYSD includes most of the IEHLIST and IEHPROGM commands online. You can quickly list VTOCs and PDSs; find, scratch, and rename datasets; and more.

CICS Internals Management Facilities

SYSD provides two important facilities for managing CICS. You can monitor CICS activity and change CICS while it is executing. This offers greater control and less down time for your CICS system.

With SYSD, you can display general statistics or concentrate on particular areas in CICS. For example, the STAT command gives you a snapshot of the status of CICS including the number of transactions processed, associated limits, number of times the limits have been reached, dynamic storage area (DSA) usage, temporary storage usage, and current task usage. Other SYSD commands display and dynamically change the status of CICS tables. You can display summary statistics or display a table entry in detail.

CICS Debugging Aids

SYSD provides several debugging aids that let application programmers do things like display and change memory and survey internal CICS information. These debugging aids help speed up the development process.

CPMS

CPMS is a subset of the full SYSD product. CPMS includes the CICS spool display and printer management facilities. With CPMS, you can follow your work through the system from start to finish. CPMS lets you:

+ Perform limited job submission.
+ Display the status of active jobs.
+ Display a special condition code summary to see if your job ran successfully.
+ Display a selection menu of print output for viewing.
+ View a specific report.
+ Search for character strings to see specific information.
+ View the console log.

After viewing your job output, you can use CPMS to control its final disposition. CPMS lets you:

+ Print all or part of the output on any CICS printer using the CPMS Spool Print facility.

+ Route the output to a standard local or remote JES printer or to a CPMS-controlled hot writer.

+ Control CICS or JES2 printers to handle forms changes, restarts, repeats, and so on.

+ Purge the output.

Spool Print Facility

CPMS provides a command that lets you route a job's output to a CICS printer. If the printer is busy, CPMS queues the output for printing when the printer becomes available. Once printing starts, CPMS provides commands that let you defer, restart, skip the current dataset, or terminate the dataset output.

The Spool Print facility leaves output on the JES spool. You can print each job as many times as you like or issue a command to delete the job from the spool.

Hot Writer and JOE Writer

The hot writer and JOE writer automatically print your job's output on a CICS printer. Once started, these writers periodically scan the JES output queue for jobs that meet your criteria and print them. You can issue commands to control the printing while your job is active. When your job is done printing, the hot writer or JOE writer purges it from the JES spool or optionally routes it to a new destination or class.

The hot writer continues scanning the queue until you shut down CPMS or CICS, issue the PS (Print Stop) command, or stop the printer from Option 7, CPMS Printer Table Display/Change. The JOE writer continues scanning the queue until you shut down CPMS or CICS, issue the STPWTR (Stop JOE writer) command, or stop the printer from Option 7, CPMS Printer Table Display/Change.

SYSD/JFT

SYSD/JFT (Job and File Tailoring) is an option for both CPMS and SYSD. You can use JFT to:

- Let users submit jobs that create reports.
- Build simple data entry screens that create files for batch processing.
- Let programmers automate or simplify the process of submitting batch utility jobs.

SYSD/ATP

SYSD/ATP (Access to CA-Panvalet) provides an interface to Computer Associates' CA-Panvalet datasets. The SYSD/ATP option lets users and programmers use the SYSD browse and edit functions to review and update CA-Panvalet libraries.

Chapter 2
Installing CPMS/SYSD

This chapter provides instructions for installing CPMS/SYSD and testing the installation. Before you begin, read through the instructions to preview the process. With a few noted exceptions, complete the steps in the order given. Most steps apply to installing both CPMS and SYSD. Steps that only apply to installing SYSD are marked with **(SYSD only)**. Exceptions for SYSD/JFT, SYSD/ATP, and JES and OS dependencies are similarly marked.

Installation Checklist

Use the following checklist to keep track of your progress:

Step 1: Unloading the Distribution Libraries
- ❑ A. Check the distribution cartridge
- ❑ B. Obtain the JCL to unload the cartridge
- ❑ C. Unload the distribution libraries
- ❑ D. Unload the JFT libraries (SYSD/JFT only)

Step 2: Updating the Parameters and Options
- ❑ A. Update STAGE1
- ❑ B. Update SYSDSETS
- ❑ C. Update PTBLMAIN
- ❑ D. Update and run STG1ASM
- ❑ E. Update the security exits (existing customers only)

Step 3: Preparing OS
- ❑ A. Authorize SYSD.LOADLIB
- ❑ B. Run INSTSVC
- ❑ C. Update the subsystem interface entry
- ❑ D. IPL the operating system

Step 4: Preparing for Assemblies
- ❑ A. Run INSTCOPY
- ❑ B. Run INSTPROC

Step 5: Assembling all Programs (if required)
- ❑ A. Run INSTMAPS
- ❑ B. Run INSTPROG

Step 6: Assembling Selected Programs

❑ A. Run INSTCOMM

❑ B. Run INSTCICS

❑ C. Run INSTJES2

❑ D. Run INSTOS

Step 7: Installing the SYSD/ATP Option (SYSD Only)

❑ Run INSTATP

Step 8: Updating CICS Tables

❑ A. Verify the CICS requirements

❑ B. Run INSTCTBL

❑ C. Update DFHAUPLK or DFHAUPLE

❑ D. Update and Assemble the DCT

❑ E. Update and Assemble the FCT

❑ F. Update and Assemble the Startup PLT (Optional)

❑ G. Update and Assemble the Shutdown PLT (Optional)

❑ H. Run INSTUCSD to Update the CSD

❑ I. Run INSTCSD to Migrate SYSD Resources to Your CSD

❑ J. Assemble the PPT

❑ K. Assemble the PCT

Step 9: Creating SYSD Files

❑ Run INSTFILE

Step 10: Updating CICS JCL

❑ A. Update CICS STEPLIB

❑ B. Update the CICS DFHRPL

❑ C. Add SYSDUSER DD Statement

❑ D. Add SYSDWRK0 DD Statement

❑ E. Add SYSDIRDR DD Statement

❑ F. Add SYSDBRS0 DD Statement

Step 11: Testing the Installation

- ❑ A. Execute CICS
- ❑ B. Perform SYSDTEST

Step 12: Initializing the Work Files

- ❑ A. Perform EDITINIT for SYSDWRK0 (SYSD only)
- ❑ B. Perform EDITINIT for SYSDBRS0 (SYSD/ATP only)

Step 13: Setting Up the Initial User Profiles

Step 14: Customizing the Security Exits (New Customers Only)

Installation Procedure

Before you begin, read through the instructions to preview the process. With a few noted exceptions, complete the steps in the order given. Most steps apply to installing both CPMS and SYSD. Steps that only apply to installing SYSD are marked with **(SYSD only)**. Exceptions for SYSD/JFT, SYSD/ATP, and JES and OS dependencies are similarly marked.

Step 1: Unloading the Distribution Libraries

❑ **A. Check the distribution cartridge**

Check the distribution cartridge to make sure it is the product you are expecting. If it is not, call H&W Customer Support immediately. Your distribution cartridge should be labeled as follows:

Product Name

Labeled	*If you received*
CPMS	The CICS Print Management System
SYSD	The full CICS-based Development, Print Management and Utilities System (includes CPMS)
SYSD/ATP	SYSD with the SYSD/ATP option that interfaces with CA-Panvalet libraries

If you ordered the JFT option, you should also have a cartridge labeled as follows:

Labeled	*If you received*
SYSD/JFT	The Job and File Tailoring Option for CMPS and SYSD

Distribution Files

The distribution cartridge contains the following standard-label files:

Note — All of these files were created by IEBCOPY. You can change the block sizes to fit your disk and environment standards.

File	DSNAME	DSNAME on disk	Attributes on disk		Contents
1	FILE01	(your JCL PDS)			Unload cartridge JCL
2	FILE02	SYSD.LOADLIB	8368	U	Load library
3	FILE03	SYSD.USRLIB	80 X 6160	FB	User library
4	FILE04	SYSD.SOURCE	80 X 6160	FB	Source programs
5	FILE05	SYSD.MACLIB	80 X 6160	FB	Macro library
6	FILE06	SYSD.MAPLIB	80 X 4080	FB	Map library
7	FILE07	SYSD.HELP	80 X 6160	FB	Help library

❏ B. Obtain the JCL to unload the cartridge

Create and run the following JCL:

Caution ▶ *Make sure you change the SYSUT2 dataset to the library where your JCL resides.*

```
//SYSDUNLD JOB (your job parameters)
//GET EXEC PGM=IEBCOPY
//SYSPRINT DD SYSOUT=A
//SYSUT1 DD DSN=FILE01,
//          UNIT=CART,VOL=SER=HWTAPE,
//          DISP=OLD,LABEL=(01,SL)
//SYSUT2 DD DISP=SHR,
//          DSN=your.jcl.library
//SYSUT3 DD UNIT=SYSDA,SPACE=(TRK,(1,1))
//SYSUT4 DD UNIT=SYSDA,SPACE=(TRK,(1,1))
//SYSIN  DD *
     COPY OUTDD=SYSUT2,INDD=SYSUT1
     S M=UNLDSYSD
//
```

❏ C. Unload the distribution libraries

Update the JCL in the UNLDSYSD member you retrieved in "Step B. Obtain the JCL to unload the cartridge" to reflect your company's environment. Execute the JCL to unload the distribution libraries from cartridge to disk.

The JCL creates the following libraries:

This library	Contains
SYSD.HELP	The online help.
SYSD.LOADLIB	The load library the CPMS/SYSD programs are executed from.
SYSD.MACLIB	The macros used in the programs.
SYSD.MAPLIB	The BMS map DSECTs.
SYSD.SOURCE	The source programs.
SYSD.USRLIB	The user modules, SYSD exits, members with options you can update, and jobs created in the installation process.

❑ **D. Unload the JFT libraries (SYSD/JFT only)**

If you are also installing the SYSD/JFT option, see Chapter 6, Installing SYSD/JFT, for instructions on unloading the JFT libraries.

Step 2: Updating the Parameters and Options

❑ **A. Update STAGE1**

Update the parameters in SYSD.USRLIB(STAGE1) to reflect your dataset names and JCL parameters. See Appendix A, STAGE1 Parameters, for more information about the parameters.

❑ **B. Update SYSDSETS**

Update the parameters in SYSD.USRLIB(SYSDSETS) to define your operating environment to CPMS/SYSD and tailor the product. See Appendix B, SYSDSETS Parameters, for more information about the parameters.

❑ **C. Update PTBLMAIN**

The parameters in SYSD.USRLIB(PTBLMAIN) define the characteristics of each CICS printer. CPMS/SYSD only writes to printers defined in this table. If you are installing the JES portion of the product and will be using the print features, update PTBLMAIN to define your CICS printers. See Appendix C, PTBLMAIN Parameters, for more information about the parameters.

You can update PTBLMAIN later by making the changes and reassembling the module in SYSD.SOURCE(SYSDPTBL). PTBLMAIN contains the printer definitions that are copied to SYSDPTBL when you assemble it.

❑ D. Update and run STG1ASM

Update the dataset names and assembly program in SYSD.USRLIB(STG1ASM) to reflect your environment. Then run STG1ASM to create the following members in SYSD.USRLIB:

This member	*Contains*
INSTATP	The procedure that installs the SYSD/ATP option.
INSTCICS	The assemblies that are dependent on the CICS version you are running.
INSTCOMM	The assemblies that are common to all environments.
INSTCOPY	The procedure that renames the programs that are dependent on the CICS version you are running.
INSTCSD	The procedure that installs SYSD's PCT and PPT entries in your CICS system definition file (DFHCSD). (CICS version 2.1.2 and below)
INSTCTBL	The procedure that creates the CICS table update copy members.
INSTFILE	The procedure that generates the CPMS/SYSD user file and, optionally, the SYSD editor and SYSD/ATP work files.
INSTJES2	The assemblies that are dependent on the JES2 version you are running.
INSTMAPS	The assemblies for all the maps.
INSTPROC	The procedure that creates the CPMS/SYSD JCL procedures.
INSTPROG	The assemblies for all the programs.
INSTSVC	The procedure that installs the CPMS/SYSD SVC.

(continued)

This member	Contains
INSTUCSD	The procedure that updates the CSD for CICS version 3.1 and above.
INSTOS	The assemblies that are dependent on the MVS version you are running.

These members contain jobs that are tailored to your environment using the parameters you specified in SYSD.USRLIB(STAGE1) and SYSD.USRLIB(SYSDSETS). This manual refers to these members collectively as *stage 2 processing*.

❑ E. Update the security exits

New customers should implement the security exits as distributed and look at additional security after the initial installation is successful.

If your current security exits are running in CPMS/SYSD Release 6.4.1, no changes are necessary. Copy the exits from your 6.4.1 USRLIB to the 6.4.2 USRLIB.

If your current security exits are running in CPMS/SYSD Release 6.3 or 6.4.0, H&W has provided additional information in TWA fields and through the use of the CICSCMD macro. This information allows you to replace any EXEC CICS statements that required you to manually copy your exits into the SYSD0074 source because of the translator. Compare your current security exits with the new examples in the corresponding exit programs to take advantage of the new facilities.

If your current security exits are running in CPMS/SYSD releases prior to 6.3 or from CICS 1.7 or 2.1, then you may want to delay implementing your security exits until after the initial installation is successful.

Step 3: Preparing OS

> **Note**
>
> To complete this step, you must work with your OS systems programmers. You may also need to schedule a system IPL. You can complete the rest of the installation before you complete this step.

❑ A. Authorize SYSD.LOADLIB

Since SYSD.LOADLIB is put in the CICS STEPLIB, you must authorize it by updating SYS1.PARMLIB(IEAAPFxx) or SYS1.PARMLIB(PROGxx).

If the SETPROG command is available, you can authorize the library by issuing the **SETPROG APF,ADD,DSNAME=xxx,VOLUME=yyy** command. In an OS/390 environment, you can dynamically authorize the library by updating SYS1.PARMLIB(PROGxx) and issuing the **SET PROG=xx** command on the operator

console. If you are able to dynamically authorize the library, you may be able to eliminate the need to IPL.

> **Note**
> If you do not want to authorize the SYSD load library, you must put the SYSDOSTK, SYSDCOPY, SYSDPRNT, and SYSDPVTC programs in an APF-authorized library. If you are installing the SYSD/ATP option, you must put the SYSDATPM and SYSDATP1 programs in an APF-authorized library.

☐ B. Run INSTSVC

> **Note**
> If you have previously installed the CPMS/SYSD SVC for version 6.0 or later, you can use the current SVC. Specify the same SVC number in &SVCNO in SYSDSETS in SYSD.USRLIB and do not run the job in INSTSVC.

SYSD.USRLIB(INSTSVC) installs the CPMS/SYSD SVC in the library you specified in the SVCLIB parameter in SYSD.USRLIB(STAGE1). This is normally SYS1.LPALIB.

For OS/390 you will need to update the IEASVCxx member of SYS1.PARMLIB. Add the entry **SVCPARM xxx,REPLACE, TYPE(3)**, where xxx is the &SVCNO number you specified in SYSDSETS. An IPL with CLPA will be required before the SVC will be available for use.

If you have trouble with the SVC or the installation process, see "Troubleshooting SVC Errors" on page 49 and the &SVCNO parameter on page 119.

☐ C. Update the subsystem interface entry

To use the JES2 SRB queue read method (the &JES2SRB parameter in SYSDSETS is set to 1), you must set up a subsystem interface entry for SYSD that matches the &SYSDSSI parameter in SYSDSETS. The subsystem entry provides the common anchor to the checkpoint information stored in the MVS CSA.

To further enhance this feature, you can use the extended CSA (ECSA) area in MVS/XA, MVS/ESA, or OS/390. To implement the ECSA feature, set the &JES2ARA parameter in SYSDSETS to 1. See "Calculating CPMS/SYSD's Memory Requirements" on page 42 for more information.

To add the subsystem interface entry, add a **SUBSYS SUBNAME(SYSD)** statement to SYS1.PARMLIB(IEFSSNxx), where SYSD is the name specified by the SYSD.USRLIB(SYSDSETS) &SYSDSSI parameter. For OS/390, you can add the subsystem name dynamically by issuing the **SETSSI ADD,SUBNAME=SYSD** operator command.

☐ D. IPL the operating system

If you were able to use a prior version of the SVC and were able to dynamically authorize the library and add the subsystem entry, you will not need to IPL the operating system.

Otherwise, IPL the operating system for the library authorization, for the implementation of the subsystem interface, and for the SVC to take effect. You must also do an IPL with CLPA if the SVC was installed in SYS1.LPALIB. You must do the IPL before you test CPMS/SYSD.

Step 4: Preparing for Assemblies

❏ **A. Run INSTCOPY**

SYSD.USRLIB(INSTCOPY) executes an IEBCOPY step that copies the source programs that are dependent on the version of CICS you are running, giving them new names. You must run INSTCOPY before you do the assemblies.

❏ **B. Run INSTPROC**

To install the PROCs CPMS/SYSD requires, review and run SYSD.USRLIB(INSTPROC). Since INSTPROC creates the assembly PROCs, you must run it before you do the assemblies.

Step 5: Assembling all Programs (if required)

You must assemble the entire product if you have CICS 2.1 or older installed.

The full assembly is not required for other CICS levels. H&W provides most of the programs preassembled. The preassembled programs have been assembled using CICS 3.3 and MVS/ESA 4.3 libraries. The use of these libraries is acceptable, since both CICS and the operating system calls are upward compatible. You may want to assemble all the programs if either your system has a significant amount of IBM maintenance or if you want the entire product assembled at your current CICS, JES and operating system level. If you want to assemble all programs, continue with this step. If you prefer to use the preassembled programs, go directly to "Step 6: Assembling Selected Programs" on page 20.

The assembly of all the programs requires adequate space in the SYSD.LOADLIB library. When SYSD.LOADLIB was allocated by SYSD.USRLIB(UNLDSYSD), space was set to accommodate one entire reassembly. If you have to restart the assemblies, you should compress the library first to avoid SD37 abends caused by lack of space. Do not delete all the programs because H&W provides some without source.

If you set the LIST parameter in STAGE1 to YES (NO is the default), you must have adequate space in your JES spool to handle the considerable amount of print output.

To assemble all programs::

❑ **A. Run INSTMAPS**

Review and run the job in SYSD.USRLIB(INSTMAPS). This creates the BMS map programs and DSECTS.

❑ **B. Run INSTPROG**

Review and run the jobs in SYSD.USRLIB(INSTPROG).

> **Note** For all the assemblies, a return code of 4 is normal. For CICS 4.1 or newer, a return code of 4 is normal for the linkedit steps. Return codes higher than 4 must be researched. They are generally a problem of specifying libraries for CICS or JES2 that do not match the settings for &CICSREL or &JES2VER in SYSD.USRLIB(SYSDSETS).

Step 6: Assembling Selected Programs

If you assembled all programs in Step 5, go directly to "Step 7: Installing the SYSD/ATP Option (SYSD Only)" on page 21.

The following steps perform only the assemblies required due to differences between your environment and the environment H&W used to build the distribution library.

❑ **A. Run INSTCOMM**

To assemble the programs with dependencies common to all environments, review and run the jobs in SYSD.USRLIB(INSTCOMM).

❑ **B. Run INSTCICS**

To assemble the programs with CICS version dependencies, review and run the jobs in SYSD.USRLIB(INSTCICS).

❑ **C. Run INSTJES2**

To assemble the programs with JES2 release dependencies, review and run the jobs in SYSD.USRLIB(INSTJES2).

❑ **D. Run INSTOS**

To assemble the programs with operating system release dependencies, review and run the jobs in SYSD.USRLIB(INSTOS).

| Note | For all the assemblies, a return code of 4 is normal. For CICS 4.1 or newer, a return code of 4 is normal for the linkedit steps. Return codes higher than 4 must be researched. They are generally a problem of specifying libraries for CICS or JES2 that do not match the settings for &CICSREL or &JES2VER in SYSD.USRLIB(SYSDSETS). |

Step 7: Installing the SYSD/ATP Option (SYSD Only)

| Note | If you have not licensed the SYSD/ATP option, skip this step. |

❑ **Run INSTATP**

Review and run the job in SYSD.USRLIB(INSTATP). INSTATP performs a link-edit to create the programs for interfacing with CA-Panvalet datasets.

Step 8: Updating CICS Tables

The CPMS/SYSD STG1ASM install process creates several jobs to assist in updating your CICS tables. The jobs are tailored to the CICS specified by &CICSREL in SYSD.USRLIB(SYSDSETS).

CICS Resource Definition Online (RDO) is used wherever possible, but is dependent upon the CICS release and upon the specifications that were made to the CSDGROUP and CSDLIST parameters of SYSD.USRLIB(STAGE1).

Even if you have CICS 4.1 or Transaction Server, some tables still require assembly to update them. Specifically, the FCT (for the Editor and SYSD/ATP work files because they are BDAM), the DCT (for the job submission extra-partition TDQ), and the Startup and Shutdown PLT programs (since they are still not covered by RDO).

❑ **A. Verify the CICS requirements**

Verify the following:

 ♦ CICS version 1.7 or above is installed.

 ♦ Auxiliary temporary storage is installed with a CISIZE of 4096 or greater.

 ♦ Basic Mapping Support (BMS) is active. This includes PAGEBLD with the terminal paging option. SYSD uses the default paging commands specified in the System Initialization Table (SIT).

❑ ### B. Run INSTCTBL

Review and run the job in SYSD.USRLIB(INSTCTBL). INSTCTBL creates copybooks you can use to update the CICS tables. INSTCTBL puts these copybooks in your SYSD.USRLIB or the dataset you specified in the COPYLIB parameter in SYSD.USRLIB(STAGE1).

INSTCTBL creates the following members: SYSDCT, SYSDFCT, SYSDPLT and SYSPLTI. Also depending upon your CICS release, INSTCTBL may create SYSDPCT and SYSDPPT.

❑ ### C. Update DFHAUPLK or DFHAUPLE

Add SYSD.USRLIB or the dataset you specified in the COPYLIB parameter in SYSD.USRLIB(STAGE1) into the SYSLIB concatenation of your standard CICS DFHAUPLK or DFHAUPLE assembly procedure. This allows you to use COPY statements to copy the SYSD macro entries into you current CICS tables.

❑ ### D. Update and Assemble the DCT

Insert a COPY statement for SYSDDCT into your DCT assembly source and assemble your DCT. This defines the extra-partition DCT required for job submission.

❑ ### E. Update and Assemble the FCT

Review SYSD.USRLIB(SYSDFCT). If FCT entries were generated, insert a COPY statement for SYSDFCT into your FCT assembly source and assemble your FCT. If FCT entries were not generated, skip this step and go to "F. Update and Assemble the Startup PLT (Optional). "

This defines the SYSD Editor work file to your CICS. The SYSD Editor work file is a BDAM format file and therefore requires an assembled FCT entry even in the newer versions of CICS. If you have CICS 3.3 or older installed, SYSDFCT also defines the SYSDUSER file.

❑ ### F. Update and Assemble the Startup PLT (Optional)

INSTCTBL generates a default PLT entry (SYSDPLTI) that you can assemble and use at startup.

This PLT invokes SYSD0149 to start hot writers and build internal ATP tables. Its purpose is to improve response time by performing lengthy one-time functions at startup rather than at first use.

If you already have a startup PLT.

1. Manually merge the entry for SYSD0149 from SYSDPLTI into your startup PLT assembly source. The SYSD0149 entry must be placed in the second stage of the startup process after the DFHDELIM. Second stage only applies to CICS 3.1 or newer.

2. Reassemble your PLT. It takes effect during the next cycle of CICS.

If you do not already have a startup PLT:

1. Provide JCL and assemble SYSD.USRLIB(SYSDPLTI). This creates the DFHPLTxx program, where xx is the suffix specified in SYSD.USRLIB(SYSDPLTI).

2. Manually add a PPT entry for DFHPLTxx to a system group using CEDA or by adding it to your PPT macro source and reassembling the PPT.

3. Update the PLTPI=xx parameter in your SIT to specify the suffix. The PLT takes effect during the next cycle of CICS.

☐ ## G. Update and Assemble the Shutdown PLT (Optional)

INSTCTBL generates a default PLT entry (SYSDPLT) you can assemble and use at shutdown. This PLT invokes SYSD0040 to shut down the OS tasks CPMS/SYSD uses. If the tasks are not shut down an SA03 abend occurs. This PLT is not required if your CICS termination procedures provide for shutting down the CPMS/SYSD OS tasks with the SYSD SHUT command.

For additional information see "Shutting Down CICS" on page 45.

If you already have a shutdown PLT:

1. Manually merge the entry for SYSD0040 from SYSDPLT into your shutdown PLT assembly source. The SYSD0040 entry must be placed in the second stage of the shutdown process after the DFHDELIM statement.

2. Reassemble your PLT. It takes effect during the next cycle of CICS.

If you do not already have a shutdown PLT:

1. Provide JCL and assemble SYSD.USRLIB(SYSDPLT). This creates the DFHPLTxx program, where xx is the suffix specified in SYSD.USRLIB(SYSDPLT).

2. Manually add a PPT entry for DFHPLTxx to a system group using CEDA or by adding it to your PPT macro source and reassembling the PPT.

3. Update the PLTSD=xx parameter in your SIT to specify the suffix. The PLT takes effect during the next cycle of CICS.

☐ ## H. Run INSTUCSD to Update the CSD

RDO and CICS 3.1 or later Only

Review and run the job in SYSD.USRLIB(INSTUCSD) created by STG1ASM. This creates the CPMS/SYSD RDO entries to update your CICS System Definition file (CSD). It creates program, transaction and file entries and adds them to a SYSD CSD group defined using

the group name provided in the SYSD.USRLIB(STAGE1) parameter CSDGROUP. The group is added to the CICS CSD startup installation list defined by the SYSD.USRLIB(STAGE1) parameter CSDLIST.

If you complete this step, go directly to "Step 9: Creating SYSD Files" on page 24.

❏ **I. Run INSTCSD to Migrate SYSD Resources to Your CSD**

RDO and CICS 1.7 or 2.1 Only

Review and run the job in SYSD.USRLIB(INSTCSD) created by STG1ASM. INSTCSD contains a job that assembles the macro definitions for the CPMS/SYSD PPT and PCT entries and then migrates them to your CSD.

If you complete this step, go directly to "Step 9: Creating SYSD Files" on page 24.

❏ **J. Assemble the PPT**

RDO Not Available

Insert a COPY statement for SYSDPPT into your PPT assembly source and assemble your PPT. This defines the CPMS/SYSD programs.

❏ **K. Assemble the PCT**

RDO Not Available

Insert a COPY statement for SYSDPCT into your PCT assembly source and assemble your PCT. This defines the CPMS/SYSD transactions.

Step 9: Creating SYSD Files

❏ **Run INSTFILE**

Review and run the jobs in SYSD.USRLIB(INSTFILE).

Note\ It is normal for the steps that execute program SYSDWU01 in INSTFILE to get D37 abends when you install CPMS/SYSD with the editor and/or the SYSD/ATP option.

INSTFILE creates one or more of the following datasets:

This dataset	Is
SYSDBRS0 (SYSD/ATP only)	A BDAM file SYSD/ATP uses as a browse work file. SYSDBRS0 has the same attributes as the editor work file (SYSDWRK0). INSTFILE only creates SYSDBRS0 if you have the SYSD/ATP option.
SYSDUSER	A KSDS VSAM file that contains the user profile information for the SYSD menu system. The xxxxUSER job in INSTFILE creates SYSDUSER.
SYSDWRK0 (SYSD only)	A BDAM file the SYSD editor uses for work and recovery. The xxxxEWRK job in INSTFILE creates SYSDWRK0.

Step 10: Updating CICS JCL

❑ **A. Update the CICS STEPLIB**

Concatenate a DD statement defining the SYSD.LOADLIB library to the CICS STEPLIB (or JOBLIB) DD statement.

> **Note**
>
> You must authorize SYSD.LOADLIB by including it in SYS1.PARMLIB(IEAAPFxx) in MVS or in SYS1.PARMLIB(PROGxx) in OS/390. OS/390 now allows you to dynamically authorize a library without IPL'ing using the **SET PROG=xx** or **SETPROG** commands.
>
> You must authorize all CICS STEPLIB or JOBLIB libraries or you will lose authorization on all of them.

Caution ▶ *If you are running an operating system prior to MVS/ESA, make sure the first library in the STEPLIB concatenation has the largest BLKSIZE of all the libraries. To do this, put the largest library first or override the BLKSIZE by coding the* **DCB=BLKSIZE=largest** *parameter on the first DD statement.*

❑ **B. Update the CICS DFHRPL**

Concatenate a DD statement defining the SYSD.LOADLIB load library to the CICS DFHRPL. CICS loads CPMS/SYSD programs in the normal manner using the DFHRPL DD statements.

Caution ▶ *Make sure the first library in the DFHRPL concatenation has the largest BLKSIZE of all the libraries. To do this, put the largest library first or override the BLKSIZE by coding the* **DCB=BLKSIZE=largest** *parameter on the first DD statement.*

❏ C. Add SYSDUSER DD Statement

Add the following DD statement for the user profile dataset:

```
//SYSDUSER DD DISP=SHR,DSN=SYSD.SYSDUSER
```

The INSTFILE job preloaded this KSDS VSAM file.

❏ D. Add SYSDWRK0 DD Statement

SYSD only

If you are installing the SYSD editor, add the following DD statement pointing to SYSDWRK0, which is the BDAM work file INSTFILE created:

```
//SYSDWRK0 DD DISP=SHR,DSN=SYSD.SYSDWRK0
```

You can change the name or define multiple editor work files after you finish installing CPMS/SYSD. See "Using Multiple SYSD Editor Work Files" on page 54 for more information.

❏ E. Add SYSDIRDR DD Statement

If you are installing the SYSD editor or plan to use SYSD/JFT or the job submission functions of CPMS, add the following DD statement to define the JES internal reader:

```
//SYSDIRDR  DD SYSOUT=(A,INTRDR),
             DCB=(RECFM=FB,LRECL=80,BLKSIZE=400)
```

❏ F. Add SYSDBRS0 DD Statement

SYSD/ATP only

If you are installing the SYSD/ATP interface, add the following DD statement pointing to SYSDBRS0, which is the BDAM browse work file INSTFILE created:

```
//SYSDBRS0 DD DISP=SHR,DSN=SYSD.BRWSWRK0
```

You can change the name or define multiple browse work files after you finish installing CPMS/SYSD. See "Using Multiple SYSD/ATP Browse Work Files" on page 56 for more information.

Step 11: Testing the Installation

❑ A. Execute CICS

Start CICS. Review the startup messages for any obvious errors, like lost authorization or missing programs.

❑ B. Perform SYSDTEST

After CICS comes up normally, press **Clear** on a 3270 device. Type **SYSD,SYSDTEST** on the clear CICS screen and press **Enter.** This verifies the SVC, SYSDOSTK, and JES2 interface. Messages indicating the status of the CPMS/SYSD installation are displayed.

If you get a *Security Violation - Access Denied* message, your systems programmer security key is not on. To turn on all security bits, press **Clear.** Type **SYSD,SYSPGMR** on the clear CICS screen and press **Enter.** Then retry the SYSDTEST command. See "SYSDTEST – Verifying the Installation" on page 68 for more information about the SYSDTEST command.

If the test is successful, press **Clear.** Type **SYSD** on the clear CICS screen and press **Enter.** A list of functions and general help information should be displayed. The available functions are listed first. To view the next page, press **Enter.** Several pages into the list, there should be some information describing the input format for SYSD. If you cannot page through the output by pressing **Enter**, check your installation procedure for BMS Page Build and check the &NPAGCMD and &RPAGCMD parameters in SYSDSETS. See the &NPAGCMD parameter on page 113 and the &RPAGCMD parameter on page 117 for more information.

Step 12: Initializing the Work Files

Note | To perform EDITINIT and certain other SYSD functions, you must have a CICS signon with a security key of 24 or the security key defined by the &DFTINDS parameter in SYSDSETS. You can change &DFTINDS to the appropriate security key. See the &DFTINDS parameter on page 102 and Appendix D, INITMAIN Parameters, for more information. You can use the SYSPGMR command to temporarily bypass security. See the SYSPGMR command on page 69 for more information.

❑ **A. Perform EDITINIT for SYSDWRK0 (SYSD only)**

If you ran the jobs in INSTFILE to create and initialize the SYSD editor work file, you can skip this step. Make sure the SYSDWU01 program executed successfully when you ran INSTFILE.

If you are installing the SYSD editor, you can use the EDITINIT function to initialize the work files. Press **Clear.** Type **SYSD,EDITINIT,SYSDWRK0** on the clear CICS screen and press **Enter.** The SYSD editor is now ready to use. If an error occurs, see "EDITINIT – Initializing the Editor and Browse Work Files" on page 60 for more information about the error message.

❑ **B. Perform EDITINIT for SYSDBRS0 (SYSD/ATP only)**

If you ran the jobs in INSTFILE to create and initialize the SYSD/ATP browse work file, you can skip this step. Make sure the SYSDWU01 program executed successfully when you ran INSTFILE.

If you are installing SYSD/ATP, you can use the EDITINIT function to initialize the browse work files. Press **Clear.** Type **SYSD,EDITINIT,SYSDBRS0** on the clear CICS screen and press **Enter.** SYSD/ATP is now ready to use. If an error occurs, see "EDITINIT – Initializing the Editor and Browse Work Files" on page 60 for more information about the error message.

Step 13: Setting Up the Initial User Profiles

The menu-driven portion of CPMS/SYSD is user ID and password dependent. CPMS/SYSD comes with a user ID and password you must use to sign on to the menu system so you can add a new user ID for yourself. Then you can sign on using your own user ID to control the CPMS/SYSD user file. The signon user ID provided is **ALL** and the password is **H&W.**

➢ **To add a user ID for yourself**

1. At the top of a clear CICS screen or at the bottom of a CPMS/SYSD function-driven screen, type **SYSD,MENU,ALL,H&W,U** and press **Enter.** The User File Maintenance screen is displayed.

2. Type **I** (Initialize) in the *Input* field and press **Enter.**

3. Type **A** (Add) in the *Input* field.

4. **Tab** to the *User Identifier* field and type your new **user_id**

5. **Tab** to the *Password* field and type the **password** you want to use.

6. **Tab** to the *Name* field and type your **name.**

7. Optional. **Tab** to the *Title* field and type your job **title.**

8. Optional. **Tab** to the *Department* field and type your **department**.

9. Optional. **Tab** to the *Address* field and type your mailing **address**.

10. Press **Enter**. You can now sign on using your new user ID and maintain the CPMS/SYSD user file. See the *CPMS/SYSD Reference Manual* or the online help for more information.

➤ To sign on using your new user ID

1. At the top of a clear screen or at the bottom of a CPMS/SYSD function-driven screen, type **SYSD,MENU,user_id,password**, where **user_id** and **password** are your new user ID and password.

2. Press **Enter**. The Primary Option Menu is displayed.

➤ To select the tutorial or other functions

The options listed on the Primary Option Menu have a 1-character option code and an alphabetic code associated with them. To access an option, type either option **code** in the *Input* field and press **Enter**.

Step 14: Customizing the Security Exits (New Customers Only)

Once you have a feel for how CPMS/SYSD works, you are ready to implement security. See "Setting Up Security" on page 32 for more information about basic and advanced security. Also see "SYSD User Exits" on page 142 for a list of the exits and a brief explanation of their use.

Chapter 3

Operational Considerations

This chapter discusses some issues you need to consider when operating SYSD. Topics include:

- Setting up basic and advanced security.

- Maintaining user profiles.

- Using the MVS Spool Display facility for JES2.

- Using FCBs with spool print.

- Interacting with CICS, including calculating the amount of CPMS/SYSD storage, using multiple CICS regions, upgrading CICS after installing CPMS/SYSD, shutting down CICS, supporting large screens, passing control to CPMS/SYSD, and supporting MRO.

- Interacting with MVS, including troubleshooting SVC errors and upgrading MVS after installing CPMS/SYSD.

- Interacting with JES2, including using the JES2 SRB queue read method, using JES datasets, running CPMS/SYSD with a secondary JES2 subsystem, and upgrading JES2 after installing CPMS/SYSD.

- Initializing the SYSD editor work file and using multiple SYSD editor work files.

- Initializing the SYSD/ATP browse work file and using multiple SYSD/ATP browse work files.

Review this chapter carefully. If you have suggestions, send them to H&W Computer Systems, Inc. We appreciate your comments.

Setting Up Security

This section discusses CPMS/SYSD's basic security features and the advanced security features you can implement after you have installed CPMS/SYSD.

Basic Security

CPMS/SYSD bases its basic security on the CICS security keys—TCTTESK in the TCTTE. CPMS/SYSD matches the CICS security keys to the security keys specified for the parameters in SYSD.USRLIB(INITMAIN). The MENU02 (menu-driven system) and FUNC01 (function-driven system) user exits perform the matching.

As shipped, the CPMS/SYSD menu system and many other functions are open to all users. A few functions can only be performed by users who have a security key equal to the key defined by the default security indicator in SYSDSETS. See the &DFTINDS parameter on page 102 for more information.

> **Note** For CICS version 3.2 and above, FUNC01 and MENU02 are shipped without any default security because the security keys in the TCT were eliminated. However, there are examples in the MENU02 and FUNC01 user exits for interfacing with RACF, CA-Top Secret, and CA-ACF2.

Option U, Perform user file maintenance, on the menu system is shipped unsecured. You can secure this option by inserting checks in the user exits. CPMS/SYSD passes the value of the *Admin authority*, *Control authority*, and *Receive authority* fields to the menu security exits. You can define these fields as needed.

Advanced Security

You should install CPMS/SYSD with the default basic security. When you are more familiar with the product, you can increase security.

To add extensive security checking, update SYSD.USRLIB(INITMAIN). You can also add more security checking in the user exits in SYSD.USRLIB. Appendix D, INITMAIN Parameters, provides examples of possible security checks. Review SYSD.USRLIB for more information.

Advanced security checks let you:

+ Update INITMAIN to disable functions, secure online help, or bypass security checking for a specific function.

+ Use the FUNC01 and MENU02 user exits to check the CICS security keys against the security keys in INITMAIN for a function, or set up resources in your security package for the SYSD functions.

- Use the MENU03 user exit to check user profile security—*Admin authority*, *Control authority*, and *Receive authority* fields—against the menu functions.

- Use the DSN001 and DSN002 user exits to secure datasets in browse and edit. (SYSD only)

- Use the JES201, JES202, JES203, JES206, and JES207 user exits to secure viewing of output.

Maintaining User Profiles

Option U, Perform user file maintenance, lets you add, change, and delete user profiles. For ease in making changes, CPMS/SYSD displays the first user profile in the file when you access Option U. Once you make the changes, you must log off and log back on to CPMS/SYSD for the profile changes to take effect.

| Note | You must have authorization to add, change, and delete user profiles. |

> ## To access the User File Maintenance screen

On the Primary Option Menu, type U in the *Input* field and press **Enter.**

or

On any CPMS/SYSD screen, type U in the *Input* field and press **Return.**

```
------------------- USER FILE MAINTENANCE ------------------      (1/1)
INPUT ===>                                                  SCROLL: CSR
                                                      USER    - BW
User identifier    ==> DEFAULT1
Password           ==> SYSD        Name      ==> THIS IS A DEFAULT PROFILE
Admin authority    ==> MASTER1     Title     ==> USED FOR AUTO PROFILE
Control authority  ==> MASTER2     Department ==> GENERATION
Receive authority  ==> MASTER3     Address   ==> ADD1
JFT only profile   ==> N                     ==> ADD2
                                             ==> ADD3
                                             ==> ADD4
Printer view authority ==> Y       (Y=View all, N=View authorized only)
Authorized    (JES2) ==> *         >         >           >
printers      (CPMS) ==> *         >         >           >
Change sel. criteria? ==> Y        (Y/N)   Dest. mask ==>
                                           Class mask ==>
Queue display authority ==> Y      (Y=Display all, N=Display authorized only)
Q view/ctl auth.  (JOB) ==> *      >         >           >
                 (DEST) ==>        >         >           >
                 (DEST) ==>        >         >           >
                 (CLASS) ==>    >  >    >    >    >    >     >
                 (MISC) ==>

A=add  I=init  D=delete  U=update
```

Field Definitions

Field definitions are listed in alphabetical order.

Address

The user's mailing address, up to four lines.

Admin authority

An 11-character field that specifies the site-defined security. CPMS/SYSD does not use this field internally; it passes this field to the MENU03 user exit.

Authorized printers

The IDs of the JES2 or CPMS/SYSD printers the user can control. There are up to four fields available for each type of printer. You can use a plus sign (+) or asterisk (*) in the printer IDs for generic matching.

Change sel. criteria?

A **Yes/No** field that specifies if the user can change the classes and destinations for a printer they are authorized to update.

Class mask

The output class the user is allowed to specify when starting a CPMS printer from Option 7, CPMS Printer Table Display/Change. This is a security feature you can use to restrict classes to users who have the authority to change selection criteria for hot writers.

Control authority

An 11-character field that specifies the site-defined security. CPMS/SYSD does not use this field internally; it passes this field to the MENU03 user exit.

Department

The user's department.

Dest. mask

The JES2 destinations the user is allowed to specify when starting a CPMS printer from Option 7, CPMS Printer Table Display/Change. This is a security feature you can use to restrict destinations for users with authority to change selection criteria for hot writers. You can use a plus sign (+) or asterisk (*) in the destinations for generic matching.

JFT only profile

A **Yes/No** field that specifies if the user can only access SYSD/JFT panels. If set to **N**, the user can access all CPMS/SYSD's functions, including SYSD/JFT panels. If set to **Y**, the user can only access SYSD/JFT panels.

Name

The user's name.

Password

The user's password.

Printer view authority

A **Yes/No** field that specifies if the user can view all the printers. If set to **N**, the user can only view the printers he or she is authorized to control.

Q view/ctl auth.

The fields in this section provide a filter that lets you restrict what the user can view and control on Option 5, MVS/JES2 Job Queue Display, and Option 6, MVS/JES2 Job Output Display. If the fields are left blank, no restrictive filtering is implemented.

(CLASS)

The 1-character output class the user can view and control. (Option 6, MVS/JES2 Job Output Display only)

(DEST)

The 10-character destination the user can view and control. Specify a remote or unit queue.

(JOB)

The 8-character job name the user can view and control. Specify a prefix, generic, or specific job name.

(MISC)

A 4-character miscellaneous field CPMS/SYSD passes to the user security exits.

Queue display authority

A **Yes/No** field that specifies if the user can view all the job names in the queue. If set to **N**, the user can only view authorized jobs.

Receive authority

An 11-character field that specifies the site-defined security. CPMS/SYSD does not use this field internally; it passes this field to the MENU03 user exit.

Title

The user's job title.

User identifier

The ID of the user profile displayed.

Command Definitions

Type the **command** in the *Input* field and press **Enter**.

A=add

Adds a new user profile to the system.

D=delete

Deletes a user profile. If authorized, you can delete any user profile but your own.

DOWN

Scrolls down through the user file, displaying the next user profile.

I=init

Displays a clean user profile with the predefined defaults. This lets you quickly add new users.

U=update

Updates the user profile. New data typed on the screen replaces the old data in the file.

UP

Scrolls up through the user file, displaying the previous user profile.

Displaying a Specific User Profile

To display a specific person's user profile:

1. On any user profile, **Tab** to the *User Identifier* field and type the **user_id** you want to review over the current user ID.

2. Press **Erase EOF** to delete any extra characters.

3. Press **Enter**.

Adding a New User Profile

> **(Tip)** You can specify a sample user ID in the MENU00 user exit that has default values for the fields. If a person who does not have a user ID signs on, CPMS/SYSD automatically creates a user profile for that person based on the sample user ID. See SYSD.USRLIB(MENU00) for more information.

To add a new user:

1. Type I (Initialize) in the *Input* field and press **Enter**. The screen is initialized with the default values.

2. Type **A** (Add) in the *Input* field.

3. **Tab** to the *User identifier* field and type the new **user_id**, deleting any remaining characters.

4. **Tab** to the *Password* field and type the new user's **password**.

5. **Tab** to the *Name* field and type the new user's **name**.

6. **Tab** to the *Title* field and type the new user's job **title**.

7. **Tab** to the *Department* field and type the new user's **department**.

8. **Tab** to the *Address* field and type the new user's mailing **address**.

9. **Tab** to the *Printer view authority* field. If this user can view all printers, type **Y** (Yes). If this user can only view the printers specified in the *Authorized printers* field, type **N** (No).

10. To limit the printers this user can control, **Tab** to the *Authorized printers* field and type the generic or specific **printer_ids**.

11. **Tab** to the *Change sel. criteria* field. If this user can change the selection criteria for the printers they are authorized to update, type **Y** (Yes). If this user cannot change the selection criteria, type **N** (No).

> **(Tip)** If you specify **Y** (Yes) in the *Change sel. criteria* field, use the *Dest. mask* field to limit the override for the CPMS/SYSD hot writer destination to a specific or generic destination.

12. **Tab** to the *Queue display authority* field. If this user can only see authorized jobs when accessing Option 5, MVS/JES2 Job Queue Display, and Option 6, MVS/JES2 Job Output Display, type **N** (No). If this user can see all the jobs in the queue, type **Y** (Yes).

13. **Tab** to the *Q view/ctl auth. (Job)* field and type the **job_name_prefix** or the generic **job_names** this user can view and control. If you leave this field blank, this user has no restrictions.

14. **Tab** to the *Q view/ctl auth. (Dest)* field and type the JES2 **destination_ids** this user can view and control. If you leave this field blank, this user has no restrictions.

15. **Tab** to the *Q view/ctl auth. (Class)* field and type the output **classes** this user can view and control. If you leave this field blank, this user has no restrictions.

16. **Tab** to the *Q view/ctl auth. (Misc)* field and type the **data** you want passed to the user exits.

17. Press **Enter.**

Updating a User Profile

| Note | If authorized, you can change any field except the *User identifier* field. An error message is displayed if you try to change the *User identifier* field. You should only change a user profile if the user is not logged on to CPMS/SYSD.

To update a user profile:

1. Display the user profile you want to change.

2. Type **U** (Update) in the *Input* field.

3. **Tab** to the fields you want to change and type the new **information**, deleting any remaining characters.

4. Press **Enter.**

Deleting a User Profile

| Note | If authorized, you can delete any user profile but your own.

To delete a user profile:

1. Display the user profile you want to delete.

2. Type **D** (Delete) in the *Input* field.

3. Press **Enter.**

Using the MVS Spool Display Facility (JES2)

To use the Spool Display facility, you must keep the normal OS printers from automatically printing the jobs. There are two ways to do this:

* You can use the TSO held output class and set up a printer to service that class. Then you can view, route, or release jobs for printing.

* H&W recommends you use unit queues, which are similar to remote queues except unit queues have a name of **Unnnn** instead of **Rnnnn**. You can also use alias names to define U1 through U9999. You do not need to change JES2 parameters. When you route a job's output to a unit queue, the output stays there until you reroute it to a destination serviced by a local or remote printer or until you delete the job.

To help manage spool space and jobs, you can assign a unit queue to each user. You can also define unit queues with aliases.

To use unit queues, put a ROUTE card immediately after the JOB card that specifies the queue where you want to send the job. For example, specify the ROUTE card for U0010 as:

```
/*ROUTE PRINT U0010
```

If the job has punch output, you can also include the following ROUTE card:

```
/*ROUTE PUNCH U0010
```

When the job is done executing, the output is in queue U0010. You can use Option 5, MVS/JES2 Job Queue Display, or Option 6, MVS/JES2 Job Output Display, in the menu system to view, route, or delete the output.

Using FCBs with Spool Print

When printing batch jobs in CICS, CPMS/SYSD uses the standard OS forms control buffer (FCB) to determine the form length and positioning. The FCB defines the length of the form and the position of each skip-to-channel command in it. The FCB is an object code image that resides in the operating system's SYS1.IMAGELIB. You must define or use an FCB in SYS1.IMAGELIB before printing.

The &STDFCB parameter in SYSDSETS defines the default FCB to CPMS/SYSD. The default FCB is normally FCB26 or FCB2STD1. The default FCB image handles most printing. It handles paper with 66 lines. You can override the default for a printer by specifying the DFTFCB parameter in SYSD.USRLIB(PTBLMAIN). See the DFTFCB parameter on page 125 for more information. See the *MVS Systems Programming Library: Data Management* manual for more information about setting up an FCB.

You refer to an FCB in your JCL with a 4-character name. JES converts it to an 8-character name by prefixing it with **FCB2**. You can construct an FCB name for any output dataset. You can use the FCB parameter on the DD statement in your JCL to refer to a specific FCB, or you can let it default to the JES default value. The FCB must match the form you are printing on, especially the form's length. If it does not, the printout may creep up or down the page as each new page is printed. See your system's JCL manual for more information about how to specify the FCB parameter on the DD statement.

Before CPMS/SYSD prints each SYSOUT dataset, it builds the appropriate name for the FCB and searches SYS1.IMAGELIB to find the corresponding member. If CPMS/SYSD does not find the member, the print task issues an error message on the printer and goes on to the next output dataset to be printed. If CPMS/SYSD finds the member, it loads the FCB into memory and starts printing.

Caution ▶ *Even if your normal system printer does not require FCB images, CPMS/SYSD does.*

Interacting with CICS

This section discusses some issues you need to consider about how CPMS/SYSD and CICS interact.

Calculating CPMS/SYSD's Memory Requirements

The amount of memory CPMS/SYSD requires is proportional to JES2's JOBNUM and JOENUM initialization parameters. JOBNUM and JOENUM are the standard JES2 initialization parameters specified in SYS1.PARMLIB(JES2PARM). JOBNUM defines the maximum number of jobs JES2 lets exist in its queues. JOENUM defines the maximum number of job output elements JES2 lets exist in the output queue.

To calculate the approximate amount of memory CPMS/SYSD requires, multiply the values of JOBNUM and JOENUM by their respective sizes, rounding each up to a 4k boundary. Then add 14k for CPMS/SYSD buffers and work areas. To determine the size of each, use the following table or look at the JQELNGTH or JQEBLEN label and the JOESIZE label in the SYSD0104 assembly or in your JES2 assemblies.

JES2 version	JOBNUM (JQELNGTH) or (JQEBLEN)	JOENUM (JOESIZE)
SP 1.3.6, 2.1.5, 2.1.7	28	88
SP 2.2.0	52	88
SP 3.1.1	60	88
SP 4.1.0	96	100
SP 4.2.0, 4.3.0	88	100
SP 5.1.0	96	104
SP 5.2.0	100	104

For example, assume you have JES2 version SP 4.2.0 with JOBNUM=500 and JOENUM=1000. The approximate CPMS/SYSD memory required is calculated as:

```
JOBNUM X  88 =  44000 rounded up to 4k =    44k
JOENUM X 100 = 100000 rounded up to 4k =   100k
                                + 14k =    14k
Total                                     158k
```

CPMS/SYSD gets the amount of memory required from either CICS OSCORE, MVS CSA, or MVS Extended CSA (ECSA). Use one of the following methods to get the checkpoint information:

+ SRB queue read method – The &JES2SRB parameter in SYSDSETS is set to 1

   CPMS/SYSD gets the memory requirements from either CSA or ECSA and uses an SRB method to copy the information from the JES2 address space. There is no I/O involved. If you have CPMS/SYSD installed in multiple CICS regions, the CSA area is shared. If they are defined to use the SRB method, all the CICS regions CPMS/SYSD is installed in use the same CSA area.

   To implement the ECSA feature, set the &JES2ARA parameter in SYSDSETS to 1.

+ Checkpoint read method – The &JES2SRB parameter in SYSDSETS is set to 0

   CPMS/SYSD gets half of the memory requirements calculated using the formula on page 42 from OSCORE and then dynamically expands up to the maximum needed to handle the number of JQEs and JOEs used. If there is not enough OSCORE available, this method bypasses the amount needed for the JOEs and disables Option 6, MVS/JES2 Job Output Display. Each time a user accesses Option 6, CPMS/SYSD issues an error message. If there is not enough OSCORE for the JQEs, CPMS/SYSD issues a 608x abend.

Using Multiple CICS Regions

Most of SYSD's programs can be shared between multiple CICS regions. You can concatenate SYSD.LOADLIB into each CICS region's DFHRPL. You may need to put the following programs in a library concatenated ahead of SYSD.LOADLIB since they may contain code or tables unique to your CICS regions:

This program	*Contains*
SYSD0074	The user exit code. This program can be shared unless each CICS region needs different exits.
SYSDBRWS	The DDNAMEs of the SYSD/ATP browse work file. Normally, this program can be shared unless you use multiple or different browse work file names. (SYSD/ATP only)
SYSDINIT	The SYSD initialization parameters. This program can be shared unless you had to change SYSDSETS or INITMAIN for the individual CICS regions.

(continued)

This program	Contains
SYSDPTBL	Printer table definitions. You may be able to have a universal set of definitions that cover the requirements for all the CICS regions.
SYSDWORK	The DDNAMEs of the editor work file. Normally, this program can be shared unless you use multiple or different editor work file names. (SYSD only)

You must define separate SYSDUSER, editor work files, and SYSD/ATP browse work files for each CICS region and point to them in the CICS startup JCL. Use the SYSD EDITINIT function to initialize the new editor work files and SYSD/ATP browse work files. You can use the Batch Work File utility to perform the EDITINIT function. See "EDITINIT (EI) Function" on page 75 for instructions. Then bring up the new CICS region and add user IDs to the SYSDUSER file using Option U in the menu system.

Upgrading CICS after Installing CPMS/SYSD

Note	Before you upgrade CICS, call H&W Customer Support or visit our World Wide Web site (http://www.hwcs.com) for the latest installation information.

To support a new version of CICS after you have installed CPMS/SYSD:

1. Change the value of the &CICSREL parameter in SYSDSETS to reflect the new CICS version.

2. Update the following parameters in STAGE1:

   - &CICSCLA
   - &CICSCSD
   - &CICSMAC
   - &CICSOBJ
   - &CICSSRC
   - &CSDFCTG
   - &CSDLIST
   - &CSDPCTG
   - &CSDPPTG

3. Rerun the STG1ASM job.

4. To reinstall the assembly PROCs, run the INSTPROC job.

Note \ In the next step, you must run INSTCOPY before you run INSTCOMM and INSTCICS.

5. Run the INSTCOPY, INSTCOMM, and INSTCICS jobs.

6. For CICS version 2.1 and below, run the INSTCSD job. For CICS version 3.1 and above, run the INSTUCSD job.

7. If you are not using RDO, reassemble your PPT to account for any new or deleted programs.

8. Cycle CICS.

9. Issue the **SYSD,SYSDTEST** command.

Shutting Down CICS

CPMS/SYSD uses auxiliary OS subtasks to perform OS requests. The OS subtasks start when you first invoke SYSD. SYSD provides a PLT program called SYSD0040 that automatically terminates the OS subtasks when you shut down CICS. To shut down CICS and activate the PLT program, type one of the following commands and press **Enter**:

```
CSMT SHUTDOWN,NO
CEMT P SHUT
```

The NO option of the CSMT SHUTDOWN command invokes the PLT, but all the OS subtasks terminate before CICS terminates. See the *CICS System Programmer's Manual* for more information.

You can also use the SHUT function to shut down SYSD separately from CICS. The SHUT function terminates the OS subtasks and disables SYSD. Then issue the CSMT SHUTDOWN command with the YES option or issue the CEMT P SHUT command with the IMMEDIATE option. If you do not use either option, CICS terminates with an SA03 abend.

You can also use the following SYSD SHUT functions to terminate SYSD and CICS:

```
SYSD,SHUT
```

This command only terminates SYSD.

```
SYSD,SHUT,NO
```

This command terminates SYSD and CICS just as if you had issued the CSMT
SHUTDOWN,NO or CEMT P SHUT command.

```
SYSD,SHUT,YES
```

This command terminates SYSD and CICS just as if you had issued the CSMT
SHUTDOWN,YES or CEMT P SHUT IMMEDIATE command.

Supporting Large Screens

SYSD uses the large screens for 3270 devices whenever possible. If you have large screens,
make sure the TCT entry for the device reflects the alternate screen values. If the terminal
does not actually have large screen capability, make sure the TCT entry does not contain
alternate screen values. SYSD does not require any changes to use large screens.

| Note | You do *not* need to add the SCRNSZE=ALTERNATE parameter to the SYSD PCT entry. |

Passing Control to CPMS/SYSD (Application Program Interface)

Your user programs can invoke CPMS/SYSD. Optionally, CPMS/SYSD will transfer
control (XCTL command) back to the program you specify when returning from the
menu system.

To invoke CPMS/SYSD from a command-level program, put the CPMS/SYSD command
in the COMMAREA and transfer control to the SYSD0136 program. You can use any
programming language. To return control from the menu system to a user program, put
the user program name in parentheses after the RETURN keyword as the first parameter
in the COMMAREA.

To invoke a non-menu CPMS/SYSD function or if you do not require a return program,
omit the RETURN parameter and begin the COMMAREA with the SYSD command or
the value you specified for the &MTRNID parameter in SYSDSETS.

If you omit the RETURN parameter or invoke a SYSD command other than MENU,
control returns directly to CICS.

The program that transfers control to SYSD0136 must have a TWA size large enough for
CPMS/SYSD. See the TWASIZE= parameter in our PCT copybook in
SYSD.USRLIB(INSTCTBL).

The following is an example:

```
DC 'RETURN(PROGABC),SYSD MENU USERA PSWA 5'
```

This command is passed in the COMMAREA to SYSD0136 where it invokes the CPMS/SYSD menu system, signs on USERA with the password PSWA, and displays Option 5, MVS/JES2 Job Queue Display. Once the user has signed on, the full menu system is available. When the user returns from the menu system, PROGABC receives control through the XCTL command and the constant *RETURN FROM SYSD* is passed to it in the COMMAREA. PROGABC must be a command-level program with an entry in the CICS PPT. If processing depends on recognizing the return condition, PROGABC can check for the *RETURN FROM SYSD* constant.

SYSD.SOURCE(SYSDXCTL) contains a sample Assembler language program. See SYSDXCTL for more information.

Supporting MRO

CPMS/SYSD supports MRO under the following guidelines:

♦ Transactions that display CICS tables and memory are limited to the region the CPMS/SYSD programs reside in (application-owning region).

♦ When you specify separate regions for terminals and CPMS/SYSD applications, you can use the CICS CRTE facility to establish the link from the terminal to the CPMS/SYSD region. To have the SYSD and SYSI transactions automatically establish the necessary link, put remote entries in the terminal-owning region's PCT.

♦ To print to a terminal that does not reside in the application-owning region, put an entry in PTBLMAIN that specifies the remote printer's TRMIDNT as listed in the application-owning region's TCT. Reassemble the SYSDPTBL program.

♦ When issuing the PJ and PQ CPMS/SYSD commands, specify the printer ID as the TCT TRMIDNT, not the RMTNAME if the two are different. This must also be the printer ID specified in PTBLMAIN.

♦ To issue the P=print option on Option 5, MVS/JES2 Job Queue Display, set the printer ID on Option 0.1, JES/List Parameter Definitions, to the target printer's TRMIDNT.

♦ For CPMS/SYSD to translate uppercase and lowercase characters properly in an MRO environment of CICS 3.3 or older, you must define the following transaction and program in all the terminal-owning regions that access CPMS/SYSD:

```
DFHPCT TYPE=ENTRY,
    PROGRAM=SYSD0138,
    TWASIZE=0,
    TRANSEC=01,
    TPURGE=YES,
    SPRUGE=YES,
    TRANSID=SYST

DFHPPT TYPE=ENTRY,
    PGMLANG=ASSEMBLER,
    PROGRAM=SYSD0138
```

You can change the TRANSID parameter, but it must correspond to the &MROTNID parameter specified in SYSDSETS. See the &MROTNID parameter on page 112 for more information.

> **Note** In CICS version 4 and above, you do not need to define the transaction and program in the terminal-owning region.

Interacting with MVS

This section discusses some issues you need to consider about how CPMS/SYSD and MVS interact.

Troubleshooting SVC Errors

If you do not install the SYSD SVC correctly, CICS abends when you execute SYSD. If this happens, make sure:

- ♦ The SYSDTEST function was performed without errors during the installation.

- ♦ The SVC module name generated by SYSD.USRLIB(INSTSVC) reflects the assigned SVC number. The last number should be a character, not a number.

- ♦ The SVC number is defined as a type 3 or type 4 SVC in your OS SYSGEN. Avoid type 1 or type 2 SVCs and SVC numbers that end in zero.

- ♦ The chosen SVC does not have any SVC locks enabled.

- ♦ The SVC was installed in SYS1.LPALIB and you have performed an IPL with a CLPA.

Only the CPMS/SYSD function should use the SVC. If an unauthorized batch or CICS program tries to use this SVC, the following happens:

- ♦ The following error message is displayed on the security and master consoles:

```
E999 UNAUTHORIZED USE OF THE H&W SVC-CONTACT SECURITY ADMINISTRATOR
```

- ♦ CPMS/SYSD overlays a hexadecimal 00 and the E999 error message in the program's memory at the return address.

- ♦ An 0C1 abend occurs.

You can then match the message on the security console and identify the program that tried to use the SVC.

Upgrading MVS after Installing CPMS/SYSD

Note

Before you upgrade to MVS/XA, MVS/ESA, or OS/390, call H&W Customer Support or visit our World Wide Web site (http://www.hwcs.com) for the latest installation information.

To support a new version of MVS after you have installed CPMS/SYSD:

1. Change the value of the &OSLEVEL parameter in SYSDSETS to reflect the new operating system.

2. Rerun the STG1ASM job.

3. To reinstall the assembly PROCs, run the INSTPROC job.

4. Run the INSTCOMM and INSTOS jobs.

5. Cycle CICS.

6. Issue the **SYSD,SYSDTEST** command.

Interacting with JES2

This section discusses some issues you need to consider about how CPMS/SYSD and JES2 interact.

Using the JES2 SRB Queue Read Method

To use the JES2 SRB queue read method (the &JES2SRB parameter in SYSDSETS is set to 1), you must set up a subsystem interface for SYSD that matches the &SYSDSSI parameter in SYSDSETS. If you have set the &JES2SRB parameter in SYSDSETS to 1, the &SYSDSSI parameter provides the common anchor to the checkpoint information stored in MVS CSA or ECSA.

To add the subsystem interface entry, update SYS1.PARMLIB(IEFSSNxx) with the name specified for the &SYSDSSI parameter. IPL MVS to make the change take effect. See the *OS/MVS Systems Programming Library: Job Management* manual for more information.

Beginning with OS/390 1.1, the subsystem entry can be dynamically added with the OS command SETSSI ADD,SUBNAME=SYSD. Existing entries can be displayed with the OS command D SSI,SUBSYS=SYSD.

Using JES Datasets

If you are using a JES function, like the spool display, all the JES-related datasets must begin on a cylinder boundary. For JES3, the JCT dataset must be a maximum of one cylinder. If you do not meet these requirements, CICS abends with an S500 completion code. Other complications may also occur.

Running CPMS/SYSD with a Secondary JES2 Subsystem

You can set up CPMS/SYSD to use a JES2 that is being run as a secondary subsystem. To use the checkpoint queue read method, set the &JES2JBI parameter in SYSDSETS to the secondary subsystem name and set the &JES2SRB parameter in SYSDSETS to 0. Reassemble SYSDINIT and cycle CICS. If the secondary subsystem is not running before you use CPMS/SYSD, a 611B abend occurs.

The normal limitations of running a secondary subsystem apply. When you submit jobs, they only go to the primary subsystem because of the internal reader restrictions. The primary subsystem handles SYSLOG, which is not available for viewing by CPMS/SYSD.

Upgrading JES2 after Installing CPMS/SYSD

| Note | Before you upgrade JES2, call H&W Customer Support or visit our World Wide Web site (http://www.hwcs.com) for the latest installation information. |

To support a new version of JES2 after you have installed CPMS/SYSD:

1. Change the value of the &JES2VER parameter in SYSDSETS to reflect the new JES2 version.

2. Change the value of the &JES2SRC parameter in STAGE1 to reflect the new JES2 library.

3. Rerun the STG1ASM job.

4. To reinstall the assembly PROCs, run the INSTPROC job.

5. Run the INSTCOMM and INSTJES2 jobs.

6. Cycle CICS.

7. Issue the **SYSD,SYSDTEST** command.

Using the SYSD Editor

This section discusses some issues you need to consider when you allocate and maintain the SYSD editor.

Initializing the SYSD Editor Work File (SYSD Only)

The SYSD editor work file is a BDAM file that is random, contains its own directory, and need not be reorganized. You must run SYSD.USRLIB(INSTFILE) to preformat the file. You can also use the EDITINIT function to initialize the file. Since SYSD uses CICS facilities to read and write to the editor work file, the file's physical block size must agree with the FCT entry. See "EDITINIT (EI) Function" on page 75 for more information about initializing the editor work file.

The &EDTBLKS parameter in SYSDSETS defines the editor work file's block. The block size can be any size between 1024 and the track size. H&W recommends you use a block size of around 4096, depending on the device type. Round up or down for best optimization of disk space. The block size limits the number of records that can be edited. For an 80 byte LRECL, a block size of 4096 allows edit sessions of up to 16,895 records. To perform the actual calculation for the maximum records per edit session, use the following formula:

$$\text{maximum records per edit session} = \left[\frac{(\text{WORKDATASET BLKSIZE} - 256)}{10} \times \frac{(\text{WORKDATASET BLKSIZE} - 20)}{(\text{LRECL} + 12)} \right] - 1$$

Drop any remainders!

The editor work file's main function is to act as a work and recovery file while you are editing. However, you may want to maintain small JCL datasets as active sessions for quick access. Space requirements vary based on the type of user and your company's policies. Development users require up to 300 4k blocks of space, while other types of users require less. H&W recommends you start with the space specified in SYSD.USRLIB(INSTFILE). You can then use the EDITLIST function to monitor how much space is used.

To calculate the maximum number of blocks the editor work file can contain, use the following formula:

$$\text{maximum blocks addressable} = (\text{WORKDATASET BLKSIZE} - 256) \times 8$$

Allocating more blocks than this results in wasted space. After you determine the number of blocks you need for your types of users, you can reallocate and reinitialize the editor work file. Remember to save all active sessions before reinitializing the editor work file or you will lose them.

Using Multiple SYSD Editor Work Files

SYSD.USRLIB(WORKMAIN) defines the DDNAMEs for each required editor work file. H&W recommends you define DDNAMEs of SYSDWRK0 through SYSDWRKn. After you update WORKMAIN, assemble SYSDWORK.

Each editor work file requires a separate FCT entry. To create the FCT entries, duplicate the entry for SYSDWRK0 and reassemble the FCT. The EDTEXT01 user exit in SYSD.USRLIB selects the editor work file you will use. See the source for EDTEXT01 for more information.

Note

Since Resource Definition Online (RDO) does not support BDAM files, you must use the DFHFCT macro to define the editor work files' FCT entries.

Using the SYSD/ATP Browse Work File

This section discusses some issues you need to consider when you allocate and maintain the SYSD/ATP browse work file.

Initializing the SYSD/ATP Browse Work File (SYSD/ATP Only)

The SYSD/ATP browse work file is a BDAM file that is random, contains its own directory, and need not be reorganized. You must run SYSD.USRLIB(INSTFILE) to preformat the file. You can also use the EDITINIT function to initialize the file. Since SYSD uses CICS facilities to read and write the browse work file, the file's physical block size must agree with the FCT entry. See "EDITINIT (EI) Function" on page 75 for more information about initializing the browse work file.

The &EDTBLKS parameter in SYSDSETS defines the browse work file's block size. The block size can be any size between 1024 and the track size. H&W recommends you use a block size of around 4096, depending on the device type. Round up or down for best optimization of disk space. The block size limits the number of records that can be browsed. For an 80 byte LRECL, a block size of 4096 allows browse sessions up to 16,895 records. To perform the actual calculation for the maximum records per browse session, use the following formula:

$$\text{maximum records per browse session} = \left[\frac{(\text{WORKDATASET BLKSIZE} - 256)}{10} \times \frac{(\text{WORKDATASET BLKSIZE} - 20)}{(\text{LRECL} + 12)} \right] - 1$$

Drop any remainders!

The SYSD/ATP browse work file's main function is to act as a work file while you are browsing CA-Panvalet datasets. Space requirements vary based on the number and type of simultaneous, active browse sessions. H&W recommends you start with the space specified in SYSD.USRLIB(INSTFILE). You can then use the EDITLIST function to monitor how much space is used.

To calculate the maximum number of blocks for the SYSD/ATP browse work file, use the following formula:

$$\text{maximum blocks addressable} = (\text{WORKDATASET BLKSIZE} - 256) \times 8$$

Allocating more blocks than this results in wasted space. After you have determined the number of blocks you need for your types of users, you can reallocate and reinitialize the browse work file.

Using Multiple SYSD/ATP Browse Work Files

SYSD.USRLIB(BRWSMAIN) defines the DDNAMEs for each required browse work file. H&W recommends you define DDNAMEs of SYSDBRS0 through SYSDBRSn. After you update BRWSMAIN, assemble SYSDBRWS.

Each browse work file requires a separate FCT entry. To create the FCT entries, duplicate the entry for SYSDBRS0 and reassemble the FCT. The BRSEXT01 user exit in SYSD.USRLIB selects the browse work file you will use. See the source for BRSEXT01 for more information.

> **Note**
>
> Since Resource Definition Online (RDO) does not support BDAM files, you must use the DFHFCT macro to define the browse work files' FCT entries.

Chapter 4
Administering CPMS/SYSD

This chapter describes the menu system option and commands the CPMS/SYSD administrator can use to control the system. Since the average user does not need to use these commands, they are described here instead of in the *CPMS/SYSD Reference Manual.*

Option L – Displaying the Master Console's Active Buffers

Option L is a special option that is not displayed on the Primary Option Menu, but is available to the CPMS/SYSD administrator. Option L, MVS Console Display, lists the master console's active buffers that have not been written to the spool. The following is an example of the information displayed:

```
    9:22:28 ----------------- MVS CONSOLE DISPLAY ---------------------- (1/1)
    INPUT ===>                                                    SCROLL: CSR


  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,300,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,310,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,320,000  LINES  13 % SPOOL
  IST530I CINIT PENDING FROM MVS390 TO CICS32 FOR E607 527
  IST1051I EVENT CODE = 0201
  IST1062I EVENT ID = 00000001000100000001001602010881060100004
  IST314I END
  IST530I CINIT PENDING FROM MVS390 TO CICS32 FOR TCP00023 528
  IST1051I EVENT CODE = 0201
  IST1062I EVENT ID = 00000001000100000001001602010881060100006
  IST314I END
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,330,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,340,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,350,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,360,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,370,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,380,000  LINES  13 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,390,000  LINES  14 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,400,000  LINES  14 % SPOOL
  $HASP375 MSAROWLS ESTIMATE EXCEEDED BY    1,410,000  LINES  14 % SPOOL
```

Occasionally, the screen will not display a full page. This means the buffers did not contain enough data for a full screen because they have been written to the spool. You can use Option 5, MVS/JES2 Job Queue Display, to display this data by setting the prefix to **SYSLOG** and selecting the executing SYSLOG. If there are any outstanding WTORs, they are displayed at the bottom of the Option L screen.

The SYSL01 security exit lets you secure the commands that can be issued from Option L. See the online help for a list of the valid commands.

Functional Commands

This section describes the commands the administrator can use to control the system.

ATPTBL – Building an ATP Dataset Member Table

The ATP dataset member table contains a list of CA-Panvalet datasets and pointers that tell CPMS/SYSD where the members are in the directory. The ATPTBL command either creates a new ATP dataset member table or adds a new dataset's members to the existing table.

The browse and edit ATP directory functions use this table internally to speed up processing. You should issue this command for every CA-Panvalet dataset that has a large number of members. If you issue this command a second time for a dataset, CPMS/SYSD refreshes the member table.

The format of the ATPTBL command is:

```
SYSD,ATPTBL[,vol_ser],dataset
```

This parameter	Specifies
vol_ser	The volume serial number where the ATP dataset resides. The default is the OS cataloged entry.
dataset	The 1- to 44-character name of the ATP dataset you want to add to the table.

DPROG – Displaying Program Statistics

The DPROG command displays a summary of statistics for a CPMS/SYSD program. You can also use the DPROG command to display the statistics for a CPMS/SYSD function and see which CPMS/SYSD program it is executing. The format of the DPROG command is:

```
SYSD,DPROG[,program_id|FUNC=function_id]
    DP
```

This parameter	Specifies
program_id	The program you want to display statistics for. The default is a summary of statistics for all the programs.
function_id	The CPMS/SYSD function you want to display statistics for.

EDITINIT – Initializing the Editor and Browse Work Files

The EDITINIT command initializes the SYSD editor or SYSD/ATP browse work file. You must issue the EDITINIT command before using the SYSD editor. The format of the EDITINIT command is:

```
SYSD,EDITINIT,file_name[,FORCE|FAST]
     EI
```

Caution ► *The FORCE parameter destroys any existing edit sessions. Do not use the FAST parameter during the first initialization.*

This parameter	Specifies
file_name	The name of the editor or browse work file you want to initialize. This is the same name as specified for the FILE= parameter in WORKMAIN or BRWSMAIN.
FORCE	Initialize the active work file.
FAST	Perform a quick re-initialization of the work file.

Prompts and error messages

The following are possible prompts and error messages:

Successful completion prompt

```
*** INITIALIZATION SUCCESSFUL ***
```

The editor or browse work file has been properly initialized.

General error messages

```
*** Dataset name is invalid or missing. ***
```

The **file_name** parameter was not specified on the EDITINIT command.

```
*** DATASET NAME IS NOT IN SYSDWORK ***
```

The **file_name** parameter must match a DD= parameter in WORKMAIN. Correct the command or correct WORKMAIN and reassemble SYSDWORK using the JCL in SYSD.USRLIB(INSTCOMM).

```
***EDT001E - DATASET ACTIVE, SPECIFY FORCE***
```

You must use the FORCE parameter to initialize an active work file.

Validate FCT against SYSDWORK

```
***FCT ENTRY NEEDS ADD OPTION***
```

The FCT entry does not have the add, update, unblocked, or fixed attributes. Copy the FCT entry generated by INSTCTBL to your FCT again and reassemble it. To check the FCT entry, issue the **CEMT INQ FILE(fct_id)** command.

```
***DATASET NAME IS NOT IN FCT***
```

The FCT entry in CICS is missing. Check the FCT, update it, and reassemble it if necessary.

Initialize file

```
***MASTER RECORD WRITE ERROR***
***MASTER BIT MAP READ ERROR***
***1ST DIRECTORY BLOCK READ ERROR***
***1ST DIRECTORY BLOCK WRITE ERROR***
```

These error messages indicate read and write errors on the editor work file. Make sure the file is not being shared by multiple CICS regions and the block size specified in the FCT matches the block size specified on the work file. See "Using the SYSD Editor" on page 53 and Appendix F, Editor and Browse Work Files, for more information.

EDITLIST – Displaying Edit Sessions in a Work File

The EDITLIST command displays a list of the edit sessions in a work file and their directory information. You can use this command to monitor space allocation and usage. The format of the EDITLIST command is:

```
SYSD,EDITLIST[,file_name][,user_id]
     EL
```

This parameter	Specifies
file_name	The 1- to 8-character name of the work file you want to display. The default is the first work file specified in SYSD.USRLIB(WORKMAIN).
user_id	The user ID of the person whose edit sessions you want to display. The default is all the edit sessions.

The work file must exist in the FCT, be defined in WORKMAIN, and be open and enabled. You must have previously formatted the work file with EDITINIT.

The following is an example of the information displayed:

```
   11/03/97          MVS/ESA VERSION OF CPMS/SYSD RELEASE 6.4.1          PAGE 042
   MONDAY                     EDITOR SESSION LIST FOR SYSDWRK0             14:21:17
   MEMBER-------------- DATASET------------------------------------------ USERID-----
           BLKS(00011) RCDS(00416) LRECL(00080) FIRST(01109)
   XREF                 BA.JCL.SOURCE                                     BA
           BLKS(00001) RCDS(00011) LRECL(00080) FIRST(04821)
   XREF                 DD.JCL.SOURCE                                     DD
           BLKS(00001) RCDS(00011) LRECL(00080) FIRST(02684)
   XXXX                 JL.JCL.SOURCE                                     JL
           BLKS(00001) RCDS(00000) LRECL(00080) FIRST(02470)
   ZEROT                EH.JCL.SOURCE                                     EH
           BLKS(00002) RCDS(00015) LRECL(00080) FIRST(04862)
   999FIX               MF.JCL.SOURCE                                     MF
           BLKS(00002) RCDS(00062) LRECL(00080) FIRST(02269)


       ************ WORK FILE STATUS ************

       CURRENT NUMBER OF DIRECTORY ENTRIES = 00376
       BLOCKS ALLOCATED = 08000    BLOCK SIZE  = 04096
       BLOCKS IN USE    = 05837    PERCENT IN USE = 73
       BLOCKS FREE      = 02163

   P/N
```

Field Definitions

BLKS

The number of blocks allocated to the work file.

Dataset

The dataset the member is saved in.

First

The first block number.

LRECL

The logical record length.

Member

The member name.

RCDS

The number of records in the work file.

USERID

The edit session owner's user ID.

JES2FREE – Freeing the JES2 Internal Areas

The JES2FREE command frees the JES2 internal areas CPMS/SYSD uses. If a problem occurs with these areas, the easiest way to recover is to free them. Any tasks that are currently using these areas abend, but the next JES2 request copies fresh areas and lets CPMS/SYSD continue. You should only issue this command when absolutely necessary. The format of the JES2FREE command is:

```
SYSD,JES2FREE
```

JES2LJOB – Displaying a Job's JES2 Control Blocks

The JES2LJOB command displays the JES2 control blocks in the JES2 job queue and spool. You can use this command for debugging purposes, but you should only issue it at the request of H&W Customer Support. The format of the JES2LJOB command is:

```
SYSD,JES2LJOB,job_id
```

This parameter	Specifies
job_id	The name or number of the batch job you want to display.

PRTQUEST – Starting a Spool Writer

The PRTQUEST command starts one or more CPMS/SYSD hot writers. This command uses the default selection and disposition parameters specified in the printer's table entry. The format of the PRTQUEST command is:

```
SYSD,PRTQUEST,printer_mask
    PQST
```

This parameter	Specifies
printer_mask	The ID of the printer terminal you want to start a hot writer for. You can specify a single CICS printer terminal ID or a generic mask if you want to start more than one hot writer. You can use a plus sign (+) or asterisk (*) as wildcard characters in the printer terminal ID.
	If you specify an actual printer ID, CPMS/SYSD starts the hot writer using the default selection and disposition options, regardless of the AUTOSTR specification. If you specify a printer mask, CPMS/SYSD only starts the printer entries that have AUTOSTR=YES specified in PTBLMAIN.

Note: If the hot writer selection and disposition options fail, CPMS/SYSD displays error messages and sets them in the printer's table entry. You can use the PRTDSP command to view these messages. See the *CPMS/SYSD Reference Manual* for more information about the PRTDSP command.

START – Starting CPMS/SYSD

The START command issues a message to the master console or the requesting terminal indicating CPMS/SYSD has been started. The format of the START command is:

```
SYSD,START
```

STPSCN – Stopping the Global JOE Writer Scanning Task

The STPSCN command stops the CPMS/SYSD global JOE writer scanning task. You can use this command to keep any new JOE writer printing tasks from starting. Current outstanding requests are still processed, but no new tasks are started. You must issue the STRSCN command to resume the JOE writer scanning task. The format of the STPSCN command is:

```
SYSD,STPSCN
```

STRSCN – Starting the Global JOE Writer Scanning Task

The STRSCN command starts the CPMS/SYSD global JOE writer scanning task. You do not normally need to issue this command because the first JOE writer request automatically starts the global scanning task. You only need to issue this command if the STPSCN command was issued to temporarily halt all the JOE writers. The format of the STRSCN command is:

```
SYSD,STRSCN
```

STRWTRST – Starting a JOE Writer

The STRWTRST command starts one or more CPMS/SYSD JOE writers using the default selection and disposition parameters specified in the printer's table entry. The format of the STRWTRST command is:

```
SYSD,STRWTRST,printer_mask
     SWST
```

This parameter	*Specifies*
printer_mask	The ID of the printer terminal you want to start a JOE writer for. You can specify a single CICS printer terminal ID or a generic mask if you want to start more than one JOE writer. You can use a plus sign (+) or asterisk (*) in the printer terminal ID for generic matching.
	If you specify an actual printer ID, CPMS/SYSD starts the JOE writer using the default selection and disposition options, regardless of the AUTOSTR specification. If you specify a printer mask, CPMS/SYSD only starts the printer entries that have AUTOSTR=SW specified in PTBLMAIN.

Note: If the JOE writer selection and disposition options fail, CPMS/SYSD displays error messages and also sets them in the printer's table entry. You can use the PRTDSP command to view these messages. See the *CPMS/SYSD Reference Manual* for more information about the PRTDSP command.

SYSDTASK – Checking Auxiliary Tasks

The SYSDTASK command checks the status of SYSD's auxiliary tasks. You can use this command for debugging purposes. The format of the SYSDTASK command is:

```
SYSD,SYSDTASK[,task_id]
```

This parameter	*Specifies*
task_id	The ID of the task you want to check as displayed on the Auxiliary Task Status Display screen. You only need to specify the last character of the task ID.

If you do not specify a task ID, SYSD displays the general status of all auxiliary tasks in the following format:

```
  11/03/97            MVS/ESA VERSION OF CPMS/SYSD RELEASE 6.4.1       PAGE 001
  MONDAY                    AUXILIARY TASK STATUS DISPLAY              14:26:33

  GENERAL COMMUNICATION AREA FOR ALL TASKS
          HEAD TASK AREA FLAG 1 = 80
          A TASK HAS BEEN INITIALIZED
          MAXIMUM NUMBER OF AUXILIARY TASKS = 0003
          ADDRESS OF FIRST TASK TABLE ENTRY = 00090360


  TASK-ID   TASK STATUS FLAGS   LAST ABEND (R15)
  OSTK0001  ATCH  WAIT NOTM NORM  000000  00000000
  OSTK0002  UNAT  WAIT TERM NORM  D37000  FFD37000
  OSTK0003  ATCH  WAIT NOTM NORM  000000  00000000


  * * *  END OF DATA  * * *







  SYSD SYSDTASK
```

If you specify a task ID, SYSD displays its status in the following format:

```
  11/03/97            MVS/ESA VERSION OF CPMS/SYSD RELEASE 6.4.1       PAGE 001
  MONDAY                    AUXILIARY TASK STATUS DISPLAY              14:30:03


  GENERAL AREA FOR TASK OSTK0001
          THIS TASK WORK AREA ID =  OSTK0001
          RETURN ADDRESS INTO TASK = 0058AEF0
          ATTACHED TASK TCB PTR = 009CB0D0
          TASK BUSY ECB = 809CB048
          TASK COMPLETED ECB = 40000000
          TASK TERMINATED ECB = 009E1B70
          CICS TASK TWA PTR = 00000000
          ADDRESS OF NEXT TASK TABLE ENTRY = 00090470
          LAST ABEND CODE = 000000
          R15 (REQUEST/RETURN CODE) = 00000000
          R0 = 5011C56A
          R1 = 00C3AC00
                          *** SVC EXECUTION ***
  COMMUNICATION FLAGS
          TASK HAS BEEN ATTACHED.
  AUX TASK CONDITION

  P/N
```

SYSDTEST – Verifying the Installation

The SYSDTEST command verifies the installation process. The format of the SYSDTEST command is:

```
SYSD,SYSDTEST
```

SYSD writes errors to the terminal you issued the SYSDTEST command on and the master console. The following are possible errors and solutions:

- If your terminal indicates the SVC was not properly installed, see "Troubleshooting SVC Errors" on page 49 for instructions.

- If your terminal indicates the auxiliary task was not properly installed, reassemble SYSDOSTK. Make sure SYSDOSTK assembles properly and is in the STEPLIB library for CICS.

- If your terminal indicates the CWA date was not properly installed, change the value of the &CWADISP parameter in SYSDSETS to -1 and reassemble SYSDINIT.

- If your terminal indicates improper JES2 variables, check the value of the &JES2VER parameter in SYSDSETS and make sure the correct JES2 libraries were concatenated in the assembly PROCs. If you find an error, rerun the STG1ASM job. Then rerun the INSTCOMM and INSTJES2 jobs.

SYSD0005 – Loading a New Copy of SYSD0005

The SYSD0005 command dynamically loads a new copy of SYSD0005 resident in core. SYSD0005 contains the routines used throughout CPMS/SYSD that are dependent on the version of CICS you are running. You would normally have to cycle CICS to get a new copy. The format of the SYSD0005 command is:

```
SYSD,SYSD0005
```

SYSD0074 – Loading a New Copy of SYSD0074 and SYSD0174

The SYSD0074 command dynamically loads a new copy of both SYSD0074 and SYSD0174 resident in core. SYSD0074 contains CPMS/SYSD's user exits. You would normally have to cycle CICS to get a new copy. The format of the SYSD0074 is:

```
SYSD,SYSD0074
```

SYSD0137 – Loading a New Copy of SYSD0137

The SYSD0137 command dynamically loads a new copy of SYSD0137 resident in core. SYSD0137 contains common CICS subroutines used throughout CPMS/SYSD. You would normally have to cycle CICS to get a new copy. The format of the SYSD0137 command is:

```
SYSD,SYSD0137
```

SYSD0174 – Loading a New Copy of SYSD0174 and SYSD0074

The SYSD0174 command dynamically loads a new copy of both SYSD0174 and SYSD0074 resident in core. SYSD0174 contains CPMS/SYSD's general subroutines. You would normally have to cycle CICS to get a new copy. The format of the SYSD0174 command is:

```
SYSD,SYSD0174
```

SYSPGMR – Setting All Security Bits

The SYSPGMR command changes the CICS security mask on the issuing terminal to allow all available functions. SYSD sets all security bits to 1s for the terminal you issued the SYSPGMR command on. The format of the SYSPGMR command is:

```
SYSD,SYSPGMR
```

TERM – Displaying and Changing the TCT

The TERM command displays either a summary of all the entries in the TCT or a summary of the variable settings for a specific TCT entry. Each entry represents a terminal to CICS. You can also use this command to change a TCT entry's variable settings. The format of the TERM command is:

```
SYSD,TERM[,terminal_id][,subfunction][,new_value)
```

Caution▶

The user must sign off and then sign on again for the alternate screen size to take effect. Be careful when you use the MODx parameters.

This parameter	*Specifies*
terminal_id	The ID of the terminal you want to display or change. This parameter is required if you are changing the settings for a TCT entry. The default is a summary of all the entries in the TCT.
	If you do not know your terminal ID, type a question mark (?) on your terminal and press **Enter.**
	Use a plus sign (+) in any position of the terminal ID to match all the characters in that position. Use an asterisk (*) to match any character in the terminal ID in that position and beyond.
subfunction	The subfunction you want to assign a new value to. The default is a summary of the variable settings for the TCT entry specified by the **terminal_id** parameter.

Type	*To*
AUTH	Set all the terminal's TCTTE security bits to 1. This feature is not supported for CICS version 3.2 and above.
DCKYBD	Toggles the dual-case keyboard indicator off and on.

Type	*To*
EXTG	Toggle the extended features indicators on and off. These indicators include color, extended data streams, and highlighting. This feature is not supported for CICS version 3.2 and above.
IN	Change the terminal's status to in service.
LTPN	Toggle the light pen indicator off and on. This feature is not supported for CICS version 3.2 and above.
MOD2	Set the terminal's alternate screen size to zero. This feature is not supported for CICS version 3.2 and above.
MOD3	Set the alternate screen size to 32 rows by 80 columns. This feature is not supported for CICS version 3.2 and above.
MOD4	Set the alternate screen size to 43 rows by 80 columns. This feature is not supported for CICS version 3.2 and above.
MOD5	Set the alternate screen size to 27 rows by 132 columns. This feature is not supported for CICS version 3.2 and above.
OUT	Change the terminal's status to out of service.
PRTY	Change the terminal's priority to **new_value**.
UCTRAN	Toggle the uppercase translation indicator off and on.

new_value   The new value you want to assign to a subfunction. For example, you can change the PRTY subfunction to a number from **0** to **255**.

TEST – Testing New Functions

The TEST command tests new functions in CPMS/SYSD. You should only issue this command if you are familiar with CPMS/SYSD. The format of the TEST command is:

```
SYSD,TEST
```

You can specify any parameters that are allowed by the function you are testing.

See "TESTCHG – Setting the TEST Function ID" for more information about dynamically assigning a function ID of **TEST** to a PPT entry.

TESTCHG – Setting the TEST Function ID

The TESTCHG command dynamically assigns a function ID of **TEST** to any PPT entry. When you issue the TEST command, the program assigned by TESTCHG executes. The format of the TESTCHG command is:

```
SYSD,TESTCHG,program_id
```

This parameter	Specifies
program_id	The 4- to 8-character name of the program you want to test. If you specify a 4-character program name, SYSD prefixes the specified name with **SYSD** to complete the name.

See "TEST – Testing New Functions" for more information about testing functions.

Chapter 5

Batch Work File Utility

The Batch Work File utility provides functions that let you control the SYSD editor and SYSD/ATP browse work files from the batch environment. These functions are EDITINIT (EI), EDITLIST (EL), and COPY. This chapter provides the JCL required to execute the Batch Work File utility and describes each function.

JCL for the Batch Work File Utility

The following JCL executes the Batch Work File utility:

```
//EXECWORK EXEC PGM=SYSDWU01
//STEPLIB  DD DSN=your.sysd.loadlib,DISP=SHR
//SYSPRINT DD SYSOUT=A
//WORKIN   DD DSN=your.workfile,DISP=OLD
//WORKOUT  DD DSN=your.new.workfile,DISP=OLD
//ELDATA   DD DSN=holding.file....(definitions for a file)
//ELREPORT DD SYSOUT=A
//SYSIN    DD *
*
*control statements
*
```

Depending on which function you are executing, not all of these DD statements are required. The description of each function tells you which control statements and DD statements are required.

Caution ▶

To prevent the editor or browse work file from being corrupted accidentally, perform all functions with a DISP=OLD. Be extremely careful when performing the EI function because there are no checks to make sure the work file is not active to CICS. If you perform a COPY function with an active work file, the new work file may not be valid. If you perform a batch work file function against an active CICS work file, you may get unpredictable results.

EDITINIT (EI) Function

The EDITINIT function initializes a work file. The batch EDITINIT function provides the same functionality as the online function, except the batch function does not require you run the IEBDG job first to write dummy records. It is normal for the EDITINIT function to get a D37 abend because writes are issued to the file until the end of file is reached. The EDITINIT function recovers from the D37 abend and continues processing.

Required control statements

```
FUNC=EI
```

Tells the Batch Work File utility you want to initialize a work file.

```
WORKNAME=file_name
```

Defines the FCT name CICS uses to access the work file.

The FUNC=EI and WORKNAME control statements require the WORKIN DD statement, which defines the work file you want to initialize.

EDITLIST (EL) Function

The EDITLIST function gets information about outstanding edit sessions. The batch EDITLIST function is very similar to the online function. The batch function also lets you create an intermediate file that contains information about the editor work file and the edit sessions. You can sort and print this intermediate file and use it as input to a user-written program that provides control breaks, totals by user, and so on.

Required control statements

```
FUNC=EL
```

Tells the Batch Work File utility you want to get information about the outstanding edit sessions.

```
FORMAT=ELREPORT|ELOUT|ELIN|ELTOTAL
```

Specifies the type of EDITLIST you want to perform. The following are the types of formats:

```
FORMAT=ELREPORT
```

Creates a report of all outstanding edit sessions and totals for the entire work file. The FORMAT=ELREPORT statement requires the following DD statements:

This DD statement	Specifies
WORKIN	The input work file.
ELREPORT	Where you want to write the report.

```
FORMAT=ELOUT
```

Creates fixed-length records that contain information about the work file. The first byte of each record indicates what type of record it is.

If the first byte is	The record is
C'1'	A header record that contains the dataset name of the work file.

If the first byte is	The record is
C'4'	A detail record that contains information about an outstanding edit session.
C'7'	A total record that contains totals for the entire work file.

> **Note** See SYSD.MACLIB(ELDATA) for the DSECT of these intermediate records.

The FORMAT=ELOUT statement requires the following DD statements:

This DD statement	Specifies
WORKIN	The input work file.
ELDATA	Where you want to write the intermediate records.

```
FORMAT=ELIN
```

Processes the intermediate records created from a previous FORMAT=ELOUT. If you execute a sort between the FORMAT=ELOUT and FORMAT=ELIN, make sure you keep the first record in the file a record type 1 and keep the last record in the file a record type 7. The FORMAT=ELIN statement requires the following DD statements:

This DD statement	Specifies
ELDATA	The input file that contains the intermediate records.
ELREPORT	Where you want to write the report.

```
FORMAT=ELTOTAL
```

Creates a report that only contains the totals of the work file. The FORMAT=ELTOTAL statement requires the following DD statements:

This DD statement	Specifies
WORKIN	The input work file.
ELREPORT	Where you want to write the report.

Optional control statements

```
L/P=60
```

Defines how many lines per page the output report will have. The default is **60**.

```
USER=user_id
```

Selects a specific user for processing. You can specify a maximum of 50 users. You must specify each user on a new input record with the USER= control statement. For example:

```
USER=BA
USER=DD
USER=AJ
```

COPY Function

The COPY function increases the size of the work file without having to end all outstanding edit sessions first. You can also use the COPY function to create a new work file that has a larger block size without ending all outstanding edit sessions first. You can do both of these functions at the same time.

Caution ▶

The COPY function can only increase the work file's block size. If you increase the block size, you must change the FCT definition.

Required control statements

```
FUNC=COPY
```

Tells the Batch Work File utility you want to perform a COPY function. The FUNC=COPY statement requires the following DD statements:

This DD statement	Defines
WORKIN	The input work file.
WORKOUT	The output work file.

Chapter 6
Installing SYSD/JFT

Caution▶ *You must install SYSD/JFT on CPMS/SYSD release 6.2 or above.*

If you are installing SYSD/JFT at the same time you install CPMS/SYSD release 6.2 or above, follow steps 1 through 6 in this chapter and then proceed with the normal CPMS/SYSD installation process in Chapter 2, Installing CPMS/SYSD.

If you already have CPMS/SYSD release 6.2 or above installed, follow steps 1 through 9 in this chapter and then cycle CICS. SYSD/JFT should be operational.

The SYSD/JFT cartridge contains the following files:

File name	Library name	Contents
FILE01	SYSD.LOADLIB	Additional executable programs: SYSD0143, SYSD0144, and JFTADD
FILE02	SYSD.SOURCE	Additional programs: SYSD0143, SYSD0144, SYSDJLNK, and JFTADD
FILE03	SYSD.USRLIB	Additional USRLIB members: JFTPANDS, JFTSKLDS, and JFTMSGDS
FILE04	SYSD.PANEL	Panels
FILE05	SYSD.MESSAGE	Messages
FILE06	SYSD.SKELETON	Skeletons

File name	Library name	Contents
FILE07	SYSD.SAMPLE.PANEL	Sample panels
FILE08	SYSD.SAMPLE.MESSAGE	Sample messages
FILE09	SYSD.SAMPLE.SKELETON	Sample skeletons

> **Note**
>
> Files 7 through 9 contain some sample panels and systems H&W's customers have developed. Currently, there is a panel to execute SYSD/ATP (Access to CA-Panvalet) batch utilities. If you have installed the SYSD/ATP option, these samples may be very useful. After reviewing the samples, you can copy them to your panel, message, and skeleton libraries where you can test and change them. These three files are only intended to be samples.

➤ To install SYSD/JFT

1. Create and run the following JCL to allocate the SYSD panel, message, and skeleton libraries:

```
//jobname   JOB  MSGCLASS=A,CLASS=A
//          EXEC PGM=IEFBR14
//SYSPRINT DD   SYSOUT=*
//PANEL    DD   DSN=your.SYSD.PANEL,VOL=SER=xxxxxx,
//              UNIT=DISK,DISP=(NEW,CATLG),
//              SPACE=(3120,(300,10,10)),
//              DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120)
//MESSAGE  DD   DSN=your.SYSD.MESSAGE,VOL=SER=xxxxxx,
//              UNIT=DISK,DISP=(NEW,CATLG),
//              SPACE=(3120,(300,10,5)),
//              DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120)
//SKELETON DD   DSN=your.SYSD.SKELETON,VOL=SER=xxxxxx,
//              UNIT=DISK,DISP=(NEW,CATLG),
//              SPACE=(3120,(300,10,5)),
//              DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120)
```

2. Create and run the following JCL to unload the cartridge. This replaces modules in your SYSD libraries. You *must* unload this SYSD/JFT cartridge in a library that is at CPMS/SYSD release 6.2 or above.

```
//jobname      JOB      MSGCLASS=A,CLASS=A
//             EXEC     PGM=IEBCOPY
//SYSPRINT     DD       SYSOUT=A
//IN01         DD       DSN=FILE01,LABEL=(01,SL,EXPDT=98000),
//                      VOL=SER=HWTAPE,UNIT=CART,DISP=(OLD,PASS)
//OUT01        DD       DISP=SHR,DSN=your.SYSD.LOADLIB
//IN02         DD       DSN=FILE02,LABEL=(02,SL,EXPDT=98000),
//                      VOL=SER=HWTAPE,UNIT=CART,DISP=(OLD,PASS)
//OUT02        DD       DISP=SHR,DSN=your.SYSD.SOURCE
//IN03         DD       DSN=FILE03,LABEL=(03,SL,EXPDT=98000),
//                      VOL=SER=HWTAPE,UNIT=CART,DISP=(OLD,PASS)
//OUT03        DD       DISP=SHR,DSN=your.SYSD.USRLIB
//IN04         DD       DSN=FILE04,LABEL=(04,SL,EXPDT=98000),
//                      VOL=SER=HWTAPE,UNIT=CART,DISP=(OLD,PASS)
//OUT04        DD       DISP=SHR,DSN=your.SYSD.PANEL
//IN05         DD       DSN=FILE05,LABEL=(05,SL,EXPDT=98000),
//                      VOL=SER=HWTAPE,UNIT=CART,DISP=(OLD,PASS)
//OUT05        DD       DISP=SHR,DSN=your.SYSD.MESSAGE
//IN06         DD       DSN=FILE06,LABEL=(06,SL,EXPDT=98000),
//                      VOL=SER=HWTAPE,UNIT=CART,DISP=(OLD,PASS)
//OUT06        DD       DISP=SHR,DSN=your.SYSD.SKELETON
//SYSIN        DD       *
     COPY INDD=((IN01,R)),OUTDD=OUT01
     COPY INDD=((IN02,R)),OUTDD=OUT02
     COPY INDD=((IN03,R)),OUTDD=OUT03
     COPY INDD=((IN04,R)),OUTDD=OUT04
     COPY INDD=((IN05,R)),OUTDD=OUT05
     COPY INDD=((IN06,R)),OUTDD=OUT06
/*
//
```

3. Change the &FNCJFT parameter in SYSDSETS to 1.

4. Specify the dataset names of the panel libraries in SYSD.USRLIB(JFTPANDS). The first panel dataset name should be the panel dataset name you allocated in step 1.

You can use the CPMS/SYSD $JFTPAN1 through $JFTPAN5 user profile variables to let users dynamically change the JFT panel dataset concatenation.

5. Specify the dataset names of the message libraries in SYSD.USRLIB(JFTMSGDS). The first message dataset name should be the message dataset name you allocated in step 1.

You can use the CPMS/SYSD $JFTMSG1 through $JFTMSG5 user profile variables to let users dynamically change the JFT message dataset concatenation.

6. Specify the dataset names of the skeleton libraries in SYSD.USRLIB(JFTSKLDS). The first skeleton dataset name should be the skeleton dataset name you allocated in step 1.

You can use the CPMS/SYSD $JFTSKL1 through $JFTSKL5 user profile variables to let users dynamically change the JFT skeleton dataset concatenation.

7. Add the PPT entries for the SYSD0143, SYSD0144, SYSDJLNK, and JFTADD programs. These entries must be defined as Assembler.

8. Use the SYSDNRM PROC to assemble SYSDINIT.

9. Use the SYSDCMD PROC to assemble SYSD0074.

10. Cycle CICS.

Appendix A

STAGE1 Parameters

SYSD.USRLIB(STAGE1) contains the installation-dependent options that define JCL parameters and dataset names. This appendix documents the STAGE1 parameters and their defaults. You can change the STAGE1 parameters to reflect your environment. You can use the default values as a reference when setting these parameters.

> **Note** The parameter settings in STAGE1 reflect the product as shipped. If you omit a parameter, CPMS/SYSD uses the default.

Parameters

The following sections describes the STAGE1 parameters.

ACCTID – JOB Card Accounting Information

Environments	All
Selection status	Required

The ACCTID parameter defines the job accounting information CPMS/SYSD puts on generated JOB cards. Specify a single alphanumeric constant or a string enclosed by parentheses or apostrophes. If the JOB card requires apostrophes, use two apostrophes for each single one.

For example:

Specify	*To generate this JOB card*
ACCTID=(SYSD)	//JOBNAME JOB SYSD
ACCTID=(ABC,DEF)	//JOBNAME JOB (ABC,DEF)
ACCTID='GHI'	//JOBNAME JOB GHI
ACCTID='''MNO,PQR'''	//JOBNAME JOB 'MNO,PQR'

The default is **ACCTID=(SYSD)**.

AMODGEN – OS System Source Library

Environments	All
Selection status	Required

The AMODGEN parameter defines the OS system source library that contains non-SYS1.MACLIB OS function macros. The default is **SYS1.AMODGEN**.

Prior to XA version 2.2.3, this dataset was named SYS1.AMODGEN and it resided with your other OS distribution libraries (DLIBs). After XA version 2.2.3, the SYS1.MODGEN library was added to the standard OS libraries. The macros in SYS1.AMODGEN were moved to SYS1.MODGEN.

> **Note** If you set the &OSLEVEL parameter in SYSD.USRLIB(SYSDSETS) to **2** or greater, you must set the MODGEN parameter to **SYS1.MODGEN** and set the AMODGEN parameter to **SYS1.AMODGEN.**

ASMPROG – Assembler Program for Assembly PROCs

Environments	All
Selection status	Required

The ASMPROG parameter defines the name of the assembler program the CPMS/SYSD assembly PROCs execute.

Specify	*For*
ASMA90	High-level assembler. This is the default for MVS/ESA version 5 and OS/390. If you have OS/390 you must use ASMA90.
IEUASM	Assembler F.
IEV90	Assembler H. This is the default for MVS/ESA version 4.3 and below.

BRWSVOL – SYSD/ATP Browse Work File Volume Serial

Environments	All
Selection status	Required if you are installing SYSD/ATP

The BRWSVOL parameter defines the volume serial number where SYSD/ATP's BDAM browse work file resides. This is the volume where the dataset specified for the BRWSWRK parameter resides. This parameter is only used for SYSD/ATP. The default is **SYSDVL.**

BRWSWRK – SYSD/ATP Browse Work File Dataset Name

Environments   All

Selection status   Required if you are installing SYSD/ATP

The BRWSWRK parameter defines the dataset name of SYSD/ATP's BDAM browse work file. This parameter is only used for SYSD/ATP. The default is **SYSD.BRWSWRK0**.

Note	You must specify the volume serial number where this dataset resides for the BRWSVOL parameter.

CICSCLA – CICS Command-level Assembler Translator

Environments   All

Selection status   Required

The CICSCLA parameter defines the name of your current CICS command-level assembler translator. The default is **DFHEAP1$**.

CICSCSD – CICS System Definition File for RDO

Environments   All

Selection status   Required if you are using the CICS RDO facility

The CICSCSD parameter defines the name of the current CICS system definition file you use for the CICS Resource Definition Online (RDO) facility. The default is **CICS.DFHCSD**.

CICSMAC – CICS Macro Library

Environments   All

Selection status   Required

The CICSMAC parameter defines the name of your current CICS macro library. H&W does not put any modules in this library. The default is **CICS.SDFHMAC**.

CICSOBJ – CICS Load Library

Environments   All

Selection status   Required

The CICSOBJ parameter defines the name of your current CICS load library. This library should contain the program specified for the CICSCLA parameter. The command-level program assemblies use this library. H&W does not link-edit any programs to this LOADLIB. The default is **CICS.SDFHLOAD**.

CICSSRC – CICS Source Library

Environments   All

Selection status   Required

The CICSSRC parameter defines the name of your current CICS source library. H&W does not put any modules in this library. The default is **CICS.SDFHSRC**.

CLASS – Execution Class for Stage 1 Jobs

Environments   All

Selection status   Required

The CLASS parameter defines the execution class stage 1 processing puts on the JOB card for all the jobs it generates. This should be a class that is single threaded because you must run the stage 1 jobs in the order they are generated. The default is **A**.

COPYLIB – CICS Copy Library

Environments   All

Selection status   Required

The COPYLIB parameter specifies the name of a library to place CPMS/SYSD macro source for updating the CICS FCT and DCT tables and if you are not using RDO the PPT and PCT tables. When you run the STG1ASM job, it creates INSTCTBL based on your CICS release. When you run the job in INSTCTBL, it places the macro source for the tables in the library specified by this parameter. This library will also have to be concatenated into the SYSLIB DD statements of your DFHAUPLK or DFHAUPLE procedures when the CICS tables are assembled. The default is **SYSD.USRLIB**.

CSDGROUP – RDO Group Name for CPMS/SYSD's Resources

Environments   All

Selection status   Required

The CSDGROUP parameter defines the RDO group name for CPMS/SYSD's resources. If you are not using RDO, specify **NO-RDO**. The default is **SYSD**.

> **Note**
> For CICS version 4.1 and above, you must use RDO, and you must specify a valid group name.

CSDLIST – RDO List Name for SYSD Resources

Environments   All

Selection status   Required

The CSDLIST parameter defines your CICS startup RDO list name. The SYSD group defined by CSDGROUP is added to this list name so the SYSD resources will be installed at CICS startup. This parameter should be set the same as the GRPLIST parameter in the SIT. If you are not using RDO for SYSD resource definition, the default is **NO-RDO**. If you are using RDO, the default is **STARTUP**.

DEST – Destination for Stage 1 Jobs

Environments	MVS (JES2)
Selection status	Optional

The DEST parameter defines the destination for all the jobs stage 1 processing generates. If you specify a destination, CPMS/SYSD generates a /*ROUTE PRINT card for all the jobs. The default is no destination.

EDITVOL – SYSD Editor Work File Volume Serial

Environments	All
Selection status	Required if you are installing the SYSD editor.

The EDITVOL parameter defines the volume serial number where the SYSD editor's BDAM work file resides. This is the volume serial number where the dataset specified for the EDITWRK parameter resides. This parameter is only used for the full SYSD package. The default is **SYSDVL**.

EDITWRK – SYSD Editor Work File Dataset Name

Environments	All
Selection status	Required if you are installing the SYSD editor

The EDITWRK parameter defines the dataset name for the SYSD editor's BDAM work file. This parameter is only used for the full SYSD package. The default is **SYSD.SYSDWRK0**.

> **Note**
> You must specify the volume serial number where this dataset resides for the EDITVOL parameter.

JES2SRC – JES2 Source and Macro Dataset Name

Environments	MVS (JES2)
Selection status	Required if you are installing JES options

The JES2SRC parameter defines the dataset name for the JES2 source and macro dataset. The default is **SYS1.HASPSRC**.

> **Note** For OS/390, SYS1.HASPSRC has been changed to SYS1.VnRxM0.SHASMAC, where **n** is the OS/390 version number and **x** is the OS/390 release level.

JES3SRC – JES3 Source and Macro Dataset Name

Environments	MVS (JES3)
Selection status	Required if you are installing JES options

The JES3SRC parameter defines the dataset name for the JES3 source and macro dataset. The default is **SYS1.ASPSRC**.

JOBNAME – Default Stage 1 Job Name Prefix

Environments	All
Selection status	Required

The JOBNAME parameter defines up to four characters that will be used as a prefix for all the job names stage 1 processing generates. CPMS/SYSD prefixes these characters to the job name to form unique job names. The default is **SYSD**.

JOBPARM – JOBPARM Parameters

Environments   All

Selection status   Optional

The JOBPARM parameter defines the JOBPARM parameters for the JOBPARM statement for all the jobs stage 1 processing generates. The parameters must be enclosed by apostrophes and can be up to 61 characters long. CPMS/SYSD appends the parameter to /*JOBPARM. If you omit this parameter or set it to null, CPMS/SYSD does not generate a JOBPARM statement.

LIST – Assembly Listings

Environments   All

Selection status   Required

The LIST parameter specifies if you want to generate the assembly listings when you assemble the programs. The default is **NO**.

> **Note** If set to **YES**, the CPMS/SYSD assembly jobs generate a great deal of output. Make sure your system is prepared to handle the spool requirements.

MODGEN – OS System Source Library

Environments   All

Selection status   Required for XA version 2.2.3 and above

The MODGEN parameter defines the OS system source library that contains macros other than those found in SYS1.MACLIB for various OS functions.

Prior to XA version 2.2.3, this dataset was normally named SYS1.AMODGEN and it resided with your other distribution libraries (DLIBs). With XA version 2.2.3, a new library was introduced called SYS1.MODGEN. You must concatenate SYS1.MODGEN ahead of your SYS1.AMODGEN library in all SYSD assembly PROCs.

> **Note** If you set the &OSLEVEL parameter in SYSD.USRLIB(SYSDSETS) to 2 or greater, you must set the MODGEN parameter to **SYS1.MODGEN** and set the AMODGEN parameter to **SYS1.AMODGEN**.

MSGCLAS – Output Message Class for Stage 1 Jobs

Environments   All

Selection status   Required

The MSGCLAS parameter defines the output message class CPMS/SYSD uses as the SYSOUT class for all the jobs stage 1 processing generates. The default is class **A**.

PGMERID – Programmer Name for Stage 1 Jobs

Environments   All

Selection status   Required

The PGMERID parameter defines the programmer name CPMS/SYSD puts on all JOB cards stage 1 processing generates. The default is **SYSTEM-PROGRAMMER**.

PRIO – Job Priority for Stage 1 Jobs

Environments   All

Selection status   Required

The PRIO parameter defines the job priority CPMS/SYSD puts on all JOB cards stage 1 processing generates. If set to **0**, CPMS/SYSD does not generate a priority. The default is **0**.

PROCJLB – Create JCLLIB Statement

Environments   All that support the JCLLIB statement

Selection status   Optional

This parameter set to Yes causes a JCLLIB statement to be created in the set of job statements for each generated install job. Placement of the JCLLIB statement is after any /*ROUTE and /*JOBPARM statements, but before any EXEC statements. The JCLLIB statement references the library defined by the PROCLIBI parameter. This facility allows you to place all of the procedures in the SYSD.USRLIB library which isolates them from the rest of the system and other versions of SYSD. H&W recommends that you set this to YES and set PROCLIBI to SYSD.USRLIB. The default is **YES**.

PROCLIB – Procedure Library Dataset Name

Environments	All
Selection status	Required

This parameter defines the library name where the operational procedures are placed. When you run the STG1ASM job, it creates the INSTPROC job. When you run the INSTPROC job, it creates the operational procedures. The operational procedures are named SYSDCMPR, SYSDPRNT, and SYSDRDR, unless you have renamed them in the &PROC001, &PROC002, and &PROC003 parameters in SYSDSETS. INSTPROC also creates the installation procedures that are placed in the library designated by PROCLIBI. The default is **SYS1.PROCLIB**.

PROCLIBI – Procedure Library Dataset Name for Installation Procedures

Environments	All
Selection status	Required

This parameter defines the procedure library where the installation procedures are placed. When you run the STG1ASM job, it creates the INSTPROC job. When you run the INSTPROC job, it creates the installation procedures. The installation procedures are named SYSDMAP, SYSDCMD, SYSDNRM, and SYSDCSD, unless you have renamed them in the PROCNMS parameter in STAGE1 below.

If your operating system supports the JCLLIB statement, you should set this parameter to SYSD.USRLIB and set PROCJLB to YES. This action isolates the installation procedures from the rest of the system and other versions of SYSD. If your operating system does not support the JCLLIB statement, you should set this parameter to SYS1.PROCLIB and set PROCJLB to NO. The default is **SYSD.USRLIB**.

PROCNMS – Assembly Procedures

Environments	All
Selection Status	Required

The PROCNMS parameter defines the names of the CPMS/SYSD assembly procedures. This parameter is a sublist of names containing the following entries:

♦ The first entry defines the name of the procedure that assembles all of CPMS/SYSD's maps. The default is **SYSDMAP**.

♦ The second entry defines the name of the procedure used to assemble all of CPMS/SYSD's CICS command-level programs. The default is **SYSDCMD**.

♦ The third entry defines the name of the procedure used to assemble programs that the CICS translator does not need. The default is **SYSDNRM**.

♦ The fourth entry defines the name of the procedure that assembles the CICS PCT and PPT tables and migrates them to your CICS system definition file. The default is **SYSDCSD**.

REGION – Region Size for Stage 2 Installation Jobs

Environments	All
Selection status	Optional

The REGION parameter defines the region size CPMS/SYSD puts on all JOB cards stage 1 processing generates for the stage 2 processing jobs. The default is **3072K**.

SMPMTS – IBM Macro Library Override

Environments	All
Selection status	Required

The SMPMTS parameter defines the dataset name of the library you want to use to override the IBM macros. This library is concatenated in front of all IBM libraries. Use this parameter to point to your SMPMTS library. The default is **SYSD.MACLIB**.

> **Note**
> If your company has any products that modify JES macro definitions, make sure the updated macros are available to the CPMS/SYSD installation process.

SPCLMAC – Standard CPMS/SYSD Libraries Override

Environments	All
Selection status	Required

The SPCLMAC parameter defines a dataset that is concatenated in front of all the SYSLIB DDs the CPMS/SYSD assembly procedures use. This dataset can contain any updated user exits, macros, or copybooks you want to use to override the standard CPMS/SYSD libraries. The default is **SYSD.USRLIB**.

SVCLIB – OS SVC Library

Environments   All

Selection status   Required

The SVCLIB parameter defines the dataset name of your OS SVC library. CPMS/SYSD assembles and link-edits an SVC to this LOADLIB. For MVS, this is normally **SYS1.LPALIB**. The default is **SYS1.LPALIB**.

SYSDMAC – CPMS/SYSD Macro Library

Environments   All

Selection status   Required

The SYSDMAC parameter defines the name of the CPMS/SYSD macro library. The default is **SYSD.MACLIB**.

SYSDMAP – CPMS/SYSD BMS Map Library

Environments   All

Selection status   Required

The SYSDMAP parameter defines the dataset name of the CPMS/SYSD BMS map library. The default is **SYSD.MAPLIB**.

SYSDOBJ – CPMS/SYSD Load Library

Environments   All

Selection status   Required

The SYSDOBJ parameter defines the dataset name of the CPMS/SYSD load library. The default is **SYSD.LOADLIB**.

SYSDSRC – CPMS/SYSD Source Library

Environments   All

Selection status   Required

The SYSDSRC parameter defines the dataset name of the CPMS/SYSD source library. The default is **SYSD.SOURCE**.

SYSDUSR – CPMS/SYSD User Source Library

Environments   All

Selection status   Required

The SYSDUSR parameter defines the dataset name of the CPMS/SYSD user source library that contains the source for the installation jobs. This library also contains the source for the macros, copybooks that were updated during installation, and user exits. The default is **SYSD.USRLIB**.

Appendix B
SYSDSETS Parameters

This appendix documents the SYSDSETS parameters you use to set CPMS/SYSD's installation-dependent options. You can use this appendix as a reference when you change any of the parameters in the SYSDSETS source member. The default values for these parameters are in SYSD.USRLIB(SYSDSETS).

SYSDSETS is pulled into each of the SYSD assemblies through the SYSDGBLS macro. SYSD, CICS, JES, and operating system facilities and features are accessed or generated based upon the settings you specify using SYSDSETS.

There are two types of parameters in SYSDSETS. Primary-use parameters are marked as such. You *must* change these parameters before stage 1 processing occurs. You can change the other parameters after stage 2 processing occurs to tailor CPMS/SYSD.

The parameters are listed alphabetically. If you have any questions about them, call H&W Customer Support. These parameters, especially the primary-use parameters, affect the entire CPMS/SYSD installation.

You can change most of the SYSDSETS parameters after CPMS/SYSD is installed. Instructions are provided after each parameter's description for changing the parameter's value.

| Note | The parameter settings in SYSDSETS reflect the product as shipped. If you omit a parameter, CPMS/SYSD uses the default. |

Parameters

The following sections describe each parameter.

&ATRNID – Alternate Main Transaction ID

The &ATRNID parameter defines an alternate main transaction ID for CPMS/SYSD. See the &MTRNID parameter on page 113 for more information about the main transaction ID. Most companies set this parameter to **D**. If you change this parameter:

1. Reassemble SYSDINIT.

2. Update the PCT.

3. Cycle CICS.

&CICSREL – CICS Version

Primary use

The &CICSREL parameter defines the version of CICS you are running. Set &CICSREL to one of the following:

> **Note** CPMS/SYSD no longer supports versions of CICS prior to 1.7.

1.7.0

2.1.0

2.1.1

2.1.2

3.1.0

3.2.0

3.3.0

4.1.0

5.1.0   For Transaction Server 1.1

5.2.0   For Transaction Server 1.2

5.3.0   For Transaction Server 1.3 and newer

When you upgrade CICS:

> **Note**
> Before you upgrade CICS, call H&W Customer Support or visit our World Wide Web site (http://www.hwcs.com) for the latest installation information.

1. Update the &CICSREL parameter to reflect the new version of CICS.

2. Update the following STAGE1 parameters:

   - CICSCLA
   - CICSCSD
   - CICSMAC
   - CICSOBJ
   - CICSSRC
   - CSDFCTG
   - CSDLIST
   - CSDPCTG
   - CSDPPTG

3. Rerun the STG1ASM job.

4. To reinstall the assembly PROCs, run the INSTPROC job.

5. Run the INSTCOPY job.

6. Run the INSTCOMM and INSTCICS jobs.

7. For CICS version 2.1 and below, run the INSTCSD job. For CICS version 3.1 and above, run the INSTUCSD job.

8. If you are not using RDO, reassemble your PPT to account for any new or deleted programs.

9. Cycle CICS.

10. Issue the **SYSD,SYSDTEST** command.

&CMPNAME – Company Name

The &CMPNAME parameter defines the 60-character constant CPMS/SYSD puts in the title of all functional screens. Most companies set this constant to their company name. This parameter is required. Enclose the constant with apostrophes.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&DFTINDS – Default System Program Bit

The &DFTINDS parameter defines the bit number that controls if a user is authorized for systems programmer functions. This number should be the same as the number specified for the SCTYKEY field of the DFHSNT macro. If you do not define other security bits for a function, SYSDINIT uses this default.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

| Note | For CICS version 3.2 and above, security bits are no longer supported. See SYSD.USRLIB for more information about CPMS/SYSD's user exits and instructions on implementing security without using security bits, specifically the FUNC01 and MENU02 user exits. |

&DSLSREF – Dataset Reference Date

The &DSLSREF parameter specifies if CPMS/SYSD updates a dataset's last referenced date when the dataset is accessed from edit, browse, SYSD/JFT, or the utilities. If set to Y (Yes), CPMS/SYSD only updates the last reference date once a day for any dataset. If set to N (No), CPMS/SYSD does not update the last referenced date.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&DSRECAL – Restore Requested by User

The &DSRECAL parameter specifies if users can request a restore for an archived dataset. If set to N (No), users cannot request a restore for an archived dataset. If set to Y (Yes), users can request a restore for an archived dataset by replying to a prompt message.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&EDTBLKS – SYSD Editor Work File Block Size

Primary use

SYSD only

The &EDTBLKS parameter defines the block size of the SYSD editor's BDAM work file. The block size limits the number of records that can be edited. The block size can be any size from 1024 up to the track size. H&W recommends you specify a block size of around 4096, depending on the device type. Round up or down for best optimization of disk space. A block size of 4096 allows edit sessions of up to 16,895 records. The default is **4096**.

If you change this parameter:

1. Rerun the STG1ASM job to create the FCT entry INSTCTBL needs and the JCL to create the file in the xxxxEWRK job in INSTFILE.

2. Reassemble the FCT and re-create the file.

&EDTENQT – Editor Dataset Type Enqueue

SYSD only

The &EDTENQT parameter defines the type of enqueue the SYSD editor performs for the datasets users edit.

Specify	To
NONE	Allow multiple, concurrent edit sessions for a dataset member. SYSD issues a warning message if a user starts a new edit session for a member that someone else is already editing.
SYSD	Prevent two SYSD users in the same CICS region from concurrently editing the same dataset member. This is the default.
TSO	Use the TSO or SYSD enqueue type to prevent two SYSD and/or TSO/ISPF users from editing the same member. ISPF editing is only prevented as long as the CICS address space is available.
	SYSD uses the SPFEDIT enqueue type to prevent concurrent updates to the member.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&EDTSAVE – Editor Save with RETURN Command

SYSD only

The &EDTSAVE parameter specifies if SYSD updates the current edit session when the user issues the RETURN command. If set to N (No), SYSD performs an ABORT and keeps the current edit session, but does not update the actual dataset or member. If set to Y (Yes), SYSD ends the current edit session and updates the actual dataset or member.

&FNCxxxx – System Global Parameters

Primary use

CPMS/SYSD is divided into options and classes of functions. The &FNCxxxx global parameters in SYSDSETS define these options and classes of functions to your system. You must only set the global parameters for the options you have licensed to **1**. Global parameters that are set to **0** (zero) are not installed.

If you have CPMS licensed, set &FNCJES to **1**.

If you have the full SYSD package licensed, all the globals are available. Set the following parameters to **1**:

- &FNCCICS
- &FNCDMS
- &FNCEDIT
- &FNCJES
- &FNCMISC

If you have SYSD/JFT licensed, set &FNCJFT to **1**.

If you have SYSPC licensed, set &FNCSYPC to **1**.

&FORMCHG – Initial Forms Change Request

The &FORMCHG parameter specifies if CPMS/SYSD sends the forms change request the first time it accesses a printer after CICS is cycled. The default is **Y** (Yes).

> **Note**
>
> Prior to release 6.4 of CPMS/SYSD, CPMS/SYSD did not send a forms change request to the forms change terminal the first time it accessed a printer. If you do not want CPMS/SYSD to send the forms change request the first time it accesses a printer, set &FORMCHG to **N** (No).

&FORMMSG – Forms Change Message

The &FORMMSG parameter specifies if CPMS/SYSD sends the forms change message to the forms change terminal when it finds a change in forms. The default is **Y** (Yes).

Note

Prior to release 6.4.1 of CPMS/SYSD, CPMS/SYSD sent a message to the forms change terminal instructing the operator to change the forms and then reply to the forms change message. If you do not want to send a message to the forms change terminal, set &FORMMSG to **N** (No). CPMS/SYSD displays the message *Waiting on Forms* on Option 7, CPMS Printer Table Display/Change.

&GLB#PDB – Global PDDB Count

The &GLB#PDB parameter defines the minimum number of datasets a job must have before CPMS/SYSD uses the global PDDB table. The default is **100**.

&GLBPDDB – Global PDDB Option

The &GLBPDDB parameter specifies if CPMS/SYSD uses the global PDDB table. You should only implement this parameter if you are running in a CICS version 3 or 4 environment. The default is **N** (No).

&HELPDSA – Alternate Online Help Dataset Name

The &HELPDSA parameter defines the dataset name for an optional alternate online help dataset. You can update the online help in this alternate dataset. CPMS/SYSD searches the alternate online help dataset before it searches the dataset specified for the &HELPDSN parameter. The alternate online help dataset must be cataloged.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&HELPDSN – Online Help Dataset Name

Primary use

The &HELPDSN parameter defines the dataset name of the CPMS/SYSD online help dataset. The online help dataset must be cataloged and should not be archived. Set &HELPDSN to the same name you used for SYSD.HELP during the installation.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&ITRNID – Auto-Initiate Transaction ID

Primary use

The &ITRNID parameter defines the auto-initiate transaction ID CICS uses. This ID must be the same as the ID specified in the PCT. Stage 1 processing generates the PCT entry for the auto-initiate transaction ID. Do not put transaction security on the PCT entry for this transaction. This is an internal transaction; the user does not enter it. The default is **SYSI**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Update the PCT.

3. Cycle CICS.

&JES2ARA – JES2 SRB Queue Read Method

The &JES2ARA parameter specifies if the SRB queue read method gets the MVS CSA area from above or below the 16 megabyte line. See the &JES2SRB parameter for more information about the SRB queue read mechanism.

Specify	To use
0	The CSA area.
1	The ECSA area. This is the default.
	H&W recommends you use this option for MVS/XA, MVS/ESA, and OS/390 environments.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JES2JBI – JES2 Job Name

Primary use

The &JES2JBI parameter defines the 4-character OS job entry subsystem (JES) job name. CPMS/SYSD uses this job name to find JES2's address space in MVS. This parameter is normally set to **JES2**, but you can set it to a secondary subsystem name for testing with a secondary JES2. See "Running CPMS/SYSD with a Secondary JES2 Subsystem" on page 51 for more information.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JES2SRB – JES2 SRB Queue Read Method

The &JES2SRB parameter defines the method CPMS/SYSD uses to get JES2 checkpoint information for spool display.

Specify	To use
0	The checkpoint dataset read method. CPMS/SYSD gets the memory to hold the information from OSCORE. Use this method if you are running JES2 as a secondary subsystem.
	H&W recommends you install with &JES2SRB set to **0** until testing is complete. However if you have OS/390 2.4 or greater, &JES2SRB must be set to 1.
1	The method that dispatches an SRB to the JES2 address space and moves the JES2 information to the MVS ECSA. You must have sufficient ECSA defined at IPL time. You must also define a CPMS/SYSD subsystem entry to use as an anchor for the pointers to the area in ECSA. See "Using the JES2 SRB Queue Read Method" on page 51 for more information. If CPMS/SYSD is running in multiple CICS address spaces, it uses this method to share the JES2 information. Unlike the checkpoint dataset read method, there are no I/Os performed for this method.

See "Calculating CPMS/SYSD's Memory Requirements" on page 42 for more information about the memory requirements for both methods.

If you change this parameter, reassemble SYSDINIT and cycle CICS. The subsystem entry must already be in place in the Operating System.

The SYSD subsystem name as specified by the &SYSDSSI parameter must be added to the IEFSSNxx member of SYS1.PARMLIB. Then activate this parameter either by an IPL

or if you have OS/390 issue the command SETSSI ADD, SUBNAME=SYSD, where SYSD is the parameter specified by &SYSDSSI.

&JES2VER – JES2 Version

Primary use

The &JES2VER parameter defines the JES2 version you are running. Set this parameter to the value specified for the &VERSION JES2 parameter in the $MODULE, $HASPGBL, or $HASPGEN member of SYS1.HASPSRC. For OS/390, see the &J2LEVEL parameter of $MODULE in SYS1.VnRxM0.SHASMAC, where n is the OS/390 version number and x is the OS/390 release number. You can also find the version number at the end of the *Specify Options* message displayed on the console when you bring up JES2 after an IPL. If you have the SYSD CORE command available, you can see the JES2 version by issuing SYSD,CORE,SSCT=JES2@14.

Specify	For	Sets Internal Variable
SP 1.3.6	SP 1.3.6	&JES2136
SP 2.1.5	SP 2.1.5 XA	&JES2136
SP 2.1.7	SP 2.1.7 XA	&JES2136
SP 2.2.0	SP 2.2.0 XA	&JES2220
SP 3.1.1	SP 3.1.1 ESA	&JES2311
SP 3.1.3	SP 3.1.3 ESA	&JES2311
SP 4.1.0	SP 4.1.0 ESA	&JES2410
SP 4.2.0	SP 4.2.0 ESA	&JES2420
SP 4.3.0	SP 4.3.0 ESA	&JES2430
SP 5.1.0	SP 5.1.0 ESA	&JES2510
SP 5.2.0	SP 5.2.0 ESA	&JES2520
SP 5.3.0	SP 5.3.0 ESA	&JES2530
OS 1.1.0	OS/390 1.10	&JES2530

Specify	For	Sets Internal Variable
OS 1.2.0	OS/390 1.2.0	&JES2530
OS 1.3.0	OS/390 1.3.0	&JES2530
OS 2.4.0	OS/390 2.4.0	&JES2604
OS 2.5.0	OS/390 2.5.0	&JES2604
OS 2.6.0	OS/390 2.6.0 and newer	&JES2604

If you upgrade JES2:

1. Update the &JES2VER parameter to reflect the new version of JES2.

2. Update the JES2SRC parameter in STAGE1 to reflect the new JES2 macro library name.

3. Rerun the STG1ASM job.

4. Reinstall the assembly PROCs in INSTPROC to point to the new JES2 library.

5. Run the INSTCOMM and INSTJES2 jobs.

6. Cycle CICS.

&JESDFTC – JES Default Route Class

JES3 only

The &JESDFTC parameter defines the default route class CPMS/SYSD uses if the user does not enter a new class on the SPLRTE command. If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JESDUMC – JES Dummy Class

JES3 only

The &JESDUMC parameter defines the dummy class where CPMS/SYSD initially sends jobs marked 'HOLD-FOR-DISPLAY'. The SPLRTE command routes the job from this class unless the user overrides it. If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JESDUMD – JES Dummy Destination

JES2 only

The &JESDUMD parameter defines the dummy destination for JES2. The SPLCLN command deletes jobs that have this destination. This is the default destination for the SPLCLN command. See "Using the MVS Spool Display Facility (JES2)" on page 40 for more information about overriding the default destination.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JESEXPR – JES Expiration Time

JES2 only

The &JESEXPR parameter defines the JES2 JQE/JOE update expiration time in seconds. The time can be a number from 00 to 99. CPMS/SYSD only refreshes the JQE/JOE area after this interval expires. This saves overhead, but commands may not appear to take effect immediately.

You can also use this parameter to define the refresh interval for JES2 printer display information.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JESJOBN – JES2 Job VSAM Submit Interface

JES2 only

The &JESJOBN parameter specifies if CPMS/SYSD uses the VSAM interface to submit a job. By using the VSAM interface, the job number is returned in the message. To use the VSAM interface, specify **YES**. To use the DCT interface, specify **NO**. H&W recommends setting this parameter to **YES.**

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JESSBMT – JES Submit DCT Name

Primary use

The &JESSBMT parameter defines the CICS DCT name CPMS/SYSD uses to submit jobs through the editor. CPMS/SYSD enqueues this 4-character name in CICS to ensure single

threading. For the submit function to work properly, other tasks that access this DCT must enqueue in the same manner. Most sites set this parameter to **SYSD**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Update the DCT.

3. Cycle CICS.

&JESSUBO – JES Submit Option Flag

The &JESSUBO parameter specifies if the CICS DCT submit entry is closed after a user submits a job. Leaving the DCT submit entry open creates less overhead. If set to **NO**, CPMS/SYSD leaves the entry open and puts a job separator card in the output between jobs. If set to **YES**, CPMS/SYSD closes the DCT entry after each submit. The default is **YES**.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&JESTYP – JES Type

Primary use

The &JESTYP parameter defines the OS job entry subsystem (JES) CPMS/SYSD uses. You must specify **JES2**.

&LOGACTV – Log Miscellaneous Data

The &LOGACTV global parameter specifies if all the system changes SYSD performs are logged. If set to **1**, SYSD sends a message defining the change to the transient data destination specified for the &LOGDEST parameter.

If you change this parameter, reassemble SYSD0174 and issue the SYSD,SYSD0174 command to dynamically load a new copy of SYSD0174.

&LOGDEST – Log Destination ID

The &LOGDEST parameter defines the 1- to 4-character transient data destination SYSD uses to log system changes. Most sites set this parameter to **CSTL**. You must set &LOGACTV to **1** for this to take effect.

If you change this parameter:

1. Reassemble SYSD0174.

2. Reassemble SYSDINIT.

3. Cycle CICS.

&MAXOSTK – Maximum Number of OS Subtasks

Primary use

The &MAXOSTK parameter defines the maximum number of OS subtasks SYSD starts in the CICS address space. The subtasks protect CICS from abends and OS waits because CPMS/SYSD uses OS facilities. SYSD loads these subtasks and work areas into OSCORE. You may need to add more memory to the CICS OSCORE parameter. If you do not have the SYSD/ATP option, H&W recommends the minimum value of **3**. If you have the SYSD/ATP option, H&W recommends the minimum value of **7**.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

> **Note** To increase OSCORE for CICS version 3 and above, you must change the SIT parameters that deal with the DSA sizes or increase the region size.

&MAXSCAN – JOE Writer Scan Interval

The &MAXSCAN parameter defines the maximum scan interval for a JOE writer. This is the maximum number of seconds between scans of the JES queue for selecting output to be printed on a JOE writer. The aging process uses this parameter to cut down resource usage if there are no output datasets to print. The minimum interval is **0**; the maximum is **600**. The default is **120**.

If you update this parameter, reassemble SYSDINIT and cycle CICS.

&MROTNID – Terminal-Owning Region Transaction ID

MRO only

The &MROTNID parameter defines the transaction ID CPMS/SYSD uses to translate uppercase and lowercase characters in an MRO environment. You must define this transaction to each terminal-owning CICS region that accesses CPMS/SYSD. See "Supporting MRO" on page 47 for more information.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

> **Note** This parameter is only required for CICS version 1, 2, and 3.

&MTRNID – Main Transaction ID

Primary use

The &MTRNID parameter defines CPMS/SYSD's main transaction ID. The default is **SYSD**.

You can change this parameter to any 4-character name. The product transaction ID you specify must be the same as the name in the PCT. Stage 2 installation processing uses either the DFHPCT macro or RDO to create the PCT entry. You can put transaction security on the PCT entry for this transaction.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Update the PCT.

3. Cycle CICS.

&MXAUXSZ – Maximum Size of Auxiliary Storage

The &MXAUXSZ parameter defines the maximum size of auxiliary temporary storage. If you change this parameter, specify it in the format **value-88**, where **value** is the size of the auxiliary temporary storage and **88** is the VSAM CI overhead; for example, specify **4096-88**.

H&W recommends you do not change this parameter. If you do, call H&W Customer Support for assistance.

&NPAGCMD – BMS Next Page Command

Primary use

The &NPAGCMD parameter defines the BMS paging command. This command must be the same as the PGRET field in the CICS SIT with an N appended to it. Normally this parameter is specified as **P/N**.

| Note | Also see the &RPAGCMD parameter on page 117. |

If you change this parameter:

1. Reassemble the SYSDM01 and SYSDM03 maps.

2. Reassemble the SYSD0000, SYSD0174, SYSD0137, and SYSDINIT programs.

3. Cycle CICS.

&OSLEVEL – MVS Operating System

Primary use

The &OSLEVEL parameter defines the level of the operating system you are running.

Specify	For
SETA 0	MVS non-SP or MVS/SP
SETA 1	MVS/XA versions below 2.2
SETA 2	MVS/XA version 2.2
SETA 3	MVS/ESA version 3.1
SETA 4	MVS/ESA version 4.1, 4.2, or 4.3
SETA 5	MVS/ESA version 5.1
SETA 6	MVS/ESA version 5.2 or above and OS/390 version 1.1.0 and above

If you change this parameter:

1. Rerun the STG1ASM job.

2. Reinstall the assembly PROCs in INSTPROC.

3. Run the INSTCOMM and INSTOS jobs.

4. Cycle CICS.

&OSTYP – Operating System

Primary use

The &OSTYP parameter defines the operating system SYSD is operating in. This parameter must be set to **MVS**.

&PERANL – Performance Analyzer Available

SYSD only

The &PERANL parameter specifies if IBM's Performance Analyzer (PA) is active in the CICS system. If the PA is not active, specify **0**. If the PA is active, specify **1**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Reassemble SYSD0014.

   > **Note** If you find an undefined label called DCAAZN when you reassemble SYSD0014, change the &PERANL parameter to **0** or make sure the DFHPCR and DFHPCRA macros are in one of the concatenated libraries of the assembly procedures. In either case, reassemble SYSD0014. To Newcopy SYSD0014, you can issue the CEMT SET PROG(SYSD0014) NEW command or the SYSD PROG SYSD0014 NEW command.

3. Cycle CICS.

&PQAUTO – Start CPMS/SYSD Auto-Start Printers

The &PQAUTO parameter specifies if CPMS/SYSD starts all the CPMS/SYSD printers that have **AUTOSTR=YES|PQ|SW** defined in PTBLMAIN. If set to **Y**, CPMS/SYSD starts all the auto-start printers using the default selection criteria and SYSOUT disposition specifications. This is the default. See Appendix C, PTBLMAIN Parameters, for more information about the AUTOSTR parameter.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&PRNTACQ – Acquire CICS SYSD Printers

The &PRNTACQ parameter specifies if SYSD tries to acquire a printer if it is in service to CICS, but released and disconnected from CICS, before printing to it. The default is **N** (No).

Note
Prior to release 6.4.1, CPMS/SYSD did not issue a request to acquire a printer. This normally happened automatically when CICS found work for the device. If you do not want CPMS/SYSD to issue a request to acquire a printer, set &PRNTACQ to N (No).

&PROC001 – PDS Compression Procedure

Primary use

SYSD only

The &PROC001 parameter defines the name of the procedure SYSD starts when a user compresses a PDS from any of the screens in Option 3, Perform utility functions. The default is **SYSDCMPR**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Rename the procedure you installed in SYSD.USRLIB(INSTPROC).

3. Cycle CICS.

&PROC002 – PDS Print Procedure

Primary use

The &PROC002 parameter defines the name of the procedure SYSD issues a start command against when a user enters an OS print function. The default is **SYSDPRNT**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Rename the procedure you installed in SYSD.USRLIB(INSTPROC).

3. Cycle CICS.

&PROC003 – Submit Reader Procedure

Primary use

The &PROC003 parameter defines the name of the procedure SYSD issues a start command against when a user enters a submit function. The default is **SYSDRDR.**

If you change this parameter:

1. Reassemble SYSDINIT.

2. Rename the procedure you installed in SYSD.USRLIB(INSTPROC).

3. Cycle CICS.

&RPAGCMD – BMS First Page Command

Primary use

The &RPAGCMD parameter defines the BMS paging command that displays the first page of data. This command must be the same as the PGRET field in the SIT with a **1** appended to it. Normally this parameter is specified as **P/1.**

| Note | Also see the &NPAGCMD parameter on page 113.

If you change this parameter:

1. Reassemble the SYSDM01 and SYSDM03 maps.

2. Reassemble the SYSD0000, SYSD0174 , SYSD0137, and SYSDINIT programs.

3. Cycle CICS.

&SDDFTCL – Default Column Number

The &SDDFTCL parameter defines what the Spool Display facility displays in column 1 of the output. If set to 1, the Spool Display facility displays the carriage control in column one. If set to 2, the Spool Display facility display the first character of data in column one. H&W recommends you set this parameter to 1.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

&SPCTNID – Transaction ID for SYSPC

If you have H&W's SYSPC product on your system and plan on using it with CPMS/SYSD, the &SPCTNID parameter defines SYSPC's transaction ID. The default is **PCSY**. You can change this parameter to any 4-character name. This transaction ID must also be specified in the PCT.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Update the PCT.

3. Cycle CICS.

&STDFCB – JES Default FCB

The &STDFCB global parameter defines the default FCB name CPMS/SYSD uses when an FCB is not specified in the JCL for a print dataset. This is the same as the &PRTFCB parameter in SYS1.PARMLIB(JES2PARM) plus the prefix **FCB2**. For example, if &PRTFCB is set to **6**, set &STDFCB to **FCB26**. There must be a member in SYS1.IMAGELIB with this FCB name.

> **Note** You can override this default for a specific printer by changing the DFTFCB parameter on the printer's entry in PTBLMAIN.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Reassemble SYSDPTBL.

3. Cycle CICS.

&STDFORM – JES Default Form

The &STDFORM parameter defines the default form for the OS printer. For JES2, this parameter is normally specified as **STD**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Reassemble SYSDPTBL.

3.   Cycle CICS.

&SVCNO – Special SVC Number

Primary use

The &SVCNO parameter defines the SVC number SYSD requires to run. Choose an unused type 3 or 4 SVC in the range of **201** to **255**. You can check the OS SYSGEN to find out what the SVC number is. Do not use an SVC number that ends in **0** or a type 1 or type 2 SVC.

| Note | If you previously installed CPMS/SYSD at release 6.0 or newer, you can use the SVC previously installed. Specify the same SVC number here and perform the INSTSVC later in the install. |

If you change this parameter:

1.   Rerun the STG1ASM job to re-create the INSTSVC job.

2.   If you have OS/390, update SYS1.PARMLIB(IEASVCxx) with SVCPARM xxx,REPLACE,TYPE(3), where xxx is the SVC number.

3.   Run the INSTSVC job.

4.   Reassemble SYSDINIT.

5.   IPL MVS with a CLPA.

&SYSDATP – Editor Access to CA-Panvalet Libraries

Caution ▶ *CA-Panvalet is a proprietary product of Computer Associates. You must license it from them before you use the SYSD/ATP option.*

Primary use

The &SYSDATP parameter specifies if you have installed the SYSD/ATP option. The SYSD distribution cartridge must contain the SYSD/ATP option before this parameter is effective. If you have installed SYSD/ATP, set this parameter to **Y**. If you have not installed SYSD/ATP, set this parameter to **N**.

If you change this parameter:

1. Reassemble SYSDINIT.

2. Reassemble SYSD0074.

3. If you change the &SYSDATP parameter from N to Y, rerun the STG1ASM job to re-create SYSD.USRLIB(INSTATP).

4. If you change the &SYSDATP parameter from N to Y, run the jobs in INSTATP.

5. Cycle CICS.

&SYSDSSI – Subsystem Interface Name

The &SYSDSSI parameter defines a 4-character subsystem interface name for use by SYSD. It must be defined to MVS in SYS1.PARMLIB(IEFSSNxx). SYSD uses this subsystem entry to provide an interface for requests that require execution in the JES2 address space. This parameter is only valid if the &JES2SRB parameter is set to 1. Most companies set this parameter to **SYSD**.

If you change this parameter, reassemble SYSDINIT and cycle CICS. The SYSD IEFSSNxx member must be activated by an MVS IPL or by issuing the OS command SETSSI ADD,SUBNAME=SYSD, where SYSD is the subsystem name specified by this parameter.

&UCBDYN – Dynamic Unit Control Blocks (UCBs)

The &UCBDYN parameter specifies if you are using dynamic unit control blocks (UCBs). If set to N, CPMS/SYSD does not support dynamic UCBs. If you are running MVS/ESA version 5 or OS/390, CPMS/SYSD defaults to dynamic UCB support and this parameter is ignored.

&USESYSN – Display SYSIN Datasets

The &USESYSN parameter specifies if CPMS/SYSD displays SYSIN datasets. If set to N, CPMS/SYSD does not display SYSIN datasets. This parameter does not affect the menu system.

If you change this parameter, reassemble SYSDINIT and cycle CICS.

Appendix C
PTBLMAIN Parameters

PTBLMAIN defines the terminals users will print to. Terminals include printers, 3270 devices, LAN printers, and any other device users send output to. In this appendix, the term *printers* is used to refer to all output devices. PTBLMAIN is copied into the SYSDPTBL assembly and becomes the SYSDPTBL load module. See SYSD.USRLIB(PTBLMAIN) for more information.

You must have one $PTBL macro in PTBLMAIN for each printer users will print to. This appendix describes the parameters for the $PTBL macro.

> **Note** You may need a separate SYSDPTBL program and PTBLMAIN for each CICS region. See "Using Multiple CICS Regions" on page 43 for more information. You can also code the SYSD.USRLIB(PRT001) user exit to specify where you want a particular printer auto started from.

&PTBL Macro Format

The format of the &PTBL macro is:

```
$PTBL parameter
```

You can use the PRTDSP function to display and change most of the parameters described in this appendix. This lets you tune and test a printer. See the *CPMS/SYSD Reference Manual* for more information about the PRTDSP command.

Parameters

The following sections describe the parameters for the &PTBL macro.

AIDLIMT – Outstanding CICS START Commands

The AIDLIMT parameter defines the number of outstanding CICS START commands the global JOE writer scanning task queues for the printer. If there are two outstanding CICS JOE print tasks for a specific printer, CPMS/SYSD does not start the scanning task again until the current task is done. This minimizes CICS interval control overhead. The valid range for this parameter is from **0** to **10**. The default is **2**.

AUTOSTR – Automatically Starting Printer

The AUTOSTR parameter specifies if CPMS/SYSD automatically starts a printer with its defaults.

Specify	*To*
NO	Do not auto-start the printer.
PQ	Start the hot writer when you start CICS.
SW	Start the JOE writer when you start CICS.
YES	Start the hot writer when you start CICS.

> **Note** You must have define the SYSD0149 program in the CICS PLT startup entry for this parameter to take effect.

BUFSIZ – Physical Buffer Size

The BUFSIZ parameter defines the printer's physical buffer size. This must be a number from **512** to **8192** and it must not exceed the size specified in the TCT or the printer's physical buffer size. The default is **1920**.

CARSIZ – Carriage Size

The CARSIZ parameter defines the printer's carriage size. The default is **132**. Otherwise, you must specify one of the following carriage sizes: **80**, **132**, or any number greater than **132** and less than **256**.

CHGTERM – Forms Change Control Terminal

The CHGTERM parameter defines the terminal that controls the CPMS/SYSD PRTJOB, PRTQUE, and STRWTR commands. CPMS/SYSD sends forms change messages to this terminal. The default is the terminal the PRTJOB, PRTQUE, or STRWTR command was issued on.

> **Note** This parameter is required if printing will be started from a non-standard terminal; for example, from a DASD sequential terminal with the auto-start feature. When using auto-install, a physical location may not get the same terminal ID every time the terminal is logged on. If this is the case in your environment, see the &FORMMSG parameter in SYSDSETS for more information about how to bypass sending the forms change message to the forms change control terminal. To bypass the forms change messages for a specific printer, use the OPTS parameter described on page 127.

CHKRESP – CICS Definite Response Write

The CHKRESP parameter defines how often CPMS/SYSD issues a CICS definite response write. The frequency must be from **0** to **255**. The default is **0**.

DELAY

The DELAY parameter defines the number of seconds delay between buffers. You should use this parameter when CRT-type line traffic has priority. The default is **0**.

> **Tip** You can also use this parameter to minimize buffering in CICS and VTAM since it provides a delay before sending each buffer.

DFTDISP – Default SYSOUT Dispositions

> **Note** This parameter is only in effect for auto-start, PRTQUEST, STRWTRST, and menu system hot writer and JOE writer starts.

The DFTDISP parameter defines the default SYSOUT dispositions for the hot writer and JOE writer.

Specify	To
NEWCLASS	Route the JOE to a new class after it is printed. The new class is defined by the DFTRCLS parameter.
NEWDEST	Route the JOE to a new destination after it is printed. The new destination is defined by the DFTRDST parameter.
NODISP	Perform a dataset-level purge. The output is not set to non-selectable during the print operation, which means other print tasks can select the same report. A CICS enqueue is not in place, which means other print tasks can select the same output.
NONSEL	Put the JOE in the held queue after it is printed. The output is set to non-selectable, which means other print tasks cannot select the same report. A CICS enqueue is in place during printing, which means other CICS writers cannot select the same output.
PURGE	Purge the JOE from the spool after it is printed. The output is set to non-selectable, which means other print tasks cannot select the same report. A CICS enqueue in place during printing, which means other CICS writers writers cannot select the same output. This is the default.

To specify more than one disposition, use the following format:

```
DFTDISP=disposition+disposition
```

DFTFCB – Default FCB

The DFTFCB parameter defines the printer's default FCB. If specified, this FCB overrides the default FCB in SYSDSETS. You can use this parameter to set up different defaults for your printers.

DFTRCLS – Default New Class

Note
This parameter is only in effect for auto-start, PRTQUEST, STRWTRST, and menu system hot writer and JOE writer starts.

The DFTRCLS parameter defines the default new class the hot writer and JOE writer send output to after it is done printing. The output is only sent to this new output class if the DFTDISP parameter is set to **NEWCLASS**.

DFTRDST – Default New Destination

| Note | This parameter is only in effect for auto-start, PRTQUEST, STRWTRST, and menu system hot writer and JOE writer starts. |

The DFTRDST parameter defines the default new destination the hot writer and JOE writer send output to after it is done printing. The output is only sent to this new destination if the DFTDISP parameter is set to **NEWDEST**.

DFTSCLS – Default Classes

| Note | This parameter is only in effect for auto-start, PRTQUEST, STRWTRST, and menu system hot writer and JOE writer starts. |

The DFTSCLS parameter defines the default classes the hot writer and JOE writer scan for when looking for output to print.

DFTSDST – Default Destination

| Note | This parameter is only in effect for auto-start, PRTQUEST, STRWTRST, and menu system hot writer and JOE writer starts. |

The DFTSDST parameter defines the default destination the hot writer and JOE writer scan for when looking for output to print.

DFTSFRM – Default Form

| Note | This parameter is only in effect for auto-start, PRTQUEST, STRWTRST, and menu system hot writer and JOE writer starts. |

The DFTSFRM parameter defines the default form the hot writer and JOE writer scan for when looking for output to print.

DFTSWTR – Default Writer Name

The DFTSWTR parameter defines the default writer name the JOE writer scans for when looking for output to print. This parameter is used with the default destination, classes, and form. The default selection writer name is only used for JOE writers; not for hot writers (PRTQUE).

DFTUCS – Default Universal Character Set

The DFTUCS parameter defines the printer's default universal character set (UCS). You can use this parameter for the special printer setup control characters the JES205 user exit generates and to reset the printer's setup characters for other applications after printing is done. This parameter is only used with the OPTS=UCSCTL parameter. See the OPTS parameter on page 127 for more information.

MASTERM – Master Terminal

The MASTERM parameter defines the ID of the 3270 terminal authorized to issue commands for this printer. This parameter defines a controlling terminal in addition to the originating and CHGTERM terminals. To let any terminal issue commands for this printer, specify '****'. CPMS/SYSD does not send forms change messages to this terminal.

MAXLIN – Maximum Number of Lines

The MAXLIN parameter defines the maximum number of lines processed with each print request issued from the spool display view. The default is **50,000**.

OPTS – Printer Options

The OPTS parameter defines the printer's options.

Specify	To have the printer
DISCON	Disconnect from CICS when printing is done. (VTAM only)
FMCGBP	Bypass all forms change requests.
FRMFED	Use form feed characters on printers that support X'0C' as 'TOP OF FORM'. This speeds up the printing process and provides better top-of-form recovery.
FRMPRT	Process printer-attended forms changes. Printer PA keys are supported.
FRMSEL	Print the same forms together. (PQ and SW only)

(continued)

Specify	To have the printer
RTACMP	Use repeat-to-address control characters to compress printer output data streams. The RTACMP and SCSCMP options are mutually exclusive.
SCSCMP	Use SCS horizontal tabs to compress printer output data streams. The SCSCMP and RTACMP options are mutually exclusive.
UCSCTL	Issue leading and trailing control characters based on the UCS= parameter of the SYSOUT statement.

The default is no printer options.

To specify more than one option, use the following format:

```
OPTS=option+option
```

OPTS2 – Vertical Tabs from FCB Image

You can specify the OPTS2=SETVRT parameter for an SCS printer entry to set vertical tabs from the FCB image. If you specify this parameter, channel skips are included in the print data stream.

SCNDLY – Hot Writer Scan Delay

PQ only

The SCNDLY parameter defines the delay in seconds between scans of the job queue while the hot writer waits for data to print. You can use this parameter to control CPU overhead. The default is 120 seconds.

SEPBGN – Beginning Separator Pages

The SEPBGN parameter defines how many beginning separator pages the JES204 user exit prints. If set to 0, JES204 does not print any beginning separator pages. The default is 0.

SEPEND – Ending Separator Pages

The SEPEND parameter defines how many ending separator pages the JES204 user exit prints. The default JES204 user exit produces JES2 look-alike separators. If set to **0**, JES204 does not print any ending separator pages. The default is **0**.

TERMID – Terminal ID

The TERMID parameter defines the printer's terminal ID. This parameter is required.

TRMDEST – Terminal Destination

The TRMDEST parameter defines the printer's terminal destination.

Specify	For a
D	DCT table entry.
T	TCT table entry. This is the default.

TRMTYP – Terminal Type

The TRMTYP parameter defines the printer's terminal type. Valid terminal types are:

ASIS	Transfer without change.
2741	
3262	
3268	
3284	
3287	
3289	If the device is defined as an SCS printer in CICS, this is the recommended terminal type.
3767	
3774	

Appendix D

INITMAIN Parameters

This appendix describes the parameters in SYSD.USRLIB(INITMAIN). There is a SYSDTABL entry in INITMAIN for each CPMS/SYSD function. You can update the SYSDTABL entries to change CPMS/SYSD's default security level and disable selected functions. Before making any changes, review the source for INITMAIN to determine the basic security for each function.

If you change INITMAIN, you must reassemble SYSDINIT and cycle CICS.

Parameters

The following fields for the SYSDTABL entry identify the function:

ENTYPE

The ENTYPE parameter defines the type of function. Do not change this parameter.

This value	*Means*
F	Non-menu function
I	Internal
M	Menu system

FUNC

The FUNC parameter defines the function code or function name. Do not change this parameter.

REF

The REF parameter defines up to four, 8-character names that identify menu functions. CPMS/SYSD passes these names to the menu exits.

TITLE

The TITLE parameter defines the function's title. Do not change this parameter.

OPTIONS

The OPTIONS parameter defines the functions' various link options. These are special switches that determine how the function is handled. Set OPTIONS to one or a combination of the following:

Note: The 0, LINKDISA, LINKNDOC, and LINKINDS options are mutually exclusive.

Set to	To
0	Do not set any special switches.
LINKDISA	Disable the function so no one can use it.
LINKINDS	Secure the function and the online help. Only authorized users matching the security mask set by the SECFUN and SECSUB parameters can use this function or display its online help.
LINKNDOC	Secure the online help for this function, but not the function. Only authorized users can access the online help, but anyone can use the function if they know about it.
SECFUN	Set the function-level security key as defined by the CICS Signon Table. This is a 64-bit field. To change this field, specify the keys as a subparameter list; for example, specify **4,8,24** to set three keys. For the default, &DFTINDS, only bit 24 is set.
	You must specify LINKINDS in the OPTIONS field before security checking is done. Only users whose security matches the security keys can use this function.
SECSUB	This is identical to SECFUN except it applies to the subfunction level. The AUTHCHK macro is required to check security using this entry. You must code this parameter if you want to use subfunction security.
	These security options only apply if you are at CICS version 3.1.n or below.

Caution

The LINKNSCN option tells CPMS/SYSD to not scan for input parameters. The LINKINCM option indicates that it is a menu system option. They are not security switches. Do not change them. Unpredictable results will occur if you do.

User Exits

The FUNC01 (non-menu functions) and MENU02 (menu functions) user exits perform security key processing if you are at CICS version 3.1.n or below. Internal functions (ENTYPE=I) are not passed to the user exits.

For CICS versions 3 and 4, there are examples in the FUNC01 and MENU02 user exits for calling an external security product to authorize users for specific functions.

Examples

The following are some examples:

Example 1

This example shows how to disable the CICSTRAN function. H&W ships the CICSTRAN function as follows:

```
SYSDTABL FUNC=(CICSTRAN,CICS),
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0029,
    OPTIONS=LINKNSCN,
    SECFUN=(&DFTINDS),
    HELPNAME='CICSTRAN',
    TITLE='CICS - LIST TRANSIDS BY SIGNON'
```

To disable the CICSTRAN function, change the OPTIONS field as follows:

```
SYSDTABL FUNC=(CICSTRAN,CICS),
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0029,
    OPTIONS=LINKNSCN+LINKDISA,
    SECFUN=(&DFTINDS),
    HELPNAME='CICSTRAN',
    TITLE='CICS - LIST TRANSIDS BY SIGNON'
```

You can use the same format to secure the online help (LINKNDOC) or secure both the online help and the function (LINKINDS).

Example 2

This example shows how to change the function-level security for the CORE transaction. H&W ships the CORE transaction as follows with security set to the default key (24):

```
SYSDTABL FUNC=(CORE,JES),
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0017,
    OPTIONS=LINKINDS,
    SECFUN=(&DFTINDS),
    HELPNAME='CORE',
    TITLE='OS - DISPLAY AND ZAP VIRTUAL STORAGE'
```

To change the security for the CORE transaction so users who have a security setting of 13, 18, or 24 can use the CORE function, change the SECFUN field as follows:

```
SYSDTABL FUNC=(CORE,JES),
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0017,
    OPTIONS=LINKINDS,
    SECFUN=(13,18,24),
    HELPNAME='CORE',
    TITLE='OS - DISPLAY AND ZAP VIRTUAL STORAGE'
```

This setting lets users who have a key of 13, 18, or 24 display virtual storage.

| Note | The OPTIONS field must be set to LINKINDS before CPMS/SYSD checks function-level and subfunction-level security. |

Example 3

This example shows how to secure Option 0.1, JES/List Parameter Definitions. H&W ships Option 0.1 as follows:

```
SYSDTABL FUNC=$PARM020,
    REF=('PARMS','LIST'),
    ENTYPE=M,                  * OPTION 0.1 *
    OPSYS=ALL,
    PGM=SYSD0128,
    OPTIONS=LINKNSCN+LINKINDS,
    SECFUN=(1,&DFTINDS),
    HELPNAME='$LIST000',
    TITLE='SYSD-LIST PARAMETERS'
```

To secure Option 0.1 so only users who have CICS security bits 16 and 24 can access it, change the $PARM020 function as follows:

```
SYSDTABL FUNC=$PARM020,
    REF=('PARMS','LIST'),
    ENTYPE=M,                  * OPTION 0.1 *
    OPSYS=ALL,
    PGM=SYSD0128,
    OPTIONS=LINKNSCN+LINKINDS,
    SECFUN=(16,24),
    HELPNAME='$LIST000',
    TITLE='SYSD-LIST PARAMETERS'
```

Example 4

This example shows how to change the default HELP function to MENU. If a user invokes SYSD from a clear CICS screen, they get the menu system signon screen instead of the HELP screen.

H&W ships these functions as follows:

```
SYSDTABL FUNC=HELP,
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0093,
    OPTIONS=0,
    SECFUN=(&DFTINDS),
    HLPNAME='HELP',
    ALIAS=(' ',H),
    TITLE='SYSD - DISPLAY DOCUMENTATION'

SYSDTABL FUNC=MENU,
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0117,
    OPTIONS=LINKINCM,
    SECFUN=(&DFTINDS),
    HLPNAME='MENU',
    ALIAS=(M),
    TITLE='SYSD - ENTER THE MENU DRIVEN CPMS/SYSD'
```

To change the default function from HELP to MENU, change the ALIAS field for both functions as follows:

```
SYSDTABL FUNC=HELP,
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0093,
    OPTIONS=0,
    SECFUN=(&DFTINDS),
    HLPNAME='HELP',
    ALIAS=(H),
    TITLE='SYSD - DISPLAY DOCUMENTATION'

SYSDTABL FUNC=MENU,
    ENTYPE=F,
    OPSYS=ALL,
    PGM=SYSD0117,
    OPTIONS=LINKINCM,
    SECFUN=(&DFTINDS),
    HLPNAME='MENU',
    ALIAS=(' ',M),
    TITLE='SYSD - ENTER THE MENU DRIVEN CPMS/SYSD'
```

Appendix E
SYSD.USRLIB Members

This appendix provides a list of the members in SYSD.USRLIB you use to set options, submit installation jobs, and tailor CPMS/SYSD through user exits.

Installation Parameters and JCL

This section provides a summary of the members that contain the installation parameters and JCL.

Member name	Description	Programs affected
BRWSMAIN	Options that define the SYSD/ATP browse work file.	SYSDBRWS
INITMAIN	Options for security and environment.	SYSDINIT
INSTATP	Jobs that install the SYSD/ATP (Access to CA-Panvalet) option.	n/a
INSTCICS	Job that assembles the programs that are dependent on the version of CICS you are running.	n/a
INSTCOMM	Job that assembles the programs common to all environments.	n/a
INSTCOPY	IEBCOPY job that creates the modules that are dependent on the version of CICS you are running.	n/a
INSTCSD	Job that assembles the SYSD PCT and PPT table entries and migrates them to the DFHCSD file.	n/a
INSTCTBL	Jobs that create the CICS table entries.	n/a
INSTFILE	Jobs that create files for SYSD.	n/a
INSTJES2	Job that assembles the programs that are dependent on the version of JES you are running.	n/a
INSTMAPS	Job that assembles the maps.	n/a
INSTPROC	Job that adds assembly PROCs to PROCLIB.	n/a
INSTPROG	Jobs that assemble all programs.	n/a
INSTSVC	Job that assembles and installs the SVC.	n/a

Member name	Description	Programs affected
INSTUCSD	Job that uses the CICS batch CSD update utility to add, delete, update, and list SYSD resource definitions.	n/a
INSTOS	Job that assembles the programs that are dependent on the version of the operating system you are running.	n/a
PTBLMAIN	Printer definitions.	SYSDPTBL
STAGE1	Options that generate the JCL for stage 2 processing.	n/a
STG1ASM	Job that assembles STAGE1 and creates stage 2 installation members.	n/a
SYSDSETS	Options for the environment.	All
WORKMAIN	Options that define the editor work dataset.	SYSDWORK

SYSD User Exits

This section provides a summary of SYSD's user exits.

To implement a user exit, uncomment the example you want to use or code your own and reassemble SYSD0074. To get a new copy of SYSD0074, cycle CICS or issue the **SYSD,SYSD0074** command. See "SYSD0074 – Loading a New Copy of SYSD0074 and SYSD0174" on page 69 for more information about the SYSD0074 command.

The following letters identify options in the user exit table:

This letter	*Means*
C	Functional command
D	OS data management (SYSD only)
E	SYSD editor
F	JFT (Job and File Tailoring)
J	OS JES internals
M	Menu system
P	Printers

User exit	*Option*	*Description*	*OS*
ATPD01	E	Identifies the ATP datasets.	All
ATPD02	E	Identifies which ATP datasets should have a global directory built at startup time.	All
ATPEXT01	E	SYSD/ATP updates the ATP comment record when a user issues the SAVE command.	All
AUDIT	D	Audit trail logging for PDS changes.	All
AUTO01	J	Updates the time interval for displays that dynamically invoke themselves.	All

User exit	Option	Description	OS
BRSEXT01	E	Specifies the dataset name of the SYSD/ATP browse work file.	All
DSN001	D	Dataset security for inquiry only.	All
DSN002	D, E	Dataset security for updates and changes.	All
DSN003	D, E	Converts dataset names.	All
EDTEXT01	E	Specifies the dataset name of the editor work file.	All
FUNC01	C	Security for non-menu functions based on CICS TCT security keys or calls to an external security product.	All
JES201	J	Job name security for spool display for JES2. (Inquiry only)	MVS
JES202	J	SYSOUT dataset security for spool display or print for JES2. (Inquiry only)	MVS
JES203	J	Job name security for spool display for JES2. (Update only)	MVS
JES204	J	Separator page print routine.	MVS
JES205	J	UCS-driven printer setup characters.	MVS
JES206	J	Read-only security for JOE view and print. (Inquiry only)	MVS
JES207	J	Security for JOE route and purge. (Update only)	MVS
JFTMSGDS	F	Message libraries for job and file tailoring.	MVS
JFTPANDS	F	Panel libraries for job and file tailoring.	MVS
JFTSKLDS	F	Skeleton libraries for job and file tailoring.	MVS
MENU00	M	Menu system automatic signon user exit.	All
MENU02	M	Security for the menu function based on CICS TCT security keys or calls to an external security product.	All

User exit	Option	Description	OS
MENU03	M	Security for the menu function based on control fields in the user profile.	All
MENU04	M	Deletes the temporary storage records if the current user does not own them.	All
MENU05	M	Security exit for queue IDs and SYSIDs.	MVS
MENU06	M	Security exit for internal queue ID names.	MVS
PRT001	P	Additional printer access security exit.	All
PRT002	P	Verifies the print tasks for the auto-install printers associated with a PC.	All
SUB001	E	SYSD editor submit exit.	MVS
SYSL01	J	Command security for SYSLOG.	MVS
VOL001	D	Specifies the UCB for displays that search all the VTOCs on the system.	All

Appendix F
Editor and Browse Work Files

This appendix describes how to define the SYSD editor work files and the SYSD/ATP browse work file.

Defining the SYSD Editor Work File

WORKMAIN defines the attributes for the editor work files. You must code one $WORK macro in WORKMAIN for each editor work file. If you define more than one work file, update the EDTEXT01 user exit to tell SYSD which work file to select. WORKMAIN is copied into the SYSDWORK assembly and becomes the SYSDWORK load module.

| Note | You must have a separate SYSDWORK load module and WORKMAIN for each CICS region. See "Using the SYSD Editor" on page 53 for more information. |

```
$WORK FILE=file_name
```

This parameter *Specifies*

file_name The 1- to 8-character DDNAME of the editor work file. This parameter must match the value of the DATASET= field of the SYSD editor's FCT entry and the DDNAME specified in the CICS startup JCL. If you do not have a valid FCT and DD statement for every $WORK entry, you may get unexpected results.

H&W recommends you call the first work file **SYSDWRK0** and call subsequent work files **SYSDWRK1** through **SYSWRKn**.

Defining the SYSD/ATP Browse Work File

BRWSMAIN defines the attributes for the SYSD/ATP browse work files. You must code one $WORK macro in BRWSMAIN for each SYSD/ATP browse work file. If you define more than one browse work file, update the BRSEXT01 user exit to tell SYSD which browse work file to select. BRWSMAIN is copied into the BRWSWORK assembly and becomes the SYSDBRWS load module.

Note — You must have a separate SYSDBRWS load module and BRWSMAIN for each CICS region. See "Using the SYSD/ATP Browse Work File" on page 55 for more information.

```
$WORK FILE=file_name
```

This parameter	*Specifies*
file_name	The 1- to 8-character DDNAME for the SYSD/ATP browse work file. This parameter must match the value of the DATASET= field of the SYSD/ATP browse FCT entry and the DDNAME specified in the CICS startup JCL. If you do not have a valid FCT and DD statement for every $WORK entry, you may get unexpected results.

H&W recommends you call the first browse work file **SYSDBRS0** and call subsequent browse work files **SYSDBRS1** through **SYSDBRSn**. |

Appendix G
Summary of Program Modules

This appendix provides a list of CPMS/SYSD programs and describes their functions. The *OS* column of the table identifies the program's operating environment. Before you compile these programs, set up SYSDSETS. Then assemble only those programs that apply to your environment. The *Class* column identifies what type of program it is.

This letter	Means
C	CICS internals
D	OS data management
E	SYSD editor
F	JFT (Job and File Tailoring)
I	CPMS/SYSD internal control programs
J	OS JES internals
M	Miscellaneous

Program	Class	Description	OS
SYSDATPM	E	Executable module for reading SYSD/ATP.	All
SYSDATP1	E	Executable module for updating SYSD/ATP.	All
SYSDBRWS	E	SYSD/ATP's browse work file table.	All
SYSDINIT	I	SYSD's initialization and function table.	All

Program	Class	Description	OS
SYSDJLNK	F	Execute CICS link – JFT sample.	All
SYSDOSTK	I	Separate SYSD TCB controller.	All
SYSDPRNT	D	PDS batch print.	All
SYSDPTBL	J	Printer table for spool print.	All
SYSDPVTC	D	Batch VTOC print.	All
SYSDSRB1	J	Get checkpoint information from JES2.	MVS (JES2)
SYSDSRB2	J	Get outstanding operator replies.	MVS
SYSDWORK	E	PDS editor work file table.	All
SYSDXCTL	I	Sample program to front-end CPMS/SYSD.	All
SYSD0000	I	Initial driver module.	All
SYSD0001	D	OS UCB display.	All
SYSD0002	C	CICS PPT maintenance and display.	All
SYSD0003	D	OS list VTOC display.	All
SYSD0004	D	OS dataset DCB display.	All
SYSD0005	I	EXEC CICS command subroutines.	All
SYSD0006	D	OS list PDS directory.	All
SYSD0007	J	OS submit a CICS TS queue.	All
SYSD0008	C	CICS last ASRA PSW and register display.	All
SYSD0009	C	Get a new copy of SYSD0005.	All
SYSD0010	D	OS locate a dataset (DLTA).	All
SYSD0011	D	OS catalog deletion.	All

Program	Class	Description	OS
SYSD0012	D	OS dataset scratch.	All
SYSD0013	I	SYSD program information display.	All
SYSD0014	C	CICS statistics display.	All
SYSD0015	J	OS submit a CICS TD queue.	All
SYSD0016	C	CICS TCT maintenance and display.	All
SYSD0017	C	OS core display and zap.	All
SYSD0018	J	OS operator command processor.	All
SYSD0019	C	CICS table and module address display.	All
SYSD0020	D	OS PDS alias assignment.	All
SYSD0021	D	OS catalog a dataset.	All
SYSD0022	D	OS PDS member display.	All
SYSD0023	J	OS spool JOE clean up.	MVS (JES2)
SYSD0024	C	CICS temporary storage queue maintenance and display.	All
SYSD0025	J	OS spool route and purge.	VS1
SYSD0026	I	OS dataset find subroutines.	All
SYSD0027	C	CICS PCT maintenance and display.	All
SYSD0028	C	CICS FCT maintenance and display.	All
SYSD0029	C	CICS transaction code list by signon.	All
SYSD0030	M	Biorhythm chart.	All
SYSD0031	J	OS submit a dataset.	All

Program	Class	Description	OS
SYSD0033	C	CICS DCT maintenance and display.	All
SYSD0036	J	OS job status display.	VS1
SYSD0037	J	OS job cancel.	VS1
SYSD0038	I	OS dataset read and write subprogram.	All
SYSD0039	D	OS list catalog.	All
SYSD0040	I	OS detach SYSD separate TCB.	All
SYSD0041	J	OS job status display.	MVS (JES2)
SYSD0042	I	SYSDINIT date initialization.	All
SYSD0043	J	OS active task display.	MVS
SYSD0044	J	OS job queue display.	MVS (JES2)
SYSD0045	D	OS dataset rename.	All
SYSD0046	D	OS dataset recatalog.	All
SYSD0047	J	OS spool display.	MVS (JES2)
SYSD0048	J	OS JQE browse and search.	MVS (JES2)
SYSD0049	J	OS job purge.	MVS (JES2)
SYSD0050	J	OS job route.	MVS (JES2)
SYSD0051	J	OS spool job cleanup.	MVS (JES2)
SYSD0052	J	OS JCT reader.	MVS (JES3)
SYSD0053	J	OS job queue display.	MVS (JES3)
SYSD0054	J	OS spool display.	MVS (JES3)
SYSD0055	J	OS job purge and route.	MVS (JES3)

Program	Class	Description	OS
SYSD0056	J	OS job status display.	MVS (JES3)
SYSD0057	J	OS spool print initiator.	VS1
SYSD0058	J	OS spool printer.	VS1
SYSD0059	J	Print purge program.	All
SYSD0060	J	OS spool print initiator.	MVS (JES2)
SYSD0061	J	OS spool printer.	MVS (JES2)
SYSD0062	J	OS spool print initiator.	MVS (JES3)
SYSD0063	J	OS spool printer.	MVS (JES3)
SYSD0064	C	CICS trace table display.	All
SYSD0065	J	OS spool print forms change reply.	All
SYSD0066	J	OS spool dataset summary display.	MVS (JES2)
SYSD0067	I	SYSDTASK status display.	All
SYSD0068	I	SYSDTEST function.	All
SYSD0069	D	OS print function.	All
SYSD0070	J	Get checkpoint information through SRB.	MVS (JES2)
SYSD0071	J	Get checkpoint information from dataset.	MVS (JES2)
SYSD0072	J	Display job output elements.	MVS (JES2)
SYSD0073	J	Reset checkpoint information common area.	MVS (JES2)
SYSD0074	I	General user exits.	All
SYSD0075	J	Print queue start.	MVS (JES2)
SYSD0076	J	Print queue printer.	MVS (JES2)

Program	Class	Description	OS
SYSD0077	J	Print queue terminator.	All
SYSD0078	D	Display any DASD record.	All
SYSD0079	D	Compress a PDS.	All
SYSD0080	J	Display outstanding operator requests.	MVS
SYSD0081	J	Display JES2 spool block by MTTR.	MVS (JES2)
SYSD0082	C	Display link pack area directory.	MVS
SYSD0083	J	Cancel a job.	MVS (JES2)
SYSD0084	J	Hold a job.	MVS (JES2)
SYSD0085	J	Release a job.	MVS (JES2)
SYSD0086	J	Display a job's JES2 control blocks.	MVS (JES2)
SYSD0087	J	Display a job's JES1 control blocks.	VS1
SYSD0088	J	Display JES1 spool blocks by TTRC.	VS1
SYSD0089	J	Display JES1 job queue blocks by TTRC.	VS1
SYSD0090	J	Print queue start.	VS1
SYSD0091	J	Print queue printer.	VS1
SYSD0092	C	Display link pack area directory.	VS1
SYSD0093	I	Help processor.	All
SYSD0094	J	Hold a job.	VS1
SYSD0095	J	Release a job.	VS1
SYSD0096	J	Display OS active tasks (dynamic).	VS1
SYSD0097	J	OS job route.	VS1

Program	Class	Description	OS
SYSD0098	J	Display OS active tasks (dynamic).	MVS
SYSD0099	I	Change TEST function for debugging.	All
SYSD0100	I	SYSPGMR security set function.	All
SYSD0101	D	OS PDS member deletion.	All
SYSD0102	D	OS PDS member rename.	All
SYSD0103	I	Additional SYSD and CICS shutdown program.	All
SYSD0104	J	JES2 general subroutines.	MVS (JES2)
SYSD0105	C	Display CICS allocated datasets.	MVS
SYSD0106	J	Printer status display.	All
SYSD0107	J	Print hold command.	All
SYSD0108	J	Print cancel command.	All
SYSD0109	J	Print adjust command.	All
SYSD0110	D	Uncatalog a dataset.	All
SYSD0111	D	OS catalog disconnect CVOL (DRPX).	All
SYSD0112	D	OS catalog index deletion (DLTX).	All
SYSD0113	J	VM reset.	All
SYSD0114	I	End auto.	All
SYSD0115	I	Non-swap.	All
SYSD0116	I	Get a new copy of SYSD0137.	All
SYSD0117	I	Menu for password and log on.	All
SYSD0118	J	VM command.	All

Program	Class	Description	OS
SYSD0119	I	Get a new copy of both SYSD0074 and SYSD0174.	All
SYSD0120	I	Display initial menu.	All
SYSD0121	I	Parameter change and display menu (Option 0).	All
SYSD0122	J	Display active jobs (Option 4).	MVS (JES2)
SYSD0123	J	Display queue (Option 5).	MVS (JES2)
SYSD0124	J	Display JOEs (Option 6).	MVS (JES2)
SYSD0125	J	Display printer summary (Option 7).	All
SYSD0126	I	Display and change PF keys (Option 0.2).	All
SYSD0127	I	Display and change general parameters (Option 0.0).	All
SYSD0128	I	Display and change the JES and list parameters (Option 0.1).	All
SYSD0129	J	Spool display dataset summary.	MVS (JES2)
SYSD0130	J	Spool display.	MVS (JES2)
SYSD0131	J	Spool print initiator.	MVS (JES2)
SYSD0132	I	SYSD user file maintenance (Option U).	All
SYSD0133	I	Help display program (Option T).	All
SYSD0136	I	Transfer control program to front-end CPMS/SYSD.	All
SYSD0137	I	CICS-dependent subroutines.	All
SYSD0138	I	Uppercase and lowercase input with MRO.	All
SYSD0139	M	Primary Menu (Option C).	All
SYSD0140	J	JES2 printer display.	MVS

Program	Class	Description	OS
SYSD0141	J	Hot writer auto-start.	MVS
SYSD0142	J	Active SYSLOG display.	MVS (JES2)
SYSD0143	F	SYSD/JFT (Job and File Tailoring).	All
SYSD0144	F	SYSD/JFT parameter (Option 0.3).	All
SYSD0145	I	Display and change the PUT and GET queue IDs (Option 0.4).	All
SYSD0146	C	Display interval control elements.	All
SYSD0147	M	Display modified link pack area.	All
SYSD0148	J	Submit PDS member.	All
SYSD0149	C	Startup PLT.	All
SYSD0150	C	Display automatic initiate descriptors.	All
SYSD0151	M	Drives the START command.	All
SYSD0152	D	Display OS enqueues.	All
SYSD0153	D	Display and change batch print parameters (Option 0.5).	All
SYSD0154	J	JOE spool printer.	MVS (JES2)
SYSD0155	J	JOE writer scanner.	MVS(JES2)
SYSD0156	J	Start JOE spool writer.	MVS (JES2)
SYSD0157	J	Stop single JOE spool writer.	MVS (JES2)
SYSD0158	J	Start and stop a single JOE writer scanner.	MVS (JES2)
SYSD0174	I	General subroutines.	All
SYSD0300	D	Utilities – selection menu (Option 3).	All

Program	Class	Description	OS
SYSD0310	D	Utilities – library management (Option 3.1).	All
SYSD0320	D	Utilities – dataset utilities menu (Option 3.2).	All
SYSD0321	D	Utilities – dataset information display (Option 3.2.B).	All
SYSD0322	D	Utilities – allocate utility display (Option 3.2.A).	All
SYSD0323	D	Utilities – catalog utility display (Option 3.2.C).	All
SYSD0329	D	Utilities – dataset functions.	All
SYSD0340	D	Utilities – LISTCAT utility display (Option 3.4).	All
SYSD0370	D	Utilities – VTOC utility display (Option 3.7).	All
SYSD03T0	D	Utilities – trace table capture.	All
SYSD03TM	D	Utilities – trace table menu format.	All
SYSD03U0	D	Utilities – system device unit display (Option 3.U).	All
SYSD0900	I	Secured SVC.	All
SYSD090M	I	SYSD/ATP separate OS task – Read.	All
SYSD0901	I	SYSD/ATP separate OS task – Update.	All
SYSD091M	I	SYSD/ATP separate OS task – Read.	All
SYSD1000	E	Initialize editor work dataset.	All
SYSD1040	E	List all current edit sessions.	All
SYSD1060	E	Delete outstanding SLAM browse sessions for SYSD/ATP.	All
SYSD1070	E	Build global SYSD/ATP directory tables.	All
SYSD1080	E	SLAM I/O routines.	All

Program	Class	Description	OS
SYSD1090	E	SLAM directory routines.	All
SYSD1100	E	SLAM record I/O routines.	All
SYSD1110	E	SLAM keyed record I/O routines.	All
SYSD1120	E	SLAM file manipulation routines.	All
SYSD1121	E	SLAM file manipulation routines.	All
SYSD1500	E	Editor – menu driver (Option 2).	All
SYSD1510	E	Editor – PDS directory display.	All
SYSD1520	E	Editor – session display (Option 2.S).	All
SYSD1530	E	Browse – menu driver (Option 1).	All
SYSD1540	E	Browse – PDS directory display.	All
SYSD1550	E	Editor – main.	All
SYSD1551	E	Editor command table.	All
SYSD1552	E	Editor – line command routines.	All
SYSD1553	E	Editor – block command routines.	All
SYSD1554	E	Editor – primary command routines.	All
SYSD1560	E	Editor – external copy menu.	All
SYSD1570	E	Editor – profile display. (Not currently used)	All
SYSD1580	E	Browse – main.	All

Appendix H
System Abends and Error Codes

This appendix provides a list of the CICS or system abends that may occur while operating CPMS/SYSD. It identifies the issuing macro or program, describes the reason for the abend, and provides the corrective action to take. If any unlisted abends occur, call H&W Customer Support immediately.

Abend code	Abend type	Issued by	Reason/Corrective action
EOVS	CICS	$EOV	A SYNAD error occurred on a dynamic exception, but a SYNAD exit was not generated for the program.
			If the problem persists, call H&W Customer Support.
J#2A	CICS		A read to the CPMS/SYSD JES work area failed.
			Try issuing the JES2FREE command. If the problem persists, call H&W Customer Support.
J#2B	CICS		A read to the CPMS/SYSD JES work area failed.
			Try issuing the JES2FREE command. If the problem persists, call H&W Customer Support.
OVFL	CICS		SYSD0058 found a buffer overflow condition while outputting data.
			If the problem persists, call H&W Customer Support.

Abend code	Abend type	Issued by	Reason/Corrective action
PANL	CICS		An internal error occurred in SYSD/JFT.
			Get the dump and call H&W Customer Support.
TIME	CICS	SYSD0042	SYSD0042 failed when it issued an interval control START to re-initiate itself on the next hour.
			Make sure you have activated interval control processing in your CICS.
UCTN	CICS	SYSD1550	A potential storage violation was found while translating data to uppercase.
			If the problem persists, call H&W Customer Support.
WKM1	CICS	SYSD0063	One of the spool print programs found a buffer overflow condition while outputting data.
			If the problem persists, call H&W Customer Support.
001	CICS		SYSD0000 failed to attach the SYSDOSTK program.
			Make sure the SYSDOSTK program is in SYSD.LOADLIB and an authorized SYSD.LOADLIB is in the STEPLIB library concatenation for CICS.
099	CICS	$ERROR	A permanent error occurred in a program. CPMS/SYSD usually displays an error message on the terminal or printer.
			Review the error message on the terminal or printer. If the problem persists, call H&W Customer Support.
501	CICS		SYSD0038 found an invalid identification of OSCORE work area or the SYSD/ATP option has insufficient CICS OSCORE.
			Increase the CICS OSCORE to accommodate the SYSD/ATP option.

Abend code	Abend type	Issued by	Reason/Corrective action
600	CICS		A read of the CPMS/SYSD JES work area failed.
			This frequently is an indication that SYSD was assembled with JES2 libraries that are not consistent with &JES2VER in SYSDSETS in SYSD.USRLIB. Similarly it may indicate the JES2 that is running is not consistent with the assemblies.
			If you have recently installed CPMS/SYSD, issue the SYSDTEST command which may provide additional information.
			If you have been successfully running CPMS/SYSD, issue the JES2FREE command. This code may indicate a problem with the JES2 check point information.
			If the problem persists, call H&W Customer Support.
601	CICS		The CPMS/SYSD JES work area had an invalid area ID. A storage violation may have occurred.
			If the problem persists, call H&W Customer Support.
602	CICS		SYSD0070 could not find the SYSD SSCT.
			Make sure you have installed the subsystem interface in the Subsystem Name Table (SSNT) correctly. See "Using the JES2 SRB Queue Read Method" on page 51 for more information.
603	CICS		The release of the CPMS/SYSD work area failed or there was not a PPT entry for SYSDSRB1.
			Make sure there is a PPT entry for SYSDSRB1.

Abend code	Abend type	Issued by	Reason/Corrective action
604, 604A	CICS		CPMS/SYSD had to wait too long to gain control of the CPMS/SYSD JES work area. Try issuing the JES2FREE command. If the problem persists or happens often, call H&W Customer Support.
605	CICS		CPMS/SYSD had to wait too long to gain control of the CPMS/SYSD JES work area. Try issuing the JES2FREE command. If the problem persists or happens often, call H&W Customer Support.
606	CICS		A dynamic memory allocation (GETMAIN) for the MVS CSA JQE/JOE failed. Increase the size of the MVS ECSA in your IPL parameters.
606A, 606B	CICS	SYSD0071	The JES2 HCT/KIT information was not in the correct format. Make sure the correct version of JES2 was specified for the &JES2VER parameter and the correct JES2 libraries were used in the assembly procedures.
607A	CICS	SYSD0071	The JES2 HCT/KIT information was not in the correct format. Make sure the correct version of JES2 was specified for the &JES2VER parameter and the correct JES2 libraries were used in the assembly procedures.
608	CICS	SYSD0070	SYSD0070 tried to get an area out of CSA or ECSA to store the JES2 checkpoint information. You have two options. First, increase the amount of ECSA. See your OS systems programmer. Second, use OSCORE instead of ECSA. To do this, change the checkpoint dataset read mechanism by setting the &JES2SRB parameter in SYSDSETS is set to 0.

Abend code	Abend type	Issued by	Reason/Corrective action
608, 608A, 608B, 608D, 608E	CICS	SYSD0071	SYSD0071 tried to dynamically allocate memory (GETMAIN) for an OSCORE area to store JES2 information and not enough OSCORE was available. Issue the JES2FREE command to release the CICS/OSCORE. If the problem persists, increase the OSCORE parameter of the DFHSIT. If increasing OSCORE restricts the CICS dynamic storage area, you may also have to increase the region size.
609	CICS		SYSD0000 did not enqueue on the SYSDOSTK resource within 6 minutes. SYSD0000 enqueues the resource to create (attach) the auxiliary tasks. Make sure SYSDOSTK is in the STEPLIB library for CICS.
610	CICS		The JES spool read request could not find the expected first, intermediate, or last segment of a spanned record. Correct the invalid JES records or control blocks that manage the spool dataset. If the problem persists, call H&W Customer Support.
611, 611A	CICS		SYSD could not verify the existence of the JES2 DEB for the spool and checkpoint datasets. Make sure the correct JES2 and CICS libraries were used to assemble SYSD0104.
611B	CICS		CPMS/SYSD could not find a JES2 subsystem that matched the &JES2JBI specification. Check the &JES2JBI parameter in SYSDSETS. If a secondary subsystem was specified, make sure it is running before CPMS/SYSD tries to use it.

Abend code	Abend type	Issued by	Reason/Corrective action
611C	CICS		CPMS/SYSD could not find the DSCB for the checkpoint dataset.
			Make sure the correct JES2 and CICS libraries were used to assemble SYSD0071 and SYSD0038.
612	CICS		SYSD emulated a skip-to-channel command for an FCB, but could not find the channel in the FCB.
			Make sure the correct FCB was specified for printing. If it was, update the FCB to indicate the position for the channel requested.
613	CICS		One of the spool print programs found a buffer overflow condition while outputting data.
			If the problem persists, call H&W Customer Support.
615	CICS		The buffer size defined in the SYSDPTBL printer table exceeded the maximum buffer size specified in the printer's TCTTE.
			Make sure the buffer size in SYSDPTBL is less than or equal to the buffer size specified in the TCTTE for the printer.
616	CICS		SYSD0070 could not find the JES2 ASCB.
			Check the &JES2JBI parameter in SYSDSETS. If a secondary subsystem was specified, make sure it is running before CPMS/SYSD tries to use it.
617	CICS		CPMS/SYSD could not find the SSCT.
			Make sure the subsystem interface was installed in the Subsystem Name Table (SSNT) correctly. See the &SYSDSSI parameter in SYSDSETS.
618	CICS		CPMS/SYSD called the JES201 or JES203 user exit and the pointer to the job's JCT was incorrect.
			If the problem persists, call H&W Customer Support.

Abend code	Abend type	Issued by	Reason/Corrective action
619	CICS		A read I/O error occurred while reading the spool or job queue datasets.
			If the problem persists, call H&W Customer Support.
620	CICS		A spool print program found that the originating terminal ID and the printer table forms change terminal ID were blank.
			Make sure a valid forms change terminal exists for the printer in SYSDPTBL. If you are using auto-installed terminals, review the information for the &FORMMSG parameter in SYSDSETS. If the problem persists, call H&W Customer Support.
622	CICS		The spool print program found a UCS with an invalid length.
			Make sure your UCS is not larger than 255 bytes in length.
623	CICS		OPTS=SCSCMP was specified for a printer and the SCS horizontal tab setup commands failed.
			Use the OPTS=RTACMP parameter instead of OPTS=SCSCMP. See the OPTS parameter on page 127 for more information.
624	CICS		OPTS=SCSCMP was specified for a printer and a compression error was found.
			Use the OPTS=RTACMP parameter instead of OPTS=SCSCMP. See the OPTS parameter on page 127 for more information.
625	CICS		OPTS=RTACMP was specified for a printer and a compression error was found.
			Remove the OPTS=RTACMP parameter from the printer entry. See the OPTS parameter on page 127 for more information.

Abend code	Abend type	Issued by	Reason/Corrective action
626	CICS		The number of the JQE/JOE had been changed. This is the result of a cold start of JES2.
			Issue the JES2FREE command.
700	CICS		There was not a PPT entry for a CPMS/SYSD SRB routine.
			Make sure you assembled the PPT entries for CPMS/SYSD to CICS's PPT.
701	CICS		There was not an object code for a CPMS/SYSD SRB routine.
			Make sure the SYSDSRB1 and SYSDSRB2 load modules in SYSD.LOADLIB are all right. If the problem persists, call H&W Customer Support.
702	CICS		CPMS/SYSD ran out of the MVS CSA memory needed to run a CPMS/SYSD SRB routine.
			Increase the size of MVS CSA in your IPL parameter or turn off the JES2SRB mechanism. See the &JES2SRB parameter in SYSDSETS for more information.
703	CICS		An SRB routine returned an unsuccessful completion code.
			If the problem persists, call H&W Customer Support.
750	CICS		SYSD could not find the function code SYSDINIT issued.
			If the problem persists, call H&W Customer Support.
751	CICS		CPMS/SYSD could not find the program for a requested SYSDINIT function code.
			If the problem persists, call H&W Customer Support.

Abend code	Abend type	Issued by	Reason/Corrective action
752	CICS		The requested SYSDINIT function code was disabled.
			The function was disabled during installation. See the person who installed CPMS/SYSD.
753	CICS		The conversational manager found an error while trying to write its temporary storage queue.
			Make sure you have defined enough auxiliary temporary storage in CICS.
754	CICS		The conversational manager found an error while trying to find an element in temporary storage.
			If the problem persists, call H&W Customer Support.
755	CICS		The conversational manager could not create a new function level.
			If the problem persists, call H&W Customer Support.
756	CICS		The conversational manager found an unexpected ID while reading an auxiliary temporary storage record.
			Make sure the CISIZE of your auxiliary temporary storage meets CPMS/SYSD's requirements.
757	CICS		The help control stacks in SYSD0133 were full.
			If the problem persists, call H&W Customer Support.
758	CICS		The maximum levels of help in SYSD0133 were exceeded.
			If the problem persists, call H&W Customer Support.

Abend code	Abend type	Issued by	Reason/Corrective action
759	CICS		CPMS/SYSD tried to delete an empty help stack.
			If the problem persists, call H&W Customer Support.
760	CICS		A read error occurred while trying to access the help file.
			Make sure the &HELPDSN parameter in SYSDSETS specifies the name of the SYSD help dataset and the dataset is cataloged.
761	CICS	CMRTNS	A swap partition member could not be found.
			If the problem persists, call H&W Customer Support.
762	CICS	$LOCSBRT	The beginning of the subroutines table could not be found.
			If the problem persists, call H&W Customer Support.
763	OS	$UCBRTNS	UCBLOOK returned a UCB address above the line. Theoretically, your operating system must be ESA 5.2 or OS/390 for UCBLOOK to return a UCB address above the line.
			Call H&W Customer Support for assistance.
80A	OS		SYSD could not dynamically allocate memory (GETMAIN) from the OSCORE area in CICS's region or partition. Use the formula in "Calculating CPMS/SYSD's Memory Requirements" on page 42 to determine the size.
			Increase the OSCORE value in the SIT and re-execute CICS.
900	CICS	SYSD1080	SYSD1080 generated this abend.
			Make sure you initialized the editor work file with the EDITINIT function.

Abend code	Abend type	Issued by	Reason/Corrective action
901	CICS	SYSD1080	A SLAM bit map error was found in the editor. If the problem persists, call H&W Customer Support.
990	CICS	$CHECK	A SYNAD error occurred on a dynamic exception and a SYNAD exit had not been generated for the program. If the problem persists, call H&W Customer Support.
997	CICS	$EXCOS	A required auxiliary task was unavailable. Make sure SYSDOSTK is in the STEPLIB library for CICS. If the problem persists, call H&W Customer Support.
998	CICS	$EXCOS	The auxiliary task abended while executing the current function. Make sure SYSDOSTK is in the STEPLIB library for CICS. Check the operating system console output for additional information on the abend. If the problem persists, call H&W Customer Support.
999	CICS	SYSD0038	A relative track address (MTTR) could not be converted to an actual track address (MBBCCHHR). If the problem persists, call H&W Customer Support.
Fxx	OS		The wrong SVC number was used. The last 2 digits of the abend code are the SVC number in hexadecimal. If this does not match the SVC number specified for the &SYSDSVC parameter in SYSDSETS, correct SYSDSETS and reassemble SYSDINIT. You may also need to rerun the STG1ASM job to re-create the INSTSVC member so you can reinstall the SVC using the correct SVC number.

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