

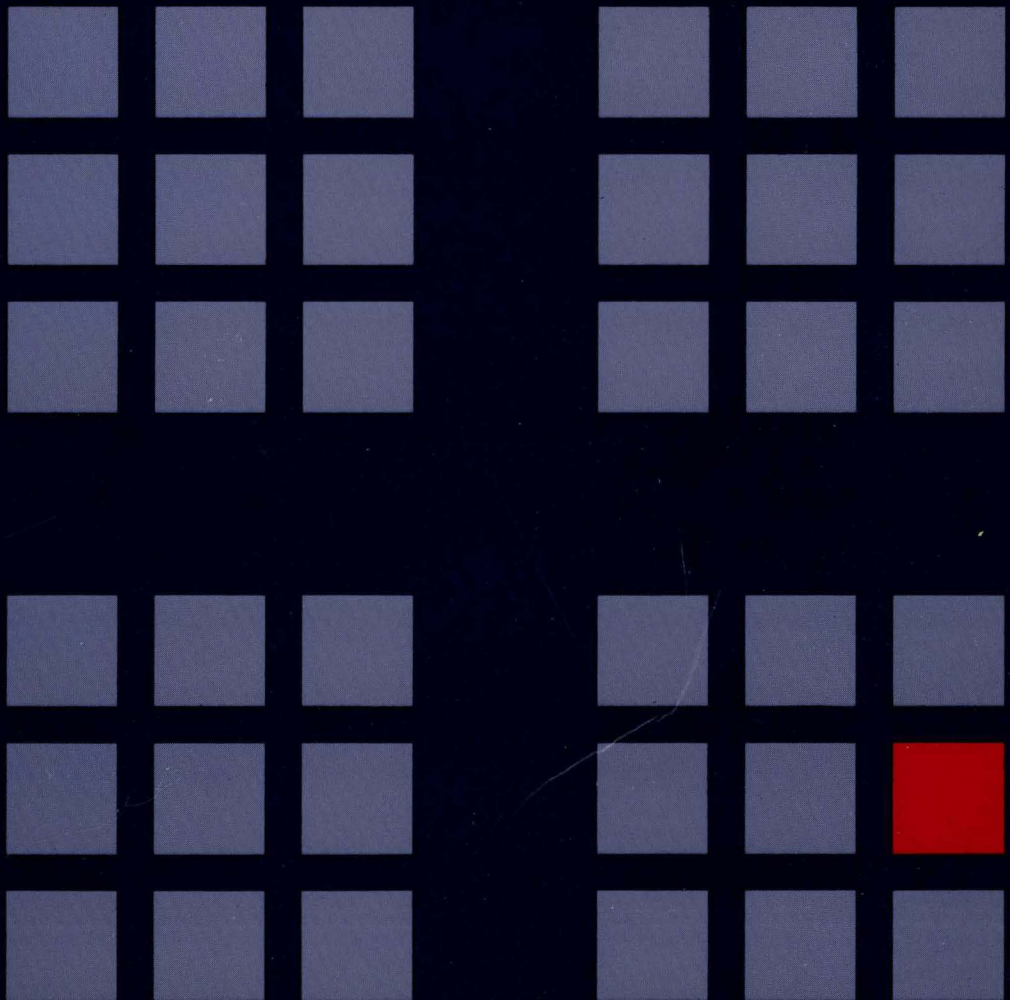


Virtual Machine/System Product  
High Performance Option

GC23-0187-4

# Library Guide and Master Index

Release 6





Virtual Machine/System Product  
High Performance Option

GC23-0187-4

**Library Guide and Master Index**

Release 6



The term "VM/SP High Performance Option" applies to the VM/SP High Performance Option Licensed Program when used in conjunction with the VM/System Product Licensed Program.

**Fifth Edition (June 1989)**

This is a major revision of GC23-0187-3.

This edition applies to Release 6 of IBM Virtual Machine/System Product High Performance Option (program number 5664-173). To order previous editions of the *VM/SP HPO Library Guide, Glossary, and Master Index*, use the following temporary order numbers:

Release 5        GT00-2749-00

Release 4.2     GT00-1914-00

Changes are made periodically to the information herein; before using this publication to operate IBM systems, consult the latest *IBM System/370, 30xx, and 4300 and 9370 Processors Bibliography*, GC20-0001, for the editions that are applicable and current.

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM licensed program in this publication is not intended to state or imply that only IBM's licensed programs may be used. Any functionally equivalent program may be used instead.

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## Preface

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### Purpose of This Book

This manual explains the organization of the VM/SP HPO library and provides a master index to the contents of the library.

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### Who Should Read This Book

The audience for this manual consists of anyone who uses manuals in the VM/SP HPO library.

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### What This Book Contains

This book describes how the library is organized and which manual to read first. It explains the tasks, cover design, and the relationships between the tasks and the colors of the covers. It also describes the changes to the library for Release 6, discusses the publications that are shipped with the product tape, and tells how to order additional copies of publications. It contains abstracts of the manuals in the VM/SP HPO library.

The "Master Index" is a guide to the VM/SP HPO library. It directs you to the publications that contain the specific information you are seeking. The entries are extracted from the indexes of the VM/SP HPO publications listed at the beginning of the chapter.

The "Master Index Table" lists the abbreviations and order numbers for each of the VM/SP HPO publications. This table is repeated on a foldout sheet at the end of the manual.

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### How To Use This Book

When using this publication, you should:

- Refer to Chapter 1 to learn about the organization of the VM/SP HPO library, the related VM/SP library, and the contents of the individual manuals in the library. Use Chapter 1 to determine whether a manual is really the correct one for your needs.
- Refer to Chapter 2 for a specific item of VM/SP HPO information; this section points you to the publication(s) containing information about a particular subject. Use this chapter to determine the appropriate manual, by topic.



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## Chapter 1. The VM/SP HPO Library

In this chapter you can learn about the organization of the entire library as well as the contents of the individual manuals. This information will help you determine the proper VM/SP HPO manual for your needs. This chapter also discusses the publications that you receive with the product tape and how to order additional copies.

### What Manual Should I Read First?

Each VM/SP HPO manual focuses on one task (like installation). In it are smaller subtasks (like installing hardware or installing an optional program). We suggest that you read the *VM/SP HPO Release 6 Guide* first. It provides current users with a synopsis of the functional enhancements offered by Release 6. It describes functional enhancements, defines the related user interfaces, and gives examples of their use. Once you have read this manual, you can more easily decide what other manuals you will want to use. Remember, any manual you choose depends on the task you want to do.

### How Do I Use an Individual Manual?

The first time you use a manual, start with its *Preface*. This will introduce you to the manual's:

- Purpose
- Audience
- Main subject.

Next, look at the *Bibliography*. This gives you a list of:

- Fundamental IBM publications
- VM/SP HPO and VM/SP publications
- Additional publications related to the material in that particular manual.

If you want to locate a subtask in a manual:

- Look at the *Table of Contents* in the front. In it you will see what each chapter and appendix contains.
- Look at the *Index* in the back. Its pages contain detailed references to the manual's contents.

If you want to know what has changed in a manual:

- Look at the *Summary of Changes* immediately preceding the *Bibliography*. It describes the support that was added since the previous release.
- Look at the *revision bars* to the left of the text. They highlight the lines that have been added or changed since the previous release. Revision bars appear to the left of the changed text, and provide a quick way to find the new or changed information. Look to the left of this sentence to see a revision bar.

If you want to comment about the manual or suggest improvements to it, fill out the postpaid reader's comment form included at the back. Users in countries other than the United States can submit their comments free by giving them to their IBM representative.



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## What Are the Tasks that the VM Library Supports?

The VM/SP HPO library is organized according to nine major tasks that VM computer users do. The tasks are:

<b>Evaluation</b>	Examining and judging the applicability of this release to your installation.
<b>Planning</b>	Making fundamental decisions about the options of this release. Planning is an iterative task—many of the decisions are made before installation, continually evaluated after installation, and revised as appropriate.
<b>Installation</b>	Making this release ready to do useful work.
<b>Administration</b>	Managing your data processing resources. The resources may be data files, data bases, programs, users, and so on.
<b>Customization</b>	Enhancing, extending, and otherwise altering this release to meet an installation's special requirements.
<b>Operation</b>	Getting this release running, monitoring it to keep it operating, and shutting it down when no longer needed.
<b>Application Programming</b>	Designing, coding, compiling, executing, debugging, and maintaining application programs to perform certain functions according to your installation's needs.
<b>End Use</b>	Using the commands and macros provided by VM and finding information throughout the library.
<b>Diagnosis</b>	Identifying, describing, reporting, and correcting problems.

### Binders Are Available

Binders, made to coordinate with the manuals, are available. Binders and labels of manual titles that suggest a library organization can be ordered separately.

## What Does the Cover Design Mean?

The cover design of each manual is a graphic that is printed in a color that identifies the major task associated with the particular manual.

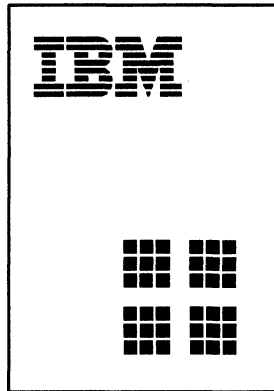


Figure 1. Cover Design

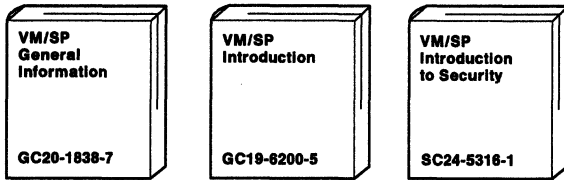
The graphic design on the covers and binder inserts represents the system image of VM. The individual squares represent multiple virtual machines within a real machine of a VM system. These squares form a plus sign, indicating that VM/SP HPO adds additional functions to VM/SP.

A portion of the cover design is printed in different colors on the covers of the manuals. The color represents the major task associated with the publication. The colors and tasks are as follows:

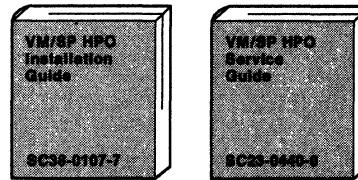
<b>Blue</b>	Evaluation
<b>Green</b>	Planning
<b>Red</b>	Installation
<b>Purple</b>	Diagnosis
<b>Orange</b>	Customization
<b>Yellow</b>	Operation
<b>Cranberry</b>	End Use
<b>Turquoise</b>	Administration
<b>Pink</b>	Application Programming

The library chart that follows shows you the task-oriented design of the VM/SP and VM/SP HPO libraries and related books.

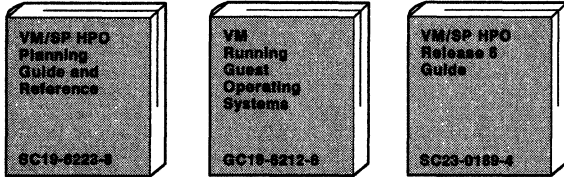
**Evaluation**



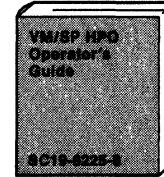
**Installation and Service**



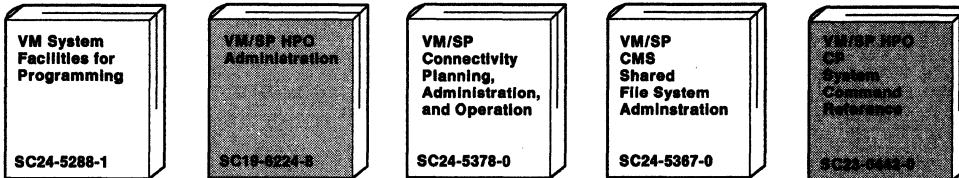
**Planning**



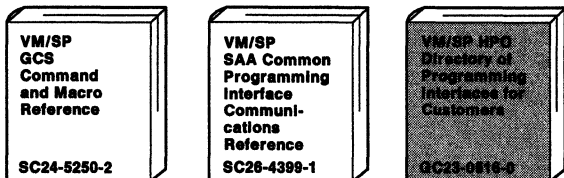
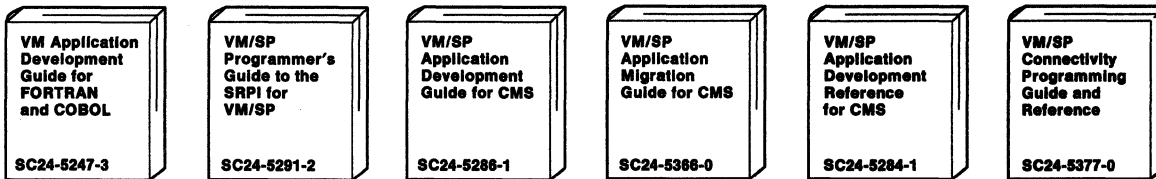
**Operation**



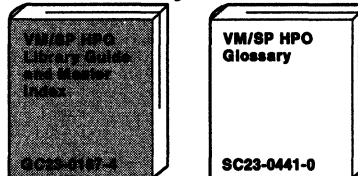
**Administration**



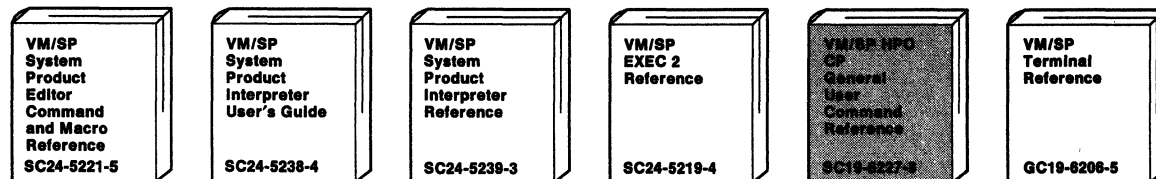
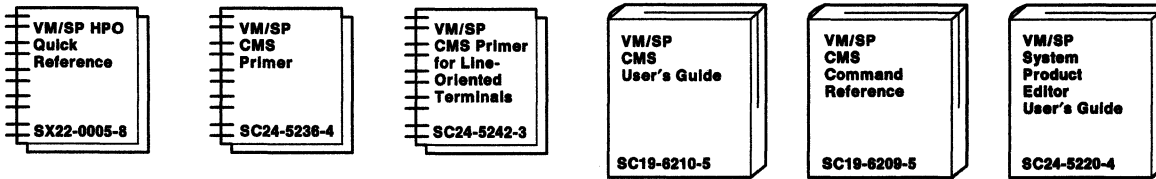
**Application Development**



**Index/Glossary**



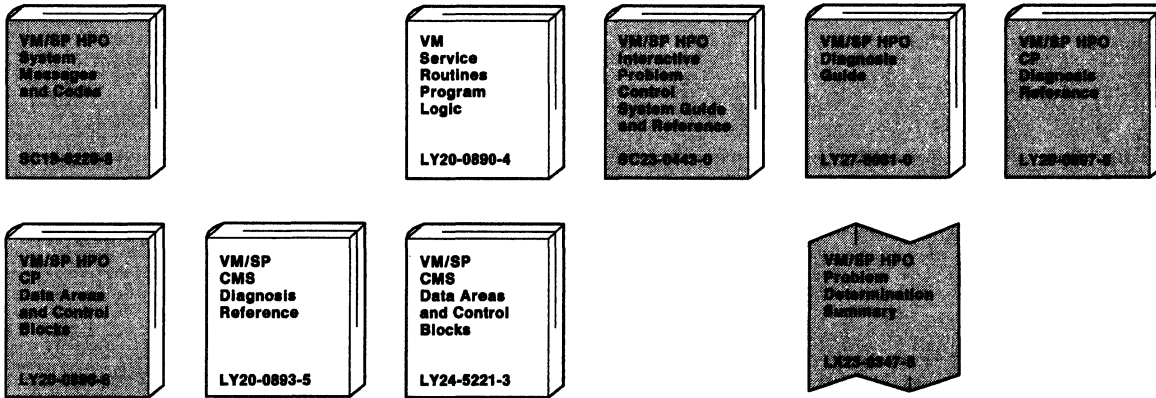
**End Use**



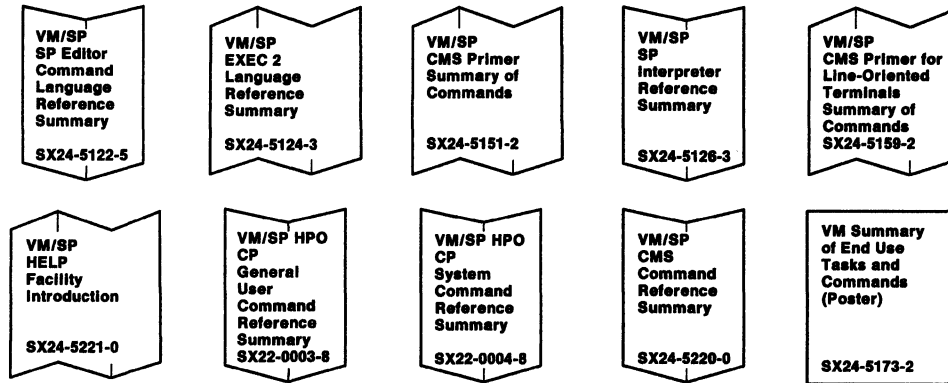
 one copy of each shaded manual automatically received with the VM/SP HPO product tape

Figure 2 (Part 1 of 2). The VM/SP and VM/SP HPO libraries and related books

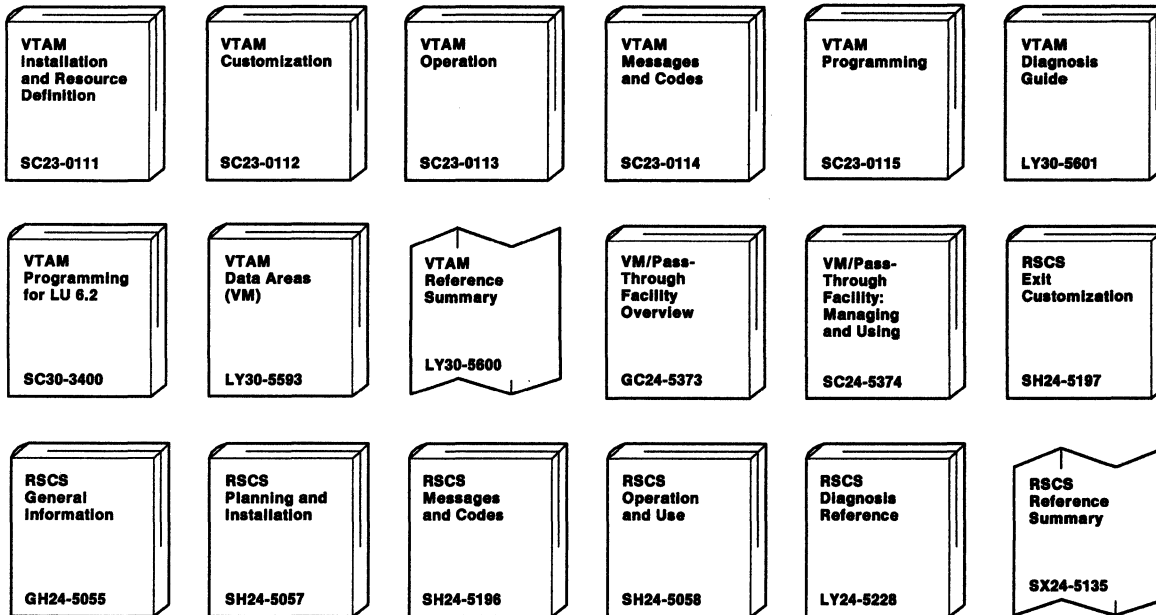
## Diagnosis



## Reference Summaries



## Auxiliary Communication Support



 one copy of each shaded manual automatically received with the VM/SP HPO product tape

Figure 2 (Part 2 of 2). The VM/SP and VM/SP HPO libraries and related books

# Manual Organization

## Titles

The first part of the title of a manual identifies the licensed program that is the subject of the manual; the subsequent parts more specifically identify the subject. For example, the first part of the title *Virtual Machine/System Product High Performance Option Planning Guide and Reference* identifies the product as a Virtual Machine/System Product High Performance Option, and the second part identifies the task that the manual describes, namely, planning for a system.

Certain words in the title indicate the level or kind of information that the manual contains. *Introduction* and *general information* indicate general and conceptual material, especially for licensed program manuals. These introductory manuals contain basic information on their subjects and develop the vocabulary used by more detailed manuals.

A *guide* generally contains procedural information or step-by-step instructions on how to do something; for example, the *Virtual Machine/System Product High Performance Option Installation Guide*.

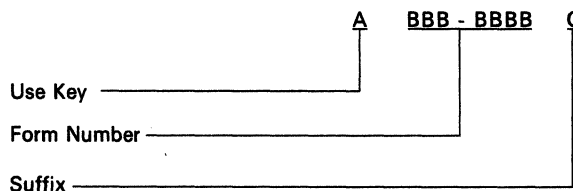
A *reference* manual is a source of information usually arranged alphabetically, such as the *Virtual Machine/System Product High Performance Option CP General User Command Reference*.

A *logic* manual is a kind of reference manual that describes the internal structure of a product, for example, *Virtual Machine Service Routines Program Logic*.

A *messages* manual is a kind of reference manual that lists and explains the communications that the system makes to the user and suggests appropriate responses or actions. *Virtual Machine/System Product High Performance Option System Messages and Codes* is an example of a title for a messages manual.

## Order Numbers, File Numbers, and Subject Codes

Each VM/SP HPO manual is identified by a unique order number. To order a particular manual, you should use this number. It consists of three parts: the use key, the form number, and the suffix.



The use key (A) is a letter that indicates the availability of the manual.

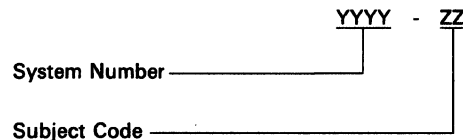
*G*, for *general*, means that the manual is available without charge to users of IBM systems.

*S* means that the manual is for *sale*.

*L* means that the manual is available only to *licensed* users of a particular licensed program.

The form number (B) uniquely identifies the manual. The suffix (C) helps to identify the revision version of the manual. The first edition of a manual has a suffix of 0.

File numbers appear on the back covers of the VM/SP HPO system manuals. These numbers are designed to aid filing in customer libraries and to provide an easy reference into the system bibliography. The file number consists of two parts: the system number and the subject code.



The system number for the VM/SP HPO library is S370.

The following list includes subject codes used in the VM/SP HPO library.

- 20 General Information: Evaluation, Flyers
- 34 System Planning, Installation, Generation, Administration, Performance, Resource Definition, SMF
- 36 Control Program (e.g. Supervisor, JCL, IPL, Job Management, Data Areas, Checkpoint/Restart)
- 37 Diagnosis, Problem Determination, Auditing, Service Aids
- 39 Time Sharing, Interactive System
- 40 Operations (e.g. Messages, Codes, Application Development)
- 50 DB/DC (CICS, IMS, ACF, GIS, DL/I,...)

For a complete list of subject codes, refer to the *IBM System/370, 30xx, 4300, and 9370 Processor Bibliography*, GC20-0001.

## Ordering Release 6 Publications

Certain manuals (entitled manuals) in the VM/SP HPO Release 6 library will be shipped with the product tape. Automatic updates (new releases, technical newsletters and revisions between releases) will be sent automatically. These manuals are shaded on the two-page library organization chart beginning on page 4.

The manuals in the *Diagnosis* category of the library diagram whose order numbers begin with an L use-key are only available to licensed users. You can specify individual use-key L manuals to be shipped with the product by ordering their individual feature codes. These will be charged for, however.



The set which you will receive automatically does not include all the books that are available. You can order the other manuals in the Release 6 VM/SP HPO library, or multiple copies of any manual, through your IBM marketing representative. Use the order number, *without* the suffix, of the book(s) you need. This will ensure that you get the most current version.

You can also *subscribe* to these other manuals, or to multiple copies of any manual, by using the System Library Subscription Service (SLSS). See "System Library Subscription Service (SLSS)" on page 29 for more information about SLSS.

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## What Are Some of the Changes in the Release 6 Library?

The structure of the VM Library is changed for VM/SP Release 6 and VM/SP HPO Release 6. The information is reorganized so that each book relates more closely to a specific task. Some publications have been eliminated, and the information is provided in new or reorganized publications. In addition, information is added for the new support in Release 6.

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## What Publications Have Split?

The following publications split into two books:

- *VM/SP HPO CP Command Reference* is now:
  - *VM/SP HPO CP General User Command Reference*
  - *VM/SP HPO CP System Command Reference*.
- *VM/SP HPO Library Guide, Glossary, and Master Index* is now:
  - *VM/SP HPO Library Guide and Master Index*
  - *VM/SP HPO Glossary*.
- *VM/SP HPO Installation Guide* is now:
  - *VM/SP HPO Installation Guide*
  - *VM/SP HPO Service Guide*.

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## What Publications Are Renamed?

The titles of the following books have changed:

- *VM/SP HPO CP for System Programming* is now *VM/SP HPO Administration*
- *VM/SP HPO CP Command Reference* is now *VM/SP HPO CP General User Command Reference*
- *VM/SP HPO System Logic and Problem Determination Guide—CP* is now *VM/SP HPO CP Diagnosis Reference*
- *VM/SP HPO Data Areas and Control Block Logic—CP* is now *VM/SP HPO CP Data Areas and Control Blocks*
- *VM/SP HPO Service Routines Program Logic* is now *VM Service Routines Program Logic*.

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## What Publications Are New?

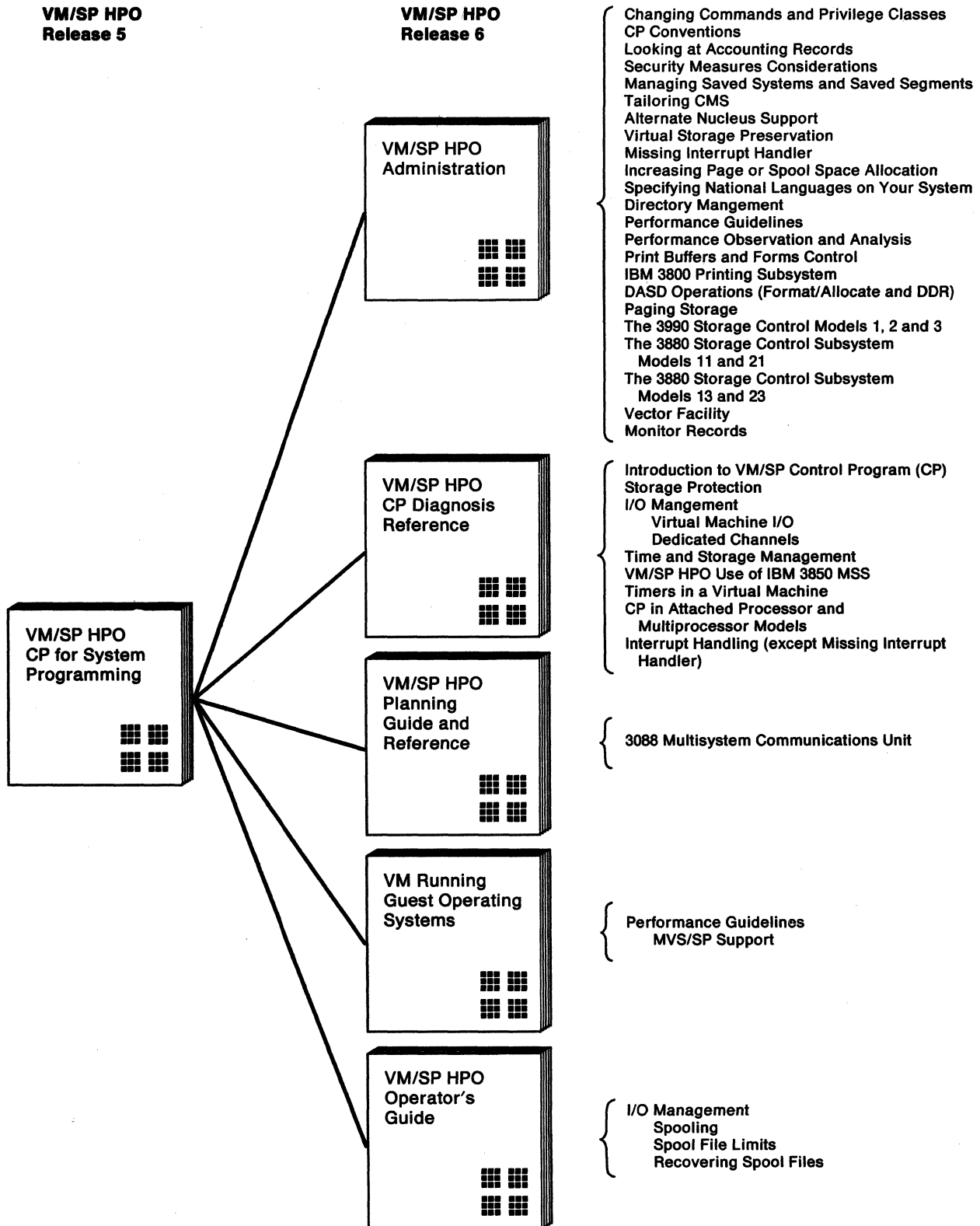
Some new titles that you will notice in this release are:

- *VM/SP HPO CP System Command Reference*
- *VM/SP HPO Diagnosis Guide*
- *VM/SP HPO Interactive Problem Control System Guide and Reference*
- *VM/SP HPO Glossary*
- *VM/SP HPO Service Guide*
- *VM/SP HPO Directory of Programming Interfaces for Customers*.

Refer to the following pages to find out how these publications fit into the structure of the library and to the “Abstracts of Manuals” on page 32 for descriptions of their contents.

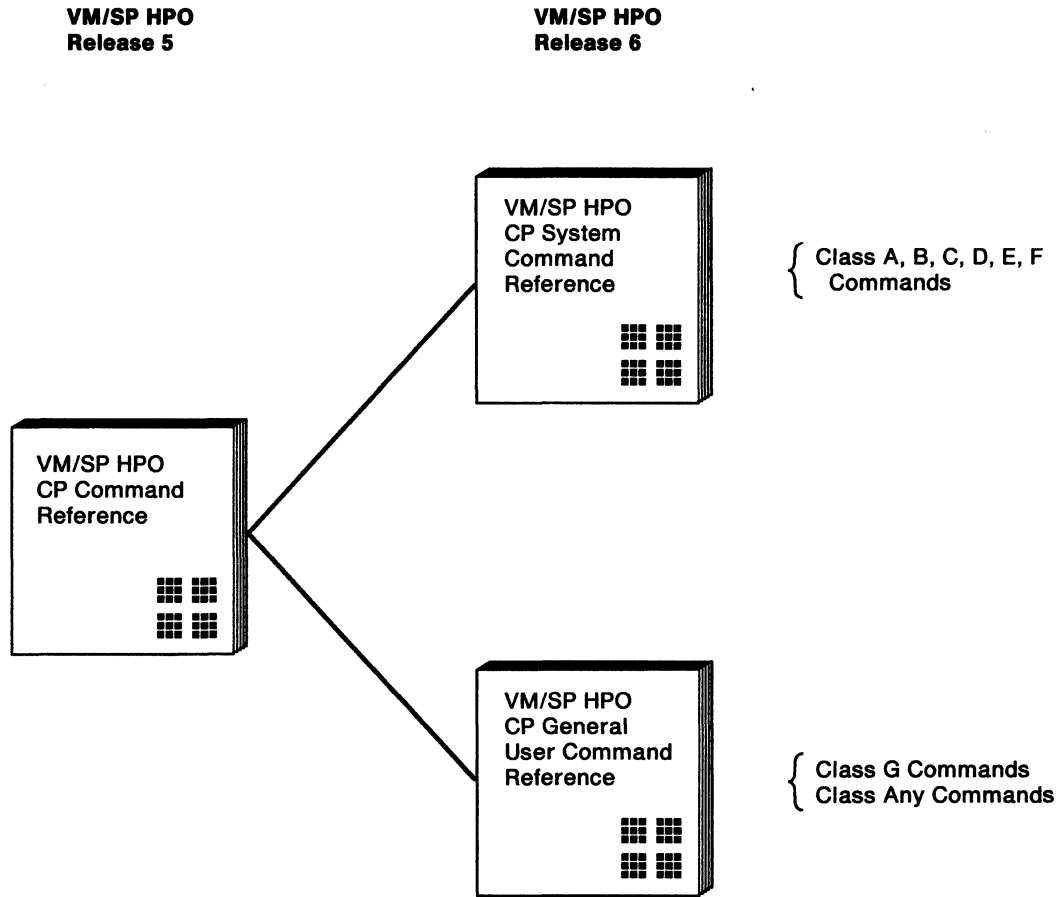
# CP for System Programming Is Renamed and Reorganized

You can now find the information that was in the *VM/SP HPO CP for System Programming* in the following Release 6 publications:



## CP Command Reference is Split

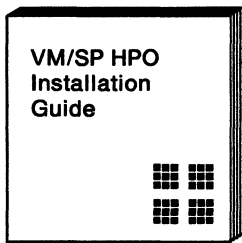
You can now find the information that was in the *VM/SP HPO CP Command Reference* in the following Release 6 publications:



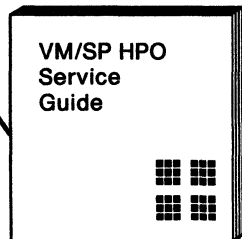
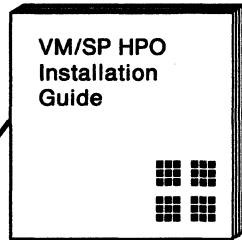
## Installation Guide is Split

You can now find the information that was in the *VM/SP HPO Installation Guide* in the following Release 6 publications:

**VM/SP HPO  
Release 5**



**VM/SP HPO  
Release 6**



Introduction  
 Planning Your VM/SP HPO Installation  
 Installing VM/SP HPO Using a Starter System  
 Installing VM/SP HPO Using an Existing System  
 Verifying Your Installed VM/SP HPO System  
 Installing Saved Segments  
 Installing a New System National Language  
 Tools  
 Minidisks and SFS Directories Reserved  
 for the MAINT Userid  
 Restricted Logon Passwords  
 Sample SPLOAD PROFILE  
 Special Options for CP  
 Migrating Spool Files Using  
 SHUTDOWN/WARM IPL  
 Enlarging the CMS Nucleus to Contain  
 the Y-Disk Directory (Y-STAT)  
 Example of Alternate CMS Nucleus  
 Placement  
 Example of Alternate GCS Nucleus  
 Placement  
 Considerations for the Placement of the  
 the DOS-Related Saved Segments  
 Sample EXEC Procedure for Copying VSE  
 Macros into a CMS MACLIB

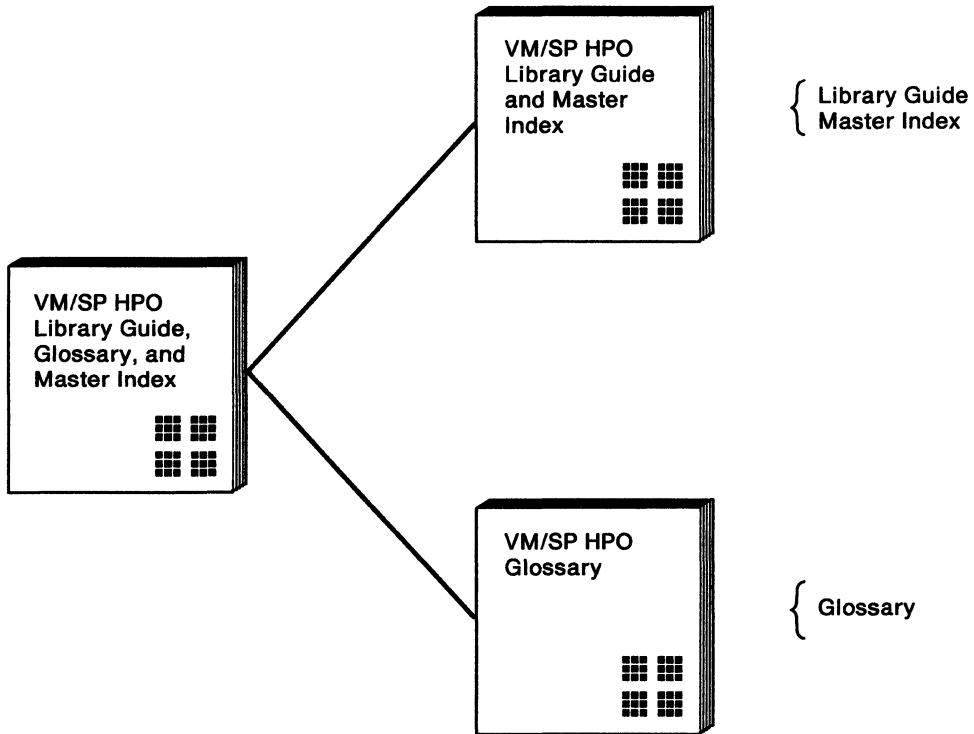
Introduction to VM/SP HPO Service  
 Service Files  
 Service Control Structures  
 Product Parameter File  
 PUT/COR Service Procedure  
 Local Service  
 Tools  
 Sample VM/SP Product Parameter File  
 IBM-Supplied Control Files  
 Servicing SNA Products

## Library Guide, Glossary, and Master Index is Split

You can now find the information that was in the *VM/SP HPO Library Guide, Glossary, and Master Index* in the following Release 6 publications:

**VM/SP HPO  
Release 5**

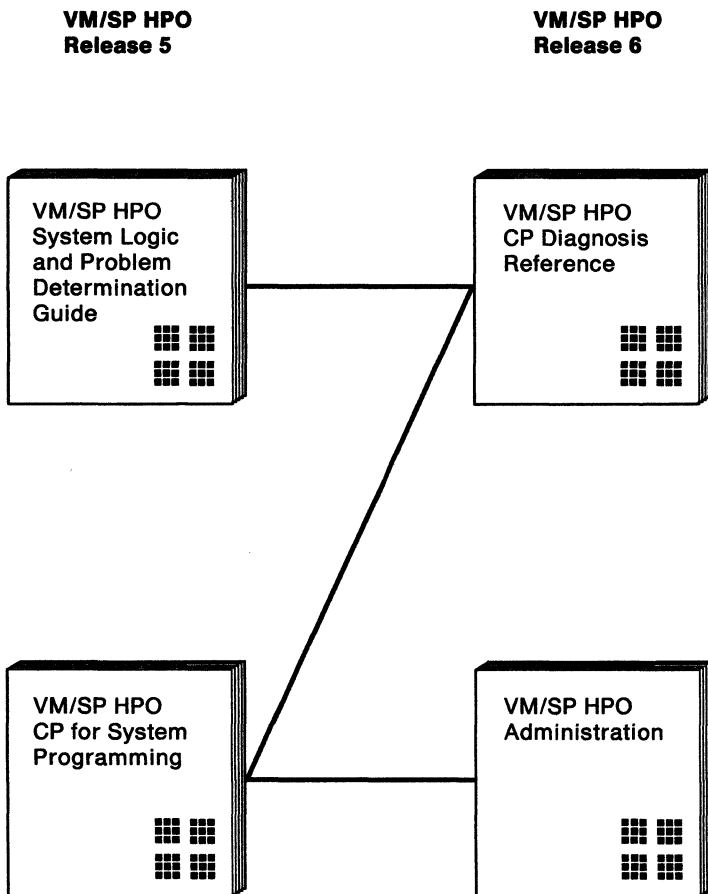
**VM/SP HPO  
Release 6**





## System Logic and Problem Determination Guide Is Renamed

The *VM/SP HPO System Logic and Problem Determination Guide* is renamed for Release 6 as the *VM/SP HPO CP Diagnosis Reference* and has incorporated some material from *VM/SP HPO CP for System Programming*.

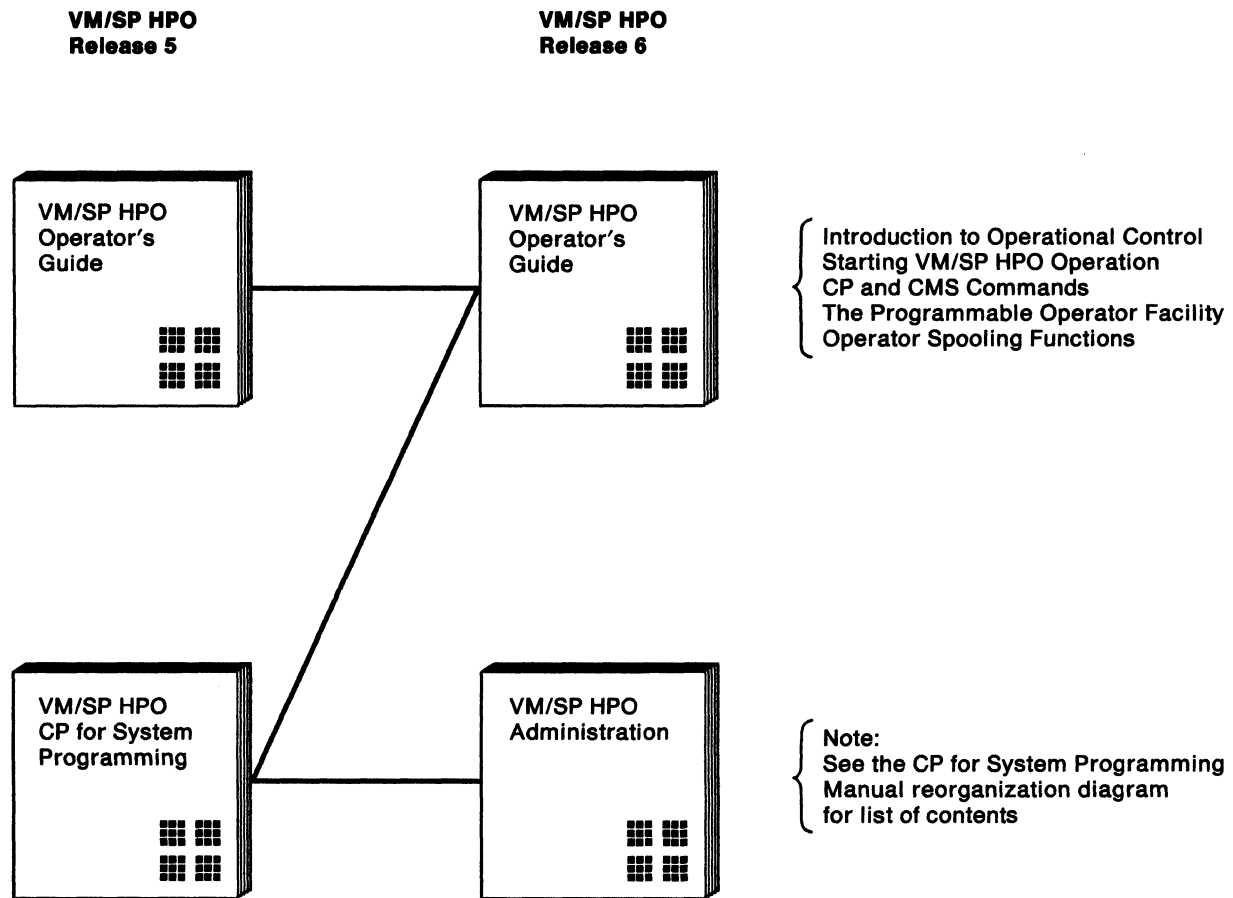


Introduction to the VM/SP HPO Control Program  
 CP Commands and Messages  
 System Initialization  
 Timer Management  
 Storage Management  
 Free Storage Management  
 I/O Management  
 Interrupt Handling  
 Communication Facilities  
 Spool Management  
 Error Management  
 System Failure Recovery  
 The Attached Processor and Multiprocessor Environments  
 CP Annotated Flow Diagrams  
 CP Module Entry Point Directory  
 Entry Points for CP Commands  
 Function Codes for DIAGNOSE Instruction  
 Access Verification Routines  
 Extended Control-Program Support  
 VM/SP HPO Use of the IBM 3850 Mass Storage System  
 MVS/System Extensions/Product Support

Note:  
 See the CP for System Programming manual reorganization diagram for list of contents

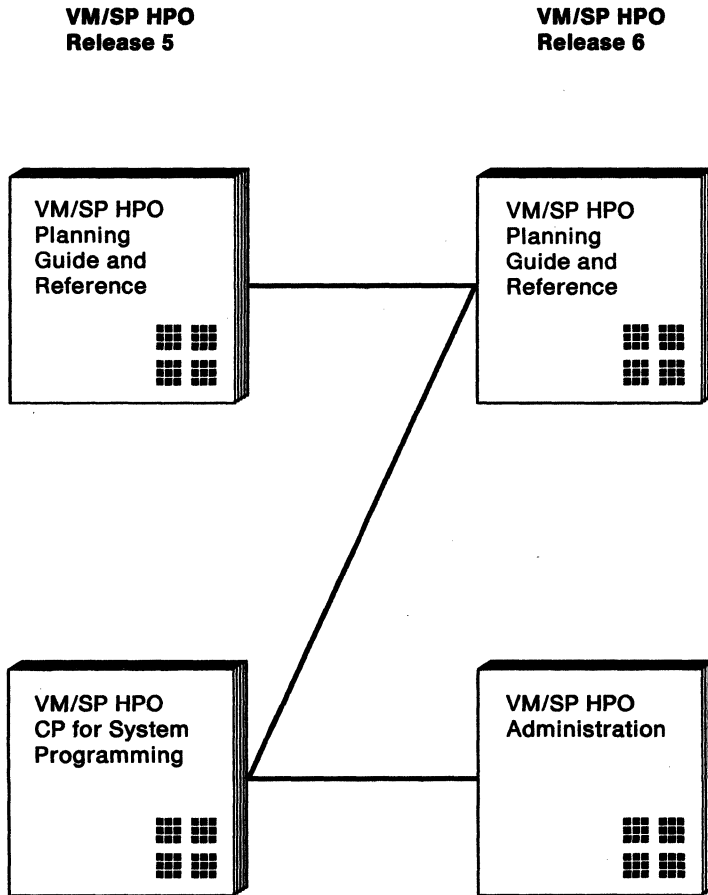
## Operator's Guide is Reorganized

The *VM/SP HPO Operator's Guide* has incorporated additional information from *VM/SP HPO CP for System Programming* for Release 6.



## Planning Guide and Reference is Reorganized

The *VM/SP HPO Planning Guide and Reference* has incorporated additional information from *VM/SP HPO CP for System Programming* for Release 6.



Introduction to Planning and VM/SP HPO  
Planning Device Configurations  
for VM/SP HPO  
Estimating CP Storage Requirements  
Planning for Other VM/SP HPO Areas  
Extending VM/SP HPO  
Planning for I/O  
Planning for Hardware Devices  
Creating Your Directory  
Preparing the Real I/O Configuration  
File (DMKRIO)  
Preparing the CP System Control  
File (DMKSYS)  
Preparing the System Name Table  
File (DMKSNT)  
Additional System Definition Files  
Configuration Aid  
VM/SP HPO Restrictions  
Worksheet to Aid in Coding the  
NAMESYS Macro  
Sample SNTMAP Output

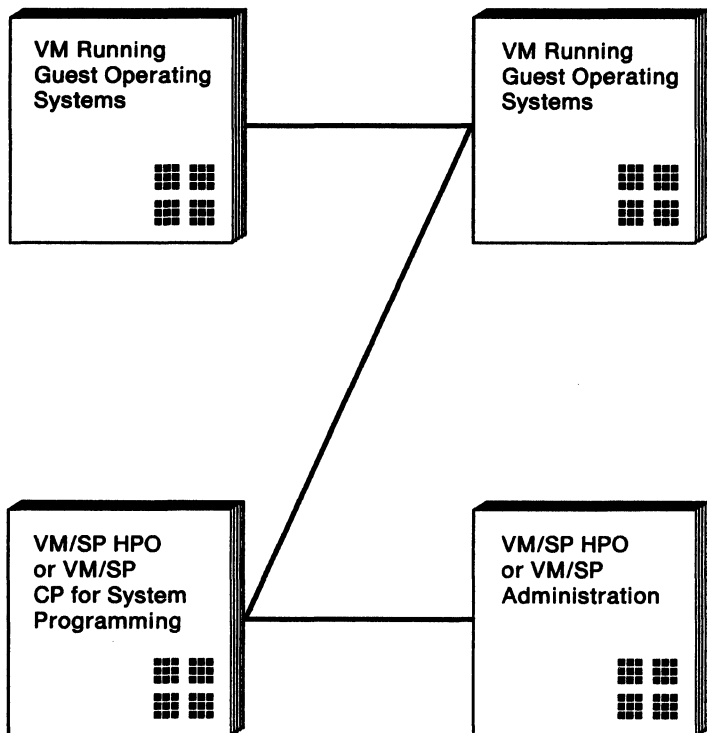
**Note:**  
See the CP for System Programming  
manual reorganization diagram  
for list of contents

# Running Guest Operating Systems is Reorganized

*VM Running Guest Operating Systems* has incorporated additional information from *VM/SP HPO CP for System Programming* for Release 6.

**VM/SP HPO and VM/SP  
Release 5**

**VM/SP HPO and VM/SP  
Release 6**



Introduction to Running VSE/SP Version 2 or 3 Under VM  
Defining a Single VSE/SP Virtual Machine  
Operating a VSE/SP Virtual Machine  
VSE/SP Virtual Machines Sharing DASD  
Introduction to Running MVS/SP Under VM/SP HPO  
Defining a Basic MVS/SP Virtual Machine  
Enhancing MVS/SP Performance Under VM/SP HPO  
More About Operating an MVS/SP Virtual Machine  
MVS Virtual Machines Sharing DASD  
Introduction to Running VM Under VM  
Defining the First and Second-Level VM Systems  
Operating VM Under VM

Note:  
See the CP for System Programming manual reorganization diagram for list of contents

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## What Publications Will I Receive with the Product Tape?

For VM/SP HPO Release 6, you will receive the following publications with the product tape:

*VM/SP HPO Release 6 Guide*

*VM/SP HPO Licensed Program Specifications*

*VM/SP HPO Directory of Programming Interfaces for Customers*

*VM/SP HPO Library Guide and Master Index*

*VM/SP HPO Administration*

*VM/SP HPO Planning Guide and Reference*

*VM/SP HPO Operator's Guide*

*VM/SP HPO Installation Guide*

*VM/SP HPO CP General User Command Reference*

*VM/SP HPO CP System Command Reference*

*VM/SP HPO System Messages and Codes*

*VM/SP HPO Service Guide*

*VM Running Guest Operating Systems*

*VM/SP HPO Interactive Problem Control System Guide and Reference*

*VM/SP HPO CP Diagnosis Reference*

*VM/SP HPO CP Data Areas and Control Blocks*

*VM/SP HPO Diagnosis Guide*

*VM/SP HPO Problem Determination Summary.*

You will not receive the binders or labels. You must order them separately.

---

## Ordering Additional Copies of Manuals

You may use SLSS (see “System Library Subscription Service (SLSS)” on page 29) to order additional copies of VM/SP HPO manuals individually by using the individual order numbers. Or, you may use bill of form numbers (BOFs) to order entire sets of manuals. Three BOFs exist so you can easily order:

- The VM/SP HPO library as a set
- The combined VM/SP HPO and VM/SP libraries as a set
- The VM/SP library as a set.

**Note:** For Release 6, the VM/SP HPO BOFs do not include binders. You must order them separately.

## Ordering the VM/SP HPO Library as a Set

To order the VM/SP HPO library as a set, use bill of form number SBOF-2020. You receive labels and 16 publications:

- *VM/SP HPO Directory of Programming Interfaces for Customers*
- *VM/SP HPO Licensed Programming Specifications*
- *VM/SP HPO Library Guide and Master Index*
- *VM/SP HPO Glossary*
- *VM/SP HPO Release 6 Guide*
- *VM/SP HPO Planning Guide and Reference*
- *VM Running Guest Operating Systems*
- *VM/SP HPO CP General User Command Reference*
- *VM/SP HPO CP System Command Reference*
- *VM/SP HPO Installation Guide*
- *VM/SP HPO Service Guide*
- *VM/SP HPO Administration*
- *VM/SP HPO Interactive Problem Control System Guide and Reference*
- *VM/SP HPO Operator's Guide*
- *VM/SP HPO System Messages and Codes*
- *VM/SP HPO Quick Reference.*

Binders do not come with SBOF-2020. You must order them separately. The order number for one binder is SX33-0399. Order six binders for the unlicensed publications. If you order the licensed publications, you will need two additional binders. In addition, you may want to order an extra binder to hold manuals that IBM issues between releases.

Figure 3 on page 20 shows the arrangement of the VM/SP HPO manuals in binders with labels.



**VM/SP HPO Library in Binders**

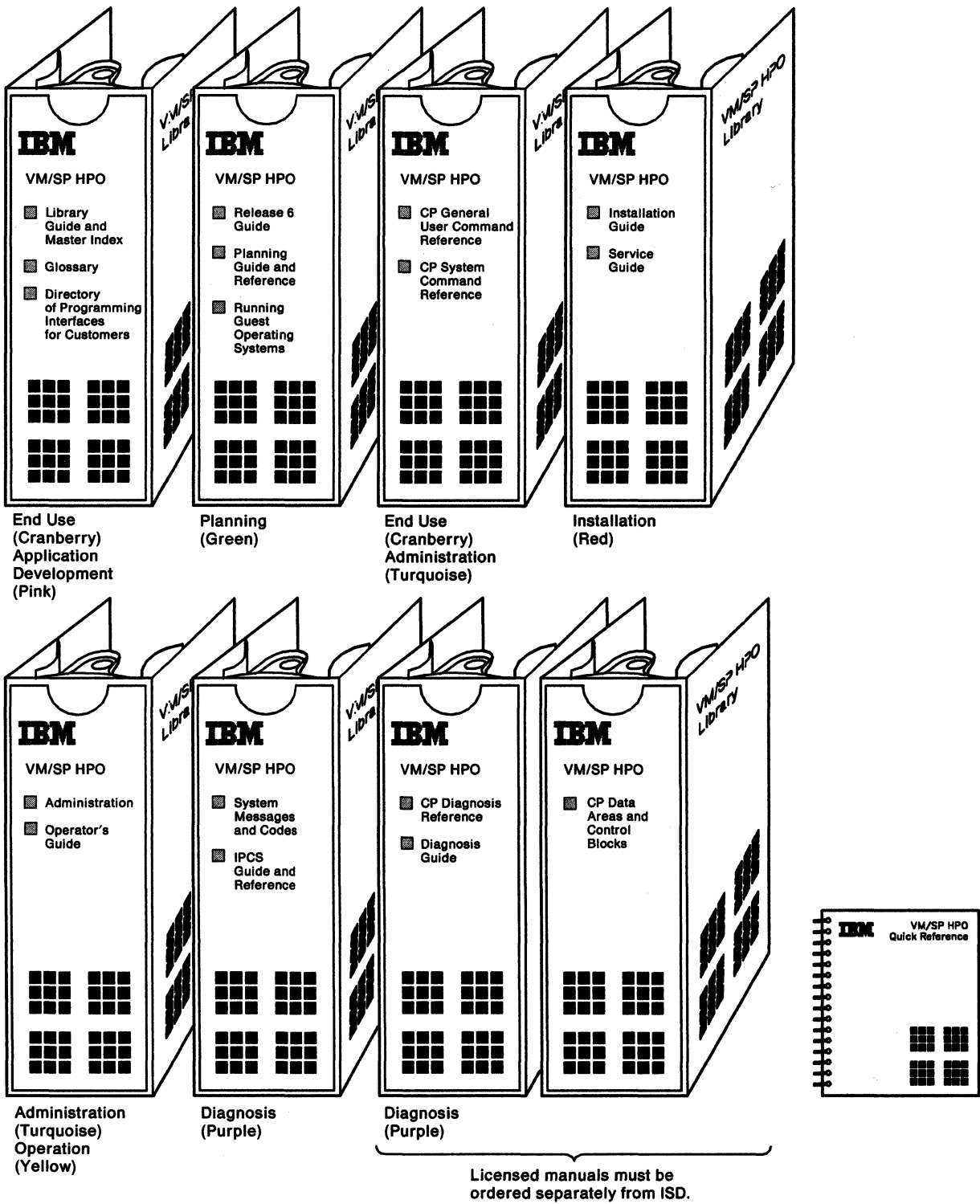


Figure 3. Ordering and Organizing the VM/SP HPO Library

## Ordering the Combined VM/SP HPO and VM/SP Libraries as a Set

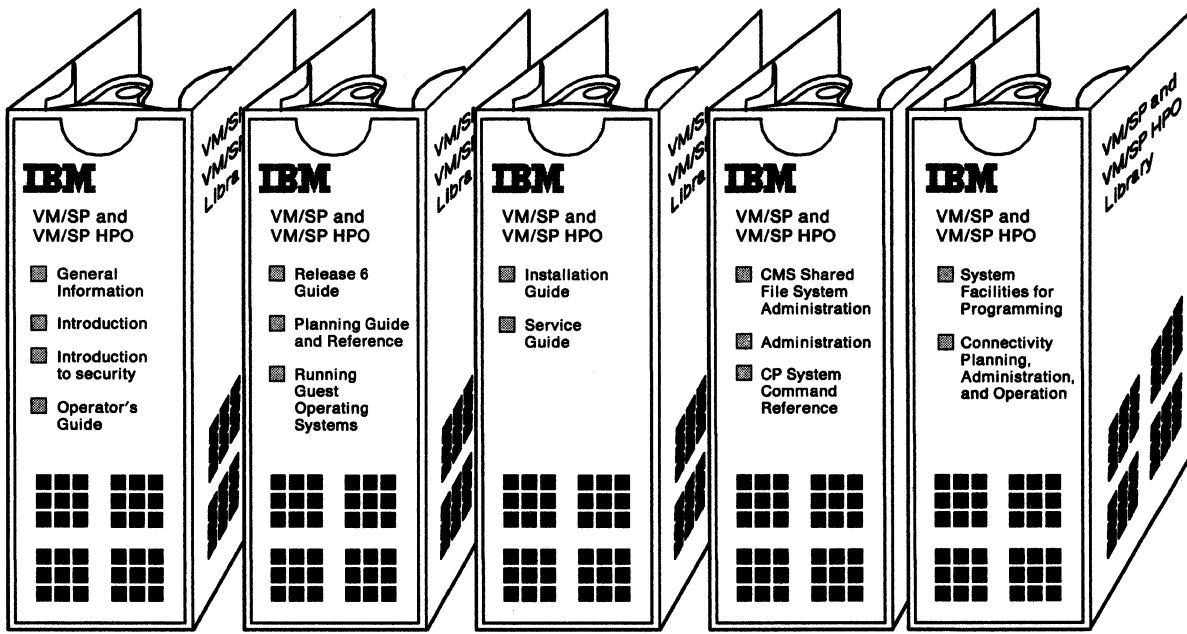
To order the combined VM/SP HPO and VM/SP libraries as a set, use bill of form number SBOF-2021. You receive the labels and 40 publications:

- *VM/SP HPO Licensed Programming Specifications*
- *VM/SP General Information*
- *VM/SP Introduction*
- *VM/SP Introduction to Security*
- *VM/SP HPO Operator's Guide*
- *VM/SP HPO Release 6 Guide*
- *VM/SP HPO Planning Guide and Reference*
- *Virtual Machine Running Guest Operating Systems*
- *VM/SP HPO Installation Guide*
- *VM/SP HPO Service Guide*
- *VM/SP CMS Shared File System Administration*
- *VM/SP HPO Administration*
- *VM/SP HPO CP System Command Reference*
- *Virtual Machine System Facilities for Programming*
- *VM/SP Connectivity Planning, Administration, and Operation*
- *VM/SP Application Development Reference for CMS*
- *VM/SP HPO Directory of Programming Interfaces for Customers*
- *VM/SP Application Development Guide for CMS*
- *VM/SP Application Migration Guide for CMS*
- *VM/SP Connectivity Programming Guide and Reference*
- *VM/SP SAA CPI Communications Reference*
- *VM/SP Application Development Guide for FORTRAN and COBOL*
- *VM/SP Programmer's Guide to the SRPI for VM/SP*
- *VM/SP Group Control System Macro Reference*
- *VM/SP HPO Library Guide and Master Index*
- *VM/SP HPO Glossary*
- *VM/SP Terminal Reference*
- *VM/SP CMS Command Reference*
- *VM/SP CMS User's Guide*
- *VM/SP HPO CP General User Command Reference*
- *VM/SP System Product Interpreter User's Guide*
- *VM/SP System Product Interpreter Reference*
- *VM/SP EXEC 2 Reference*
- *VM/SP System Product Editor User's Guide*
- *VM/SP System Product Editor Command and Macro Reference*
- *VM/SP HPO System Messages and Codes*
- *VM/SP HPO IPCS Guide and Reference*
- *VM/SP HPO Quick Reference*
- *VM/SP CMS Primer*
- *VM/SP CMS Primer for Line-Oriented Terminals*

Binders do not come with SBOF-2021. You must order them separately. The order number for one binder is SX33-0399. Order 15 binders for the unlicensed publications. If you order the licensed publications, you will need three additional binders. In addition, you may want to order an extra binder to hold manuals that IBM issues between releases.

Figure 4 on page 22 shows the arrangement of the VM/SP HPO and VM/SP manuals in binders with labels.

**VM/SP HPO and VM/SP Library in Binders**

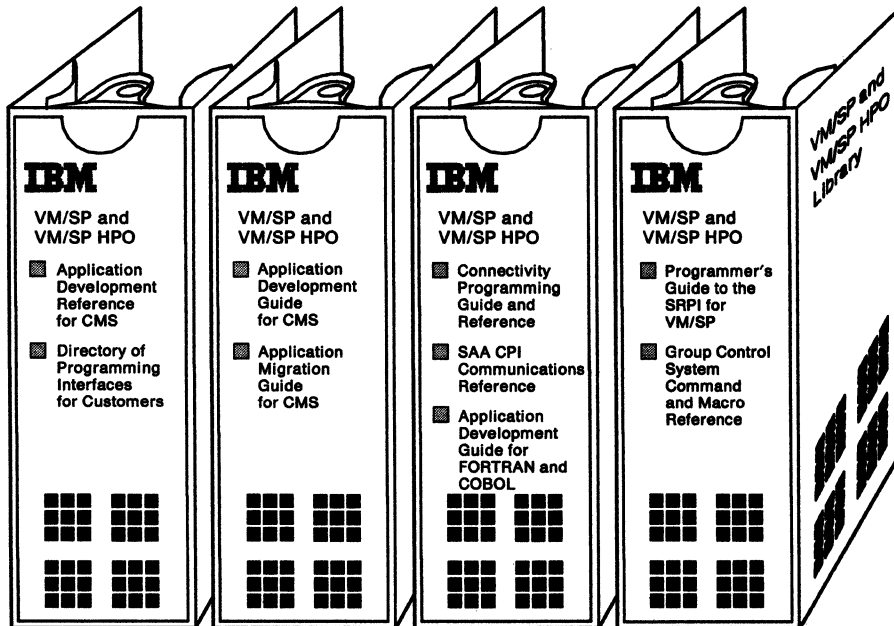


Evaluation (Blue), Operation (Yellow)

Planning (Green)

Installation (Red)

Administration (Turquoise)



Application Development (Pink)

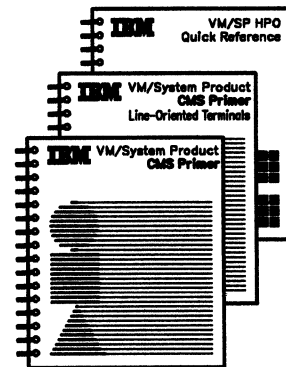
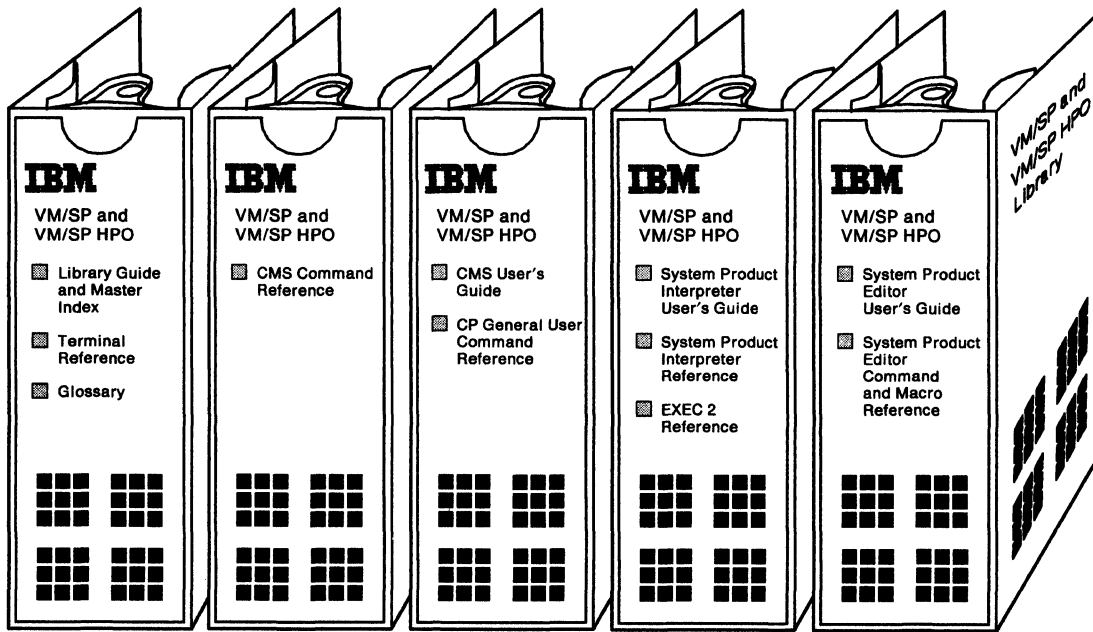
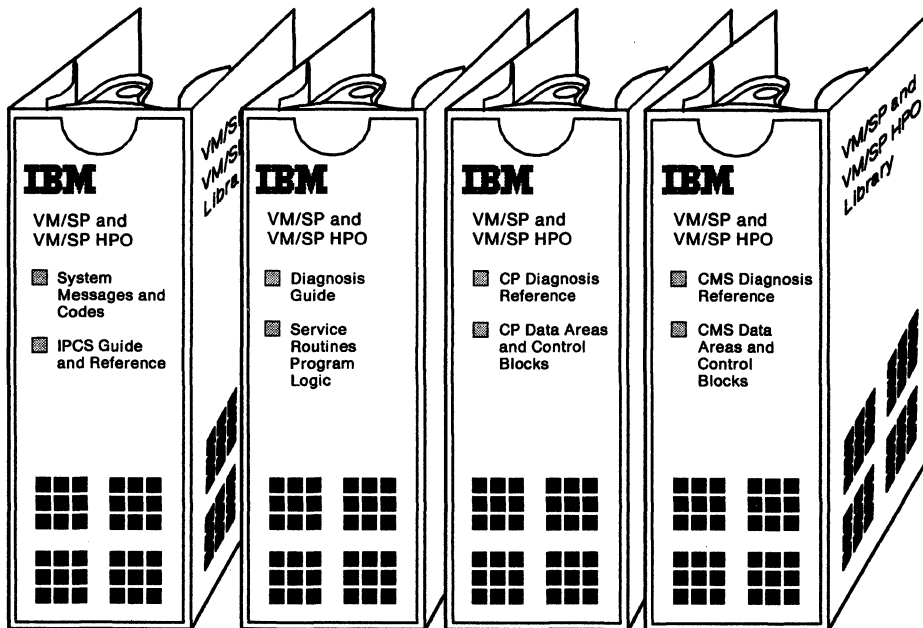


Figure 4 (Part 1 of 2). Ordering and Organizing the Combined VM/SP HPO and VM/SP Libraries

**VM/SP HPO and VM/SP Library in Binders**



End Use  
(Cranberry)



Diagnosis  
(Purple)

Diagnosis  
(Purple)

Licensed manuals must be ordered separately from ISD.

Figure 4 (Part 2 of 2). Ordering and Organizing the Combined VM/SP HPO and VM/SP Libraries

## Ordering the VM/SP Library

You can order the VM/SP library as a set using SBOF-3254 (this includes binders, labels, and manuals) or order the binders, labels, and VM/SP manuals separately. For this ordering information, refer to *VM/SP Release 6 Library Guide and Master Index*, GC19-6207.

## Ordering Individual VM/SP or VM/SP HPO Publications

You can order individual VM/SP or VM/SP HPO publications. The order numbers (for the latest release) and pseudonumbers (for previous but still current releases) appear in Table 1 and Table 2 on page 27.

## Ordering Publications for VM/SP HPO Releases 4.2, 5, and 6

Table 1 lists the VM/SP HPO publications and order numbers.

Table 1 (Page 1 of 2). Pseudonumbers and Order Numbers for VM/SP HPO Manuals			
VM/SP HPO Publication	Release 4.2 Pseudonumber	Release 5 Pseudonumber	Release 6 Order Number
Labels for VM/SP HPO Library	ST00-1909	ST00-3304-00	SX23-0289
Labels for Combined VM/SP HPO and VM/SP Libraries	ST00-1908	ST00-3305-00	SX23-0282
Announcement Brochure	GT00-1895	GC19-6221	NA
What's In VM/SP HPO Release 5?	NA	GC23-0384	NA
Release Guide	ST00-1903	ST00-2750-00	SC23-0189-4
Directory of Programming Interfaces For Customers	NA	NA	GC23-0516
Library Guide, Glossary, and Master Index	GT00-1914	GT00-2749-00	NA
Library Guide and Master Index	NA	NA	GC23-0187-4
Glossary	NA	NA	SC23-0441-0
Licensed Program Specifications	GT00-1902	GT00-2751-00	GC20-1844-9
Planning Guide and Reference	ST00-1896	ST00-2752-00	SC19-6223-9
Installation and Service Guide	ST00-1904	ST00-2719-00	NA
Installation Guide	NA	NA	SC38-0107-7
Service Guide	NA	NA	SC23-0440-0
System Definition Files	SC23-0186	NA	NA
Service Routines Program Logic	LT00-1913	LY20-0898	NA
System Programmer's Guide	ST00-1897	NA	NA
CP for System Programming	NA	ST00-2753-00	NA
Administration	NA	NA	SC19-6224-8
Problem Determination Reference Information	LT00-1910	LT00-2375-00	NA
Problem Determination Summary	NA	NA	LX23-0347-5

Table 1 (Page 2 of 2). Pseudonumbers and Order Numbers for VM/SP HPO Manuals			
VM/SP HPO Publication	Release 4.2 Pseudonumber	Release 5 Pseudonumber	Release 6 Order Number
Operator's Guide	ST00-1898	ST00-2754-00	SC19-6225-8
System Messages and Codes	ST00-1899	ST00-2755-00	SC19-6226-8
System Messages Cross-Reference	SQ23-0190	NA	NA
CP Command Reference	ST00-1900	ST00-2756-00	NA
CP General User Command Reference	NA	NA	SC19-6227-8
CP System Command Reference	NA	NA	SC23-0442-0
Interactive Problem Control System Guide and Reference	NA	NA	SC23-0443-0
Virtual Machine Running Guest Operating Systems	GT00-1894	GT00-3300-00	GC19-6212-6
OLTSEP and Error Recording Guide	ST00-1901	NA	NA
Data Areas and Control Block Logic – CP	LT00-1911	LT00-2757-00	NA
CP Data Areas and Control Blocks	NA	NA	LY20-0896-8
System Logic and Problem Determination Guide – CP	LT00-1912	LT00-2758-00	NA
CP Diagnosis Reference	NA	NA	LY20-0897-8
Diagnosis Guide	NA	NA	LY27-8061-0
Command Summary (General Users)	ST00-1905	ST00-3302-00	NA
CP General User Command Reference Summary	NA	NA	SX22-0003-8
Command Summary (Other than General Users)	ST00-1906	ST00-3303-00	NA
CP System Command Reference Summary	NA	NA	SX22-0004-8
Quick Reference	ST00-1907	ST00-3301-00	SX22-0005-8

**Notes:**

1. *VM Service Routines Logic* contains both VM/SP and VM/SP HPO information.
2. *System Programmer's Guide* was split into four publications for Release 5. Order *VM/SP HPO CP for System Programming*, *VM/SP CMS for System Programming*, *Virtual Machine System Facilities for Programming*, and *Virtual Machine Diagnosis Guide* (in Table 2 on page 27).
3. *VM/SP HPO Library Guide, Glossary, and Master Index* split into two publications for Release 6. Order the *VM/SP HPO Library Guide and Master Index* and the *VM/SP HPO Glossary*.
4. *VM/SP HPO Installation and Service Guide* split into two publications for Release 6. Order the *VM/SP HPO Installation Guide* and the *VM/SP HPO Service Guide*.

5. *VM/SP HPO CP for System Programming* was renamed and reorganized for Release 6. Most of the material is now found in *VM/SP HPO Administration*. Other material is now in *VM/SP HPO CP Diagnosis Reference*, *VM/SP HPO Planning Guide and Reference*, *VM Running Guest Operating Systems*, and *VM/SP HPO Operator's Guide*.
6. *VM/SP HPO CP Command Reference* split into two publications for Release 6. Order the *VM/SP HPO CP General User Command Reference* and the *VM/SP HPO System Command Reference*.
7. *VM/SP HPO Interactive Problem Control System Guide and Reference* previously was named *VM/SP Interactive Problem Control System Guide and Reference*.
8. *VM/SP HPO Data Areas and Control Block Logic—CP* is now named *VM/SP HPO CP Data Areas and Control Block Logic*.
9. *VM/SP HPO System Logic and Problem Determination Guide* is now named *VM/SP HPO CP Diagnosis Reference*.
10. *VM/SP HPO Diagnosis Guide* previously was named *VM Diagnosis Guide*.
11. *VM/SP HPO General User Command Summary* previously was named *VM/SP HPO Command Summary (General User)*.
12. *VM/SP HPO System Command Summary* previously was named *VM/SP HPO Command Summary (Other Than General User)*.

## Ordering Publications for VM/SP Releases 4, 5, and 6

VM/SP HPO Release 4.2 operates in conjunction with VM/SP Release 4. VM/SP HPO Release 5 operates in conjunction with VM/SP Release 5. VM/SP HPO Release 6 operates in conjunction with VM/SP Release 6. Table 2 lists pseudonumbers and order numbers for applicable VM/SP Release 4, 5, and 6 publications.

VM/SP Publication	Release 4 Pseudonumber	Release 5 Pseudonumber	Release 6 Order Number
Introduction	GT00-1575	GT00-1977	GT00-6200-05
General Information	GT00-1587	GT00-1976	GC20-1838-07
Introduction to Security	NA	ST24-5316	SC24-5316-01
Terminal Reference	GT00-1581	GT00-1979	GC19-6206-05
CMS Command Reference	ST00-1583	ST00-1981	SC19-6209-05
CMS User's Guide	ST00-1584	ST00-1980	SC19-6210-05
System Product Editor User's Guide	ST00-1589	ST00-1985	SC24-5220-04
System Product Editor Command and Macro Reference	ST00-1590	ST00-1986	SC24-5221-05
System Product Interpreter User's Guide	ST00-1593	ST00-1987	SC24-5238-04
System Product Interpreter Reference	SQ24-5239	ST00-1988	SC24-5239-03
EXEC 2 Reference	ST00-1368	ST00-1984	SC24-5219-04
Application Development Guide For FORTRAN and COBOL	SQ24-5247	ST00-2086	SC24-5247-03
CMS Macros and Functions Reference	NA	ST24-5284	NA
CMS Application Development Reference for CMS	NA	NA	SC24-5284-01
Programmer's Guide to the Server-Requester Programming Interface for VM/SP	NA	ST24-5291	ST24-5291-02
CMS for System Programming	NA	ST24-5286	NA
Application Development Guide for CMS	NA	NA	ST24-5286-01
TSAF Reference	NA	ST24-5287	NA
Connectivity Planning, Administration, and Operation	NA	NA	SC24-5378-0
Connectivity Programming Guide and Reference	NA	NA	SC24-5377-0
Group Control System Command and Macro Reference	ST24-5250	SQ24-5250	SC24-5250-02
Virtual Machine System Facilities for Programming	NA	ST24-5288	SC24-5288-01
SAA Common Programming Interface Communications Reference	NA	NA	SC26-4399-00



Table 2 (Page 2 of 2). Pseudonumbers and Order Numbers for VM/SP Manuals

<b>VM/SP Publication</b>	<b>Release 4 Pseudonumber</b>	<b>Release 5 Pseudonumber</b>	<b>Release 6 Order Number</b>
Distributed Data Processing Guide	ST24-5241	SQ24-5241	NA
System Logic and Problem Determination Guide Volume 2 (CMS)	LT00-1819	LT00-2007	NA
CMS Diagnosis Reference	NA	NA	LY20-0893-00
VM Application Migration Guide for CMS	NA	NA	SC24-5366-0
Data Areas and Control Block Logic – CMS	LQ64-5221	LT00-2009	NA
CMS Data Areas and Control Blocks	NA	NA	LY24-5221-00
Virtual Machine Diagnosis Guide	NA	LT00-2010	NA
VM/SP Diagnosis Guide	NA	NA	LY24-5241-1
Group Control System Diagnosis Reference	LT64-5239	LT00-2012	NA
CMS Primer	ST00-1591	ST00-1992	SC24-5236-04
CMS Primer for Line-Oriented Terminals	SQ24-5242	ST00-1993	SC24-5242-03
CMS Shared File System Administration	NA	NA	SC24-5367-0
HELP Facility Introduction	NA	NA	SX224-5221-0

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## Library-Related Services

### System Bibliography

The *IBM System/370, 30xx, 4300, and 9370 Processors Bibliography*, GC20-0001, lists by subject code and provides abstracts (by order number) of all the publications available which pertain to VM/SP HPO. These abstracts are brief descriptions of the purpose, scope, and intended audience of each publication.

### System Library Subscription Service (SLSS)

The System Library Subscription Service (SLSS) is an automatic updating service for technical documentation. If IBM releases a new or revised document which matches your SLSS subscription, you automatically receive the latest version or edition of the publication, and any applicable Technical Newsletters.

You can enter a subscription in two different ways: by creating an *interest profile*, or by listing the *order numbers* of the manuals you want. Both methods use the SLSS order form, G120-1816.

Order by interest profile when you need all the documents relating to your installation. Profiles are composed of specific information about your processor, program, communications needs and your special subjects of interest about your system.

You should subscribe by order number when you need multiple copies, when the publication is not part of the set automatically shipped with the software, or when it is not available through the profile service. For example, when you order VM/SP HPO Release 6, an initial library is shipped with it, and you will automatically receive updates to these books without an SLSS subscription. Use SLSS when you want updating service for multiple copies of these books, or for any additional or optional books you want to order. You will be billed for any use-key S manuals which you receive from SLSS.

You can update your subscription at any time using the SLSS order form. For more information on SLSS see *Entering an SLSS Subscription*, G320-1561, or contact your IBM marketing representative.

### Technical Newsletters (TNLs)

TNLs are issued to update and correct existing books. They consist of a cover letter listing the changes, and either pages to add to the existing manual or pages to substitute for the original pages.

A book is revised when the current stock to which TNLs have been issued is exhausted or when major changes are made in its content.

TNLs and major revisions are automatically sent to users who subscribe to the base document using the System Library Subscription Service.

## Between-Release Publications for PTFs

From time to time, IBM provides new VM/SP HPO support that is announced between releases. Such support is available as program temporary fixes (PTFs) on a Program Update Tape (PUT) and is documented by a separate publication.

These publications, called stand-alone guides, describe the new support, hardware device, new or changed commands and messages, system generation considerations, and new and changed modules. The publication contains only new information, so you should use it along with the regular library.

The distribution of stand-alone guides differs slightly from the distribution of entitled manuals. All new licensees receive stand-alone guides automatically. Existing licensees receive a letter describing the support and a post card asking them if they would like to receive the stand-alone guide.

We suggest that you order a binder, SX33-0399, to hold the publications.

The booklets listed in Table 3 on page 31 have been issued for PTFs on Release 4, 4.2, and 5. Because the information is included in the Release 6 manuals, these booklets are no longer necessary.

**Table 3. Current Program Enhancement Publications**

<b>Title</b>	<b>Order Number</b>	<b>VM/SP R4</b>	<b>VM/SP HPO R4.2</b>	<b>VM/SP R5</b>	<b>VM/SP HPO R5</b>	<b>VM/SP R6</b>
DASD DUMP/Restore Streaming Support Improvements	GC24-5359	X		X		
SPOOL Enhancement Accommodation	GC24-5361			X		
Enhancements to the IBM Enhanced Connectivity Facilities for VM/System Product	GC24-5295			X		
IBM 3380 Direct Access Storage Models AJ4/BJ4 and AK4/BK4	GC24-5371	X	X	X	X	
IBM 3990 Storage Control Models 1 and 2 and IBM Direct Access Storage Direct Channel Attach Model CJ2	GC24-5372	X	X	X	X	
Terminal Usability Enhancements	GC24-5309			X	X	
VM/VTAM and NetView™ Enhancements	GC24-5310			X		
DIAGNOSE Code X'64' Enhancement	GC24-5311	X	X	X	X	
DIAGNOSE Code X'E4' Enhancement	GC24-5376			X	X	
Support for the IBM 3990 Storage Control Model 3	GC23-0430				X	
Support for Mixed Directory	GC23-0436		X		X	
Productivity Aids National Language Support Enhancement	GC24-5400			X		
National Language Support File Naming Conventions Enhancements	GC24-5418			X	X	X
Enhancements to the LINERD and LINEWRT Macros	GC24-5313					X
Alternate-VSAM	GC24-5399					X
Support for U.S. DOD C2 Security	SC24-5384			X	X	
Security and Integrity Enhancements	GC24-5312					X
Support for VM/Directory Maintenance Licensed Program Release 4	GC23-0459		X		X	
Free Storage Changes	LY27-8062					X
Paging Storage and Vector Facility Changes	GC23-0463		X		X	

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## Online HELP Facility

Online HELP information, intended for both new and experienced users, contains information about commands, instructions, and messages. Online HELP provides menus of commands and tasks on which information is available, as well as several ways to display this information. HELP information is available for:

- Commands
  - APPC/VM VTAM Support (AVS), CMS, all CP, IPCS and RSCS
- Subcommands
  - EDIT, XEDIT, Server-Requestor Programming Interface (SRPI), IPCSSCAN and IPCSPRT
- Macros
  - CMS assembler language
- Options
  - For the QUERY and SET commands of both CMS and CP
- Routines
  - From the VMLIB callable services library (CSL)
- Messages
  - CMS, CP, RSCS, TSAF, AVS, GCS, IPCS
- Statements
  - EXEC and EXEC2, REXX

New users can read the *VM/SP HELP Facility Introduction* and the HELP chapter in the *VM/SP CMS Primer* for information on how to use online HELP.

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## Abstracts of Manuals

The following *abstracts* present a description of each manual and, consequently, a better idea about which manual is best suited for your task. The VM/SP HPO manuals are listed first, followed by the VM/SP manuals.

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## VM/SP HPO Publications

### Release 6 Guide, SC23-0189

This manual provides *current* users of VM/SP HPO Release 5 with a synopsis of the functional enhancements offered by the new release. It describes new functional enhancements, defines the related user interfaces, and gives examples of their use. It includes details for migrating from VM/SP HPO Release 5 to VM/SP HPO Release 6 and identifies new and changed modules.

### Library Guide and Master Index, GC23-0187

This manual describes the documentation available for VM/SP HPO and includes a compilation of all the index entries for the library. The master index section is particularly helpful if you are not familiar with the VM/SP HPO library as it directs you to the correct manual for a particular topic.

### Glossary, GC23-0441

This manual defines terms used throughout the VM/SP HPO manuals.

### Planning Guide and Reference, SC19-6223

This manual contains planning and installation information for installing a VM/SP HPO system.

This publication includes information about planning for system generation and defining your VM/SP HPO operating system. Appendixes provide:

- Information about various configurations
- Restrictions on VM/SP HPO
- A worksheet for coding the NAMESYS macro
- Sample SNTMAP output.

The intended audience is system programmers and anyone responsible for the planning, installation, and updating of a VM/SP HPO system. The reader is expected to have a general understanding of data processing and teleprocessing techniques.

### Installation Guide, SC38-0107

This manual is for system programmers and anyone responsible for installing VM/SP HPO. It contains step-by-step procedures for using the Starter System or an existing VM/SP HPO system to install VM/SP HPO. In addition, there are procedures for verifying an installed system, installing saved segments, and installing a new system national language.

### Service Guide, SC23-0440

This book is for system programmers and anyone responsible for servicing VM/SP HPO. It contains step-by-step procedures for program update (preventative) service, corrective service, and local service. It also contains descriptions of the various service tools and service files, including the product parameter file.

Material in this book previously was found in *VM/SP HPO Installation and Service Guide*, SC38-0107.

## **Administration, SC19-6224**

This is a reference book for the system administrator and others who carry out and extend the functions of IBM's Virtual Machine/System Product High Performance Option (VM/SP HPO). It assumes some experience with programming concepts and techniques. This reference consists of three parts and an appendix:

Part 1: *Tailoring Your VM/SP HPO System* describes some functions of VM/SP HPO and provides guidance to the system administrator in tailoring those functions.

Part 2: *Performance* describes options available in VM/SP HPO to analyze and improve the performance of virtual machines and operating systems.

Part 3: *Hardware Considerations* provides information about various types of printers, DASD, Paging Storage, storage control subsystems, and Vector Facilities.

An appendix, "VM/SP HPO Monitor Tape Format and Content" describes the format and contents of data records for classes and codes of MONITOR CALL.

This book contains information previously found in the Release 5 book *CP for System Programming*, SC19-6224.

## **CP General User Command Reference, SC19-6227**

This publication is a reference manual for class G and class Any users who are running systems such as OS, OS/VS, DOS, DOS/VS, and VSE systems, CMS, and networking systems in a virtual machine under VM/SP HPO. Control Program (CP) commands available to privilege classes G and Any are listed alphabetically. Each command description contains general usage notes, the command line format, descriptions of all allowable operands, default values for operands, and messages generated by the command.

Material in this book previously was found in the *VM/SP HPO CP Command Reference*, SC19-6227.

## **CP System Command Reference, SC23-0442**

This publication is a reference manual for class A, B, C, D, E, and F users who are running systems such as OS, OS/VS, DOS, DOS/VS, and VSE systems, CMS, and networking systems in a virtual machine under VM/SP HPO. Control Program (CP) commands available to privilege classes A, B, C, D, E, and F are listed alphabetically. Each command description contains general usage notes, the command line format, descriptions of all allowable operands, default values for operands, and messages generated by the command.

Material in this book previously was found in the *VM/SP HPO CP Command Reference*, SC19-6227.

## **Directory of Programming Interfaces for Customers, GC24-5417**

This manual lists all the programming interfaces that are available in VM/SP HPO for programmers to use in writing programs. These interfaces are documented in the rest of the VM/SP HPO library. It describes each interface by name, book and chapter location in the library. This publication also specifies which interfaces IBM prefers programmers to use, and which should be used with caution.

### **Interactive Problem Control System Guide and Reference, SC23-0443**

This manual contains an overview of IPCS functions, data flow, and files. It describes preliminary and repetitive IPCS operations, and gives insight into using IPCS in different programming environments. It is also a reference manual that contains a detailed description of all the IPCS commands and subcommands.

This book contains information previously found in the Release 5 book *VM Diagnosis Guide, LY24-5241*.

### **Operator's Guide, SC19-6225**

This manual is for those responsible for the operation and administration of a VM/SP HPO system. This book describes the recovery features and how to initialize and terminate the system. It briefly introduces the various commands, CP and CMS, that an operator may find useful. It also includes some information about hardware considerations and spooling and Batch commands.

### **System Messages and Codes, SC19-6226**

This manual contains messages and codes, as well as restrictions, that the user may encounter when using CMS, CP, IPCS, GCS, AVS, and TSAF. Conditions that generate these messages and codes are explained, the resulting action is described, and appropriate responses are suggested.

### **Running Guest Operating Systems, GC19-6212**

This manual is for people who are interested in running their operating system (VSE, MVS, and VM) under the VM host system. The book presents the basic processes so that the working system can be set up quickly. Experienced persons can improve the efficiency of their installation, running a guest system under VM, with the included recommendations. The book assumes the audience is knowledgeable about their own system but new to VM.

Some of the material in this book previously was found in *VM/SP HPO CP for System Programming, SC19-6224*.

### **Diagnosis Guide, LY27-8061**

This book is a guide to identifying and collecting information, and reporting and solving problems in the VM/SP HPO licensed program.

Material in this book previously was found in *VM Diagnosis Guide, LY24-5241*.

### **CP Diagnosis Reference, LY20-0897**

This book provides general information needed to analyze problems that occur when running VM/SP HPO.

This book previously was named *VM/SP HPO System Logic and Problem Determination Guide—CP, LY20-0897*.



## **CP Data Areas and Control Blocks, LY20-0896**

This book describes the CP data areas and control blocks used for communication between components and modules of VM/SP HPO. The data areas and control blocks are arranged in alphabetical order by their DSECT name. A descriptive statement is followed by a graphic representation of the arrangement of the fields. Also included is a cross reference containing all the labels defined in the data area as well as any general equates that the copy file may contain.

This book previously was named *VM/SP HPO Data Areas and Control Block Logic—CP*, LY20-0896.

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## **Abstracts of Reference Summaries**

### **CP General User Command Reference Summary, SX22-0003**

This reference card provides the syntax for all class G commands.

This information previously was found in the *VM/SP HPO CP Command Summary (General User)*, SX22-0003.

### **CP System Command Reference Summary, SX22-0004**

This reference card provides the syntax for all non-class G commands.

This information previously was found in the *VM/SP HPO CP Command Summary (Other Than General User)*, SX22-0004.

### **Quick Reference, SX22-0005**

The first section of this spiral-bound book provides a summary of system reference information about communicating with the system and interpreting responses, and working with two of its components, CP and CMS. The second section consists of syntax diagrams and brief descriptions of VM/SP HPO commands and service aids.

### **Problem Determination Summary, LX23-0347**

This publication summarizes techniques for finding the cause of a problem, shows the CP trace table, and the PSA (prefix storage area).

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## VM/SP Publications

### **VM Application Migration Guide for CMS, SC24-5366**

The *VM/SP Application Migration Guide for CMS* provides application program migration information for application programmers and system programmers who are migrating programs to VM/SP HPO Release 6. It summarizes some of the new and changed features of CMS, including Shared File System compatibility and exploitation, Callable Services Library features, the CMS formalized programming interface, Extended Architecture support in CMS, and CMS functional changes for calling and handling programs, handling interrupts, managing storage and saved segments, and using OS/MVS simulation.

### **Application Development Guide for FORTRAN and COBOL, SC24-5247**

The *Application Development Guide for FORTRAN AND COBOL* tells FORTRAN and COBOL application programmers how to compile, link, load, run, test, and debug programs using CMS. It also contains information on using the Interactive System Productivity Facility (ISPF) for dialog management and the Structured Query Language/Data System (SQL/DS) for data base management.

### **Application Development Guide for CMS, SC24-5286**

The *VM/SP Application Development Guide for CMS* provides application programmers and system programmers with information about CMS. This information includes details on the CMS programming interface and CMS architecture, using CMS native services (to handle interrupts, obtain free storage, perform I/O, and process abends), and managing CMS programs (using CMS services to build, load, execute, and update programs and program packages). It also includes information on developing OS/MVS and VSE programs under CMS, and using Access Method Services and VSAM under CMS and CMS/DOS. Much of the information in this book was formerly found in *CMS for System Programming*, ST24-5286.

### **Application Development Reference for CMS, SC24-5284**

All of the information contained in the Release 5 CMS Macros and Functions Reference is now in this manual. New CMS macros are also incorporated. In addition to detailed reference information about CMS assembler language macro instructions and CMS functions, a callable services library (CSL) is described. The routines in this library can be called from assembler, COBOL, VS Fortran, PL/I, VS Pascal, and REXX languages. Many of these routines facilitate the use of the CMS Shared File System.

The manual is intended for application programmers, system programmers, and IBM system support personnel.

### **CMS Command Reference, SC19-6209**

This publication provides users of the Conversational Monitor System (CMS) component of VM/SP with detailed reference information about command syntax and usage for: CMS commands, EDIT subcommands, HELP format words, DEBUG commands, EXEC control statements, special variables, and built-in functions.

## **CMS Primer, SC24-5236**

This manual teaches you, as a new user, how to do your work using VM/SP and a video display terminal. The primer presents only a subset of all the functions and commands available with VM/SP. The material is presented in an interesting manner with suggested exercises included in the text.

## **CMS Primer for Line-Oriented Terminals, SC24-5242**

This manual is an interactive tutorial for VM/SP users of line-oriented (line mode) video display terminals. The manual, which is similar in scope and content to the *VM/SP CMS Primer*, is designed to quickly give the reader a working knowledge of VM/SP. Topics include logging on, editing, managing, and printing files, using the Document Composition Facility (SCRIPT/VS) to format files, and writing EXECs.

## **CMS Shared File System Administration, SC24-5367**

This book helps system administrators and programmers administrate file sharing in CMS. It includes information about managing users and storage, protecting and securing data, creating and managing file pools and file pool catalogs, monitoring performance, accounting and tracing the system.

## **CMS User's Guide, SC19-6210**

This manual contains general information on the Conversational Monitor System (CMS) component of VM/SP. It provides information and examples regarding the CMS Shared File System, the CMS batch facility, the HELP facility, and windowing support. Also included are examples on using the System Product Editor to create and edit CMS files, and to create and use EXECs which can be executed by the System Product Interpreter.

## **Connectivity Planning, Administration, and Operation, SC24-5378**

This manual provides an overview of the products and the VM/SP components related to connectivity and an overview of the programming interface, Advanced Program-to-Program/Virtual Machine (APPC/VM) and the Common Programming Interface (CPI) for Communications of System Application Architecture (SAA). This manual contains all of the reference material needed to use the Transparent Services Access Facility (TSAF) and APPC/VM VTAM Support (AVS). It includes information for the system programmer and system operator to run the TSAF virtual machine, to run the AVS virtual machine, to use the CP System Services, and to use the service tools that are provided with TSAF and AVS. This book contains information formerly found in the *TSAF Reference*, SC24-5287.

## **Connectivity Programming Guide and Reference, SC24-5377**

This book is intended for someone writing an application program to communicate with another application program using APPC protocol. The communication can occur within a single TSAF collection, across multiple TSAF collections, or between a TSAF collection and an SNA network.

This book introduces the two kinds of APPC/VM communications programming interfaces:

1. Systems Application Architecture™ (SAA) Common Programming Interface (CPI) Communications, intended for programs written in high-level languages (such as COBOL) and procedures languages (REXX).
2. The APPC/VM macro interface, for programs written in assembler language.

This book provides complete details on the APPC/VM assembler interface; readers are referred to the *SAA Common Programming Interface Communications Reference*, SC26-4399, for details on CPI Communications.

### **EXEC 2 Reference, SC24-5219**

This is a reference manual that defines the EXEC 2 language. It contains all the formats, syntax rules, and descriptions of the arguments for EXEC 2 statements. An EXEC 2 primer for new users is included. It summarizes the language and its capabilities. A detailed discussion of the different types of EXEC 2 statements is followed by examples. It lists the error messages and return codes issued by the EXEC 2 interpreter.

### **General Information, GC20-1838**

This manual introduces and describes the features and facilities of VM/SP and provides customer management and technical staffs with information needed to evaluate the applicability of VM/SP to their installations. It contains information needed for a basic understanding of the environments and functions that are supported by VM/SP.

### **Group Control System Command and Macro Reference, SC24-5250**

This manual provides detailed reference material that describes the functions and use of all macros supported in the Group Control System. Each macro description contains information on general usage, format, all available parameters, messages, and return codes. The manual is intended for personnel who are developing application programs to run on the Group Control System.

### **HELP Facility Introduction, SX24-5221**

This reference card shows the menu structure of the online HELP facility, the format of HELP panels and the syntax of the command formats in HELP. It also shows how to get HELP for system messages, and lists the filetypes reserved by the system for use by the HELP facility.

### **Programmer's Guide to the Server-Requester Programming Interface for VM/SP, SC24-5291**

This manual provides an application programmer with information on how to write and install IBM Enhanced Connectivity Facilities servers in a VM/SP system. For the work station (for example, IBM Personal Computer or Personal System/2) user, the manual also gives information on how to start IBM Enhanced Connectivity Facilities communications in VM/SP.

## **Introduction, GC19-6200**

This manual is an extension of the *VM/SP General Information* manual. It describes, at an introductory level, what VM/SP is and what it can do for you. It is intended for anyone who wants basic information about VM/SP facilities and capabilities. This manual is useful for those who plan a VM/SP installation, use licensed programs with VM/SP, or migrate to VM/SP from another operating system. This manual is suggested as a prerequisite before reading the more detailed reference manuals in the VM/SP library.

## **Introduction to Security, SC24-5316-01**

This book is intended to introduce VM/SP system and application programmers to the topic of security. It acquaints the reader with the security challenges that might confront his or her organization, and the security tools and facilities provided by VM/SP to meet those challenges. It includes information on maintaining physical security and system integrity, controlling access to the VM/SP system, protecting data, and performing a risk analysis.

## **SAA Common Programming Interface Communications Reference, SC26-4399**

This book describes SAA Common Programming Interface (CPI) Communications in detail, including scenarios and individual routines. It is intended for someone writing an application program that is to communicate with another application program using APPC protocol. The communications can occur within a single TSAF collection, across multiple TSAF collections, or between a TSAF collection and an SNA network.

## **VM System Facilities for Programming, SC24-5288**

This manual provides a system programmer with detailed information on facilities available in VM/SP and VM/SP HPO. Included are the DIAGNOSE instruction, the Inter-User Communications Vehicle (IUCV) for CP and CMS, CP System Services, the Virtual Machine Communication Facility (VMCF), the programmable operator facility, and information on getting national languages on your system. Information on DASD Operations (including the Format/Allocate and DASD Dump Restore (DDR) programs), the CMS Batch Facility, the Collection Resource Management System Service, and the Identify System Service are now also contained in this book.

This information was extracted from the Release 5 books *CP for System Programming*, SC24-5285, *CMS for System Programming*, SC24-5286, and the *Transparent Services Access Facility (TSAF) Reference*, SC24-5287, respectively.

## **System Messages Cross Reference, SC24-5264**

This manual contains cross-reference information for the messages in the manual, *VM/SP Messages and Codes*, SC19-6204. The cross-reference information relates messages to the commands that caused them to be issued, lists messages alphanumerically by message identifier, relates messages to the module that issued them, and lists the messages in alphanumeric order by message text. The manual consists of five appendices, one for each of the VM/SP components: Conversational Monitor System (CMS), Control Program (CP), Interactive Problem Control System (IPCS), Group Control System (GCS), and Transparent Services Access Facility (TSAF).

## **System Product Editor Command and Macro Reference, SC24-5221**

This publication is a reference manual that contains all the command formats, syntax rules, and operand and option descriptions for the XEDIT subcommands and macros. It tells how to enter XEDIT commands, subcommands and macros. It contains the format description and operand and option list for the XEDIT command, which is used to invoke the editor. It lists EDIT subcommands and their XEDIT counterparts, and describes the relationship between XEDIT and the CMS Session Services. You should be familiar with the information in the *System Product Editor User's Guide*, SC24-5220, before attempting to use this manual.

## **System Product Editor User's Guide, SC24-5220**

This manual is intended for the individual who has limited data processing experience. It is designed to give the user a working knowledge of the System Product Editor (called by the XEDIT command). XEDIT provides a wide range of functions for text processing and programming development. Both a full screen and a line mode editor, it can be used on display and typewriter terminals.

## **System Product Interpreter Reference, SC24-5239**

This manual provides reference information about System Product Interpreter statements and their use. It is suitable for experienced programmers, particularly those who have used another high-level language (e.g., PL/I, Algol, or Pascal). It includes error messages and describes syntax, instructions, functions, debugging aids, and parsing.

## **System Product Interpreter User's Guide, SC24-5238**

This manual is a step-by-step guide to using the System Product Interpreter, the powerful interpretive command and macro language. It is intended for a user with some knowledge of terminals, editors, and VM/SP, but the user need not have any previous programming experience.

The novice should read the System Product Interpreter chapter in the *VM/SP CMS Primer*, SC24-5236, for prerequisite knowledge.

## **Terminal Reference, GC19-6206**

This manual is intended for those users who plan to use terminals with VM/SP in their operations. It discusses the characteristics of terminals in general and the physical characteristics of some terminals and consoles supported by VM/SP. It discusses how to use terminals to access and control VM/SP, and contains an example of a typical session from logon to logoff.

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## Abstract of Reference Posters

### **Summary of End Use Tasks and Commands, SX24-5173**

The *VM Summary of End Use Tasks and Commands, SX24-5173*, is a poster listing the nine major tasks and the associated commands most frequently used by end users. This poster contains excerpts of command information found in various CP, CMS, and XEDIT books. The *Summary* poster is helpful for general users who need a reminder list of the commands used to perform routine daily tasks.

### **VM CP Trace Table (Poster), SC24-5225**

This table shows the format (type of event, module, and hex value) of the entries in the CP internal trace table. This table records events that occur in the real machine (such as interrupts, communications, and instructions).

## Chapter 2. The VM/SP HPO Master Index

This index is a compilation of the indexes of all of the manuals in the VM/SP HPO library. Each entry in this index is followed by one or more codes that identifies the manual(s) in which the entry appears. The codes are defined in the following table. For easy reference, this table is also provided as a foldout at the back of the book.

Book Code	Book Title	Order Number
ADGCMS	<i>Application Development Guide for CMS</i>	SC24-5286
ADMIN	<i>Administration</i>	SC19-6224
ADRCMS	<i>Application Development Reference for CMS</i>	SC24-5284
APGDE	<i>Application Development Guide for CMS</i>	SC24-5247
CMSMIG	<i>Application Migration Guide for CMS</i>	SC24-5366
CMSLOT	<i>CMS Primer for Line-Oriented Terminals</i>	SC24-5242
CMSREF	<i>CMS Command Reference</i>	SC19-6209
CMSUG	<i>CMS User's Guide</i>	SC19-6210
CONGREF	<i>Connectivity Programming Guide and Reference</i>	SC24-5377
CONPAO	<i>Connectivity Planning, Administration, and Operation</i>	SC24-5378
DIAG	<i>Diagnosis Guide</i>	LY27-8061
EXEC2	<i>EXEC2 Reference</i>	SC24-5219
GCSREF	<i>Group Control System Command and Macro Reference</i>	SC24-5250
GENCMD	<i>CP General User Command Reference</i>	SC19-6227
GIM	<i>General Information</i>	GC20-1838
INST	<i>Installation Guide</i>	SC38-0107
INTRO	<i>Introduction</i>	GC19-6200
IPCSREF	<i>Interactive Problem Control System Guide and Reference</i>	SC23-0443
OPGDE	<i>Operator's Guide</i>	SC19-6225
PLNGDE	<i>Planning Guide and Reference</i>	SC19-6223
PRIMER	<i>CMS Primer</i>	SC24-5236
REL6GDE	<i>Release 6 Guide</i>	SC23-0189
RGOS	<i>Virtual Machine Running Guest Operating Systems</i>	GC19-6212
SAACOM	<i>SAA Common Programming Interface Communications Reference</i>	SC26-4399
SECUR	<i>Introduction to Security</i>	SC24-5316
SERV	<i>Service Guide</i>	SC23-0440
SFPROG	<i>VM System Facilities for Programming</i>	SC24-5288
SFSAD	<i>CMS Shared File System Administration</i>	SC24-5367
SPIREF	<i>System Product Interpreter Reference</i>	SC24-5239
SPIUG	<i>System Product Interpreter User's Guide</i>	SC24-5238
SRPI	<i>Programmer's Guide to the Server-Requested Programming Interface for VM/SP</i>	SC24-5291
SYSCMD	<i>CP System Command Reference</i>	SC23-0442
SYSMMSG	<i>System Messages and Codes</i>	SC19-6226
TERMREF	<i>Terminal Reference</i>	SC19-6206
XEDIT	<i>System Product Editor Command and Macro Reference</i>	SC24-5221
XEDITUG	<i>System Product Editor User's Guide</i>	SC24-5220



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## How to Use This Master Index

To aid you in finding items in this index, the entries have been grouped together under first-level entries such as control program (CP). Some of the entries in such a major grouping may be listed in the individual manuals under their abbreviation, for example, CP.

1. Think of a subject or topic you want to look up. For example, suppose you want to find out about how to manage page migration, therefore, your topic is "page migration."
2. Look up your topic in the index, which is arranged alphabetically. (After Z are several numerical entries, such as 3 for 3851 and 9 for 9TRACK option.) You might not find your topic, though, in the first place you look. If that happens, think of another way to word your topic and look again. Let's say you looked under *P* for "page migration." You would find this entry:

page migration **ADMIN**  
activity, displaying **ADMIN**  
demand **ADMIN**  
description **PLNGDE**  
detecting and correcting problems  
related to **ADMIN**  
managing **ADMIN**  
operation **ADMIN**  
paging hierarchy **PLNGDE**  
selecting the next virtual machine  
for page migration **ADMIN**  
setting options and parameters **ADMIN**

3. The abbreviation to the right of the topic tells you what book to look in. Each abbreviation corresponds to a specific reference manual, as designated on the foldout page at the back of this book.

For our sample topic, the abbreviations and books are:

<b>Abbreviation</b>	<b>Book</b>
ADMIN	<i>VM/SP HPO Administration</i>
PLNGDE	<i>VM/SP HPO Planning Guide and Reference</i>

4. You can look in *VM/SP HPO Administration* to find out how to manage page migration or in *VM/SP HPO Planning Guide and Reference* for more information about page migration. Then use the table of contents or the index in the book to find the specific chapter or page for your topic.

## A

A option of LISTIO command **CMSREF**  
 A prefix subcommand of XEDIT command  
**APGDE, PRIMER, XEDIT, XEDITUG**  
 example of **XEDIT**  
 practice exercise using **XEDITUG**

A-disk **CMSUG**  
 accessed after IPLing CMS **CMSREF**  
 considerations for **SFSAD**  
 defining defaults for users **SFSAD**  
 for administration machines **SFSAD**  
 for file pool server machines **SFSAD**  
 for server, replacing **SFSAD**  
 in a remote file pool **SFSAD**  
 moving contents to an SFS directory **SFSAD**  
 requirements for, during storage group  
 backups **SFSAD**  
 usage of, during FILEPOOL RESTORE  
**SFSAD**

ABBREV function **SPIUG**  
 description **SPIREF**  
 using to select a default **SPIREF**

abbreviations **DIAG, GCSREF, IPCSREF**  
 looking for one in a string **SPIREF**  
 message **SYSMSG**  
 of command names **CMSREF**  
 of commands **CMSLOT, PRIMER**  
 of information **SPIUG**  
 of subcommand name **XEDIT**  
 of subcommand operand **XEDIT**  
 of synonym defined **XEDIT**  
 testing with ABBREV function **SPIREF**  
 use of **GENCMD**

ABEND  
 See abend (abnormal termination)

ABEND macro **DIAG, GCSREF**  
 completion code parameter **GCSREF**  
 description **GCSREF**  
 dump parameter **GCSREF**  
 step parameter **GCSREF**  
 system parameter **GCSREF**  
 user parameter **GCSREF**

ABEND operand of STAT command **IPCSREF**  
 abend (abnormal termination) **ADGCMS,**  
**APGDE, DIAG, SAACOM**  
**AVS CONPAO**  
 causing **ADRCMS**

codes **SYSMSG**  
 see also **AVS (APPC/VM VTAM support)**  
 abend codes,  
**CMS (conversational monitor system)**  
 abend codes,  
**CP (control program) abend codes,**  
**GCS (group control system) abend codes,**  
**TSAF (transparent services access facility)**  
 abend codes

conditions  
**ALLOCATE (APPC) CONGREF**  
**CONFIRM (APPC) CONGREF**  
**CONFIRMED (APPC) CONGREF**  
**DEALLOCATE (APPC) CONGREF**  
**RECEIVE\_AND\_WAIT (APPC)**  
**CONGREF**  
**REQUEST\_TO\_SEND (APPC) CONGREF**  
 responding to **AVS** abends **CONPAO**  
 responding to **TSAF** abends **CONPAO**  
**SEND\_DATA (APPC) CONGREF**  
**SEND\_ERROR (APPC) CONGREF**

dumps, system **OPGDE, SYSCMD**

effect on  
 DLBL definitions **CMSREF**  
 FILEDEF definitions **CMSREF**  
 virtual screen definitions **CMSREF**  
 window definitions **CMSREF**

exit routines, clearing or setting **ADRCMS**  
 abend exit routine search order **ADGCMS**  
 abend processing **ADGCMS**

**AVS DIAG**  
 checklist for reporting CMS **DIAG**  
 checklist for reporting CP **DIAG**  
 checklist for reporting GCS **DIAG**  
**CMS, determining reason for DIAG**  
 code **ADMIN**  
 creating abend exit routines **ADGCMS**  
 debugging **DIAG**  
 deleting abend exit routines **ADGCMS**  
 dump, CP  
 See CP abend dump  
 forcing an abend **ADGCMS**  
**GCS DIAG**  
 macros defining abend exit routines  
**ADGCMS**  
 for **CMSBATCH** command **CMSREF**  
 in PVM **SECUR**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- messages **DIAG**
- overview of **ADGCMS**
- processing **DIAG**
  - program check **DIAG**
  - clearing file definitions **ADGCMS**
  - keeping SVC handlers across **ADRCMS**
  - saving nucleus extensions across **ADRCMS**
  - saving saved segments across **ADRCMS**
  - saving subcommands across **ADRCMS**
  - saving subpools across **ADRCMS**
- programmable operator facility **SFPROG**
- resettingabend exit routines **ADGCMS**
- save area **DIAG**
- spooling considerations **GENCMD**
- TSAF** **DIAG**, **CONPAO**
- types of **DIAG**
- work area **DIAG**
- 778** **DIAG**
- 80A** **DIAG**
- 804** **DIAG**
- 878** **DIAG**
- ABEND**aaaaaa FAILURE code (keyword definition) **IPCSREF**
- abending a program **ADRCMS**
- ABNEXIT** macro
  - CLR** option **ADRCMS**
  - creating abend exit routines **ADGCMS**
  - deleting abend exit routines **ADGCMS**
  - ERROR=** operand **ADRCMS**
  - EXIT=** operand **ADRCMS**
  - RESET** option **ADRCMS**
  - resetting abend exit routines **ADGCMS**
  - SET** option **ADRCMS**
  - UWORD=** operand **ADRCMS**
- abnormal change in flow of control **SPIREF**
- abnormal end (abend)
  - See abend (abnormal termination)
- abnormal termination
  - See abend (abnormal termination)
- ABS** function **SPIREF**
- absolute address
  - definition **ADMIN**, **SYSMSG**
- absolute column number **XEDITUG**
  - specifying column-target as **XEDIT**
- absolute line number as target **XEDIT**, **XEDITUG**
  - example of **XEDITUG**
- absolute value
  - finding using **ABS** function **SPIREF**
  - used with exponentiation **SPIREF**
- abstracts of VM/SP manuals
  - Administration **INTRO**
  - Application Development Guide for CMS **INTRO**
  - Application Development Guide for **FORTTRAN** and **COBOL** **INTRO**
  - Application Development Reference for CMS **INTRO**
  - CMS Command Reference **INTRO**
  - CMS Primer **INTRO**
  - CMS Primer for Line-Oriented Terminals **INTRO**
  - CMS Shared File System Administration **INTRO**
  - CMS User's Guide **INTRO**
  - Connectivity Planning, Administration, and Operation **INTRO**
  - Connectivity Programming Guide and Reference **INTRO**
  - CP General User Command Reference **INTRO**
  - CP System Command Reference **INTRO**
  - Distributed Data Processing Guide **INTRO**
  - EXEC 2** Reference **INTRO**
  - General Information **INTRO**
  - Group Control System Command and Macro Reference **INTRO**
  - Installation Guide **INTRO**
  - IPCS** Guide and Reference **INTRO**
  - Operator's Guide **INTRO**
  - Planning Guide and Reference **INTRO**
  - Programmer's Guide to the Server-Requester Programming Interface for VM/SP **INTRO**
  - Release 6 Guide **INTRO**
  - RSCS** Networking Version 2 General Information **INTRO**
  - RSCS** Planning and Installation **INTRO**
  - Running Guest Operating Systems **INTRO**
  - Service Guide **INTRO**
  - System Facilities for Programming **INTRO**
  - System Messages and Codes **INTRO**
  - System Messages Cross-Reference **INTRO**
  - System Product Editor Command and Macro Reference **INTRO**
  - System Product Editor User's Guide **INTRO**
  - System Product Interpreter Reference **INTRO**
  - System Product Interpreter User's Guide **INTRO**
  - Terminal Reference **INTRO**
- abuttal **SPIUG**

ACB macro (VSAM) **GCSREF**  
 bufnd parameter **GCSREF**  
 bufni parameter **GCSREF**  
 bufsp parameter **GCSREF**  
 ddname parameter **GCSREF**  
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**NOPROF** option **CMSREF**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- accessing
- access method services **ADGCMS**
  - another user's directory **CMSLOT, PRIMER, SFSAD**
  - diagnostic information saved for protected application facility users **SFPROG**
  - diagnostic IPL and re-IPL information **SFPROG**
  - directories **CMSLOT, CMSUG, PRIMER**
  - directories of VSE libraries **ADGCMS**
  - DOS disks **ADGCMS**
  - file modes
    - as read-only extensions **CMSUG**
    - in CMS batch virtual machine **CMSUG**
  - master file directories for minidisks **CMSUG**
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  - other user's SFS directories, read-only restrictions **CMSMIG**
  - REXX variables from a program
    - DMSCCE** (Calling a REXX EXEC) **ADRCMS**
    - DMSCDR** (Drop a REXX Variable) **ADRCMS**
    - DMSCGR** (Get a REXX Variable) **ADRCMS**
    - DMSCGS** (Get Special REXX Values) **ADRCMS**
    - DMSCGX** (Get the Next REXX Variable) **ADRCMS**
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  - VSE system residence volume **ADGCMS**
  - ACCOUNT** directory control statement **PLNGDE**
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- ACCOUNT** start-up parameter **SFSAD**
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- ACCTOFF** routine **ADMIN**
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  - DMSWRACC** Write Accounting Record routine **SFSAD**
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  - when to punch **ADMIN**
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**SFPROG**  
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- ADD command of DMS/CMS **APGDE**
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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- of indented text **XEDIT, XEDITUG**
- using A (prefix subcommand) **XEDIT, XEDITUG**
- using **ADD XEDIT**
- using I (prefix subcommand) **XEDIT**
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- definition **SPIREF**
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- entry in a names file **CMSLOT**
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- space **INTRO**
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- virtual, for unit record devices **CMSUG**

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**ADDRESS** operand

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- addressing mode (**AMODE**)
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  - manipulating with **AMODESW** macro **ADGCMS**
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  - SENDDATA CONGREF**
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  - definition of **ADGCMS, CMSMIG**
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**ADDRESS=** operand

- AMODESW CALL ADRCMS**

**ADDRQRY** function **ADMIN, SFPROG**

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- described **GENCMD, SYSCMD**

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- CMSSTOR OBTAIN ADRCMS**
- CMSSTOR RELEASE ADRCMS**

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- administration authority **CMSUG**  
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- AFT** (active file table) **DIAG**
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**AGW** **CNOS** command (**AVS**) **CONPAO**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- AGW DEACTIVE CONV command (AVS) **CONPAO**
- AGW DEACTIVE GATEWAY command (AVS) **CONPAO**
- AGW QUERY command (AVS) **CONPAO**
- AGW QUIESCE command (AVS) **CONPAO**
- AGW SET ETRACE command **DIAG**
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- ALL NOTEBOOK** file **CMSLOT, PRIMER**
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- ALOGIC** option of **ASSEMBLE** command  
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- ALPHANUM** command of **DMS/CMS** **APGDE**
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- ALT** option  
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- ALT** (alternative function) key **TERMREF**
- ALTCH** operand  
of **RCTLUNIT** macro **PLNGDE**
- ALTCONS** operand  
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- ALTER** macro **XEDIT**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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 of **START** command **SYSCMD**
- BETWEEN** predicate of **SQL APGDE**
- bimodal addressing  
 addressing mode (**AMODE**)  
 definition of **ADGCMS, CMSMIG**  
 setting **ADGCMS, CMSMIG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- conventions for 31-bit programs **ADGCMS**,  
**CMSMIG**  
definition of **ADGCMS**, **CMSMIG**  
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definition of **ADGCMS**, **CMSMIG**  
setting **ADGCMS**, **CMSMIG**
- bimodal CMS program interface **ADRCMS**  
binary synchronous (BSC) lines **CONPAO**  
**CLUSTER** macro **PLNGDE**  
coding **DMKRIO** **PLNGDE**
- bisynchronous drivers (BSC) **IPCSREF**
- BIT** operand  
of **SET** command **SYSCMD**
- BITAND** function **SPIREF**
- BITOR** function **SPIREF**
- bits checked using **DATATYPE** **SPIREF**
- bits for licensed program identification **SFPROG**
- BITXOR** function **SPIREF**
- blank characters  
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**XEDIT**
- blanks  
adjacent to special character **SPIREF**  
as concatenation operator **SPIREF**, **SPIUG**  
as delimiters **CMSREF**, **GENCMD**, **SYSCMD**  
between words, determining significance of  
**XEDIT**  
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removal with **STRIP** function **SPIREF**
- BLDL** macro **GCSREF**  
description **GCSREF**  
list address parameter **GCSREF**  
0 parameter **GCSREF**
- BLIP TERMREF**
- BLIP** processing **CMSMIG**
- BLKSIZE** option  
of **FILEDEF** command **CMSREF**  
of **FORMAT** command **CMSREF**
- block address  
**AVS**, displaying **IPCSREF**  
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- block I/O files **SFSAD**
- block of lines  
copying **XEDIT**, **XEDITUG**  
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excluding from display **XEDIT**  
moving **XEDIT**, **XEDITUG**  
shifting left **XEDIT**  
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- BLOCK** option of **FILEDEF** command  
**ADGCMS**, **APGDE**, **CMSREF**
- block reads **ADGCMS**
- block size  
of control data backup files **SFSAD**  
of log minidisks **SFSAD**  
of storage group minidisks **SFSAD**
- \*BLOCKIO** **SFPROG**
- BLOCKSIZE** option of **FILEDEF** command  
**APGDE**
- blocksize, specifying with **FILEDEF** command  
**CMSREF**
- blocks, 4K  
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maximum number per file pool **SFSAD**  
maximum number per file space **SFSAD**
- block, FBA device **SFPROG**
- BLP** (bypass label processing), tapes **CMSUG**
- BLP** operand of **FILEDEF** command **CMSREF**
- BMX** operand  
of **DEFINE** command **GENCMD**
- BMX** directory option **CONPAO**  
for MVS guest **RGOS**  
for VM under VM **RGOS**  
for VSE **RGOS**
- BNDRY** = operand  
**CMSSTOR** **OBTAIN** **ADRCMS**
- BNF** syntax **EXEC2**
- BODY** statement in ISPF panels **APGDE**
- bold type **PRIMER**
- books copied from DOS/VSE source statement  
libraries **ADGCMS**
- boolean operations **SPIREF**
- border commands  
**B** (backward) **PRIMER**  
**D** (drop) **PRIMER**  
**F** (forward) **PRIMER**  
**L** (left) **PRIMER**  
**M** (move) **PRIMER**  
**P** (pop) **PRIMER**  
**R** (right) **PRIMER**  
scrolling forward and backward **CMSUG**  
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summary **CMSREF**
- BOTH** operand  
of **LOCATE** subcommand **IPCSREF**  
of **PER** command **GENCMD**  
of **TRACE** command **GENCMD**
- BOTTOM** command **APGDE**, **CMSLOT**,  
**PRIMER**
- bottom of program reached during execution  
**SPIREF**
- bottom of range **XEDIT**

- BOTTOM** subcommand of **XEDIT** command  
**XEDIT, XEDITUG**  
 in typewriter mode **XEDITUG**  
 practice exercise using **XEDITUG**
- BOTTOM** subcommand of **IPCSSCAN** command  
 description **IPCSREF**  
 example output **IPCSREF**  
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 functional category **IPCSREF**  
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- boundaries, program **ADGCMS**  
 boundary alignment of statements in assembler  
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**BPAM**, support of **ADGCMS**  
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 brackets, use of **GENCMD, SYSCMD**  
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**BRANCH** event type  
 of **PER** command **GENCMD**
- BRANCH** operand  
 of **TRACE** command **GENCMD**
- branch prompt **IPCSREF**  
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- branching to another program **ADRCMS**  
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- BREAK** key **CMSLOT**  
**BREAKIN** operand  
 of **TERMINAL** command **GENCMD**
- breakpoint setting **DIAG**  
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- BRIEF HELP CMSUG**  
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**CMSREF**
- BRKKEY** command **RGOS**  
**BRKKEY** operand  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **SET XEDIT**  
 of **TERMINAL** command **GENCMD**
- broken connection **SFSAD**  
 browse option in **ISPF APGDE**  
**BROWSE** service of **ISPF APGDE**  
**BSAM/QSAM**  
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- BSC** (binary synchronous) lines **CONPAO**  
**CLUSTER** macro **PLNGDE**  
 coding **DMKRIO PLNGDE**
- BSC** (bisynchronous drivers) **IPCSREF**  
**BSIZE** = operand  
**FSCB** macro **ADRCMS**  
**FSOPEN** macro **ADRCMS**  
**FSREAD** macro **ADRCMS**  
**FSWRITE** macro **ADRCMS**
- BSM** instruction **ADGCMS, CMSMIG**  
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**ACF/VTAM V3** for **VSE/SP RGOS**  
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 See **DCLBFR** function of **IUCV**  
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- formats  
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- forms control **ADMIN**
- images  
 for the 3203 Printer, **UCC ADMIN**  
 for the 3211 Printer, **UCSB** (Universal  
 Character Set Buffer) **ADMIN**
- print **ADMIN**  
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 See **RTRVBFR** function of **IUCV**
- size  
 controlling for assembler **CMSREF**  
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- spool **OPGDE**  
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**VM/VTAM RGOS**
- BUFFER** parameter  
**CONNECT** function **CONGREF**  
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 of **SENDDATA CONGREF**
- buffering of data  
 description **SAACOM**  
 example flow **SAACOM**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- BUFFER** = operand  
 CONSOLE OPEN macro **ADRCMS**  
 CONSOLE QUERY macro **ADRCMS**  
 CONSOLE READ macro **ADRCMS**  
 CONSOLE WRITE macro **ADRCMS**  
 FSCB macro **ADRCMS**  
 FSOPEN macro **ADRCMS**  
 FSREAD macro **ADRCMS**  
 FSWRITE macro **ADRCMS**  
 SCAN macro **ADRCMS**
- BUFFS** operand  
 of **MONITOR** command **SYSCMD**
- BUFFSIZ** operand  
 of **DEFNUC** macro **PLNGDE, SFSAD**
- BUFLEN** parameter  
**CONNECT** function **CONGREF**  
 of **RECEIVE CONGREF**  
 of **SENDDATA CONGREF**
- BUFLIST** parameter  
 of **RECEIVE CONGREF**  
 of **SENDDATA CONGREF**
- BUFSIZE** option of **ASSEMBLE** command  
**CMSREF**
- BUFSP** option  
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- BUFTIME** operand  
 of **SET** command **SYSCMD**
- build exception log (**\$VMFBLD \$ERRLOG**)  
 example **SERV**  
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- build list  
**APLOAD EXEC SERV**  
**ATSLOAD EXEC SERV**  
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**CMSLOAD EXEC SERV**  
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**DMS3XK EXEC SERV**  
**DMS5JA EXEC SERV**  
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**DMS5JC EXEC SERV**  
**DMS5JD EXEC SERV**  
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**SFS** load modules **SERV**  
**CMSLOAD EXEC SERV**  
**CP**  
**APLOAD EXEC SERV**  
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**CPLOAD EXEC SERV**  
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**VRLOAD EXEC SERV**  
**CPLOAD EXEC SERV**  
**GCS SERV**
- GCSLOAD EXEC SERV**  
**TSAF SERV**  
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**VRLOAD EXEC SERV**
- building  
**CMS LOADLIB SERV**  
**CMS** module **SERV**  
**CMS** nucleus  
 existing VM system procedure **INST**  
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 Starter System procedure **INST**  
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 using **VMFLOAD SERV**  
**CP** nucleus  
 existing VM system procedure **INST**  
 installing new system national language **INST**  
 Starter System procedure **INST**  
 using **VMFBLD SERV**  
 using **VMFLOAD SERV**  
 definition **INTRO**  
**GCS** nucleus  
 existing VM system procedure **INST**  
 installing new system national language **INST**  
 Starter System procedure **INST**  
 using **VMFBLD SERV**  
 using **VMFLOAD SERV**  
 process **CONPAO**  
**PUT/COR** procedure **SERV**  
**RUNTSAF** module **SERV**  
 system assembler  
**ASMGEND EXEC SERV**  
 existing VM system procedure **INST**  
 Starter System procedure **INST**  
 system file pool  
 existing VM system procedure **INST**  
 Starter System procedure **INST**  
 user file pool  
 existing VM system procedure **INST**  
 Starter System procedure **INST**
- building a new nucleus  
 for VM under VM **RGOS**  
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- built-in functions **SPIREF, SPIUG**  
**ABBREV SPIREF**  
**ABS SPIREF**  
**ADDRESS SPIREF**  
**ARG SPIREF**  
**BITAND SPIREF**  
**BITOR SPIREF**

BITXOR SPIREF  
 CENTER SPIREF  
 CENTRE SPIREF  
 COMPARE SPIREF  
 COPIES SPIREF  
 C2D SPIREF  
 C2X SPIREF  
 DATATYPE SPIREF  
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 DELSTR SPIREF  
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 DIGITS SPIREF  
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 ERRORTXT SPIREF  
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 INDEX SPIREF  
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 JUSTIFY SPIREF  
 LASTPOS SPIREF  
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 MAX SPIREF  
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 OVERLAY SPIREF  
 POS SPIREF  
 QUEUED SPIREF  
 RANDOM SPIREF  
 REVERSE SPIREF  
 RIGHT SPIREF  
 SIGN SPIREF  
 SOURCELINE SPIREF  
 SPACE SPIREF  
 STRIP SPIREF  
 SUBSTR SPIREF  
 SUBWORD SPIREF

SYMBOL SPIREF  
 TIME SPIREF  
 TRACE SPIREF  
 TRANSLATE SPIREF  
 TRUNC SPIREF  
 USERID SPIREF  
 VALUE SPIREF  
 VERIFY SPIREF  
 WORD SPIREF  
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 WORDLENGTH SPIREF  
 WORDPOS SPIREF  
 WORDS SPIREF  
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 X2C SPIREF  
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   APL2 INTRO  
   SQL/DS with QMF INTRO  
 BY expression SPIUG  
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 bypass label processing, tapes CMSUG  
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   on terminal output DIAG, GENCMD  
 BYTE operand  
   of SET command SYSCMD  
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   of DCP command SYSCMD  
   of DMCP command SYSCMD  
   of DUMP command GENCMD  
   of NETWORK command SYSCMD  
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   described GENCMD, SYSCMD  
 BYTES= operand  
   CMSSTOR OBTAIN ADRCMS  
   CMSSTOR RELEASE ADRCMS  
 b.books RGOS  
   CTC RGOS

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## C

## C language

example call to CSL routine **ADRCMS**  
 example program calling **DMSERP ADRCMS**

## C prefix subcommand of XEDIT command

**APGDE, PRIMER, XEDIT, XEDITUG**

## C subcommand of IPCSSCAN command

description **IPCSREF**  
 example output **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**  
 messages **IPCSREF**  
 response **IPCSREF**  
 usage note **IPCSREF**

cache **SFSAD**

block **ADMIN, SYSMMSG**  
 definition **ADMIN, INTRO, SYSMMSG**  
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 establishing **ADMIN**  
 release request **SFSAD**  
 storage, candidates for **ADMIN**  
 3880 and 3990 models **ADMIN**  
 subsystems for the 3880 Model 13 and Model 23  
 when to use **ADMIN**  
 3880 Storage Control **ADMIN**

CACHE command **ADMIN**

described **SYSCMD**

## operands

**ALL SYSCMD**  
**OFF SYSCMD**  
**ON SYSCMD**  
**OWN ADMIN, SYSCMD**  
**QUERY ADMIN, SYSCMD**  
**raddr SYSCMD**  
**SUBSYS SYSCMD**  
**userid SYSCMD**  
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 syntax diagram, Class B **SYSCMD**  
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## CACHE operand

of **QUERY** command **ADMIN**

## CACHE parameter

**DMSOPEN (SFS Open) ADRCMS**

## cache-line

definition **ADMIN, SYSMMSG**

## cached

**DASD (direct access storage device) ADMIN**  
 devices  
 general paging **PLNGDE**  
 page migration **PLNGDE**  
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**CACHE = operand**

**FSCB macro ADRCMS**

**FSOPEN macro ADRCMS**

## caching

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minidisk files **ADGCMS**

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storage, candidates for **ADMIN**

3880 and 3990 models **ADMIN**

using the **CACHE** command **SYSCMD**

**CAI (channel available interrupt)**

definition **ADMIN, SYSMMSG**

calculating storage available in your virtual machine

**ADGCMS**

**CALL** command **ADGCMS**

**CALL** instruction **SPIREF, SPIUG**

**CALL** macro **GCSREF**

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entry point name parameter **GCSREF**

execute format **GCSREF**

id parameter **GCSREF**

list format **GCSREF**

mf parameter **GCSREF**

parameter address parameter **GCSREF**

vl parameter **GCSREF**

**CALL** subcommand of **TESTCOB** command

**APGDE**

callable services library (CSL)

See CSL (callable services library)

callable services library (CSL) routines

See CSL (callable services library) routines

caller ID in tape label processing **CMSUG**

**CALLER** (keyword definition) **IPCSREF**

## calling

a **REXX EXEC ADRCMS**

general format **ADRCMS**

multiple variables in an argument string

**ADRCMS**

use for invoking CP or CMS commands

**ADRCMS**

use for issuing **FILEDEF** command

**ADRCMS**

IBM for assistance, data needed **DIAG**

programs **ADRCMS**

subroutines **ADRCMS, EXEC2**

the parsing facility from an **EXEC CMSREF**

## calls

advanced function

description **SAACOM**

examples **SAACOM**

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CPI-Communications **SAACOM**

description **SAACOM**

naming conventions **SAACOM**

- starter-set  
   description **SAACOM**  
   examples **SAACOM**  
   list **SAACOM**
- CALLTYP=** operand  
   **CMSCALL** macro **ADRCMS**
- CANCEL** command **ADGCMS, XEDITUG**
- CANCEL** function of **VMCF SFPROG**
- CANCEL KEY** restrictions  
   for 3215 terminal console **OPGDE**
- CANCEL** macro **XEDIT**
- CANCEL** option  
   of **NOTE** command **CMSREF**  
   of **RETURN** command **APGDE**
- CANCEL** parameter of **ISPF APGDE**
- CANCEL** raddr operand  
   of **SPTAPE** command **SYSCMD**
- CANCEL** signaling **TERMREF**
- CANCEL** subcommand of **XEDIT** command  
**APGDE**
- cancelling  
   a note **CMSLOT**  
   a timer **GCSREF**  
   changes during editing session **CMSUG**  
   **DLBL** definitions **ADGCMS**  
   immediate commands **CMSREF**  
   terminal output **TERMREF**
- candidates for caching storage **ADMIN**
- canonical order specified by **SET IMAGE XEDIT**
- capacity of device when formatted **ADMIN, SFPROG**
- capacity planning **SFSAD**
- capital letters, typing **PRIMER**
- CAPPEND XEDITUG**  
   in typewriter mode **XEDITUG**
- CAPPEND** macro **XEDIT**  
   example of **XEDIT**  
   with **DBCS** strings **XEDIT**
- card input  
   for **Format/Allocate Program ADMIN**  
   spooled **OPGDE**  
   to **Format/Allocate program ADMIN, SFPROG**
- CARD** option of **EXECIO** command **CMSREF**
- card punch  
   used to send jobs to **CMS batch facility CMSUG**
- card reader  
   restriction on use in job for **CMS batch facility CMSUG**  
   spooling punch or printer files to **CMSUG**
- card separator  
   spool punch output **OPGDE**
- cards  
   as input to **CMS batch facility CMSUG**  
   /\* as end-of-file indicator **CMSUG**  
   carriage control characters **ADGCMS**
- case **APGDE**  
   changing **XEDITUG**  
   ignoring difference in **CMSLOT**  
   ignoring difference in target search **XEDIT**  
   mixed **CMSLOT**  
   of **EXEC** files **CMSLOT**  
   of **Script** files **CMSLOT**  
   respecting difference in target search **XEDIT**  
   setting **CMSLOT, PRIMER, XEDIT**  
   specifying **XEDITUG**  
   translating to lowercase **XEDIT**  
   translating to uppercase **XEDIT**  
   translation **EXEC2**
- CASE** command of **DMS/CMS APGDE**
- CASE** option  
   of **EXTRACT XEDIT**  
   of **QUERY XEDIT**  
   of **SET CMSLOT, PRIMER, XEDIT**  
   of **TRANSFER XEDIT**
- CAT** option **ADGCMS**  
   of **DLBL** command **CMSREF**  
   example of use **CMSREF**  
   use in **CMS/DOS CMSREF**  
   of the **DLBL** command **ADGCMS**
- catalogs  
   clearing **ADGCMS**  
   defining in **CMS/DOS ADGCMS**  
   identifying in **CMS/DOS ADGCMS**  
   **IJSUC** ddname **ADGCMS**  
   indexes **SFSAD**  
   job **ADGCMS**  
   master **ADGCMS**  
   minidisks  
     determining allocations for **SFSAD**  
     minimum recommended size of **SFSAD**  
     placement of **SFSAD**  
   passwords **ADGCMS**  
   sharing **ADGCMS**
- storage group  
   adding space to **SFSAD**  
   description of **SFSAD**  
   determining when to reorganize **SFSAD**  
   displaying information about **SFSAD**  
   listing the contents of **SFSAD**

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- monitoring logical space in **SFSAD**
- monitoring physical storage in **SFSAD**
- placement of minidisks within **SFSAD**
- recording of authorizations within **SFSAD**
- reorganizing **SFSAD**
- setting logical size of **SFSAD**
- user **ADGCMS**
- user in CMS/DOS **ADGCMS**
- verifying a structure **ADGCMS**
- VSAM ADGCMS**
- VSAM**, verifying structure of **CMSREF**
- catalogued procedures in OS/MVS equivalent in **CMS ADGCMS**
- CATBUFFERS** start-up parameter
  - description of **SFSAD**
  - recommend setting for, during file pool regeneration **SFSAD**
  - recommended setting for **FILESERV REORG SFSAD**
  - setting for, when restoring control data **SFSAD**
  - setting for, when restoring storage groups **SFSAD**
- CATCHECK** command
  - described **CMSREF**
  - verifying a catalog structure **ADGCMS**
- causing breaks in text **CMSUG**
- CAW** operand
  - of **DISPLAY** command **GENCMD**
- CAW** (channel address word)
  - definition of **DIAG**
  - displaying **GENCMD**
- CC** option
  - of **EXECIO** command **CMSREF**
  - of **NOTE** command **CMSLOT, CMSREF, PRIMER**
  - of **PRINT** command **CMSREF**
- CC** prefix command **PRIMER**
- CCH** (channel check handler) **OPGDE**
- cchhr**, variable
  - described **GENCMD, SYSCMD**
- \*CCS SFPROG**
- CCS** (Console Communication Service) **GCSREF, INTRO**
  - example of coding an SNA controller **PLNGDE**
- ccuu**, variable
  - described **GENCMD, SYSCMD**
- CCW** operand
  - of **TRACE** command **GENCMD**
- CCW** testing
  - controlling **GENCMD**
- CCW** (channel command word) **ADRCMS**
  - building using **CONSOLE EXCP** macro **ADRCMS**
  - building using **CONSOLE** macro **ADRCMS**
  - diagnostic aids **PLNGDE**
  - mapping **DIAG**
  - 3880 **ADMIN**
- cc**, variable
  - described **GENCMD, SYSCMD**
- CD** option of **DSERV** command **CMSREF**
- CDELETE** subcommand of **XEDIT** command
- CMSLOT, XEDIT, XEDITUG**
  - example of **XEDIT**
  - in typewriter mode **XEDITUG**
  - with DBCS strings **XEDIT**
- CE** function type **SYSCMD**
- CENTER** command of **DMS/CMS APGDE**
- CENTER** function **SPIREF**
- centering a string
  - using **CENTER** function **SPIREF**
  - using **CENTRE** function **SPIREF**
- central site, DDP defined **INTRO**
  - description **INTRO**
- CENTRE** function **SPIREF**
- CENTURY** option of **DATE** function **SPIREF**
- CETI** group, dedicating links for **CONPAO**
- CFILEFCB** operand
  - of **START** command **SYSCMD**
- CFIRST** subcommand of **XEDIT** command
- CMSLOT, XEDIT, XEDITUG**
  - affected by zone **XEDIT**
  - example of **XEDIT**
  - in typewriter mode **XEDITUG**
  - with DBCS strings **XEDIT**
- CHAIN** subcommand of **IPCSSCAN** command
  - description **IPCSREF**
  - example output **IPCSREF**
  - format **IPCSREF**
  - functional category **IPCSREF**
  - messages **IPCSREF**
  - operands **IPCSREF**
  - responses **IPCSREF**
  - usage notes **IPCSREF**
- chaining save areas **GCSREF**
- chaining structure
  - ALOCBLOK ADMIN**
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- change
  - global **CMSLOT**
  - throughout file **CMSLOT**
- CHANGE XEDITUG**
  - batch machine output **INTRO**
  - example of use **INTRO**
  - in typewriter mode **XEDITUG**
  - option
    - of **DLBL** command **CMSREF**
    - of **FILEDEF** command **CMSREF**
    - of **LABELDEF** command **CMSREF**
  - practice exercise using **XEDITUG**
  - with absolute line number as target **XEDITUG**

**CHANGE** command **ADMIN**, **CMSLOT**,  
**CMSUG**, **INTRO**, **PRIMER**

described

class D **SYSCMD**

class G **GENCMD**

operands

**ALL** **GENCMD**, **SYSCMD**

**CHARS** **GENCMD**, **SYSCMD**

**CLASS** **GENCMD**, **SYSCMD**

**COPY** **SYSCMD**

**COPY[\*]nnn** **GENCMD**

**DEST** **SYSCMD**

**dest1** **SYSCMD**

**dest2** **SYSCMD**

**DIST** **SYSCMD**

**DIST** **distcode** **GENCMD**

**distcode** **SYSCMD**

**dsname** **SYSCMD**

**FCB** **GENCMD**, **SYSCMD**

**FLASH** **SYSCMD**

**FLASH** **name** **GENCMD**

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**FORM** **form** **GENCMD**

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     comparison to **SVC 202 CMSMIG**  
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- CMSLEVEL** macro  
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- CMSLOAD EXEC** **SERV**
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**SAACOM**
- CMSNUC MAP IPCSREF**
- CMSOUT** window **PRIMER**
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**BNDRY** = operand **ADRCMS**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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  - example program calling **DMSERP**
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- OS COBOL files **APGDE**
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  - your own backup program **SFSAD**
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- COLLECT operand of FDISPLAY subcommand **IPCSREF**
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  - CP data, using CP interface to CPTRAP **DIAG**
  - in the CPTRAP file **DIAG**
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  - using SET COLOR **XEDIT**
  - using SET CTLCHAR **XEDIT**
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- GCS** (group control system) commands;  
**IPCS** (interactive problem control system)  
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- ACNT ADMIN**
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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 TAG ADMIN, OPGDE  
 TERMINAL INTRO, RGOS  
     BREAKIN GUESTCTL RGOS, SFPROG  
     BRKKEY SFPROG  
     CONMODE 3270 SFPROG  
     SCRNSAVE OFF SFPROG  
     SCRNSAVE ON SFPROG  
     text format of GENCMD, SYSCMD  
     to collect and analyze system information DIAG  
     to trace events in virtual machines DIAG  
 TRACE ADMIN, DIAG, INTRO  
 TRANSFER ADMIN, INTRO  
     translation synonyms CMSUG  
     translations CMSUG  
     transmitted to CMS/CP XEDIT  
     truncating CMSREF  
 TSAF (Transparent Services Access Facility)  
     ADD LINK CONPAO  
     DELETE LINK CONPAO  
     QUERY CONPAO  
     RUNTSAF CONPAO  
     SET ETRACE CONPAO  
     STOP TSAF CONPAO  
 UNLOCK ADMIN  
     used in file pool administration SFSAD  
     used to control a terminal session, summary  
     GENCMD, OPGDE, SYSCMD  
     utility APGDE  
 UTILITY SERV  
 VARY INTRO, RGOS  
 VARY OFFLINE ADMIN, OPGDE  
 VARY ONLINE ADMIN, OPGDE  
 VMDUMP DIAG, INTRO, RGOS  
 VMFAPPLY SERV  
 VMFASM SERV  
 VMFBLD SERV  
 VMFDOS INST  
 VMFHASM SERV  
 VMFLKED SERV  
 VMFLOAD SERV  
 VMFMAC SERV  
 VMFMERGE SERV  
 VMFNLS SERV  
 VMFOVER SERV  
 VMFPLC2 SERV  
 VMFREC SERV  
 VMFREMOV SERV  
 VMFSETUP SERV  
 VMFTXT SERV  
 VMFZAP SERV  
 VRSIZE SERV  
 VSAMGEN INST  
 VSEVSAM INST  
     when to enter CMSREF  
 XEDIT INTRO  
     prefix subcommands APGDE  
     QUIT subcommand APGDE  
     QUIT subcommand APGDE  
     you can enter in the WM window CMSREF  
 ZAP DIAG, SERV  
 ZAPTEXT DIAG, SERV  
 COMMANDS ASSEMBLE utility file CMSREF  
 COMMANDS CMSUT1 utility file CMSREF  
 COMMANDS CMSUT2 utility file CMSREF

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



**COMMANDS** command **ADMIN**, **CMSUG**,  
**GENCMD**

described **GENCMD**  
responses **GENCMD**  
usage notes **GENCMD**

**COMMANDS** TEXT utility file **CMSREF**

**COMMD** macro **ADMIN**

**COMMENT** command of DMS/CMS **APGDE**

**COMMENT** control record, ZAP and ZAPTEXT  
service programs  
format **SERV**  
function **SERV**  
usage note **SERV**

comment record, control file **SERV**

**COMMENT** statement **ADGCMS**

comments **EXEC2**, **SPIUG**

description of **SPIREF**  
entering **GENCMD**  
how to write **GENCMD**, **SYSCMD**  
in an **EXEC** **CMSLOT**  
in **HELP** text files **CMSUG**  
in **REXX** language **CMSUG**  
specifying in control statement files **SFSAD**  
specifying in **DMSPARMS** files **SFSAD**  
specifying in **POOLDEF** files **SFSAD**  
to identify program language **SPIREF**

**COMMENTS** option of **EXECUPDT** command  
**CMSREF**

**COMMIT** parameter

**DMSCLDIR** (SFS Close Directory) **ADRCMS**  
**DMSCLOSE** (SFS Close) **ADRCMS**  
**DMSCRALI** (SFS Create Alias) **ADRCMS**  
**DMSCRDIR** (SFS Create Directory) **ADRCMS**  
**DMSERASE** (SFS Erase) **ADRCMS**  
**DMSEXIDI** (SFS Exist—Directory) **ADRCMS**  
**DMSEXIFI** (SFS Exist—File) **ADRCMS**  
**DMSEXIST** (SFS Exist) **ADRCMS**  
**DMSFILEC** (SFS Filecopy) **ADRCMS**  
**DMSGRANT** (SFS Grant Authority) **ADRCMS**  
**DMSRENAM** (SFS Rename) **ADRCMS**  
**DMSREVOK** (SFS Revoke Authority)  
**ADRCMS**

SFS parameter **ADRCMS**

**COMMIT** WORK command of **SQL** **APGDE**  
committing

changes to a file **ADRCMS**  
SFS file changes **ADGCMS**

communication routines

**CMACCP** (Accept) **CONGREF**  
**CMALLC** (Allocate) **CONGREF**  
**CMCFM** (Confirm) **CONGREF**  
**CMCFMD** (Confirmed) **CONGREF**  
**CMDEAL** (Deallocate) **CONGREF**  
**CMECT** (Extract\_Conversation\_Type)  
**CONGREF**

**CMEMN** (Extract\_Mode\_Name) **CONGREF**  
**CMEPLN** (Extract\_Partner\_LU\_Name)  
**CONGREF**

**CMESL** (Extract\_Sync\_Level) **CONGREF**  
**CMFLUS** (Flush) **CONGREF**

**CMINIT** (Initialize\_Conversation) **CONGREF**

**CMPTR** (Prepare\_to\_Receive) **CONGREF**

**CMRCV** (Receive) **CONGREF**

**CMRTS** (Request\_to\_Send) **CONGREF**

**CMSCT** (Set\_Conversation\_Type) **CONGREF**

**CMSDT** (Set\_Deallocate\_Type) **CONGREF**

**CMSD** (Set\_Error\_Direction) **CONGREF**

**CMSEND** (Send) **CONGREF**

**CMSERR** (Send\_Error) **CONGREF**

**CMSF** (Set\_Fill) **CONGREF**

**CMSLD** (Set\_Log\_Data) **CONGREF**

**CMSMN** (Set\_Mode\_Name) **CONGREF**

**CMSPLN** (Set\_Partner\_LU\_Name) **CONGREF**

**CMSPTR** (Set\_Prepare\_to\_Receive\_Type)  
**CONGREF**

**CMSRC** (Set\_Return\_Control) **CONGREF**

**CMSRT** (Set\_Receive\_Type) **CONGREF**

**CMSSL** (Set\_Sync\_Level) **CONGREF**

**CMSSST** (Set\_Send\_Type) **CONGREF**

**CMSTPN** (Set\_TP\_Name) **CONGREF**

**CMTRTS** (Test\_Request\_to\_Send\_Received)  
**CONGREF**

**XCECSU** (Extract\_Conversation\_Security\_  
User\_ID) **CONGREF**

**XCIDRM** (Identify\_Resource\_Manager)  
**CONGREF**

**XCSCSP** (Set\_Conversation\_Security\_Password)  
**CONGREF**

**XCSCST** (Set\_Conversation\_Security\_Type)  
**CONGREF**

**XCSCSU** (Set\_Conversation\_Security\_User\_ID)  
**CONGREF**

**XCSCUI** (Set\_Client\_Security\_User\_ID)  
**CONGREF**

**XCTRRM** (Terminate\_Resource\_Manager)  
**CONGREF**

**XCWOE** (Wait\_on\_Event) **CONGREF**

common

segment facility **RGOS**

carrier **TERMREF**

denominator minidisks **SFSAD**

dump receiver **DIAG**

lock, GCS **DIAG**

storage management **DIAG**

Common Programming Interface (CPI)

Communications

See CPI (common programming interface)  
communications

common service area (CSA) **RGOS**

common storage anchor blocks (CSAB) **DIAG**

- communicating **PRIMER**  
 between virtual machines **INTRO**  
 between VM/SP and workstations **INTRO**  
 system operator with VM/SP **INTRO**  
 user with VM/SP **INTRO**  
 with CMS **INTRO**  
 with CP **INTRO**  
 with other computer users **CMSUG**  
 with other virtual machines **INTRO**  
 with system operator **INTRO**  
 with VM/SP **CMSUG**
- communication  
 See also communication routines;  
 communications, directory;  
 communications, gateway  
 across SNA network **SAACOM**  
 between programs **CONPAO**  
 in collection **CONPAO**  
 in collection and network **CONPAO**  
 in single VM system **CONPAO**  
 between the programmable operator and the  
 network **SFPROG**  
 between virtual machines **SFPROG**  
 checking for the programmable operator  
**SFPROG**  
 controller dump  
 obtaining a copy **DIAG**  
 establishing SNA links **SFPROG**  
 example **SFPROG**  
 inbound  
 See connections, inbound  
 interfaces of SNA **SFPROG**  
**IUCV**  
 collection resource management **SFPROG**  
 DASD block I/O system service **SFPROG**  
 error logging system service **SFPROG**  
 message system service **SFPROG**  
 signal system service **SFPROG**  
 spool system service **SFPROG**  
 outbound  
 See connections, outbound  
 overview of **CONPAO**  
 partner **CONPAO**  
 connecting to **CONGREF**  
 receiving from **CONGREF**  
 sending to (SENDCNFD) **CONGREF**  
 sending to (SENDCNF) **CONGREF**  
 sending to (SENDDATA) **CONGREF**  
 sending to (SENDERR) **CONGREF**  
 sending to (SENDREQ) **CONGREF**  
 severing from **CONGREF**  
 severing paths **CONGREF**  
**PMX** protocol **SFPROG**  
 programmable operator **SFPROG**  
 programmable operator and NCCF or NetView  
**SFPROG**  
 server **CONPAO**  
 summary of VM support for **CONPAO**  
 task queues **DIAG**  
**CMDBUF** **DIAG**  
 operator reply elements (ORE) **DIAG**  
 ORE (operator reply elements) **DIAG**  
 WQE (write queue elements) **DIAG**  
 write queue elements (WQE) **DIAG**  
 terminology **CONPAO**  
**TSAF** **SFPROG**  
 with collection resource management  
 system service **SFPROG**  
 with an APPC program **SAACOM**
- communications  
**APPC/VM** **CONGREF**  
 between a VM and non-VM system **CONGREF**  
 between multiple VM systems **CONGREF**  
 between two collections **CONGREF**  
 Common Programming Interface (CPI)  
**CMSMIG**  
 controller  
 considerations, loading **OPGDE**  
 directory **CONPAO**, **CMSMIG**, **SFSAD**  
 description **CONGREF**  
 enabling **CONPAO**  
 levels **CONPAO**  
 sample entries **CONPAO**  
**SCOMDIR** file **CONPAO**  
**SYSPROF EXEC** **CONPAO**  
 system level **CONPAO**  
 tags **CONGREF**  
 types **CONPAO**  
**UCOMDIR** file **CONPAO**  
 user level **CONPAO**
- gateway  
 See also gateways  
 deactivating **CONPAO**  
 establishing **CONPAO**  
 in an SNA network **CONGREF**  
**NETDATA** command **CMSREF**  
**NOTE** command **CMSREF**  
 on a different VM system **CONGREF**  
 on the same VM system **CONGREF**  
**RECEIVE** command **CMSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- SENDFILE command **CMSREF**  
 vector table, mapping **ADRCMS**  
 with programs in SNA network **CMSMIG**  
 with programs in TSAF collection **CMSMIG**  
 within one VM system **CONGREF**
- Communications Module termination notification list**  
**ADRCMS**  
 adding entry-names **ADRCMS**  
 deleting entry-names **ADRCMS**
- COMP**  
 of DOSLIB command **CMSREF**  
 option  
 of FETCH command **CMSREF**  
 of MACLIB command **CMSREF**
- COMPACT** option of DDR command **CMSUG**  
 compact simple lists **PRIMER**  
 compacting tape output **CMSUG**
- COMPARE** command **APGDE, CMSLOT, PRIMER**  
 COL option **CMSREF**  
 description **CMSREF**  
 to compare contents of two CMS files **CMSUG**
- COMPARE** function **SPIREF, SPIUG**  
 comparing  
 average in-queue time with earlier releases  
**ADMIN**  
 files **CMSLOT, CMSREF, PRIMER**
- comparison operators **SPIUG**
- comparisons  
 allowing approximation **SPIUG**  
 characters **SPIUG**  
 exact **SPIUG**  
 fuzzy arithmetical **SPIUG**  
 numbers **SPIUG**  
 of numbers **SPIREF**  
 of strings **SPIREF**  
 using **COMPARE SPIREF**  
 priority of characters **SPIUG**  
 strings **SPIUG**
- compatibility  
 for file I/O **ADGCMS**  
 with CMS editor **XEDIT**
- compatibility group (interfaces)  
 contents of **ADGCMS, ADRCMS, CMSMIG**  
 definition of **ADGCMS, ADRCMS, CMSMIG**
- compatibility, System/370  
 conversion checklist  
 BLIP processing **CMSMIG**  
 data areas **CMSMIG**  
 DEBUG command **CMSMIG**  
 ENABLE macro **CMSMIG**  
 four-digit device addresses **CMSMIG**  
 GETMAIN free storage **CMSMIG**  
 MAINHIGH **CMSMIG**  
 NUCEXT function **CMSMIG**
- NUCXDROP command **CMSMIG**  
 NUCXLOAD command **CMSMIG**  
 NUCXMAP command **CMSMIG**  
 OS/MVS simulation **CMSMIG**  
 overlay structures **CMSMIG**  
 QUERY BLIP command **CMSMIG**  
 QUERY DISK command **CMSMIG**  
 QUERY SEARCH command **CMSMIG**  
 reassembling existing programs **CMSMIG**  
 SET BLIP command **CMSMIG**  
 SET STORECLR command **CMSMIG**  
 STRINIT macro **CMSMIG**  
 SUBCOM function **CMSMIG**  
 definition of **CMSMIG**  
 general considerations **CMSMIG**
- COMPID** keyword of SYMPTOM subcommand  
**IPCSREF**  
**COMPID** (keyword definition) **IPCSREF**  
 compid, variable  
 described **GENCMD, SYSCMD**
- COMPILER** command **CMSLOT**  
 compiler switch flag **ADRCMS**  
 compilers **CMSLOT, SPIUG**  
 COBOL **APGDE, INTRO**  
 devices assigned **ADGCMS**  
 documentation references **INTRO**  
 FORTRAN **APGDE**  
 input/output assignments **ADGCMS**  
 OS/VS COBOL **INTRO**  
 PL/I **INTRO**  
 supported by VM/SP **INTRO**  
 supported in CMS **CMSUG**  
 used under CMS **CMSREF**  
 VS COBOL II **INTRO**  
 VS Pascal **INTRO**
- compile, defined **INTRO**
- compiling **APGDE**  
 a message repository file **CMSREF**  
 a program **CMSLOT, PRIMER**
- complete audit **SFSAD**
- completion code  
 system **GCSREF**  
 user **GCSREF**
- completion options screen **APGDE**
- complex list format (MF = (L,addr[,label]))  
 CMSIUCV macro **SFPROG**  
 HNDIUCV macro **SFPROG**
- complex session (examples) **TERMREF**
- complex string expression  
 as target **XEDITUG**  
 example of **XEDITUG**  
 specifying column-target as **XEDIT**  
 specifying target as **XEDIT**
- complimentary copy of note **CMSLOT**

COMPLST tag, product parameter file **SERV**  
 component  
   **MENU** in **HELP CMSUG**  
   of **VM/SP CMSREF, CMSUG**  
   of **VM/SP HPO INST**  
   name tag, product parameter file **SERV**  
   network **INTRO**

composing notes **CMSUG**

compound symbols  
   description of **SPIUG**  
   for repeated substitution **SPIUG**  
   use of a period **SPIUG**

compound variable  
   description of **SPIREF**  
   setting new value **SPIREF**

**COMPRESS** option  
   of **EXECUPDT** command **CMSREF**  
   of **LOADLIB** command **CMSREF**

**COMPRESS** subcommand of **XEDIT** command  
**XEDIT, XEDITUG**  
   example of **XEDIT**

compressing  
   **DOSLIB** files **ADGCMS**  
   members of a **MACLIB ADGCMS**  
   records using **SET PACK XEDIT**

**COMPSWT** macro  
   **OFF** operand **ADRCMS**  
   **ON** operand **ADRCMS**  
   turning compiler switch flag on or off  
   **ADRCMS**

computer identification **CMSLOT**

**COMSRV** directory option **CONPAO**

**COMSRV** parameter  
   **ACCEPT** function **CONGREF**

**CONCAT** option of **FILEDEF** command  
**APGDE, CMSREF**

concatenating **SPIUG**  
   files **XEDITUG**  
   in typewriter mode **XEDITUG**  
   using **GET XEDIT**  
   using **PUT XEDIT**  
   using **PUTD XEDIT**  
   of lines during string target search **XEDIT**  
   of strings **SPIREF**  
   words **EXEC2**

concatenation operator **SPIUG**  
   blank **SPIREF**  
   || **SPIREF**

**CONCEAL** directory option **CONPAO**

**CONCEAL** operand  
   of **SET** command **CMSUG, GENCMD**

concepts of **VM/SP INTRO**

concurrent backups **SFSAD**

concurrent operation  
   definition **ADMIN, SYSMMSG**

condition codes  
**ACCEPT CONGREF**  
**ADDRQRY** function **SFPROG**  
**CONNECT CONGREF**  
**DCLBFR CONGREF**  
**DESCRIBE CONGREF**

**DIAGNOSE** code  
**XX'A0' SFPROG**  
**XX'BC' SFPROG**  
**XX'B4' SFPROG**  
**XX'B8' SFPROG**  
**XX'DC', subcode XX'00' SFPROG**  
**XX'DC', subcode XX'01' SFPROG**  
**XX'D0' SFPROG**  
**XX'EC' SFPROG**  
**XX'0C' SFPROG**  
**XX'00' SFPROG**  
**XX'08' SFPROG**  
**XX'10' SFPROG**  
**XX'14' SFPROG**  
**XX'18' SFPROG**  
**XX'28' SFPROG**  
**XX'3C' SFPROG**  
**XX'30' SFPROG**  
**XX'34' SFPROG**  
**XX'38' SFPROG**  
**XX'4C' SFPROG**  
**XX'58' SFPROG**  
**XX'6C' SFPROG**  
**XX'64' SFPROG**  
**XX'7C' SFPROG**  
**XX'78' SFPROG**  
**XX'80' SFPROG**  
**XX'84' SFPROG**  
**XX'94' SFPROG**

**FINDSYS** function **SFPROG**

**IUCV**  
**ACCEPT SFPROG**  
**CONNECT SFPROG**  
**DECLARE BUFFER SFPROG**  
**DESCRIBE SFPROG**  
**PURGE SFPROG**  
**QUERY SFPROG**  
**QUIESCE SFPROG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

RECEIVE SFPROG  
 REJECT SFPROG  
 REPLY SFPROG  
 RESUME SFPROG  
 RETRIEVE BUFFER SFPROG  
 SEND SFPROG  
 SET CONTROL MASK SFPROG  
 SET MASK SFPROG  
 SEVER SFPROG  
 TEST COMPLETION SFPROG  
 TEST MESSAGE SFPROG  
 LOADSYS function SFPROG  
 PURGESYS function SFPROG  
 QUERY CONGREF  
 RECEIVE CONGREF  
 RTRVBFR CONGREF  
 SENDCNF CONGREF  
 SENDCNFD CONGREF  
 SENDDATA CONGREF  
 SENDERR CONGREF  
 SENDREQ CONGREF  
 SETCMASK CONGREF  
 SETMASK CONGREF  
 SEVER CONGREF  
 TESTCMPL CONGREF  
 TESTMSG CONGREF  
 conditional loops SPIREF  
   description of SPIUG  
   DO FOREVER instruction SPIUG  
   DO UNTIL instruction SPIUG  
   DO WHILE instruction SPIUG  
   LEAVE instruction SPIUG  
 conditional statements EXEC2  
   example EXEC2  
   syntax EXEC2  
   &IF control statement EXEC2  
   &LOOP control statement EXEC2  
 conditionally displaying text CMSUG  
 conditions  
   determining for AVS CONPAO  
   ERROR SPIREF  
   HALT SPIREF  
   NOVALUE SPIREF  
   saved during subroutine calls SPIREF  
   SYNTAX SPIREF  
   trapping of  
     See SIGNAL instruction  
   VM's DIAG  
     sources that describe DIAG  
 CONFIG macro GCSREF  
   description GCSREF  
   dumpvm parameter GCSREF  
   maxvm parameter GCSREF  
   recvm parameter GCSREF  
   disk parameter GCSREF  
   sysid parameter GCSREF  
   sysname parameter GCSREF  
   tabsize parameter GCSREF  
   ydisk parameter GCSREF  
 configuration ADMIN, PLNGDE  
   aid PLNGDE  
   defining device INTRO  
   DLS support mode ADMIN, PLNGDE  
   DLSE support mode ADMIN, PLNGDE  
   factors influencing performance  
     VM under VM RGOS  
     VSE RGOS  
   file SECUR  
   file, GCS DIAG  
     building INST  
     planning INST  
   for VM/IS INTRO  
 configuring  
   GCS INST  
   starter system INST  
 configuring I/O devices for an MP system  
   See *Diagnosis Reference*  
 CONFIRM state CONGREF, SAACOM  
 CONFIRM synchronization level CONGREF  
 Confirm (CMCFM) routine CONGREF  
   call description SAACOM  
   example flow using SAACOM  
 Confirm-Deallocate state SAACOM  
 Confirm-Send state SAACOM  
 confirmation processing  
   Confirm call SAACOM  
   Confirmed call SAACOM  
   example flow SAACOM  
 confirmation, request CONGREF  
   See also SENDCNF function of APPC/VM  
 Confirmed (CMCFMD) routine CONGREF  
   call description SAACOM  
   example flow using SAACOM  
 CONFIRMED, APPC verb  
   abend conditions CONGREF  
   mapped with APPC/VM CONGREF  
   parameters CONGREF  
   state changes CONGREF  
 CONFIRM, APPC verb  
   abend conditions CONGREF  
   mapped with APPC/VM CONGREF  
   parameters CONGREF  
   state changes CONGREF  
 CONMODE operand  
   of TERMINAL command GENCMD  
 conmode 3270  
   restrictions PLNGDE

**CONNECT**

authorizing

IUCV directory control statement **PLNGDE**connect authority, in SQL/DS levels of **SECUR****CONNECT** function of IUCV **SFPROG**parameter descriptions **CONGREF**parameter list format **SFPROG**return codes **CONGREF**to the DASD block I/O system service **SFPROG**to the signal system service **SFPROG**to the SPOOL system service **SFPROG**trace table entry format **SFPROG**using **SFPROG****CONNECT** function of APPC/VM macro**CONGREF**communication servers **CONGREF**completion **CONGREF**condition codes and return codes **CONGREF**mapped with APPC **CONGREF**parameter descriptions **CONGREF**parameter list **CONGREF**program exceptions **CONGREF**return codes **CONGREF**state changes **CONGREF**to communication partner **CONGREF**use in sample user program **CONGREF****CONNECT** state **CONGREF**

connecting

a window to a virtual screen **CMSREF**DASD for CP access and control **SYSCMD**LUs **CONGREF**

previously unconnected communication lines

**SYSCMD**real device to virtual machine **SYSCMD**remote terminals **GENCMD**virtual channel-to-channel adapters **GENCMD**workstations to VM/SP **INTRO**

connecting to

gateways, authorization to **CONPAO**

private resource server virtual machines

**CONPAO**

programs

for private resources **CONGREF**in an SNA network **CONGREF**on a different VM system **CONGREF**on the same VM system **CONGREF**overview **CONGREF**resource manager **CONGREF****\*IDENT CONGREF****\*IDENT** to revoke a resource **CONGREF**resources, authorization to **CONPAO**

connection complete external interrupt in IUCV

**SFPROG**connection complete interrupt **CONGREF**format **CONGREF**

connection pending external interrupt in IUCV

**SFPROG**connection pending interrupt **CONGREF**contents **CONGREF**format **CONGREF**

connection quiesced external interrupt in IUCV

**SFPROG**

connection request

identifying resource name in **CONPAO**indicating resource name in **CONPAO**

connection resumed external interrupt in IUCV

**SFPROG**

connection severed external interrupt in IUCV

**SFPROG**

connections

inbound

activating **CONPAO**deactivating **CONPAO**

through dedicated private gateway

(example) **CONPAO**

through global gateway (example)

**CONPAO**

through private gateway (example)

**CONPAO**to global resource (example) **CONPAO**to global/local resource **CONPAO**to private resource **CONPAO**to private resource (example) **CONPAO**

outbound

activating **CONPAO**deactivating **CONPAO**locally known name **CONPAO**LU name qualifier **CONPAO**target LU name **CONPAO**through gateway (example) **CONPAO**to resource (example) **CONPAO**

to file pools

allowed by **ENROLL PUBLIC SFSAD**authorizing users for **SFSAD**description of **SFSAD**effect of **DELETE PUBLIC** on **SFSAD**effect of **FORCE** command on **SFSAD**estimating number required **SFSAD**

limiting scope with start-up parameters

**SFSAD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- severing at shutdown **SFSAD**  
 when established **SFSAD**  
 terminal **TERMREF**  
 connectivity **ADRCMS**  
 See also communication  
**ACF/VTAM GIM**  
**APPC GIM**  
**AVS GIM**  
**TSAF GIM**
- Connectivity Facilities on VM/SP  
**APPC INTRO**  
**APPC/VM VTAM Support (AVS) INTRO**  
 applications **INTRO**  
**CPI Communications INTRO**  
 needs of **INTRO**  
**TSAF INTRO**
- Connectivity Program Control Block  
 See **CPRB** (connectivity programming request block)
- CONS** operand  
 of **RIOGEN** macro **PLNGDE**
- considerations  
 control switch assist **RGOS**  
 for coding the IOCP source file **PLNGDE**  
 for paging storage **ADMIN**  
 for virtual = real performance option **OPGDE**  
 for windowing and full-screen CMS **CMSUG**  
 spooling **OPGDE**  
 when using extended storage-key support, storage and processor use  
 See *Diagnosis Reference*
- console **INTRO**  
 alternate  
 defining in **RIOGEN** macro **PLNGDE**  
 description **OPGDE**  
 selecting **OPGDE**  
 constants, **GCS DIAG**  
 controlling spooling **GENCMD**  
 defining real system console **PLNGDE**  
 definition **OPGDE, TERMREF**  
 disconnected **INTRO**  
 disconnecting from virtual machine **GENCMD**  
 function **TERMREF**  
 adding **ADMIN**  
 virtual **SFPROG**
- input  
 procedures **OPGDE**  
 to Format/Allocate program **ADMIN, SFPROG**
- interrupts, handling **ADGCMS**  
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  - TRUNC** option **CMSREF**
  - TYPE** option **CMSREF**
  - UNPACK** option **CMSREF**
  - UPCASE** option **CMSREF**
  - usage **CMSREF**
  - used to change record formats of files **CMSUG**
- copying
  - a file **CMSLOT**, **CMSREF**, **PRIMER**
    - with **COPYFILE** command **CMSUG**
    - within a file pool **ADRCMS**
  - a file pool **SFSAD**
  - a string **SPIUG**
  - a string using **COPIES** **SPIREF**
  - block of lines **XEDIT**
  - books from **VSE** source statement libraries **ADGCMS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- contents of a display screen **CMSUG**  
 DOS catalogued procedure **ADGCMS**  
 DOS files into CMS files **ADGCMS**  
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 files, to a directory **CMSUG**  
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**CMSUG**  
 lines **CMSLOT, PRIMER**  
 in typewriter mode **XEDITUG**  
 using C prefix subcommand **XEDIT,**  
**XEDITUG**  
 using **COPY XEDIT**  
 members of MACLIBs **ADGCMS**  
 members of OS/MVS partitioned data set with  
**FILEDEF ADGCMS**  
 modules from VSE library or SYSIN tapes  
**ADGCMS**  
 modules from VSE relocatable libraries  
**ADGCMS**  
 OS/MVS data sets into CMS files **ADGCMS**  
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 spool files **CMSUG**  
 the physical screen to a CMS file **CMSREF**  
 virtual screen data to a CMS file **CMSREF**  
 VSAM files into CMS disk files **ADGCMS**
- COPYKEY** option  
 of **SET ENTER XEDIT**  
 of **SET PAn XEDIT**  
 of **SET PFn XEDIT**
- COPY =** operand  
**CMSCALL** macro **ADRCMS**
- COPY[\*]nnn** operand  
 dest2 operand  
 of **CHANGE** command **GENCMD**  
 of **SPOOL** command **GENCMD**
- COR** descriptor file  
 example **SERV**  
 function **SERV**
- core image  
 libraries, using in CMS/DOS **ADGCMS**  
 on a DOS disk **ADGCMS**  
 VSE libraries **ADGCMS**
- CO-REQ** statement, update file **SERV**
- correcting  
 lines as you enter them **CMSUG**  
 problems related to page migration **ADMIN**  
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- corrective fixes, description **INTRO**
- corrective service  
 definition **SERV**  
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- SNA products  
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- corrupt control data **SFSAD**  
 corrupt storage group, recovering from **SFSAD**  
**CORTABLE**, specifying size **RGOS**  
**CORTABLE** subcommand of **IPCSSCAN**  
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 description **IPCSREF**  
 example output **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**  
 messages **IPCSREF**  
 operand **IPCSREF**  
 responses **IPCSREF**  
 usage notes **IPCSREF**
- COUNT** function of **SQL APGDE**  
 count operand of **TRACE** subcommand **IPCSREF**  
**COUNT** subcommand of the **PER** command  
**DIAG, GENCMD**  
**COUNT** subcommand of **XEDIT** command  
**XEDIT, XEDITUG**  
 example of **XEDIT, XEDITUG**
- count-key-data **DASD**  
**COPY** restriction **ADMIN, SFPROG**  
 definition **ADMIN, SYMSG**  
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 moving data with tape dump **SFPROG**  
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 initializing **ADMIN**  
 record count area initializing **SFPROG**  
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 movement of data **ADMIN**
- counter data  
 in the monitor records **SFSAD**  
 in the **QUERY FILEPOOL STATUS** command  
**SFSAD**
- counting  
 a string **XEDIT**  
 subcommand executions **XEDIT**  
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- COUPLE** command **CMSUG, GENCMD, RGOS**  
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 userid **GENCMD**  
 vaddr **GENCMD**  
 responses **GENCMD**  
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- COVERLAY** subcommand of **XEDIT** command  
**XEDIT, XEDITUG**

- CP Directory program  
 creating stand-alone version on minidisk **SERV**  
 creating stand-alone version on tape **SERV**
- CP dump option of IPCSPRT command **IPCSREF**
- CP FRET Trap **DIAG**  
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 description **DIAG**  
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- CP ID card  
 description **OPGDE**  
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- CP operand  
 of EXECIO command **CMSREF**  
 of SEND COMMAND **GENCMD**  
 of SET command **SYSCMD**
- CP READ terminal status notice **APGDE, PRIMER**  
 on display terminal **CMSUG**
- CP SEND command **SFSAD**
- CP SET DUMP command **DIAG**
- CP SPOOL CONSOLE command **DIAG**
- CP STCP command **DIAG**
- CP subcommand of XEDIT command **XEDIT, XEDITUG**
- CP TRACE command **DIAG**
- CP (control program) **GIM, PRIMER, SPIUG, TERMREF**  
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 system operator action **SYSMMSG**  
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- abend dump  
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- examining control blocks **DIAG**  
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- adjustments for a file pool server **SFSAD**
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- assist **ADMIN**  
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- checklist for reporting abends **DIAG**  
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- commands  
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- control blocks, locating in storage **DIAG**
- control file  
 DMKH60 **SERV**  
 DMKH60A **SERV**  
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 DMKH60MT **SERV**  
 DMKH60T **SERV**
- control files used in CP options  
 FRET TRAP **INST**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- data
  - collecting in CPTRAP file **DIAG**
  - recording in the CPTRAP file **DIAG**
- DATA** entries, collecting in CPTRAP file **DIAG**
- definition **ADMIN, APGDE, INTRO, SYSMMSG**
- device classes, types, models, and features (DIAGNOSE code X'24') **SFPROG**
- directory
  - function **INST**
  - loading sample files **INST**
  - tailoring **INST**
  - using DISKMAP EXEC to check changes **INST**
- directory entry
  - See directory
- disabled wait **DIAG**
- disk formats **ADMIN**
- enabled wait **DIAG**
- entries in CPTRAP spool file **DIAG**
- environment **APGDE, SPIUG**
- environment, entering **CMSUG**
- error messages **SYSMMSG**
- facilities for debugging programs **INTRO**
- free storage, trapping improper use **DIAG**
- FRET TRAP option **INST**
- general description **INST, INTRO**
- general user command summary **OPGDE**
- in AP and MP modes, multiprocessor, dyadic, and dual processor environments
  - See *Diagnosis Reference*
- interface to CPTRAP **DIAG**
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- internal trace table **DIAG**
  - allocated size **DIAG**
  - description **DIAG**
  - entry format **DIAG**
  - IUCV entry **DIAG**
  - monitoring events **SYSCMD**
  - obtaining a copy of **DIAG**
  - poster **DIAG**
  - restart tracing **DIAG**
  - specifying size **DIAG**
  - suppress tracing **DIAG**
  - traced events **DIAG**
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- introductory description **INTRO**
- issuing commands to **SPIREF**
- load address **SERV**
- loadlist
  - requirements **SERV**
- load map (CPNUC MAP) **IPCSREF**
  - printing **INST**
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- loading code from product tape **INST**
- loading national language files **INST**
- loadlists used for CP options **INST**
- macros
  - FCB (forms control buffer) **ADMIN**
  - FOB (font offset buffer) **ADMIN**
  - FOBCCW **ADMIN**
  - GETMAIN **RGOS**
  - NAME3800 **ADMIN**
  - PIB **ADMIN**
  - PIBCCW **ADMIN**
  - RCHANNEL **RGOS**
  - RCTLUNIT **ADMIN**
  - RDEVICE **ADMIN**
  - SYSACNT **ADMIN**
  - SYSCOR **ADMIN**
  - SYSJRL **ADMIN**
  - SYSMIH **ADMIN**
  - SYSMON **ADMIN**
  - SYSPAG **ADMIN**
  - SYSXSTOR **ADMIN**
  - UCC **ADMIN**
  - UCCCCW **ADMIN**
  - UCS (universal character set) **ADMIN**
  - UCSCCW **ADMIN**
- message **INTRO**
- message repository **SFPROG**
  - DASD space for **SFPROG**
  - saving with DIAGNOSE code X'CC' **SFPROG**
- monitor records generated by SFS **SFSAD**
- nucleus
  - building **INST**
  - defining more than one **INST**
  - defining SYSNUC **OPGDE**
  - DMKSYS ASSEMBLE file **OPGDE**
  - end of resident nucleus address **SERV**
  - FRET TRAP option **INST**
  - IPL procedure improvements **OPGDE**
  - IPLing from tape **INST**
  - load map **INST**
  - options **INST**
  - protecting spool files **OPGDE**
  - saving IPLable copy on tape **INST, SERV**
  - V=R option **INST**
- nucleus, building a new
  - VM under VM **RGOS**
  - VSE **RGOS**
- nucleus considerations
  - MVS guest **RGOS**
  - VM under VM **RGOS**
  - VSE **RGOS**
- options **INST**
- pageable nucleus
  - locking **SYSCMD**
- privilege classes **CMSUG**

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   obtaining a copy **DIAG**  
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   function **INST**  
   loading sample files **INST**  
   tailoring **INST**  
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   See also \*CRM (Collection Resource  
   Management System Service;  
   \*IDENT (Identify System Service)  
   collection resource management **SFPROG**  
   Console Communication **INTRO**  
   DASD Block I/O **INTRO, SFPROG**  
   error logging **SFPROG**  
   identify **SFPROG**  
   IUCV communication **SFPROG**  
   Message **INTRO, SFPROG**  
   message all **SFPROG**  
   signal **SFPROG**  
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   SNA virtual console communication **SFPROG**  
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   MVS problem determination **RGOS**  
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   recording in the CPTRAP file **DIAG**  
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**ACNT ADMIN, SYSCMD**  
**ADSTOP ADMIN**  
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**ATTACH ADMIN, SYSCMD**  
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**CHANGE ADMIN, SYSCMD**  
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**DETACH SYSCMD**  
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   in CMS command environment **CMSREF**  
   in EXEC procedure **CMSREF**  
   in jobs for CMS batch facility **CMSREF**  
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   class E **SYSCMD**  
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**LINK ADMIN**  
   journaling **ADMIN**  
**LOADBUF ADMIN**  
**LOCATE SYSCMD**  
**LOCK ADMIN, SYSCMD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**LOGOFF**  
**FORCE ADMIN**  
**LOGON ADMIN**  
journaling **ADMIN**  
**MESSAGE ADMIN, SYSCMD**  
**MIGRATE SYSCMD**  
MIGRATE command **ADMIN**  
**MONITOR ADMIN, SYSCMD**  
**MSGNOH SYSCMD**  
**NETWORK SYSCMD**  
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**PURGE SYSCMD**  
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class D **SYSCMD**  
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**QUERY PAGING ADMIN**  
**QUERY PSTOR ADMIN**  
**QUERY QDROP ADMIN**  
**QUERY SET ADMIN**  
**QUERY SRM ADMIN**  
**QUERY SRM PGMACT ADMIN**  
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**QUERY VMSAVE ADMIN**  
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**SET ASSIST ADMIN**  
**SET CPASSIST OFF ADMIN**  
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**SET FAVORED command ADMIN**  
**SET MIH ADMIN**  
**SET MINWS ADMIN**  
**SET MITIME ADMIN**  
**SET NOTRANS ADMIN**  
**SET PAGING ADMIN**  
**SET PRIORITY ADMIN**  
**SET QDROP ADMIN**  
**SET RESERVE ADMIN**  
**SET SASSIST ADMIN**  
**SET SASSIST OFF ADMIN**  
**SET SRM ADMIN**  
**SET SRM IBUFF ADMIN**  
**SET SRM MHFULL ADMIN**  
**SET SRM PGFULL ADMIN**  
**SET SRM PGMTLIM ADMIN**  
**SET STBYPASS ADMIN**  
**SET STMULTI ADMIN**  
**SET VMSAVE ADMIN**  
**SETPRT ADMIN**  
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**SPMODE SYSCMD**  
**SPOOL ADMIN, OPGDE**  
**SPOOL CONSOLE START OPGDE**  
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**START ADMIN, SYSCMD**  
**STCP ADMIN, SYSCMD**  
**STORE ADMIN, APGDE**  
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**TAG ADMIN, OPGDE**  
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**CONMODE 3270 SFPROG**  
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**VARY ONLINE ADMIN, OPGDE**  
**WARNING SYSCMD**  
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- CP-owned
- CKD devices
    - format for **ADMIN**
  - FBA devices
    - format for **ADMIN**
  - CPABEND (abend code) **DIAG**
  - CPASSIST
    - of SET command **OPGDE**
  - CPASSIST OFF operand
    - of SET command **ADMIN**
  - CPASSIST operand
    - of QUERY command **SYSCMD**
    - of SET command **SYSCMD**
  - CPCONIO operand
    - of SET command **GENCMD**
  - CPEREP program **DIAG**
    - error recording
    - I/O **OPGDE**
  - CPI (common programming interface)
    - communications **CMSMIG, CONPAO**
    - and LU 6.2 interface **SAACOM**
    - calls **SAACOM**
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  - CPLEVEL operand
    - of QUERY command **GENCMD**
  - CPLOAD EXEC **SERV**
  - CPNAME operand
    - of NAMENCP macro **PLNGDE**
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  - CPNUC MAP **IPCSREF**
  - CPOut operand
    - of SCREEN command **GENCMD**
  - CPRB DSECT, building **ADRCMS**
  - CPRB (connectivity programming request block)
    - content on entry to server (receive request) **SRPI**
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    - freeing storage for **SRPI**
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  - building CPRB DSECT **ADRCMS**
  - DSECT = operand **ADRCMS**
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  - messages (MNOTES) **SRPI**
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    - of NAMENCP macro **PLNGDE**
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    - TO **SYSCMD**
    - trapid **SYSCMD**
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  - syntax diagram, class C **SYSCMD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- TYPE suboperands  
   DATA SYSCMD  
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- CPTRAP facility DIAG**  
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   CP DATA entries in the CPTRAP file **DIAG**  
   I/O activity **DIAG**  
   trace table entries in the CPTRAP file **DIAG**  
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   virtual machine data in the CPTRAP file **DIAG**  
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   DL operand **DIAG**  
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   TTABLE traps **DIAG**  
   type DATA trap **DIAG**  
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   See also CPU identification  
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 CRDTE operand of LABEL command  
   **CMSREF**  
 CREATE ALIAS command CMSLOT, CMSREF,  
   **PRIMER**

CREATE DIRECTORY command **CMSLOT**,  
**CMSREF**, **PRIMER**

CREATE INDEX command of SQL **APGDE**

CREATE LOCK command **CMSLOT**, **CMSREF**,  
**CMSUG**, **PRIMER**

CREATE NAMEDEF command **CMSREF**

CREATE TABLE command of SQL **APGDE**

CREATE VIEW

command of SQL **APGDE**

statement in SQL **APGDE**

CREATED output field of STAT command  
**IPCSREF**

creating

See also setting, up

a callable services library (CSL)

creating template files **CMSMIG**

description **CMSMIG**

notes and restrictions for writing CSL routines  
**CMSMIG**

steps for creating a CSL **CMSMIG**

a class override file **ADMIN**

a directory **CMSLOT**, **PRIMER**

a dump **DIAG**

a file **XEDITUG**

from a FILELIST screen **PRIMER**

from FILELIST **CMSLOT**

in typewriter mode **XEDITUG**

using PUT **XEDIT**

using PUTD **XEDIT**

using XEDIT command **CMSLOT**, **PRIMER**,  
**XEDIT**

using XEDIT subcommand **XEDIT**

a file pool **SFSAD**

a macro file **XEDITUG**

a new file from an existing file **SPIUG**

a program **CMSLOT**, **PRIMER**

a program stack buffer via **MAKEBUF**  
**CMSREF**

a start-up parameter file **SFSAD**

a TSAF dump **DIAG**

a virtual screen **CMSREF**

a window **CMSREF**

aliases **CMSUG**

to files **CMSUG**

to an alias **CMSUG**

to another user's file **CMSUG**

to your own file **CMSUG**

an alias **ADRCMS**, **PRIMER**

to another user's file **CMSLOT**, **PRIMER**

to your own file **CMSLOT**

an AVS dump **DIAG**

an XEDIT profile **PRIMER**

CMS files from DOS libraries **ADGCMS**

command HELP files **CMSUG**

copy modifications **ADMIN**

disk space

precautions **GENCMD**

DOSLIB files **ADGCMS**

dumps **CONPAO**

file from DOS disks and tapes **ADGCMS**

file with System Product Editor **CMSUG**

forms control buffers **ADMIN**

graphic modifications **ADMIN**

HELP message files **CMSUG**

HELP text files **CMSUG**

HELPMENU files **CMSUG**

HELPTASK files **CMSUG**

library character sets **ADMIN**

macro libraries

example in CMS/DOS **ADGCMS**

from a DOS library **ADGCMS**

macros for writing CSL routines

**CSLENTY** **CMSMIG**

**CSLEXIT** **CMSMIG**

**CSLGETP** **CMSMIG**

menus, HELP file **CMSUG**

modules from VSE library or SYSIN tapes

**ADGCMS**

named system **SYSCMD**

notes **CMSUG**

one spool file from many files being printed or  
punched **CMSUG**

**PROFILE EXEC** **CMSUG**

System Product Interpreter EXECs **CMSUG**

the TSAF IPCS map **DIAG**

CREPLACE subcommand of XEDIT command  
**XEDIT**, **XEDITUG**

compared to **OVERLAY** **XEDIT**

with DBCS strings **XEDIT**

\*CRM (Collection Resource Management System  
Service) **SFPROG**

answer data from the local CP **SFPROG**

authorizing a virtual machine to connect to

**CONPAO**

establishing a connection **SFPROG**

how CP broadcasts a directory request to the

collection **SFPROG**

IUCV directory entry **CONPAO**

process requests for directory information

**SFPROG**

Refer to the foldout page at the back of this book for a  
chart of abbreviations and their corresponding manuals.

- requesting system resource/gateway table information **SFPROG**
- revoking a global resource or gateway **SFPROG**
- SEVER** reason codes **SFPROG**
- severing the connection **SFPROG**
- TSAF** answering CP **SFPROG**
- TSAF** communications **SFPROG**
- TSAF** requesting local directory information **SFPROG**
- Cross Memory Assist feature
  - enabling **GENCMD**
- cross memory processing
  - for MVS guest **RGOS**
- cross-memory services **RGOS**
- cryptographic algorithm **SECUR**
- cryptographic key **SECUR**
- cryptography, definition of **SECUR**
- CSA** (common service area) **RGOS**
- CSAB** (common storage anchor blocks) **DIAG**
- CSECT** (control section), definition **DIAG**
- CSECTs** duplicated for **LOAD** command **CMSREF**
- CSISP CNTRL**
  - contents **SERV**
  - function **SERV**
- CSIYTD** routine **DIAG**
- CSL** (callable services library) **APGDE, CMSUG, CONGREF**
  - building libraries **ADGCMS**
  - control files **ADGCMS**
  - creating
    - and using **ADGCMS**
    - routines **ADGCMS**
    - template files **ADGCMS, CMSMIG**
  - description **INTRO**
  - examples **ADGCMS**
  - Extract/Replace **ADGCMS**
    - active file set **CMSMIG**
    - cross-reference of control block to information name **CMSMIG**
    - device set **CMSMIG**
    - file set **CMSMIG**
    - general system set **CMSMIG**
    - information names **CMSMIG**
    - minidisk and directory set **CMSMIG**
    - OS simulation set **CMSMIG**
    - shared file set **CMSMIG**
  - invoking routines **ADGCMS**
  - languages **CSL** routines can be called from **ADRCMS**
  - macros for writing **CSL** routines **CMSMIG**
  - notes and restrictions for writing **CSL** routines **CMSMIG**
  - OS/VS COBOL** **INTRO**
  - PL/I** **INTRO**
- return codes **SYSMSG**
- routines
  - See **CSL** (callable services library) routines
  - steps for creating a **CSL** **CMSMIG**
  - VMLIB** **ADRCMS, ADGCMS**
    - CMS** commands used with **VMLIB** routines **CMSMIG**
    - routines, description **CMSMIG**
  - VS COBOL II** **INTRO**
  - VS FORTRAN** **INTRO**
  - VS Pascal** **INTRO**
  - writing routines **ADGCMS**
- CSL** (callable services library) routines **CMSREF**
  - accessing **REXX** variables **ADRCMS**
  - call formats for languages that support **CSL** **ADRCMS**
  - calling a **REXX EXEC** **ADRCMS**
  - calling **SFS** general functions **ADRCMS**
  - calling the **CMS** Extract/Replace function **ADRCMS**
  - displaying **CMSREF**
  - DMSCCE** (Calling a **REXX EXEC**) **ADRCMS**
  - DMSCDR** (Drop a **REXX** Variable) **ADRCMS**
  - DMSCGR** (Get a **REXX** Variable) **ADRCMS**
  - DMSCGS** (Get Special **REXX** Values) **ADRCMS**
  - DMSCGX** (Get the Next **REXX** Variable) **ADRCMS**
  - DMSCHECK** (**SFS** Check) **ADRCMS**
  - DMSCBLK** (**SFS** Close Blocks) **SFSAD**
  - DMSCLCAT** (**SFS** Close Catalog) **SFSAD**
  - DMSCLDIR** (**SFS** Close Directory) **ADRCMS**
  - DMSCLOSE** (**SFS** Close) **ADRCMS**
  - DMSCOMM** (**SFS** Commit) **ADRCMS**
  - DMSCPYBF** (**SFS** Copy Buffer) **SFSAD**
  - DMSCRALI** (**SFS** Create Alias) **ADRCMS**
  - DMSCRDIR** (**SFS** Create Directory) **ADRCMS**
  - DMSCRLOC** (**SFS** Create Lock) **ADRCMS**
  - DMSCSR** (Set a **REXX** Variable) **ADRCMS**
  - DMSDELOC** (**SFS** Delete Lock) **ADRCMS**
  - DMSDEUSR** (**SFS** Delete User) **SFSAD**
  - DMSDISFS** (**SFS** Disable File Space) **SFSAD**
  - DMSDISSG** (**SFS** Disable Storage Group) **SFSAD**
  - DMSENAFS** (**SFS** Enable File Space) **SFSAD**
  - DMSENASG** (**SFS** Enable Storage Group) **SFSAD**
  - DMSENUSR** (**SFS** Enroll User) **SFSAD**
  - DMSERASE** (**SFS** Erase) **ADRCMS**
  - DMSERP** (Extract/Replace) **ADRCMS**
  - DMSEXIDI** (**SFS** Exist—Directory) **ADRCMS**
  - DMSEXIFI** (**SFS** Exist—File) **ADRCMS**
  - DMSEXIST** (**SFS** Exist) **ADRCMS**
  - DMSFILEC** (**SFS** Filecopy) **ADRCMS**
  - DMSGETDA** (**SFS** Get Directory—Searchall) **ADRCMS**

**DMSGETDD** (SFS Get Directory—Dir)  
**ADRCMS**  
**DMSGETDF** (SFS Get Directory—File)  
**ADRCMS**  
**DMSGETDI** (SFS Get Directory) **ADRCMS**  
**DMSGETDK** (SFS Get Directory—Lock)  
**ADRCMS**  
**DMSGETDL** (SFS Get Directory—Alias)  
**ADRCMS**  
**DMSGETDS** (SFS Get Directory—Searchauth)  
**ADRCMS**  
**DMSGETDT** (SFS Get Directory—Auth)  
**ADRCMS**  
**DMSGETFM** (Get Filemode) **ADRCMS**  
**DMSGETWU** (Get Workunitid) **ADRCMS**  
**DMSGRANT** (SFS Grant Authority) **ADRCMS**  
**DMSOPBLK** (SFS Open Blocks) **SFSAD**  
**DMSOPCAT** (SFS Open Catalog) **SFSAD**  
**DMSOPDIR** (SFS Open Directory) **ADRCMS**  
**DMSOPEN** (SFS Open) **ADRCMS**  
**DMSPOPWU** (Pop Default Workunitid)  
**ADRCMS**  
**DMSPURWU** (Purge Workunitid) **ADRCMS**  
**DMSPUSWU** (Push Default Workunitid)  
**ADRCMS**  
**DMSQCONN** (SFS Query Connect) **ADRCMS**  
**DMSQFMOD** (Query Filemode) **ADRCMS**  
**DMSQLIM** (SFS Query Limits) **SFSAD**  
**DMSQLIMD** (SFS Query Limits—Deblocker)  
**SFSAD**  
**DMSQLIMU** (SFS Query Limits—Single User)  
**ADRCMS**  
**DMSRDBLK** (SFS Read Blocks) **SFSAD**  
**DMSRDCAT** (SFS Read Catalog) **SFSAD**  
**DMSREAD** (SFS Read) **ADRCMS**  
**DMSRELBK** (SFS Release Blocks) **SFSAD**  
**DMSRELOC** (SFS Relocate) **ADRCMS**  
**DMSRENAM** (SFS Rename) **ADRCMS**  
**DMSREVOK** (SFS Revoke Authority)  
**ADRCMS**  
**DMSROLLB** (SFS Rollback) **ADRCMS**  
**DMSWRACC** (SFS Write Accounting Record)  
**SFSAD**  
**DMSWRBLK** (SFS Write Blocks) **SFSAD**  
**DMSWRCAT** (SFS Write Catalog) **SFSAD**  
**DMSWRITE** (SFS Write) **ADRCMS**  
**DMSWUERR** (SFS Wuerror Deblocker)  
**ADRCMS**  
 general format **ADRCMS**  
 linking CSL routines to your program **ADRCMS**  
 parameters **ADRCMS**  
 call to **DMSCSL** **ADRCMS**  
 general description **ADRCMS**  
 retcode **ADRCMS**  
 rtnname **ADRCMS**  
**CSLCNTRL** file type  
 usage in CMS **CMSUG**  
**CSLENTY** macro **ADGCMS**  
 general format **ADRCMS**  
**CSLEXIT** macro **ADGCMS**  
 general format **ADRCMS**  
**CSLFPI** macro  
 general format **ADRCMS**  
**CSLGEN** command **ADGCMS**  
**CSLGEN EXEC** **INTRO**  
**CSLGETP** macro **ADGCMS**  
 general format **ADRCMS**  
**CSLLIB** file type  
 usage in CMS **CMSUG**  
**CSLLIST** command **CMSMIG**, **CMSREF**  
**CSLSEG** file type  
 usage in CMS **CMSUG**  
**CSMRETCD** macro **ADGCMS**, **ADRCMS**,  
**APGDE**, **CMSMIG**  
 return codes, defining names for **ADRCMS**  
**CSMRETCD** (IBM ECF return code) **SRPI**  
**CSW** operand  
 of **DISPLAY** command **GENCMD**  
 of **TRACE** command **GENCMD**  
**CSW** (channel status word)  
 definition of **DIAG**  
 displaying **GENCMD**  
 information contained in **DIAG**  
 problems helped by **DIAG**  
**csw**, variable  
 described **GENCMD**, **SYSCMD**  
**CTC** **RGOS**  
**CTCA** (channel-to-channel adapter)  
 coding **RDEVICE** macro **PLNGDE**  
 driver **IPCSREF**  
 links **CONPAO**  
**CTCA** operand  
 of **DEFINE** command **GENCMD**  
**CTL** option  
 of **EXECUPDT** command **CMSREF**  
**CTLBUFFERS** start-up parameter **SFSAD**  
**CTLCHAR** option  
 of **EXTRACT** **XEDIT**  
 of **SET** **XEDIT**  
 of **TRANSFER** **XEDIT**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- CURLINE** option  
of **EXTRACT XEDIT**  
of **QUERY XEDIT**  
of **SET XEDIT**  
of **TRANSFER XEDIT**
- current column **XEDITUG**  
in typewriter mode **XEDITUG**
- current line  
advancing  
using a target **XEDIT**  
using **DOWN XEDIT**  
using **NEXT XEDIT**
- appending text to **XEDIT**  
appending words to **XEDITUG**  
in typewriter mode **XEDITUG**
- as starting place for subcommands **XEDITUG**
- changing  
location on screen **XEDITUG**  
location on screen, example of **XEDITUG**  
position on screen of **XEDIT**  
using a target **XEDITUG**  
using **CLOCATE XEDITUG**  
using **DOWN XEDITUG**  
using **UP XEDITUG**  
using / **XEDITUG**
- defining display features **XEDITUG**  
defining line on screen as **XEDIT**  
description **CMSLOT**  
displaying **CMSLOT**  
displaying in typewriter mode **XEDITUG**  
in file identification line **PRIMER**  
indicator in file identification line **XEDITUG**  
location on screen **XEDITUG**  
moving  
to last line of file, using **BOTTOM CMSLOT**  
to top of file, using **TOP CMSLOT**  
toward end of file, using **DOWN CMSLOT**  
toward top of file, using **UP CMSLOT**  
using **LOCATE CMSLOT**
- position on screen **EXEC2, PRIMER**  
replacing **CMSLOT, XEDIT**  
replacing, in typewriter mode **XEDITUG**  
setting **XEDIT**  
using target as displacement from **XEDITUG**
- CURRENT** operand  
of **QUERY** command **SYSCMD**
- current terminal line width **SPIREF**  
current trace entry definition **IPCSREF**
- cursor **CMSLOT, XEDITUG**  
control keys **APGDE**  
defined **TERMREF**  
displaying position of **XEDIT**  
explanation of **PRIMER**  
extracting position of **XEDIT**  
joining lines at **XEDIT**
- movement keys for **PRIMER**  
moving  
back and forth between command line and  
screen **XEDIT**  
in the file **XEDIT**  
on the screen **XEDIT**  
to command line **XEDIT, XEDITUG**  
to current column **XEDIT**  
to specified location **XEDITUG**  
placement in multiple screens **XEDITUG**  
positioning **CMSREF**  
splitting a line at **XEDIT**  
transferring position of **XEDIT**
- CURSOR** command of **DMS/CMS APGDE**
- CURSOR** option  
of **EXTRACT XEDIT**  
of **QUERY XEDIT**  
of **TRANSFER XEDIT**
- CURSOR** subcommand of **XEDIT** command  
**XEDIT**  
with DBCS strings **XEDIT**
- CURSOR VSCREEN** command **CMSUG**  
description **CMSREF**  
format **CMSREF**  
messages **CMSREF**  
operands  
col **CMSREF**  
**DATA CMSREF**  
line **CMSREF**  
**RESERVED CMSREF**  
vname **CMSREF**  
responses **CMSREF**  
usage notes **CMSREF**
- CUSTOMER PROFILE** file **INST, IPCSREF**  
sample **IPCSREF**
- CUTYPE** operand  
of **CLUSTER** macro **PLNGDE**  
of **RCTLUNIT** macro **PLNGDE**
- cuu operand  
of **MRIOBLOK** subcommand **IPCSREF**  
of **VIOBLOK** subcommand **IPCSREF**
- cuu, variable  
described **GENCMD, SYSCMD**
- CVB** operand of **GDISPLAY** subcommand  
**IPCSREF**
- CVT** macro **GCSREF**  
description **GCSREF**
- CVTSECT** (CMS communications vector table)  
**DIAG**
- CYLADDR** operand  
of **DEFNUC** macro **PLNGDE**
- cylinder zero  
format for **ADMIN, SFPROG**  
format for all cylinders except **ADMIN**

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**cylinders**

except cylinder zero  
format for **ADMIN**  
format for use by CP **ADMIN**  
format of cylinder zero **ADMIN**  
on 2314/2319 disk **ADGCMS**  
on 3330 disk **ADGCMS**  
**cylno** operand

of IPL command **GENCMD**  
**cylno**, variable  
described **GENCMD, SYSCMD**  
**cyl**, variable  
described **GENCMD, SYSCMD**  
C2D function **SPIREF**  
C2X function **SPIREF**  
**c**, variable  
described **GENCMD, SYSCMD**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## D

- D border command **PRIMER**
- D parameter  
 DMSGETDS (SFS Get Directory—Searchauth)  
**ADRCMS**
- D prefix subcommand of XEDIT command **APGDE**,  
**PRIMER**, **XEDIT**, **XEDITUG**  
 example of **XEDIT**  
 practice exercise using **XEDITUG**
- D-disk accessed after IPLing CMS **CMSREF**
- DAC component of file pool server **SFSAD**
- dangling conversation **SAACOM**
- dangling ELSE **SPIUG**
- DASD  
 See DASD (direct access storage device)
- DASD Block I/O System Service **INTRO**, **SFPROG**  
 establishing communications **SFPROG**  
 from CMS **SFPROG**  
 IUCV communication **SFPROG**  
 IUCV CONNECT **SFPROG**  
 IUCV SEND **SFPROG**
- DASD Dump Restore (DDR)  
 See DDR (DASD DUMP/Restore) program
- DASD operand  
 of QUERY command **SYSCMD**  
 of QUERY VIRTUAL command **GENCMD**
- DASD (direct access storage device) **ADMIN**,  
**SFPROG**  
 See also disk  
 cached **ADMIN**  
 caching **SYSCMD**  
 configuration aid **PLNGDE**  
 connecting for CP access and control **SYSCMD**  
 creating stand-alone version on minidisk **SERV**  
 creating stand-alone version on tape **SERV**  
 device addresses  
 specifying **SYSCMD**  
 device/model codes **ADMIN**  
 displaying status **SYSCMD**  
 factors affecting requirements **INTRO**  
 failures  
 allowing partial file pool access after **SFSAD**  
 recovering from **SFSAD**  
 for spool buffering **OPGDE**  
 format, stand-alone dump **DIAG**  
 I/O function **SFPROG**  
 listing users currently linked to the same **GENCMD**  
 minidisk **INTRO**  
 monitoring missing interruptions **SYSCMD**  
 operations **ADMIN**  
 paths to **ADMIN**  
 preferred DASD area **INTRO**  
 sharing **ADMIN**, **INTRO**
- sharing, MVS virtual machine **RGOS**  
 address considerations **RGOS**  
 alternate path support **RGOS**  
 asymmetric multiprocessing **RGOS**  
 data protection with virtual reserve/release  
**RGOS**  
 definitions **RGOS**  
 dynamic path selection **RGOS**  
 hardware for **RGOS**  
 initializing **RGOS**  
 multiprocessing considerations with MVS guest  
**RGOS**  
 reserve/release CCWs **RGOS**  
 sharing minidisk **RGOS**  
 symmetric multiprocessing **RGOS**
- sharing, VSE virtual machine **RGOS**  
 considerations **RGOS**  
 dedicated or attached **RGOS**  
 hardware for **RGOS**  
 minidisk with virtual reserve/release **RGOS**  
 minidisk without virtual reserve/release **RGOS**  
 reserve/release support **RGOS**  
 sharing minidisk **RGOS**  
 virtual reserve/release **RGOS**  
 with a stand-alone VSE System **RGOS**  
 with hardware switches but within one  
 processor **RGOS**  
 without hardware switches **RGOS**
- skew  
 definition **ADMIN**, **SYSMMSG**
- space  
 allocating on CP owned volumes **ADMIN**,  
**SFPROG**  
 for CP message repository **SFPROG**  
 specified in system directory **INTRO**
- storage  
 accounting for use of **SFSAD**  
 adding to the file pool **SFSAD**  
 allocating to users **SFSAD**  
 changing amounts allocated to users **SFSAD**  
 directing control data backups to **SFSAD**  
 increasing file pool limit of **SFSAD**  
 managing **SFSAD**  
 monitoring consumption of **SFSAD**  
 querying a user's allocation **SFSAD**  
 removing from file pool **SFSAD**  
 setting warning threshold for **SFSAD**
- supported in Starter System procedure **INST**  
**SYSONW** macro  
 allocating on CP-owned volumes **PLNGDE**  
**SYRES** macro  
 calculating cylinders for checkpoint start data  
**PLNGDE**  
 calculating cylinders needed for warm start  
 data **PLNGDE**

- using mixed DASD **INST**  
 virtual storage **INTRO**  
 volumes  
   formatting **ADMIN, SFPROG**  
   initializing **SFPROG**  
   labeling **ADMIN, SFPROG**  
   required to install VM/SP HPO **INST**  
 3350 **ADMIN**  
 3380 **ADMIN**
- DASDOPT** directory control statement  
 for the 3990 storage control model 3 **ADMIN**  
 operands **PLNGDE**  
   **DEVCTL PLNGDE**  
   **NOCTL PLNGDE**  
   **SYSCTL PLNGDE**
- DASTAP** class monitor records **ADMIN**  
**DASTAP** operand  
 of **MONITOR** command **SYSCMD**
- DAT** option  
 of **PER** command **GENCMD**
- DAT** (dynamic address translation)  
 definition **ADMIN, SYSMSG**
- data  
 buffering and transmission **SAACOM**  
 changing  
   globally **XEDITUG**  
   selectively **XEDITUG**  
   using **CHANGE XEDITUG**  
   using **COVERLAY XEDITUG**  
   using **CREPLACE XEDITUG**  
 direction, changing  
   by receiving program **SAACOM**  
   by sending program **SAACOM**  
 catalog sharing **ADGCMS**  
 entering  
   on display terminal **XEDITUG**  
   on typewriter terminal **XEDITUG**  
 field **APGDE**  
 file, sharing **INTRO**  
 flow  
   both directions **SAACOM**  
   one direction **SAACOM**  
 from **CPTRAP**, analyzing **DIAG**  
 how it is sent **CONGREF**  
 integrity **INTRO**  
 length **SPIREF**  
 links **CONGREF**  
 locating
- using a target **XEDITUG**  
 using **CLOCATE XEDITUG**  
 loss **DIAG**  
   recovering from **SFSAD**  
   reducing the probability of **DIAG**  
 lost, situations with **CPTRAP DIAG**  
 management **IPCSREF**  
 needed before calling IBM for assistance **DIAG**  
 path through **VTAM** machine **GCSREF**  
 prompting user for **SPIUG**  
 purging **SAACOM**  
 putting onto a program stack **SPIUG**  
 reception and validation of **SAACOM**  
 records  
   description **SAACOM**  
   Receive call **SAACOM**  
   Send\_Data call **SAACOM**
- sets  
 See also console, I/O; modem  
 creating files **ADGCMS**  
 format of **ADGCMS**  
 identify **VSAM ADGCMS**  
**OS/MVS ADGCMS**  
 reading, **OS/MVS ADGCMS**  
 specifying a member name **ADGCMS**  
**VSAM, compatibility considerations**  
**ADGCMS**
- sheet, problem inquiry **DIAG**  
 taking from a program stack **SPIUG**  
 terms **SPIREF**  
 transfer error codes, **VMCF SFPROG**  
 transfer functions of **VMCF SFPROG**  
 types, checking **SPIUG**
- data area  
 conversion considerations **CMSMIG**  
 in full-screen **CMS CMSUG**  
 mappings  
   for **DMSQLIMA** routine **SFSAD**  
   of **DMSRDCAT** routine **SFSAD**
- DATA** entries in the **CPTRAP** file **DIAG**  
 data extraction routine **DIAG**  
 data option of **LOCATE** subcommand **IPCSREF**  
**DATA** parameter (**APPC**)  
   of **RECEIVE\_AND\_WAIT CONGREF**  
   of **SEND\_DATA CONGREF**
- data set control block (**DSCB**) **ADGCMS**  
**DATA** (keyword definition) **IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**DATA-type trap DIAG**

CP data, using DATA-type trap **DIAG**  
 DATA entries, collecting in the CPTRAP file  
**DIAG**

interface to CPTRAP, setting up **DIAG**  
 specifying, using CPTRAP INFILE operand  
**DIAG**

using to record CP data **DIAG**

database (SQL) **INTRO**

database testing **APGDE**

datalink string **DIAG**

datamask in DMS/CMS **APGDE**

DATATYPE function **SPIREF, SPIUG**

datatype of a word **EXEC2**

date and version of the language processor **SPIREF**

DATE control statement for FILEPOOL FORMAT  
**AUDIT SFSAD**

date displayed **CMSLOT, PRIMER**

DATE field in FILEPOOL FORMAT AUDIT  
 output **SFSAD**

DATE function **SPIREF**

date operand

of LISTFILE command **CMSREF**

of TIME subcommand **IPCSREF**

datespec format of time stamp **IPCSREF**

datespec operand of TIME subcommand **IPCSREF**

datespec specification of time stamp **IPCSREF**

date, variable

described **GENCMD, SYSCMD**

DATOFF option

of PER command **GENCMD**

day of week displayed **CMSLOT, PRIMER**

DBADJUST function **SPIREF**

DBBRACKET function **SPIREF**

DBCENTER function **SPIREF**

DBCJUSTIFY function **SPIREF**

DBCS (double-byte character set) **XEDIT**

character strings **SPIREF**

functions

**DBADJUST SPIREF**

**DBBRACKET SPIREF**

**DBCENTER SPIREF**

**DBCJUSTIFY SPIREF**

**DBLEFT SPIREF**

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**DBRLEFT SPIREF**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**DIRMAINT** (Virtual Machine/Directory Maintenance Licensed Program)

See also **DMPP** (Directory Maintenance Program Product)

**DIRMAINT** command **ADMIN**  
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**CMSUG**loading files **CMSUG****DISK** device type **APGDE**disk error, SVC 199 services **IPCSREF****DISK** operandof **ASSEMBLE** command **CMSREF**of **DOSLIB** command **CMSREF**of **DOSLKED** command **CMSREF**of **DSERV** command **CMSREF**of **FILEDEF** command **CMSREF**of **LKED** command **APGDE, CMSREF**of **LOADLIB** command **CMSREF**of **MACLIB** command **CMSREF**of **MACLIB** command **MAP** function **APGDE**of **PSERV** command **CMSREF**of **TXTLIB** command **APGDE**of **SET** command **SYSCMD**use with **FILEDEF** command **CMSREF**

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**DMKUCS ASSEMBLE**  
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 loading sample file **INST**  
 tailoring **INST**  
**DMMDSC IPCSREF**  
**DMMFEDLN** entry point **IPCSREF**  
**DMMSP CNTRL**  
 contents **SERV**  
 function **SERV**  
**DMMTAB** communication table **DIAG**  
**DMMTSC** module **IPCSREF**  
**DMMTSCCT** routine **IPCSREF**  
**DMPINREC** **DIAG, IPCSREF**  
**DMPKYREC1** **DIAG**  
**DMPKYREC2** **DIAG**  
**DMPP** (Directory Maintenance Program Product)  
**SECUR**  
 access control  
 access list for minidisks **SECUR**  
 auto-deactivation of restricted passwords  
**SECUR**  
 password management **SECUR**  
 access control by **DMPP**  
 directory integrity **SECUR**  
 access control by user **SECUR**  
 disk access control **SECUR**  
**DMSABN** (abend routine) macro **DIAG**  
 abending a program **ADRCMS**  
 forcing an abend **ADGCMS**  
**TYPICAL** = operand **ADRCMS**  
**DMSCCE** (Calling a REXX EXEC)  
 general format **ADRCMS**  
 multiple variables in an argument string  
**ADRCMS**  
 use for invoking CP or CMS commands  
**ADRCMS**  
 use for issuing **FILEDEF** command **ADRCMS**  
**DMSCDR** (Drop a REXX Variable)  
 general format **ADRCMS**  
**DMSCGR** (Get a REXX Variable)  
 general format **ADRCMS**  
 specifying qualifiers of variable name **ADRCMS**  
**DMSCGS** (Get Special REXX Values)  
 general format **ADRCMS**  
**DMSCGX** (Get the Next REXX Variable)  
 calls that cause search to restart **ADRCMS**  
 general format **ADRCMS**  
 specifying qualifiers of variable names **ADRCMS**  
**DMSCHECK** (SFS Check)  
 rollback considerations **ADRCMS**  
**DMSCLBLK** (SFS Close Blocks) **SFSAD**  
**DMSCLCAT** (SFS Close Catalog) **SFSAD**  
 duplication of userids while using **SFSAD**  
 general format **SFSAD**  
**DMSCLDIR** (SFS Close Directory) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 general format **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
**DMSCLOSE** (SFS Close) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
**DMSCOMM** (SFS Commit)  
 general format **ADRCMS**  
 rollback considerations **ADRCMS**  
**DMSCPYBF** (SFS Copy Buffer) **SFSAD**  
**DMSCRALI** (SFS Create Alias) **ADGCMS**  
 authority considerations **ADRCMS**  
 COMMIT parameter **ADRCMS**  
 creating an alias in the same directory  
**ADRCMS**  
 creating an alias on a locked file/directory  
**ADRCMS**  
 general format **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 pointer to base file **ADRCMS**  
**DMSCRDIR** (SFS Create Directory)  
 COMMIT parameter **ADRCMS**  
 creating subdirectory in locked directory  
**ADRCMS**  
 general format **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
**DMSCRLOC** (SFS Create Lock) **ADGCMS**  
 authority considerations **ADRCMS**  
 creating an alias on a locked file/directory  
**ADRCMS**  
 Disable routines that override lock created  
**ADRCMS**  
**EXCLUSIVE** parameter **ADRCMS**  
**LASTING** parameter **ADRCMS**  
**SESSION** parameter **ADRCMS**  
**SHARE** parameter **ADRCMS**  
**UPDATE** parameter **ADRCMS**  
**DMSCSL** routine **ADGCMS**  
**DMSCSR** (Set a REXX Variable)  
 general format **ADRCMS**  
 passing values to an application program  
**ADRCMS**  
 required specification of qualifiers **ADRCMS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- DMSDAC** logical saved segment  
 function **INST**  
 installing **INST**
- DMSDELOC** (SFS Delete Lock) **ADGCMS**  
 general format **ADRCMS**  
 specifying an alias name **ADRCMS**  
 who may delete a lock **ADRCMS**
- DMSDEUSR** (SFS Delete User) **SFSAD**  
 administrator authority required **SFSAD**  
 conditions that can cause failure **SFSAD**  
 general format **SFSAD**
- DMSDISFS** (SFS Disable File Space) **SFSAD**  
 as used with Disable Storage Group **SFSAD**  
 authority considerations **SFSAD**  
 duration of **SFSAD**  
 use with file/directory locks **SFSAD**
- DMSDISSG** (SFS Disable Storage Group) **SFSAD**  
 as used with Disable File Space **SFSAD**  
 duration of **SFSAD**
- DMSENAFS** (SFS Enable File Space) **SFSAD**  
 valid userids for **SFSAD**
- DMSENASG** (SFS Enable Storage Group) **SFSAD**  
 relinking considerations **SFSAD**  
 valid userids for **SFSAD**
- DMSENUUSR** (SFS Enroll User) **SFSAD**
- DMSERASE** (SFS Erase) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 conditions preventing erasure **ADRCMS**  
 FILES parameter **ADRCMS**  
 general format **ADRCMS**  
 handling aliases **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 who may enter an Erase **ADRCMS**
- DMSERP** (Extract/Replace)  
 description of **ADGCMS**  
 extracting system information **ADRCMS**  
 general format **ADRCMS**  
 RESET function **ADRCMS**  
 sample of **ADGCMS**
- DMSEX085E EXEC2**
- DMSEX175E EXEC2**
- DMSEX255T EXEC2**
- DMSEXIDI** (SFS Exist—Directory) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 read authority required **ADRCMS**
- DMSEXIFI** (SFS Exist—File) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 F parameter **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 read authority required **ADRCMS**  
 V parameter **ADRCMS**
- DMSEXIST** (SFS Exist) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 read authority required **ADRCMS**
- DMSEXS** macro **ADRCMS**
- DMSFILEC** (SFS Filecopy)  
 COMMIT parameter **ADRCMS**  
 general format **ADRCMS**  
 NEWDATE parameter **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 OLDDATE parameter **ADRCMS**  
 REPLACE parameter **ADRCMS**
- DMSFREE** macro **ADGCMS, ADRCMS, CMSMIG**  
 comparison to **CMSSTOR CMSMIG**
- DMSFRES** macro **ADGCMS, ADRCMS, CMSMIG**
- DMSFRET** macro **ADGCMS, ADRCMS, CMSMIG**  
 comparison to **CMSSTOR CMSMIG**
- DMSFST** macro  
 format of **ADGCMS**  
 FORM=E operand **ADRCMS**
- DMSGETDA** (SFS Get Directory—Searchall)  
 F parameter **ADRCMS**  
 general format **ADRCMS**  
 V parameter **ADRCMS**
- DMSGETDD** (SFS Get Directory—Dir)  
 general format **ADRCMS**
- DMSGETDF** (SFS Get Directory—File)  
 F parameter **ADRCMS**  
 general format **ADRCMS**  
 V parameter **ADRCMS**
- DMSGETDI** (SFS Get Directory) **ADGCMS**  
 general format **ADRCMS**
- DMSGETDK** (SFS Get Directory—Lock)  
 general format **ADRCMS**
- DMSGETDL** (SFS Get Directory—Alias)  
 general format **ADRCMS**
- DMSGETDS** (SFS Get Directory—Searchauth)  
 D parameter **ADRCMS**  
 F parameter **ADRCMS**  
 general format **ADRCMS**  
 V parameter **ADRCMS**
- DMSGETDT** (SFS Get Directory—Auth)  
 general format **ADRCMS**
- DMSGETFM** (Get Filemode)  
 general format **ADRCMS**
- DMSGETWU** (Get Workunitid) **ADGCMS**  
 general format **ADRCMS**
- DMSGRANT** (SFS Grant Authority) **ADGCMS**  
 COMMIT parameter **ADRCMS**  
 general format **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**

**PUBLIC** parameter **ADRCMS**  
**READ** parameter **ADRCMS**  
**TO** parameter **ADRCMS**  
 who may grant authorities **ADRCMS**  
**WRITE** parameter **ADRCMS**  
**DMSIBM POOLDEF** file **SFSAD**  
**DMSITP DIAG**  
**DMSJNE** routine **SFSAD**  
**DMSJNEPL** macro **SFSAD**  
**DMSLAD** module **ADGCMS**  
**DMSMSP CNTRL**  
 contents **SERV**  
 function **SERV**  
**DMSNGP ASSEMBLE** file **SFSAD**  
 function **INST**  
 loading sample file **INST**  
 tailoring considerations **INST**  
**DMSOME IPCSREF**  
**DMSOPBLK** (SFS Open Blocks) **SFSAD**  
**DMSOPCAT** (SFS Open Catalog) **SFSAD**  
**DMSOPDIR** (SFS Open Directory) **ADGCMS**  
 ALIAS parameter **ADRCMS**  
 AUTH parameter **ADRCMS**  
 DIR parameter **ADRCMS**  
 FILE parameter **ADRCMS**  
 general format **ADRCMS**  
 implicit lock considerations **ADRCMS**  
 LOCK parameter **ADRCMS**  
 reflecting changes to directory **ADRCMS**  
 SEARCHALL parameter **ADRCMS**  
 SEARCHAUTH parameter **ADRCMS**  
**DMSOPEN** (SFS Open) **ADGCMS**  
 CACHE parameter **ADRCMS**  
 F parameter **ADRCMS**  
 general format **ADRCMS**  
 NEW parameter **ADRCMS**  
 NOCACHE parameter **ADRCMS**  
 READ parameter **ADRCMS**  
 REPLACE parameter **ADRCMS**  
 V parameter **ADRCMS**  
 when a lock causes Open to fail **ADRCMS**  
 when you can view uncommitted changes  
**ADRCMS**  
**DMSPARMS** file **SFSAD**  
 creating during generation **SFSAD**  
 for VMSYS and VMSYSU **SFSAD**  
 specifying start-up parameters within **SFSAD**  
**DMSPOL** programmable operator action routine  
**SFPROG**  
**DMSPOPWU** (Pop Default Workunitid) **ADGCMS**  
 ALL parameter **ADRCMS**  
 general format **ADRCMS**  
 system default may not be popped **ADRCMS**  
**DMSPOR** programmable operator action routine  
**SFPROG**  
**DMSPOS** programmable operator action routine  
**SFPROG**  
**DMSPURWU** (Purge Workunitid)  
 FORCE parameter **ADRCMS**  
 general format **ADRCMS**  
**DMSPUSWU** (Push Default Workunitid)  
**ADGCMS**  
 general format **ADRCMS**  
 multiple pushes **ADRCMS**  
 must be obtained by a Get Workunitid  
**ADRCMS**  
**DMSQCONN** (SFS Query Connect)  
 connect authority for file pool required  
**ADRCMS**  
 general format **ADRCMS**  
**DMSQFMOD** (Query Filemode)  
 buffer length requirement **ADRCMS**  
 general format **ADRCMS**  
**DMSQLIM** (SFS Query Limits) **SFSAD**  
**DMSQLIMD** (SFS Query Limits—Deblocker)  
**SFSAD**  
**DMSQLIMU** (SFS Query Limits—Single User)  
 authority required **ADRCMS**  
 FOR parameter **ADRCMS**  
 general format **ADRCMS**  
**DMSRDBLK** (SFS Read Blocks) **SFSAD**  
**DMSRDCAT** (SFS Read Catalog) **SFSAD**  
**DMSREAD** (SFS Read) **ADGCMS**  
 end-of-file warning **ADRCMS**  
 general format **ADRCMS**  
 support for variable-length records **ADRCMS**  
 truncation warning **ADRCMS**  
**DMSRELBK** (SFS Release Blocks) **SFSAD**  
**DMSRELOC** (SFS Relocate)  
 conditions that cause a Relocate to fail  
**ADRCMS**  
 general format **ADRCMS**  
 relocating a locked file or directory **ADRCMS**  
 who may issue a Relocate **ADRCMS**  
**DMSRENAM** (SFS Rename)  
 cascade effect of renaming a subdirectory  
**ADRCMS**  
 COMMIT parameter **ADRCMS**  
 general format **ADRCMS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

locked files **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 only owner may issue Rename **ADRCMS**  
 open files or subdirectories **ADRCMS**  
**DMSREVOKE** (SFS Revoke Authority) **ADGCMS**  
 ALL parameter **ADRCMS**  
 COMMIT parameter **ADRCMS**  
 FROM parameter **ADRCMS**  
 general format **ADRCMS**  
 KEEPREAD parameter **ADRCMS**  
 locked file considerations **ADRCMS**  
 NOCOMMIT parameter **ADRCMS**  
 open file or directory **ADRCMS**  
 owner alone has revoke authority **ADRCMS**  
 PUBLIC parameter **ADRCMS**  
**DMSROLLBACK** (SFS Rollback)  
 general format **ADRCMS**  
**DMSSAC** logical saved segment  
 function **INST**  
 installing **INST**  
**DMSSIG** **IPCSREF**  
**DMSSP** **CNTRL**  
 contents **SERV**  
 function **SERV**  
**DMSSP** **MACLIB** **ADGCMS**, **APGDE**  
**DMSTVS** module **ADGCMS**  
**DMSVSR** command **CMSUG**  
**DMSWRACC** (SFS Write Accounting Record)  
**SFSAD**  
**DMSWRBLK** (SFS Write Blocks) **SFSAD**  
**DMSWRCAT** (SFS Write Catalog) **SFSAD**  
**DMSWRITE** (SFS Write) **ADGCMS**  
 beginning position in file **ADRCMS**  
 general format **ADRCMS**  
 variable-length records **ADRCMS**  
**DMSWUERR** (SFS Wuerror Deblocker)  
 general format **ADRCMS**  
**DMS1151E** message **SFSAD**  
**DMS1174E** message **SFSAD**  
**DMS2AB** accounting exit routine **SFSAD**  
**DMS3029I** message **SFSAD**  
**DMS3216E** message **SFSAD**  
**DMS3217E** message **SFSAD**  
**DMS3292I** message **SFSAD**  
**DMS3294I** message **SFSAD**  
**DMS3500I** message **SFSAD**  
**DMS3701I** message **SFSAD**  
**DMS3913E** message **SFSAD**  
**DMS3922I** message **SFSAD**  
**DMS3XJ** **EXEC** **SERV**  
**DMS3XK** **EXEC** **SERV**  
**DMS446R** message **SFSAD**  
**DMS5JA** **EXEC** **SERV**  
**DMS5JB** **EXEC** **SERV**  
**DMS5JC** **EXEC** **SERV**  
**DMS5JD** **EXEC** **SERV**  
**DMS5JG** **EXEC** **SERV**  
**DMS/CMS** (Display Management System  
 for **CMS**) **APGDE**, **INTRO**  
 commands **APGDE**  
 COPY EUDCOBOL statement **APGDE**  
 EXEC 2 commands **APGDE**  
 panel formatter **APGDE**  
 panel manager **APGDE**  
 parameter list **APGDE**  
 prototyping with EXECs **APGDE**  
 write full screen **APGDE**  
**DO FOREVER** instruction **SPIUG**  
**DO** instruction **SPIREF**  
 See also loops  
 BY expression **SPIUG**  
 conditional loop **SPIUG**  
 control variable **SPIUG**  
**DO FOREVER** instruction **SPIUG**  
**DO UNTIL** instruction **SPIUG**  
**DO WHILE** instruction **SPIUG**  
 END keyword **SPIUG**  
 ITERATE instruction **SPIUG**  
 LEAVE instruction **SPIUG**  
 non-looping **SPIUG**  
 repetitive loops **SPIUG**  
**DO UNTIL** instruction **SPIUG**  
**DO WHILE** instruction **SPIUG**  
**DOC FAILURE** code (keyword definition)  
**IPCSREF**  
**DOC** operand of **STAT** command **IPCSREF**  
**DOC** (keyword definition) **IPCSREF**  
**DOCNO** (keyword definition) **IPCSREF**  
 document  
 preparation **INTRO**  
 proofreading **INTRO**  
 using **PROFS** **INTRO**  
 Document Composition Facility (DCF) **CMSLOT**,  
**INTRO**, **PRIMER**  
 does a problem exist? **DIAG**  
**DOS** option  
 of **GENMOD** command **CMSREF**  
**DOS** (Disk Operating System)  
 copying VSE macros into **CMS** **MACLIB** **INST**  
 core image library **ADGCMS**  
 creating **CMS** files **ADGCMS**  
 declarative macros  
**DTFCD** **ADGCMS**, **ADRCMS**  
**DTFCN** **ADGCMS**, **ADRCMS**  
**DTFDI** **ADGCMS**, **ADRCMS**  
**DTFMT** **ADGCMS**, **ADRCMS**  
**DTFPR** **ADGCMS**, **ADRCMS**  
**DTFSD** **ADGCMS**, **ADRCMS**

- disks
  - accessing **ADGCMS, CMSREF**
  - compatibility with OS disks **ADGCMS**
  - determining free space **ADGCMS**
  - formatting using DSF **ADGCMS**
  - using with AMSERV **ADGCMS**
- DOSMAP EXEC INST**
- files
  - listing information **CMSREF**
  - specifying FILEDEF options for **CMSREF**
  - used in CMS **ADGCMS**
- for transient routines **ADGCMS**
- hardware devices supported **ADGCMS**
- imperative macros **ADGCMS, ADRCMS**
- libraries
  - executing phases from **ADGCMS**
  - link-editing modules from **ADGCMS**
  - size considerations **ADGCMS**
- macros supported in CMS **ADGCMS, ADRCMS**
- restrictions on reading in CMS **ADGCMS**
- simulation in CMS **ADGCMS**
- support of physical IOCS macros **ADGCMS, ADRCMS**
- terminal sessions **ADGCMS**
- virtual = real storage assignments **OPGDE**
- VMFDOS commands, creating CMS files
  - containing VSE modules **INST**
  - VSE macros under CMS **ADGCMS, ADRCMS**
- DOSGEN EXEC INTRO**
- function **INST**
- installing CMSDOS saved segment **INST**
- DOSLIB** command
  - COMP option **CMSREF**
  - compressing DOSLIBs **ADGCMS**
  - DEL option **CMSREF**
  - description **ADGCMS, CMSREF**
  - DISK option **CMSREF**
- files
  - adding phases to **CMSREF**
  - fetching phases from **CMSREF**
  - identifying for fetching **CMSREF**
  - listing information about members **CMSREF**
  - output file mode **CMSREF**
  - size considerations **CMSREF**
  - space considerations **CMSREF**
- MAP option **CMSREF**
- PRINT option **CMSREF**
- option
  - of GLOBAL command **CMSREF**
- TERM option **CMSREF**
- DOSLKED** command
  - description **CMSREF**
  - description of **ADGCMS**
  - DISK option **CMSREF**
  - PRINT option **CMSREF**
  - TERM option **CMSREF**
  - using **ADGCMS**
- DOSLNK** files
  - used by **DOSLKED** command **ADGCMS**
  - used in CMS/DOS **ADGCMS**
- DOSLNK** filetype
  - CMS/DOS linkage editor input **CMSREF**
  - creating **CMSREF**
- DOSMAC EXEC INTRO**
- copying VSE macros into **CMSMACLIB INST**
- DOSMACRO MACLIB ADGCMS, APGDE**
- DOSPLI** command **ADGCMS**
- DOSPOINT** subcommand of **IPCSSCAN** command
  - description **IPCSREF**
  - example output **IPCSREF**
  - format **IPCSREF**
  - functional category **IPCSREF**
  - messages **IPCSREF**
  - responses **IPCSREF**
  - usage note **IPCSREF**
- DOS/VSE** simulation using **CMSDOS** segment **INST**
- double hold status
  - removing spool files from it **SYSCMD**
- double-byte character set (DBCS) **XEDIT**
- double-byte character set (DBCS) strings **SPIREF**
- DOWN** command **CMSLOT, PRIMER**
- DOWN** subcommand of **XEDIT** command
  - XEDIT, XEDITUG**
  - example of **XEDITUG**
  - in typewriter mode **XEDITUG**
  - practice exercise using **XEDITUG**
- DOWN** subcommand of **IPCSSCAN** command
  - description **IPCSREF**
  - example output **IPCSREF**
  - format **IPCSREF**
  - functional category **IPCSREF**
  - messages **IPCSREF**
  - operand **IPCSREF**
  - response **IPCSREF**
  - usage notes **IPCSREF**
- DPA** operand
  - of **INDICATE** command **SYSCMD**
  - of the **INDICATE** command **ADMIN**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- DPA (dynamic paging area)  
definition **ADMIN, SYSMMSG**
- DPMSIZE operand  
of RDEVICE macro **PLNGDE**
- DRAIN command **INTRO, RGOS**  
described **SYSCMD**  
operands  
  **ALL SYSCMD**  
  **lpri SYSCMD**  
  **PRINTER SYSCMD**  
  **PUNCH SYSCMD**  
  **raddr SYSCMD**  
  **READER SYSCMD**  
responses **SYSCMD**  
summary **OPGDE, SYSCMD**  
syntax diagram, class D **SYSCMD**  
usage notes **SYSCMD**
- drawing boxes **CMSUG**
- Drop a REXX Variable (**DMSCDR**)  
  general format **ADRCMS**
- DROP command **SECUR**
- DROP INDEX command of SQL **APGDE**
- DROP instruction **SPIREF, SPIUG**
- DROP TABLE command of SQL **APGDE**
- DROP VIEW command of SQL **APGDE**
- DROP WINDOW command **CMSUG**  
description **CMSREF**  
format **CMSREF**  
messages **CMSREF**  
operands  
  **n CMSREF**  
  **WM CMSREF**  
  **wname CMSREF**  
  **\* (asterisk) CMSREF**  
  **= (equal sign) CMSREF**  
usage notes **CMSREF**
- DROPBUF command **APGDE, SPIUG**  
description **CMSREF**  
using **CMSREF**
- dropping  
  a window **CMSREF, PRIMER**  
  **EXECS** and editor macros from storage  
  **CMSREF**  
  the **WM** window **CMSREF, PRIMER**  
  variables **SPIUG**
- DRUM operand  
  of **SET** command **SYSCMD**
- DSCB (Data Set Control Block) **ADGCMS**
- DSECT  
  for file system control block (**FSCB**) **ADRCMS**  
  generated for **PARSECMD** control block  
  **ADRCMS**  
  using **PARSERCB** macro **ADRCMS**  
  generated for Parser Validation Code Table  
  entry **ADRCMS**  
  using **PVCENTRY** macro **ADRCMS**
- DSERV command  
  **ALL** operand **CMSREF**  
  **CD** operand **CMSREF**  
  creating **MAP** files **ADGCMS**  
  description **CMSREF**  
  description of **ADGCMS**  
  **DISK** option **CMSREF**  
  examples **ADGCMS**  
  **PD** operand **CMSREF**  
  **PRINT** option **CMSREF**  
  **RD** operand **CMSREF**  
  **SD** operand **CMSREF**  
  **SORT** option **CMSREF**  
  **TD** operand **CMSREF**  
  **TERM** option **CMSREF**
- DSF EXEC **RGOS**
- DSMPROF3 specified in **SCRIPT** command  
  **CMSLOT**
- DSN operand of **DLBL** command **ADGCMS**
- DSN option of **DLBL** command **CMSREF**
- dsname operand  
  of **CHANGE** command **SYSCMD**  
  of **CLOSE** command **GENCMD**
- dsname, variable  
  described **GENCMD, SYSCMD**
- DSORG option of **FILEDEF** command  
  **ADGCMS, APGDE, CMSREF**
- DSPLY operand of **PRB** command **IPCSREF**
- DSPSLICE operand  
  of **QUERY** command **SYSCMD**  
  of **SET** command **SYSCMD**
- DSS operand  
  of **VMDUMP** command **GENCMD**
- DTFCD macro **ADGCMS, ADRCMS**
- DTFCN macro **ADGCMS, ADRCMS**
- DTFDI macro **ADGCMS, ADRCMS**
- DTFMT macro **ADGCMS, ADRCMS**
- DTFPR macro **ADGCMS, ADRCMS**
- DTFSD macro **ADGCMS, ADRCMS**
- DTRIPF command, example of use **INTRO**
- dual address space assist  
  support enabled or disabled **SYSCMD**
- dual processor  
  definition **ADMIN, SYSMMSG**
- dummy data set name specified on **FILEDEF**  
  command **ADGCMS**
- dummy instruction **SPIREF, SPIUG**
- DUMMY operand  
  **HNDEXT** macro **ADRCMS**

- of DLBL command
  - restrictions for OS VSAM user **CMSREF**
  - using in CMS/DOS **CMSREF**
- of FILEDEF command **CMSREF**
- DUMP**
  - address parameter list **SFPROG**
  - data **DIAG**
  - data used by IPCS **INTRO**
  - debugging **IPCSREF**
  - file conversion **IPCSREF**
  - generation, automatic **DIAG**
  - option
    - of DISK command **CMSREF**
    - of OPTION command **CMSREF**
  - system ABEND **OPGDE, SYSCMD**
  - unit
    - for system failure **OPGDE**
    - setting with the SET command **SYSCMD**
  - virtual machine data **DIAG**
- DUMP** command **APGDE, CMSUG, DIAG, GENCMD**
  - described **GENCMD**
  - operands
    - bytecount **GENCMD**
    - END **GENCMD**
    - hexloc **GENCMD**
    - \*dumpid **GENCMD**
  - responses **GENCMD**
  - to print virtual storage **DIAG**
  - usage notes **GENCMD**
- DUMP** control record, ZAP program
  - format **SERV**
  - function **SERV**
  - options **SERV**
  - usage notes **SERV**
- DUMP** control statement
  - of DDR (DASD DUMP/Restore) **ADMIN, SFPROG**
- DUMP** operand
  - of IPCSPRT **IPCSREF**
  - of IPCSSCAN **IPCSREF**
  - of QUERY command **SYSCMD**
  - of SET command **OPGDE, SYSCMD**
  - of TRAPFILE command **IPCSREF**
- DUMP** procedure
  - MVS guest
    - considerations **RGOS**
    - defining enough space **RGOS**
    - preferred machine assist **RGOS**
    - restart dumps **RGOS**
  - restrictions **RGOS**
  - single processor mode **RGOS**
  - stand-alone **RGOS**
  - SVC **RGOS**
  - second-level VM system **RGOS**
  - VSE/SP virtual machine **RGOS**
- DUMP** raddr operand
  - of NETWORK command **SYSCMD**
  - of SPTAPE command **SYSCMD**
- DUMP** start-up parameter **SFSAD**
- DUMP** subcommand of TESTCOB command **APGDE**
- DUMPALL** control statement for FILEPOOL **FORMAT AUDIT SFSAD**
- DUMPID** subcommand of IPCSSCAN command
  - description **IPCSREF**
  - example outputs **IPCSREF**
  - format **IPCSREF**
  - functional category **IPCSREF**
  - messages **IPCSREF**
  - responses **IPCSREF**
  - usage notes **IPCSREF**
- dumpid, variable
  - described **GENCMD, SYSCMD**
- dumping
  - considerations
    - for control switch assist guest **RGOS**
  - CPTRAP files to tape **IPCSREF**
  - extended control registers **GENCMD**
  - facilities, GCS **DIAG**
  - floating-point registers **GENCMD**
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  - guest virtual storage **GENCMD**
  - storage locations **GENCMD**
  - to DASD **DIAG**
  - to printer **DIAG**
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  - virtual storage **GENCMD**
  - spool files **SYSCMD**
    - reading **SFPROG**
  - virtual machine storage **GCSREF**
- dumps
  - AVS **CONPAO, DIAG**
    - creating **DIAG**
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    - displaying information **DIAG**
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    - creating **DIAG**
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



directory entry  
  example **PLNGDE**  
of server storage **SFSAD**  
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  communication controller **DIAG**  
  CP restart dump **DIAG**  
  virtual machine **DIAG**  
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  to diagnose AVS problems **DIAG**  
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  displaying information **DIAG**  
  printing **DIAG**  
  processing **DIAG**  
types of **DIAG**  
  used in problem determination **DIAG**  
**DUMPSAVE** (DMLDMP save area) **DIAG**  
**DUP** option  
  of **INCLUDE** command **CMSREF**  
  of **LOAD** command **CMSREF**  
**DUP** output field of **STAT** command **IPCSREF**  
**DUPLICATE** command **CMSLOT**  
  of **DMS/CMS** **APGDE**  
duplicate  
  file names **CMSLOT**  
  file names or file types **CMSUG**  
  
names **SPIUG**  
problem **IPCSREF**  
**DUPLICATE** subcommand of **XEDIT**  
  command **APGDE, XEDIT**  
duplicating  
  a file **PRIMER**  
  block of lines **XEDIT**  
  lines **CMSLOT, PRIMER, XEDITUG**  
  using **DUPLICAT XEDIT**  
  using " (prefix subcommand) **XEDIT**  
  strings **SPIUG**  
**DUPOF** operand of **PRB** command **IPCSREF**  
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**DVOL1** function in tape command processing  
  **CMSUG**  
**DWORDS**= operand  
  **CMSSTOR OBTAIN ADRCMS**  
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dyadic, definition **ADMIN, SYSMMSG**  
dynamic CP transition to or from native mode  
  **RGOS**  
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dynamic configuration **CONPAO**  
  inoperational link **CONPAO**  
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dynamic loading **APGDE**  
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  definition of **RGOS**  
dynamically loading servers (SRPI macro) **SRPI**  
dynamically modified channel program restrictions  
  **PLNGDE**  
**D2C** function **SPIREF**  
**D2X** function **SPIREF**

## E

E prefix subcommand **XEDIT**

E (exponent symbol) **SPIUG**

**EBCDIC**

of **COPYFILE** command **CMSREF**

order sorting **XEDIT**

**EC mode**

definition **ADMIN, SYMSMSG**

**ECB (event control block)**

format **ADRCMS**

posting **ADGCMS**

**ECB=** operand

**HNDEXT** macro **ADRCMS**

**ECHO** command **CMSUG, GENCMD**

described **GENCMD**

operands

nn **GENCMD**

1 **GENCMD**

responses **GENCMD**

usage notes **GENCMD**

**ECMODE** operand **DIAG, RGOS**

directory option **CONPAO**

of **SET** command **GENCMD**

ecode parameter of **SELECT** subcommand **IPCSREF**

**ECPS (Extended Control-Program Support:VM/370)**

**ADMIN**

attached processor application **OPGDE**

CP assist **ADMIN**

expanded virtual machine assist **ADMIN**

restricted use **ADMIN**

**SET CPASSIST** command **SYSCMD**

support processors **OPGDE**

using **ADMIN**

virtual interval timer assist **ADMIN**

**ECPS:VM/370** option, **SET** command **INTRO**

**ECRLOG (extended control registers)** field **DIAG**

**EDIRNAME** option

of **EXTRACT XEDIT**

of **QUERY XEDIT**

**EDIT** command

definition **ADMIN, SYMSMSG**

description **CMSREF**

**LRECL** option **CMSREF**

**NODISP** option **CMSREF**

prefix subcommands **APGDE**

subcommands supported in compatibility mode

**XEDIT**

**EDIT** compatibility mode **XEDIT**

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in typewriter mode **XEDITUG**

**EDIT EXEC S2** suppression of execution  
**CMSREF**

edit mode **APGDE, XEDITUG**

in typewriter mode **XEDITUG**

returning from input mode **CMSUG**

**EDIT** service of **ISPF APGDE**

**EDIT** subcommands supported in compatibility  
mode **XEDIT**

**EDIT (CMS Editor)** **TERMREF**

editing

a member of a **MACLIB XEDIT**

**CMS** files **CMSUG**

commands, help on how to use **CMSLOT**

**DBCS** strings **XEDIT**

defined **XEDITUG**

in typewriter mode **XEDITUG**

editing symbols

logical line editing **GENCMD, SYSCMD**

error messages with **DIAGNOSE** code X'5C'  
**SFPROG**

files **CMSLOT, PRIMER, TERMREF**

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multiple files **PRIMER, XEDIT, XEDITUG**

illustration of **XEDITUG**

one file **XEDITUG**

in typewriter mode **XEDITUG**

options

See also editing variables

displaying setting of **XEDIT**

transferring setting of **XEDIT**

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session **CMSLOT, PRIMER**

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symbols

controlling use of **GENCMD**

variables

preserving **XEDITUG**

restoring **XEDIT, XEDITUG**

saving **XEDIT**

transferring **XEDITUG**

with logical line editing symbols **GENCMD,**  
**SYSCMD**

editor

See also System Product Editor (**XEDIT**)

**CMS** migration mode **CMSREF**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- invoking **APGDE, XEDIT, XEDITUG**
- in typewriter mode **XEDITUG**
- macros **EXEC2, SPIREF**
- executing **EXEC2**
- filetype **EXEC2**
- implementation **EXEC2**
- VM/SP INTRO**
- EFMODE** option
  - of **EXTRACT XEDIT**
  - of **QUERY XEDIT**
- EFNAME** option
  - of **EXTRACT XEDIT**
  - of **QUERY XEDIT**
- EFTYPE** option
  - of **EXTRACT XEDIT**
  - of **QUERY XEDIT**
- ELAN** (Ethernet LAN) **IPCSREF**
- elapsed time saved during subroutine calls **SPIREF**
- elapsed-time calculator **SPIREF**
- element **ADMIN, APGDE**
  - definition **ADMIN, SYSMMSG**
- element operand
  - of **STORE** command **GENCMD**
- elementcount operand
  - of **DISPLAY** command **GENCMD**
- element1 operand
  - of **DISPLAY** command **GENCMD**
- element2 operand
  - of **DISPLAY** command **GENCMD**
- eligible list
  - definition **ADMIN, SYSMMSG**
  - finding place on **SYSCMD**
  - responses **SYSCMD**
- eliminating
  - a reader file **PRIMER**
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- ellipsis
  - use of **GENCMD, SYSCMD**
- ELSE** keyword
  - See also **IF** instruction
  - dangling **SPIUG**
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  - of **IF** instruction **SPIUG**
- embedded blanks
  - discussion of **EXEC2**
  - examples **EXEC2**
  - exceptions **EXEC2**
  - handling **EXEC2**
  - variables **EXEC2**
- EML** option **RGOS**
- emphasizing a word or phrase **CMSLOT, PRIMER**
- emptying a stack **CMSREF**
- EMSG** operand
  - of **SET** command **GENCMD**
- EMSG** option of **EXECIO** command **CMSREF**
- EMSG** setting **SFPROG**
- EMSG** subcommand of **XEDIT** command **XEDIT, XEDITUG**
- emulation of **327X ABEND SECUR**
- emulation program (**EP**)
  - See **EP** (emulation program)
- EMUL3270** feature
  - RDEVICE** macro **PLNGDE**
- ENABLE ALL** operand
  - of **NETWORK** command **SYSCMD**
- ENABLE** command
  - described **SYSCMD**
- operands
  - ALL SYSCMD**
  - Laddr **SYSCMD**
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  - SNA** userid **SYSCMD**
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- summary **OPGDE, SYSCMD**
- syntax diagram, class A or B **SYSCMD**
- ENABLE** macro **ADRCMS**
  - comparison to **SSM** instruction **CMSMIG**
  - conversion considerations **CMSMIG**
  - description of **CMSMIG**
  - enabling and disabling external interrupts **ADGCMS**
  - manipulating the **PSW** mask **ADGCMS**
- ENABLE** operand
  - of **MONITOR** command **SYSCMD**
  - of **NETWORK** command **SYSCMD**
- ENABLE** operator command **SFSAD**
- ENABLE** resid operand
  - of **NETWORK** command **SYSCMD**
- enabled loop, virtual machine **DIAG**
- enabled wait, **CP DIAG**
- enabling
  - a file space **SFSAD**
  - a storage group **SFSAD**
  - communications directories **CONPAO**
  - external tracing **CONPAO**
  - internal tracing **CONPAO**
  - private resource processing **CONPAO**
  - SNA** terminals **SFPROG**
  - terminals
    - second-level systems **RGOS**
    - VSE/SP** virtual machine **RGOS**
- enciphering **SECUR**
- END** clause
  - See also **DO** instruction
  - See also **SELECT** instruction
  - specifying control variable **SPIREF**

- END command **APGDE**  
 END control record, ZAP and ZAPTEXT service programs  
     format **SERV**  
     function **SERV**  
 END DECLARE SECTION statement in COBOL and SQL **APGDE**  
 END keyword  
     of DO instruction **SPIUG**  
     of SELECT instruction **SPIUG**  
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     indicating for input stream to batch virtual machine **CMSUG**  
     line, controlling display of **XEDIT**  
     moving current line toward **CMSLOT**  
 end of range line, controlling display of **XEDIT**  
 END operand  
     of DCP command **SYSCMD**  
     of DISPLAY command **GENCMD**  
     of DUMP command **GENCMD**  
     of LOCATE subcommand **IPCSREF**  
     of LOCATE (UP) subcommand **IPCSREF**  
     of NETWORK command **SYSCMD**  
     of SPTAPE command **SYSCMD**  
     of TRACE command **GENCMD**  
     of VMDUMP command **GENCMD**  
 END statement in ISPF panels **APGDE**  
 END subcommand  
     of PER command **GENCMD**  
     of IPCSPRT command  
         description **IPCSREF**  
         example output **IPCSREF**  
         format **IPCSREF**  
         functional category **IPCSREF**  
         messages **IPCSREF**  
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         usage notes **IPCSREF**  
     of IPCSSCAN command  
         description **IPCSREF**  
         example output **IPCSREF**  
         format **IPCSREF**  
         functional category **IPCSREF**  
         messages **IPCSREF**  
         response **IPCSREF**  
         usage notes **IPCSREF**  
     of TESTCOB command **APGDE**  
     of TESTFORT command **APGDE**  
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     keeping SVC handlers across **ADRCMS**  
 end-of-file checking **ADGCMS**  
     end-of-input-line signaling **TERMREF**  
     end-of-SVC **ADGCMS**  
     end-of-tape  
         condition **ADMIN**  
         processing **CMSUG**  
     end-of-volume, processing **CMSUG**  
     END tag, product parameter file **SERV**  
     ENDCMD operand **SRPI**  
         of NUCXLOAD command **CMSREF**  
     ENDCMD parameter list **SRPI**  
     ENDCMD = operand  
         NUCEXT SET **ADRCMS**  
     ENDFILE command **APGDE**  
     ending  
         See also stopping  
         a TRACE **GENCMD**  
         communications with a program **CONGREF**  
         editing session **CMSUG**, **XEDITUG**  
         in typewriter mode **XEDITUG**  
         using CANCEL **XEDIT**  
         using FILE **CMSLOT**, **PRIMER**, **XEDIT**  
         using QUIT **PRIMER**  
         using QUIT **CMSLOT**, **PRIMER**, **XEDIT**  
         terminal session **CMSLOT**, **CMSUG**  
         VM/SP HPO functions **SYSCMD**  
     ENDREQ macro (VSAM) **GCSREF**  
         description **GCSREF**  
         rpl parameter **GCSREF**  
     endtime operand of **TIMESPAN** subcommand **IPCSREF**  
     endval operand of **CHAIN** subcommand **IPCSREF**  
     end, abnormal  
         See abend (abnormal termination)  
     engineering notation **SPIREF**  
     Enhanced Connectivity Facilities **ADGCMS**, **ADRCMS**, **APGDE**, **CMSMIG**  
         applications **INTRO**  
         for VM/SP **INTRO**  
         needs of **INTRO**  
         starting communications **CMSREF**  
     ENQ macro **GCSREF**  
         description **GCSREF**  
         e parameter **GCSREF**  
         execute format **GCSREF**  
         list format **GCSREF**  
         mf parameter **GCSREF**  
         qname address parameter **GCSREF**  
         related parameter **GCSREF**  
         ret parameter **GCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- rname address parameter **GCSREF**  
 rname length parameter **GCSREF**  
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**ENROLL ADMINISTRATOR** command  
   instructions for using **SFSAD**  
   reference information for **SFSAD**  
**ENROLL PUBLIC** command  
   instructions for using **SFSAD**  
   reference information for **SFSAD**  
**ENROLL USER** command  
   instructions for using **SFSAD**  
   reference information for **SFSAD**  
 enrolling  
   file pool administrators **SFSAD**  
   in a file pool **CMSUG**  
   **PUBLIC**  
     **ENROLL PUBLIC** command for **SFSAD**  
     how to **SFSAD**  
     remote use considerations for **SFSAD**  
   remote users **SFSAD**  
   users **SFSAD**  
 ensuring a complete log **SFPROG**  
   in a distributed system **SFPROG**  
   in a mixed environment **SFPROG**  
   in a single system **SFPROG**  
 enter a command or press a PF or PA key  
   (status notice) **PRIMER**  
**ENTER** key **CMSLOT**, **PRIMER**, **TERMREF**  
**ENTER** option  
   of **EXTRACT XEDIT**  
   of **QUERY XEDIT**  
   of **SET XEDIT**  
**ENTER** signaling **TERMREF**  
 enter your response (status notice) **PRIMER**  
 entering  
   **CMS** commands, in **CMS** subset environment  
     **CMSUG**  
   **CMS** environment **CMSUG**  
   **CMS/DOS** environment **CMSUG**  
   commands  
     from the screen **CMSUG**  
     on display terminal **CMSUG**  
     rules for **CMSLOT**, **PRIMER**  
   comments **GENCMD**  
   **CP** commands **GENCMD**  
     from **CMS** command environment **CMSUG**  
     from edit environment **CMSUG**  
     from virtual machine environment **GENCMD**  
   **CP** environment  
     from **CMS** environment **CMSUG**  
   data **XEDITUG**  
   in **XEDIT** **PRIMER**  
   using **INPUT XEDITUG**  
   using **INPUT** in typewriter mode **XEDITUG**  
   using **POWERINP XEDITUG**  
   **DLBL** definitions in **CMS EXEC** procedure  
     **ADGCMS**  
   file identifications **ADGCMS**  
   **HELP** facility **CMSUG**  
   Immediate commands **CMSUG**  
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     **SYSCMD**  
   more than one on command line **GENCMD**,  
     **SYSCMD**  
   null lines **CMSUG**  
   prefix subcommands **XEDITUG**  
   subcommands **XEDITUG**  
     rules for **XEDIT**  
   **XEDIT** subcommands **XEDITUG**  
     on typewriter terminal **XEDITUG**  
   entries in communications directories **CONPAO**  
   Entry Assist **TERMREF**  
   **ENTRY** loader control statement **ADGCMS**,  
     **CMSREF**  
   entry option  
     of **IPCSPRT** command **IPCSREF**  
     of **TRAPFILE** command **IPCSREF**  
   entry points **APGDE**  
     determined by loader **CMSREF**  
     displayed with **FETCH** command **ADGCMS**,  
     **CMSREF**  
   module **ADRCMS**  
   program, determining **ADGCMS**  
   specifying  
     using **OS/MVS** entry statement **ADGCMS**  
     with **ENTRY** statement **CMSREF**  
     with **GENMOD** command **CMSREF**  
   **ENTRY** (keyword definition) **IPCSREF**  
   entrypointname operand of **MAPN** subcommand  
     **IPCSREF**  
   **ENTRY=** operand  
     **NUCEXT SET ADRCMS**  
     **SUBCOM SET ADRCMS**  
   **ENVIR** output field of **STAT** command **IPCSREF**  
   **ENVIR** (keyword definition) **IPCSREF**  
   Environmental Record Editing and Printing  
   Program (**EREP**) **INST**  
   installing **INST**  
   environments **TERMREF**  
   **AP/MP**, advantages of  
     See *Diagnosis Reference*  
   **AP/MP**, facilitating  
     See *Diagnosis Reference*  
   addressing of **SPIREF**  
   conventions **OPGDE**  
   changing **TERMREF**  
   **CMS SPIUG**  
   **COMMAND SPIUG**  
   **CP SPIUG**

- default **SPIREF**  
determining current using **ADDRESS** function  
**SPIREF**  
for MVS guest, definition of **RGOS**  
of VM/SP **CMSUG**  
of VM/SP **HPO**  
system load **ADMIN**  
performance enhancements for dyadic processors  
with store-in cache  
See *Diagnosis Reference*  
programmable operator **SFPROG**  
distributed VM **SFPROG**  
mixed **SFPROG**  
single system **SFPROG**  
**SNA SFPROG**  
temporary change of **SPIREF**
- EOF operand  
of **BACKSPAC** command **SYSCMD**  
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- EOF option  
of **EXTRACT XEDIT**  
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- EOL option  
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- EP (Emulation Program)  
See also 3704/3705  
coding the **RDEVICE** macro **PLNGDE**  
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- EPLIST macro **ADRCMS**  
EPLIST (extended PLIST)  
second form **ADGCMS**
- EPLIST = operand  
**CMSCALL** macro **ADRCMS**  
**PARSECMD** macro **ADRCMS**
- EQU (equate) statements **ADRCMS**  
generating for registers using **REGEQU** macro  
**ADRCMS**
- equal buffer, inserting string in **XEDIT**  
**EQUAL** command used in **XEDIT CMSLOT**  
equal operator (=) **SPIREF**  
equal (=) command  
using in **XEDIT PRIMER**  
using on **FILELIST** screen **PRIMER**
- equality, testing of **SPIREF**
- ERASE command **APGDE**, **CMSMIG**, **CMSLOT**,  
**CMSREF**, **CMSUG**, **PRIMER**  
**NOTYPE** option **CMSREF**  
**TYPE** option **CMSREF**
- ERASE option  
of **ACCESS** command **CMSREF**  
ERASE EOF key **APGDE**, **PRIMER**  
used to delete a line **XEDIT**  
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ERASE macro (**VSAM**) **GCSREF**  
description **GCSREF**  
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erased alias **SFSAD**  
erased lines, recovering **PRIMER**
- erasing  
a file **PRIMER**  
a file or directory **CMSLOT**, **PRIMER**  
a reader file **PRIMER**  
base files **CMSUG**  
**CMS** files **CMSUG**  
data in a virtual screen **CMSREF**  
directories **ADRCMS**, **CMSUG**  
files to clear file space during editing session  
**CMSUG**  
files to clear minidisk space during editing  
session **CMSUG**
- erasing files, aliases  
**DMSERASE** routine **ADRCMS**  
**FSERASE** macro **ADRCMS**
- erasing the rest of the line **PRIMER**
- EREP (Environmental Recording Editing and  
Printing Program) **INST**, **PLNGDE**  
installing **INST**
- error  
action  
by general user **SYSMMSG**  
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**DMSEXE085E EXEC2**  
**DMSEXE175E EXEC2**  
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- handling  
for stand-alone dumps **DIAG**  
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- messages **EXEC2**  
**DMKMSS OPGDE**
- processing  
messages **CMSUG**  
**NSL** routines **CMSUG**  
**OS** simulation **CMSUG**  
standard label processing **CMSUG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- rate of lines **CONPAO**
- recording  
 and analysis for MVS guest **RGOS**  
 cylinders, clear **SFPROG**  
 cylinders, defining **PLNGDE**  
 in single processor mode **RGOS**  
 use of SVC 76 by MVS and CP **RGOS**  
 VM under VM **RGOS**  
 VSE virtual machine **RGOS**
- recording area  
 records for missing interrupts **ADMIN**
- recording mode  
 setting for soft errors **SYSCMD**  
 with CPEREP program **OPGDE**
- reporting **SAACOM**  
 displaying by **SCRIPT CMSLOT**
- reporting information  
 conversion from wuerror format **ADRCMS**  
 FPERROR mapping macro **ADRCMS**  
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- setting the action taken **EXEC2**
- signaling an **CONGREF**
- syntax **SPIREF**
- traceback after **SPIREF**
- trapping  
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- unrecoverable tape **ADMIN**
- error codes **CONGREF, SPIREF**  
**ACCEPT (CMSIUCV) function CONGREF**  
**ACCEPT (IUCV) function CONGREF**  
**CLR (clear) function CONGREF**  
**CONNECT (APPCVM) function CONGREF**  
**CONNECT (CMSIUCV) function CONGREF**  
**CONNECT (IUCV) function CONGREF**  
**DCLBFR function CONGREF**  
**HLD (hold) function CONGREF**  
**RECEIVE function CONGREF**  
**REP (replace) function CONGREF**  
**RES (resume) function CONGREF**  
**RESOLVE (CMSIUCV) function CONGREF**  
**SENDCNF function CONGREF**  
**SENDCNFD function CONGREF**  
**SENDDATA function CONGREF**  
**SENDERR function CONGREF**  
**SENDREQ function CONGREF**  
**SET function CONGREF**  
**SEVER (APPCVM) function CONGREF**  
**SEVER (CMSIUCV) function CONGREF**  
**SEVER (IUCV) function CONGREF**  
**TESTCMPL function CONGREF**
- ERROR** command **APGDE**
- ERROR** condition of **SIGNAL** instruction **SPIREF**
- Error Logging System Service SFPROG**  
 establishing communications with **SFPROG**
- error messages  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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 input **APGDE**  
 inserting **XEDITUG**  
   in typewriter mode **XEDITUG**  
   records **ADGCMS**  
   in typewriter mode **XEDITUG**  
   I/O  
     See console I/O  
 libraries **APGDE**  
 lines, stacking **XEDIT**  
 listing **APGDE, CMSLOT, PRIMER**  
 listing information about **CMSREF**  
**LISTING (FORTRAN) APGDE**  
 locking  
   and unlocking **CMSLOT, PRIMER**  
   with a **SHARE** lock **CMSLOT, PRIMER**  
   with an **EXCLUSIVE** lock **CMSLOT,**  
     **PRIMER**  
   with an **UPDATE** lock **CMSLOT, PRIMER**  
 logical grouping **CMSUG**  
 manipulating shared files **ADGCMS**  
 manipulation using System Product Editor  
   **CMSUG**  
 master file directories **CMSUG**  
 maximums related to **SFSAD**  
 message log file **PRIMER**  
 modifying **APGDE, CMSREF, SPIUG**  
 moving from device to device **CMSREF**  
 multiple **APGDE**  
 multivolume identification **ADGCMS**  
**NAMES** file  
   See **NAMES** file  
 opening a file for block I/O **SFSAD**  
**OS COBOL APGDE**  
**OS FORTRAN APGDE**  
 output **APGDE**  
   produced by **ASSEMBLE** command **ADGCMS**  
 overlaying data in  
   with **COPYFILE** command **CMSREF**  
 override **ADMIN**  
 packing **CMSREF**  
   specifying fill character **CMSREF**  
 practice exercise using **XEDITUG**  
 printing **APGDE**  
   in hexadecimal format **CMSREF**  
   specifying number of lines per page **CMSREF**  
 processing **SPIUG**  
   creating a file **SPIUG**  
   reading a file **SPIUG**  
   writing a file **SPIUG**  
 protect ring **SECUR**  
 protecting **PRIMER**  
 punched, restoring to disk  
   with **DISK LOAD** command **CMSREF**  
 punching to virtual card punch **CMSREF**  
 purging **GENCMD**  
 querying locks **CMSLOT, PRIMER**  
 reading **SPIUG**  
   from virtual card reader. **CMSREF**  
   **VSAM** tape **ADGCMS**

receiving **PRIMER**  
 reclaiming **GENCMD**  
 relating to OS ddname **CMSREF**  
 relocating **CMSLOT, PRIMER**  
 removing SFS authority **ADGCMS**  
 renaming **CMSLOT, PRIMER**  
 reordering closed spool files **GENCMD**  
 replacing **PRIMER**  
     old file with new copy **CMSREF**  
     records **ADGCMS**  
 requesting information about **CMSUG**  
 revoking authority **CMSLOT, PRIMER**  
 saving **APGDE, PRIMER**  
 saving a list of **PRIMER**  
 sending **PRIMER**  
 sequence numbers in source files **ADGCMS**  
 serialization **XEDIT**  
 SFS file I/O **ADGCMS**  
 SFS file space **ADGCMS**  
 shadow copies of **SFSAD**  
 sharing **CMSLOT, INTRO, PRIMER**  
     across file pools **CMSUG**  
     commands used **CMSUG**  
     creating aliases to files **CMSUG**  
     how to **CMSUG**  
     SFS files **ADGCMS**  
 sorting **APGDE, PRIMER, SPIUG**  
 specifying for control data backups **SFSAD**  
 splitting into smaller files **CMSUG**  
 spool **APGDE**  
 storage **CMSLOT, PRIMER**  
 support of OS/MVS format **ADGCMS**  
 system **CMSUG**  
 tailoring skeletons **APGDE**  
 terminating processing **GENCMD**  
**TEXT APGDE**  
     executing **APGDE**  
 too large to edit, what to do **CMSUG**  
 transferring **APGDE, INTRO**  
     ownership of **SFSAD**  
     to another user **GENCMD**  
     with **DISK DUMP** command **CMSREF**  
 transferring data between  
     using **GET XEDIT**  
     using **PUT XEDIT**  
     using **PUTD XEDIT**  
 transmitting **GENCMD, TERMREF**  
 unpack **CMSREF**  
 update **APGDE**  
 updating  
     for a national language **ADMIN, SFPROG**  
     **VSAM**  
     allocating **ADGCMS**  
     defining **ADGCMS, GCSREF**  
     warning log file **PRIMER**  
     with users on other systems **CMSUG**  
     workfiles, **COBOL APGDE**  
     writing **SPIUG**  
     writing blocks to **SFSAD**  
     **\$\$SERVER\$ NAMES** file  
     See **NAMES** file, **\$\$SERVER\$**  
**FILEDEF** command **APGDE, GCSREF**  
     and **MACLIB** members **APGDE**  
     **ALT** option **CMSREF**  
     as used for **FILEPOOL BACKUP SFSAD**  
     assigning file mode numbers **CMSUG**  
     **AUXPROC** option **ADGCMS, CMSREF**  
     **BLKSIZE** option **CMSREF, GCSREF**  
     **BLOCK** option **ADGCMS, CMSREF,**  
     **GCSREF**  
     **BLP** operand **CMSREF**  
     **CHANGE** option **CMSREF, GCSREF**  
     **CLEAR** option **CMSREF, GCSREF**  
     **CONCAT** option **CMSREF**  
     ddname operand **GCSREF**  
     default definition **ADGCMS**  
     default **FILEDEF** commands issued by  
     assembler **CMSREF**  
     definitions for **MOVEFILE** command  
     **CMSREF**  
     **DEN** option **CMSREF**  
     description **CMSREF, GCSREF, INTRO**  
     determining what file definitions are in effect  
     **ADGCMS**  
     device type, specifying **ADGCMS**  
     **DISK** option **CMSREF, GCSREF**  
     **DISP MOD** option **ADGCMS, CMSREF,**  
     **GCSREF**  
     **DSORG** option **ADGCMS, CMSREF**  
     dsorg ps operand **GCSREF**  
     dummy data set name specified **ADGCMS**  
     **DUMMY** option **CMSREF, GCSREF**  
     entering file identifications **ADGCMS**  
     examples **CMSREF**  
     of use **INTRO**  
     file format, specifying **ADGCMS**  
     for **FILEPOOL FORMAT AUDIT** control  
     statement file **SFSAD**  
     for **FILEPOOL FORMAT AUDIT** input file  
     **SFSAD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- for FILEPOOL FORMAT AUDIT output file **SFSAD**
- for FILEPOOL RESTORE **SFSAD**
- for ISPF **APGDE**
- for restoring control data **SFSAD**
- for FILESERV REORG temporary file **SFSAD**
- GRAF option **CMSREF**
- guidelines for entering **ADGCMS**
- in EXECs **APGDE**
- issued by assembler, overriding **ADGCMS**
- KEYLEN option **CMSREF**
- LABOFF operand **CMSREF**
- LEAVE option **CMSREF**
- LIMCT option **CMSREF**
- LOWCASE option **CMSREF**
- LRECL option **CMSREF, GCSREF**
- MEMBER option **ADGCMS, CMSREF**
- NL operand **CMSREF**
- NOCHANGE option **CMSREF, GCSREF**
- NOEOV option **CMSREF**
- NSL operand **CMSREF**
- OPTCD option **CMSREF**
- options **APGDE**
  - AUXPROC ADGCMS**
  - BLOCK ADGCMS**
  - DISP MOD ADGCMS**
  - DSORG ADGCMS**
  - PERM ADGCMS**
  - RECFM ADGCMS**
  - SYSPARM ADGCMS**
- OS simulation **CMSUG**
- overriding default file definitions **ADGCMS**
- PERM option **ADGCMS, CMSREF, GCSREF**
- positioning read/write pointer **CMSREF**
- PRINTER option **CMSREF**
- PUNCH option **CMSREF, GCSREF**
- READER option **CMSREF, GCSREF**
- RECFM option **CMSREF, GCSREF**
- RECFM option **ADGCMS**
- required during FILESERV REGENERATE
  - processing **SFSAD**
- SL operand **CMSREF**
- standard tape labels **CMSUG**
- SUL operand **CMSREF**
- SYSPARM option **ADGCMS, CMSREF**
- tape label processing **CMSUG**
- TAPn option **CMSREF**
- TERMINAL option **CMSREF**
- to invoke the programmable operator **SFPROG**
- TRTCH option **CMSREF**
- UPCASE option **CMSREF**
- used with OS/MVS data sets **ADGCMS**
- VOLID operand **CMSREF**
- when to use in CMS/DOS **CMSREF**
- when to use (OS users) **CMSREF**
- XTENT option **CMSREF**
- 18TRACK option **CMSREF**
- 7TRACK option **CMSREF**
- 9TRACK option **CMSREF**
- FILEDEF definitions
  - clearing **ADGCMS, CMSREF**
  - displaying **CMSREF**
  - making with FILEDEF command **ADGCMS**
- FILEFCB operand
  - of START command **SYSCMD**
- fileid
  - See file identifiers
- fileid, variable
  - described **GENCMD, SYSCMD**
- FILELIST command **APGDE, CMSLOT, CMSREF, PRIMER**
  - APPEND option CMSREF**
  - FILELIST option CMSREF**
  - NOFILELIST option CMSREF**
  - PROFILE option CMSREF**
  - setting defaults **CMSREF**
  - in full-screen CMS **CMSUG**
  - in SFS **CMSUG**
  - to list files in full-screen environment **CMSUG**
  - to save a list of files **PRIMER**
  - to save list of files to send **CMSLOT**
- FILELIST environment
  - headings **CMSLOT**
  - using **XEDIT** from **CMSLOT**
- FILELIST file type **PRIMER**
- FILELIST SEARCH screen
  - description **CMSUG**
  - PF keys **CMSUG**
- FILELIST SHARE screen **CMSLOT, PRIMER**
  - description **CMSUG**
  - PF keys **CMSUG**
- FILELIST STATS screen **CMSLOT, PRIMER**
  - description **CMSUG**
  - PF keys **CMSUG**
- FILEPOOL BACKUP command
  - comparison with FILESERV BACKUP **SFSAD**
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
- FILEPOOL CLEANUP command **SFSAD**
- FILEPOOL FORMAT AUDIT command **SFSAD**
  - instructions for using **SFSAD**
  - keyword control statements for **SFSAD**
  - output format of **SFSAD**

- selectivity prompts for **SFSAD**
- using control file for **SFSAD**
- FILEPOOL** operand of IPL control statement **SFSAD**
- FILEPOOL RESTORE** command **SFSAD**
  - instructions for using **SFSAD**
  - performance tip for **SFSAD**
- filepoolid **CMSUG**
- FILEPOOLID** start-up parameter **SFSAD**
  - using to restrict user access **SFSAD**
- filepoolid, variable
  - described **GENCMD, SYSCMD**
- FILEREQ** control statement for **FILEPOOL**
- FORMAT AUDIT** **SFSAD**
- FILES** message **TERMREF**
- FILES** operand
  - of **QUERY** command **GENCMD, SYSCMD**
- FILES** parameter
  - DMSERASE** (SFS Erase) **ADRCMS**
- FILESERV BACKUP** command **SFSAD**
  - comparison with **FILEPOOL BACKUP** **SFSAD**
- FILESERV** commands
  - descriptions of **SFSAD**
  - return codes for **SFSAD**
  - specifying start-up parameters for **SFSAD**
- FILESERV DEFAUDIT** command
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
- FILESERV DEFBACKUP** command
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
- FILESERV GENERATE** command
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
  - using to restore a file pool **SFSAD**
- FILESERV LIST** command **SFSAD**
- FILESERV LOG** command
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
- FILESERV MINIDISK** command
  - instructions for using **SFSAD**
  - recovering from failures of **SFSAD**
  - reference information for **SFSAD**
- FILESERV MOVEUSER** command
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
- FILESERV REGENERATE** command
  - instructions for using **SFSAD**
- recovering from failures of **SFSAD**
- reference information for **SFSAD**
- FILESERV REORG** command
  - instructions for using **SFSAD**
  - reference information for **SFSAD**
- FILESERV START** command **SFSAD**
- fill characteristic
  - possible values **SAACOM**
  - set **SAACOM**
- FILL** option of **COPYFILE** command **CMSREF**
- FILL** parameter (**APPC**)
  - of **RECEIVE\_AND\_WAIT CONGREF**
- filler character
  - defining **XEDIT**
  - removed by **COMPRESS XEDIT**
- FILLER** option
  - of **EXTRACT XEDIT**
  - of **QUERY XEDIT**
  - of **SET XEDIT**
  - of **TRANSFER XEDIT**
- filtering
  - messages **SFPROG**
  - trace entries with **CPTRAP DIAG**
- FIND** function **SPIREF, SPIUG**
- FIND** subcommand of **XEDIT** command **APGDE, XEDIT**
  - example of **XEDIT**
  - with DBCS strings **XEDIT**
- finding
  - a mismatch using **COMPARE SPIREF**
  - a string in another string **SPIREF**
  - address of **DCSS ADMIN**
  - data **XEDIT**
    - using a target **XEDITUG**
    - using **CLOCATE XEDITUG**
    - using **LOCATE CMSLOT**
  - files in **FILELIST CMSLOT**
  - IPL statement information, **DIAGNOSE**
    - code **X'B0' SFPROG**
    - location of address **ADMIN**
    - phrase in a string **SPIUG**
    - saved systems **SFPROG**
    - string in another string **SPIUG**
    - text in a file **PRIMER**
    - the length of a string **SPIREF**
- FINDSYS** function **ADMIN, SFPROG**
- FINDUP** subcommand of **XEDIT** command **APGDE, XEDIT**
  - with DBCS strings **XEDIT**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- FINIS command **CMSMIG**, **CMSREF**, **SPIUG**
- first in/first out  
See **FIFO**
- first level installation, definition **INST**
- first-level storage  
definition **ADMIN**  
requesting **GENCMD**
- first-level VM system  
defining **RGOS**  
directory entry **RGOS**  
issuing CP commands to **RGOS**  
spooling **RGOS**
- firstpage operand  
of **LOCK** command **SYSCMD**  
of **UNLOCK** command **SYSCMD**
- fixed head feature  
**RDEVICE** macro **PLNGDE**
- fixed packed record format **XEDIT**
- fixed point number  
description of **SPIUG**  
specifying **SPIUG**
- fixed record format **XEDIT**
- fixed-head preferred paging area  
migration **ADMIN**
- fix-in-error, remove (SNA service) **SERV**
- fixed-length files, converting to variable-length  
**CMSREF**
- fixed-length record, description **INTRO**
- fixing system problems **INTRO**
- fixing typing mistakes **PRIMER**
- FIXUP** command **APGDE**
- FIXUP** subcommand of **TESTFORT** command  
**APGDE**
- FLAG** field  
of **CONNECT** request (\*IDENT) **CONGREF**
- FLAG** option of **ASSEMBLE** command **CMSREF**
- FLash** name operand  
of **CHANGE** command **GENCMD**  
of **SPOOL** command **GENCMD**
- FLASH** operand  
of **CHANGE** command **SYSCMD**  
of **START** command **SYSCMD**
- flashing (forms overlay)  
3800 printer **ADMIN**
- FLOAT** data type in SQL  
**COBOL** **APGDE**  
**FORTAN** **APGDE**
- floating-point number  
description of **SPIUG**  
specifying **SPIUG**
- floating-point registers  
changing **GENCMD**  
displaying **GENCMD**  
printing **GENCMD**
- flow  
definition of **SAACOM**  
diagrams **SAACOM**
- flow control  
abnormal, with **SIGNAL** **SPIREF**  
with **CALL/RETURN** **SPIREF**  
with **DO** construct **SPIREF**  
with **IF** construct **SPIREF**  
with **SELECT** construct **SPIREF**
- FLS** macro **GCSREF**  
description **GCSREF**
- FLSCREEN** option  
of **EXTRACT** **XEDIT**
- FLSCTB** **DIAG**
- FLUSH** command **INTRO**  
described **SYSCMD**  
operands  
**ALL** **SYSCMD**  
**HOLD** **SYSCMD**  
**lpvt** **SYSCMD**  
**raddr** **SYSCMD**  
responses **SYSCMD**  
summary **OPGDE**, **SYSCMD**  
syntax diagram, class D **SYSCMD**  
usage notes **SYSCMD**
- flush list  
definition **ADMIN**, **SYMSMG**
- Flush (**CMFLUS**) routine **CONGREF**  
call description **SAACOM**  
example flow using **SAACOM**
- FMH5** (Functional Management Header 5)  
parameter  
**CONNECT** function **CONGREF**
- FMH\_DATA** **SAACOM**
- FMODE** option  
of **EXTRACT** **XEDIT**  
of **LISTFILE** command **CMSREF**  
of **QUERY** **XEDIT**  
of **SET** **XEDIT**  
of **TRANSFER** **XEDIT**
- fm**, variable  
described **GENCMD**, **SYSCMD**  
described **GENCMD**, **SYSCMD**
- fn ft fm** used to represent file identifier **CMSREF**
- FNAME** option  
of **EXTRACT** **XEDIT**  
of **LISTFILE** command **CMSREF**  
of **QUERY** **XEDIT**  
of **SET** **XEDIT**  
of **TRANSFER** **XEDIT**
- FOB** macro **ADMIN**
- FOB** (font offset buffer) **ADMIN**  
altering **PLNGDE**  
for 3289 Model 4 printer  
adding **ADMIN**

- loading sample files from product tape **INST**  
 purpose of **ADMIN**  
 tailoring **INST**
- FOBCCW** macro **ADMIN**
- following line as destination **XEDIT**
- following virtual machine activity **GENCMD**
- font offset buffer (FOB)  
 See **FOB** (font offset buffer)
- FOR** hh:mm operand  
 of **MONITOR** command **SYSCMD**
- FOR** operand  
 of **COPYFILE** command **CMSREF**  
 of **CP SPOOL** command, usage **CMSUG**  
 of **SPOOL** command **GENCMD**  
 of **TRACE** subcommand **IPCSREF**
- FOR** parameter  
**DMSQLIMU** (SFS Query Limits—Single User)  
**ADRCMS**
- FOR** phrase of **DO** instruction **SPIREF**
- FOR** userid operand  
 of **SPTAPE** command **SYSCMD**
- FORCE** command **ADMIN**, **INTRO**  
 described **SYSCMD**  
 operand  
 userid **SYSCMD**  
 responses **SYSCMD**  
 summary **OPGDE**, **SYSCMD**  
 syntax diagram, class A **SYSCMD**  
 usage notes **SYSCMD**
- FORCE** operand  
 of **PURGE** command **SYSCMD**  
 of **VARY** command **SYSCMD**
- FORCE** operator command **SFSAD**
- FORCE** parameter  
**DMSPURWU** (Purge Workunitid) **ADRCMS**
- force start **OPGDE**  
**VM/SP HPO** **OPGDE**
- forcing  
 a file pool server user **SFSAD**  
 logoff **SYSCMD**  
 output  
 to be single spaced **SYSCMD**
- forecasting **INTRO**
- foreign languages  
 See **languages**, national
- FOREVER** repetitor on **DO** instruction **SPIREF**
- FORM** form operand  
 of **CHANGE** command **GENCMD**, **SYSCMD**  
 of **ORDER** command **GENCMD**  
 of **PURGE** command **GENCMD**  
 of **QUERY** command **GENCMD**  
 of **SPOOL** command **GENCMD**  
 of **TRANSFER** command **GENCMD**
- FORM** operand  
 of **CLOSE** command **GENCMD**  
 of **ORDER** command **SYSCMD**  
 of **PURGE** command **SYSCMD**  
 of **QUERY** command **SYSCMD**  
 of **SPTAPE** command **SYSCMD**  
 of **START** command **SYSCMD**  
 of **TRANSFER** command **SYSCMD**
- FORM** option of **NUMERIC** instruction **SPIREF**
- form width codes **PLNGDE**
- format  
 for all cylinders except cylinder zero **ADMIN**  
 for CP-owned CKD devices **ADMIN**  
 for CP-owned FBA devices **ADMIN**  
 for cylinder zero **ADMIN**  
 of calls **SAACOM**  
 of cylinder zero **SFPROG**  
 of cylinders for CP use **SFPROG**  
 of **DIAGNOSE** instruction **SFPROG**  
 of macros and subcommands  
**ADDENTRY** subcommand **SRPI**  
**DELENTY** subcommand **SRPI**  
**GETREQ** subcommand **SRPI**  
**SENDREQ** subcommand **SRPI**  
**SETREPLY** subcommand **SRPI**  
 of messages **SYSMSG**  
 identifier **SYSMSG**  
 text **SYSMSG**  
 of trace output **IPCSREF**  
 of user identification card **OPGDE**
- FORMAT** command **SFSAD**  
 as used during file pool regeneration **SFSAD**  
 as used during minidisk replacement **SFSAD**  
**BLKSIZE** option **CMSREF**  
 description **CMSREF**  
 examples **CMSREF**  
**LABEL** option **CMSREF**  
**NOERASE** option **CMSREF**  
 performance considerations **CMSREF**  
**RECOMP** option **CMSREF**  
 selecting appropriate blocksize **CMSREF**  
 to format a CMS minidisk **CMSUG**
- FORMAT** control statement **ADMIN**  
 of **Format/Allocate** program **SFPROG**
- FORMAT** function **SPIREF**, **SPIUG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**FORMAT option**

of **DETAIL HELP CMSUG**  
of **IPCSVRT** command **IPCSREF**  
of **LISTDS** command **CMSREF**  
of **LISTFILE** command **CMSREF**  
of **TRACE** subcommand **IPCSREF**  
of **TRAPFILE** command **IPCSREF**

**FORMAT start-up parameter SFSAD**

as used by **FILESERV GENERATE** processing  
**SFSAD**  
as used by **FILESERV MINIDISK** processing  
**SFSAD**

as used in replacing log minidisks **SFSAD**

**FORMAT subcommand of IPCSPRT command**

description **IPCSREF**  
example output **IPCSREF**  
format **IPCSREF**  
functional category **IPCSREF**  
messages **IPCSREF**  
response **IPCSREF**  
usage note **IPCSREF**

**FORMAT subcommand of IPCSSCAN command**

description **IPCSREF**  
example output **IPCSREF**  
format **IPCSREF**  
functional category **IPCSREF**  
messages **IPCSREF**  
response **IPCSREF**  
usage notes **IPCSREF**

**FORMAT vmtpe operand**

of **VMDUMP** command **GENCMD**

**format words**

summary **CMSUG**  
**.IL** (Indent Line) **CMSUG**  
**.BX** (BOX) **CMSUG**  
**.CM** (Comment) **CMSUG**  
**.CS** (Conditional Section) **CMSUG**  
**.FO** (Format Mode) **CMSUG**  
**.IN** (Indent) **CMSUG**  
**.MT** (Menu Type) **CMSUG**  
**.OF** (Offset) **CMSUG**  
**.SP** (Space Lines) **CMSUG**  
**.TR** (Translate Character) **CMSUG**

**format-mode, processing CMSUG****formats**

**CP** disk **ADMIN**  
of commands, interpreting **PRIMER**

**formatted device capacity ADMIN, SFPROG****formatter interface, trace entry, IPCS IPCSREF****formatter invocation, by IPCS IPCSREF****formatting**

a file  
and displaying **CMSLOT**  
and printing **CMSLOT**  
using Script for **CMSLOT**

and printing documents **INTRO**

**AVS** trace records **DIAG**  
**CMS** minidisks, example **CMSUG**  
conventions for macros **GCSREF**  
count-key-data **DASD ADMIN, SFPROG**  
**DASD** volumes **INST**

**DBCS blank adjustments SPIREF****DBCS bracket adding SPIREF****DBCS bracket stripping SPIREF****DBCS DBCS strings to SBCS SPIREF****DBCS EBCDIC to DBCS SPIREF****DBCS string width SPIREF****DBCS text justification SPIREF**disk **ADMIN****FB-512 DASD ADMIN****FBA DASD SFPROG**files **ADGCMS**minidisks **INTRO, INST**numbers for display **SPIREF**numbers with **TRUNC SPIREF**of output during tracing **SPIREF****OS and DOS** disks **ADGCMS**

## output

lining up numbers **SPIUG**

putting in columns **SPIUG**

**SYSCKP** area after **CP** nucleus load error **INST****SYSWRM** area after **CP** nucleus load error  
**INST**temporary disks **ADGCMS**text centering **SPIREF**text justification **SPIREF**text left justification **SPIREF**text left remainder justification **SPIREF**text right justification **SPIREF**text right remainder justification **SPIREF**text spacing **SPIREF**text validation function **SPIREF**the output of an audit **SFSAD**trace records **CONPAO**volumes, general information **ADMIN,**  
**SFPROG****Format/Allocate** service program **ADMIN,**  
**SFPROG****ALLOCATE** control statement **ADMIN,**  
**SFPROG**card input **ADMIN, SFPROG**console input **ADMIN, SFPROG**control statements **ADMIN, SFPROG**creating stand-alone version **SERV**cylinder format **SFPROG**cylinder zero format **SFPROG**described **ADMIN, SFPROG**example of execution **ADMIN, SFPROG****FORMAT** control statement **ADMIN, SFPROG**

**LABEL** control statement **ADMIN, SFPROG**  
 location on Starter System Tape **INST**  
 overlap function for FBA devices **SFPROG**  
**SYSPAG** macro considerations **PLNGDE**  
 VM under VM session **RGOS**  
 3880 considerations **ADMIN**  
**FORMF** function **SPIREF**  
 forms control **ADMIN**  
     description for 3800 printer **OPGDE**  
     for virtual printer, specifying **GENCMD**  
 forms control buffer (FCB) **ADMIN**  
     file, (DMKFCB)  
     function **INST**  
     loading sample file **INST**  
     tailoring **INST**  
     loading **RGOS**  
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**BSIZE** = operand **ADRCMS**  
**BUFFER** = operand **ADRCMS**  
**CACHE** = operand **ADRCMS**  
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**OPENTYP** = operand **ADRCMS**  
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**RECNO** = operand **ADRCMS**

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**FSCB = operand**

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**FSCLOSE macro**

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**BUFFER** = operand **ADRCMS**  
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**ERROR** = operand **ADRCMS**  
**FORM** = E operand **ADRCMS**  
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hexdword1 operand

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hexloc operand

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- hexloc1 operand  
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- hexloc2 operand  
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- hexloc, variable  
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- HEXTYPE** macro **XEDIT**  
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- high-level language programming interface  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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IBM Personal Computer Enhanced Connectivity  
Facilities **ADGCMS**, **ADRCMS**,  
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IBM Professional Office System (PROFS) **GIM**

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ID card to submit job to CMS batch facility  
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**\*IDENT** (Identify System Service) **CONPAO**,  
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**LIFO** option **CMSREF**

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**IDENTIFY** macro **GCSREF**

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**ADGCMS**

master catalog for VSAM in CMS/DOS

**ADGCMS**

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resource name in connection request

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Identify\_Resource\_Manager (XCIDRM) routine

**CONGREF**

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IEBUPDTE utility program to create CMS files

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IEHMOVE utility program

to create CMS files from tapes created by

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**ADGCMS**

IJSYSCL defining in CMS/DOS **CMSREF**

IJSYSCT ddname **ADGCMS**

IJSYSCT defined **CMSREF**

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IJSYSRL ddname defined in CMS/DOS

**ADGCMS**

IJSYSRL defining in CMS/DOS **CMSREF**

IJSYSSL ddname defined in CMS/DOS **ADGCMS**

IJSYSSL defining in CMS/DOS **CMSREF**

IJSYSUC defined **CMSREF**

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of NETWORK command **SYSCMD**

IMMED value on APPCVM CONNECT

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**IMSG** operand  
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**IN** predicate of **SQL APGDE**  
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**INArea** operand  
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 of **MONITOR** command **SYSCMD**  
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Refer to the foldout page at the back of this book for a  
 chart of abbreviations and their corresponding manuals.

- INCLUDE** statement of SQL  
**COBOL APGDE**  
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     accuracy in calculations **SPIUG**  
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     of **CHAIN** subcommand **IPCSREF**  
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     program execution (BLIP) **TERMREF**  
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     abbreviated **SPIUG**  
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     names for Extract/Replace function **ADRCMS**  
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     controlling receipt **GENCMD**  
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     commands with **TRACE** instruction **SPIREF**  
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     of **GLOBALV** command **CMSREF**  
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   a file pool **SFSAD**  
   **CMS INTRO**  
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   GCS dumps **DIAG**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**INSTFPP EXEC INST**  
**INSTID** operand  
  of **DEFNUC** macro **PLNGDE**  
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**INSTRUCT** event type  
  of **PER** command **GENCMD**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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- dialog testing **APGDE**
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- ERRORS** setting **APGDE**
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  - CMS** programming
    - See **CMS** (**Conversational Monitor System**) programming interface
  - communications
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  - definition table **SAACOM**
  - error, **CP/virtual machine** **DIAG**
  - files, **IPCS** **IPCSREF**
  - GCS** (**Group Control System**) **GCSREF**
  - high-level language to **APPC/VM** **CMSMIG**
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     of **MONITOR** command **SYSCMD**  
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   **INTTYPE** = operand  
     **NUCEXT SET ADRCMS**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



## INV option

- of INCLUDE command **CMSREF**

- of LOAD command **CMSREF**

- invalid log on passwords **SECUR**

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- migration problems **ADMIN**

- invocation of formatter, by IPCS **IPCSREF**

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- a program **PRIMER**

- a REXX EXEC **ADRCMS**

- an EXEC **PRIMER**

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- built-in functions **SPIREF**

- DDR (DASD DUMP/Restore)**

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- under CMS **ADMIN, SFPROG**

- IUCV functions SFPROG**

- programmable operator facility **SFPROG**

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- System Product Editor **CMSUG**

- System Product Interpreter EXECs **CMSUG**

- the CMS batch facility **OPGDE**

- the editor **XEDITUG**

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- VMCF functions SFPROG**

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- recording, example **DIAG**

- assembler language I/O instructions

- ADGCMS**

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- reading records to **ADRCMS**

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- console I/O **ADGCMS**

- displaying messages at your terminal

- ADGCMS**

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- reading lines from a terminal **ADGCMS**

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- recording with CPEREP program **OPGDE**

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- comparison of System/370 to 370-XA

- CMSMIG**

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- management, virtual machine

- See *Diagnosis Reference*

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- overhead in CP, reducing **ADMIN**

- overview of CMS I/O support **ADGCMS,**

- CMSMIG**

- preferred interface

- I/O macros **ADGCMS**

- support **CMSMIG**

- queued channel **DIAG**

- reduction, VTAM **SFPROG**

- SFS directory **ADGCMS**

- storing the subchannel ID in register 1

- ADGCMS**

- System/370 instructions **CMSMIG**

- tape **ADGCMS**

- tape I/O **ADGCMS**

- tapes **ADGCMS**

- unit record I/O **ADGCMS**

- virtual machines **ADMIN**

- VM SNA support

- processing **SFPROG**

- 370-XA instructions **CMSMIG**

- 4-digit device addresses **CMSMIG**

- I/O (input/output) interrupts **CMSMIG**  
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- IOSECT** (I/O interrupt work area) **DIAG**
- IPARML** **DSECT CONGREF**
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- IPCS** (Interactive Problem Control System)  
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   problem and data management **IPCSREF**  
   problem diagnosis **IPCSREF**  
   problem reporting **IPCSREF**  
 module interfaces **IPCSREF**  
   **IPCS** line writer interface **IPCSREF**  
   **IPCS** trace entry formatter interface  
   **IPCSREF**  
   **IPCSSCAN** scroll interface **IPCSREF**  
   time zone adjustment **IPCSREF**  
 obtaining a GCS **IPCS** map **DIAG**  
 output build routine interface **IPCSREF**  
 problem number **IPCSREF**  
 problem number assignment **IPCSREF**  
 publications **TERMREF**  
 return codes **SYSMMSG**  
 symptom records **DIAG**  
 to collect **AVS** data **DIAG**  
 trace entry formatter interface **IPCSREF**  
 usage  
   **AVS** load map **IPCSREF**  
   **CMS** load map (**CMSNUC MAP**)  
   **IPCSREF**  
   completing customer profile **IPCSREF**  
   conversion considerations **IPCSREF**  
   **CONVERT** command **IPCSREF**  
   **CONVIPCS EXEC** **IPCSREF**  
   **CP** load map (**CPNUC MAP**) **IPCSREF**  
   debugging a dump or **CPTRAP** file  
   **IPCSREF**  
   dumping **CPTRAP** files to tape **IPCSREF**  
   file mode **A** space management **IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

GCS load map (GCSNUC MAP)  
**IPCSREF**  
generating load map **IPCSREF**  
generating problem report **IPCSREF**  
hardcopy of APAR **IPCSREF**  
hardcopy of dump or CPTRAP file **IPCSREF**  
IPCS load map **IPCSREF**  
operating procedures **IPCSREF**  
other load maps **IPCSREF**  
preliminary considerations **IPCSREF**  
recognizing duplicate problems **IPCSREF**  
SFS load map **IPCSREF**  
supplementary data **IPCSREF**  
time stamp **IPCSREF**  
TSAF load map (TSAF MAP) **IPCSREF**  
typical operating sequence **IPCSREF**  
updating problem report **IPCSREF**  
variables  
**FEDFEXSW** **IPCSREF**  
**HEXAD** **IPCSREF**  
**PRINTONE** **IPCSREF**  
**REUSEAD** **IPCSREF**  
**SCROLAD** **IPCSREF**  
**SCROLLEN** **IPCSREF**  
**SCROLUAD** **IPCSREF**

**IPCS (Interactive Problem Control System)**  
**commands**  
**APAR** command **IPCSREF**  
definition **ADMIN, SYMSG**  
**FDISPLAY** command **CONPAO**  
**IPCSDUMP** command **IPCSREF, OPGDE**  
**IPCSVRT** command **CONPAO, IPCSREF**  
**END** subcommand **IPCSREF**  
**FORMAT** subcommand **IPCSREF**  
**HELP** subcommand **IPCSREF**  
**HEX** subcommand **IPCSREF**  
**HX** subcommand **IPCSREF**  
**PROCESS** subcommand **IPCSREF**  
**QUIT** subcommand **IPCSREF**  
**SELECT** subcommand **IPCSREF**  
**TIMESPAN** subcommand **IPCSREF**  
**IPCSSCAN** command **CONPAO, IPCSREF**  
**AREGS** subcommand **IPCSREF**  
**ARIOBLOK** subcommand **IPCSREF**  
**BOTTOM** subcommand **IPCSREF**  
**C** subcommand **IPCSREF**  
**CHAIN** subcommand **IPCSREF**  
**CMS** subcommand **IPCSREF**  
**CMSPOINT** subcommand **IPCSREF**  
**CORTABLE** subcommand **IPCSREF**  
**DISPLAY** subcommand **IPCSREF**  
**DOSPOINT** subcommand **IPCSREF**  
**DOWN** subcommand **IPCSREF**  
**DUMPID** subcommand **IPCSREF**  
**END** subcommand **IPCSREF**  
**FDISPLAY** subcommand **IPCSREF**  
**FORMAT** subcommand **IPCSREF**  
**G** subcommand **IPCSREF**  
**GDISPLAY** subcommand **IPCSREF**  
**HELP** subcommand **IPCSREF**  
**HEX** subcommand **IPCSREF**  
**HX** subcommand **IPCSREF**  
**IDENTIFY** subcommand **IPCSREF**  
**IPCSMAP** subcommand **IPCSREF**  
**IUCV** subcommand **IPCSREF**  
**LOCATE (UP)** subcommand **IPCSREF**  
**LUNAME** subcommand **IPCSREF**  
**MAPA** subcommand **IPCSREF**  
**MAPN** subcommand **IPCSREF**  
**MREGS** subcommand **IPCSREF**  
**MRIOBLOK** subcommand **IPCSREF**  
**OSPOINT** subcommand **IPCSREF**  
**PRINT** subcommand **IPCSREF**  
**QUIT** subcommand **IPCSREF**  
**REGS** subcommand **IPCSREF**  
**REUSE** subcommand **IPCSREF**  
**RIOBLOK** subcommand **IPCSREF**  
**SCROLL** subcommand **IPCSREF**  
**SELECT** subcommand **IPCSREF**  
**SYMPTOM** subcommand **IPCSREF**  
**TACTIVE** subcommand **IPCSREF**  
**TIME** subcommand **IPCSREF**  
**TLOADL** subcommand **IPCSREF**  
**TOP** subcommand **IPCSREF**  
**TRACE** subcommand **IPCSREF**  
**TSAB** subcommand **IPCSREF**  
**UP** subcommand **IPCSREF**  
**USERMAP** subcommand **IPCSREF**  
**VIOBLOK** subcommand **IPCSREF**  
**VMBLOK** subcommand **IPCSREF**  
**VMLOADL** subcommand **IPCSREF**  
**+ and -** subcommand **IPCSREF**  
**&name** **IPCSREF**  
**?** subcommand **IPCSREF**  
**IPCSSCAN TRACE** **CONPAO**  
**MAP** command **IPCSREF**  
notational convention **IPCSREF**  
**PRB** command **IPCSREF**  
**PROB** command **IPCSREF**  
**STAT** command **IPCSREF**  
summary **IPCSREF**  
**TRAPFILE** command **IPCSREF**  
**IPCSDUMP** command **DIAG, OPGDE**  
description **IPCSREF**  
example session **IPCSREF**  
format **IPCSREF**  
functions provided **IPCSREF**  
keywords used in PRBnnnnn report  
**IPCSREF**  
messages **IPCSREF**

- problem report generation **IPCSREF**  
 responses **IPCSREF**  
 symptom record generation **IPCSREF**  
 usage notes  
   CP dump **IPCSREF**  
   general **IPCSREF**  
   partial dump **IPCSREF**
- IPCSMAP** subcommand of **IPCSSCAN**  
 command  
   description **IPCSREF**  
   example output **IPCSREF**  
   format **IPCSREF**  
   functional category **IPCSREF**  
   messages **IPCSREF**  
   responses **IPCSREF**  
   usage notes **IPCSREF**
- IPCSVRT** command **DIAG, CONPAO**  
   description **IPCSREF**  
   format **IPCSREF**  
   messages **IPCSREF**  
   operands **IPCSREF**  
   options **IPCSREF**  
   responses **IPCSREF**  
   usage notes **IPCSREF**
- IPCSVRT** subcommands  
   **END** subcommand **IPCSREF**  
   **FORMAT** subcommand **IPCSREF**  
   general usage notes **IPCSREF**  
   **HELP** subcommand **IPCSREF**  
   **HEX** subcommand **IPCSREF**  
   **HX** subcommand **IPCSREF**  
   **PROCESS** subcommand **IPCSREF**  
   **QUIT** subcommand **IPCSREF**  
   **SELECT** subcommand **IPCSREF**  
   summary **IPCSREF**  
   **TIMESPAN** subcommand **IPCSREF**
- IPCSSCAN** command **DIAG**  
   CMS subset mode **IPCSREF**  
   description **IPCSREF**  
   display of CP dump **IPCSREF**  
   format **IPCSREF**  
   **HELP** **IPCSREF**  
   identify dumps and CPTRAP files  
     **IPCSREF**  
   interactive display **IPCSREF**  
   locating addresses **IPCSREF**  
   messages **IPCSREF**  
   on a display terminal **IPCSREF**  
   operands **IPCSREF**  
   printing data **IPCSREF**  
   query last subcommand **IPCSREF**  
   responses **IPCSREF**  
   selecting data **IPCSREF**  
   usage notes **IPCSREF**
- IPCSSCAN** scroll interface **IPCSREF**  
**IPCSSCAN** subcommands  
   **AREGS** subcommand **IPCSREF**  
   **ARIOBLOK** subcommand **IPCSREF**  
   **BOTTOM** subcommand **IPCSREF**  
   **C** subcommand **IPCSREF**  
   **CHAIN** subcommand **IPCSREF**  
   **CMS** subcommand **IPCSREF**  
   **CMSPOINT** subcommand **IPCSREF**  
   **CORTABLE** subcommand **IPCSREF**  
   **DISPLAY** subcommand **IPCSREF**  
   **DOSPOINT** subcommand **IPCSREF**  
   **DOWN** subcommand **IPCSREF**  
   **DUMPID** subcommand **IPCSREF**  
   **END** subcommand **IPCSREF**  
   **FDISPLAY** subcommand **IPCSREF**  
   **FORMAT** subcommand **IPCSREF**  
   **G** subcommand **IPCSREF**  
   **GDISPLAY** subcommand **IPCSREF**  
   general usage notes **IPCSREF**  
   **HELP** subcommand **IPCSREF**  
   **HEX** subcommand **IPCSREF**  
   **HX** subcommand **IPCSREF**  
   **IDENTIFY** subcommand **IPCSREF**  
   **IPCSMAP** subcommand **IPCSREF**  
   **IUCV** subcommand **IPCSREF**  
   **LOCATE (UP)** subcommand **IPCSREF**  
   **LUNAME** subcommand **IPCSREF**  
   **MAPA** subcommand **IPCSREF**  
   **MAPN** subcommand **IPCSREF**  
   **MREGS** subcommand **IPCSREF**  
   **MRIOBLOK** subcommand **IPCSREF**  
   **OSPOINT** subcommand **IPCSREF**  
   **PRINT** subcommand **IPCSREF**  
   **QUIT** subcommand **IPCSREF**  
   **REGS** subcommand **IPCSREF**  
   **REUSE** subcommand **IPCSREF**  
   **RIOBLOK** subcommand **IPCSREF**  
   **SCROLL** subcommand **IPCSREF**  
   **SELECT** subcommand **IPCSREF**  
   summary **IPCSREF**  
   **SYMPTOM** subcommand **IPCSREF**  
   **TACTIVE** subcommand **IPCSREF**  
   **TIME** subcommand **IPCSREF**  
   **TLOADL** subcommand **IPCSREF**  
   **TOP** subcommand **IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

TRACE subcommand **IPCSREF**  
 TSAB subcommand **IPCSREF**  
 UP subcommand **IPCSREF**  
 USERMAP subcommand **IPCSREF**  
 VIOBLOK subcommand **IPCSREF**  
 VMBLOK subcommand **IPCSREF**  
 VMLOADL subcommand **IPCSREF**  
 + and - subcommand **IPCSREF**  
 &name **IPCSREF**  
 ? subcommand **IPCSREF**  
 IPCSSCAN to view AVS data **DIAG**  
 IPCSSCAN TRACE command **CONPAO**  
 IPF (Interactive Productivity Facility) **INTRO**  
 IPL CMS command  
   description of **ADMIN**  
   SAVESYS parameter **ADMIN**  
 IPL command **ADMIN, CMSUG, GENCMD**  
   described **GENCMD**  
   for named systems **GENCMD**  
   operands  
     **ATTN GENCMD**  
     **CLEAR GENCMD**  
     cyln **GENCMD**  
     nnnnn **GENCMD**  
     **NOCLEAR GENCMD**  
     **PARM GENCMD**  
     **PMA GENCMD**  
     **PMAV GENCMD, RGOS**  
     **STOP GENCMD**  
     systemname **GENCMD**  
     vaddr **GENCMD**  
   responses **GENCMD**  
   stopping server with **SFSAD**  
   usage notes **GENCMD**  
 IPL control statement **INTRO**  
   VM/VSE **RGOS**  
 IPL directory control statement  
   **FILEPOOL** operand of **SFSAD**  
   operands  
     data **PLNGDE**  
     iplsys **PLNGDE**  
     **PARM PLNGDE**  
   optional CMS initialization parameters  
     **AUTOOCR PLNGDE**  
     **BATCH PLNGDE**  
     **INSTSEG PLNGDE**  
     **NOSPROF PLNGDE**  
   using to define default file mode A **SFSAD**  
 IPL statement information, **DIAGNOSE**  
   code X'B0' **SFPROG**  
 IPL (initial program load) **APGDE, TERMREF**  
   automatic **APGDE**  
   command **APGDE**  
   definition **ADMIN, SYSMSG**  
   device, replacing directory entry **SFPROG**  
   effect on 3880 **ADMIN**  
   entering CMS environment **CMSUG**  
   how to automate for VSE/SP guest **RGOS**  
   linking CMS installation saved segment  
     **CMSUG**  
   monitor considerations **ADMIN**  
   MVS virtual machine **RGOS**  
     directory control statement **RGOS**  
     EXEC procedure **RGOS**  
     preferred guest **RGOS**  
     V=V or V=R guest **RGOS**  
   of an operating system **GENCMD**  
   of stand-alone dump facility **DIAG**  
   second-level VM system  
     directory control statement **RGOS**  
   stopping **GENCMD**  
   suppressing automatic **GENCMD**  
   VMSAVE option **ADMIN**  
   VSE virtual machine **RGOS**  
     device support facility **RGOS**  
     directory control statement **RGOS**  
     EXEC procedure **RGOS**  
 IPLADDR operand  
   of DEFNUC macro **PLNGDE**  
 IPLCYL0 operand  
   of DEFNUC macro **PLNGDE**  
 IPLing CP nucleus from tape **INST**  
 IPLPROC **RGOS**  
 IPRCODE **CONGREF**  
 IPWHATRC **CONGREF**  
 IS NULL predicate of SQL **APGDE**  
 ISAM Interface Program (IIP) **ADGCMS**  
 ISAM operand  
   of SET command **GENCMD**  
 ISAM (Indexed Sequential Access Method)  
   **GENCMD**  
     CMS restriction **ADGCMS**  
     CMS/DOS restriction **ADGCMS**  
 ISPEXEC **APGDE**  
 ISPEXEC command **APGDE**  
 ISPF (Interactive System Productivity Facility)  
   **APGDE, INTRO**  
     breakpoints **APGDE**  
     browse option **APGDE**  
     commands **APGDE**  
       **ISPSTART APGDE**  
       **PRINT APGDE**  
       **PRINT-HI APGDE**  
     dialog test option **APGDE**  
     dialog testing **APGDE**  
     dialogs **APGDE**  
     error handling **APGDE**  
     **ERRORS** setting **APGDE**  
     EXECs and **APGDE**

- file tailoring  
 output libraries **APGDE**  
 services **APGDE**  
 skeletons **APGDE**  
 function trace option **APGDE**  
 functions **APGDE**  
 functions option **APGDE**  
 HELP panels **APGDE**  
 invoking **APGDE**  
 ISPEXEC **APGDE**  
 libraries **APGDE**  
 LOADLIBs **APGDE**  
 log option **APGDE**  
 message definition **APGDE**  
 message libraries **APGDE**  
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 panel  
 libraries **APGDE**  
 option **APGDE**  
 services **APGDE**  
 panels **APGDE**  
 PDF **APGDE**  
 libraries **APGDE**  
 prototyping applications **APGDE**  
 requirements using **APGDE**  
 SELECT service **APGDE**  
 services **APGDE**  
 skeleton libraries **APGDE**  
 skeletons **APGDE**  
 table  
 input libraries **APGDE**  
 output libraries **APGDE**  
 services **APGDE**  
 tables **APGDE**  
 tables option **APGDE**  
 traces option **APGDE**  
 TXTLIBs **APGDE**  
 variable services **APGDE**  
 variable trace option **APGDE**  
 variables option **APGDE**  
 ISPFILe libraries **APGDE**  
 ISPLINK **APGDE**  
 ISPLLIB **APGDE**  
 ISPLNK **APGDE**  
 ISPMLIB libraries **APGDE**  
 ISPPLIB libraries **APGDE**  
 ISPSLIB libraries **APGDE**  
 ISPSTART command **APGDE**  
 ISPTABL libraries **APGDE**  
 ISPTLIB libraries **APGDE**
- ISPLIB **APGDE**  
 ISQL (Interactive SQL) **APGDE**, **INTRO**  
 commands  
 INPUT **APGDE**  
 testing **APGDE**  
 issuing commands  
 to CMS **SPIUG**  
 to CP **SPIUG**  
 to the given subcommand environment  
**EXEC2**  
 to the host system **EXEC2**  
 issuing CP commands to  
 first-level VM **RGOS**  
 VSE/SP virtual machine **RGOS**  
 italic type **PRIMER**  
 ITASK EXEC INST  
 ITERATE instruction **SPIUG**  
 See also DO instruction  
 description **SPIREF**  
 use of variable on **SPIREF**  
 ITRACE command **DIAG**, **GCSREF**  
 all operand **GCSREF**  
**AVS DIAG**  
 description **GCSREF**  
 end operand **GCSREF**  
**GCS DIAG**  
 group operand **GCSREF**  
 gtrace operand **GCSREF**  
 off operand **GCSREF**  
 sup operand **GCSREF**  
 ITRACE operator command **SFSAD**  
 ITRACE start-up parameter **SFSAD**  
 IUCV subcommand of IPCSSCAN command  
 description **IPCSREF**  
 example output **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**  
 messages **IPCSREF**  
 responses **IPCSREF**  
 usage notes **IPCSREF**  
 IUCV (Inter-User Communications Vehicle)  
**CONPAO**, **DIAG**, **SFPROG**  
 ACCEPT function **CONGREF**  
 anchor block **DIAG**  
 application debugging **DIAG**  
 authorizing communication path **PLNGDE**  
 basic communication functions **SFPROG**  
 control paths **SFPROG**  
 control statement for server machines **SFSAD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**CMS SFPROG**

between two virtual machines **SFPROG**  
communication  
between virtual machines **INTRO**  
collection resource management system service  
**SFPROG**  
DASD block I/O system service **SFPROG**  
error logging system service **SFPROG**  
example **SFPROG**  
message system service **SFPROG**  
monitored in CP internal trace table  
**SYSCMD**  
signal system service **SFPROG**  
spool system service **SFPROG**  
using control paths **SFPROG**  
using data in a buffer **SFPROG**  
using data in a parameter list **SFPROG**  
with CP system services **INTRO, SFPROG**  
with DASD Block I/O **SFPROG**  
**CONNECT** function **CONGREF**  
connection  
complete **SFPROG**  
pending **SFPROG**  
quiesced **SFPROG**  
resumed **SFPROG**  
severed **SFPROG**  
connections  
specifying maximum number **PLNGDE**  
control paths **SFPROG**  
DASD block I/O system service, use **SFPROG**  
DCLBFR function **CONGREF**  
definition **ADMIN, GCSREF, SYSMSG**  
**DESCRIBE** function **CONGREF**  
description **INTRO**  
differences from APPC/VM **CONGREF**  
directory control statement operands  
**ALLOW PLNGDE**  
**ANY PLNGDE**  
**GATEANY PLNGDE**  
gateid **PLNGDE**  
**GATEWAY PLNGDE**  
gatewayid **PLNGDE**  
**GLOBAL PLNGDE**  
**LOCAL PLNGDE**  
**MSGLIMIT PLNGDE**  
**PRIORITY PLNGDE**  
**RESANY PLNGDE**  
resid **PLNGDE**  
resource ID **PLNGDE**  
**REVOKE PLNGDE**  
userid **PLNGDE**  
**\*CCS PLNGDE**  
**\*CRM PLNGDE**  
**\*IDENT PLNGDE**  
**\*LOGREC PLNGDE**

**\*SIGNAL PLNGDE****\*SPL PLNGDE**

Error Logging System Service, use **SFPROG**  
estimating connections for **SFSAD**  
external interrupt **SFPROG**  
avoiding **SFPROG**  
control **SFPROG**  
enabling or disabling **SFPROG**  
message **SFPROG**  
functional terminology **SFPROG**  
functions  
See IUCV (Inter-User Communications  
Vehicle) functions  
introduction **SFPROG**  
invoking **SFPROG**  
interrupts **CMSMIG**  
IUCV support **RGOS**  
macro **ADRCMS**  
description **SFPROG**  
maximum connections for **SFSAD**  
maximum number of links per server  
machine **SFSAD**  
Message All System Service **SFPROG**  
message complete **SFPROG**  
message pending **SFPROG**  
Message System Service use **SFPROG**  
messages **SFPROG**  
data transfer **SFPROG**  
identification **SFPROG**  
parameters, specifying **SFPROG**  
path ID block **DIAG**  
paths **SFPROG**  
control **SFPROG**  
programmable operator **SFPROG**  
**QUERY** function **CONGREF**  
receiving messages from the special message  
facility **SFPROG**  
**RTRVBFR** function **CONGREF**  
security **SECUR, SFPROG**  
sequence of functions **SFPROG**  
**SETCMASK** function **CONGREF**  
**SETMASK** function **CONGREF**  
signal system service, use **SFPROG**  
SNA environment use **SFPROG**  
special message facility **SFPROG**  
Spool System Service, use **SFPROG**  
statements  
**ALLOW** directory entry **CONPAO**  
example **CONPAO**  
for gateways **CONPAO**  
for global/local resources **CONPAO**  
gatewayid **CONPAO**  
manage gateways **CONPAO**  
resourceid **CONPAO**  
userid **CONPAO**

- \*CRM directory entry **CONPAO**
- \*IDENT manage gateways **CONPAO**
- \*IDENT manage global/local resources **CONPAO**
- \*IDENT GATEANY GATEWAY directory entry **CONPAO**
- support for MVS guest **RGOS**
- system services **SFPROG**
  - DASD block I/O **SFPROG**
  - error logging **SFPROG**
  - message **SFPROG**
  - message all **SFPROG**
  - signal **SFPROG**
  - SNA console communication services **SFPROG**
  - spool **SFPROG**
- TESTCMPL function **CONGREF**
- TESTMSG function **CONGREF**
- trace table entries **SFPROG**
  - field definitions **SFPROG**
  - formats **SFPROG**
  - suppressing **SFPROG**
- tracing IUCV **DIAG**
- userid block **DIAG**
- IUCV (Inter-User Communications Vehicle) functions **SFPROG**
  - CONNECT **CONGREF**
  - controlling external interrupts **SFPROG**
  - RECEIVE **CONGREF**
  - SEND CNF **CONGREF**
  - SEND CNFD **CONGREF**
  - SEND DATA **CONGREF**
  - SEND ERR **CONGREF**
  - SEND REQ **CONGREF**
  - SEVER **CONGREF**
- ACCEPT **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- CONNECT **SFPROG**
  - parameter list format **SFPROG**
  - to the SPOOL system service **SFPROG**
  - using **SFPROG**
- DECLARE BUFFER, using **SFPROG**
  - parameter list format **SFPROG**
- DESCRIBE **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- PURGE
  - parameter list format **SFPROG**
  - using **SFPROG**
- QUERY, using **SFPROG**
- QUIESCE **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- RECEIVE **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- REJECT **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- REPLY **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- RESUME **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- RETRIEVE BUFFER, using **SFPROG**
- SEND **SFPROG**
  - parameter list format **SFPROG**
  - to the DASD block I/O system service **SFPROG**
  - to the signal system service **SFPROG**
  - to the SPOOL system service **SFPROG**
  - using **SFPROG**
- SET CONTROL MASK **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- SET MASK **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- SEVER **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- terminology **SFPROG**
- TEST COMPLETION **SFPROG**
  - parameter list format **SFPROG**
  - using **SFPROG**
- TEST MESSAGE, using **SFPROG**
- IUCVCOM macro **CONGREF, GCSREF**
  - accept parameter **GCSREF**
  - code parameter **GCSREF**
  - connect parameter **GCSREF**
  - description **GCSREF**
  - error parameter **GCSREF**
  - execute format **GCSREF**
  - exit parameter **GCSREF**
  - list address format **GCSREF**
  - list format **GCSREF**
  - mf parameter **GCSREF**
  - name parameter **GCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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path parameter **GCSREF**  
prmlist parameter **GCSREF**  
purge parameter **GCSREF**  
query parameter **GCSREF**  
quiesce parameter **GCSREF**  
receive parameter **GCSREF**  
reject parameter **GCSREF**  
rep parameter **GCSREF**  
reply parameter **GCSREF**  
resume parameter **GCSREF**  
send parameter **GCSREF**  
sever parameter **GCSREF**  
uword parameter **GCSREF**  
IUCVINI macro **CONGREF, GCSREF**  
clr parameter **GCSREF**  
description **GCSREF**  
error parameter **GCSREF**  
execute format **GCSREF**  
exit parameter **GCSREF**  
list address format **GCSREF**  
list format **GCSREF**  
mf parameter **GCSREF**  
name parameter **GCSREF**  
priv parameter **GCSREF**  
rep parameter **GCSREF**  
set parameter **GCSREF**  
uword parameter **GCSREF**  
IVP (Installation Verification Procedure)  
CMS functions tested **INST**  
CP functions tested **INST**  
format IVPM1 minidisk **INST**  
format IVPM2 minidisk **INST**  
interpret test results **INST**  
overview **INST**  
procedure **INST**  
requirements **INST**  
system facilities not tested **INST**  
variations **INST**  
IVPM1 **INST, PLNGDE**  
IVPM2 **INST, PLNGDE**  
I/O operand  
of INDICATE command **SYSCMD**  
of TRACE command **GENCMD**

## J

job control language equivalent in CMS **ADGCMS**  
 jobname for job sent to CMS batch facility  
   specifying **CMSUG**  
   used to identify spool files **CMSUG**  
 jobs, submitting  
   for CMS batch facility **CMSUG**  
   under CMS **RGOS**  
   using **SUBVSE EXEC RGOS**  
 JOIN macro **XEDIT**  
   example of **XEDIT**  
   with DBCS strings **XEDIT**  
 JOIN subcommand of **XEDIT** command **APGDE**  
 joining  
   a line at cursor **PRIMER**  
   collections **CONPAO**  
   files **XEDITUG**  
   in typewriter mode **XEDITUG**

lines **XEDITUG**  
   at column number **XEDIT**  
   at column pointer **XEDIT**  
   at cursor **XEDIT**  
   with strings inserted **XEDIT**  
 JOURNAL operand  
   of QUERY command **SYSCMD**  
   of SET command **SYSCMD**  
 journaling  
   accounting records **ADMIN**  
   as a detection mechanism **SECUR**  
   **LOGON, AUTOLOG, LINK** commands  
   **ADMIN**  
 JULIAN option of DATE function **SPIREF**  
 jumping through your program **SPIUG**  
 justified words  
   left-justified **EXEC2, SPIUG**  
   right-justified **EXEC2**  
 JUSTIFY function **SPIREF**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## K

Kanji feature **SERV**  
     override file **SERV**  
 keeping  
     changes to a file **ADRCMS**  
     messages in a file **PRIMER**  
     warnings in a file **PRIMER**  
**KEEPREAD** parameter  
     **DMSREVOK** (SFS Revoke Authority)  
         **ADRCMS**  
**KEEP** = operand  
     **HNDXT** macro **ADRCMS**  
     **HNDIO** macro **ADRCMS**  
     **HNDVSC** macro **ADRCMS**  
 key topics **SAACOM**  
 keyboard **APGDE**, **TERMREF**  
     for PC **TERMREF**  
         function keys **TERMREF**  
         F1-F10 keys **TERMREF**  
         numeric keys **TERMREF**  
         typewriter keys **TERMREF**  
     layout **PRIMER**  
     lock **TERMREF**  
     with special features **TERMREF**  
**KEYLEN** option of **FILEDEF** command  
     **CMSREF**  
 keys **TERMREF**  
     **ATTN** **INST**  
     back tab **PRIMER**  
     **BACKSPACE** **CMSLOT**  
     **BREAK** **CMSLOT**  
     changing storage **ADMIN**  
     character **APGDE**  
     **CLEAR** **APGDE**  
     **CNCL** **APGDE**  
     control **APGDE**, **TERMREF**  
     control keys for PC **TERMREF**  
         cursor **TERMREF**  
         screen management **TERMREF**  
     controlling program function **GENCMD**  
     cursor  
         control **APGDE**  
         movement **PRIMER**  
         positioning **TERMREF**  
     **DEL** **APGDE**  
     **ENTER** **CMSLOT**, **INST**  
     **ERASE EOF** **APGDE**, **PRIMER**  
     **ERASE INPUT** **APGDE**

    function keys for PC **TERMREF**  
     **INS MODE** **APGDE**  
     keyboard for PC **TERMREF**  
     **LOCK** **CMSLOT**, **PRIMER**  
     new-line **PRIMER**  
     numeric keys for PC **TERMREF**  
     null entry **INST**  
     **PA1** **APGDE**  
     **PA2** **APGDE**  
     **PF** (program function) **APGDE**, **INTRO**,  
         **TERMREF**  
     printing storage **GENCMD**  
     screen management **APGDE**, **TERMREF**  
     **SHIFT** **CMSLOT**, **PRIMER**  
     storage  
         changing **ADMIN**  
         displaying **GENCMD**  
     tab **PRIMER**  
     that signal the system **INST**  
     to delete characters **PRIMER**  
     typewriter keys for PC **TERMREF**  
 keyword control statements  
     for **FILEPOOL** **FORMAT** **AUDIT** **SFSAD**  
     for **FILESERV** **GENERATE** **SFSAD**  
     for **FILESERV** **MINIDISK** **SFSAD**  
 keywords  
     See also instructions  
     conflict with commands **SPIREF**  
     cryptographic **SECUR**  
     mixed case **SPIREF**  
     of **DO** instruction  
         **END** **SPIUG**  
     of **IF** instruction  
         **ELSE** **SPIUG**  
         **THEN** **SPIUG**  
     of **SELECT** instruction  
         **END** **SPIUG**  
         **OTHERWISE** **SPIUG**  
         **THEN** **SPIUG**  
         **WHEN** **SPIUG**  
     translations of **CMSUG**  
     reservation of **SPIREF**  
     to manipulate program stack **SPIUG**  
     page **DIAG**  
     used in **PRBnnnnn** report **IPCSREF**  
**KEY** = operand  
     **NUCXT** **SET** **ADRCMS**  
     **SUBCOM** **SET** **ADRCMS**  
     **SUBPOOL** **CREATE** **ADRCMS**

## L

L border command **PRIMER**

L operand

of DCP command **SYSCMD**

LA instruction

conversion considerations **ADGCMS**,  
**CMSMIG**

label

as targets of CALL **SPIREF**

as targets of SIGNAL **SPIREF**

description of **EXEC2**, **SPIREF**, **SPIUG**

DOS disks **ADGCMS**

duplicate **SPIREF**

example **EXEC2**

in a CALL instruction **SPIUG**

in INTERPRET instruction **SPIREF**

OS VSAM disks, determining for **AMSERV**  
**ADGCMS**

performance **EXEC2**

search **EXEC2**

search algorithm **SPIREF**

using VSAM tapes in CMS/DOS **ADGCMS**

using VSAM tapes in OS **ADGCMS**

LABEL control statement **ADMIN**

of Format/Allocate program **SFPROG**

label off (LABOFF) processing, tapes **CMSUG**

LABEL option

of **FORMAT** command **CMSREF**

of **LISTFILE** command **CMSREF**

label

processing, general description **CMSUG**

requirements, FB-512 DASD **OPGDE**

writing on CMS minidisks **CMSUG**

LABELDEF command

as used for **FILEPOOL BACKUP SFSAD**

**CHANGE** option **CMSREF**

**CLEAR** operand **CMSREF**

**CRDTE** operand **CMSREF**

description **CMSREF**, **CMSUG**

**EXDTE** operand **CMSREF**

**FID** operand **CMSREF**

for **FILEPOOL RESTORE SFSAD**

**FSEQ** operand **CMSREF**

**GENN** operand **CMSREF**

**GENV** operand **CMSREF**

in tape processing **CMSUG**

**NOCHANGE** option **CMSREF**

**PERM** option **CMSREF**

SEC operand **CMSREF**

standard labels **CMSUG**

use of **CMSUG**

**VOLID** operand **CMSREF**

**VOLSEQ** operand **CMSREF**

labeling

a line **XEDITUG**

DASD volumes **ADMIN**, **SFPROG**

**LABOFF** operand of **FILEDEF** command  
**CMSREF**

**LABOFF** (label off) processing **CMSUG**

Laddr operand

of **ATTACH** command **SYSCMD**

of **DETACH** command **SYSCMD**

of **DISABLE** command **SYSCMD**

of **ENABLE** command **SYSCMD**

laddr, variable

described **GENCMD**, **SYSCMD**

LAN (local area network) **IPCSREF**

links **CONPAO**

LANGADD function

adding **LANGBLKs** to language block chain  
**ADRCMS**

language control block **ADRCMS**

**LANGBLK** macro **ADRCMS**

LANGFIND function

language control block **ADRCMS**

locating **LANGBLKs** on language block chain  
**ADRCMS**

LANGGCTL file type usage in CMS **CMSUG**

LANGGEN command **ADMIN**, **CMSREF**,  
**SFPROG**

control file **SFPROG**

example **SFPROG**

updating **SFPROG**

format **ADMIN**, **SFPROG**

LANGID operand

of **DEFNUC** macro **PLNGDE**

of **NAMELANG** macro **PLNGDE**

langid, variable

described **GENCMD**, **SYSCMD**

LANGLEV operand

of **DEFNUC** macro **PLNGDE**

LANGMAP file type usage in CMS **CMSUG**

LANGMCTL file type usage in CMS **CMSUG**

LANGMERG command **ADMIN**, **CMSREF**,  
**SFPROG**

control file **SFPROG**

example **SFPROG**

format **ADMIN**, **SFPROG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- language control block **ADRCMS**  
 LANGADD function **ADRCMS**  
 LANGFIND function **ADRCMS**  
 language IDs for supported languages **ADMIN, SFPROG**  
 language interface to APPC/VM  
 assembler **CMSMIG**  
 high-level or procedures **CMSMIG**  
 languages  
 displaying messages in other **SYSMSG**  
 national **SFPROG**  
 adding information for an application  
**ADMIN, SFPROG**  
 deleting **ADMIN, SFPROG**  
 deleting application information **ADMIN, SFPROG**  
 feature tape **SFPROG**  
 installing on VM **SFPROG**  
 LANGGEN command **ADMIN, SFPROG**  
 langids for supported languages **ADMIN**  
 LANGMERG command **ADMIN, SFPROG**  
 loading the files from tape to disk **SFPROG**  
 saving files for CP and CMS **SFPROG**  
 setting, DIAGNOSE code X'C8' **SFPROG**  
 updating user directory entries for **SFPROG**  
 updating files for an existing language  
**ADMIN, SFPROG**  
 updating message repositories **ADMIN, SFPROG**  
 processor date and version **SPIREF**  
 processors **INTRO**  
 statements  
 in EXEC 2 language **CMSUG**  
 in REXX language, for System Product  
 Interpreter **CMSUG**  
 structure and syntax **SPIREF**  
 supported by CPI Communications **CMSMIG**  
 LANGUAGE record **SFPROG**  
 larceny, stealing PSWs **CMSMIG**  
 large files split into smaller files **CMSUG**  
 last  
 command, re-executing **CMSLOT**  
 line of file, moving current line to **CMSLOT**  
 subcommand  
 advancing line pointer and repeating **XEDIT**  
 displaying **XEDIT**  
 reexecuting **XEDIT**  
 last text only (LTO) option **SERV**  
 last-in/last-out  
 See LIFO (last-in/last-out)  
 LAST output field of STAT command **IPCSREF**  
 LASTCMND field **DIAG**  
 LASTEXEC field **DIAG**  
 LASTING lock **CMSLOT, CMSUG, PRIMER**  
 lasting locks **ADGCMS, CMSMIG**  
 LASTING parameter  
**DMSCRLOC (SFS Create Lock) ADRCMS**  
 LASTLOR option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **SET XEDIT**  
 LASTMSG option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **TRANSFER XEDIT**  
 lastpage operand  
 of **LOCK command SYSCMD**  
 of **UNLOCK command SYSCMD**  
 LASTPOS function **SPIREF, SPIUG**  
 later warm start  
 preparing system for **SYSCMD**  
 layout of display screen **TERMREF**  
 LDT statement of TXTLIB member **APGDE**  
 leading blank removal with STRIP function  
**SPIREF**  
 leading zeros  
 adding with the **RIGHT** function **SPIREF**  
 example **EXEC2**  
 removal with **STRIP** function **SPIREF**  
 removing **EXEC2**  
 learning to use **XEDIT CMSLOT, PRIMER**  
 leased line **TERMREF**  
 LEAVE instruction **SPIUG**  
 See also **DO** instruction  
 description of **SPIREF**  
 use of variable on **SPIREF**  
 LEAVE operand  
 of **DETACH command SYSCMD**  
 of **SPTAPE command SYSCMD**  
 LEAVE option  
 of **FILEDEF command CMSREF**  
 leaving  
 CMS subset environment **CMSUG**  
 CMS/DOS environment **CMSUG**  
 full-screen CMS **PRIMER**  
 input mode **CMSUG**  
 insert mode **PRIMER**  
 loops **SPIUG**  
 the signal system service **SFPROG**  
 XEDIT environment **CMSUG**  
 your program **SPIREF, SPIUG**  
 LEFT **XEDITUG**  
 LEFT command of DMS/CMS **APGDE**  
 LEFT function **SPIREF, SPIUG**  
 left shift **XEDIT**

- LEFT** subcommand **XEDIT**  
 example of **XEDIT**  
 with DBCS strings **XEDIT**  
 left-justified **EXEC2**, **SPIUG**  
**LENGTH** function **SPIREF**, **SPIUG**  
 length  
 limits **EXEC2**  
 of CMS ready message, changing **CMSUG**  
 of words, finding **EXEC2**  
**LENGTH** option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **TRANSFER XEDIT**  
**LENGTH** parameter (**APPC**)  
 of **RECEIVE\_AND\_WAIT CONGREF**  
 of **SEND\_DATA CONGREF**  
 less than operator **SPIUG**  
 less than operator (<) **SPIREF**  
 less than or equal operator (<=) **SPIREF**  
 less than or greater than operator (<>) **SPIREF**  
**LET** option of **LKED** command **APGDE**,  
**CMSREF**  
 Level One Support Center **INST**  
 levels of  
 communication directories **CONPAO**  
 conversation security  
 See conversation, security levels  
 of headings **CMSLOT**  
**SVC ADGCMS**  
**LFBUF RGOS**  
**LGLOPR**  
 See also programmable operator facility  
 action routine **SFPROG**  
 command **SFPROG**  
 statement **SFPROG**  
**Lhexloc** operand  
 of **STCP** command **SYSCMD**  
**Lhexloc1** operand  
 of **DCP** command **SYSCMD**  
 of **DMCP** command **SYSCMD**  
**LIBE** option  
 of **INCLUDE** command **CMSREF**  
 of **LKED** command **CMSREF**  
 of **LOAD** command **CMSREF**  
**LIBMAC** option of **ASSEMBLE** command  
**CMSREF**  
**LIBNAME** option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 libname, variable  
 described **GENCMD**, **SYSCMD**  
**LIBPDS** statement of **MACLIBs APGDE**  
 libraries **APGDE**  
**CMS/DOS ADGCMS**  
 COBOL subroutine **INTRO**  
 copying modules from **ADGCMS**  
 creating **APGDE**  
 defining **APGDE**  
 DOS core image **ADGCMS**  
 DOS libraries in **CMS/DOS ADGCMS**  
 DOS/VSE source statement used in **CMS**  
**ADGCMS**  
**ISPF** (Interactive System Productivity  
 Facility)  
 concatenating **APGDE**  
**ISPF** **APGDE**  
**ISPLIB APGDE**  
**ISPPLIB APGDE**  
**ISPSLIB APGDE**  
**ISPTABL APGDE**  
**ISPTLIB APGDE**  
 message **APGDE**  
 panel **APGDE**  
 skeleton **APGDE**  
 table input **APGDE**  
 table output **APGDE**  
**ISPF/PDF APGDE**  
 load **APGDE**  
**LOADLIB APGDE**  
**MACLIBs** in **EXECs APGDE**  
 macro **APGDE**  
 See also macro libraries  
 compressing **APGDE**  
 displaying members of **APGDE**  
 examining contents of **APGDE**  
 extracting a member of **APGDE**  
 manipulating members of **APGDE**  
 printing members of **APGDE**  
 system **APGDE**  
 members **APGDE**  
 needed for programs **PRIMER**  
 OS, macro libraries  
 See macro libraries, OS  
**PDF APGDE**  
**PL/I** subroutine **INTRO**  
 programs, **CMS/DOS ADGCMS**  
 routines  
 callable services library **ADGCMS**  
 using **VMLIB** routines **ADGCMS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- services **APGDE**  
 structure of VSE/SP **RGOS**  
 text **APGDE**  
   adding members to **APGDE**  
   deleting members of **APGDE**  
   replacing members of **APGDE**  
 TXTLIBs **APGDE**  
   in EXECs **APGDE**  
 types  
   LOADLIBs **ADGCMS**  
   MACLIBs **ADGCMS**  
   TXTLIBs **ADGCMS**  
 using directories **ADGCMS**  
 volumes for CMS/DOS directory entries  
   **ADGCMS**  
 VS Pascal **INTRO**  
 VSE  
   assigning logical units **CMSREF**  
   obtain information about **CMSREF**  
 VSE core image  
   defining IJSYSCL **CMSREF**  
   fetching phases from **CMSREF**  
 VSE procedure  
   copying procedures from **CMSREF**  
   displaying directories **CMSREF**  
   displaying procedures from **CMSREF**  
   printing procedures from **CMSREF**  
   punching procedures from **CMSREF**  
 VSE relocatable  
   defining IJSYSRL **CMSREF**  
   link-editing modules from **CMSREF**  
 VSE source statement  
   copying macros from **CMSREF**  
   defining IJSYSSL **CMSREF**  
 LIBRARY loader control statement **ADGCMS**,  
   **CMSREF**  
 LIBTYPE option  
   of EXTRACT **XEDIT**  
   of QUERY **XEDIT**  
 licensed program  
   APL2 **INTRO**  
   COBOL **INTRO**  
   defined **INTRO**  
   Directory Maintenance **INTRO**  
   Display Management System (DMS/CMS)  
   **INTRO**  
   Document Composition Facility (DCF)  
   **INTRO**  
   examples **INTRO**  
   Graphical Data Display Manager (GDDM)  
   **INTRO**  
   IBM BASIC **INTRO**  
   identification bits **SFPROG**  
   Interactive Problem Control System (IPCS)  
   **INTRO**  
   Interactive Productivity Facility (IPF) **INTRO**  
   OS/VS COBOL **INTRO**  
   Pass-Through Facility **INTRO**  
   PC/VM Bond **INTRO**  
   PL/I **INTRO**  
   Professional Office System (PROFS) **INTRO**  
   Remote Spooling Communications Subsystem  
   (RSCS) Networking **INTRO**  
   service provided **INTRO**  
   SQL/Data System **INTRO**  
   SQL/Data System with QMF **INTRO**  
   Systems Application Architecture **INTRO**  
   VM/SP High Performance Option (HPO)  
   **INTRO**  
   VS COBOL II **INTRO**  
   VS FORTRAN **INTRO**  
   VS FORTRAN Interactive Debug **INTRO**  
   VS Pascal **INTRO**  
 LIFO (last-in/first-out) **APGDE**, **EXEC2**, **SPIUG**  
 operand  
   of CONVERT COMMANDS command  
   **CMSREF**  
 option  
   of IDENTIFY command **CMSREF**  
   of NAMEFIND command **CMSREF**  
   of NUCXMAP command **CMSREF**  
 stacking **SPIREF**  
 LIKE predicate of SQL **APGDE**  
 LIMCT option of FILEDEF command **CMSREF**  
 LIMIT operand  
   of MONITOR command **SYSCMD**  
   of SET command **SYSCMD**  
 limits  
   architected **SFSAD**  
   for APPC/VM in CMS **CONGREF**  
   for column pointer movement defined **XEDIT**  
   for EXEC 2 files in CMS **EXEC2**  
   for line pointer movement defined **XEDIT**  
   monitoring **SFSAD**  
   of CMS IUCV **SFPROG**  
   of your file space **CMSLOT**, **PRIMER**  
   spool file **OPGDE**  
   session, changing **CONPAO**  
 line editing  
   characters **TERMREF**  
   symbols, controlling **GENCMD**  
 line end character **XEDITUG**  
   defining **XEDIT**  
   recognizing **XEDIT**  
   used in power typing **XEDIT**  
 line length  
   controlling at your terminal **GENCMD**  
   of terminal **SPIREF**

- line location information **PRIMER**
- line mode, editing in **XEDIT**
- line name  
 assigning using **SET POINT XEDIT**  
 assigning using .xxxx (prefix subcommand) **XEDIT**  
 deleting **XEDIT**  
 specifying target as **XEDIT**  
 target as **XEDITUG**  
 example of **XEDITUG**
- line number  
 displaying **XEDIT, XEDITUG**  
 renumbering **XEDIT**  
 setting on **PRIMER**  
 specifying target as **XEDIT**  
 used in **COPY** command **CMSLOT**  
 used in **GET** command **CMSLOT**  
 used in **MOVE** command **CMSLOT**  
 used in **SORT** command **CMSLOT**
- LINE** operand  
 of **CLUSTER** macro **PLNGDE**  
 of **DEFINE** command **GENCMD**  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **TRANSFER XEDIT**
- line pointer **XEDITUG**  
 advancing  
 and repeating last subcommand **XEDIT**  
 using a target **XEDIT**  
 using **BOTTOM XEDIT**  
 using **DOWN XEDIT**  
 using **NEXT XEDIT**  
 controlling movement of when string not found **XEDIT**  
 effect of **SET STAY** on **XEDIT**  
 in typewriter mode **XEDITUG**  
 moved by target **XEDITUG**  
 movement, defining limits **XEDIT**  
 moving  
 using / (prefix subcommand) **XEDIT**  
 to last file line **XEDIT**  
 to **TOF XEDIT**  
 up **XEDIT**
- line timeout feature **TERMREF**
- line width of terminal **SPIREF**
- line wrapping, automatic **XEDIT, XEDITUG**
- line writer interface, **IPCS IPCSREF**
- line-mode  
 display **TERMREF**  
 migrating to full-screen **CMS CMSUG**  
 of **CMS Editor CMSREF**  
 using the editor **CMSUG**
- LINECOUN** option  
 of **ASSEMBLE** command **CMSREF**  
 of **PRINT** command **CMSREF**
- LINEDEL** operand  
 of **TERMINAL** command **GENCMD**
- LINEDIT** macro  
**BUFFA** = operand **ADRCMS**  
**COMP** = operand **ADRCMS**  
 converting decimal values  
 to **EBCDIC ADRCMS**  
 to hexadecimal **ADRCMS**  
 displaying  
 conversion results at terminal **ADRCMS**  
 lines contained in buffer **ADRCMS**  
 multiple blanks **ADRCMS**  
 parameter lists **ADRCMS**  
**DISP** = operand **ADRCMS**  
**DOT** = operand **ADRCMS**  
 execute format **ADRCMS**  
 indicating message substitution **ADRCMS**  
 list format **ADRCMS**  
**MAXSUBS** = operand **ADRCMS**  
**MF** = operand **ADRCMS**  
 multiple substitution lists **ADRCMS**  
 passing lines to **CP ADRCMS**  
 period placement **ADRCMS**  
**RENT** = operand **ADRCMS**  
 specifying  
 message text **ADRCMS**  
 substitution length **ADRCMS**  
 substitutions **ADRCMS**  
 standard format **ADRCMS**  
**SUB** = operand **ADRCMS**  
**TEXTA** = operand **ADRCMS**  
**TEXT** = operand **ADRCMS**
- LINEDIT** operand  
 of **SET** command **GENCMD, TERMREF**
- LINEND** operand  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **SET XEDIT**  
 of **TERMINAL** command **GENCMD**  
 of **TRANSFER XEDIT**
- LINENUM** option of **NAMEFIND** command **CMSREF**

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**LINERD macro**

**ATTREST**= operand **ADRCMS**  
**CASE**= operand **ADRCMS**  
**COL**= operand **ADRCMS**  
**DATA**= operand **ADRCMS**  
**ERROR**= operand **ADRCMS**  
**LINE**= operand **ADRCMS**  
**LOGICAL**= operand **ADRCMS**  
**PAD**= operand **ADRCMS**  
**PROMPT**= operand **ADRCMS**  
reading lines from a terminal **ADGCMS**  
reading lines of input from terminal  
**ADRCMS**  
specifying buffer address **ADRCMS**  
**TRANS**= operand **ADRCMS**  
**TYPE**= operand **ADRCMS**  
**VNAME**= operand **ADRCMS**  
**WAIT**= operand **ADRCMS**  
writing prompt information **ADRCMS**

**lines**

adding **PRIMER**  
copying **PRIMER**  
deleting **PRIMER**  
deleting at terminal before entering **GENCMD**,  
**SYSCMD**  
duplicating **PRIMER**  
error rate **CONPAO**  
from a program retrieved with **SOURCELINE**  
**SPIREF**  
inserting words into **PRIMER**  
low-speed communication  
connecting previously unconnected  
**SYSCMD**  
mode of CMS editor **CMSREF**  
moving **PRIMER**  
performance **CONPAO**  
recovering **PRIMER**  
speed **CONPAO**  
types **CONPAO**

**LINES operand**

of **QUERY** command **SYSCMD**  
of **QUERY VIRTUAL** command **GENCMD**

**LINESIZE function SPIREF****LINESIZE operand**

of **TERMINAL** command **GENCMD**

**LINEWRT macro**

**ALARM**= operand **ADRCMS**  
**COLOR**= operand **ADRCMS**  
**COL**= operand **ADRCMS**  
**DATA**= operand **ADRCMS**  
displaying lines of output at terminal **ADRCMS**  
**ERROR**= operand **ADRCMS**  
**EXTHI**= operand **ADRCMS**  
**HILITE**= operand **ADRCMS**  
**LINE**= operand **ADRCMS**

**NOCR**= operand **ADRCMS**

**PRIOR**= operand **ADRCMS**

**PROTECT**= operand **ADRCMS**

**PSS**= operand **ADRCMS**

**VNAME**= operand **ADRCMS**

writing lines from a terminal **ADGCMS**

**Line**= **XEDITUG**

**link**

accounting record **CONPAO**

journaling function status set **SYSCMD**

**LINK block DIAG****LINK command ADMIN, CMSUG, GENCMD**

access mode passwords **GENCMD**

accessing minidisks after **CMSREF**

as used during file pool regeneration **SFSAD**

as used during minidisk replacement **SFSAD**

batch job restrictions **GENCMD**

described **GENCMD**

example of use **INTRO**

**LINK** batch job statement **INTRO**

**LINK** control statement **INTRO**

format, in job for CMS batch facility

**CMSUG**

linking to other user's minidisks **CMSUG**

**operands**

mode **GENCMD**

**PASS**= password **GENCMD**

userid **GENCMD**

vaddr1 **GENCMD**

password suppression **ADMIN**

responses **GENCMD**

usage notes **GENCMD**

2305 restrictions **GENCMD**

**LINK directory control statement PLNGDE**

**MVS** guest **RGOS**

operands **PLNGDE**

mode **PLNGDE**

userid **PLNGDE**

vaddr **PLNGDE**

preferred machine assist **PLNGDE**

restriction regarding control minidisk

**SFSAD**

restriction regarding storage group minidisks

**SFSAD**

**VSE RGOS**

**LINK journaling**

accounting records **ADMIN**

**LINK macro GCSREF**

de parameter **GCSREF**

description **GCSREF**

ep parameter **GCSREF**

eploc parameter **GCSREF**

execute format **GCSREF**

id parameter **GCSREF**

list format **GCSREF**

- mf parameter **GCSREF**
- param parameter **GCSREF**
- sf parameter **GCSREF**
- vl parameter **GCSREF**
- LINK** operand of **SET** command **SYSCMD**
- LINK** (OS macro) **APGDE**
- link-editing
  - in **CMS/DOS** **ADGCMS**, **CMSREF**
  - modules from **DOS** relocatable libraries **ADGCMS**
  - modules from **VSE** relocatable libraries **CMSREF**
  - output **ADGCMS**
  - specifying control statements **ADGCMS**
  - TEXT** files **ADGCMS**
  - TEXT** files in storage **CMSREF**
- linkage
  - direct branch **ADGCMS**, **ADRCMS**, **CMSMIG**
  - conventions **APGDE**
  - editor control statements
    - VSE** supported in **CMS/DOS** **CMSREF**
  - editor map
    - created by **DOS/VSE** linkage editor **ADGCMS**
    - option of **VSE ACTION** control statement, effect in **CMS/DOS** **ADGCMS**
  - OS/MVS** control statements supported by **TXTLIB** command **ADGCMS**
  - registers **APGDE**, **GCSREF**
  - supervisor assisted
    - See supervisor assisted linkage
- linkctl operand of **FDISPLAY** subcommand **IPCSREF**
- linkdef operand of **FDISPLAY** subcommand **IPCSREF**
- linkid, variable
  - described **GENCMD**, **SYSCMD**
- linking
  - a device to your virtual machine **GENCMD**
  - CMS** installation saved segment **CMSUG**
  - to other user's minidisks **CMSUG**
  - to virtual disks **GENCMD**
  - to your own minidisks **CMSUG**
- links
  - listing users with current **GENCMD**
  - TSAF** **CONPAO**
    - adding (**ADD LINK**) **CONPAO**
  - ATTACH** command **CONPAO**
  - DEDICATE** command **CONPAO**
  - deleting (**DELETE LINK**) **CONPAO**
  - example of **CONPAO**
  - inoperational **CONPAO**
  - performance of **CONPAO**
  - querying **CONPAO**
  - supported **CONPAO**
  - types **CONPAO**
- LINKS** operand
  - of **QUERY** command **GENCMD**
- LIOCS** routines supported by **CMS/DOS** **ADGCMS**
- list **SPIREF**
  - address **CONGREF**
  - address format **GCSREF**
  - definition **PRIMER**
  - format **GCSREF**
  - of files, saving **PRIMER**
  - of Names
    - entry in a names file **CMSLOT**
    - preparing a note for **CMSLOT**
  - of people
    - sending file to **CMSLOT**
    - sending note to **CMSLOT**
  - of related references **CONPAO**
  - ordered **PRIMER**
  - simple **PRIMER**
  - tags for **CMSLOT**, **PRIMER**
    - definition list **CMSLOT**
    - ordered list **CMSLOT**
    - simple list **CMSLOT**
    - unordered list **CMSLOT**
  - unordered **PRIMER**
- LIST** ddname **SFSAD**
- list format (**MF=L**)
  - CMSIUCV** macro **SFPROG**
  - HNDIUCV** macro **SFPROG**
- LIST** operand
  - of **ASSEMBLE** command **CMSREF**
  - of **DEFAULTS** command **CMSREF**
  - of **GLOBALV** command **CMSREF**
  - of **LKED** command **APGDE**, **CMSREF**
  - of **LOADLIB** command **CMSREF**
  - of **OPTION** command **CMSREF**
  - of **TRAPFILE** command **IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**LIST** subcommand  
of TESTCOB command **APGDE**  
of TESTFORT command **APGDE**  
**LISTBREAKS** subcommand of TESTFORT  
command **APGDE**  
**LISTBRKS** subcommand of TESTCOB  
command **APGDE**  
**LISTCAT** access methods services function  
**ADGCMS**  
**LISTCPDS** file type usage in CMS **CMSUG**  
**LISTCRA** access methods services function  
**ADGCMS**  
**LISTDIR** command **CMSREF**, **CMSUG**  
**XEDIT** option **CMSREF**  
**LISTDS** command  
description **CMSREF**  
examples **CMSREF**  
**EXTENT** option **CMSREF**  
**FORMAT** option **CMSREF**  
**FREE** option **CMSREF**  
listing  
DOS files **ADGCMS**  
extents occupied by VSAM files **ADGCMS**  
free space extents **ADGCMS**  
OS and DOS disks **ADGCMS**  
OS and DOS files **ADGCMS**  
**PDS** option **CMSREF**  
used with OS/MVS data sets **ADGCMS**  
**LISTFILE** command **APGDE**, **CMSREF**,  
**CMSUG**, **SPIUG**  
**ALLOC** option **CMSREF**  
**APPEND** option **CMSREF**  
**ARGS** option **CMSREF**  
**BLOCKS** option **CMSREF**  
**DATE** option **CMSREF**  
**EXEC** option **APGDE**, **CMSREF**  
**FIFO** option **CMSREF**  
**FMODE** option **CMSREF**  
**FNAME** option **CMSREF**  
**FORMAT** option **CMSREF**  
**FTYPE** option **CMSREF**  
**HEADER** option **CMSREF**  
**LABEL** option **CMSREF**  
**LIFO** option **CMSREF**  
**NOHEADER** option **CMSREF**  
**STACK** option **CMSREF**  
**TRACE** option **CMSREF**  
used to list your files **CMSUG**  
**XEDIT** option **CMSREF**  
**LISTFREQ** command **APGDE**  
**LISTFREQ** subcommand of TESTFORT  
command **APGDE**

listing  
contents of a directory **CMSLOT**, **PRIMER**  
**EXECs** and editor macros in storage  
**CMSREF**  
files **CMSLOT**, **PRIMER**  
using asterisk or percent signs **CMSUG**  
with the same character string **CMSUG**  
information  
about accessed file modes **CMSUG**  
about CMS files **CMSUG**  
about your virtual machine **CMSUG**  
requested **CMSUG**  
input/output assignments **ADGCMS**  
listing members of a **MACLIB** **ADGCMS**  
logical unit assignments in CMS/DOS  
**ADGCMS**  
**SFS** directories **CMSREF**  
your files **PRIMER**  
**LISTING** file **APGDE**, **CMSLOT**, **INTRO**  
**PRIMER**  
changing filename **ADGCMS**  
created by access method services **CMSREF**  
created by **AMSERV** command **ADGCMS**  
created by assembler and language processors  
**CMSUG**  
created by **ASSEMBLE** command **CMSREF**  
controlling **CMSREF**  
created by **ESERV** command **ADGCMS**  
created by **ESERV** program **CMSREF**  
defined **INTRO**  
**FORTRAN** **APGDE**  
national language **SFPROG**  
printing **CMSREF**  
usage in CMS **CMSUG**  
**LISTIO** command **ADGCMS**  
**A** option **CMSREF**  
**ALL** option **CMSREF**  
**APPEND** option **CMSREF**  
description **CMSREF**  
**EXEC** option **CMSREF**  
listing device assignments **ADGCMS**  
**PROG** option **CMSREF**  
**STAT** option **CMSREF**  
**SYS** option **CMSREF**  
**SYSxxx** option **CMSREF**  
**UA** option **CMSREF**  
**LISTX** option of **OPTION** command **CMSREF**  
**LIST38PP** file type usage in CMS **CMSUG**  
**LIST3800** file type usage in CMS **CMSUG**  
**LIST3820** file type usage in CMS **CMSUG**  
literal patterns in parsing **SPIUG**  
literal string, evaluating **EXEC2**

**LKED command APGDE**

**ALIGN2 option CMSREF**  
**AMODE option CMSREF**  
 description **ADGCMS, CMSREF**  
**DISK option CMSREF**  
**LET option CMSREF**  
**LIBE option CMSREF**  
**LIST option CMSREF**  
**MAP option CMSREF**  
**NAME option CMSREF**  
**NCAL option CMSREF**  
**NE option CMSREF**  
**NOPRINT option CMSREF**  
**NOTERM option CMSREF**  
**OL option CMSREF**  
**OVLY option CMSREF**  
**PRINT option CMSREF**  
**REFR option CMSREF**  
**RENT option CMSREF**  
**REUS option CMSREF**  
**RMODE option CMSREF**  
**SIZE option CMSREF**  
 specifying input to **ADGCMS**  
**TERM option CMSREF**  
 usage **CMSREF**  
 using **ADGCMS**  
**XCAL option CMSREF**  
**XREF option CMSREF**

**LKEDCTRL RGOS**

**LKEDIT file type APGDE**  
 usage in CMS **CMSUG**

**Lnnn operand**  
 of **QUERY** command **SYSCMD**

load **XEDITUG**

**AMODE option CMSREF**  
 file for **IPCS IPCSREF**  
**GCS (GCSNUC MAP) IPCSREF**  
 key, simulation of **GENCMD**  
 libraries **APGDE**  
 list  
     in **DMS/CMS APGDE**  
     requirements **ADMIN**  
     **SPB** card **ADMIN**

maps **APGDE, DIAG**

**CMS INST**  
**CMSDOS INST**  
**CMSNUC MAP IPCSREF**  
 contents **SERV**  
**CP INST**  
**CPNUC MAP IPCSREF**

creating **CMSREF, CONPAO**  
 creating with **INCLUDE** command  
**CMSREF**  
 creating with **LOAD** command **CMSREF**  
 displaying **CMSREF**  
**GCS INST**  
 generated by **GENMOD** command  
**CMSREF**  
 generation **DIAG**  
 invalid card images in **CMSREF**  
 of **MODULE** files, displaying **CMSREF**  
 replace card images in **CMSREF**  
 undefined external names **SERV**

**NOHIST option CMSREF**  
 option  
     of **DISK** command **CMSREF**  
 point, specifying **CMSREF**  
**RMODE option CMSREF**

**LOAD** directory control statement **PLNGDE**  
 operands **PLNGDE**

**C PLNGDE**  
**CLST nnnn PLNGDE**  
**fmode PLNGDE**  
**ftype PLNGDE**  
**name PLNGDE**  
**P PLNGDE**  
**reccount PLNGDE**  
**startres PLNGDE**  
**U PLNGDE**  
**\*\*\*\*\* PLNGDE**

**LOAD** command **APGDE, CMSLOT, DIAG, PRIMER**

**AUTO option CMSREF**  
**CLEAR option CMSREF**  
 defined **INTRO**  
 description **CMSREF**  
 determining  
     where files get loaded **ADGCMS**  
     where programs are loaded **CMSMIG**

**DUP option CMSREF**  
 duplicate **CSECTs CMSREF**  
 example of use **INTRO**  
 executing  
     program using **CMSREF**  
     **TEXT** files **ADGCMS**

generating  
     relocatable modules **ADGCMS**  
     transient modules **ADGCMS**  
 identifying **TXTLIBs** to be searched  
**CMSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- INV option **CMSREF**  
 LIBE option **CMSREF**  
 MAP option **CMSREF**  
 NOAUTO option **CMSREF**  
 NOCLEAR option **CMSREF**  
 NODUP option **CMSREF**  
 NOINV option **CMSREF**  
 NOLIBE option **CMSREF**  
 NOMAP option **CMSREF**  
 NOREP option **CMSREF**  
 NORLDSAV option **CMSREF**  
 NOTYPE option **CMSREF**  
 ORIGIN option **CMSREF**  
 REP option **CMSREF**  
 RESET option **CMSREF**  
 RLDSAVE option **CMSREF**  
 saving relocation information **CMSMIG**  
 setting addressing mode **ADGCMS,**  
**CMSMIG**  
 START option **APGDE, CMSREF**  
 TYPE option **CMSREF**  
 used with **GENMOD** command  
**CMSREF**
- LOAD** macro **GCSREF**  
 de parameter **GCSREF**  
 description **GCSREF**  
 ep parameter **GCSREF**  
 eploc parameter **GCSREF**  
 related parameter **GCSREF**
- LOAD** operand  
 of **INDICATE** command **ADMIN,**  
**GENCMD, SYSCMD**  
 of **NETWORK** command **SYSCMD**
- LOAD** raddr operand  
 of **SPTAPE** command **SYSCMD**
- LOAD** subcommand **XEDIT**  
 within the profile macro **XEDIT**
- LOAD** (OS macro) **APGDE**
- LOADBUF** command **ADMIN, INTRO**  
 summary **OPGDE, SYSCMD**
- LOADCMD** command **DIAG, GCSREF**  
 description **GCSREF**
- loader **APGDE**  
 changing device addresses **SERV**  
**CMS CMSREF**  
 control statements **ADGCMS, APGDE**  
**ENTRY** statement **CMSREF**  
 include control section (ICS) statement  
**CMSREF**  
**LIBRARY** statement **CMSREF**  
 loader terminate (LDT) statement **CMSREF**  
 replace (REP) statement **CMSREF**  
 set location counter (SLC) statement  
**CMSREF**  
 set page boundary (SPB) statement **CMSREF**
- generating new loader **SERV**  
 load map **SERV**  
 loading new loader **SERV**  
 location in storage **SERV**  
 naming new loader **SERV**  
 punching  
 copy of new loader **SERV**  
 copy of old loader **SERV**  
 loader text files **SERV**  
 search order for unresolved references  
**CMSREF**  
 updating **SERV**  
 wait conditions **SERV, SYMSG**  
 wait state codes **SYMSG**
- loader terminate (LDT) loader control statement  
**CMSREF**  
 of **TXTLIB** member **APGDE**  
 usage **ADGCMS**
- loading  
 a 3800 named system with **DIAGNOSE**  
 code X'74' **SFPROG**  
 an operating system **GENCMD, TERMREF**  
 and saving saved segments **ADMIN**  
**AVS** code **INST**  
**AVS** load module **CONPAO**  
 by named system **GENCMD**  
 character sets **XEDIT**  
**CMS** code **INST**  
**CMS** into your virtual machine **CMSUG**  
 command  
 See **LOAD** command  
 core image phases into storage for execution  
**ADGCMS**  
**CP** code **INST**  
 dumps **CONPAO**  
 dynamic **APGDE**  
 environments of **VM/SP HPO ADMIN**  
**EREP** code **INST**  
**EXECs** into storage **CMSUG**  
 file pool definition files **INST**  
 forms control buffer (FCB) **RGOS**  
**GCS** code **INST**  
**HELP** files **INST**  
**HIST** option **CMSREF**  
 indicators **ADMIN**  
 installation tools and profiles **INST**  
**IPCS** code **INST**  
 modules **GCSREF**  
 named saved segments **SFPROG**  
 national language files **INST**  
 national language files for **CP** and **CMS**  
**SFPROG**  
**Procedures Language/VM** files **INST**  
 programs  
 See program management

relocatable programs **CMSMIG**  
 sample files **INST**  
 saved segments **ADMIN**  
 servers  
   assembler **SRPI**  
   dynamically (SRPI macro) **SRPI**  
   EXECLOAD command for SRPI macro  
   servers **SRPI**  
   NUCXLOAD command **SRPI**  
   pre-loading assembler **SRPI**  
   preloading REXX and EXEC 2 **SRPI**  
   REXX and EXEC 2 (SRPI macro) **SRPI**  
   SRPI macro responsibilities **SRPI**  
   SSM considerations **SRPI**  
 service **SERV**  
 source code **INST**  
 suppressing automatic **GENCMD**  
 system by block address **GENCMD**  
 system definition files **INST**  
 system generation tools **INST**  
 text files **ADGCMS**  
   determining program entry points **ADGCMS**  
   determining where files get loaded **ADGCMS**  
   loader control statements **ADGCMS**  
   resolving external references **ADGCMS**  
   TEXT file libraries **ADGCMS**  
**TSAF CONPAO**  
 TSAF code **INST**  
 universal character set buffer (UCB) **RGOS**  
 3704/3705/3725/3745 Communications  
   Controller **OPGDE**  
 3704/3705/3725/3745 control program  
   **OPGDE**  
   EP considerations **OPGDE**  
**LOADLIB** command **APGDE**  
   COMPRESS option **CMSREF**  
   COPY option **CMSREF**  
   description **CMSREF**  
   DISK option **CMSREF**  
   EXCLUDE SYSIN control statement  
   **CMSREF**  
   LIST option **CMSREF**  
   MODIFY option **CMSREF**  
   PRINT option **CMSREF**  
   REPLACE option **CMSREF**  
   SELECT SYSIN control statement **CMSREF**  
   TERM option **CMSREF**  
**LOADLIB** option  
   of GLOBAL command **CMSREF**  
**LOADLIB** file type **APGDE**  
   usage in CMS **CMSUG**  
**LOADLIBs** **ADGCMS, APGDE**  
   **CMS**  
     compressing with LOADLIB command  
     **CMSREF**  
     copying with LOADLIB command **CMSREF**  
     creating with LKED command **CMSREF**  
     executing a load module from **CMSREF**  
     listing with LOADLIB command **CMSREF**  
**ISPF** **APGDE**  
 loadlists  
   **APLOAD EXEC SERV**  
   **ATSLOAD EXEC SERV**  
   **AVLOAD EXEC SERV**  
   **CMS**  
     **CMSLOAD EXEC SERV**  
     **DMS3XJ EXEC SERV**  
     **DMS3XK EXEC SERV**  
     **DMS5JA EXEC SERV**  
     **DMS5JB EXEC SERV**  
     **DMS5JC EXEC SERV**  
     **DMS5JD EXEC SERV**  
     **DMS5JG EXEC SERV**  
     SFS load modules **SERV**  
   **CMSLOAD EXEC SERV**  
   **CP INST**  
     **APLOAD EXEC SERV**  
     **AVLOAD EXEC SERV**  
     **CPLOAD EXEC SERV**  
     requirements **SERV**  
     **VRLOAD EXEC SERV**  
   **CPLOAD EXEC SERV**  
   **GCS INST, SERV**  
   **GCSLOAD EXEC INST, SERV**  
   **TSAF SERV**  
     used in DCSSGEN procedure **INST**  
     used in GENTSAF EXEC procedure **SERV**  
     used in PRELOAD command procedure  
     **SERV**  
     used in VMFBLD EXEC procedure **SERV**  
     used in VMFLOAD command procedure  
       CP loadlist requirements **SERV**  
       format of loadlist entry **SERV**  
       function **SERV**  
   **VRLOAD EXEC SERV**

Refer to the foldout page at the back of this book for a  
 chart of abbreviations and their corresponding manuals.

- LOADMOD** command **ADGCMS**, **CMSMIG**  
 CMS/DOS considerations **CMSREF**  
 description **CMSREF**  
 modules with no header records **CMSREF**
- LOADSYS** function **ADMIN**, **SFPROG**
- LOADTBL** command, programmable operator **SFPROG**
- LOADVFCB** command **CMSUG**, **GENCMD**  
 described **GENCMD**  
 operands  
   **FCB** **GENCMD**  
   **INDEX nn** **GENCMD**  
   name **GENCMD**  
   **vaddr** **GENCMD**  
 responses **GENCMD**  
 usage notes **GENCMD**
- LOC** operand of **CPTRAP** command **DIAG**
- local **SAACOM**  
 and global resources **INTRO**  
 definition of **SFSAD**  
 resource **CMSMIG**  
   access to **CONGREF**, **CONPAO**  
   accessibility **CONPAO**  
   control statements for **CONPAO**  
   description of **CONPAO**  
   identifying **CONPAO**  
   IUCV statements for **CONPAO**  
   locally known LU name for **CONPAO**  
   LU name qualifier for **CONPAO**  
   name space **CONPAO**  
   programs **CONGREF**  
   registration **CONPAO**  
   resource manager See resource manager  
   revoking **CONPAO**  
   revoking your own **CONGREF**  
   setting up server virtual machine  
     **CONPAO**  
   target LU name for **CONPAO**
- resource server virtual machine  
 See server virtual machine
- service  
 definition **SERV**  
 determining maximum module size using  
   **PSPACE** macro **SERV**  
 patches **SERV**  
 source updates **SERV**  
 ZAPs **SERV**
- stack **APGDE**
- local area network (LAN) **IPCSREF**
- local IDs  
 coding a program to supply **SFSAD**  
 using with remote users **SFSAD**
- LOCAL** start-up parameter **SFSAD**
- LOCALID** tag **SFSAD**  
 See also local IDs
- locally attached terminal **TERMREF**
- locally known LU name  
 for connection to resource in SNA network  
   **CONPAO**  
 for outbound connection **CONPAO**  
 in **APPCPASS** directory statement  
   **CONPAO**  
 in requester program's CP directory entry  
   **CONPAO**  
 LU name qualifier **CONPAO**  
   for global/local resource **CONPAO**  
   **\*IDENT** **CONPAO**  
   **\*USERID** **CONPAO**  
 specified in communications directory entry  
   **CONPAO**  
 summary of **CONPAO**  
 target LU **CONPAO**
- LOCATE** command **DIAG**  
 described **SYSCMD**  
 description of **CMSLOT**  
 operands  
   **raddr** **SYSCMD**  
   userid **SYSCMD**  
   **vaddr** **SYSCMD**  
 responses **SYSCMD**  
 summary **OPGDE**, **SYSCMD**  
 syntax diagram, class C or E **SYSCMD**  
 used  
   in **FILELIST** **CMSLOT**, **PRIMER**  
   in **XEDIT** **PRIMER**
- LOCATE** subcommand of **XEDIT** command  
**APGDE**, **XEDIT**, **XEDITUG**  
 with DBCS strings **XEDIT**
- LOCATE** (UP) subcommand of **IPCSSCAN**  
 command  
 description (CPTRAP) **IPCSREF**  
 description (dump) **IPCSREF**  
 example output (CPTRAP) **IPCSREF**  
 example output (dump) **IPCSREF**  
 format (CPTRAP) **IPCSREF**  
 format (dump) **IPCSREF**  
 functional category (CPTRAP) **IPCSREF**  
 functional category (dump) **IPCSREF**  
 messages (CPTRAP) **IPCSREF**  
 messages (dump) **IPCSREF**  
 operands (CPTRAP) **IPCSREF**  
 operands (dump) **IPCSREF**  
 options (CPTRAP) **IPCSREF**  
 responses (CPTRAP) **IPCSREF**  
 responses (dump) **IPCSREF**  
 usage notes (CPTRAP) **IPCSREF**  
 usage notes (dump) **IPCSREF**

## locating

a word in a string of words **EXEC2**  
 starting column of a word in another word  
**EXEC2**

a phrase in a string **SPIREF**  
 a string in another string **SPIREF**  
 CP control blocks in storage **DIAG**  
 data

using a target **XEDITUG**  
 using **ALL XEDIT**  
 using **CLOCATE XEDIT, XEDITUG**  
 using **CLOCATE** in typewriter mode  
**XEDITUG**

using **LOCATE CMSLOT, XEDIT**

information **PRIMER**

information in full-screen CMS **CMSUG**

of windows, changing **CMSREF**

server name, search sequence **SRPI**

target, information **CONPAO**

## lock

keyboard **TERMREF**

keyboard, shift **TERMREF**

**LOCK** command **ADMIN, RGOS**

described **SYSCMD**

operands

firstpage **SYSCMD**

lastpage **SYSCMD**

**MAP SYSCMD**

**SYSSPOOL SYSCMD**

**SYSTEM SYSCMD**

userid **SYSCMD**

responses **SYSCMD**

summary **OPGDE, SYSCMD**

syntax diagram, class A **SYSCMD**

**LOCK** key **CMSLOT, PRIMER**

**LOCK** option

of **EXTRACT XEDIT**

of **XEDIT XEDIT**

**LOCK** parameter

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**PRINT** option **APGDE**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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     changing **XEDIT**  
     defining **XEDIT**  
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     of **QUERY** command **SYSCMD**  
     of **SET** command **SYSCMD**  
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     **CMSREF**  
**MCH** (machine check handler) **OPGDE**  
**MCKOPSW** (CMS machine check old PSW)  
     **DIAG**  
**MCOPSW** (machine check old PSW) **DIAG**  
**MCU** (Multisystem Communication Unit)  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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MN005 monitor records **ADMIN**

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MN007 monitor records **ADMIN**

MN097 monitor records **ADMIN**

MN098 monitor records **ADMIN**

MN099 monitor records **ADMIN**

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MN301 monitor records **ADMIN**

MN303 monitor records **ADMIN**

MN304 monitor records **ADMIN**

MN305 monitor records **ADMIN**

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MN401 monitor records **ADMIN**

MN500 monitor records **ADMIN**

MN600 monitor records **ADMIN**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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 affinity **ADMIN**  
 MP-generated VM/SP HPO systems **RGOS**  
 recovery management **OPGDE**  
 trace table **DIAG**
- MP** (multiprocessor) system  
 COPY OPTIONS **PLNGDE**  
 displaying real storage **SYSCMD**  
 initialization messages **OPGDE**  
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- MREGS** subcommand of **IPCSSCAN** command  
 description **IPCSREF**  
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- MRIOBLOK** subcommand of **IPCSSCAN** command  
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 usage notes **IPCSREF**
- MS** code, exception log messages **SERV**  
 \*MSG **SFPROG, XEDITUG**
- MSG** operand  
 of SET command **GENCMD**  
 of STAT command **IPCSREF**
- MSG** option in SET **CMSLOT**
- MSG** subcommand **XEDIT**  
 \*MSGALL **SFPROG**
- MSGID** (keyword definition) **IPCSREF**
- MSGLINE** option  
 of EXTRACT **XEDIT**  
 of QUERY **XEDIT**  
 of SET **XEDIT**
- MSGMODE** command of **DMS/CMS**  
**APGDE**
- MSGMODE** option  
 of EXTRACT **XEDIT**  
 of QUERY **XEDIT**  
 of SET **XEDIT**  
 of TRANSFER **XEDIT**
- MSGNOH** command  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- operands  
 ALL SYSCMD  
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 OPERATOR SYSCMD  
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- MSGs start-up parameter SFSAD
- msgtext operand  
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 of SMSG command GENCMD  
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- msgtext, variable  
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- MSG= operand  
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- MShexloc operand  
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- MSS (mass storage system)  
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- MSSF SCPINFO command SFPROG
- MSSF (monitoring and service support facility)  
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- MSSFCALL SFPROG  
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- MThexloc1 operand  
 of DCP command SYSCMD  
 of DMCP command SYSCMD
- mtypes  
 CICSVM IPCSREF  
 FE IPCSREF  
 PVM IPCSREF  
 SFS IPCSREF  
 TSAF IPCSREF  
 USER1 IPCSREF
- MULT option  
 in CMS/DOS ADGCMS  
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 CMSREF
- multi-volume tape processing  
 See end-of-volume, processing
- multiple  
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 address stops, setting with PER DIAG  
 alternate console selection  
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 3800 printer ADMIN  
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 displaying XEDIT, XEDITUG  
 editing PRIMER, XEDIT, XEDITUG  
 editing, illustration of XEDITUG  
 ending editing sessions for XEDITUG  
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 enabling GENCMD  
 shadow table option, SET command  
 INTRO  
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- updates
  - CTL option of XEDIT command **ADGCMS**
  - using UPDATE command **ADGCMS**
- user mode **SFSAD**
  - backups at shutdown of **SFSAD**
  - backups during **SFSAD**
  - how to automatically start **SFSAD**
  - inhibition of, when a backup is required **SFSAD**
  - monitoring **SFSAD**
  - restricting user access during **SFSAD**
  - specifying start-up parameters for **SFSAD**
  - starting **SFSAD**
  - stopping **SFSAD**
  - tracing server execution during **SFSAD**
- users, reserving page frames for them **SYSCMD**
- views of different files **XEDITUG**
  - example of **XEDITUG**
- views of same file **XEDITUG**
  - example of **XEDITUG**
  - making changes in **XEDITUG**
- views, order of processing in **XEDITUG**
- views of files **PRIMER**
- VSE/SP virtual machines under VM **RGOS**
- Multiple Virtual Storage/System Product™ (MVS/SP™)
  - See MVS/SP (Multiple Virtual Storage/System Product)
- multiplication **SPIUG**
  - definition **SPIREF**
  - operator **SPIREF, SPIUG**
- multiplying numbers **EXEC2**
- multiprocessor, dyadic, and dual processor environments
  - See *Diagnosis Reference*
- AP environment
  - See *Diagnosis Reference*
- multiprocessor (MP)
  - affinity **ADMIN**
  - definition **INST**
  - displaying load **GENCMD**
  - examine real storage **SFPROG**
  - environment, considerations for MVS guest **RGOS**
  - installation **INST**
    - DMKSYS considerations **INST**
    - product parameter file considerations **INST**
  - multiprocessor (MP) mode **DIAG, IPCSREF**
  - recovery management **OPGDE**
  - trace table **DIAG**
- multiprocessor (MP) system
  - COPY OPTIONS PLNGDE**
  - displaying real storage **SYSCMD**
  - initialization
    - messages **OPGDE**
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- Multisystem Communication Unit (MCU)
  - coding RDEVICE macro **PLNGDE**
- multivolume data sets, displaying volumes on which they reside **CMSREF**
- multivolume extents **ADGCMS**
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  - identifying with DLBL command **CMSREF**
    - in CMS/DOS **CMSREF**
  - maximum number of disks **CMSREF**
    - in CMS/DOS **CMSREF**
  - rules for specifying **CMSREF**
    - in CMS/DOS **CMSREF**
- MVS/SP (Multiple Virtual Storage/System Product) **ADMIN, SAACOM**
  - definition **ADMIN, SYSMMSG**
  - cross-memory services **RGOS**
  - defining a basic **RGOS**
  - guest
    - See MVS (Multiple Virtual Storage/System Product) guest
  - efficiency of communication **RGOS**
  - non-paging DASD I/O
    - improving the performance of **ADMIN**
  - page fault assist **RGOS**
  - simulation extensions **RGOS**
  - support **RGOS**
    - common segment facility **RGOS**
    - enabled or disabled **SYSCMD**
    - ECPS (Extended Control-Program Support: VM/370) **RGOS**
    - low address protection **RGOS**
    - performance guidelines **RGOS**
    - special MVS instruction operations **RGOS**
    - System/370 Extended Facility **RGOS**



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allocating real storage **RGOS**  
alternate path support **RGOS**  
analysis for MVS guest **RGOS**  
analyzing performance of **RGOS**  
AP-generated system **RGOS**  
cross memory processing **RGOS**  
DASD address considerations **RGOS**  
DASD sharing overview **RGOS**  
DIAGNOSE code support **RGOS**  
DMKRIO general considerations **RGOS**  
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hardware for DASD sharing **RGOS**  
MP-generated system **RGOS**  
multiprocessing considerations **RGOS**  
multiprocessor environment **RGOS**  
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TSO when running under VM/SP HPO  
**RGOS**  
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  **BMX RGOS**  
  **ECMODE RGOS**  
  **PMA RGOS**  
  **REALTIMER RGOS**  
  **STFIRST RGOS**  
  **VIRT=REAL RGOS**  
  **XMEM RGOS**  
  **370E RGOS**  
VM/RTM, using **RGOS**  
V=R configuration **RGOS**  
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MVS/System Extensions Support  
  common segment facility **RGOS**  
  enabling **RGOS**  
  low address protection **RGOS**  
  special operations and instructions **RGOS**

## N

- n operand  
of DOWN subcommand **IPCSREF**  
of STORE command **GENCMD**  
of UP subcommand **IPCSREF**
- N-select, definition **ADMIN, SYMSG**
- NAME control record, ZAP and ZAPTEXT  
service programs  
format **SERV**  
function **SERV**  
parameters **SERV**  
usage notes **SERV**
- name  
avoiding conflicts of macro **XEDITUG**  
displaying **PRIMER**  
entry in a names file **CMSLOT**  
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of file, changing **PRIMER**  
of functions **SPIREF**  
of programs **SPIREF**  
of subroutines **SPIREF**  
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substitution  
examples **EXEC2**  
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table, mode, defining **CONPAO**  
unique resource **CONPAO**  
uniqueness, private resource **CMSMIG**
- NAME operand  
of CHANGE command **GENCMD, SYSCMD**  
of CLOSE command **GENCMD**  
of LKED command **CMSREF**  
of LOADVFCB command **GENCMD**
- NAME parameter  
**ACCEPT** (CMSIUCV) function **CONGREF**  
**CLR** (clear) function **CONGREF**
- NAME statement, patch update file **SERV**
- named segments, finding, loading, purging  
**SFPROG**
- named system  
creating, 3800 printing subsystem **PLNGDE**  
definition **ADMIN, SYMSG**  
loading by **GENCMD**  
saving or loading a 3800 **SFPROG**
- NAMEDEF, using **ADGCMS**
- NAMEFIND command  
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FILE option **CMSREF**  
LIFO option **CMSREF**  
LINENUM option **CMSREF**  
NAMES file format **CMSREF**  
NAMES file tags **CMSREF**  
sample names file **CMSREF**  
SIZE option **CMSREF**  
STACK option **CMSREF**  
START option **CMSREF**  
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- NAMELANG macro **PLNGDE**  
format **PLNGDE**  
operands  
**LANGID PLNGDE**  
**NLSPGCT PLNGDE**  
**NLSSTRT PLNGDE**  
**NLSVOL PLNGDE**
- NAMENCP macro  
for 37XX control program **ADMIN**  
format **PLNGDE**  
operands  
**CPNAME PLNGDE**  
**CPSIZE PLNGDE**  
**CPTYPE PLNGDE**  
**SYSPGCT PLNGDE**  
**SYSSTRT PLNGDE**  
**SYSVOL PLNGDE**
- NAMES command **CMSLOT, PRIMER**  
description **CMSREF**  
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PF keys on NAMES menu **CMSREF**  
sample NAMES screen **CMSREF**
- NAMES file  
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CMS communications directory **CMSMIG**  
communications directories **CONPAO**  
description of **CONPAO**  
sample entries **CONPAO**  
**SCOMDIR CONPAO**  
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**UCOMDIR CONPAO**  
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creating **CMSLOT, PRIMER**  
definition **CMSUG, PRIMER**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

deleting an entry from **PRIMER**  
 editing **CMSLOT**  
 editing with MESSAGE window **CMSUG**  
 finding information in **PRIMER**  
 for communications directory **CONGREF**  
 for private resource manager **CONGREF**  
 for private resource registration  
   See **NAMES** files, **\$SERVERS**  
 private resource access authorization  
   **CMSMIG**  
**\$SERVERS CONPAO**  
   description of **CONPAO**  
   overview **CONPAO**  
   sample entries **CONPAO**  
   setting up **CONPAO**  
 special characters to avoid **CMSUG**  
 storage in SFS directory or minidisk **CMSUG**  
**NAMES** file type usage in CMS **CMSUG**  
**NAMES** operand  
   of QUERY command **CMSLOT**,  
   **GENCMD**, **SYSCMD**  
   of QUERY (ALL) command **GENCMD**  
**NAMESYS** macro **ADMIN**, **PLNGDE**  
   available space for each DASD type  
   **PLNGDE**  
   format **PLNGDE**  
   operands  
     **PARMRGS PLNGDE**  
     **PROTECT PLNGDE**  
     **RCVRID PLNGDE**  
     **SAVESEQ PLNGDE**  
     **SYSBLOK PLNGDE**  
     **SYSCYL PLNGDE**  
     **SYSHRSG PLNGDE**  
     **SYSNAME PLNGDE**  
     **SYSPGCT PLNGDE**  
     **SYSPGNM PLNGDE**  
     **SYSSIZE PLNGDE**  
     **SYSSTRT PLNGDE**  
     **USERID PLNGDE**  
     **VMGROUP PLNGDE**  
     **VSYADR PLNGDE**  
     **VSYSRES PLNGDE**  
   relationship of page numbers, segment  
   numbers, and hexadecimal addresses  
   **PLNGDE**  
   worksheet to aid in coding **PLNGDE**  
**NAME3800** macro **ADMIN**  
   format **PLNGDE**  
   operands  
     **CPNAME PLNGDE**  
     **SYSPGCT PLNGDE**  
     **SYSSTRT PLNGDE**  
     **SYSVOL PLNGDE**

name, variable  
   described **GENCMD**, **SYSCMD**  
**NAME** = operand  
   **IMMCMD** macro **ADRCMS**  
   **NUCEXT CLR ADRCMS**  
   **NUCEXT QUERY ADRCMS**  
   **NUCEXT SET ADRCMS**  
   **SEGMENT** macro **ADRCMS**  
   **SUBCOM CLR ADRCMS**  
   **SUBCOM QUERY ADRCMS**  
   **SUBCOM SET ADRCMS**  
   **SUBPOOL CREATE ADRCMS**  
   **SUBPOOL DELETE ADRCMS**  
   **SUBPOOL RELEASE ADRCMS**  
 naming  
   a line **XEDITUG**  
     using **SET POINT XEDIT**  
     using .xxxx (prefix subcommand) **XEDIT**  
   a virtual screen **CMSREF**, **XEDIT**  
   a window **XEDIT**  
   **CMS** files **CMSREF**, **CMSUG**  
   conventions **SAACOM**  
   conventions for HELP files **CMSUG**  
   file pools **SFSAD**  
   SFS directories **CMSREF**  
   user commands **CMSUG**  
   variables **SPIUG**  
**National Language Support (NLS)** **CMSMIG**,  
**GIM**  
   See also languages, national  
   **CMS INTRO**  
   general **INTRO**  
   language support **INTRO**  
   service **INTRO**  
 national languages **SFPROG**, **SYSMMSG**  
   See also languages, national  
   deleting a language **ADMIN**  
   feature tape **INST**  
   **LANGGEN** command **ADMIN**  
   **LANGMERG** command **ADMIN**  
   on your system **ADMIN**  
   updating files for an existing language  
   **ADMIN**  
 native languages  
   See languages, national  
 native mode  
   changing to it from VM/SP HPO **SYSCMD**  
   definition **ADMIN**, **SYSMMSG**  
   switching to or from **RGOS**  
 native SNA  
   See SNA (System Network Architecture)  
**NAU** (network addressable unit) **CONPAO**

**NBFILE** option  
of **EXTRACT XEDIT**  
of **QUERY XEDIT**  
of **TRANSFER XEDIT**  
**NBSCOPE** option  
of **EXTRACT XEDIT**  
**NCAL** option of **LKED** command **CMSREF**  
**\*NCCF SFPROG**  
**NCCF** (Network Communications Control Facility)  
interface with Programmable Operator Facility **SFPROG**  
in a single system **OPGDE**  
logging **NCCF** messages **SFPROG**  
logical operator **SFPROG**  
Message Exchange (PMX) **OPGDE**  
**NCCF** operator as the logical operator **OPGDE**  
operator **OPGDE**  
single system with **NCCF OPGDE**  
operator **SFPROG**  
command authorization **SFPROG**  
**QUERY** command authorization **SFPROG**  
routing messages to **SFPROG**  
station **SFPROG**  
**PMX SFPROG**  
when stopping programmable operator **SFPROG**  
**NCP** (Network Control Program)  
and **PEP** sharing **SFPROG**  
**NCPDUMP** service program **DIAG, SECUR**  
**NCPDUMP** command **DIAG**  
**ncpname** operand  
of **NETWORK** command **SYSCMD**  
**NE** option of **LKED** command **APGDE, CMSREF**  
**NEEDINFO** operand  
of **PRB** command **IPCSREF**  
of **STAT** command **IPCSREF**  
negation  
of logical values **SPIREF**  
of numbers **SPIREF**  
negative return codes **SFSAD**  
neighbor operand of **FDISPLAY** subcommand **IPCSREF**  
nesting  
described **GENCMD, SYSCMD**  
of control structures **SPIREF**  
**NETDATA** command **CMSREF**  
**NETLOG** file **CMSLOT**  
**NETLOG** file type **PRIMER**  
**NETLOG** file type use in **CMS CMSUG**  
**NetView INTRO**  
and the programmable operator facility **SFPROG**  
logging **NetView** messages **SFPROG**  
logical operator **SFPROG**  
operator **SFPROG**  
command authorization **SFPROG**  
**QUERY** command authorization **SFPROG**  
operator station **SFPROG**  
**PMX SFPROG**  
when stopping programmable operator **SFPROG**  
**NetView Distribution Manager (NetView DM) INTRO**  
description **INTRO**  
**SNA INTRO**  
**NetView Message Queuing Service INTRO**  
**NetView PROP** command **INTRO**  
network  
component **INTRO**  
controllers **SECUR**  
**DDP** defined **INTRO**  
defined **TERMREF**  
dump operations **DIAG**  
messages **PRIMER**  
status notice **PRIMER**  
**SNA**, programs accessing resources in **TSAF**  
collection **CMSMIG**  
network addressable unit (NAU) **CONPAO**  
**NETWORK** command **DIAG**  
described **SYSCMD**  
operands  
**ACTIVE SYSCMD**  
**AS vaddr SYSCMD**  
**ATTACH resid SYSCMD**  
**AUTO SYSCMD**  
**bytecount SYSCMD**  
**DETACH resid SYSCMD**  
**DISABLE ALL SYSCMD**  
**DISABLE resid SYSCMD**  
**DISPLAY SYSCMD**  
**DUMP raddr SYSCMD**  
**ENABLE SYSCMD**  
**ENABLE ALL SYSCMD**  
**ENABLE resid SYSCMD**  
**END SYSCMD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- FREE SYSCMD**  
**FROM** userid **SYSCMD**  
 hexloc **SYSCMD**  
**IMMED SYSCMD**  
**LOAD OPGDE, SYSCMD**  
 ncpname **SYSCMD**  
**OFF SYSCMD**  
**OFFLINE SYSCMD**  
**ONLINE SYSCMD**  
**POLLDLAY SYSCMD**  
**QUERY SYSCMD**  
 resid **SYSCMD**  
**SHUTDOWN SYSCMD**  
**TO** userid **SYSCMD**  
 vaddr **SYSCMD**  
**VARY SYSCMD**  
 responses **SYSCMD**  
 summary **OPGDE, SYSCMD**  
 syntax diagram, class A or B **SYSCMD**  
 usage for remote 3270 **SYSCMD**  
 usage notes **SYSCMD**  
 3270 resource identification **SYSCMD**  
 Network Communications Control Facility (NCCF)  
 and the programmable operator facility  
**SFPROG**  
 logging NCCF messages **SFPROG**  
 logical operator **SFPROG**  
 operator **SFPROG**  
 command authorization **SFPROG**  
**QUERY** command authorization **SFPROG**  
 routing messages to **SFPROG**  
 operator station **SFPROG**  
**PMX SFPROG**  
 use with programmable operator **OPGDE**  
 when stopping programmable operator  
**SFPROG**  
 Network Control Program (NCP)  
 and PEP sharing **SFPROG**  
**NETWORK** virtual screen **PRIMER**  
**NETWORK** window **PRIMER**  
 never-call function, specifying in CMS TEXT  
 file **CMSREF**  
 new conversations through a gateway,  
 preventing **CONPAO**  
**NEW** parameter  
**DMSOPEN** (SFS Open) **ADRCMS**  
 new-line key **PRIMER**  
**NEWDATE** option  
 of **COPYFILE** command **CMSREF**  
**NEWDATE** parameter  
**DMSFILEC** (SFS Filecopy) **ADRCMS**  
**NEWFILE** option of **COPYFILE** command  
**CMSREF**  
**NEWNAME** parameter, product parameter  
 file override area **SERV**  
**NEXT** subcommand  
 of **XEDIT** command **XEDIT**  
 example of **XEDIT**  
 of **TESTCOB** command **APGDE**  
 of **TESTFORT** command **APGDE**  
**NFIND** subcommand **XEDIT**  
 with DBCS strings **XEDIT**  
**NFINDUP** subcommand **XEDIT**  
 with DBCS strings **XEDIT**  
**NFU**  
 See **NFINDUP** subcommand  
**Nhexloc** operand  
 of **STCP** command **SYSCMD**  
**Nhexloc1** operand  
 of **DCP** command **SYSCMD**  
 of **DMCP** command **SYSCMD**  
 nick tag in communications directory  
**CONGREF**  
 nicknames **PRIMER**  
 assigned in **NAMES** file **CMSREF**  
 entry in a names file **CMSLOT**  
 creating with a **NAMES** file **CMSUG**  
 used in **NOTE** command **CMSLOT**,  
**PRIMER**  
 used in **SENDFILE** command **CMSLOT**,  
**PRIMER**  
 used in **TELL** command **CMSLOT**  
 using with remote users **SFSAD**  
 resolution of **SFSAD**  
**nK**, variable  
 described **GENCMD, SYSCMD**  
**NL** operand of **FILEDEF** command **CMSREF**  
**NL** processing for tapes  
 See no label processing  
**NLhexloc** operand  
 of **STCP** command **SYSCMD**  
**NLhexloc1** operand  
 of **DCP** command **SYSCMD**  
 of **DMCP** command **SYSCMD**  
**NLS** (National Language Support)  
**CMS INTRO**  
 general **INTRO**  
 installing **INST**  
 language support **INTRO**  
 service **INTRO**  
**NLS** tag, product parameter file **SERV**  
**NLSPGCT** operand  
 of **NAMELANG** macro **PLNGDE**  
**NLSSTR** operand  
 of **NAMELANG** macro **PLNGDE**

**NLSVOL** operand  
of **NAMELANG** macro **PLNGDE**  
**nM**, variable  
described **GENCMD**, **SYSCMD**  
**nn** operand  
of **ECHO** command **GENCMD**  
**nn** **SEC/MIN/HRs** operand  
**SLEEP** command **GENCMD**  
**nnn** operand of **REPEAT** command **SYSCMD**  
**nnnn** operand of **DISPLAY** subcommand  
**IPCSREF**  
**nnnn** parameter of **SELECT** subcommand  
**IPCSREF**  
**nnnnn** operand of **PRB** command **IPCSREF**  
**nnnnn** operand of **STAT** command **IPCSREF**  
**nnnnnn** operand of **IPL** command **GENCMD**  
no label processing **CMSUG**  
**NOACCOUNT** start-up parameter **SFSAD**  
**NOACK** option of **NOTE** command **CMSREF**  
**NOALIGN** option of **ASSEMBLE** command  
**CMSREF**  
**NOALOGIC** option of **ASSEMBLE** command  
**CMSREF**  
**NOAUDIT** start-up parameter **SFSAD**  
**NOAUTO** option  
of **INCLUDE** command **CMSREF**  
of **LOAD** command **CMSREF**  
**NOBACKUP** start-up parameter **SFSAD**  
as specified for **VMSYS** and **VMSYSU**  
**SFSAD**  
switching from **SFSAD**  
switching to **SFSAD**  
**NOCACHE** parameter  
**DMSOPEN** (SFS Open) **ADRCMS**  
**NOCC** option of **PRINT** command **CMSREF**  
**NOCHANGE** option  
of **DLBL** command **CMSREF**  
of **FILEDEF** command **CMSREF**  
of **LABELDEF** command **CMSREF**  
**NOCLEAR** operand  
of **IPL** command **GENCMD**  
**NOCLEAR** option  
of **INCLUDE** command **CMSREF**  
of **LOAD** command **CMSREF**  
of **XEDIT** command used in **EXEC**  
procedure **CMSUG**  
**NOCOMMENTS** option of **EXECUPDT**  
command **CMSREF**

**NOCOMMIT** parameter  
**DMSCLDIR** (SFS Close Directory)  
**ADRCMS**  
**DMSCLOSE** (SFS Close) **ADRCMS**  
**DMSCRALI** (SFS Create Alias) **ADRCMS**  
**DMSCRDIR** (SFS Create Directory)  
**ADRCMS**  
**DMSERASE** (SFS Erase) **ADRCMS**  
**DMSEXIDI** (SFS Exist—Directory)  
**ADRCMS**  
**DMSEXIFI** (SFS Exist—File) **ADRCMS**  
**DMSEXIST** (SFS Exist) **ADRCMS**  
**DMSFILEC** (SFS Filecopy) **ADRCMS**  
**DMSGRANT** (SFS Grant Authority)  
**ADRCMS**  
**DMSRENAM** (SFS Rename) **ADRCMS**  
**DMSREVOK** (SFS Revoke Authority)  
**ADRCMS**  
SFS parameter **ADRCMS**  
**NOCOMPRESS** option of **EXECUPDT**  
command **CMSREF**  
**NOCONT** operand  
of **SPOOL** command **GENCMD**  
node **CMSLOT**, **CONGREF**  
displayed **PRIMER**  
entry in a names file **CMSLOT**  
services **SAACOM**  
node ID **CONPAO**  
**NODECK** option  
of **ASSEMBLE** command **CMSREF**  
of **OPTION** command **CMSREF**  
nodeid, variable  
described **GENCMD**, **SYSCMD**  
**NODISK** option of **ACCESS** command  
**CMSREF**  
**NODUMP** option of **OPTION** command  
**CMSREF**  
**NODUMP** start-up parameter **SFSAD**  
**NODUP** option  
of **INCLUDE** command **CMSREF**  
of **LOAD** command **CMSREF**  
noentry option  
of **IPCSPRT** command **IPCSREF**  
of **TRAPFILE** command **IPCSREF**  
**NOEOF** operand  
of **SPOOL** command **GENCMD**  
**NOEOV** option of **FILEDEF** command  
**CMSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- NOERASE option of FORMAT command  
**CMSREF**
- NOERRS option of OPTION command  
**CMSREF**
- NOESD option of ASSEMBLE command  
**CMSREF**
- NOESECURITY start-up parameter **SFSAD**
- NOETRACE start-up parameter **SFSAD**
- NOFILELIST option of FILELIST command  
**CMSREF**
- NOFORM option of IPCSPRT command  
**IPCSREF**
- NOFORMAT start-up parameter **SFSAD**  
as used by FILESERV GENERATE  
processing **SFSAD**
- NOHEADER option  
of LISTFILE command **CMSREF**  
of PUNCH command **CMSREF**
- NOHEX option of IPCSPRT command  
**IPCSREF**
- NOHISTORY option of EXECUPDT  
command **CMSREF**
- NOHOLD operand  
of CHANGE command **GENCMD,**  
**SYSCMD**  
of CLOSE command **GENCMD**  
of QUERY command **GENCMD,**  
**SYSCMD**  
of SPOOL command **GENCMD**  
of SPTAPE command **SYSCMD**
- NOINV option  
of INCLUDE command **CMSREF**  
of LOAD command **CMSREF**
- NOIPL operand  
of LOGON operand **GENCMD**
- NOITRACE start-up parameter **SFSAD**
- NOLIBE option  
of INCLUDE command **CMSREF**  
of LOAD command **CMSREF**
- NOLIBMAC option of ASSEMBLE command  
**CMSREF**
- NOLIST option  
of ASSEMBLE command **CMSREF**  
of OPTION command **CMSREF**
- NOLISTX option of OPTION command  
**CMSREF**
- NOLOG option of NOTE command **CMSREF**
- NOLOG password **OPGDE**
- NOMAP option  
of GENMOD command **CMSREF**  
of INCLUDE and LOAD commands **APGDE**  
of IPCSPRT command **IPCSREF**  
of LOAD command **CMSREF**
- NOMCALL option of ASSEMBLE command  
**CMSREF**
- NOMLOGIC option of ASSEMBLE command  
**CMSREF**
- NOMSGS start-up parameter **SFSAD**
- NOMSG= operand  
FSOPEN macro **ADRCMS**
- non-paging DASD  
improving performance of  
with cached subsystem **ADMIN**
- non-SFS backup facilities **SFSAD**
- non-SFS statements or macros to manipulate  
SFS files **CMSMIG**  
SFS file storage space **CMSMIG**
- non-shared segments, definition **INST**
- non-VM operating systems  
establishing contact with **TERMREF**
- non-wrap file **DIAG**  
I/O activity, example **DIAG**
- nondedicated  
devices **ADMIN**  
private gateways **CONGREF**  
terminal definitions **RGOS**
- NONDISP option  
of EXTRACT **XEDIT**  
of QUERY **XEDIT**  
of SET **XEDIT**  
of TRANSFER **XEDIT**
- nondisplayable character  
translation tables **TERMREF**  
defining character used in place of **XEDIT**
- NONE operand  
of MONITOR command **SYSCMD**
- NONE synchronization level **CONGREF**
- noninteractive  
definition **ADMIN, SYSMMSG**  
users, making more storage available  
**SYSCMD**
- nonpaging application, definition **ADMIN,**  
**SYSMMSG**
- nonrecoverable machine check **DIAG**
- nonreenterable program save areas **GCSREF**
- nonreentrant code **ADRCMS**  
generating, using LINEDIT macro  
**ADRCMS**
- nonrelocatable modules **ADGCMS**  
in CMS **CMSREF**
- nonresident pages  
definition **ADMIN, SYSMMSG**
- nonshared VCU mode  
miscellaneous devices **PLNGDE**  
tape devices **PLNGDE**  
TDISK space **PLNGDE**  
terminals **PLNGDE**  
unit record devices **PLNGDE**

- nonstandard  
 label processing, tapes **CMSUG**  
 label routine, writing **CMSUG**  
 labeled tapes, defining **CMSUG**
- NONUM** option of **ASSEMBLE** command  
**CMSREF**
- NOOBJECT** option of **ASSEMBLE** command  
**CMSREF**
- NOP** instruction **SPIREF**, **SPIUG**
- NOPRINT** option  
 of **ASSEMBLE** command **CMSREF**  
 of **LKED** command **APGDE**, **CMSREF**
- NOPROF** option **APGDE**  
 of **ACCESS** command **CMSREF**  
 to suppress execution of **PROFILE EXEC**  
**CMSUG**
- NOPROMPT** option  
 of **COPYFILE** command **CMSREF**  
 of **DISK** command **CMSREF**  
 of **IPCSPRT** command **IPCSREF**  
 of **TRAPFILE** command **IPCSREF**
- NOQ2** operand  
 of **SET** command **SYSCMD**
- NOQ3** operand  
 of **SET** command **SYSCMD**
- NOREAL** option of **IPCSPRT** command  
**IPCSREF**
- NOREC=** operand  
**FSCB** macro **ADRCMS**  
**FSOPEN** macro **ADRCMS**  
**FSREAD** macro **ADRCMS**  
**FSWRITE** macro **ADRCMS**
- NORENT** option of **ASSEMBLE** command  
**CMSREF**
- NOREP** option  
 of **INCLUDE** command **CMSREF**  
 of **LOAD** command **CMSREF**
- NOREPLACE** option  
 of **DISK** option **CMSREF**
- NORESTORE** start-up parameter **SFSAD**
- NORETURN** operand  
 of **GIVE** command **SYSCMD**  
 of **QVM** command **SYSCMD**
- NORLD** option of **ASSEMBLE** command  
**CMSREF**
- normal option of **DATE** function **SPIREF**
- normal wait state codes **SYSMMSG**
- NORUN** operand  
 of **PER** command **GENCMD**  
 of **TRACE** command **GENCMD**
- NOSAVE** option of **ACCESS** command **CMSREF**
- NOSAVESEGID** start-up parameter **SFSAD**  
 as specified for **VMSYS** and **VMSYSU** **SFSAD**
- NOSEP** operand  
 of **START** command **SYSCMD**
- NOSID** option of **EXECUPDT** command  
**CMSREF**
- NOSPECS** option of **COPYFILE** command  
**CMSREF**
- NOSTMT** option of **ASSEMBLE** command  
**CMSREF**
- NOSTOP** operand  
 of **MONITOR** command **SYSCMD**
- NOSTR** option of **GENMOD** command **CMSREF**
- nosum option  
 of **IPCSPRT** command **IPCSREF**  
 of **TRAPFILE** command **IPCSREF**
- NOSYM** option of **OPTION** command **CMSREF**
- NOSYS** operand  
 of **CHANGE** command **SYSCMD**
- NOT ACCEPTED** status on display screen  
**APGDE**,  
**CMSUG**, **PRIMER**
- not enough PG space defined **ADMIN**
- not enough PP space defined **ADMIN**
- not equal operator ( $\neq$ ) **SPIREF**
- not equal operator ( $\neq$ ) **SPIREF**
- not exactly equal operator ( $\neq$ ) **SPIREF**
- not exactly equal operator ( $\neq$ ) **SPIREF**
- not finding text  
 using **NFIND** **XEDIT**  
 using **NFINDUP** **XEDIT**
- not greater than operator ( $\ngtr$ ) **SPIUG**
- not greater than operator ( $\ngtr$ ) **SPIREF**
- not less than operator ( $\nless$ ) **SPIREF**
- NOT** operator **SPIREF**, **SPIUG**
- not ready status  
 simulating **GENCMD**
- NOT** symbol used in string target **XEDIT**,  
**XEDITUG**
- notation  
 engineering **SPIREF**  
 scientific **SPIREF**
- notational conventions **CMSREF**, **EXEC2**,  
**GENCMD**, **IPCSREF**, **SYSCMD**  
 for **HELP** **CMSUG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- NOTE** command **APGDE**, **CMSLOT**,  
**PRIMER**
- ACK** option **CMSREF**
  - ADD** option **CMSREF**
  - CANCEL** option **CMSREF**
  - CC** option **CMSREF**
  - description **CMSREF**
  - LOG** option **CMSREF**
  - LONG** option **CMSREF**
  - NOACK** option **CMSREF**
  - NOLOG** option **CMSREF**
  - NONOTEBOOK** option **CMSREF**
  - NOTEBOOK** option **CMSREF**
  - PF** key settings **CMSREF**
  - PROFILE** option **CMSREF**
  - REPLACE** option **CMSREF**
  - sending a note **CMSREF**
  - SHORT** option **CMSREF**
- NOTE** macro (**BSAM**) **GCSREF**
- dcb address parameter **GCSREF**
  - description **GCSREF**
- notebook entry in a names file **CMSLOT**
- NOTEBOOK** file **CMSLOT**, **PRIMER**
- NOTEBOOK** file type use in **CMS** **CMSUG**
- NOTEBOOK** option
- of **NOTE** command **CMSREF**
- NOTERM** operand
- of **SPOOL** command **GENCMD**
- NOTERM** option
- of **ASSEMBLE** command **CMSREF**
  - of **LKED** command **APGDE**, **CMSREF**
  - of **OPTION** command **CMSREF**
- notes
- cancelling **CMSLOT**
  - continuing **CMSLOT**, **PRIMER**
  - creating **PRIMER**
  - definition of **PRIMER**
  - keeping copies of **PRIMER**
  - on **EXEC 2** **EXEC2**
    - assignment statement **EXEC2**
    - closing loops **EXEC2**
    - conditional phrases **EXEC2**
    - embedded blanks **EXEC2**
    - evaluation of **&DATE** and **&TIME**  
**EXEC2**
    - label search **EXEC2**
    - leading zeros **EXEC2**
    - numbers **EXEC2**
    - plus signs **EXEC2**
    - program stack **EXEC2**
    - recursive execution **EXEC2**
    - reserved words **EXEC2**
    - termination **EXEC2**
    - truncation column **EXEC2**
  - &LOOP** statement **EXEC2**
  - &TRACE ALL** **EXEC2**
  - preparing **CMSLOT**
  - receiving **CMSLOT**, **PRIMER**
  - sending **CMSLOT**, **PRIMER**
  - sending complimentary copies of **PRIMER**  
to a list of people **PRIMER**
  - typing **PRIMER**
  - NOTES** option of **DETAIL HELP** **CMSUG**
  - NOTEST** option of **ASSEMBLE** command  
**CMSREF**
  - notices, status **PRIMER**
  - NOTIFY** function of **SPOOL** system service  
**SFPROG**
  - NOTIFY** = operand
  - HNDIO** macro **ADRCMS**
  - NOTRANS** operand
  - of **SET** command **ADMIN**, **GENCMD**
  - NOTRC** option of **PRINT** command **CMSREF**  
**PROGMAP** **CMSREF**
  - NOTREADY** command **CMSUG**, **GENCMD**
  - described **GENCMD**
  - operand
  - vaddr **GENCMD**
  - responses **GENCMD**
  - usage notes **GENCMD**
  - NOTRUNC** option **COPYFILE** command  
**CMSREF**
  - NOTYPE** option
  - of **COPYFILE** command **CMSREF**
  - of **ERASE** command **CMSREF**
  - of **INCLUDE** command **CMSREF**
  - of **LOAD** command **CMSREF**
  - NOTYPING** flag cleared before error messages  
**SPIREF**
  - NOUPDATE** option
  - of **EXECUPDT** command **CMSREF**
  - NOVALUE** condition
  - on **SIGNAL** instruction **SPIREF**
  - use of **SPIREF**
  - NOVF** option
  - defining in directory **PLNGDE**
  - NOVIRT** option of **IPCSPRT** command  
**IPCSREF**
  - NOXREF** option
  - of **ASSEMBLE** command **CMSREF**
  - of **OPTION** command **CMSREF**
  - NOYFLAG** option of **ASSEMBLE** command  
**CMSREF**
  - NO3800** operand
  - of **START** command **SYSCMD**
  - NShexloc** operand
  - of **STCP** command **SYSCMD**
  - NSL** operand
  - of **FILEDEF** command **CMSREF**

NSL (nonstandard label) processing **CMSUG**  
 NThexloc1 operand  
   of DCP command **SYSCMD**  
   of DMCP command **SYSCMD**  
 NUCEXT  
   general formats **CMSMIG**  
 NUCEXT function **CMSMIG**  
   ENDCMD attribute **ADRCMS**  
   linkage conventions **ADRCMS**  
   nucleus extensions **ADRCMS**  
   nucleus storage **ADRCMS**  
   NUCXDROP command **ADRCMS**  
   NUCXLOAD command **ADRCMS**  
   NUCXMAP command **ADRCMS**  
   PLISTs **ADRCMS**  
   PURGE and RESET service calls  
     **ADRCMS**  
   register contents upon entry **ADRCMS**  
   SYSTEM and SERVICE attributes  
     **ADRCMS**  
 NUCEXT macro  
   ANCHOR option  
     ERROR= operand **ADRCMS**  
   CLR option  
     ERROR= operand **ADRCMS**  
     NAME= operand **ADRCMS**  
   creating immediate commands **ADGCMS**  
   defining nucleus extensions **ADGCMS**  
   deleting nucleus extensions **ADGCMS**  
   general formats **ADGCMS, ADRCMS**  
   QUERY option  
     ERROR= operand **ADRCMS**  
     NAME= operand **ADRCMS**  
   querying nucleus extensions **ADGCMS**  
   SET option  
     AMODE= operand **ADRCMS**  
     ENDCMD= operand **ADRCMS**  
     ENTRY= operand **ADRCMS**  
     ERROR= operand **ADRCMS**  
     IMMCMD= operand **ADRCMS**  
     INTTYPE= operand **ADRCMS**  
     KEY= operand **ADRCMS**  
     NAME= operand **ADRCMS**  
     ORIGIN= operand **ADRCMS**  
     SERVICE= operand **ADRCMS**  
     SYSTEM= operand **ADRCMS**  
     UFLAGS= operand **ADRCMS**  
     UWORD= operand **ADRCMS**

nucleus  
   building **INST**  
     considerations, VSE **RGOS**  
     VM under VM **RGOS**  
   **CMS**, building **INST**  
 CP  
   building **INST**  
   defining **SYSNUC OPGDE**  
   **DMKSYS ASSEMBLE** file **OPGDE**  
   end of resident nucleus address **SERV**  
   IPL procedure improvements **OPGDE**  
   protecting spool files **OPGDE**  
   saving IPLable copy on tape **SERV**  
 extensions **ADRCMS, CMSMIG**  
   cancel an extension **CMSREF**  
   clearing **ADRCMS**  
   creating **ADGCMS**  
   defining **ADRCMS**  
   definition of **ADGCMS**  
   deleting **ADGCMS**  
   determining existence of **ADRCMS**  
   displaying information about **ADGCMS**  
   ENDCMD option **ADRCMS**  
   IMMCMD option **ADRCMS**  
   installation **CMSREF**  
   managing **ADRCMS**  
   obtain information about **CMSREF**  
   obtaining the SCBLOCK anchor  
     **ADRCMS**  
   querying **ADGCMS**  
   system **ADRCMS**  
   user **ADRCMS**  
 GCS, building **INST**  
   support, alternate **ADMIN**  
 nucleus load map (NUCMAP) **DIAG**  
   definition of **DIAG**  
   information contained in **DIAG**  
   obtaining a **DIAG**  
 NUCMAP (nucleus load map) **DIAG**  
   definition of **DIAG**  
   information contained in **DIAG**  
   obtaining a **DIAG**  
 NUCLEUS subpool **ADGCMS**  
 NUCON extension (SIE) **DIAG**  
 NUCON (nucleus constant area) **DIAG**,  
**IPCSREF**  
   changes **DIAG**  
   GCS nucleus constant area **DIAG**  
   information **DIAG**  
   mapping **DIAG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**NUCXDROP** command **ADRCMS**  
 conversion considerations **CMSMIG**  
 description **CMSREF**  
**NUCXDROP** for explicit server unload **SRPI**  
**NUCXLOAD**  
 loading servers by **SRPI**  
 used by **SRPI** macro **SRPI**  
**NUCXLOAD** command **ADRCMS**, **CMSUG**  
 conversion considerations **CMSMIG**  
 description **CMSREF**  
**ENDCMD** operand **CMSREF**  
**IMMCMD** operand **CMSREF**  
**PUSH** operand **CMSREF**  
**SERVICE** operand **CMSREF**  
**SYSTEM** operand **CMSREF**  
**NUCXMAP** command **ADGCMS**, **ADRCMS**  
 conversion considerations **CMSMIG**  
 description **CMSREF**  
 description of enhancements **CMSMIG**  
**FIFO** option **CMSREF**  
**LIFO** option **CMSREF**  
**STACK** option **CMSREF**  
 null  
 line  
 entering to determine environment  
**CMSUG**  
 input data from terminal **CMSUG**  
 to resume program execution after  
 attention interruption **CMSUG**  
 when entering **VSAM** extents **CMSREF**  
 when entering **VSAM** extents in  
**CMS/DOS** **CMSREF**  
 clauses **SPIREF**, **SPIUG**  
 entry **INST**  
 instruction  
 See **NOP** instruction  
 statement **EXEC2**  
 strings **SPIREF**  
 used to replace trailing blanks **XEDIT**  
 null operand  
 of **QUERY** command **SYSCMD**  
 of **SET** command **SYSCMD**  
**NULLKEY** **XEDITUG**  
**NULLKEY** option  
 of **SET PAn** **XEDIT**  
 of **SET PFn** **XEDIT**  
**NULLS** command of **DMS/CMS** **APGDE**  
**NULLS** option  
 of **EXTRACT** **XEDIT**  
 of **QUERY** **XEDIT**  
 of **SET** **XEDIT**  
 of **TRANSFER** **XEDIT**  
**NUM** data type **EXEC2**  
**NUMBER** command of **DMS/CMS** **APGDE**  
 number of copies  
 spool file attribute **OPGDE**  
 number of files being edited **XEDITUG**  
 number of printed copies, specifying  
**CMSLOT**  
 number operand of + or - subcommand  
**IPCSREF**  
**NUMBER** option  
 of **ASSEMBLE** command **CMSREF**  
 of **EXTRACT** **XEDIT**  
 of **QUERY** **XEDIT**  
 of **SET** **XEDIT**  
 of **TRANSFER** **XEDIT**  
 numbers  
 arithmetic on **SPIREF**  
 checking with **DATATYPE** **SPIREF**  
 comparing **SPIUG**  
 comparison of **SPIREF**  
 definition **SPIREF**  
 description of **SPIREF**  
 determining the sign **SPIUG**  
 dividing **EXEC2**  
 exponential notation **SPIUG**  
 fixed point **SPIUG**  
 floating point **SPIUG**  
 formatting for display **SPIREF**  
 in **DO** instruction **SPIREF**  
 in prefix area, setting on **PRIMER**  
 multiplying **EXEC2**  
 power of **SPIUG**  
 range **EXEC2**  
 range of **SPIUG**  
 rounding **SPIUG**  
 size and treatment **EXEC2**  
 truncating **SPIREF**, **SPIUG**  
 types of **SPIUG**  
 use in the language **SPIREF**  
 whole **SPIUG**  
 numeric  
 instruction **SPIREF**  
 option of **PARSE** instruction **SPIREF**  
 settings saved during subroutine calls  
**SPIREF**  
**NUMERIC DIGITS** instruction **SPIUG**  
**NUMERIC FUZZ** instruction **SPIUG**  
 numerical order sorting **CMSLOT**  
 n..., variable  
 described **GENCMD**, **SYSCMD**  
 n, variable  
 described **GENCMD**, **SYSCMD**

object code maintained, definition **SERV**  
 object code only, definition **SERV**  
 object code service  
   SNA products  
     Apply List **SERV**  
     corrective service procedure **SERV**  
     emergency fixes using ZAPs **SERV**  
     Exclude List **SERV**  
     Merge Log **SERV**  
     merge multiple PTFs **SERV**  
     merge single PTF **SERV**  
     preventive service procedure **SERV**  
     Product Parameter File **SERV**  
     Remove List **SERV**  
     remove multiple PTFs **SERV**  
     remove single PTF **SERV**  
     Reqby Log **SERV**  
     Service Control File **SERV**  
     Service Log **SERV**  
     types of disks used **SERV**  
     ZAP List **SERV**  
     ZAP Log **SERV**  
   VM/SP HPO  
     patches **SERV**  
     PUT/COR procedure **SERV**  
     ZAPs **SERV**  
 object deck, assembler, generating **CMSREF**  
 object, definition **SERV**  
 object files for a national language **SFPROG**  
 object modules **APGDE**  
   loading **APGDE**  
   nonrelocatable **APGDE**  
   page boundaries **SERV**  
   relocatable **APGDE**  
**OBJECT** option of **ASSEMBLE** command  
**CMSREF**  
 object program, defined **INTRO**  
 obliterating a file **PRIMER**  
 obtaining  
   See also getting  
   additional or related help **CMSREF**  
   a copy of a **DIAG**  
   communication controller dump **DIAG**  
   CP restart dump **DIAG**  
   stand-alone dump **DIAG**  
   virtual machine dump **DIAG**

  a GCS IPCS map **DIAG**  
   CPTRAP status **DIAG**  
   free storage **ADRCMS**  
**OFF** operand  
   of **ADSTOP** command **GENCMD**  
   of **CACHE** command **SYSCMD**  
   of **MONITOR** command **SYSCMD**  
   of **NETWORK** command **SYSCMD**  
   of **PRINT** subcommand **IPCSREF**  
   of **SELECT** subcommand **IPCSREF**  
   of **SET** command **SYSCMD**  
   of **SPMODE** command **SYSCMD**  
   of **SPOOL** command **GENCMD**  
   of **START** command **SYSCMD**  
   of **TRACE** command **GENCMD**  
**OFF** subcommand  
   of **TESTCOB** command **APGDE**  
   of **TESTFORT** command **APGDE**  
 office task program product  
   **DCF INTRO**  
   **GDDM INTRO**  
   **PROFS INTRO**  
**OFFLINE** operand  
   of **NETWORK** command **SYSCMD**  
   of **QUERY** command **SYSCMD**  
   of **VARY** command **ADMIN, SYSCMD**  
 offsetting text **CMSUG**  
**OID OF RESOURCE** field in **FILEPOOL**  
   **FORMAT AUDIT** output **SFSAD**  
**OL** option of **LKED** command **APGDE,**  
**CMSREF**  
**OLDDATE** option  
   of **COPYFILE** command **CMSREF**  
   of **DISK LOAD** command **CMSREF**  
**OLDDATE** parameter  
   **DMSFILEC** (SFS Filecopy) **ADRCMS**  
**OLDNAME** parameter, product parameter file  
   override area **SERV**  
**OLTSEP** **PLNGDE**  
**ON** operand  
   of **CACHE** command **SYSCMD**  
   of **MONITOR** command **SYSCMD**  
   of **PRINT** subcommand **IPCSREF**  
   of **SELECT** subcommand **IPCSREF**  
   of **SET** command **SYSCMD**  
   of **SPMODE** **SYSCMD**  
 online  
   **HELP CONPAO**  
   information **PRIMER**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- ONLINE** operand  
of **NETWORK** command **SYSCMD**  
of **VARY** command **ADMIN, SYSCMD**
- open**  
a spool file with **DIAGNOSE** code X'BC'  
**SFPROG**  
directory for later use with **Get Directory**  
**ADRCMS**  
file for subsequent read or write  
**DMSOPEN** CSL routine **ADRCMS**  
**FSOPEN** macro **ADRCMS**
- OPEN** macro **ADGCMS**  
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list format **GCSREF**
- OPEN** macro (**BSAM/QSAM**) **GCSREF**  
dcb address parameter **GCSREF**  
description **GCSREF**  
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mf parameter **GCSREF**  
output parameter **GCSREF**  
updat parameter **GCSREF**
- OPEN** macro (**VSAM**) **GCSREF**  
acb address parameter **GCSREF**  
description **GCSREF**
- OPEN** macros OS simulation **CMSUG**
- OPEN** operand of **STAT** command  
**IPCSREF**
- OPEN** statement of **SQL** **APGDE**
- OPENIBM** operand of **STAT** command  
**IPCSREF**
- opening a file for block I/O **SFSAD**
- opening **SFS** directories  
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reflecting changes to directory **ADGCMS**
- OPENTYP=** operand  
**FSCB** macro **ADRCMS**  
**FSOPEN** macro **ADRCMS**  
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- OPENUSER** operand of **STAT** command  
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- operand notation  
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for **MODCB** **GCSREF**  
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- operating **VSE/SP** **RGOS**
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**RTRVBFR CONGREF**  
**SEND CNF CONGREF**  
**SEND CNFD CONGREF**  
**SEND DATA CONGREF**  
**SENDERR CONGREF**  
**SENDREQ CONGREF**  
**SETCMASK CONGREF**  
**SETMASK CONGREF**  
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- operation of a file pool server **SFSAD**
- operation tracing results **SPIREF**
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- OPERATNS** **PLNGDE**
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**SFSAD**  
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**MVS** guest **RGOS**  
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   for spooling **OPGDE**  
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   using parentheses **SPIUG**  
**OPERATOR** operand  
   of **MESSAGE** command **GENCMD**,  
   **SYSCMD**  
   of **MSGNOH** command **SYSCMD**  
   of **WARNING** command **SYSCMD**  
**OPTCD** option of **FILEDEF** command  
**CMSREF**  
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   compiler, PL/I **INTRO**  
   macro **XEDIT**  
   seek time **SFSAD**  
**OPTION** command **ADGCMS**  
   **DECK** option **CMSREF**  
   description **CMSREF**  
   **DUMP** option **CMSREF**  
   **ERRS** option **CMSREF**  
   **LIST** option **CMSREF**  
   **LISTX** option **CMSREF**  
   **NODECK** option **CMSREF**  
   **NODUMP** option **CMSREF**  
   **NOERRS** option **CMSREF**  
   **NOLIST** option **CMSREF**  
   **NOLISTX** option **CMSREF**  
   **NOSYM** option **CMSREF**  
   **NOTERM** option **CMSREF**  
   **NOXREF** option **CMSREF**  
   **SYM** option **CMSREF**  
   **TERM** option **CMSREF**  
   **XREF** option **CMSREF**  
   **48C** option **CMSREF**  
   **60C** option **CMSREF**  
**OPTION** directory control statement  
   for administration machines **SFSAD**  
   for server machines **SFSAD**  
   for user machines **SFSAD**  
   for using the accounting facility  
   **SFSAD**  
   MVS guest **RGOS**

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**AFFINITY PLNGDE**  
**APPLMON PLNGDE**  
**BMX PLNGDE**  
**COMSRV PLNGDE**  
**CONCEAL PLNGDE**  
**CPUID PLNGDE**  
**DEVINFO PLNGDE**  
**DEVMaint PLNGDE**  
**DIAG98 PLNGDE**  
**ECMODE PLNGDE**  
**ISAM PLNGDE**  
**LANG PLNGDE**  
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**MAXDEV PLNGDE**  
**MIH PLNGDE**  
**NOVF PLNGDE**  
**PMA PLNGDE**  
**REALTIMER PLNGDE**  
**STFIRST PLNGDE**  
**SVCACCL PLNGDE**  
**SVCOFF PLNGDE**  
**SVMSTAT PLNGDE**  
**VCUNOSHR PLNGDE**  
**VIRT=REAL PLNGDE**  
**VMSAVE PLNGDE**  
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**XMEM PLNGDE**  
**370E PLNGDE**  
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   **CMSREF**  
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   retaining **CMSREF**  
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   queue drop elimination **ADMIN**, **OPGDE**  
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   shadow table bypass **ADMIN**  
   virtual machine **ADMIN**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- virtual machine assist feature **ADMIN**
- virtual = real **ADMIN, OPGDE**
- VM/SP HPO **OPGDE**
- setting page migration **ADMIN**
- OPTIONS** instruction **SPIREF**
- OPTIONS** option of **DETAIL HELP CMSUG**
- OR** operand
  - of **SET** command **SYSCMD**
- OR** operator **SPIUG**
- OR** symbol used in string target **XEDIT, XEDITUG**
- ORDER BY** clause of **SQL APGDE**
- ORDER** command **CMSUG**
  - batch machine output **INTRO**
  - described **GENCMD, SYSCMD**
  - example of use **INTRO**
  - operands
    - CLASS GENCMD, SYSCMD**
    - DEST GENCMD, SYSCMD**
    - dest1 GENCMD, SYSCMD**
    - dest2 GENCMD, SYSCMD**
    - FORM SYSCMD**
    - FORM** form **GENCMD**
    - form1 SYSCMD**
    - form2 SYSCMD**
    - PRINTER GENCMD, SYSCMD**
    - PUNCH GENCMD, SYSCMD**
    - READER GENCMD, SYSCMD**
    - spoolid GENCMD, SYSCMD**
    - SYSTEM SYSCMD**
    - userid SYSCMD**
    - \* SYSCMD**
  - responses **GENCMD, SYSCMD**
  - selecting files for processing **CMSUG**
  - summary **OPGDE, SYSCMD**
  - syntax diagram, class D **SYSCMD**
  - usage notes **GENCMD, SYSCMD**
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  - of evaluation **SPIUG**
  - of functions in **CMS IUCV SFPROG**
  - of functions in **IUCV SFPROG**
  - of precedence **SPIUG**
  - of processing with multiple screens **XEDITUG**
- ORDER** operand
  - of **SYSPAG** macro **PLNGDE**
- ordered list **CMSLOT, PRIMER**
- ORDERED** option of **DATE** function **SPIREF**
- ORDER =** operand
  - CMSSTACK** macro **ADRCMS**
- ORE DIAG**
- ORIGIN** option
  - of **FETCH** command **CMSREF**
  - of **INCLUDE** command **CMSREF**
  - of **LOAD** command **CMSREF**
- ORIGIN =** operand **NUCEXT SET ADRCMS**
- ORing** character strings together **SPIREF**
- OR**, logical
  - exclusive **SPIREF**
  - inclusive **SPIREF**
- OS Indexed Sequential Access Method (ISAM) GENCMD**
- OS** linkage editor control statement
  - ALIAS** statement **ADGCMS**
  - assigning entry point names **ADGCMS**
  - ENTRY** statement **ADGCMS**
  - NAME** statement **ADGCMS**
  - SETSSI** card **ADGCMS**
- OS** (operating system) **TERMREF**
  - cleanup **CMSUG**
  - CMS** support for **ADGCMS**
  - data sets **ADGCMS**
    - defining in **CMS CMSREF**
    - listing information **CMSREF**
  - disks
    - accessing **CMSREF**
    - compatibility with **DOS** disks **ADGCMS**
    - determining free space **ADGCMS**
    - extents **ADGCMS**
    - formatting using **DSF ADGCMS**
    - using with **AMSERV ADGCMS**
  - environment, resetting **CMSREF**
  - executing **INTRO**
  - files
    - formatted **ADGCMS**
    - handling files on **CMS** disks **ADGCMS**
    - handling files on **OS/MVS** disks **ADGCMS**
  - guest under **VM/SP INTRO**
  - initial program load **GENCMD**
  - linkage editor control statements read by **TXTLIB** command **ADGCMS**
  - loading **GENCMD**
  - macro libraries
    - used in assembly **CMSREF**
  - macro simulation **ADGCMS**
  - macros **ADGCMS, APGDE**
    - GET ADGCMS**
    - PUT ADGCMS**
    - PUTX ADGCMS**
    - READ ADGCMS**
    - WRITE ADGCMS**
  - option of **GENMOD** command **CMSREF**

- partitioned data sets
  - See partitioned data sets (PDS)
  - passing parameters at IPL **GENCMD**
  - passing parameters to **GENCMD**
  - reading data sets **ADGCMS**
  - shared DASD **INTRO**
  - simulated data sets **ADGCMS**
  - simulated OS/MVS supervisor services
    - ADGCMS**
    - simulation in CMS **ADGCMS**
    - simulation, end-of-tape processing **CMSUG**
    - supervisor services **ADGCMS**
    - tape volume switching **ADGCMS**
    - terminal sessions **ADGCMS**
    - TXTLIBs ADGCMS**
    - utility programs to create CMS files from
      - tapes created by **CMSUG**
    - virtual machine
      - example of directory entry **PLNGDE**
      - example of hardware maintenance directory
        - entry **PLNGDE**
        - example of system dump directory entry
          - PLNGDE**
- OSMACRO MACLIB ADGCMS, APGDE, CMSMIG**
  - contents of **ADGCMS, ADRCMS**
- OSMACRO1 MACLIB ADGCMS, APGDE, CMSMIG**
  - non-simulated contents of **ADGCMS, ADRCMS**
  - simulated contents of **ADGCMS, ADRCMS**
- OSPOINT** subcommand of **IPCSSCAN** command
  - description **IPCSREF**
  - example output **IPCSREF**
  - format **IPCSREF**
  - functional category **IPCSREF**
  - messages **IPCSREF**
  - responses **IPCSREF**
  - usage notes **IPCSREF**
- OSRUN** command **ADGCMS, APGDE, GCSREF**
  - description **CMSREF, GCSREF**
  - PARM** keyword **CMSREF, GCSREF**
  - member operand **GCSREF**
- OSVSAM MACLIB ADGCMS, APGDE**
- OS/MVS** simulation
  - changes
    - to data management **CMSMIG**
    - to program management **CMSMIG**
    - to storage management **CMSMIG**
  - conversion checklist **CMSMIG**
  - ESPIE** macro **CMSMIG**
  - GETMAIN** macro
    - conversion considerations **CMSMIG**
  - macros
    - CMS simulates **ADGCMS, ADRCMS**
    - for assembly only **ADGCMS, ADRCMS**
    - summary of support **CMSMIG**
  - OSMACRO MACLIB**
    - contents of **ADGCMS, CMSMIG**
  - OSMACRO1 MACLIB**
    - contents of **ADGCMS, CMSMIG**
  - programming considerations **ADGCMS, CMSMIG**
  - programming notes **ADGCMS, ADRCMS**
  - resource management **ADGCMS, CMSMIG**
  - SPIE** macro **CMSMIG**
  - summary of changes **CMSMIG**
- OS/VS COBOL INTRO**
- CSL INTRO**
- Compiler **APGDE**
- OS/VSAM** macros
  - ACB ADGCMS**
  - CHECK ADGCMS**
  - ENDREQ ADGCMS**
  - ERASE ADGCMS**
- other CMS messages **SYMSMSG**
- other languages **SYMSMSG**
- OTHERWISE** clause
  - See **SELECT** instruction
- OTHERWISE** keyword **SPIUG**
- OUT**area operand
  - of **SCREEN** command **GENCMD**
- outbound communications
  - activating **CONPAO**
  - deactivating **CONPAO**
  - through gateway (example) **CONPAO**
  - to resource (example) **CONPAO**
- OUTMOVE** default for **MOVEFILE** command
  - ddname **CMSREF**
- output
  - build routine interface, **IPCS IPCSREF**
  - cancelled from terminal **TERMREF**
  - controlling the filename **ADGCMS**
  - device **INTRO**
    - for stand-alone dump facility **DIAG**
    - restricted in **CMS/DOS ADGCMS**
  - display area **TERMREF**

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- files
  - altering external attributes **SYSCMD**
  - for security audit **SFSAD**
  - halting **SYSCMD**
  - holding **SYSCMD**
  - increasing number **SYSCMD**
  - placing current files in HOLD status **SYSCMD**
  - produced by ASSEMBLE command **ADGCMS**
  - purging **SYSCMD**
- forcing
  - to be single spaced **SYSCMD**
- format **SPIUG**
- from CMS batch facility **CMSUG**
- from virtual console, spooling **CMSUG**
- linkage edit CMS DOSLIBs **ADGCMS**
- listings from AMSERV command **ADGCMS**
- monitor **ADMIN**
- printed access method service listing **ADGCMS**
- printer **DIAG**
- records, sequencing **ADGCMS**
- repositioning **SYSCMD**
- restarting **SYSCMD**
- spool files **OPGDE**
  - changing classes **SYSCMD**
  - classes **OPGDE**
- spooling classes
  - defining with RDEVICE macro **PLNGDE**
- to terminal, control **IPCSREF**
- terminal **DIAG**
  - byte alignment **DIAG**
- OUTPUT control statement
  - of DDR (DASD DUMP/Restore) **ADMIN, SFPROG**
- OUTPUT ddname **SFSAD**
- over migration, problems related to **ADMIN**
- overflow rate too high **ADMIN**
- overflow allocation rates, definition **ADMIN, SYSMG**
- overflow, arithmetic **SPIREF**
- overhead, CP (control program)
  - reducing for I/O **ADMIN**
- overlap function for FORMAT/ALLOCATE program **SFPROG**
- OVERLAY function **SPIREF, SPIUG**
- overlay structures
  - conversion considerations **CMSMIG**
- OVERLAY subcommand of XEDIT command **APGDE, XEDIT**
- overlying characters
  - using COVERLAY **XEDIT**
  - using OVERLAY **XEDIT**
- overlying one string onto another **SPIREF, SPIUG**
- OVERLST tag, product parameter file **SERV**
- OVERLSTP tag, product parameter file **SERV**
- OVERRIDE command
- OVERRIDE control statement **ADMIN**
- override files **ADMIN**
  - alternate class **ADMIN**
  - creating a class override file **ADMIN**
  - creating product parameter override file **SERV**
  - defining component override area **SERV**
- override, ALLOCATE control statement **SFPROG**
- overview of
  - AVS commands **CONPAO**
  - gateways **CONPAO**
  - programmable operator **SFPROG**
  - TSAF commands **CONPAO**
  - VM connectivity **CONPAO**
    - See also VM connectivity
    - between collection and network **CONPAO**
    - in single system **CONPAO**
    - summary of **CONPAO**
    - terms **CONPAO**
    - within collection **CONPAO**
- OVLY option
  - of COPYFILE command **CMSREF**
  - of LKED command **APGDE, CMSREF**
- OWN operand
  - of CACHE command **SYSCMD**
- OWNERID control statement for FILEPOOL **FORMAT AUDIT SFSAD**
- ownership of a file, determining **CMSLOT, PRIMER**
- owning
  - gateways **CONPAO**
  - global/local resource **CONPAO**
  - multiple gateways **CONPAO**
  - multiple global/local resources **CONPAO**
  - private resource **CONPAO**

## P

- P border command **PRIMER**
- P prefix subcommand of XEDIT command  
**APGDE, PRIMER, XEDIT, XEDITUG**  
 practice exercise using **XEDITUG**
- PA key **TERMREF**
- PACK option  
 option of COPYFILE command **CMSREF**  
 of EXTRACT **XEDIT**  
 of QUERY **XEDIT**  
 of SET **XEDIT**  
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- packaging, programs  
 See program management
- packed file  
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- packing a string with X2C **SPIREF**
- pagaddr, variable  
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**SFPROG**  
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 MVS/SP (Multiple Virtual Storage/System  
 Product) **RGOS**  
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- interchange techniques  
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- locking **ADMIN, SYSCMD**
- migration **ADMIN, INTRO, SYSMMSG**  
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 to **ADMIN**  
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- pageable CP nucleus  
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- pageable module, identifying and locating **DIAG**
- pageable storage  
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- pages operand  
 of BACKSPAC command **SYSCMD**
- PAGEX operand  
 of SET command **GENCMD**
- page/swap table  
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- page, variable  
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- paging **SECUR**  
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**ADMIN**  
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 description **INTRO**  
 hierarchy **ADMIN**  
 correction **PLNGDE**  
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 structure **ADMIN**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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   Paging Storage **ADMIN**  
   3880 Storage Control System **ADMIN**  
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   **ADMIN**  
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   **ADMIN**  
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   **ADMIN**  
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   how to display and set **ADMIN**  
**PAGING ALL** operand  
   of **INDICATE** command **SYSCMD**  
**PAGING** operand  
   of **QUERY** command **ADMIN, SYSCMD**  
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   allocating  
     SYSPAG macro **PLNGDE**  
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   determining the amount of **ADMIN**  
   diagnostic aids **ADMIN**  
   displaying **ADMIN**  
   migration considerations **ADMIN**  
   monitor support **ADMIN**  
   SYSPAG macro **ADMIN**  
   SYSXSTOR macro **ADMIN**  
   using **DDR** **ADMIN**  
   using **DDR** with **ADMIN**  
   using the SYSPAG macro **ADMIN**  
   using the SYSXSTOR macro **ADMIN**  
**PAGING WAIT** operand  
   of **INDICATE** command **SYSCMD**  
**PAn** option  
   of **EXTRACT** **XEDIT**  
   of **QUERY** **XEDIT**  
   of **SET** **XEDIT**  
 panels  
   See also **ISPF** (Interactive System  
     Productivity Facility)  
   definitions (**ISPF**) **APGDE**  
   formatter in **DMS/CMS** **APGDE**  
   **HELP** **INTRO**  
   interactive **INTRO**  
   libraries (**ISPLIB**) **APGDE**  
   manager in **DMS/CMS** **APGDE**  
   name in **DMS/CMS** **APGDE**  
   name screen **APGDE**  
   option in **ISPF** **APGDE**  
   size screen **APGDE**  
**PANEL** command of **DMS/CMS** **APGDE**  
**PANEL** parameter of **ISPSTART** command  
   **APGDE**  
**PANELID** command **APGDE**  
 paragraph tag **CMSLOT, PRIMER**  
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**APPC/VM**  
   **CONNECT** **CONGREF**  
   **RECEIVE** **CONGREF**  
   **SENDCNF** **CONGREF**  
   **SENDCNFD** **CONGREF**  
   **SENDDATA** **CONGREF**  
   **SENDERR** **CONGREF**  
   **SENDREQ** **CONGREF**  
   **SEVER** **CONGREF**  
**DIAGNOSE** code  
   **X'DC'**, subcode **X'00'** **SFPROG**  
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   building **ADRCMS**  
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   **DIAG**  
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   **ACCEPT** **CONGREF, SFPROG**  
   **CONNECT** **SFPROG**  
   **DCLBFR** **CONGREF**  
   **DECLARE BUFFER** **SFPROG**  
   **DESCRIBE** **CONGREF, SFPROG**  
   parameter list data **SFPROG**  
   **PURGE** **SFPROG**  
   **QUIESCE** **SFPROG**  
   **RECEIVE** **SFPROG**  
   **REJECT** **SFPROG**  
   **REPLY** **SFPROG**  
   **RESUME** **SFPROG**  
   **RTRVBFR** **CONGREF**  
   **SEND** **SFPROG**  
   **SET CONTROL MASK** **SFPROG**  
   **SET MASK** **SFPROG**  
   **SETCMASK** **CONGREF**  
   **SETMASK** **CONGREF**  
   **SEVER** **SFPROG**  
   **TEST COMPLETION** **SFPROG**  
   **TESTCMPL** **CONGREF**  
   **TESTMSG** **CONGREF**  
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**VMCPARM** **SFPROG**  
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- tokenized **ADGCMS**
- tokenized, building **ADRCMS**
- using the **SCAN** macro to build **ADGCMS**
- parameters
  - APPC**
    - on **ALLOCATE CONGREF**
    - on **CONFIRM CONGREF**
    - on **CONFIRMED CONGREF**
    - on **DEALLOCATE CONGREF**
    - on **RECEIVE\_AND\_WAIT CONGREF**
    - on **REQUEST\_TO\_SEND CONGREF**
    - on **SEND\_DATA CONGREF**
    - on **SEND\_ERROR CONGREF**
  - changing
    - SET SRM PGFULL ADMIN**
    - SET SRM PGMTLIM ADMIN**
  - extended **APGDE**
  - initialization
    - See start-up parameters
    - IUCV**, specifying **SFPROG**
    - passing to virtual operating system
    - GENCMD**
    - setting page migration **ADMIN**
    - tokenized **APGDE**
    - tuning, for **AVS CONPAO**
  - parent minidisk of read-only extension **CMSREF**
  - parentheses **SPIUG**
    - adjacent to blanks **SPIREF**
    - before option list **CMSREF**
    - in expressions **SPIREF**
    - in function calls **SPIREF**
    - in parsing templates **SPIREF**
  - parent, of read-only extension **CMSUG**
  - PARM**
    - keyword of **OSRUN** command **CMSREF**
  - PARM** operand
    - of **IPL** command **GENCMD**
  - PARMRGS** operand
    - of **NAMESYS** macro **PLNGDE**
  - PARMS** option of **DETAIL HELP CMSUG**
  - PARSE ARG** instruction **SPIUG**
  - PARSE** instruction **SPIREF, SPIUG**
  - PARSE** macro **XEDIT**
  - PARSE PULL** instruction **SPIUG**
  - PARSE VALUE** instruction **SPIUG**
  - PARSE VAR** instruction **SPIUG**
- PARSECMD** command **CMSMIG**
  - description **CMSREF**
  - format **CMSREF**
  - messages **CMSREF**
  - operands
    - APPLID CMSREF**
    - NOTYPE CMSREF**
    - STRING CMSREF**
    - TYPE CMSREF**
    - uniqueid **CMSREF**
  - usage notes **CMSREF**
- PARSECMD** macro
  - APPLID**= operand **ADRCMS**
  - EPLIST**= operand **ADRCMS**
  - MSGBUFF**= operand **ADRCMS**
  - MSGDISP**= operand **ADRCMS**
  - parsing command arguments **ADRCMS**
  - PLIST**= operand **ADRCMS**
  - translating command arguments **ADRCMS**
  - TRANSL**= operand **ADRCMS**
  - TYPCALL**= operand **ADRCMS**
- PARSECMD** macro (continued)
  - UNIQID**= operand **ADRCMS**
- Parser Validation Code Table **ADRCMS**
- PARSERCB** macro
  - expansion **ADRCMS**
  - generating a **DSECT** for **PARSECMD**
  - control block **ADRCMS**
- PARSERUF** macro
  - expansion **ADRCMS**
  - generating a mapping to parser interface **ADRCMS**
- parsing **SPIREF**
  - arguments **SPIUG**
  - command arguments **ADRCMS**
  - data when you are prompted **SPIUG**
  - definition **SPIREF**
  - expressions **SPIUG**
  - facility **ADGCMS**
    - See also **DLCS** (Definition Language for Command Syntax)
    - calling from an **exec CMSREF**
    - variables returned to **EXEC CMSREF**
  - general rules **SPIREF**
  - introduction **SPIREF**
  - literal patterns **SPIREF**
  - multiple strings **SPIREF**
  - patterns **SPIREF**
  - positional patterns **SPIREF**
  - selecting words **SPIREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- templates
  - in ARG instruction **SPIREF**
  - in PARSE instruction **SPIREF**
  - in PULL instruction **SPIREF**
- use of a period **SPIUG**
- using literal patterns **SPIUG**
- using patterns **SPIUG**
- variable patterns **SPIREF**
- variables **SPIUG**
- words **SPIUG**
- part, definition **SERV**
- partial audit **SFSAD**
- partition
  - size specified for execution in CMS/DOS **ADGCMS**
  - specifying in OS/VS1 system **OPGDE**
- partitioned data sets (PDS)
  - copying into CMS files **ADGCMS, CMSREF**
  - copying into partitioned data sets **CMSREF**
  - specifying members with FILEDEF command **ADGCMS**
  - displaying member names **CMSREF**
  - listing members of **CMSREF**
- partitioned processing mode, definition **ADMIN, SYMSG**
- partners **CONGREF, SAACOM**
  - communication **CONPAO**
  - See also communication, partner
- partner\_LU\_name characteristic
  - extract **SAACOM**
  - length **SAACOM**
  - possible values **SAACOM**
  - set **SAACOM**
- Pascal language
  - example call to CSL routine **ADRCMS**
  - example program calling **DMSERP**
  - ADRCMS**
- PASS option
  - of PER Command **GENCMD**
- PASSMOD EXEC INST
- Pass-Through Facility (PVM)
  - See PVM (VM/Pass-Through Facility)
- pass-through for MVS guest **RGOS**
- passing
  - arguments **EXEC2**
  - control **GCSREF**
  - global variables between EXECs with **GLOBALV** **CMSUG**
  - parameters to virtual operating system **GENCMD**
- PASSTHRU
  - time-out limit of **RGOS**
  - using with VSE/SP **RGOS**
- PASSTHRU command **INTRO**
- PASSTHRU EXEC, example **RGOS**
- password **APGDE, SECUR**
  - accepted **TERMREF**
  - access **SECUR**
  - access mode **GENCMD**
  - auto-deactivation **ADMIN**
  - defining for VSAM catalogs **ADGCMS**
  - entry in communications directory for requester **CONPAO**
  - for logging on **CMSLOT**
  - for VSAM catalogs in CMS/DOS **ADGCMS**
  - for VSAM catalogs in OS **ADGCMS**
  - for your virtual machine **CMSUG**
  - hiding during logon procedure **GENCMD**
  - invalid **SECUR**
  - invalid format on commandline precaution **GENCMD**
  - management in RACF **SECUR**
  - masking **GENCMD**
  - minidisk access **INTRO**
  - needed for file pool minidisks **SFSAD**
  - NOLOG** **OPGDE**
  - not accepted **TERMREF**
  - replacing directory entry **SFPROG**
  - required **TERMREF**
  - restricted **SECUR**
  - restricted, list of **PLNGDE**
  - security **TERMREF**
  - specifying requester program's in CP directory **CONPAO**
  - supplying on LINK command line **CMSUG**
  - suppression **SYSCMD**
  - suppression on command line **ADMIN, CMSUG**
  - unauthorized **PLNGDE**
  - validation of **SECUR**
  - verification through the LOGON command **GENCMD**
- password operand
  - of AUTOLOG command **SYSCMD**
  - of LOGON operand **GENCMD**
- password tag in communications directory **CONGREF**
- PASS = password operand
  - of LINBK command **GENCMD**
- patch procedure **SERV**
- patch update files
  - example **SERV**
  - general description **SERV**
  - NAME statement **SERV**
  - REP statement **SERV**

- statements  
 NAME **SERV**  
 REP **SERV**  
 VER **SERV**  
 VER statement **SERV**
- path **CONGREF**  
 APPC/VM communications **CONGREF**  
 between SNA console and virtual machine  
**GCSREF**  
 console **ADGCMS**  
 IUCV control **SECUR, SFPROG**  
 information **DIAG**  
 speed of **CONPAO**  
 status between VTAM and VM **CONPAO**  
 to a DASD **ADMIN**
- path ID block **DIAG**
- path operand of **FDISPLAY** subcommand  
**IPCSREF**
- PATHID** parameter  
 ACCEPT function **CONGREF**  
 of RECEIVE **CONGREF**  
 of SENDCNF **CONGREF**  
 of SENDCNFD **CONGREF**  
 of SENDDATA **CONGREF**  
 of SENDERR **CONGREF**  
 of SENDREQ **CONGREF**  
 of SEVER **CONGREF**  
 of TESTCMPL **CONGREF**
- pathid, variable  
 described **GENCMD, SYSCMD**
- PATHS** operand  
 of QUERY command **SYSCMD**
- patterns  
 in parsing **SPIREF, SPIUG**  
 of security violations **SECUR**
- pause parameters (AVS tuning) **CONPAO**
- PA1 program function key **ADMIN, APGDE, PRIMER, SFPROG, XEDIT**  
 in full-screen CMS **CMSUG**  
 with DIAGNOSE code X'58' **SFPROG**  
 with the programmable operator facility  
**SFPROG**  
 with VSCS or VCNA **SFPROG**
- PA2 program function key **APGDE, SFPROG, XEDITUG**  
 in full-screen CMS **CMSREF**  
 in HELP **CMSUG**  
 in the CMS window **PRIMER**
- in XEDIT **PRIMER**  
 practice exercise using **XEDITUG**  
 used instead of SET NULLS ON **XEDIT**
- PB** operand  
 of QUERY command **SYSCMD**  
 of SET command **SYSCMD**
- PCF (Problem Control Facility) **INTRO**
- PCI** operand  
 of QUERY command **SYSCMD**  
 of SET command **SYSCMD**
- PC/VM Bond **GIM, INTRO**
- PD option of **DSERV** command **CMSREF**
- PDS** option  
 of LISTDS command **CMSREF**  
 of MOVEFILE command **CMSREF**
- PDS** (partitioned data sets)  
 copying files into CMS files **CMSREF**  
 copying into partitioned data sets  
**CMSREF**  
 displaying member names **CMSREF**  
 listing members of **CMSREF**
- PEEK** command **CMSLOT**  
 description **CMSREF**  
 example of use **INTRO**  
 PF key settings **CMSREF**  
 PROFILE option **CMSREF**
- peeking at a reader file **CMSLOT, PRIMER**
- pending interrupt, message **CONGREF**
- pending list **XEDITUG**
- pending notice **PRIMER**  
 'C' or 'CC' pending... **XEDIT**  
 'D' or 'DD' pending... **XEDIT**  
 'DD' pending **XEDITUG**  
 'F' pending... **XEDIT**  
 'P' pending... **XEDIT**  
 'XX' pending... **XEDIT**  
 '. . . . .' pending **XEDITUG**  
 '.....' pending... **XEDIT**  
 '< <' pending... **XEDIT**  
 '> >' pending... **XEDIT**  
 '""' pending **XEDITUG**  
 '""' pending... **XEDIT**  
 cancelling **XEDITUG**  
 defining display features **XEDITUG**  
 location on screen **XEDITUG**  
 'C' or 'CC' pending **XEDITUG**  
 'F' pending **XEDITUG**  
 'M' or 'MM' pending **XEDITUG**  
 'P' pending **XEDITUG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- PENDING option  
of EXTRACT XEDIT  
of SET XEDIT  
people using computer, displaying PRIMER  
PEP and NCP sharing SFPROG  
PER command CMSUG, DIAG, GENCMD  
  CMD option DIAG  
  COUNT subcommand DIAG  
  debugging GENCMD  
  described GENCMD, INTRO  
  event types GENCMD  
   BRANCH GENCMD  
   G[REG1] GENCMD  
   INSTRUCT GENCMD  
   PASS GENCMD  
   STORE GENCMD  
  GUESTR option DIAG  
  GUESTV option DIAG  
  monitoring events GENCMD  
  operands  
   DAT option GENCMD  
   DATOFF option GENCMD  
   GUESTR option GENCMD  
   GUESTV option GENCMD  
  options  
   APPEND GENCMD  
   BOTH GENCMD  
   CMD GENCMD  
   COUNT GENCMD  
   DAT GENCMD  
   DATOFF GENCMD  
   FROM GENCMD  
   GUESTR GENCMD  
   GUESTV GENCMD  
   NORUN GENCMD  
   PASS GENCMD  
   PRINTER GENCMD  
   RANGE GENCMD  
   RUN GENCMD  
   STEP GENCMD  
   TERMINAL GENCMD  
  responses GENCMD  
  selectivity DIAG, GENCMD  
  storage alteration GENCMD  
  storage alteration tracing DIAG  
  sub-commands  
   APPEND GENCMD  
   COUNT GENCMD  
   END GENCMD  
   GET GENCMD  
   SAVE GENCMD  
   TABLE GENCMD  
  summary OPGDE, SYSCMD  
  suspending DIAG, GENCMD  
  table GENCMD  
  terminating DIAG, GENCMD  
  trace elements  
   changing options GENCMD  
   changing specific trace elements  
   GENCMD  
   merging GENCMD  
  traceback table GENCMD  
  traceset GENCMD  
  tracing interrupts DIAG  
  usage notes GENCMD  
  using GENCMD  
  PER operand  
   of QUERY command SYSCMD  
   of QUERY (ALL) command GENCMD  
  PER (Program Event Recording Facility)  
   DIAG  
  PERFORM class monitor records ADMIN  
  PERFORM FAILURE code (keyword  
  definition) IPCSREF  
  PERFORM operand  
   of MONITOR command SYSCMD  
   of STAT command IPCSREF  
  PERFORM subcommand of TESTCOB  
  command APGDE  
  performance  
   AGWTUN ASSEMBLE file CONPAO  
   APPC/VM CONGREF  
   AUTHEXIT parameter on APPL statement  
   CONPAO  
   AVS CONPAO  
   AVS tuning parameters CONPAO  
   commands to improve CONPAO  
   configuration factors influencing RGOS  
   VM under VM RGOS  
   considerations SPIREF  
   AVS CONPAO  
   coding DMKSYS macros PLNGDE  
   Extended Storage Support PLNGDE  
   heavy I/O production PLNGDE  
   installations with large number of CMS  
   users PLNGDE  
   read-only minidisks PLNGDE  
   TSAF CONPAO  
   using automatic monitoring facilities  
   PLNGDE  
   using fixed head devices for paging  
   PLNGDE  
  degradation CONPAO  
  enhancements for dyadic processors with  
  store-in cache See *Diagnosis Reference*  
  enhancements, configuring I/O devices for an  
  MP system See *Diagnosis Reference*  
  for mixed mode foreground/background  
  systems ADMIN

for time-shared multibatch virtual machines  
**ADMIN**  
 guidelines **ADMIN**  
   general information **ADMIN**  
   MVS/SP support **RGOS**  
 line **CONPAO**  
 management **SFSAD**  
 monitoring **SFSAD, SYSCMD**  
 measurement **ADMIN**  
 mixed mode foreground/background systems  
**ADMIN**  
 of an MVS or CMS guest running with 3380  
 DASDs **ADMIN**  
 of non-paging DASD I/O with cached  
 subsystems **CONPAO**  
 of remote paths **CONPAO**  
 options **INTRO**  
   affinity **ADMIN, OPGDE**  
   assignment **OPGDE**  
   dynamic CP transition to or from native  
   mode **RGOS**  
   Extended Control-Program Support  
   **OPGDE**  
   favored execution **ADMIN, OPGDE**  
   hardware assist **OPGDE**  
   locked pages **ADMIN, OPGDE**  
   multiple shadow table support **ADMIN**  
   preferred machine assist **OPGDE**  
   priority **ADMIN, OPGDE**  
   queue drop elimination **ADMIN, OPGDE**  
   reserved page frames **ADMIN, OPGDE**  
   setting **SYSCMD**  
   shadow table bypass **ADMIN**  
   virtual machine **ADMIN**  
   virtual machine assist feature **ADMIN,**  
   **OPGDE**  
   virtual=real **ADMIN, OPGDE**  
   VM/SP HPO **OPGDE**  
 problems  
   preventing **SFSAD**  
   solving **SFSAD**  
 programs **CONPAO**  
 using VSE/SP dialogs to monitor **RGOS**  
 VM under VM **RGOS**  
 VSE **RGOS**

period  
 as a placeholder in parsing **SPIREF, SPIUG**  
 causing substitution in variable names  
**SPIREF**  
 in compound symbols **SPIUG**  
 in numbers **SPIREF**  
**PERM** option  
 of DLBL command **CMSREF**  
 of FILEDEF command **ADGCMS,**  
**APGDE, CMSREF**  
 of LABELDEF command **CMSREF**  
 permanent  
 command destination change **SPIREF**  
 file definitions **CMSREF**  
 storage **CMSLOT, PRIMER**  
 virtual disks **GENCMD**  
 permission to access a file/directory  
 granting **ADRCMS**  
 revoking **ADRCMS**  
 Personal Computer Enhanced Connectivity  
 Facilities **ADGCMS, ADRCMS, APGDE,**  
**CMSMIG**  
 Personal Computer (PC) **TERMREF**  
 color display **TERMREF**  
 keyboard **TERMREF**  
 monochrome display **TERMREF**  
 publications **TERMREF**  
 video display **TERMREF**  
 personal minidisk **INTRO**  
 PF (program function) keys **APGDE, INTRO,**  
**TERMREF**  
**TERMREF**  
 All **CMSUG**  
 assigning a sequence of subcommands to  
**XEDIT**  
 Backward **CMSUG**  
 Brief **CMSUG**  
 changing settings of **XEDITUG**  
 Clocate **CMSUG**  
 controlling **GENCMD**  
 controlling function **GENCMD**  
 Cursor **CMSUG**  
 default settings  
   on NAMES menu **CMSREF**  
   on NOTE menu **CMSREF**  
   on PEEK screen **CMSREF**  
 defining meaning for **XEDIT**  
 definition area in full-screen CMS  
**CMSUG**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



displaying settings of **XEDITUG**  
 displaying XEDIT settings of **PRIMER**  
 forward **CMSUG**  
 help **CMSUG**  
 in full-screen CMS  
   Backward **CMSUG**  
   Clear Top **CMSUG**  
   Cursor **CMSUG**  
   Filelist **CMSUG**  
   Forward **CMSUG**  
   Help **CMSUG**  
   Left **CMSUG**  
   Pop Msg **CMSUG**  
   Quit **CMSUG**  
   Rdrlst **CMSUG**  
   Right **CMSUG**  
 in the CMS window **PRIMER**  
 in WM environment  
   Backward **CMSUG**  
   Clear **CMSUG**  
   Copy **CMSUG**  
   Forward **CMSUG**  
   Help **CMSUG**  
   Left **CMSUG**  
   Maximize **CMSUG**  
   Quit **CMSUG**  
   Restore **CMSUG**  
   Retrieve **CMSUG**  
   Right **CMSUG**  
   Top **CMSUG**  
 initial settings of **XEDITUG**  
 Morehelp **CMSUG**  
 on a DIRLIST display **CMSUG**  
 on FILELIST screen **PRIMER**  
 on the NOTE screen **PRIMER**  
 on the PEEK screen **PRIMER**  
 overrides  
   when using Interactive Interface **RGOS**  
**PC, IBM TERMREF**  
 PF Key **CMSUG**  
 Print **CMSUG**  
 Quit **CMSUG**  
 Related **CMSUG**  
 removing meaning from **XEDIT**  
 Return **CMSUG**  
 setting **CMSUG**  
   COPY function **CMSUG**  
   in PROFILE EXEC **CMSUG**  
   to retrieve previous line entered  
   **CMSUG**  
 toggling between keys **CMSUG**  
 Top **CMSUG**  
 used in **SCHANGE XEDIT**

using **CMSUG, XEDITUG**  
   in FILELIST **CMSUG**  
   in input mode **XEDIT**  
   to send notes **CMSUG**  
   when composing a note **CMSUG**  
   when receiving files when in  
   **RDRLIST CMSUG**  
   **? CMSUG**  
**PFILE** subcommand **XEDIT**  
**PFn** option  
   of **EXTRACT XEDIT**  
   of **QUERY XEDIT**  
   of **SET XEDIT**  
   of **TRANSFER XEDIT**  
**PFnn** operand  
   of **QUERY** command **GENCMD**  
   of **SET** command **GENCMD**  
**PF1** key  
   in **NAMES PRIMER**  
   in **NOTEs PRIMER**  
   in the CMS window **PRIMER**  
   in **XEDIT PRIMER**  
**PF10** key  
   in **NAMES PRIMER**  
   in **NOTEs PRIMER**  
   in the CMS window **PRIMER**  
   in the WM window **PRIMER**  
**PF11** key  
   in **DIRLIST PRIMER**  
   in **FILELIST PRIMER**  
   in **NAMES PRIMER**  
   in **NOTEs PRIMER**  
   in **RDRLIST PRIMER**  
   in the CMS window **PRIMER**  
   in the WM window **PRIMER**  
   in **XEDIT PRIMER**  
**PF12** key  
   in **NAMES PRIMER**  
   in **NOTEs PRIMER**  
   in the CMS window **PRIMER**  
   in **XEDIT PRIMER**  
**PF2** key  
   in **FILELIST PRIMER**  
   in **NAMES PRIMER**  
   in **NOTEs PRIMER**  
   in the CMS window **PRIMER**  
**PF3** key  
   in **FILELIST PRIMER**  
   in **NAMES PRIMER**  
   in **NOTEs PRIMER**  
   in the CMS window **PRIMER**  
   in the WM window **PRIMER**  
   in **XEDIT PRIMER**

- PF4 key  
 in HELP PRIMER  
 in NAMES PRIMER  
 in NOTES PRIMER  
 in the CMS window PRIMER  
 in the WM window PRIMER  
 in XEDIT PRIMER
- PF5 key  
 in FILELIST PRIMER  
 in NAMES PRIMER  
 in NOTES PRIMER  
 in the CMS window PRIMER
- PF6 key  
 in FILELIST PRIMER  
 in NAMES PRIMER  
 in NOTES PRIMER  
 in the CMS window PRIMER
- PF7 key  
 in NAMES PRIMER  
 in NOTES PRIMER  
 in the CMS window PRIMER  
 in the WM window PRIMER  
 in XEDIT PRIMER
- PF8 key  
 in NAMES PRIMER  
 in NOTES PRIMER  
 in the CMS window PRIMER  
 in the WM window PRIMER  
 in XEDIT PRIMER
- PF9 key  
 in NAMES PRIMER  
 in NOTES PRIMER  
 in RDRLIST PRIMER  
 in the CMS window PRIMER  
 in XEDIT PRIMER
- PG space, not enough defined ADMIN
- PGFULL operand  
 of QUERY command SYSCMD  
 of SET command SYSCMD
- PGLOCK macro DIAG, GCSREF  
 description GCSREF  
 reg parameter GCSREF
- PGM parameter of ISPSTART command  
 APGDE
- PGMACT operand  
 of QUERY command SYSCMD
- PGMOPSW (program old PSW) DIAG
- PGMSECT (program check interrupt work  
 area) DIAG
- PGMSTAT operand  
 of QUERY command SYSCMD  
 of SET command SYSCMD
- PGMTLIM operand  
 of QUERY command SYSCMD  
 of SET command SYSCMD
- PGMWA (program interrupt work area)  
 DIAG
- PGULOCK macro GCSREF  
 description GCSREF  
 reg parameter GCSREF
- phase library  
 clearing to zeros CMSREF  
 CMD/DOS CMSREF  
 deleting phases from CMSREF
- phases  
 executing in CMS/DOS CMSREF  
 in VSE core image libraries, obtaining  
 information about CMSREF
- phone entry in a names file CMSLOT
- phrase SPIUG
- phrase highlighting tags PRIMER
- physical  
 swapping ADMIN, SYSMMSG  
 connections TERMREF  
 saved segment SFPROG  
 CMSAMS INST  
 CMSBAM INST  
 CMSDOS INST  
 CMSFILES INST  
 CMSINST INST  
 CMSVMLIB INST  
 CMSVSAM INST  
 CMSFILES SFSAD  
 defining in sample DMKSNT INST  
 definition ADMIN, INST  
 definition file SFPROG  
 definition file, updating SFPROG  
 HELP INST  
 installing INST  
 map files INST  
 saving SFPROG  
 suggested layout in virtual storage  
 INST  
 updating SFPROG  
 security, maintaining  
 controlling the real machine SECUR  
 I/O hardware SECUR  
 portable storage media SECUR  
 space SFSAD

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- PIB** buffer images  
 examples **ADMIN**  
 macro format **ADMIN**  
 PIBCCW macro format **ADMIN**
- PIBCCW** macro **ADMIN**
- PIP** data **SAACOM**
- placeholder, period, in parsing **SPIUG**
- planning  
 capacity **SFSAD**  
 command authorization **ADMIN**  
 for installation **INST**  
 for VM/SP  
 device configuration **INTRO**  
 preparing system files **INTRO**  
 storage requirement **INTRO**  
 model **INTRO**
- PLIOPT** command, defined **INTRO**
- PLIST** (parameter list) **APGDE**, **SRPI**  
 extended **SPIREF**  
 for accessing variables **SPIREF**  
 for invoking EXECs **SPIREF**  
 for invoking external routines  
**SPIREF**  
 extended **SRPI**  
 pointer to CPRB **SRPI**  
 tokenized **SRPI**
- PLIST** = operand  
**CMSCALL** macro **ADRCMS**  
**PARSECMD** macro **ADRCMS**
- PLU** (programmer logical units) assigned in  
**CMS/DOS ADGCMS**
- plus operator **SPIUG**
- plus signs  
 example **EXEC2**  
 removing **EXEC2**
- plus (+) and minus (-) file mode letter  
 notation **CMSUG**
- PL/I PRIMER**  
**CSL** **INTRO**  
 debugging aid **INTRO**  
 description **INTRO**  
 optimizing compiler example **INTRO**  
 procedures or subroutines **INTRO**
- PL/I** language  
 example call to CSL routine **ADRCMS**  
 example program calling **DMSERP**  
**ADRCMS**
- PMA** operand  
 of IPL command **GENCMD**  
 for MVS guest **RGOS**
- PMAV** operand  
 of IPL command **GENCMD**, **RGOS**
- PMX** (Programmable Operator/NCCF  
 Message Exchange) **SFPROG**  
 See also programmable operator facility  
 using with programmable operator **OPGDE**
- POINT** macro (**BSAM**) **GCSREF**  
 block address parameter **GCSREF**  
 dcb address parameter **GCSREF**  
 description **GCSREF**
- POINT** macro (**VSAM**) **GCSREF**  
 description **GCSREF**  
 rpl parameter **GCSREF**
- point of failure, restoring to **SFSAD**
- POINT** option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **SET XEDIT**  
 of **TRANSFER XEDIT**
- POLLDLAY** operand  
 of **NETWORK** command **SYSCMD**
- POOLDEF** file  
 effect of **FILESERV MINIDISK** on  
**SFSAD**  
 general description of **SFSAD**  
 generation of **SFSAD**  
 manually restoring **SFSAD**  
 recovery tip for **SFSAD**  
 using **FILESERV DEFAUDIT** to  
 modify **SFSAD**
- poor performance, correcting **SFSAD**
- POP WINDOW** command **CMSUG**,
- PRIMER**  
 description **CMSREF**  
 format **CMSREF**  
 messages **CMSREF**  
 operands  
 n **CMSREF**  
 WM **CMSREF**  
 wname **CMSREF**  
 \* (asterisk) **CMSREF**  
 usage notes **CMSREF**
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- portability **ADRCMS**
- portable storage media protection **SECUR**
- POS** function **SPIREF**, **SPIUG**
- position  
 last occurrence of a string **SPIREF**  
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 of a word in a string of words **EXEC2**
- POSITION** operand  
 of **INDICATE** command **SYSCMD**  
 of **TIME** subcommand **IPCSREF**

- POSITION WINDOW** command **CMSUG**  
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   **pcol CMSREF**  
   **ppline CMSREF**  
   **wname CMSREF**  
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- positioning  
 the cursor in a virtual screen **CMSREF**  
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- positive seek verification **SECUR**
- POST** macro **GCSREF**  
 completion code parameter **GCSREF**  
 description **GCSREF**  
 ecb address parameter **GCSREF**  
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- post-installation activities **SFSAD**
- poster, CP internal trace table **DIAG**
- potential addressable space, increasing **SFSAD**
- pound sign as default line end character **XEDIT**
- POWER** command **PRIMER**
- power failure, data protection **INTRO**
- power of a number **SPIUG**
- power off  
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- power typing **PRIMER**  
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   example of **XEDITUG**  
   inserting characters in **XEDITUG**  
   typing data in **XEDITUG**  
   using line end character in **XEDITUG**  
   using a line end character **XEDIT**  
   using the insert key **XEDIT**
- POWERINP** subcommand of **XEDIT**  
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- powers of ten in numbers **SPIREF**
- PP space, not enough defined **ADMIN**
- PQUIT** subcommand **XEDIT**
- practical maximums **SFSAD**
- practice exercise **XEDITUG**
- PRB** command **DIAG**  
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- PRBnnnnn** aaaaaaaa file **IPCSREF**
- PRBnnnnn** conslog **IPCSREF**
- PRBnnnnn** dump file **IPCSREF**
- PRBnnnnn** operand of **IPCSPRT** **IPCSREF**
- PRBnnnnn** operand of **IPCSSCAN** **IPCSREF**
- PRBnnnnn** report **IPCSREF**
- PRBnnnnn** report file **IPCSREF**
- PRBnnnnn** trace **IPCSREF**
- PRB00003** report file with status updates  
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- pre-emptive tuning **SFSAD**
- pre-filling line with mask **XEDIT**
- pre-loading servers  
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- precedence  
 of characters **SPIUG**  
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- preceding line as destination **XEDIT**
- precision of arithmetic **SPIREF**
- predefined functions **EXEC2**  
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 &CONCAT OF **EXEC2**  
 &CONCATENATION OF **EXEC2**  
 &DATATYPE OF **EXEC2**  
 &DIV OF **EXEC2**  
 &DIVISION OF **EXEC2**  
 &LEFT OF **EXEC2**  
 &LENGTH OF **EXEC2**  
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 &MULT OF **EXEC2**  
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 &POSITION OF **EXEC2**  
 &RANGE OF **EXEC2**  
 &RIGHT OF **EXEC2**  
 &STRING OF **EXEC2**  
 &SUBSTR OF **EXEC2**  
 &TRANS OF **EXEC2**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- &TRANSLATION OF EXEC2**
- &TRIM OF EXEC2**
- &TYPE OF EXEC2**
- &WORD OF EXEC2**
- predefined variables
  - description of **EXEC2**
  - reserved words **EXEC2**
  - script &2 ... **EXEC2**
  - & EXEC2**
  - 0 EXEC2**
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  - &CMDSTRING EXEC2**
  - &COMLINE EXEC2**
  - &DATE EXEC2**
  - &DEPTH EXEC2**
  - &FILEMODE EXEC2**
  - &FILENAME EXEC2**
  - &FILETYPE EXEC2**
  - &FROM EXEC2**
  - &INDEX EXEC2**
  - &LINE EXEC2**
  - &LINENUM EXEC2**
  - &LINK EXEC2**
  - &N EXEC2**
  - &RC EXEC2**
  - &RETCODE EXEC2**
  - &TIME EXEC2**
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  - auxiliary files **ADGCMS**
  - channels
    - definition of **RGOS**
    - improving performance **RGOS**
  - DASD area **INTRO**
  - interface, contents of **CMSMIG**
  - interface group
    - advantages of **ADGCMS, ADRCMS, CMSMIG**
    - components of **ADGCMS, ADRCMS, APGDE, CMSMIG**
  - MVS guest
    - channel considerations **RGOS**
    - IPL, how to **RGOS**
    - restrictions, general
    - restrictions, MVS guest **RGOS**
    - special directory considerations **RGOS**
  - paging **INTRO**
  - paging area **ADMIN, SYSMMSG**
    - allocating maximum value **SYSCMD**
  - system paging
    - Paging Storage **ADMIN**
    - 3880 Storage Control System **ADMIN**
  - level updating **ADGCMS**
- preferred machine assist **ADMIN, SYSMMSG**
  - attaching virtual devices **SYSCMD**
  - benefits from guest survival **RGOS**
  - channel usage **RGOS**
  - configuration examples **RGOS**
  - considerations when using **RGOS**
  - control switch assist **OPGDE, GENCMD, SYSCMD**
    - considerations **RGOS**
    - migration **RGOS**
    - starting **RGOS**
  - DEDICATE** directory control statement
  - PLNGDE**
  - definition of **RGOS**
  - description **OPGDE**
  - device usage examples **RGOS**
  - directory **PLNGDE**
  - directory entry **RGOS**
  - DMKRIO PLNGDE**
  - documentation **RGOS**
  - enabling **GENCMD**
  - events that preferred machine assist
    - intercepts **RGOS**
  - external interrupts **RGOS**
  - guest **ADMIN, SYSMMSG**
  - guest, generating a false AP system for **RGOS**
  - how it works **RGOS**
  - LINK** directory control statement
  - PLNGDE**
  - OPTION** directory statement **PLNGDE**
  - optional on the 3033 processor **RGOS**
  - privileged instructions **RGOS**
  - problem determination **RGOS**
  - PSW restart, using **RGOS**
  - resetting **RGOS**
  - resetting virtual machine **GENCMD**
  - restrictions **GENCMD, PLNGDE**
    - on CP commands **RGOS**
    - for MVS guests **PLNGDE**
    - for VSE guests **PLNGDE**
    - general **RGOS**
  - shadow tables, controlling **RGOS**
  - standard on the 308x processor **RGOS**
  - standard on the 3090 processor **RGOS**
  - storage above 16 MB **ADMIN**
  - T-DISK in directory **PLNGDE**
  - turning off **GENCMD**
  - virtual machine with affinity set for target
    - processor **SYSCMD**
    - with **ATTACH** command **SYSCMD**
    - with control switch assist extensions **RGOS**

- with DEFINE command **SYSCMD**
- with SET AFFINITY command **SYSCMD**
- with VARY PROC OFF command **SYSCMD**
- prefix, description of **SYMSG**
- prefix area **APGDE**
  - changing location or display **XEDITUG**
  - example of **XEDITUG**
  - controlling display **XEDIT**
  - defining display features **XEDITUG**
  - entering subcommands in **XEDIT**
  - in **XEDIT PRIMER**
  - location on screen **XEDITUG**
  - numbers, setting on **PRIMER**
  - resetting **XEDIT**
  - simulate in typewriter mode **XEDITUG**
  - using LPREFIX to simulate **XEDIT**
- prefix commands
  - A command **PRIMER**
  - C command **PRIMER**
  - CC command **PRIMER**
  - D command **PRIMER**
  - DD command **PRIMER**
  - F command **PRIMER**
  - M command **PRIMER**
  - MM command **PRIMER**
  - P command **PRIMER**
  - resetting **PRIMER**
  - where to type **PRIMER**
  - / command **PRIMER**
  - " command **PRIMER**
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  - assigning a synonym **XEDITUG**
  - current line positioning **EXEC2**
  - description of **EXEC2**
  - examples of **XEDITUG**
  - list of **XEDIT**
  - menu display of **XEDIT**
  - rules for entering **XEDIT**
  - sample of **EXEC2**
  - writing **EXEC2, XEDITUG**
- prefix operators **SPIUG**
- PREFIX** option
  - of **EXTRACT XEDIT**
  - of **QUERY XEDIT**
  - of **SET XEDIT**
  - of **TRANSFER XEDIT**
- prefix register, definition of **RGOS**
- prefix storage area (PSA) **DIAG**
  - finding its value **SYSCMD**
- prefix subcommands of **XEDIT** command
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    - A **XEDIT, XEDITUG**
    - example of **XEDITUG**
    - C **XEDIT, XEDITUG**
    - canceling **XEDITUG**
    - D **XEDIT, XEDITUG**
    - example of **XEDITUG**
    - defined **XEDITUG**
    - defining synonym for **XEDIT**
    - E **XEDIT**
    - F **XEDIT, XEDITUG**
    - example of **XEDITUG**
    - I **XEDIT**
    - list of **XEDIT, XEDITUG**
    - M **XEDIT, XEDITUG**
    - example of **XEDITUG**
    - menu display of **XEDIT**
    - P **XEDIT, XEDITUG**
    - practice exercise using **XEDITUG**
    - removing from screen **XEDIT**
    - rules for entering **XEDIT**
    - SCALE **XEDIT**
    - SI **XEDITUG**
    - example of **XEDITUG**
    - TABL **XEDIT**
    - where to enter **XEDITUG**
    - .xxxx **XEDIT, XEDITUG**
    - / **XEDIT, XEDITUG**
    - " **XEDIT**
  - PREFIXA DIAG**
  - PREFIXB DIAG**
  - prefixes
    - identifying sets of files
    - with ACCESS command **CMSREF**
  - prefixing
    - definition **ADMIN, RGOS, SYMSG**
  - prefix, variable
    - described **GENCMD, SYSCMD**
  - pregenerated supervisors for VSE/SP
    - RGOS**
  - PRELOAD** command
    - format **SERV**
    - function **SERV**
    - input **SERV**
    - messages **SERV**
    - operands **SERV**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- output **SERV**
- MAP file **SERV**
- TEXT file **SERV**
- reformatting text files **SERV**
- PRELOAD EXEC INTRO**
- premature EOF defined **PRIMER**
- PREPAGE** operand
  - of **QUERY** command **SYSCMD**
  - of **SET** command **SYSCMD**
- preparing, definition **ADMIN, SYSMMSG**
- PREPARE** facility of **SQL/DS INTRO**
- Prepare\_to\_Receive (CMPTR)** routine
- CONGREF**
  - call description **SAACOM**
  - example flow using **SAACOM**
- PREPARE\_TO\_RECEIVE**, **APPC** verb
- prepare\_to\_receive\_type** characteristic
  - possible values **SAACOM**
  - set **SAACOM**
- preparing
  - AVS** virtual machine **CONPAO**
  - communications directory **CONPAO**
  - files for input or output
    - DMSOPEN CSL** routine **ADRCMS**
    - FSOPEN** macro **ADRCMS**
  - first-level VM system **RGOS**
  - global/local resource manager **CONPAO**
  - guest **VSE** virtual machine **RGOS**
  - host VM system for **VM/VSE** **RGOS**
  - jobs for **CMS** batch facility **CMSUG**
  - private resource server virtual machine
    - CONPAO**
  - second-level VM system **RGOS**
  - server virtual machine **CONPAO**
  - SYSPROF EXEC** for use of
    - communications directories
      - CONPAO**
    - system files **INTRO**
  - TSAF** virtual machine **CONPAO**
  - user programs to connect to resources
    - CONPAO**
- preprocessor for **SQL/DS INTRO**
- PREREQ** statement, update file **SERV**
- PRESENT**, logical device support facility
  - function **SFPROG**
- preservation, virtual storage **ADMIN**
- PRESERVE** subcommand **XEDIT, XEDITUG**
- preserving editing variables **XEDITUG**
- presumed command destinations **SPIREF**
- PREVCMND** field **DIAG**
- preventing
  - multiple user mode access **SFSAD**
  - new conversations through a gateway
    - CONPAO**
  - performance problems **SFSAD**
  - tapes, description **INTRO**
- prevent regression (**SNA** service) **SERV**
- preventive service
  - definition **SERV**
  - procedure **SERV**
  - SNA** products
    - description **SERV**
    - example **SERV**
    - object code **SERV**
    - tape format **SERV**
- PREVEXEC** field **DIAG**
- PREVMSG** (keyword definition) **IPCSREF**
- primary
  - console, disabling **OPGDE**
  - system operator
    - described **GENCMD, OPGDE, SYSCMD**
    - description **OPGDE**
    - user **INTRO, SFSAD**
- prime subpool, definition **ADMIN, SYSMMSG**
- primer **EXEC2**
  - assignment statements **EXEC2**
  - conditional statements **EXEC2**
  - embedded blanks **EXEC2**
  - file arguments **EXEC2**
  - for **CMS SPIUG**
  - function of **EXEC 2** language **EXEC2**
  - implementation of editor macros **EXEC2**
  - labels **EXEC2**
  - looping **EXEC2**
  - return codes **EXEC2**
  - translating to uppercase **EXEC2**
  - user interaction **EXEC2**
  - variables
    - evaluation **EXEC2**
    - names **EXEC2**
  - &CASE** control statement **EXEC2**
  - &LOOP** control statement **EXEC2**
- PRINT** command **APGDE, CMSLOT, PRIMER**
  - and **MACLIB** members **APGDE**
  - CC** option **CMSREF**
  - description **CMSREF**
  - for **ISPF APGDE**
  - HEX** option **CMSREF**
  - LINECOUN** option **CMSREF**
  - MEMBER** option **APGDE, CMSREF**

- NOCC option **CMSREF**  
 NOTRC option **CMSREF**  
 OVERSIZE option **CMSREF**  
 to print CMS files **CMSUG**  
 TRC option **CMSREF**  
 UPCASE option **CMSREF**
- PRINT** option  
 of **AMSERV** command **CMSREF**  
 of **ASSEMBLE** command **CMSREF**  
 of **DOSLIB** command **CMSREF**  
 of **DOSLKED** command **CMSREF**  
 of **DSERV** command **CMSREF**  
 of **EXECIO** command **CMSREF**  
 of **LKED** command **APGDE, CMSREF**  
 of **LOADLIB** command **CMSREF**  
 of **MACLIB** command **MAP** function  
**APGDE, CMSREF**  
 of **PSERV** command **CMSREF**  
 of **SCRIPT** command **CMSLOT**  
 of **SPOOL** command **CMSLOT**  
 of **SCRIPT PRIMER**  
 of **TXTLIB** command **APGDE**
- PRINT** access methods services function  
**ADGCMS**  
 print buffers **ADMIN**  
 adding new images **ADMIN**  
 associative fields **ADMIN**  
**LOADBUF** command **ADMIN**  
 PIB buffer images **ADMIN**  
 PIBCCW macro **ADMIN**  
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 UCB macro **ADMIN**  
 UCBCCW macro **ADMIN**  
 UCC examples **ADMIN**  
 UCCCCW macro **ADMIN**  
 UCS (universal character set)  
 examples **ADMIN**  
 macro **ADMIN**  
 1403 **ADMIN**  
 UCSB (Universal Character Set Buffer)  
 examples **ADMIN**  
 3211 **ADMIN**  
 3262 **ADMIN**  
 UCSCCW macro **ADMIN**
- PRINT** function control statement  
 of **DDR (DASD DUMP/Restore)**  
**ADMIN, SFPROG**  
 sample output of **DDR** program  
**ADMIN, SFPROG**
- print file requirements for 3800 printer  
**GENCMD**  
 print operand of **TRAPFILE** command  
**IPCSREF**  
**PRINT** subcommand of **IPCSSCAN**  
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 description **IPCSREF**  
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- PRINT-HI** command for **ISPF APGDE**  
 printed copies, specifying number of  
**CMSLOT**  
 printed output, controlling **RGOS**  
 printer  
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 error, **SVC 199** services **IPCSREF**  
 external attribute buffer manipulation,  
 virtual **SFPROG**  
 files  
 altering attributes of virtual **GENCMD**  
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 machine **CMSUG**  
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 loading **INST**  
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 loading **INST**  
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 specifying forms controls for virtual  
**GENCMD**  
 separator, spool printer output **OPGDE**  
 spool, copying contents of  
 using **PF** key **XEDIT**  
 spooled virtual **INTRO**  
 universal character set  
 loading **INST**  
 tailoring **INST**  
 virtual **INTRO**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



**PRINTER device type** APGDE

**PRINTER operand**

of **CHANGE** command **GENCMD**,  
**SYSCMD**  
of **CLOSE** command **GENCMD**  
of **DEFINE** command **GENCMD**  
of **DRAIN** command **SYSCMD**  
of **FREE** command **SYSCMD**  
of **HOLD** command **SYSCMD**  
of **ORDER** command **GENCMD**,  
**SYSCMD**  
of **PURGE** command **GENCMD**,  
**SYSCMD**  
of **QUERY** command **GENCMD**,  
**SYSCMD**  
of **SPOOL** command **GENCMD**  
of **SPTAPE** command **SYSCMD**  
of **START** command **SYSCMD**  
of **TRACE** command **GENCMD**  
of **TRANSFER** command **GENCMD**,  
**SYSCMD**

**PRINTER option**

of **ASSGN** command **CMSREF**  
of **FILEDEF** command **CMSREF**  
of **PER** command **GENCMD**

**printing**

a file **CMSLOT**, **PRIMER**  
access method services listings **ADGCMS**  
CMS dump file **DIAG**  
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contents of virtual machine components  
**GENCMD**  
extended control registers **GENCMD**  
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HELP files **CMSUG**  
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multiple copies **CMSUG**  
obtaining device information **ADGCMS**  
overview **ADGCMS**  
Paging Storage **ADMIN**  
Program Status Word (PSW) **GENCMD**  
sample files **INST**  
storage locations **GENCMD**  
system definition files **INST**  
tape dump **DIAG**  
TSAF dumps **CONPAO**  
using the **PRINTL** macro **ADGCMS**  
virtual storage **GENCMD**  
virtual storage keys **GENCMD**

**PRINTL** macro **ADGCMS**

**CC**= operand **ADRCMS**  
**CMSDEV**= operand **ADRCMS**  
**ERROR**= operand **ADRCMS**

**FORM**= operand **ADRCMS**

printing multiple records **ADRCMS**  
specifying device characteristics **ADRCMS**

**TRC**= operand **ADRCMS**

writing lines to virtual printer **ADRCMS**

**PRINTONE** **IPCSREF**

**PRINTONE** field **IPCSREF**

priority

**CURSOR** subcommand **XEDIT**

messages **SFPROG**

of characters **SPIUG**

of dispatching, recommendation for **SFSAD**

of operators **SPIUG**

operator's virtual machine **INTRO**

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prefix subcommands and macros **XEDIT**

set for specific user **SYSCMD**

spooled file **INTRO**

virtual machine **INTRO**

**PRIORITY** operand

of **QUERY** command **SYSCMD**

of **SET** command **ADMIN**, **OPGDE**,  
**SYSCMD**

**PRIORITY**, CP **SET** command **RGOS**

**PRIV** operand

of **TRACE** command **GENCMD**

private gateways **CONPAO**

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determining which to use **CONPAO**

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inbound connection through dedicated

(example) **CONPAO**

inbound connection through non-dedicated

(example) **CONPAO**

outbound connection through (example)

**CONPAO**

private libraries

See libraries, **VSE**

**PRIVATE NOTEBOOK** **CMSLOT**

private resource **CMSMIG**

access to **CONPAO**

accessibility **CONPAO**

default authorization to access **CONPAO**

description of **CONPAO**

determining gateway to use **CONPAO**

enabling processing for **CONPAO**

inbound connection to (example) **CONPAO**

locally known name for **CONPAO**

LU name qualifier for **CONPAO**

name space **CONPAO**

outbound connection to (example) **CONPAO**

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resource manager

See resource, manager

- sample communications directory entry for  
**CONPAO**
- server virtual machine **CONPAO**  
See also server, virtual machine  
CP directory entry **CONPAO**  
IUCV authorization to connect to  
**CONPAO**  
**PROFILE EXEC CONPAO**  
server virtual machine environment  
**CONPAO**
- target LU name for **CONPAO**  
using dedicated/non-dedicated private  
gateway **CONPAO**  
\$SERVER\$ NAMES file  
See NAMES file, \$SERVER
- private resource manager  
connecting to **CONGREF**  
considerations **CONGREF**  
programs **CONGREF**
- private resources **INTRO**  
access to **CONGREF**
- private storage anchor blocks (PSAB) **DIAG**  
PRIVATE storage subpools **CMSMIG**  
PRIVATE subpools **ADGCMS**
- privilege classes **ADMIN, INTRO, SECUR**  
assigning more than 8 **PLNGDE**  
assigning to commands and **DIAGNOSE**  
codes **ADMIN**  
associating with commands and users  
**ADMIN**  
changing **ADMIN**  
changing for internal CP functions  
**ADMIN**  
changing the definition of **ADMIN**  
defining  
eight or fewer **ADMIN**  
for a virtual machine **ADMIN**  
more than eight **ADMIN, PLNGDE**  
described **GENCMD, SYSCMD**  
documentation considerations **ADMIN**  
for CP commands **CMSUG**  
defined **GENCMD, OPGDE,**  
**SYSCMD**  
needed for file pool servers **SFSAD**  
replacing directory entry **SFPROG**
- privileged command **INTRO**  
privileged instructions **ADGCMS**  
tracing **GENCMD**
- PRMLIST** parameter  
ACCEPT function **CONGREF**  
ACCEPT (CMSIUCV) function  
**CONGREF**  
CONNECT **CONGREF**  
of **DCLBFR CONGREF**  
of **DESCRIBE CONGREF**  
of **RECEIVE CONGREF**  
of **SENDCNF CONGREF**  
of **SENDCNFD CONGREF**  
of **SENDDATA CONGREF**  
of **SENDERR CONGREF**  
of **SENDREQ CONGREF**  
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of **SETMASK CONGREF**  
of **SEVER CONGREF**  
of **TESTCMPL CONGREF**
- PROB** command **DIAG**  
description **IPCSREF**  
example session **IPCSREF**  
format **IPCSREF**  
messages **IPCSREF**  
responses  
existing problem **IPCSREF**  
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- PROB** output field of **STAT** command  
**IPCSREF**
- problem  
analysis, synopsis of CP commands used  
**GENCMD, SYSCMD**  
determination  
CP control blocks for MVS guest **RGOS**  
CP procedures **SYSMMSG**  
CP trace table for MVS guest **RGOS**  
general user action **SYSMMSG**  
MVS guest, for **RGOS**  
preferred machine assist, when using  
**RGOS**  
problem solving for MVS guest **RGOS**  
second-level VM system **RGOS**  
service aids for MVS guest **RGOS**  
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trace table recording facility for MVS  
**RGOS**  
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VSE/SP virtual machine **RGOS**
- identifying **DIAG**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- management **IPCSREF**
- migration, investigating **ADMIN**
- number assignment, **IPCS** **IPCSREF**
- number, **IPCS** **IPCSREF**
- report file (PRBnnnnn REPORT) **IPCSREF**
- report generation **IPCSREF**
- report updating **IPCSREF**
- reporting **INTRO**, **IPCSREF**
- related to over migration **ADMIN**
- related to paging hierarchy structure **ADMIN**
- related to under migration **ADMIN**
- state **ADMIN**, **SECUR**
- types **DIAG**
- where to find evidence of **DIAG**
- problem diagnosis **INTRO**, **IPCSREF**
- dumps
  - AVS** **CONPAO**
  - creating (AVS) **CONPAO**
  - creating (TSAF) **CONPAO**
  - TSAF** **CONPAO**
- system trace data
  - AVS** **CONPAO**
  - AVS** external tracing **CONPAO**
  - trapping entries (CPTRAP) **CONPAO**
  - TSAF** **CONPAO**
  - TSAF** external tracing **CONPAO**
  - viewing CPTRAP data **CONPAO**
- Problem Control Facility (PCF) **INTRO**
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**PROFILE XEDIT** file, creating **CMSLOT**  
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       network **CONPAO**  
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       **CONPAO**  
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   **SENDDATA** function **CONGREF**  
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   as a stack **SPIUG**  
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**DESCRIBE CONGREF**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- program temporary fix (PTF)
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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 used in service file types **SERV**  
**PTF** parts list  
 example **SERV**  
 general description **SERV**  
**PTF** (program temporary fix) **IPCSREF**  
 applying **DIAG**  
 definition **ADMIN, SERV,**  
**SYMSG**  
 field **IPCSREF**  
 removing using **VMFREMOV SERV**  
 update level identifier use by **PRELOAD**  
 command **SERV**  
**PTFERROR** operand of **STAT** command  
**IPCSREF**  
**PTFIS** operand of **PRB** command **IPCSREF**  
**PTFON** operand of **PRB** command **IPCSREF**  
**PTFON** operand of **STAT** command  
**IPCSREF**  
**PTFRCVD** operand of **STAT** command  
**IPCSREF**  
**PUBLIC** enrollment  
 at generation time **SFSAD**  
**DELETE PUBLIC** command **SFSAD**  
 deleting **SFSAD**  
**ENROLL PUBLIC** command **SFSAD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- enrolling **SFSAD**
- remote use considerations for **SFSAD**
- verifying **SFSAD**
- PUBLIC** parameter
  - DMSGRANT** (SFS Grant Authority)
  - ADRCMS**
  - DMSREVOK** (SFS Revoke Authority)
  - ADRCMS**
- publications for VM/SP
  - See abstracts of VM/SP manuals
- pubtable **RGOS**
- PULL** command **APGDE**
- PULL** instruction **SPIREF**
  - description of **SPIUG**
  - using **SPIUG**
- PULL** option of **PARSE** instruction **SPIREF**
- PULL** (**REXX** instruction) **CMSLOT**,
- PRIMER**
- punch
  - assembler punch output ddname **CMSREF**
  - files
    - altering attributes of virtual **GENCMD**
    - produced by job running in batch virtual machine **CMSUG**
    - restoring to disk or directory **CMSREF**
  - repositioning output **SYSCMD**
  - restarting output **SYSCMD**
- PUNCH** command
  - description **CMSREF**
  - example **CMSUG**
  - HEADER** card format **CMSREF**
  - HEADER** option **CMSREF**
  - MEMBER** option **CMSREF**
  - NOHEADER** option **CMSREF**
- PUNCH** device type **APGDE**
- PUNCH** operand
  - of **ASSIGN** command **CMSREF**
  - of **CHANGE** command **GENCMD**, **SYSCMD**
  - of **CLOSE** command **GENCMD**
  - of **DEFINE** command **GENCMD**
  - of **DRAIN** command **SYSCMD**
  - of **EXECIO** command **CMSREF**
  - of **FILEDEF** command **CMSREF**
  - of **FREE** command **SYSCMD**
  - of **HOLD** command **SYSCMD**
  - of **ORDER** command **GENCMD**, **SYSCMD**
  - of **PSERV** command **CMSREF**
  - of **PURGE** command **GENCMD**, **SYSCMD**
  - of **QUERY** command **GENCMD**, **SYSCMD**
  - of **SPOOL** command **GENCMD**
  - of **SPTAPE** command **SYSCMD**
- of **START** command **SYSCMD**
- of **TRANSFER** command **GENCMD**, **SYSCMD**
- PUNCHC** macro **ADGCMS**
- ERROR** = operand **ADRCMS**
- writing a line to a virtual punch **ADRCMS**
- punching **ADGCMS**
- CMS** files **CMSUG**
- jobs to batch virtual machine **CMSUG**
- pure number
  - See numbers
- PURGE**
  - IUCV** function **SFPROG**
    - parameter list format **SFPROG**
    - trace table entry format **SFPROG**
    - using **SFPROG**
  - SPOOL** system service function **SFPROG**
- PURGE** command **CMSUG**
  - batch machine output **INTRO**
  - described **GENCMD**, **SYSCMD**
  - example of use **INTRO**
  - operands
    - ALL** **GENCMD**, **SYSCMD**
    - CLASS** **GENCMD**, **SYSCMD**
    - DEST** **SYSCMD**
    - dest1 **SYSCMD**
    - dest2 **SYSCMD**
    - FORCE** **SYSCMD**
    - FORM** **SYSCMD**
    - FORM** form **GENCMD**
    - form1 **SYSCMD**
    - form2 **SYSCMD**
    - PRINTER** **GENCMD**, **SYSCMD**
    - PUNCH** **GENCMD**, **SYSCMD**
    - READER** **GENCMD**, **SYSCMD**
    - spoolid **GENCMD**, **SYSCMD**
    - SYSTEM** **SYSCMD**
    - userid **SYSCMD**
    - \* **SYSCMD**
  - responses **GENCMD**, **SYSCMD**
  - summary **OPGDE**, **SYSCMD**
  - syntax diagram, class D **SYSCMD**
  - to delete spool files **CMSUG**
  - usage notes **GENCMD**, **SYSCMD**
- PURGE** operand
  - of **CLOSE** command **GENCMD**
  - of **GLOBALV** command **CMSREF**
  - of **SPOOL** command **GENCMD**
  - of **SPTAPE** command **SYSCMD**
  - of **START** command **SYSCMD**
- PURGE** parameter list **SRPI**
- PURGE** subcommand **XEDIT**

- purges  
 reducing the number  
 when the virtual machine dispatches a  
 new address space **ADMIN**
- PURGESYS** function **ADMIN, SFPROG**
- purging  
 batch jobs **CMSUG**  
 closed files **GENCMD**  
 closed spool files **GENCMD**  
 named saved segments **SFPROG**  
 saved segments **ADMIN**  
 spool files **GENCMD**  
 storage resident EXECs **SPIREF**  
 the batch facility **OPGDE**
- purpose of GCS in VM/SP **GCSREF**
- PUSH** command **APGDE**
- PUSH** instruction **SPIREF, SPIUG**
- PUSH** option of **NUCXLOAD** command  
**CMSREF**
- PUT** command **CMSLOT**
- PUT** descriptor file  
 example **SERV**  
 function **SERV**
- PUT** macro **ADGCMS**
- PUT** macro (**QSAM**) **GCSREF**  
 area address parameter **GCSREF**  
 dcb address parameter **GCSREF**  
 description **GCSREF**
- PUT** macro (**VSAM**) **GCSREF**  
 description **GCSREF**  
 rpl parameter **GCSREF**
- PUT SCREEN** command **CMSUG**  
 description **CMSREF**  
 format **CMSREF**  
 messages **CMSREF**  
 option  
 fn ft fm **CMSREF**  
 usage notes **CMSREF**
- PUT** subcommand of **XEDIT** command  
**APGDE, XEDIT, XEDITUG**  
 in typewriter mode **XEDITUG**  
 practice exercise using **XEDITUG**  
 example of **XEDIT**  
 with DBCS strings **XEDIT**
- PUT** subfunction of **GLOBALV** command  
**CMSREF**
- PUT VSCREEN** command **CMSUG**  
 description **CMSREF**  
 format **CMSREF**  
 messages **CMSREF**  
 option  
 fn ft fm **CMSREF**  
 fromlin **CMSREF**  
 numlin **CMSREF**  
 vname **CMSREF**  
 usage notes **CMSREF**
- PUT (Program Update Tape)** **INTRO**  
 updates from Level One Support Center  
**INST**
- PUTD** subcommand **XEDIT**  
 with DBCS strings **XEDIT**  
 of **XEDIT** command **APGDE**
- putting  
 data into a file **CMSLOT**  
 data onto the program stack **SPIUG**  
 messages in a file **PRIMER**  
 warnings in a file **PRIMER**  
 words into variables **SPIUG**
- PUTX** macro **ADGCMS**
- PVCENTRY** macro  
 See also **PARSERCB** macro  
 expansion **ADRCMS**  
 generating DSECT for Parser Validation  
 Code Table entry **ADRCMS**
- PVM (VM/Pass-Through Facility)** **GIM,**  
**INTRO, RGOS**  
 abend in **SECUR**  
 safely terminating session **SECUR**  
 dump **INTRO**  
 HELP files **IPCSREF**  
 Load Map **IPCSREF**  
 restrictions imposed by **XEDIT**  
 to **PVM ABEND SECUR**  
 to Remote 4300 **ABEND SECUR**
- PVM MAP** **IPCSREF**  
**PVMIPCS MAP** **IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## Q

- QBE (query by example) **INTRO**
- QDROP operand  
of QUERY command **ADMIN, SYSCMD**  
of SET command **ADMIN, OPGDE, SYSCMD**
- QDROP option **SYSCMD**
- QMF (Query Management Facility) **INTRO**
- QUIT subcommand of XEDIT command  
**APGDE, CMSLOT, PRIMER, XEDIT, XEDITUG**  
in typewriter mode **XEDITUG**
- QRY operand  
of IMMCMD macro **ADRCMS**
- QSAM tape end-of-volume **ADRCMS**
- QUALIFIED OBJECT NAME field  
in FILEPOOL FORMAT AUDIT output  
**SFSAD**
- qual, variable  
described **GENCMD, SYSCMD**
- quantum, definition **ADMIN, SYSMMSG**
- quasi ownership of files **SFSAD**
- QUERY action routine **SFPROG**
- QUERY ACCESSED command **CMSLOT, CMSUG, PRIMER**
- QUERY ALIAS command **CMSUG**
- QUERY AUTODUMP command **DIAG**  
format **DIAG**
- QUERY AUTOSAVE command **PRIMER**
- QUERY BLIP command **CMSMIG**
- query by example (QBE) **INTRO**
- QUERY CACHE command **ADMIN**
- QUERY command **DIAG, GCSREF, TERMREF**  
AUTOSAVE option **CMSLOT**  
class G **GENCMD**  
defined **INTRO**  
description of **ADGCMS, GCSREF, GENCMD, SYSCMD**  
disk operand **GCSREF**  
display color and extended highlight values  
**CMSUG**  
display search order **CMSUG**  
dlbl operand **GCSREF**  
etrace operand **GCSREF**  
example  
using PSTOR operand **ADMIN**  
of use **INTRO**  
filedef operand **GCSREF**  
group operand **GCSREF**  
itrace operand **GCSREF**  
how much space is on a minidisk **CMSUG**  
loadall operand **GCSREF**  
loadcmd operand **GCSREF**  
loadlib operand **GCSREF**  
lock operand **GCSREF**  
NAMES option **CMSLOT, PRIMER**  
operands  
See QUERY command operands  
programmable operator **SFPROG**  
proportion of file space used **CMSUG**  
query CMSPF keys **CMSUG**  
query status of CP SET MSG function  
**CMSUG**  
reply operand **GCSREF**  
responses **GENCMD, SYSCMD**  
search operand **GCSREF**  
STORAGE option **CMSLOT, PRIMER**  
summary **OPGDE, SYSCMD**  
syntax diagram  
class A **SYSCMD**  
class B **SYSCMD**  
class C **SYSCMD**  
class D **SYSCMD**  
class E **SYSCMD**  
class F **SYSCMD**  
TABS option **CMSLOT**  
TSAF **CONPAO**  
userid option **CMSLOT**  
USERS option **CMSLOT, PRIMER**
- QUERY command operands  
**ACTIVE SYSCMD**  
**AFFINITY SYSCMD**  
**ALL GENCMD, SYSCMD**  
**ATTACH SYSCMD**  
**CACHE ADMIN**  
**CHANNELS GENCMD**  
**CLASS GENCMD, SYSCMD**  
class F **SYSCMD**  
**CONSOLE GENCMD**  
**CPASSIST SYSCMD**  
**CPLANG SYSCMD**  
**CPLEVEL GENCMD**  
**CPTRAP SYSCMD**  
**ALL SYSCMD**  
**ID SYSCMD**  
**RECEIVER SYSCMD**  
**SET SYSCMD**  
**trapid SYSCMD**  
**trapset SYSCMD**  
**USER SYSCMD**  
**CPTRAP TYPE SYSCMD**  
**ALL SYSCMD**  
**DATA SYSCMD**  
**GT SYSCMD**  
**INFILE SYSCMD**

INTABLE SYSCMD  
 IO SYSCMD  
 TTABLE SYSCMD  
 typenum SYSCMD  
 CPUID GENCMD  
 CURRENT SYSCMD  
 DASD GENCMD, SYSCMD  
 DEST GENCMD, SYSCMD  
 DUMP SYSCMD  
 DSPSLICE SYSCMD  
 FILES GENCMD, SYSCMD  
 FORM SYSCMD  
 FORM form GENCMD  
 FREE SYSCMD  
 GRAF GENCMD, SYSCMD  
 HOLD GENCMD, SYSCMD  
 IB SYSCMD  
 IBUFF SYSCMD  
 JOURNAL SYSCMD  
 LINES GENCMD, SYSCMD  
 LINKS GENCMD  
 Lnmn SYSCMD  
 LOGMSG SYSCMD  
 lprr SYSCMD  
 MAXPP SYSCMD  
 MAXWSS SYSCMD  
 MINNUMSS SYSCMD  
 MINWS SYSCMD  
 MITIME ADMIN, SYSCMD  
 NAMES GENCMD, SYSCMD  
 NOHOLD GENCMD, SYSCMD  
 null SYSCMD  
 OFFLINE SYSCMD  
 PAGING ADMIN, SYSCMD  
 PATHS SYSCMD  
 PB SYSCMD  
 PCI SYSCMD  
 PER SYSCMD  
 PFnn GENCMD  
 PGFULL SYSCMD  
 PGMACT SYSCMD  
 PGMSTAT SYSCMD  
 PGMTLIM SYSCMD  
 PREPAGE SYSCMD  
 PRINTER GENCMD, SYSCMD  
 PRIORITY SYSCMD  
 PROCESS GENCMD  
 PROCESSR SYSCMD  
 PSF GENCMD, SYSCMD  
 PSTOR ADMIN, SYSCMD  
 PUNCH GENCMD, SYSCMD  
 QDROP ADMIN, SYSCMD  
 raddr SYSCMD  
 READER GENCMD, SYSCMD  
 RESERVE SYSCMD  
 SASSIST SYSCMD  
 SCREEN GENCMD  
 SECUSER GENCMD  
 SET ADMIN, GENCMD  
 SPMODE GENCMD, SYSCMD  
 spoolid GENCMD, SYSCMD  
 SRM ADMIN, SYSCMD  
 SRM PGMACT ADMIN  
 STATUS SYSCMD  
 STORAGE GENCMD, SYSCMD  
 SYSHOLD GENCMD, SYSCMD  
 SYSTEM SYSCMD  
 SYSVIRT SYSCMD  
 S370E GENCMD, SYSCMD  
 TAPES GENCMD, SYSCMD  
 TBL GENCMD, SYSCMD  
 TDSK SYSCMD  
 TERMINAL GENCMD  
 TIME GENCMD  
 traceset-name SYSCMD  
 UR GENCMD, SYSCMD  
 USERHOLD GENCMD, SYSCMD  
 userid SYSCMD  
 USERS SYSCMD  
 vaddr GENCMD  
 VECTOR ADMIN, SYSCMD  
 VIRTUAL GENCMD, SYSCMD  
 VMSAVE ADMIN, GENCMD  
 volid SYSCMD  
 \* GENCMD, SYSCMD  
 QUERY CPLANG command CMSUG  
 responses GENCMD  
 QUERY CPTRAP command DIAG  
 QUERY CPTRAP command (CP) CONPAO  
 QUERY CPUID command  
 response GENCMD  
 QUERY CSLLIB command CMSMIG  
 QUERY DEV/FILE operand  
 of TAG command GENCMD  
 QUERY DISABLE operator command  
 SFSAD  
 QUERY DISK command CMSMIG  
 QUERY EXECTRAC command SPIREF

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- QUERY FILEDEF** command  
determining what file definitions are in effect **ADGCMS**
- QUERY FILEPOOL CONFLICT** command  
**CMSUG, SFSAD**
- QUERY FILEPOOL STATUS** command  
instructions for using **SFSAD**  
reference information for **SFSAD**  
using to determine when reorganization is needed **SFSAD**
- QUERY FILES** command  
response **GENCMD**
- QUERY** function of **IUCV CONGREF**  
condition codes **CONGREF**  
program exception **CONGREF**  
query function, **DIAGNOSE** code **X'EC'**  
**SFPROG**
- QUERY IUCV** function **SFPROG**  
trace table entry format **SFPROG**  
using **SFPROG**
- QUERY LANGLIST** command **CMSUG**
- QUERY LANGUAGE** command **CMSUG**
- QUERY LIBRARY** command **CMSMIG**
- QUERY LIMITS** command **CMSLOT, CMSUG, PRIMER, SFSAD**
- QUERY LINKS** command  
responses **GENCMD**
- QUERY LOCK** command **CMSLOT, CMSUG, PRIMER**
- QUERY LOGMSG** command  
responses **GENCMD**
- QUERY LRECL** **XEDITUG**
- QUERY MACLIB** command **ADGCMS**
- Query Management Facility (QMF) **INTRO**
- QUERY NAMES** command  
responses **GENCMD**
- QUERY** operand  
of **CACHE** command **ADMIN, SYSCMD**  
of **DISABLE** command **SYSCMD**  
of **NETWORK** command **SYSCMD**
- QUERY** operand of **IMMCMD** command  
**CMSREF**
- QUERY PER** command  
responses **GENCMD**
- QUERY PF** command **PRIMER, XEDITUG**
- QUERY PFnn** command  
responses **GENCMD**
- QUERY POINT** **XEDITUG**
- QUERY PRINTER** command  
responses **GENCMD**
- QUERY PROCESSR** command  
responses **GENCMD**
- QUERY PUNCH** command  
responses **GENCMD**
- QUERY READER** command  
responses **GENCMD**
- QUERY RING** **XEDITUG**
- QUERY SCREEN** command  
responses **GENCMD**
- QUERY SEARCH** command **CMSMIG**
- QUERY SECUSER** command  
responses **GENCMD**
- QUERY SEGMENT** command **CMSMIG**  
displaying information about **ADGCMS**
- QUERY SET** command **RGOS**  
response **GENCMD**
- QUERY SPMODE** command  
responses **GENCMD**
- QUERY SRM** command **DIAG**
- QUERY SRM PGMACT** command **PLNGDE**
- QUERY** subcommand of **XEDIT** command  
**APGDE, XEDIT**  
options **XEDIT**
- QUERY S370E** command  
responses **GENCMD**
- QUERY TABS** **XEDITUG**  
in typewriter mode **XEDITUG**  
practice exercise using **XEDITUG**
- QUERY TABS** command **PRIMER**
- QUERY TERMINAL** command  
response **GENCMD**
- QUERY TIME** command  
response **GENCMD**
- QUERY USERID** command  
responses **GENCMD**
- QUERY USERS** command  
responses **GENCMD**
- QUERY USERS** userid command  
responses **GENCMD**
- QUERY VECTOR** command **OPGDE**
- QUERY VIRTUAL CHANNELS** command  
response **GENCMD**
- QUERY VIRTUAL** command  
operands  
**CHANNELS GENCMD**  
**CONSOLE GENCMD**  
**DASD GENCMD**  
**GRAF GENCMD**  
**LINES GENCMD**  
**STORAGE GENCMD**  
**TAPES GENCMD**  
**UR GENCMD**  
vaddr **GENCMD**
- QUERY VIRTUAL CONSOLE** command  
response **GENCMD**

- QUERY VIRTUAL DASD** command  
 responses **GENCMD**
- QUERY VIRTUAL GRAF** command  
 responses **GENCMD**
- QUERY VIRTUAL LINES** command  
 responses **GENCMD**
- QUERY VIRTUAL STORAGE** command  
 responses **GENCMD**
- QUERY VIRTUAL TAPES** command  
 responses **GENCMD**
- QUERY VIRTUAL UR** command  
 responses **GENCMD**
- QUERY VMSAVE** command  
 responses **GENCMD**
- QUERY (ALL)** command  
 operands  
     **CPLANG** **GENCMD**  
     **LOGmsg** **GENCMD**  
     Names **GENCMD**  
     **PER** **GENCMD**  
     userid **GENCMD**  
     Users **GENCMD**  
 responses **GENCMD**
- querying  
     a lock on a file or directory **CMSLOT**,  
         **PRIMER**  
     an address **SFPROG**  
     spool file characteristics **GENCMD**  
     system feature, condition, or event **DIAG**
- queue  
     counting lines in **SPIREF**  
     described **SPIUG**  
     reading from with **PULL** **SPIREF**  
     slice **ADMIN**, **SYSMSG**  
     writing to with **PUSH** **SPIREF**  
     writing to with **QUEUE** **SPIREF**
- QUEUE** command **APGDE**
- queue drop  
     definition **ADMIN**, **SYSMSG**  
     elimination **ADMIN**, **OPGDE**  
     monitored in CP internal trace table  
         **SYSCMD**
- queue drop elimination option of **SET** command  
     **INTRO**
- QUEUE** instruction **SPIREF**, **SPIUG**
- queue-add  
     definition **ADMIN**, **SYSMSG**
- QUEUED** command **APGDE**
- QUEUED** function **SPIREF**
- QUEUES** operand  
     of **INDICATE** command **SYSCMD**
- quickly stopping **AVS**: **CONPAO**
- QUIESCE**  
     IUCV function **SFPROG**  
         parameter list format **SFPROG**  
         trace table entry format **SFPROG**  
         using **SFPROG**  
     VMCF function **SFPROG**
- QUIESCE** command  
     when not to use **RGOS**
- QUIET** operand  
     of **SET** command **SYSCMD**
- QUIT** command **CMSLOT**, **PRIMER**
- QUIT** command of VS FORTRAN interactive  
 debug **APGDE**
- QUIT** subcommand of **IPCSRT** command  
 description **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**  
 messages **IPCSREF**  
 response **IPCSREF**  
 sample output **IPCSREF**  
 usage notes **IPCSREF**
- QUIT** subcommand of **IPCSSCAN** command  
 description **IPCSREF**  
 example output **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**  
 messages **IPCSREF**  
 response **IPCSREF**  
 usage notes **IPCSREF**
- QUIT** subcommand of **XEDIT** command  
**APGDE**, **XEDIT**, **XEDITUG**  
     protected **XEDIT**  
     unprotected **XEDIT**  
     versus **QQUIT** **XEDIT**  
     in typewriter mode **XEDITUG**  
     to terminate an edit session **CMSUG**
- quitting multiple files **XEDIT**
- quotation marks **SPIUG**  
     in EXECs **PRIMER**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



# Q

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QUOTE parameter of SQL **APGDE**

QVM command

described **SYSCMD**

operands

NORETURN **SYSCMD**

userid **SYSCMD**

summary **OPGDE, SYSCMD**

syntax diagram, class A **SYSCMD**

usage notes **SYSCMD**

Q1 operand

of SET command **SYSCMD**

Q2 operand

of SET command **SYSCMD**

## R

R border command **PRIMER**

RACF (Resource Access Control Facility)

- ADMIN, SECUR**
  - access control
  - by disk access **SECUR**
  - benefits of **SECUR**
  - exits **SECUR**
  - optional features
    - general resource protection **SECUR**
    - generic profile checking **SECUR**
    - global access checking **SECUR**
    - RACF exits **SECUR**
    - RACF report writer **SECUR**
    - real-time violation notification **SECUR**
    - security category checking **SECUR**
    - security level checking **SECUR**
  - report writer **SECUR**
- raddr **TERMREF**
  - definition **TERMREF**
- raddr operand
  - of ARIOBLOK subcommand **IPCSREF**
  - of ATTACH command **SYSCMD**
  - of BACKSPAC command **SYSCMD**
  - of CACHE command **SYSCMD**
  - of DEFINE command **SYSCMD**
  - of DETACH command **SYSCMD**
  - of DISABLE command **SYSCMD**
  - of DRAIN command **SYSCMD**
  - of ENABLE command **SYSCMD**
  - of FLUSH command **SYSCMD**
  - of HALT command **SYSCMD**
  - of LOCATE command **SYSCMD**
  - of MONITOR command **SYSCMD**
  - of REPEAT command **SYSCMD**
  - of RIOBLOK subcommand **IPCSREF**
  - of SET command **SYSCMD**
  - of SHUTDOWN command **SYSCMD**
  - of SPACE command **SYSCMD**
  - of START command **SYSCMD**
  - of VARY command **SYSCMD**
- raddr, variable
  - described **GENCMD, SYSCMD**
- RANDOM function **SPIREF, SPIUG**
- random number function of **RANDOM SPIREF**
- RANGE keyword of PER command **DIAG**

- range
  - defining **XEDIT**
  - of numbers **SPIUG**
  - of operation of subcommands, defining **XEDITUG**
- RANGE option
  - of **EXTRACT XEDIT**
  - of PER command **GENCMD**
  - of **QUERY XEDIT**
  - of **SET XEDIT**
  - of **TRANSFER XEDIT**
- range, variable
  - described **GENCMD, SYSCMD**
- rates
  - migration **ADMIN**
- RC (return code)
  - not set during interactive debug **SPIREF**
  - set by host commands **SPIREF**
  - set to 0 if commands inhibited **SPIREF**
  - special variable **SPIREF, SPIUG**
- RCHANNEL macro **RGOS**
  - example **PLNGDE**
  - format **PLNGDE**
  - operands
    - ADDRESS PLNGDE**
    - CHTYPE PLNGDE**
- RCHBLOK **DIAG, SYSCMD**
  - creating **PLNGDE**
  - generated label **PLNGDE**
- RCODE (keyword definition) **IPCSREF**
- RCTLUNIT macro **ADMIN**
  - channel errors **PLNGDE**
  - coding to support the 3880 Storage Subsystem **PLNGDE**
  - configuration aid **PLNGDE**
  - example **PLNGDE**
  - format **PLNGDE**
  - operands
    - ADDRESS PLNGDE**
    - ALTCH PLNGDE**
    - CUTYPE PLNGDE**
    - FEATURE PLNGDE**
    - UCW PLNGDE**
    - xxx-DEVICE feature **PLNGDE**
- RCUBLOK **DIAG, SYSCMD**
  - addressing **PLNGDE**
  - creating **PLNGDE**
  - label generated **PLNGDE**
- RCVRID operand
  - of **NAMESYS** macro **PLNGDE**

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- rc, variable  
described **GENCMD, SYSCMD**
- RC** = operand  
CMSRET macro **ADRCMS**
- RD** option of **DSERV** command **CMSREF**
- RDCARD** macro **ADGCMS**  
ERROR = operand **ADRCMS**  
RDAHEAD = operand **ADRCMS**  
reading a line from virtual reader  
**ADRCMS**
- RDEVBLK DIAG, SYSCMD**  
creating **PLNGDE**  
label generated **PLNGDE**
- RDEVICE** macro **ADMIN**  
coding **PLNGDE**  
EP 3704/3705/3725 control program  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**nnn SYSCMD**  
**raddr SYSCMD**  
**1 SYSCMD**  
 responses **SYSCMD**  
 summary **OPGDE**, **SYSCMD**  
 syntax diagram, class D **SYSCMD**
- REPEAT** subcommand **XEDIT**
- repeated substitution **SPIUG**
- repeating  
 a string with **COPIES SPIREF**  
 last command **CMSLOT**  
 last subcommand **XEDIT**  
 lines **EXEC2**  
 the display of a subcommand **XEDITUG**  
 the execution of a subcommand  
**XEDITUG**
- XEDIT** commands **PRIMER**
- repetitive loops **SPIUG**  
 altering flow **SPIREF**  
 controlled repetitive loops **SPIREF**  
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 simple do group **SPIREF**  
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- repetitive output **DIAG**
- replace **ADRCMS**  
 file in reader **CMSLOT**  
 line in a file **CMSLOT**  
 option  
 of **COPYFILE** command **CMSREF**  
 of **DISK** command **CMSREF**  
 of **LOADLIB** command **CMSREF**  
 of **NOTE** command **CMSREF**
- REPLACE** command **CMSLOT**
- replace function  
 See **REP** function (**HNDIUCV** macro)
- Replace loader control statement **ADGCMS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**REPLACE parameter****DMSFILEC** (SFS Filecopy) **ADRCMS****DMSOPEN** (SFS Open) **ADRCMS**

product parameter file override area

**SERV****REPLACE statement ADGCMS****REPLACE subcommand of XEDIT command****APGDE, XEDIT**example of **XEDIT**in typewriter mode **XEDITUG**with DBCS strings **XEDIT**

## replace system information

callable services library **ADGCMS**calling from REXX **ADGCMS**features of **ADGCMS**

## replace (REP)

image of statement in load map **CMSREF**loader control statement **CMSREF**

## replacing

a file **PRIMER**a file pool minidisk **SFSAD**a line in typewriter mode **XEDITUG**a member of a **MACLIB** in OS/MVS**ADGCMS**a logical operator **SFPROG****LGLOPR** action routine **SFPROG****LGLOPR** command **SFPROG**

## characters

using **COVERLAY XEDIT**using **CREPLACE XEDIT**current line **XEDIT**data globally **XEDITUG**in typewriter mode **XEDITUG**data selectively **XEDITUG**in typewriter mode **XEDITUG**data using **CHANGE XEDITUG**in typewriter mode **XEDITUG**data using **COVERLAY XEDITUG**data using **CREPLACE XEDITUG**system information **ADRCMS****REPLY****IUCV** function **SFPROG**parameter list format **SFPROG**trace table entry format **SFPROG**using **SFPROG****VMCF** function **SFPROG****REPLY** command **GCSREF**description **GCSREF**replying to messages **GCSREF**

## reporting

errors **SAACOM**problems **INTRO, IPCSREF**

## repositioning

data **XEDITUG**output **SYSCMD**

## repository files

message repository **ADRCMS****AVS CONPAO****TSAF CONPAO**using **ADGCMS****REPRO** access method services function**ADGCMS**Reqby Log (SNA service) **SERV**definition **SERV**example **SERV**types of entries **SERV**

## request block

for accessing variables **SPIREF****REQUEST** command **CMSUG, GENCMD,****TERMREF**described **GENCMD**responses **GENCMD**usage notes **GENCMD**

## request confirmation

See **SENDCNF** function of **APPC/VM**

## request to send

See **SENDREQ** function of **APPC/VM**request-to-send interrupt **CONGREF**requester virtual machine **CONGREF**

accessing communications directories

**CONPAO****APPCPASS CONPAO**

CP directory entry

explicit authorization to connect to resources

**CONPAO**

specifying target system security information

in **CONPAO**description of **CONPAO**password, specifying in CP directory **CONPAO**preparing to connect to resources **CONPAO**

requester password, specifying in

communications directory **CONPAO**setting up **CONPAO**

user ID, specifying in communications directory

**CONPAO**user ID, specifying in CP directory **CONPAO**

user program

See user program

## requesting

confirmation **CONGREF**information **GCSREF**machine configuration **SYSCMD**paging information **SYSCMD**scheduling information **SYSCMD**status information **INTRO**

system resource/gateway table information

**SFPROG**system status **SYSCMD**

- Request\_to\_Send (CMRTS) routine **CONGREF**  
 call description **SAACOM**  
 example flow using **SAACOM**
- REQUEST\_TO\_SEND**, APPC verb  
 abend conditions **CONGREF**  
 mapped with APPC/VM **CONGREF**  
 parameters **CONGREF**  
 state changes **CONGREF**
- REQUEST\_TO\_SEND\_RECEIVED** parameter (APPC)  
 of **CONFIRM CONGREF**  
 of **RECEIVE\_AND\_WAIT CONGREF**  
 of **SEND\_DATA CONGREF**  
 of **SEND\_ERROR CONGREF**
- requirements  
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 for storage of directory group names **ADMIN**
- rerunning commands **PRIMER**
- RES** function (HNDIUCV macro)  
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- reservation of keywords **SPIREF**
- reserve CCW, definition of  
 MVS guest **RGOS**  
 VSE **RGOS**
- RESERVE** command **SFPROG, SFSAD**  
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 of SET command **OPGDE, RGOS**
- RESERVE** operand  
 of **QUERY** command **SYSCMD**  
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- reserved line  
 displaying data on **XEDIT**  
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- RESERVED** option  
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- reserved page frames  
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- reserved page option, SET command **INTRO**
- reserved words  
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 how it works **RGOS**  
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- VSE virtual machine  
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 how it works **RGOS**  
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- reserving a line **XEDIT**
- RESET XEDITUG**  
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 of **INCLUDE** command **CMSREF**  
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- reset button  
 simulating **GENCMD**
- RESET** command **CMSUG, GENCMD, PRIMER, RGOS**  
 described **GENCMD**  
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 operand  
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- RESET** key **PRIMER, XEDITUG**  
 to end insert mode **XEDITUG**
- RESET** operand of **SYSTEM** command **GENCMD**
- RESET** option of **INCLUDE** and **LOAD** commands **APGDE**
- RESET** parameter list **SRPI**
- RESET** state **CONGREF, SAACOM**
- RESET** state (APPC) **CONGREF**
- RESET** subcommand **XEDIT**  
 example of **XEDIT**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## resetting

column pointer **CMSLOT**  
 OS environment **CMSREF**  
 preferred machine assist feature **GENCMD**  
 the prefix area **PRIMER**  
 virtual machine **GENCMD**  
 VSAM environment **CMSREF**  
 write and read pointers **ADRCMS**

## resid operand

of **NETWORK** command **SYSCMD**

**RESID** parameter of **CONNECT** **CONGREF**

## residency mode

definition of **ADGCMS**, **CMSMIG**  
 setting **ADGCMS**, **CMSMIG**  
 valid combinations with addressing mode  
**CMSMIG**  
 when to specify **ADGCMS**

resident pages dumped with stand-alone dump  
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resident nucleus, ending address **SERV**

resid, variable

described **GENCMD**, **SYSCMD**

**RESOLVE** function (**CMSIUCV** macro)

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resource **CONGREF**

accessibility **CONPAO**

authorization to

connect to **CONPAO**

manage global/local **CONPAO**

manage private **CONPAO**

communications directory **CONPAO**

description **CONGREF**

description of **CONPAO**

differences between types of **CONPAO**

global **CONGREF**, **CONPAO**

See also global resource

global, accessibility **CMSMIG**

**ID** **CONPAO**

See also transaction program name  
 for resource in SNA network **CONPAO**

**IUCV** control statement **CONPAO**

unique **CONPAO**

## identification

remote 3270 devices **SYSCMD**

## identifying

in connection request **CONPAO**

in global/local resource manager directory  
**CONPAO**

in private resource server virtual machine  
 directory **CONPAO**

multiple global/local resources **CONPAO**

target of request **CONPAO**

to collection **CONPAO**

using symbolic destination name  
**CONPAO**

local **CONGREF**, **CONPAO**

See also local, resource  
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locally known LU name for **CONPAO**

LU name qualifier for **CONPAO**

management, real **INTRO**

manager **CONPAO**

description of **CONPAO**

program **CONGREF**

manager, server virtual machine

See also server, virtual machine

environment for private **CONPAO**

setting up **CONPAO**

name space **CONPAO**

preparing user programs to connect to  
**CONPAO**

private **CONGREF**, **CONPAO**

See also private resource

accessability **CMSMIG**

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resource in SNA network

overview of communications with

**CONPAO**

sample communications directory entry for  
**CONPAO**

specifying locally known LU name  
**CONPAO**

revoking your own **CONGREF**

security access to **CMSMIG**

server virtual machine

See server, virtual machine

symbolic destination name for **CONPAO**

transaction program name **CONPAO**

transparent access to **CMSMIG**

types **CONPAO**

unique **CONPAO**

virtual machines connecting to **CONGREF**

Resource Access Control Facility (**RACF**)

See **RACF** (Resource Access Control  
 Facility)

resource function type **SYSCMD**

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description **CONGREF**

**RESOURCE ID** filed

of **CONNECT** request (**\*IDENT**)

**CONGREF**

resource **ID** operand

of **IUCV** directory control statement

**PLNGDE**

resource operand of **FDISPLAY** subcommand  
**IPCSREF**

RESOURCE parameter (APPC)  
 of CONFIRM CONGREF  
 of CONFIRMED CONGREF  
 of DEALLOCATE CONGREF  
 of RECEIVE\_AND\_WAIT CONGREF  
 of REQUEST\_TO\_SEND CONGREF  
 of SEND\_DATA CONGREF  
 of SEND\_ERROR CONGREF

RESOURCE (SQL table creation authority)

**APGDE**

respecting case difference **XEDIT**

responding to prompting messages from

**AMSERV** in an **EXEC ADGCMS**

**RESPONSE** class monitor records **ADMIN**

**RESPONSE** operand

of **MONITOR** command **SYSCMD**

responses

for **ACNT** command **SYSCMD**

for **ADSTOP** command **GENCMD**

for **ATTACH** command **SYSCMD**

for **AUTOLOG** command **SYSCMD**

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**GENCMD**

for **QUERY NAMES** command **GENCMD**

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for **QUERY PROCESSR** command

**GENCMD**

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**GENCMD**

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**GENCMD**

for **QUERY SET** command **GENCMD**

for **QUERY SPMODE** command

**GENCMD**

for **QUERY S370E** command **GENCMD**

for **QUERY TERMINAL** command

**GENCMD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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 for QUERY USERID command **GENCMD**  
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 for QUERY VIRTUAL STORAGE  
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     of **DDR** (**DASD DUMP/Restore**) **ADMIN**,  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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deleted lines XEDIT	X'98', subcode X'0004' SFPROG
lines	X'98', subcode X'0008' SFPROG
saved by PUT XEDIT	field in CPRB on server exit SRPI
saved by PUTD XEDIT	FINDSYS function SFPROG
previously entered data CMSUG	for FILESERV commands SFSAD
RETRY operand	from access method services ADGCMS,
of SET command SYSCMD	CMSREF
RETURN CMS subset command to leave subset	from CMS DDR Command SYSMMSG
CMSUG	from CMS EXEC interpreter CMSREF
return codes APGDE, DIAG, EXEC2, SAACOM,	from CP DIRECT Command SYSMMSG
SYSMMSG	from CSL SFSAD
ACCEPT (CMSIUCV) function CONGREF	from CSL (Callable Services Library)
ACCEPT (IUCV) function CONGREF	SYSMMSG
ADDRQRY function SFPROG	from DMSJNE SFSAD
APPC CONGREF	from DMS2AB SFSAD
as set by host commands SPIREF	from EXEC 2 interpreter CMSREF
CLR (clear) function CONGREF	from IPCS SYSMMSG
CMS and CP SPIUG	from MAKEBUF command effect on
CMS in exec procedure CMSREF	&ERROR statement CMSREF
CMSIUCV SFPROG	from System Product Interpreter CMSREF
CONNECT (APPCVM) function	from the CMS Extract/Replace Facility
CONGREF	SYSMMSG
CONNECT (CMSIUCV) function	HLD (hold) function CONGREF
CONGREF	HLD (hold) function CONGREF
CONNECT (IUCV) function CONGREF	HNDIUCV SFPROG
DASD Block I/O System Service SFPROG	IBM ECF SRPI
DCLBFR function CONGREF	in CMS ready message CMSUG
DIAGNOSE code	in PLIST SRPI
X'BC' SFPROG	in REXX variable RC SRPI
X'CC' SFPROG	in server request-handling sequence SRPI
X'C8' SFPROG	

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

in service reply (user defined) **SRPI**  
 in variable RC or &RC **SRPI**  
**IUCV**  
   **ACCEPT SFPROG**  
   **CONNECT SFPROG**  
   **DECLARE BUFFER SFPROG**  
   **DESCRIBE SFPROG**  
   **PURGE SFPROG**  
   **QUIESCE SFPROG**  
   **RECEIVE SFPROG**  
   **REJECT SFPROG**  
   **REPLY SFPROG**  
   **RESUME SFPROG**  
   **SEND SFPROG**  
   **SET CONTROL MASK SFPROG**  
   **SET MASK SFPROG**  
   **SEVER SFPROG**  
   **TEST COMPLETION SFPROG**  
**LOADSYS** function **SFPROG**  
 on return from **SENDREQ SRPI**  
 placement **ADRCMS**  
**PURGESYS** function **SFPROG**  
 read, write, multi password prompt  
   **SFPROG**  
**RECEIVE** function **CONGREF**  
**REP** (replace) function **CONGREF**  
**RES** (resume) function **CONGREF**  
**RESOLVE** (CMSIUCV) function  
   **CONGREF**  
**REXX SPIUG**  
**SENDCNF** function **CONGREF**  
**SENDCNFD** function **CONGREF**  
**SENDDATA** function **CONGREF**  
**SENDERR** function **CONGREF**  
**SENDREQ** function **CONGREF**  
**SET** function **CONGREF**  
 setting by server in **CPRB** field **SRPI**  
 setting on exit **SPIREF**  
**SEVER** (APPCVM) function **CONGREF**  
**SEVER** (CMSIUCV) function **CONGREF**  
**SEVER** (IUCV) function **CONGREF**  
 Signal System Service **SFPROG**  
**SRPI** variable **RTNC** on return from  
   **SENDREQ SRPI**  
**TESTCMPL** function **CONGREF**  
**VMCF SFPROG**  
 return codes and reason codes  
   reason codes common to SFS program  
   functions **ADRCMS**  
   relating to SFS program functions  
   **ADRCMS**  
**RETURN** command **APGDE**  
 return DASD start of **LOGREC** area  
   **SFPROG**  
**RETURN** instruction **SPIREF**, **SPIUG**  
   **RETURN** macro **GCSREF**  
     description **GCSREF**  
     rc parameter **GCSREF**  
     rg parameter **GCSREF**  
     t parameter **GCSREF**  
**RETURN** operand  
   of **GIVE** command **SYSCMD**  
**RETURN** parameter for **CONNECT**  
   (**APPCVM**) function **CONGREF**  
 return string, setting on exit **SPIREF**  
 return to CMS from CP **APGDE**  
 returning  
   control from **REXX** program **SPIREF**  
   from a function or routine **SPIUG**  
   from CMS subset mode **XEDIT**  
   from CP **XEDIT**  
 return\_code characteristic  
   definitions of values **SAACOM**  
   possible values **SAACOM**  
**RETURN\_CODE** parameter (**APPC**)  
   of **CONFIRM CONGREF**  
   of **DEALLOCATE CONGREF**  
   of **RECEIVE\_AND\_WAIT CONGREF**  
   of **SEND\_DATA CONGREF**  
   of **SEND\_ERROR CONGREF**  
 return\_control characteristic  
   possible values **SAACOM**  
   set **SAACOM**  
**REUS** option of **LKED** command **APGDE**,  
   **CMSREF**  
**REUSE** subcommand of **IPCSSCAN**  
   command  
     description **IPCSREF**  
     example output **IPCSREF**  
     format **IPCSREF**  
     functional category **IPCSREF**  
     messages **IPCSREF**  
     responses **IPCSREF**  
     usage notes **IPCSREF**  
**REUSEAD** **IPCSREF**  
**REVERSE** function **SPIREF**  
 reverse locate **PRIMER**  
 reverse tab key **PRIMER**  
 reviewing messages and warnings **PRIMER**  
 review, definition **INTRO**  
**REVOKE** **ADMIN** operator command  
   instructions for using **SFSAD**  
   reference information for **SFSAD**  
**REVOKE** **AUTHORITY** command  
   **CMSLOT**, **PRIMER**  
**REVOKE** operand  
   of **IUCV** directory control statement  
   **PLNGDE**  
 revoked alias **SFSAD**  
   definition of **CMSREF**

- revoking
- a global resource or gateway **SFPROG**
  - access privileges **ADRCMS**
  - gateway collection identification **CONPAO**
  - global resource **CONPAO**
  - groups that can revoke **CONGREF**
  - local resource **CONPAO**
  - your own resources **CONGREF**
- revoking authority **CMSLOT**, **CMSUG**,  
**PRIMER**
- REWIND** command **APGDE**, **CMSUG**,  
**GENCMD**
- described **GENCMD**
  - operands
    - vaddr **GENCMD**
  - responses **GENCMD**
  - usage notes **GENCMD**
- REWIND** operand
- of **SPTAPE** command **SYSCMD**
- rewinding a real tape **GENCMD**
- REWRITE** operand
- of **DEFNUC** macro **PLNGDE**
- REXX** (Restructured Extended Executor)
- language **APGDE**, **INTRO**,  
**PRIMER**, **SPIREF**
  - compound symbols **APGDE**
  - file used as **XEDIT** macro **XEDITUG**
  - FILEDEF** commands in **APGDE**
  - functions **APGDE**
  - interface to **APPC/VM** **CMSMIG**
  - interfacing routines
    - DMSCCE** (Calling a **REXX EXEC**)  
**ADRCMS**
    - DMSCDR** (Drop a **REXX Variable**)  
**ADRCMS**
    - DMSCGR** (Get a **REXX Variable**)  
**ADRCMS**
    - DMSCGS** (Get Special **REXX Values**)  
**ADRCMS**
    - DMSCGX** (Get the Next **REXX Variable**)  
**ADRCMS**
    - DMSCSR** (Set a **REXX Variable**)  
**ADRCMS**
  - language **CONGREF**
  - MACLIBs** in **APGDE**
  - prototyping algorithms with **APGDE**
  - subroutines **APGDE**
  - substitution rules **APGDE**
  - TXTLIBs** in **APGDE**
  - interpreter structure **SPIREF**
- RGTLEFT** subcommand **XEDIT**
- rid, variable
- described **GENCMD**, **SYSCMD**
- RIGHT** command of **DMS/CMS** **APGDE**
- RIGHT** function **SPIREF**
- right shift **XEDIT**
- RIGHT** subcommand **XEDIT**, **XEDITUG**
- example of **XEDIT**
- right-justified **EXEC2**
- ring of files **XEDIT**, **XEDITUG**
- editing **XEDITUG**
  - illustration of **XEDITUG**
- RING** option
- of **EXTRACT** **XEDIT**
  - of **QUERY** **XEDIT**
- RIOBLOK** subcommand of **IPCSSCAN**
- command
    - description **IPCSREF**
    - example output **IPCSREF**
    - format **IPCSREF**
    - functional category **IPCSREF**
    - messages **IPCSREF**
    - operand **IPCSREF**
    - responses **IPCSREF**
    - usage notes **IPCSREF**
- RIOGEN** macro
- example **PLNGDE**
  - format **PLNGDE**
  - operands
    - ALTCONS** **PLNGDE**
    - CONS** **PLNGDE**
    - SRF** **PLNGDE**
- risk
- accepting the **SECUR**
  - analysis, performing **SECUR**
- RL** command
- See **RDRLIST** command
- RLD** option of **ASSEMBLE** command  
**CMSREF**
- RLDSAVE** option
- of **INCLUDE** command **CMSREF**
  - of **LOAD** command **CMSREF**
- RLSE** output field of **STAT** command  
**IPCSREF**
- RLU** operand of **GDISPLAY** subcommand  
**IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**RMODE**

See residency mode

**RMODE** pseudo-op **ADGCMS**, **CMSMIG****RMSIZE** parameterof **SYSCOR** macro **ADMIN**, **RGOS****RO** code, exception log messages **SERV****ROLLBACK WORK** command **APGDE****ROLLBACK WORK** command of **SQL****APGDE**

rolling back changes to one or more files

**ADRCMS**SFS file changes **ADGCMS**

rounding

definition **SPIREF**numbers **SPIUG**

using a character string as a number

**SPIREF****ROUTE** command **CMSUG**

operands

**ROUTE** statement **SFPROG**

See also programmable operator facility

routines

See also functions

See also subroutines

access verification **ADMIN**action **SFPROG****CMACCP** (Accept) **CONGREF****CMALLC** (Allocate) **CONGREF****CMCFM** (Confirm) **CONGREF****CMCFMD** (Confirmed) **CONGREF****CMDEAL** (Deallocate) **CONGREF****CMECT** (Extract\_Conversation\_Type)**CONGREF****CMEMN** (Extract\_Mode\_Name) **CONGREF****CMEPLN** (Extract\_Partner\_LU\_Name)**CONGREF****CMESL** (Extract\_Sync\_Level) **CONGREF****CMFLUS** (Flush) **CONGREF****CMINIT** (Initialize\_Conversation)**CONGREF****CMPTR** (Prepare\_to\_Receive) **CONGREF****CMRCV** (Receive) **CONGREF****CMRTS** (Request\_to\_Send) **CONGREF****CMSCT** (Set\_Conversation\_Type)**CONGREF****CMSDT** (Set\_Deallocate\_Type) **CONGREF****CMSD** (Set\_Error\_Direction) **CONGREF****CMSD** (Send) **CONGREF****CMSERR** (Send\_Error) **CONGREF****CMSF** (Set\_Fill) **CONGREF****CMSLD** (Set\_Log\_Data) **CONGREF****CMSMN** (Set\_Mode\_Name) **CONGREF****CMSPLN** (Set\_Partner\_LU\_Name)**CONGREF****CMSPTR** (Set\_Prepare\_to\_Receive\_Type)**CONGREF****CMSRC** (Set\_Return\_Control) **CONGREF****CMSRT** (Set\_Receive\_Type) **CONGREF****CMSL** (Set\_Sync\_Level) **CONGREF****CMSST** (Set\_Send\_Type) **CONGREF****CMSTPN** (Set\_TP\_Name) **CONGREF****CMTRTS** (Test\_Request\_to\_Send\_Received)**CONGREF****CPI** Communications **CMSMIG****DMSCBLK** (SFS Close Blocks) **SFSAD****DMSCLCAT** (SFS Close Catalog) **SFSAD****DMSCPYBF** (SFS Copy Buffer) **SFSAD****DMSDEUSR** (SFS Delete User) **SFSAD****DMSDISFS** (SFS Disable File Space) **SFSAD****DMSDISSG** (SFS Disable Storage Group)**SFSAD****DMSENAFS** (SFS Enable File Space) **SFSAD****DMSENASG** (SFS Enable Storage Group)**SFSAD****DMSENUSR** (SFS Enroll User) **SFSAD****DMSOPBLK** (SFS Open Blocks) **SFSAD****DMSOPCAT** (SFS Open Catalog) **SFSAD****DMSQLIM** (SFS Query Limits) **SFSAD****DMSQLIMD** (SFS Query Limits—Deblocker)**SFSAD****DMSRDBLK** (SFS Read Blocks) **SFSAD****DMSRDCAT** (SFS Read Catalog) **SFSAD****DMSRELBK** (SFS Release Blocks) **SFSAD****DMSWRACC** (SFS Write Accounting Record)**SFSAD****DMSWRBLK** (SFS Write Blocks) **SFSAD****DMSWRCAT** (SFS Write Catalog) **SFSAD****XCECSU**

(Extract\_Conversation\_Security\_User\_ID)

**CONGREF****XCIDRM** (Identify\_Resource\_Manager)**CONGREF****XCSCSP**

(Set\_Conversation\_Security\_Password)

**CONGREF****XCSCST** (Set\_Conversation\_Security\_Type)**CONGREF****XCSCSU**

(Set\_Conversation\_Security\_User\_ID)

**CONGREF****XCSCUI** (Set\_Client\_Security\_User\_ID)**CONGREF****XCTRRM** (Terminate\_Resource\_Manager)**CONGREF****XCWOE** (Wait\_on\_Event) **CONGREF**

routine, variable

described **GENCMD**, **SYSCMD**

- routing **CONPAO**  
 dynamic configuration **CONPAO**  
 failure **CONPAO**  
 selection **CONPAO**
- routing operand of **FDISPLAY** subcommand  
**IPCSREF**
- routing table (**RTABLE**) **SFPROG**  
 See also programmable operator facility  
 for programmable operator **INTRO**
- RPIUCMS MODULE SFSAD**
- RPL** macro (**VSAM**) **GCSREF**  
 acb parameter **GCSREF**  
 area parameter **GCSREF**  
 arealen parameter **GCSREF**  
 arg parameter **GCSREF**  
 description **GCSREF**  
 ecb parameter **GCSREF**  
 keylen parameter **GCSREF**  
 nrxrpl parameter **GCSREF**  
 optcd parameter **GCSREF**  
 reclen parameter **GCSREF**
- RPWLST DATA** file **INST, PLNGDE**
- RQ** code, exception log messages **SERV**
- rr**, variable  
 described **GENCMD, SYSCMD**
- RSCS** (Remote Spooling Communications  
 Subsystem) **TERMREF**  
 definition **ADMIN, SYMSMSG**  
 publications **TERMREF**  
 spooling to remote locations **OPGDE**  
 wait state codes **SYMSMSG**  
 networking **INTRO, TERMREF**  
 directory options **SECUR**  
 dump **INTRO**  
**HELP** file **IPCSREF**  
 programmable operator facility relationship  
**SFPROG**  
 security in **SECUR**  
 virtual machine **RGOS**  
 Wait State Codes **SYMSMSG**
- RSCSIPCS MAP** **IPCSREF**
- RSCSNET** **IPCSREF**
- RSCSNET Load Map** **IPCSREF**
- RSCSNET MAP** **IPCSREF**
- RSCSV2** dump option of **IPCSPRT** command  
**IPCSREF**
- RSCSV2 Load Map** **IPCSREF**
- RSERV** command  
 description of **ADGCMS**  
 examples **ADGCMS**
- RSRTOPSW** (restart old PSW) **DIAG**
- RSSIZE** parameter  
 of **SYSCOR** macro **ADMIN, RGOS**
- rstor**, variable  
 described **GENCMD, SYSCMD**
- RT** (Resume Type) Immediate command  
**CMSUG**  
 SET **CMSTYPE** **RT** command **SPIUG**
- RTABLE** (routing table) **SFPROG**  
 See also programmable operator facility  
 for programmable operator **INTRO**
- RTARGET** option of **ALL XEDIT**
- RTNDROP** command **CMSMIG**
- RTNLOAD** command **CMSMIG, CONGREF**
- RTNMAP** command **CMSMIG**
- RTNSTATE** command **CMSMIG**
- RTRVBFR** function of **IUCV CONGREF**  
 communication partner, effect on  
**CONGREF**  
 completion **CONGREF**  
 condition codes **CONGREF**  
 parameter list **CONGREF**  
 program exceptions **CONGREF**  
 state changes **CONGREF**
- rules  
 for entering subcommands **XEDIT**  
 of authorization, GCS dumping facilities  
**DIAG**
- RUN** command **APGDE, INTRO**
- run list  
 definition **ADMIN, SYMSMSG**  
 finding place on **SYSCMD**
- RUN** operand  
 of **PER** Command **GENCMD**  
 of **SET** command **GENCMD**  
 of **SPTAPE** command **SYSCMD**  
 of **TRACE** command **GENCMD**
- RUN** subcommand  
 of **TESTCOB** command **APGDE**  
 of **TESTFORT** command **APGDE**
- run user requests  
 monitored in **CP** internal trace table  
**SYSCMD**
- run-away write **SFSAD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## running

AVS **CONPAO**

a compiler **PRIMER**

a program **CMSLOT, PRIMER**

an EXEC **PRIMER**

commands again **PRIMER**

DDR stand-alone **ADMIN**

DDR under CMS **ADMIN**

multiple VSE virtual machines **RGOS**

off the end of a program **SPIREF**

programs under CMS **INTRO**

task **DIAG**

the programmable operator from NCCF or  
NetView **SFPROG**

**TSAF CONPAO**

VM under VM **RGOS**

with active microcode assist **DIAG**

RUNNING status on display screen **APGDE,**  
**CMSUG**

RUNSERVE EXEC **INST**

RUNTSAF command (TSAF) **CONPAO**

RUNUSER (current user) **DIAG**

RX prefix on external routines **SPIREF**

RXSYSFN description **SPIREF**

R/O operand

of ATTACH command **SYSCMD**

of GIVE command **SYSCMD**

## S

S prefix macro **XEDIT**  
 S prefix subcommand of XEDIT command  
**APGDE**  
 SAA (Systems Application Architecture)  
**CMSMIG, CONPAO, INTRO**  
 interface definition table **SAACOM**  
 overview **SAACOM**  
 product relationship **SAACOM**  
 related publications **SAACOM**  
 supported environments **SAACOM**  
 SAC component of file pool server **SFSAD**  
 SACBs **DIAG**  
 major SACBs **DIAG**  
 minor SACBs **DIAG**  
 scanning major SACBs **DIAG**  
 scanning minor SACBs **DIAG**  
 scanning SACBs **DIAG**  
 SAD frames (system activity display) frames  
**OPGDE**  
 SAD MACRO **DIAG**  
 SADGEN ASSEMBLE file **DIAG**  
 SADGEN TEXT file **DIAG**  
 SADUMP EXEC **DIAG**  
 example **DIAG**  
 SADUMP operand  
 of SPTAPE command **SYSCMD**  
 SAM (sequential access method)  
 declarative macros **ADGCMS, ADRCMS**  
 I/O macros **ADGCMS, ADRCMS**  
 reading **ADGCMS**  
 support using **CMSBAM INST**  
 SAME option of INCLUDE command  
**CMSREF**  
 same system, communications within  
**CONGREF**  
 SAMGEN EXEC **INST, INTRO**  
 sample  
 See also examples  
**AGWPROF GCS CONPAO**  
**APPCPASS** directory statement **CONPAO**  
**APPL** definition statement **CONPAO**  
**AVS** virtual machine directory **CONPAO**  
**CMS IUCV** program **SFPROG**  
 communications directory file entries  
**CONPAO**

control statements (**IUCV**) for  
 to access resources **CONPAO**  
 to use gateways **CONPAO**  
 directory  
 for 3350 **PLNGDE**  
 for 3375 **PLNGDE**  
 for 3380 **PLNGDE**  
 for 3380-E4 **PLNGDE**  
**DMKRIO**  
 for 3350 **PLNGDE**  
 for 3375 **PLNGDE**  
 for 3380 **PLNGDE**  
**DMKSNT**  
 for 3350 **PLNGDE**  
 for 3375 **PLNGDE**  
 for 3380 **PLNGDE**  
**EXEC 2** files **EXEC2**  
**EXECs SFSAD**  
 explicitly authorized  
 gateways **CONPAO**  
 TSAF collection **CONPAO**  
 files **SFSAD**  
 copying **SFSAD**  
 loading **INST**  
 printing **INST**  
 tailoring **INST**  
 inbound connection to  
 global resource **CONPAO**  
 private resource **CONPAO**  
 links in a collection **CONPAO**  
 outbound connection **CONPAO**  
**PROFILE GCS CONPAO**  
 resource program **CONGREF**  
**SCOMDIR NAMES** file entries **CONPAO**  
**STATALL LOCAL** file **IPCSREF**  
 terminal sessions  
 for DOS programmers **ADGCMS**  
 for OS programmers **ADGCMS**  
 using access method services **ADGCMS**  
**TSAF** console log **CONPAO**  
**TSAF** virtual machine directory **CONPAO**  
**UCOMDIR NAMES** file entries **CONPAO**  
 user program **CONGREF**  
**CONNECT** function **CONGREF**  
**RECEIVE** function **CONGREF**  
**SENDDATA** function **CONGREF**  
**SEVER** function **CONGREF**  
**VBUILD** statement **CONPAO**  
**\$\$SERVERS NAMES** file entries **CONPAO**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- SAMPLE** operand  
of **MONITOR** command **SYSCMD**
- SASSIST OFF** operand  
of **SET** command **ADMIN**
- SASSIST ON** operand  
of **SET** command **ADMIN**
- SASSIST** operand  
of **QUERY** command **SYSCMD**  
of **SET** command **OPGDE, SYSCMD**
- save area convention  
**BALRSAVE DIAG**  
**DUMPSAVE DIAG**  
**FREESAVE DIAG**  
**FREWORK DIAG**  
**LOCKSAV DIAG**  
**LOKSAVE DIAG**  
**MFASAVE DIAG**  
**SAVEAREA DIAG**  
**SIGSAVE DIAG**  
**SVCREGS DIAG**  
**SWTHSAVE DIAG**
- save areas **GCSREF**  
**HSVCSAVE ADRCMS**  
nonreenterable program **GCSREF**  
reenterable program **GCSREF**  
register, Vector Facility **ADMIN**  
Vector Facility **ADMIN**
- save automatically **CMSLOT**
- SAVE** command **APGDE, CMSLOT, PRIMER**  
in **BASIC PRIMER**
- SAVE** macro **GCSREF**  
description **GCSREF**  
id name parameter **GCSREF**  
reg parameter **GCSREF**  
t parameter **GCSREF**
- SAVE** subcommand  
of **PER** command **GENCMD**  
subcommands  
**APPEND GENCMD**  
traceset **GENCMD**  
of **XEDIT** command **APGDE, XEDIT**  
changing file identifier **CMSUG**  
example of use **INTRO**  
writing a CMS file **CMSUG**
- SAVEAREA DIAG**
- saved segment **ADGCMS, CMSMIG, CMSUG**  
**CMSFILES SFSAD**  
considerations **SRPI**  
creating saved segments **ADGCMS, CMSMIG**  
defining **PLNGDE**  
definition **ADMIN, INST, SYSMMSG**  
design considerations **ADGCMS**  
determining location **ADMIN**  
determining where to save **ADMIN**  
**DIAGNOSE** code interface **ADMIN**  
displaying information about **ADGCMS**  
finding **ADMIN, SFPROG**  
for national languages **SFPROG**  
installing **INST, PLNGDE**  
**SNTMAP EXEC PLNGDE**  
loading **ADMIN, SFPROG**  
loading and saving **ADMIN, INST**  
managing **ADMIN, ADRCMS**  
planning considerations **ADGCMS**  
purging **ADMIN, SFPROG**  
sharing **ADRCMS**  
types **INST**  
using from your virtual machine **ADGCMS**
- saved systems  
defining **PLNGDE**  
definition **ADMIN, PLNGDE, SYSMMSG**  
installing **PLNGDE**  
**SNTMAP EXEC PLNGDE**  
loading **GENCMD**  
managing **ADMIN**  
naming **PLNGDE**
- saved virtual storage **OPGDE**
- SAVENCP** command  
for 37XX control program **ADMIN**
- SAVENCP MODULE INST**
- SAVEONLY** option of **ACCESS** command  
**CMSREF**
- SAVERETN DIAG**
- SAVESEG** command  
creating a saved segment **ADGCMS, CMSMIG**
- SAVESEGID** start-up parameter **SFSAD**  
usage recommendations for **VMSYS** and **VMSYSU SFSAD**
- SAVESEQ** operand  
of **NAMESYS** macro **PLNGDE**
- SAVESEQ** priority value **ADMIN**
- SAVESYS** command **PLNGDE**  
described **SYSCMD**  
operand  
systemname **SYSCMD**  
responses **SYSCMD**  
summary **OPGDE, SYSCMD**  
syntax diagram, class E **SYSCMD**  
usage notes **SYSCMD**
- SAVESYS** operand  
of **DEFNUC** macro **PLNGDE**
- save, automatic **XEDITUG**  
in typewriter mode **XEDITUG**
- SAVE =** operand  
**AMODESW SET ADRCMS**

## saving

a BASIC program **PRIMER**  
 a file  
   using **AUTOSAVE CMSLOT**  
   using **FILE XEDIT**  
   using **SAVE CMSLOT, XEDIT**  
   using **SET AUTOSAVE XEDIT**  
 a list of files **PRIMER**  
 a 3800 named system with **DIAGNOSE**  
   code X'74' **SFPROG**  
 CMS named system **INST**  
 CP message repository, **DIAGNOSE**  
   code X'CC' **SFPROG**  
 editing variables **XEDITUG**  
 files **CMSUG**  
 GCS named system **INST**  
 HELP segment **INST**  
 history information **ADGCMS**  
 messages in a file **PRIMER**  
 national language files  
   for CP and CMS **SFPROG**  
   for GCS **SFPROG**  
 spool files **ADMIN**  
 storage space **SYSCMD**  
 the 370X control program **SFPROG**  
 variables **XEDIT**  
 virtual machine data **GENCMD**  
 warnings in a file **PRIMER**  
**SAY** (REXX instruction) **CMSLOT, PRIMER,**  
**SPIREF, SPIUG**  
 scale **PRIMER**  
   changing location or display **XEDITUG**  
   defining display features **XEDITUG**  
   displaying  
     using **SCALE** (prefix subcommand)  
     **XEDIT**  
     using **SET SCALE XEDIT**  
     when defining mask **XEDIT**  
   example of **XEDITUG**  
   illustration of **XEDIT**  
   location on screen **XEDITUG**  
   removing from screen **XEDIT**  
**SCALE** option  
   of **EXTRACT XEDIT**  
   of **QUERY XEDIT**  
   of **SET XEDIT**  
   of **TRANSFER XEDIT**  
**SCALE** prefix subcommand **XEDIT**

**SCAN** macro **CMSMIG**  
   **BUFFER** = operand **ADRCMS**  
   building parameter lists **ADRCMS**  
   **ERROR** = operand **ADRCMS**  
   mapping the **SCBLOCK** **ADRCMS**  
   setting up parameter lists **ADGCMS**  
   **TEXT** = operand **ADRCMS**  
   **TRANS** = operand **ADRCMS**  
**SCAN** raddr operand  
   of **SPTAPE** command **SYSCMD**  
 scanning a file **XEDIT**  
**SCB** operand of **GDISPLAY** subcommand  
**IPCSREF**  
**SCBLOK** (swap control block)  
   created by **SUBCOM** **ADRCMS**  
   definition **ADMIN, SYSMMSG**  
   mapping **ADRCMS**  
   obtaining the anchor for nucleus  
   extensions **ADRCMS**  
 scenarios  
   for connections **CONGREF**  
   of GCS in VM/SP **GCSREF**  
**SCF** (service control file), SNA service  
   definition **SERV**  
   example **SERV**  
   keyword values **SERV**  
**SCHANGE** macro **XEDIT**  
   assigned to a PF key **XEDIT**  
   used with **AUTOSAVE ON XEDIT**  
**SCHED** macro **GCSREF**  
   description **GCSREF**  
   exit parameter **GCSREF**  
   id parameter **GCSREF**  
   uword parameter **GCSREF**  
**SCHEDULE** class monitor records **ADMIN**  
**SCHEDULE** operand  
   of **MONITOR** command **SYSCMD**  
 scheduler  
   control block for AVS, displaying  
   **IPCSREF**  
   design changes  
     **VMMAP** support **ADMIN**  
     **VM/PPF** support **ADMIN**  
     **VM/RTM** support **ADMIN**  
   differences, monitor considerations  
   because of **ADMIN**  
   entry, monitored in CP internal trace  
   table **SYSCMD**  
 scheduling information  
   requesting **SYSCMD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- scientific notation **SPIREF**
- SCIF (Single Console Image Facility) **SFPROG**  
controlling multiple virtual machines  
**SFPROG**  
recommendations for **SFSAD**  
using **SFPROG**
- SCOMDIR communications directory **CONPAO**
- SCOPE option  
of **EXTRACT XEDIT**  
of **QUERY XEDIT**  
of **SET XEDIT**
- SCPINFO command **SFPROG**
- SCPLVL (keyword definition) **IPCSREF**
- screen  
changes stacked by **READ XEDIT**  
copying the image to a CMS file **CMSREF**  
display **TERMREF**  
updating **XEDIT**  
divided into multiple logical screens **XEDIT**  
**DMS/CMS INTRO**  
example of 3270 screen display **CMSUG**  
full-screen status notices  
enter a command or press a PA or PF key  
**CMSUG**  
enter your response in vscreen vname  
**CMSUG**  
executing a command **CMSUG**  
scroll forward for more information in  
vscreen vname **CMSUG**
- images  
horizontal **APGDE**  
vertical **APGDE**  
copying to a CMS file **CMSREF**
- in **DMS/CMS**  
completion options **APGDE**  
data field **APGDE**  
design grid **APGDE**  
field characteristics of **APGDE**  
field definition **APGDE**  
panel name **APGDE**  
panel size **APGDE**  
selector field **APGDE**  
text field **APGDE**
- in **XEDIT**, splitting **PRIMER**
- I/O  
See full screen, I/O
- layout **XEDITUG**  
changing **XEDITUG**  
in **FILELIST PRIMER**  
in input mode **XEDIT**  
in **NAMES PRIMER**  
in **NOTES PRIMER**  
in power typing mode **XEDIT**  
in **XEDIT** edit mode **PRIMER**  
in **XEDIT** input mode **PRIMER**  
of **RDRLIST PRIMER**  
of the CMS window **PRIMER**  
management **TERMREF**  
keys **APGDE**  
VM SNA support **SFPROG**  
operation simulation **XEDIT**  
reserving a line on **XEDIT**  
scrolling  
backward **XEDIT**  
forward **XEDIT**  
size, defining **XEDITUG**  
virtual **XEDIT**  
VM status notices  
**CP READ CMSUG**  
**HOLDING CMSUG**  
**MORE... CMSUG**  
**NOT ACCEPTED CMSUG**  
**RUNNING CMSUG**  
**VM READ CMSUG**
- SCREEN** command **CMSUG, GENCMD**  
described **GENCMD**  
operands  
**ALL GENCMD**  
area **GENCMD**  
**CPOut GENCMD**  
extcolor **GENCMD**  
exthilght **GENCMD**  
**INArea GENCMD**  
**INRedisp GENCMD**  
**OUTarea GENCMD**  
**STAtarea GENCMD**  
**VMout GENCMD**  
responses **GENCMD**  
usage notes **GENCMD**
- SCREEN** directory control statement  
example **PLNGDE**  
operands **PLNGDE**  
**ALL PLNGDE**  
area **PLNGDE**  
color **PLNGDE**  
hilght **PLNGDE**
- SCREEN** operand  
of **EXTRACT XEDIT**  
of **QUERY GENCMD, XEDIT**  
of **SET XEDIT**  
of **TRANSFER XEDIT**
- SCREEN** subcommand of **XEDIT** command  
**APGDE**
- SCREEN/NOSCREEN** option of **DETAIL**  
**HELP CMSUG**
- SCRIPT CMSLOT, PRIMER**  
file type usage in CMS **CMSUG**  
files **CMSUG**

**SCRIPT** command **CMSLOT**, **INTRO**, **PRIMER**control word **INTRO**

execution restrictions in CMS/DOS

**ADGCMS**

options

**CONTINUE CMSLOT, PRIMER****DSMPROF3 CMSLOT****PRINT CMSLOT, PRIMER****PROFILE CMSLOT, PRIMER****SPELLCHK CMSLOT, PRIMER**script &2 ... **EXEC2**arguments **EXEC2**embedded blanks **EXEC2****&ARGS EXEC2****&READ ARGS EXEC2****SCRIPT/VS CMSLOT, PRIMER****SCRIPT/VS (DCF) INTRO****SCRNSAVE** operandof **TERMINAL** command **GENCMD****SCROLAD IPCSREF****SCROLL** command **CMSUG**

scroll forward for more information

(status notice) **PRIMER**scroll interface, **IPCSSCAN IPCSREF**scroll location information **PRIMER****SCROLL** operandof **TERMINAL** command **GENCMD**of **TRACE** subcommand **IPCSREF****SCROLL** subcommand of **IPCSSCAN**

command

description **IPCSREF**example outputs **IPCSREF**format **IPCSREF**functional category **IPCSREF**messages **IPCSREF**operand **IPCSREF**responses **IPCSREF**usage notes **IPCSREF****SCROLLEN IPCSREF**scrolling **APGDE**a window **CMSREF, PRIMER**backward **XEDIT**forward **XEDIT**

forward and backward using border

commands **CMSUG**horizontal **APGDE**in **FILELIST PRIMER**

right and left using border commands

**CMSUG**

the screen

using **BACKWARD XEDITUG**using **FORWARD XEDITUG**using PF keys **XEDITUG**through a file using **XEDIT PRIMER**scrollu operand of **TRACE** subcommand**IPCSREF****SCROLUAD IPCSREF****SD** option of **DSErv** command **CMSREF****SDATE** command **CMSLOT****SDATE** synonym to sort **FILELIST CMSUG****SDB** format **IPCSREF****SDIR** synonym to sort **FILELIST CMSUG****SDUMP** command **DIAG****SDUMP** macro **GCSREF**description **GCSREF**execute format **GCSREF**hdr parameter **GCSREF**hdrad parameter **GCSREF**list format **GCSREF**list parameter **GCSREF**mf parameter **GCSREF**storage parameter **GCSREF**search direction, specifying **XEDITUG**for column-target **XEDIT**for target **XEDIT**

search order

abend exit routines **ADGCMS**for CMS commands **ADGCMS, CMSREF**displaying **CMSUG**summary **CMSUG**for CMS loader **CMSREF**for commands **SPIREF**

for executable phases in CMS/DOS

**ADGCMS, CMSREF**for file mode extensions **CMSUG**for file modes **CMSUG**for functions **SPIREF**

for relocatable modules in CMS/DOS

**CMSREF**for server name **SRPI**

for subcommands and macros, controlling

**XEDIT**for subroutines **SPIREF**for subroutines and functions **SPIUG**for TEXT files and **TXTLIB** members**ADGCMS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- of macros and subcommands specified **XEDITUG**
- used by ASSEMBLE command **ADGCMS**
- SEARCHALL parameter
- DMSOPDIR** (SFS Open Directory)
- ADRCMS**
- SEARCHAUTH parameter
- DMSOPDIR** (SFS Open Directory)
- ADRCMS**
- searching
  - a file **XEDIT**
  - a string for a phrase **SPIREF**
  - backward **CMSLOT**
  - file modes for CMS files
    - See file mode determination
  - for a word in a string or words **EXEC2**
  - for a word in another word **EXEC2**
  - for data
    - using a target **XEDITUG**
    - using **CLOCATE XEDITUG**
    - using **CLOCATE** in typewriter mode **XEDITUG**
  - libraries **ADGCMS**
  - read-only extensions **CMSUG**
- SEC operand
  - of LABELDEF command **CMSREF**
  - of MONITOR command **SYSCMD**
- second level installation, definition **INST**
- second level virtual machine issues **SVC 76**
- SFPROG**
- second level VM system
  - building nucleus **RGOS**
  - DASD/Dump Restore **RGOS**
  - defining **RGOS**
  - directory **RGOS**
  - nucleus **RGOS**
  - operating procedures **RGOS**
  - performance considerations **RGOS**
  - preparing system **RGOS**
  - problem determination **RGOS**
  - restoring **RGOS**
  - spooling **RGOS**
  - updating
    - DMKBOX RGOS**
    - DMKRIO RGOS**
    - DMKSNT RGOS**
    - DMKSYS RGOS**
- second-level storage
  - definition **ADMIN**
  - dumping of **SFPROG**
- secondary user **INTRO, SFPROG, SFSAD**
  - changing the setting of, for **VMSYS** and **VMSYSU SFSAD**
  - list of current **GENCMD**
  - specifying **SFSAD**
- seconds calculated from midnight **SPIREF**
- security **ADMIN, SFSAD**
  - access
    - control groups **PLNGDE**
    - information **CONPAO**
    - verification routines **ADMIN**
  - audit output file **SFSAD**
  - auditing **SECUR, SFSAD**
  - AUDIT operator command **SFSAD**
  - brief overview of **SFSAD**
  - changing output file for **SFSAD**
  - defining output file for **SFSAD**
  - FILEPOOL FORMAT AUDIT**
    - command **SFSAD**
  - formatted output **SFSAD**
  - formatting the output of **SFSAD**
  - start-up parameters related to **SFSAD**
  - starting and stopping **SFSAD**
  - in **SQL/DS SECUR**
  - auto-deactivation of restricted passwords **ADMIN**
  - category checking, **RACF SECUR**
  - considerations
    - for preparing directory **PLNGDE**
    - IUCV SFPROG**
  - data **INTRO**
  - definition of **SECUR**
  - implementation team **SECUR**
  - increasing system **ADMIN**
  - keylock **TERMREF**
  - level entry in communications directory **CONPAO**
  - levels of conversations
    - See conversation, security levels
  - level checking, **RACF SECUR**
  - log **SECUR**
  - maintenance **TERMREF**
  - management's basic responsibility **SECUR**
  - measures **ADMIN**
  - monitoring system access **ADMIN**
  - password deactivation **PLNGDE**
  - planning for, in general **SECUR**
  - plan, steps in
    - analyzing risk **SECUR**
    - controlling access **SECUR**
    - cryptography **SECUR**
    - maintaining physical security **SECUR**
    - maintaining system integrity **SECUR**
    - security in products related to **VM/SP SECUR**
    - summarized **SECUR**
    - verification of adequacy **SECUR**
  - real storage **INTRO**

remote use considerations for **SFSAD**  
 risk, analyzing **SECUR**  
 token, access **CONPAO**  
 unauthorized access to system resources  
**ADMIN**  
 when changing command access **ADMIN**  
 violations  
 detection mechanisms for **SECUR**  
 patterns of **SECUR**  
 security tag in communications directory  
**CONGREF**  
**SECURITY** tag setting for file pools **SFSAD**  
**SECURITY** types **CMSMIG**  
**SECURITY(NONE)**, description of **CONPAO**  
**SECURITY(PGM)**, description of **CONPAO**  
**SECURITY(SAME)**, description of **CONPAO**  
**SECUSER** operand  
 of **QUERY** command **GENCMD**  
 seek time, minimizing **SFSAD**  
**SEEKS** class monitor records **ADMIN**  
**SEEKS** operand  
 of **MONITOR** command **SYSCMD**  
**SEGGEN EXEC INTRO, SFPROG**  
 segment **INTRO**  
 definition **ADMIN, INST, SYSMMSG**  
 protect **ADMIN, SYSMMSG**  
**ADSTOP** command **ADMIN**  
 at system initialization **ADMIN**  
 bit **CPSEGPR** in **PSA** **ADMIN**  
 protection exception **ADMIN**  
**STORE** command **ADMIN**  
**TRACE** command **ADMIN**  
 space **CMSMIG**  
 saved **CMSMIG**  
 See also saved segments  
 managing **ADRCMS**  
 sharing **ADRCMS**  
 table **ADMIN, SYSMMSG**  
 definition **ADMIN**  
**SEGMENT** command  
 comparison to **DIAGNOSE X'64'**  
**CMSMIG**  
 general formats **CMSMIG**  
 managing saved segments **ADGCMS**  
**SEGMENT** macro **GCSREF**  
 comparison to **DIAGNOSE X'64'**  
**CMSMIG**  
 deleting a saved segment **ADGCMS**  
 description **GCSREF**  
 end parameter **GCSREF**  
**ERROR** = operand **ADRCMS**  
**FIND** option **ADRCMS**  
 general formats **CMSMIG**  
**LOAD** option **ADRCMS**  
 loading a saved segment **ADGCMS**  
 managing saved segments **ADRCMS**  
 name parameter **GCSREF**  
**NAME** = operand **ADRCMS**  
**PURGE** option **ADRCMS**  
**SHARE** = operand **ADRCMS**  
 start parameter **GCSREF**  
**SYSTEM** = operand **ADRCMS**  
 segname, variable  
 described **GENCMD, SYSCMD**  
**SEL** operand  
 of **DEFINE** command **GENCMD**  
**SELECT** command of **SQL** **APGDE**  
**SELECT** function of **SPOOL** system  
 service **SFPROG**  
**SELECT** instruction **SPIREF**  
 description of **SPIUG**  
**END** keyword **SPIUG**  
 example of **SPIUG**  
**OTHERWISE** keyword **SPIUG**  
**THEN** keyword **SPIUG**  
**WHEN** keyword **SPIUG**  
**SELECT** operand  
 of **EXTRACT** **XEDIT**  
 of **GLOBALV** command **CMSREF**  
 of **LOCATE** subcommand **IPCSREF**  
 of **QUERY** **XEDIT**  
 of **TERMINAL** macro **PLNGDE**  
 select privilege in **SQL/DS** **SECUR**  
**SELECT** service of **ISPF** **APGDE**  
**SELECT** subcommand of **IPCSRT** command  
 description **IPCSREF**  
 example output **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**  
 messages **IPCSREF**  
 operands **IPCSREF**  
 response **IPCSREF**  
 usage notes **IPCSREF**  
**SELECT** subcommand of **IPCSSCAN**  
 command  
 description **IPCSREF**  
 example output **IPCSREF**  
 format **IPCSREF**  
 functional category **IPCSREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- messages **IPCSREF**
- operands **IPCSREF**
- responses **IPCSREF**
- usage notes **IPCSREF**
- SELECT SYSIN** control statement **CMSREF**
- select-items in DMS/CMS **APGDE**
- selecting
  - an alternate console **OPGDE**
  - attached processor or multiprocessor affinity **ADMIN**
  - the next virtual machine to migrate **ADMIN**
- selective
  - change **XEDIT, XEDITUG**
  - example of **XEDITUG**
  - in typewriter mode **XEDITUG**
  - invalidation as a function of shadow table maintenance **RGOS**
  - line editing **XEDIT**
    - See also **ALL** macro
    - example of **XEDIT**
    - subcommands **XEDIT**
  - preventive service **SERV**
- selectivity **DIAG**
  - operands, TYPENUM **IPCSREF**
  - specifying
    - for type GT traces **DIAG**
    - using CPTRAP INFILE operand **DIAG**
    - with CPTRAP **DIAG**
  - using **PER** **DIAG**
- selectmask in DMS/CMS **APGDE**
- selector field screens (ISPF) **APGDE**
- semicolons
  - implied **SPIREF**
  - omission of **SPIREF**
  - within a clause **SPIREF**
- SEND**
  - IUCV function **SFPROG**
    - parameter list format **SFPROG**
    - to the DASD block I/O system service **SFPROG**
    - to the signal system service **SFPROG**
    - to the SPOOL system service **SFPROG**
    - trace table entry format **SFPROG**
    - using **SFPROG**
  - SPOOL system service function **SFPROG**
  - VMCF function **SFPROG**
  - VMCF protocol **SFPROG**
- SEND** command **CMSUG, CMSLOT, GENCMD, RGOS, SFSAD**
  - described **GENCMD**
  - operands
    - CP **GENCMD**
    - lprt **GENCMD**
    - text **GENCMD**
    - userid **GENCMD**
  - responses **GENCMD**
  - usage notes **GENCMD**
  - command with single console image facility **SFPROG**
- send confirmation
  - See **SENDCNF** function of APPC/VM
- send confirmation response
  - See **SENDCNFD** function of APPC/VM
- send data
  - See **SENDDATA** function of APPC/VM
- send error notice
  - See **SENDERR** function of APPC/VM
- send request
  - See **SENDREQ** function of APPC/VM
- Send state **CONGREF, SAACOM**
- SEND state (APPC) **CONGREF**
- Send (CMSEND) routine **CONGREF**
- Send-Pending state
  - and error\_direction characteristic **SAACOM**
  - description **SAACOM**
- SENDCNF** function of APPC/VM **CONGREF**
  - completion **CONGREF**
  - condition codes **CONGREF**
  - mapped with APPC **CONGREF**
  - overview **CONGREF**
  - parameter descriptions **CONGREF**
  - parameter list **CONGREF**
  - program exceptions **CONGREF**
  - return codes **CONGREF**
  - state changes **CONGREF**
  - to communication partner **CONGREF**
- SENDCNFD** function of APPC/VM **CONGREF**
  - completion **CONGREF**
  - condition codes **CONGREF**
  - mapped with APPC **CONGREF**
  - overview **CONGREF**
  - parameter descriptions **CONGREF**
  - parameter list **CONGREF**
  - program exceptions **CONGREF**
  - return codes **CONGREF**
  - state changes **CONGREF**
  - to communication partner **CONGREF**
- SENDDATA** function of APPC/VM **CONGREF**
  - addressing for **CONGREF**
  - completion **CONGREF**
  - condition codes **CONGREF**
  - mapped with APPC **CONGREF**
  - message pending interrupt **CONGREF**
  - multiple **CONGREF**

- overview **CONGREF**
- parameter descriptions **CONGREF**
- parameter list **CONGREF**
- program exceptions **CONGREF**
- return codes **CONGREF**
- scenario **CONGREF**
- state changes **CONGREF**
- to communication partner **CONGREF**
- use in sample user program **CONGREF**
- SENDERR** function of APPC/VM **CONGREF**
- completion **CONGREF**
- condition codes **CONGREF**
- mapped with APPC **CONGREF**
- overview **CONGREF**
- parameter descriptions **CONGREF**
- parameter list **CONGREF**
- program exceptions **CONGREF**
- return codes **CONGREF**
- state changes **CONGREF**
- to communication partner **CONGREF**
- SENDFILE** command **APGDE**, **CMSLOT**, **PRIMER**
- example of use **INTRO**
- sending
  - and receiving documents **INTRO**
  - data
    - APPC data **CONGREF**
    - overview **CONGREF**
  - error information **CONGREF**
  - file(s) **PRIMER**
    - by selection from **FILELIST** **CMSLOT**
    - from **SENDFILE** menu **CMSUG**
    - using **DISK DUMP** command **CMSUG**
    - using **SENDFILE** command **CMSLOT**, **CMSUG**
  - messages **PRIMER**
    - to other users **GENCMD**, **SYSCMD**
    - to system operator **GENCMD**, **INTRO**, **SYSCMD**
    - using **CP MESSAGE** command **CMSUG**
    - using **TELL** command **CMSUG**
    - without special headers to users **SYSCMD**
  - more than one file **PRIMER**
  - notes **CMSLOT**, **CMSREF**
    - using **SENDFILE** command **CMSUG**
  - service reply
    - assembler **SRPI**
    - CPRB** **SRPI**
    - REXX** and **EXEC 2** **SRPI**
    - service request
      - assembler **SRPI**
      - REXX** and **EXEC 2** **SRPI**
    - signals to the signal system service **SFPROG**
    - special messages **GENCMD**
    - spool files **SYSCMD**
- SENDREQ** function of APPC/VM **CONGREF**
- completion **CONGREF**
- condition codes **CONGREF**
- mapped with APPC **CONGREF**
- overview **CONGREF**
- parameter descriptions **CONGREF**
- parameter list **CONGREF**
- program exceptions **CONGREF**
- return codes **CONGREF**
- state changes **CONGREF**
- to communication partner **CONGREF**
- SENDREQ** interrupt **CONGREF**
- format **CONGREF**
- SENDREQ** macro **ADGCMS**, **ADRCMS**, **APGDE**, **CMSMIG**, **SRPI**
  - assembly messages (MNOTEs) **ADRCMS**
  - CPRBREG** operand **ADRCMS**
  - making service requests **ADRCMS**
- SENDREQ** subcommand **SRPI**
- SENDX**
  - VMCF** function **SFPROG**
  - VMCF** protocol **SFPROG**
- SEND/RECV**
  - VMCF** function **SFPROG**
  - VMCF** protocol **SFPROG**
- Send\_Data** (**CMSSEND**)
  - call description **SAACOM**
  - example flow using **SAACOM**
- SEND\_DATA**, APPC verb
  - abend conditions **CONGREF**
  - mapped with APPC/VM **CONGREF**
  - parameters **CONGREF**
  - state changes **CONGREF**
- Send\_Error** (**CMSERR**) routine **CONGREF**
  - call description **SAACOM**
  - example flow using **SAACOM**
- SEND\_ERROR**, APPC verb
  - abend conditions **CONGREF**
  - mapped with APPC/VM **CONGREF**
  - parameters **CONGREF**
  - state changes **CONGREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- send\_type characteristic  
 possible values **SAACOM**  
 set **SAACOM**
- sense [data], variable  
 described **GENCMD, SYSCMD**
- SENTRIES** command **APGDE**
- separating clauses **SPIUG**
- separator  
 spool printer **OPGDE**  
 spool punch output **OPGDE**  
 used in **CHANGE CMSLOT**  
 used in **CLOCATE CMSLOT**  
 used in **LOCATE CMSLOT**
- seqno, variable  
 described **GENCMD, SYSCMD**
- sequence  
 numbers  
 assigned to VSAM extents **CMSREF**  
 assigned (CMS/DOS) to VSAM extents  
**CMSREF**  
 of APPC/VM functions **CONGREF**  
 of commands assigned to a PF key **XEDIT**  
 of functions in CMS IUCV **SFPROG**  
 of functions in IUCV **SFPROG**
- SEQUENCE** statement **ADGCMS**
- sequencing  
 output records **ADGCMS**  
 using **XEDIT SERIAL** subcommand  
**ADGCMS**
- sequential reads **ADGCMS**
- SEQ8** option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **TRANSFER XEDIT**
- SEREP** program  
 restrictions **PLNGDE**
- serial identification  
 removing **XEDIT**  
 specifying **XEDIT**
- SERIAL** option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **SET XEDIT**  
 of **TRANSFER XEDIT**
- serialization of file, controlling **XEDIT**
- server **SFSAD**  
 See also file pool, server machine  
 communications  
 considerations for **CONGREF**  
 examples of **CONGREF**  
 description **INTRO**  
 loader SRPI macro **SRPI**  
 machines **SFSAD**  
 See also file pool, server machine
- termination  
 abnormal (CMS abend) **SRPI**  
 and explicit unload (**NUCXDROP**) **SRPI**
- virtual machine **CONGREF**  
 See also resource manager  
 description of **CONPAO**  
 directory option **CONPAO**  
 examples of **CONPAO**  
 setting up **CONPAO**
- virtual machine, CP directory entry  
 for global/local resources **CONPAO**  
 for private resources **CONPAO**  
 identifying multiple global/local resources  
**CONPAO**  
**IUCV ALLOW CONPAO**  
**IUCV \*IDENT CONPAO**  
**OPTION MAXCONN CONPAO**
- SERVER DMSPARMS** file **SFSAD**
- Server-Requester Programming Interface for  
**VM/SP ADGCMS, ADRCMS,**  
**APGDE, CMSMIG**
- service  
 aids  
 brief overview of **SFSAD**  
**ETRACE** operator command **SFSAD**  
 external tracing **SFSAD**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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   **ARG** instruction **SPIUG**  
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   calling **EXEC2, SPIREF**  
   calls **ADRCMS**  
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   naming of **SPIREF**  
   passing back values from **SPIREF**  
   **PROCEDURE** instruction **SPIUG**  
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     **SPIREF**  
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   compound symbols **SPIUG**  
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   using the **VALUE** function **SPIUG**  
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**SUBSYS** operand  
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**SVC 202** parameter list handling **ADGCMS**  
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**DIAGNOSE** codes when you **IPL** with  
the **PMAV** option **RGOS**  
**SAA** environments **SAACOM**  
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**PER DIAG**  
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**SV** code, exception log messages **SERV**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



## SVC (supervisor calls)

See also supervisor assisted linkage  
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**ADRCMS**  
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   creating an SVC interrupt handler  
     **ADGCMS**  
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 SVC 199 code 110 **IPCSREF**  
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 SVC 199 code 130 **IPCSREF**  
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 SVC 199 code 31 **IPCSREF**  
 SVC 199 code 40 **IPCSREF**  
 SVC 199 code 41 **IPCSREF**  
 SVC 199 code 50 **IPCSREF**  
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   disk error **IPCSREF**  
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**CMSMIG**  
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   of OPTION directory control statement  
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   defining in directory **PLNGDE**  
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   of OPTION directory control statement  
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   defining in directory **PLNGDE**  
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   monitored in CP internal trace table  
     **SYSCMD**  
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   definition **ADMIN**, **SYSMMSG**  
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- switched line **TERMREF**
- switching  
 between CMS and the interactive interface  
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- SWSIZE** operand  
 of **SYSPAG** macro **PLNGDE**  
 of **SYSXSTOR** macro **PLNGDE**
- SWTHSAVE** (DMKSTK save area) **DIAG**
- SYM** option of **OPTION** command  
**CMSREF**
- symbol  
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 classifying **SPIREF**  
 compound **SPIUG**  
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- SYMBOL** function **SPIREF**, **SPIUG**
- symbolic destination name **CONGREF**,  
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- symmetric multiprocessor  
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- symptom records **CONPAO**, **DIAG**,  
**IPCSREF**  
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- SYMPTOM** subcommand of **IPCSSCAN**  
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- symptom summary record **IPCSREF**
- symptoms of problems  
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- SYNADRLS** macro (**BSAM/QSAM**)  
**GCSREF**  
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- SYNCH** macro **GCSREF**  
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- synchronous communication  
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- synchronous interrupt in an attached  
 processor system  
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 real I/O interrupts  
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- SYNCLVL** parameter  
 of **CONNECT** **CONGREF**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

syncpoint **SAACOM**  
 sync\_level characteristic  
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**SYNONYM**  
 abbreviation of  
 specifying **XEDIT**  
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 command to invoke synonym tables  
**CMSUG**  
 controlling search for **XEDIT**  
 defining for prefix subcommand **XEDIT**  
 defining for subcommand **XEDIT**  
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 user-written commands **CMSUG**

**SYNONYM** option  
 of **EXTRACT XEDIT**  
 of **QUERY XEDIT**  
 of **SET XEDIT**  
 of **TRANSFER XEDIT**

synonyms used to sort **FILELIST**  
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**SLREC CMSUG**  
**SMODE CMSUG**  
**SNAME CMSUG**  
**SREFC CMSUG**  
**SSIZE CMSUG**  
**STYPE CMSUG**

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**SPIREF**  
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**IUCV** gatewayid **CONPAO**  
**IUCV** resourceid **CONPAO**

**IUCV** userid **CONPAO**  
**IUCV \*IDENT** (gateway) **CONPAO**  
**IUCV \*IDENT** (resource) **CONPAO**  
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 of commands, interpreting **PRIMER**  
 of macros and subcommands  
**ADDEENTRY** macro **SRPI**  
**ADDEENTRY** subcommand **SRPI**  
**CPRB** macro **SRPI**  
**CSMRETC** macro **SRPI**  
**DELEENTRY** macro **SRPI**  
**DELEENTRY** subcommand **SRPI**  
**GETREQ** subcommand **SRPI**  
**SENDREQ** macro **SRPI**  
**SENDREQ** subcommand **SRPI**  
**SETREPLY** subcommand **SRPI**

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**TSAF** commands  
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**ADSTOP** command **GENCMD**  
**ATTACH SYSCMD**  
**ATTN** command **GENCMD**  
**AUTOLOG SYSCMD**  
**BACKSPAC SYSCMD**  
**BEGIN** command **GENCMD**  
**CACHE SYSCMD**  
**CHANGE SYSCMD**  
**CHANGE** command **GENCMD**  
**CLOSE** command **GENCMD**  
**COMMANDS** command **GENCMD**  
**COUPLE** command **GENCMD**  
**CP** commands **GENCMD**  
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**DCP SYSCMD**  
**DEFINE SYSCMD**  
**DEFINE** command **GENCMD**  
**DETACH SYSCMD**  
**DETACH** command **GENCMD**  
**DIAL** command **GENCMD**  
**DISABLE SYSCMD**  
**DISCONN** command **GENCMD**  
**DISPLAY** command **GENCMD**  
**DMCP SYSCMD**  
**DRAIN SYSCMD**  
**DUMP** command **GENCMD**  
**ECHO** command **GENCMD**  
**ENABLE SYSCMD**

## event types

BRANCH GENCMD  
 G[REG1] GENCMD  
 INSTRUCT GENCMD  
 MASK GENCMD  
 STORE GENCMD  
 EXTERNAL command GENCMD  
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   class A SYSCMD  
   class E SYSCMD  
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 MESSAGE command GENCMD  
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   BOTH GENCMD  
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   PRINTER GENCMD  
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   RUN GENCMD  
   STEP GENCMD  
   TERMINAL GENCMD  
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 ORDER command GENCMD  
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 PURGE command GENCMD

## QUERY

  class A SYSCMD  
   class B SYSCMD  
   class C SYSCMD  
   class D SYSCMD  
   class E SYSCMD  
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 QUERY (ALL) command GENCMD  
 QVM SYSCMD  
 READY command GENCMD  
 REPEAT SYSCMD  
 REQUEST command GENCMD  
 RESET command GENCMD  
 REWIND command GENCMD  
 SAVESYS SYSCMD  
 SCREEN command GENCMD  
 SEND command GENCMD  
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   class A SYSCMD  
   class B SYSCMD  
   class E SYSCMD  
   class F SYSCMD  
 SET command GENCMD  
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 SLEEP command GENCMD  
 SMSG command GENCMD  
 SPACE SYSCMD  
 SPMODE SYSCMD  
 SPOOL command GENCMD  
 SPTAPE SYSCMD  
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 STCP SYSCMD  
 STORE command GENCMD  
 SYSTEM command GENCMD  
 TAG command GENCMD  
 TERMINAL command GENCMD  
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 TRANSFER command GENCMD  
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   of CHANGE command SYSCMD  
 SYS option of LISTIO command CMSREF  
 SYSACNT macro ADMIN, CONPAO

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- SYSBLOK** operand  
of **NAMESYS** macro **PLNGDE**
- SYSCAT** assigned in **CMS/DOS CMSREF**
- SYSCAT** system logical unit  
assigning in **CMS/DOS ADGCMS**
- SYSCKP** operand  
of **SYSRES** macro **PLNGDE**
- SYSCLB** system logical unit  
assigning in **CMS/DOS ADGCMS**  
unassigning **ADGCMS**
- SYSCLEAR** macro **SECUR**
- SYSCLR** operand  
of **SYSRES** macro **PLNGDE**
- SYSCMD** command **APGDE**
- SYSCOR** macro **DIAG**  
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**RSSIZE ADMIN**  
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**ADMIN**  
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- SYSCYL** operand  
of **NAMESYS** macro **PLNGDE**
- SYSDISK** operand  
of **DEFNUC** macro **PLNGDE**
- SYSDUMP1** **PLNGDE**
- SYSERR** operand  
of **SYSRES** macro **PLNGDE**
- SYSHOLD** operand  
**ALL SYSCMD**  
of **QUERY** command **GENCMD, SYSCMD**  
of **SPTAPE** command **SYSCMD**
- SYSHRSG** operand  
of **NAMESYS** macro **PLNGDE**
- SYSIN** system logical unit  
assembler input **CMSREF**  
assigning in **CMS/DOS ADGCMS**  
input for **ESERV** command **ADGCMS**  
logical unit assignment in **CMS/DOS CMSREF**
- SYSIPT** system logical unit **ADGCMS**  
assigned for **ESERV** program **CMSREF**
- SYSJRL** macro **ADMIN**
- SYSLOG** system logical unit **ADGCMS**  
assigned in **CMS/DOS CMSREF**
- SYSLST** system logical unit  
assigning in **CMS/DOS ADGCMS**  
output from **ESERV** program  
**ADGCMS**
- SYSMIH** macro **ADMIN**  
samples **PLNGDE**
- SYSMON** macro **ADMIN**
- SYSNAME** operand  
of **DEFNUC** macro **PLNGDE**  
of **NAMESYS** macro **PLNGDE**
- SYSNAMES** table **GCSREF**  
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- SYSNUC** operand  
of **SYSRES** macro **PLNGDE**
- SYSOPR** macro **DIAG**  
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- SYSOWN** list volumes  
limits to detaching **SYSCMD**
- SYSOWN** macro  
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**VOLID PLNGDE**
- SYSPAG** areas, automatic reordering  
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- SYSPAG** macro **ADMIN**  
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**TYPE PLNGDE**  
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**REORDER = ADMIN**  
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use with **DDR ADMIN**
- SYSPARM** option of **ASSEMBLE** command  
**CMSREF**
- SYSPCH** system logical unit  
assigning in **CMS/DOS ADGCMS**  
output from **ESERV** program **ADGCMS**
- SYSPGCT** operand  
of **NAMENCP** macro **PLNGDE**  
of **NAMESYS** macro **PLNGDE**  
of **NAME3800** macro **PLNGDE**
- SYSPGNM** operand  
of **NAMESYS** macro **PLNGDE**

- SYSPLIST**  
 chaining structure **ADMIN**  
 definition **ADMIN, SYMSG**
- SYSPLIST** control block **ADMIN**
- SYSPRINT** control statement  
 of **DDR (DASD DUMP/Restore) ADMIN, SFPROG**
- SYSPROF** class monitor records **ADMIN**
- SYSPROF EXEC** **CMSUG, CONGREF, CONPAO**  
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 creating **ADMIN**  
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 functions of **ADMIN**  
 initialization **ADMIN**  
**SET COMDIR** command **CONPAO**  
**SET COMDIR ON** command **CONPAO**  
 setting up a protected application environment **ADMIN**
- SYSPROF** operand  
 of **MONITOR** command **SYSCMD**
- SYSRDR** system logical unit **ADGCMS**
- SYSRES** macro **SECUR**  
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**SYSTYPE PLNGDE**  
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- SYSRES** operand  
 of **SYSRES** macro **PLNGDE**
- SYSRLB** system logical units assigned in **CMS/DOS ADGCMS**
- SYSSIZE** operand  
 of **NAMESYS** macro **PLNGDE**
- SYSSLB** system logical units assigned in **CMS/DOS ADGCMS**
- SYSSPL** operand  
 of **SYSRES** macro **OPGDE, PLNGDE**
- SYSSPOOL** operand  
 of **LOCK** command **SYSCMD**  
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- SYSSTRT** operand  
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**SYSOWN** macro **PLNGDE**  
**SYSPAG** macro **PLNGDE**  
**SYSRES** macro **PLNGDE**  
**SYSXSTOR** macro **PLNGDE**  
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 definition **OPGDE**  
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- directory  
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 and **DIAGNOSE X'3C'** **SECUR**  
 and **DIAGNOSE X'84'** **SECUR**  
 and **RACF SECUR**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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- TCU** (Transmission Control Units)  
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- TD** option of **DSERV** command **CMSREF**
- TDISK** space  
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- TDSK** operand  
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- team, security implementation **SECUR**
- TELE** operand  
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- TEMP** ddname **SFSAD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**PC/VM Bond INTRO**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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**TYPE** **DATA** suboperands  
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**TYPE** function control statement  
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**TYPE** operand  
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**TYPE** suboperands  
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**TYPE** **TTABLE** suboperands  
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## U

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- UCS (universal character set)
  - adding buffer images **ADMIN**
  - supplied images **ADMIN**
- UCSB (universal character set buffer)
  - associative field chart **ADMIN**
  - buffer images
    - for the 3211 Printer **ADMIN**
  - images, examples **ADMIN**
  - loading **RGOS**
- UCSCCW macro **ADMIN**
- UCW operand
  - of RCTLUNIT macro **PLNGDE**
- UFLAGS= operand
  - CMSCALL** macro **ADRCMS**
  - NUCEXT SET** **ADRCMS**
  - SUBCOM SET** **ADRCMS**
- unassigning
  - logical unit assignments in CMS/DOS
    - ADGCMS**
  - variables **SPIREF**
- UNAUTHORIZE function of VMCF
  - SFPROG**
- unauthorized access to system resources
  - ADMIN**
- unconditionally leaving your program
  - SPIREF**
- UNCONV operand
  - of CHANGE command **GENCMD**,  
**SYSCMD**
- under migration
  - problems related to **ADMIN**
- underflow, arithmetic **SPIREF**
- underlining **PRIMER**
- underscore
  - highlighting feature, controlling with  
CP SCREEN command **CMSUG**
  - in file name and file type **CMSUG**
  - use of **GENCMD**, **SYSCMD**
  - used in COVERLAY **XEDIT**
  - used in FIND
    - used in FINDUP **XEDIT**
    - used in NFIND **XEDIT**
    - used in NFINDUP **XEDIT**
    - used in OVERLAY **XEDIT**
- undoing your changes **PRIMER**
  - to one or more files **ADRCMS**
- unexpected results **DIAG**
  - checklist for reporting **DIAG**
  - hardware failure **DIAG**
  - in CP **DIAG**
  - in virtual machine **DIAG**
  - inadequate system parameters **DIAG**
  - infinite loop in a virtual machine **DIAG**
  - infinite loop in CP **DIAG**
- uniprocessor (UP) environment
  - MVS virtual machine **RGOS**
- unique clusters, defining **ADGCMS**
- UNIQUEID option
  - of EXTRACT **XEDIT**
  - of QUERY **XEDIT**
- uniqueness, resource name **CONPAO**
- unit record
  - devices **CMSUG**
    - configuration aid **PLNGDE**
    - defined **INTRO**
    - error messages for RDEVICE macro  
**PLNGDE**
    - in a virtual machine **INTRO**
    - halting output **SYSCMD**
    - holding output **SYSCMD**
    - monitoring missing interruptions  
**SYSCMD**
    - MVS virtual machine **RGOS**
    - purging output **SYSCMD**
    - shared or nonshared VCU mode  
**PLNGDE**
    - stopping spooling **SYSCMD**
    - table, generating **PLNGDE**
    - virtual **GENCMD**
    - virtual device **INTRO**
    - VM under VM **RGOS**
    - VSE/SP virtual machine **RGOS**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- I/O **ADGCMS**
  - obtaining device information **ADGCMS**
  - printing **ADGCMS**
  - punching **ADGCMS**
  - reading **ADGCMS**
  - using the **PRINTL** macro **ADGCMS**
- spool files **OPGDE**
  - stopping **SYSCMD**
- universal character set (UCS) **ADMIN**
  - altering **PLNGDE**
  - loading sample files from product tape **INST**
  - tailoring **INST**
- Universal Character Set Buffer (UCSB) **ADMIN**
  - loading **RGOS**
- unlabeled tapes, defining **CMSUG**
- UNLOAD** command of **SQL** **APGDE**
- unload list in **DMS/CMS** **APGDE**
- UNLOAD** OPERAND
  - of **UNLOAD** command **SYSCMD**
- unlock
  - SFS** lock **ADRCMS**
- UNLOCK** command **ADMIN**
  - controlling reallocation of virtual=real storage **OPGDE**
  - described **SYSCMD**
  - operands
    - firstpage **SYSCMD**
    - lastpage **SYSCMD**
    - SYSSPOOL** **SYSCMD**
    - SYSTEM** **SYSCMD**
    - userid **SYSCMD**
    - VIRT=REAL** **SYSCMD**
    - V=R** **SYSCMD**
  - responses **SYSCMD**
  - summary **OPGDE**, **SYSCMD**
  - syntax diagram, class A **SYSCMD**
  - usage notes **SYSCMD**
- unlocking
  - a file space **SFSAD**
  - a storage group **SFSAD**
  - files and directories **CMSLOT**, **PRIMER**
  - your keyboard **PRIMER**
- unnumbered responses **SYSMMSG**
- unordered list **CMSLOT**, **PRIMER**
- UNPACK** option of **COPYFILE** command **CMSREF**
- unpacking a string with **C2X** **SPIREF**
- unprotected
  - QUIT** **XEDIT**
  - shared segment **ADMIN**
- unrecoverable tape error **ADMIN**
- unresolved references
  - during **MODULE** execution **CMSREF**
  - loader handling of **CMSREF**
  - resolving with **INCLUDE** command **CMSREF**
  - searching for **TEXT** files **CMSREF**
  - searching **TXTLIBs** for **CMSREF**
- unsupported devices
  - defining subclass **PLNGDE**
  - MVS** virtual machine **RGOS**
  - VSE** **RGOS**
- UNTIL** keyword **EXEC2**
- UNTIL** option
  - of **EXTRACT** **XEDIT**
  - of **QUERY** **XEDIT**
- UNTIL** phrase of **DO** instruction **SPIREF**
- untokenized plist
  - example **EXEC2**
  - "in-memory file" **EXEC2**
- UP** command **CMSLOT**, **PRIMER**
- UP** mode **RGOS**
- up** operand of **LOCATE** subcommand **IPCSREF**
- UP** subcommand of **IPCSSCAN** command
  - description **IPCSREF**
  - example output **IPCSREF**
  - format **IPCSREF**
  - functional category **IPCSREF**
  - messages **IPCSREF**
  - operand **IPCSREF**
  - response **IPCSREF**
  - usage notes **IPCSREF**
- UP** subcommand of **XEDIT** command **XEDIT**, **XEDITUG**
  - in typewriter mode **XEDITUG**
  - practice exercise using **XEDITUG**
  - example of **XEDIT**
- UP**-generated **VM/SP** **HPO** systems
  - using for **MVS** guest **RGOS**
- UPCASE** option
  - of **ASSGN** command **CMSREF**
  - of **COPYFILE** command **CMSREF**
  - of **FILEDEF** command **CMSREF**
  - of **PRINT** command **CMSREF**
- update
  - definition **INTRO**
  - file
    - patch update files **SERV**
    - source update files **SERV**
    - update shells **SERV**
  - level identifiers
    - use by **PRELOAD** command **SERV**
    - use by **VMFASM** **EXEC** **SERV**
    - use by **VMFASM** **EXEC** **SERV**
  - mode **XEDIT**

- procedures
- applying local updates **INTRO**
  - ASMGEND INTRO**
  - CMSGEND INTRO**
  - CSLGEN INTRO**
  - DCSSGEN INTRO**
  - deciding which procedure to use
    - INTRO**
    - DOSGEN INTRO**
    - EXECUPDT INTRO**
    - GENSERVE INTRO**
    - GENTSAF INTRO**
    - PRELOAD INTRO**
    - punch a new nucleus **SERV**
    - SAMGEN INTRO**
    - SEGGEN INTRO**
    - update macro libraries **SERV**
    - update source files **SERV**
    - UTILITY INTRO**
    - VMFAPPLY INTRO**
    - VMFASM INTRO**
    - VMFBLD INTRO**
    - VMFHASM INTRO**
    - VMFLKED INTRO**
    - VMFMAC INTRO**
    - VMFNLS INTRO**
    - VMFOVER INTRO**
    - VMFTXT INTRO**
    - VRSIZE INTRO**
    - VSAMGEN INTRO**
    - VSEVSAM INTRO**
    - ZAP INTRO**
    - ZAPTEXT INTRO**
  - program update tapes (PUTs) **INTRO**
  - shell
    - example **SERV**
    - general description **SERV**
  - UPDATE** command **APGDE**
    - control statement usage **ADGCMS**
    - of SQL **APGDE**
  - UPDATE** file type usage in CMS **CMSUG**
  - UPDATE** lock on a file or directory
    - CMSLOT, PRIMER**
  - UPDATE** option **APGDE**
    - COBOL APGDE**
    - FORTRAN APGDE**
    - in XEDIT **XEDIT**
    - of EXTRACT **XEDIT**
    - of QUERY **XEDIT**
    - of TRANSFER **XEDIT**
  - UPDATE** parameter
    - DMSCRLOC** (SFS Create Lock)
    - ADRCMS**
    - product parameter file override area
    - SERV**
  - UPDATE** statement of SQL **APGDE**
  - updating
    - CMS modules using **CMSGEND SERV**
    - directory
      - entries for national languages **SFPROG**
      - in-place with **DIAGNOSE** code X'84'
      - SFPROG**
      - with **DIAGNOSE** code X'3C' **SFPROG**
    - FILELIST** display **CMSLOT**
    - files for an existing national language
    - ADMIN, SFPROG**
    - macro libraries using **VMFMAC SERV**
    - master file directories **CMSUG**
    - modules using **VMFASM SERV**
    - modules using **VMFHASM SERV**
    - multiple **ADGCMS**
    - preferred level **ADGCMS**
    - problem report **IPCSREF**
    - programs **ADGCMS**
    - screen display **XEDIT**
    - source file, using **CTL** option of **XEDIT**
    - ADGCMS**
    - system dependent files, **DMKBOX RGOS**
    - system dependent files, **DMKRIO**
    - VM under VM **RGOS**
    - VSE RGOS**
    - system dependent files, **DMKSNT**
    - VM under VM **RGOS**
    - VSE RGOS**
    - system dependent files, **DMKSYS**
    - VM under VM **RGOS**
    - text libraries using **VMFTXT SERV**
  - UPDATE** command **ADGCMS**
  - VMFASM EXEC ADGCMS**
  - VM/SP HPO**
    - accessing disks **SERV**
    - control files **SERV**
    - files for system updates **SERV**
    - module identifiers **SERV**
    - updating loader program **SERV**
    - VSE ADGCMS**
  - UPDLOG** file type usage in CMS **CMSUG**

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UPDT record, control file

format **SERV**

function **SERV**

parameters **SERV**

UPDTID tag, product parameter file **SERV**

UPDTxxxx file type usage in CMS **CMSUG**

UPPER instruction **SPIREF, SPIUG**

UPPER option of PARSE instruction  
**SPIREF**

uppercase **SPIUG**

data **EXEC2**

converted to **CMSLOT**

entered in **CMSLOT, PRIMER**

letters

converting to lowercase with **COPYFILE**

command **CMSREF**

and words **GENCMD, SYSCMD**

typing **PRIMER**

translation

characters entered into **XEDIT**

characters in file to **XEDIT**

during ARG instruction **SPIREF**

during PULL instruction **SPIREF**

of symbols **SPIREF**

with PARSE UPPER **SPIREF**

with TRANSLATE function **SPIREF**

with UPPER instruction **SPIREF**

use of **GENCMD, SYSCMD**

UPPERCASE subcommand of **XEDIT**

command **APGDE, XEDIT, XEDITUG**

example of **XEDIT, XEDITUG**

with DBCS strings **XEDIT**

UPSI (user program switch indicator)

byte, setting in CMS/DOS **ADGCMS**

operand, of CMS SET command, example

**ADGCMS**

setting **ADGCMS**

UR operand

of **QUERY** command **SYSCMD**

of **QUERY VIRTUAL** command

**GENCMD**

USA option of DATE function **SPIREF**

usage authority

granting **ADRCMS**

revoking **ADRCMS**

usage notes

**ADSTOP** command **GENCMD**

**ATTACH** command **SYSCMD**

**ATTN** command **GENCMD**

**AUTOLOG** command **SYSCMD**

**BACKSPAC** command **SYSCMD**

**BEGIN** command **GENCMD**

**CACHE** command **SYSCMD**

**CHANGE** command **GENCMD,**

**SYSCMD**

**CLOSE** command **GENCMD**

**COMMANDS** command **GENCMD**

**COUPLE** command **GENCMD**

**CP** command **GENCMD**

**CPTRAP** command **SYSCMD**

**DCP** command **SYSCMD**

**DEFINE** command **GENCMD,**

**SYSCMD**

**DETACH** command **GENCMD,**

**SYSCMD**

**DIAL** command **GENCMD**

**DISABLE** command **SYSCMD**

**DISCONN** command **GENCMD**

**DISPLAY** command **GENCMD**

**DMCP** command **SYSCMD**

**DRAIN** command **SYSCMD**

**DUMP** command **GENCMD**

**ECHO** command **GENCMD**

**EXTERNAL** command **GENCMD**

**FLUSH** command **SYSCMD**

**FORCE** command **SYSCMD**

**GIVE** command **SYSCMD**

**HOLD** command **SYSCMD**

**INDICATE** command **GENCMD**

**IPL** command **GENCMD**

**LINK** command **GENCMD**

**LOADVFCB** command **GENCMD**

**LOGOFF** command **GENCMD**

**LOGON** command **GENCMD**

**MESSAGE** command **GENCMD,**

**SYSCMD**

**MONITOR** command **SYSCMD**

**MSGNOH** command **SYSCMD**

**NETWORK** command **SYSCMD**

**NOTREADY** command **GENCMD**

**ORDER** command **GENCMD,**

**SYSCMD**

**PER** command **GENCMD**

**PURGE** command **GENCMD,**

**SYSCMD**

**QVM** command **SYSCMD**

**READY** command **GENCMD**

**REQUEST** command **GENCMD**

**RESET** command **GENCMD**

**REWIND** command **GENCMD**

**SAVESYS** command **SYSCMD**

**SCREEN** command **GENCMD**

**SEND** command **GENCMD**

**SET** command **GENCMD**

**SHUTDOWN** command **SYSCMD**

**SLEEP** command **GENCMD**

**SMSG** command **GENCMD**

**SPMODE** command **SYSCMD**

**SPOOL** command **GENCMD**

**SPTAPE** command **SYSCMD**

START command **SYSCMD**  
 STCP command **SYSCMD**  
 STORE command **GENCMD**  
 SYSTEM command **GENCMD**  
 TAG command **GENCMD**  
 TRACE command **GENCMD**  
 TRANSFER command **GENCMD, SYSCMD**  
 UNLOCK command **SYSCMD**  
 VARY command **SYSCMD**  
 .TERMINAL command **GENCMD**  
 .VMDUMP command **GENCMD**  
 #CP command **GENCMD**  
 USE command of DMS/CMS **APGDE**  
 USEINST operand  
   of DEFNUC macro **PLNGDE**  
 user  
   accounting options **ADMIN**  
   accounting records **ADMIN, SFSAD**  
   agents  
     See agents  
   areas **APGDE**  
   class **INTRO**  
     reverting to IBM-defined **ADMIN**  
   changing privilege classes **ADMIN**  
   communications directory **CMSMIG**  
   completion code **GCSREF**  
   catalogs **CMSREF**  
     identifying, in CMS/DOS **CMSREF**  
   data **SFSAD**  
     **FILEPOOL BACKUP** command for **SFSAD**  
     **FILEPOOL CLEANUP** command for **SFSAD**  
     **FILEPOOL RESTORE** command for **SFSAD**  
     restoring **SFSAD**  
   data minidisks  
     See also storage groups  
     determining allocation of **SFSAD**  
     minimum recommended size of **SFSAD**  
     placement of **SFSAD**  
   directory  
     entries for national languages, updating **SFPROG**  
     reading **SFPROG**  
     updating with DIAGNOSE code X'3C' **SFPROG**  
   doubleword function of VMCF **SFPROG**  
   exit routines **SECUR**  
   file directory **CMSUG**  
     contents **CMSREF**  
     creating **CMSREF**  
   finding CP control block addresses **SYSCMD**  
   hold status of spool files **CMSUG**  
   identification card  
     for spooled card input **OPGDE**  
     format **OPGDE**  
   input area **TERMREF**  
   interaction **EXEC2**  
   level communications directory **CONGREF, CONPAO**  
   messages, virtual machine **OPGDE**  
   MODULEs with ISPF **APGDE**  
   options, replacing directory entry **SFPROG**  
   program **CONGREF, CONPAO**  
     See also requester virtual machine  
     defining target of request **CONPAO**  
     description of **CONPAO**  
   program area  
     commands that execute in **CMSREF, CMSUG**  
   program sample **CONGREF**  
     CONNECT function **CONGREF**  
     RECEIVE function **CONGREF**  
     SENDDATA function **CONGREF**  
     SEVER function **CONGREF**  
   responsibilities for CMS/DOS **ADGCMS**  
   storage group backup  
     comparison with control data backup **SFSAD**  
     contents of **SFSAD**  
     creating **SFSAD**  
     **FILEPOOL BACKUP** command **SFSAD**  
     **FILEPOOL CLEANUP** command **SFSAD**  
     **FILEPOOL RESTORE** command **SFSAD**  
     running concurrently **SFSAD**  
     saving outdated copies of **SFSAD**  
     to another file pool **SFSAD**  
     user access during **SFSAD**  
   synchronization **ADGCMS**  
   task, CMS **INTRO**  
   termination, SNA **SFPROG**  
   transient area **APGDE**  
   view, CMS **INTRO**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- USER** class monitor records **ADMIN**  
 user classes, restructuring **INST**  
**USER** directory control statement  
**ADMIN, INTRO, PLNGDE**  
 MVS virtual machine **RGOS**  
 operands  
   **cd PLNGDE**  
   **cl PLNGDE**  
   **es PLNGDE**  
   **ld PLNGDE**  
   **le PLNGDE**  
   **mstor PLNGDE**  
   **pass PLNGDE**  
   **pri PLNGDE**  
   **stor PLNGDE**  
   **userid PLNGDE**  
 VM under VM **RGOS**  
**VSE RGOS**  
 user file pool, building **INST**  
 user identification  
   See **userid**  
**USER** operand  
   of **CONVERT COMMANDS** command  
     **CMSREF**  
   of **EXECDROP** command **CMSREF**  
   of **EXECLOAD** command **CMSREF**  
   of **EXECMAP** command **CMSREF**  
   of **INDICATE** command **ADMIN,**  
     **GENCMD**  
   of **MONITOR** command **SYSCMD**  
   of **PRB** command **IPCSREF**  
 user priority option for **SET** command  
**INTRO**  
**USER** subpool **ADGCMS**  
**USER** userid operand  
   of **INDICATE** command **SYSCMD**  
**USER \*** operand  
   of **INDICATE** command **SYSCMD**  
 user-defined functions  
   description of **EXEC2**  
   examples **EXEC2**  
   form of **EXEC2**  
   invocation **EXEC2**  
   label search **EXEC2**  
   returning to **EXEC2**  
 user-written  
   **EXECs**, samples **CMSUG**  
   commands **CMSUG**  
     creating **CMSREF**  
   functions **SPIUG**  
   programs **INTRO**  
**USEREXIT** tag, product parameter file  
**SERV**
- USERHOLD** operand  
   of **QUERY** command **GENCMD,**  
     **SYSCMD**  
   of **SPTAPE** command **SYSCMD**  
 userid **APGDE, TERMREF**  
   alternate **SFPROG**  
   block **DIAG**  
   definition **ADMIN, SYMSG**  
   displaying **CMSLOT, PRIMER**  
     ones logged on **CMSLOT**  
   entry in communications directory  
     **CONPAO**  
   entry in a names file **CMSLOT**  
   entry in requester virtual machine's  
     CP directory **CONPAO**  
   for CMS batch virtual machine **CMSUG**  
   for your virtual machine **CMSUG**  
   ICUV control statement **CONPAO**  
   in private resource NAMES file **CMSMIG**  
   in RACF **SECUR**  
   requester, in communications directory  
     **CONPAO**  
   specifying for output spool files **CMSUG**  
   unique **CONPAO**  
   of **QUERY** command **SYSCMD**  
   option in **QUERY** **CMSLOT**  
   spool file attribute **OPGDE**  
   trace entry **DIAG**  
   used in **NOTE** command **CMSLOT**  
   used in names file **CMSLOT**  
   used in **SENDFILE** command **CMSLOT**  
   used in **TELL** command **CMSLOT**  
   used to logon **CMSLOT**  
**USERID** control statement for **FILEPOOL**  
**FORMAT AUDIT SFSAD**  
**USERID** function **SPIREF**  
**USERID OF REQUESTOR** field in  
**FILEPOOL FORMAT AUDIT** output **SFSAD**  
 userid operand  
   of **ACNT** command **SYSCMD**  
   of **AUTOLOG** command **SYSCMD**  
   of **CACHE** command **SYSCMD**  
   of **CHANGE** command **SYSCMD**  
   of **COUPLE** command **GENCMD**  
   of **DIAL** command **GENCMD**  
   of **FORCE** command **SYSCMD**  
   of **FREE** command **SYSCMD**  
   of **HOLD** command **SYSCMD**  
   of **IUCV** directory control statement  
     **PLNGDE**  
   of **LINK** command **GENCMD**  
   of **LOCATE** command **SYSCMD**  
   of **LOCK** command **SYSCMD**  
   of **LOGON** command **GENCMD**  
   of **LUNAME** subcommand **IPCSREF**

- of MESSAGE command **GENCMD**,  
**SYSCMD**
- of MIGRATE command **SYSCMD**
- of MSGNOH command **SYSCMD**
- of NAMESYS macro **PLNGDE**
- of ORDER command **SYSCMD**
- of PURGE command **SYSCMD**
- of QUERY command **SYSCMD**
- of QUERY (ALL) command **GENCMD**
- of QVM command **SYSCMD**
- of SELECT subcommand **IPCSREF**
- of SEND command **GENCMD**
- of SET command **SYSCMD**
- of SMSG command **GENCMD**
- of SPOOL command **GENCMD**
- of SPTAPE command **SYSCMD**
- of TRANSFER command **GENCMD**,  
**SYSCMD**
- of UNLOCK command **SYSCMD**
- of VMDUMP command **GENCMD**
- of WARNING command **SYSCMD**
- of VIOBLOK subcommand **IPCSREF**
- of VMBLOK subcommand **IPCSREF**
- userid tag in communications directory  
**CONGREF**
- userid, variable  
described **GENCMD**, **SYSCMD**
- USERMAP** subcommand of **IPCSCAN**  
command  
description **IPCSREF**  
example output **IPCSREF**  
format **IPCSREF**  
functional category **IPCSREF**  
messages **IPCSREF**  
responses **IPCSREF**  
usage notes **IPCSREF**
- users  
assigning group names to **ADMIN**  
changing space allocations of **SFSAD**  
**DELETE USER** command **SFSAD**  
deleting **SFSAD**  
determining current number on system  
**GENCMD**  
displaying **PRIMER**  
current space allocations of **SFSAD**  
number using computer **CMSLOT**  
**DMSDEUSR** Delete User routine **SFSAD**  
**DMSENUUSR** Enroll User routine **SFSAD**  
**ENROLL USER** command **SFSAD**  
enrolling **SFSAD**  
enrolling remote **SFSAD**  
forcing of **SFSAD**  
general  
See general user  
listing names currently on system  
**GENCMD**  
listing those enrolled **SFSAD**  
managing **SFSAD**  
**MODIFY USER** command **SFSAD**  
moving to another file pool **SFSAD**  
moving to another storage group **SFSAD**  
**PROFILE EXEC** for **SFSAD**  
**QUERY LIMITS** command **SFSAD**  
transferring ownership among **SFSAD**
- USERS** operand  
of QUERY command **CMSLOT**,  
**SYSCMD**  
of QUERY (ALL) command **GENCMD**  
of SET command **SYSCMD**
- USERS** start-up parameter **SFSAD**  
as specified for **VMSYS** and **VMSYSU**  
**SFSAD**  
monitoring **SFSAD**  
moving minidisk files to **SFSAD**
- USERSAVE** macro **ADRCMS**
- USERSECT** macro **ADRCMS**
- using  
a combined VM/SP HPO and VM/XA SP  
directory **ADMIN**  
a compiler **PRIMER**  
an EXEC **PRIMER**  
cache subsystems, for the 3880 Models  
13 and 23 **ADMIN**  
**CMS IUCV** to communicate between  
two virtual machines **SFPROG**  
**CP** and **CMS OPGDE**  
**DASD** block I/O system service from  
**CMS SFPROG**  
**DDR** program **ADMIN**  
**Format/Allocate** program **ADMIN**  
full-screen **CMS PRIMER**  
greater-than-16-MB storage (extended  
storage)  
See *Diagnosis Guide*  
**IBM BASIC PRIMER**  
**IUCV** data in a buffer **SFPROG**  
**IUCV** data in a parameter list **SFPROG**

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programmable operator facility  
in a distributed VM system **SFPROG**  
in a mixed environment **SFPROG**  
in a single system **SFPROG**  
single console image facility (SCIF)  
**SFPROG**  
**VMCF SFPROG**  
terminals with VM/SP **TERMREF**  
the SYSPAG macro **ADMIN**  
the SYSXSTOR macro **ADMIN**  
the virtual forms control buffer  
with 3262 printer **GENCMD**  
with 3289E printer **GENCMD**  
XEDIT subcommand in HELP **CMSUG**  
**USSTAB RGOS**  
generation of **RGOS**  
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## V parameter

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DMSGETDA

(SFS Get Directory—Searchall)

**ADRCMS**

DMSGETDF (SFS Get Directory—Files)

**ADRCMS**

DMSGETDS

(SFS Get Directory—Searchauth)

**ADRCMS**

DMSOPEN (SFS Open) **ADRCMS**

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## vaddr operand

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**ADRCMS**

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**ADRCMS**

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



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   to the left **XEDIT**  
   to the right **XEDIT**  
   two files at the same time **APGDE**  
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   example output **IPCSREF**  
   format **IPCSREF**  
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   messages **IPCSREF**  
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   **SFPROG**  
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   monitored in CP internal trace table  
   **SYSCMD**  
   **DASD INST**  
   device **INTRO**  
   console **INTRO**  
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   determining the status of **GENCMD**  
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   **GENCMD**  
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     **CMSREF**  
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     defining **GENCMD**  
   input devices  
     action taken on a **CLOSE GENCMD**  
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     passing parameters to **GENCMD**  
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     **ADRCMS**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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    - determining free space extents **CMSREF**
    - devices supported under CMS **ADGCMS**
    - disks **ADGCMS**
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    - extent, multiple, information in CMS/DOS **ADGCMS**
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

- files
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  - in CMS/DOS **ADGCMS**
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  - specifying extents **CMSREF**
- identifying multivolume files
  - in CMS/DOS **ADGCMS**
  - in OS **ADGCMS**
- installing CMSVSAM saved segment **INST**
- interface conversion considerations
  - CMSMIG**
- macros supported under CMS **ADGCMS**
- master catalog
  - identifying **CMSREF**
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- master catalogs **ADGCMS**
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  - of DLBL command **CMSREF**
- programs
  - identifying before executing programs **ADGCMS**
- reading tape files **ADGCMS**
- support of **ADGCMS**
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- using in CMS **ADGCMS**
- workareas (VIPWORK) **DIAG**
- writing EXECs **ADGCMS**
- VSAMGEN EXEC INTRO**
  - function **INST**
  - installing CMSVSAM and CMSAMS saved segments **INST**
- VS BASIC** file, renumbering **XEDIT**
- vscreen (virtual screen) **PRIMER**
- VSCS** (VTAM SNA Console Support) **RGOS**
  - printing formatted control blocks **DIAG**
  - running with VTAM **GCSREF**
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- VSE** (Virtual Storage Extensions)
  - assembler language macros supported in CMS **ADGCMS**, **ADRCMS**
  - definition **ADMIN**, **SYSMSG**
  - differences between CMS/DOS tape label processing **CMSUG**
  - hardware devices supported **ADGCMS**
  - I/O macros **ADGCMS**, **ADRCMS**
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  - macros supported under CMS **ADGCMS**, **ADRCMS**
  - macros, supervisor **ADGCMS**, **ADRCMS**
  - supervisor control blocks simulated **ADGCMS**
  - supervisor macros **ADGCMS**, **ADRCMS**
  - system residence volume, using in **CMS/DOS ADGCMS**
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  - transient routines **ADGCMS**
  - transients simulated by CMS/DOS **ADGCMS**
  - VM/SP directory entries **ADGCMS**
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  - copying into CMS **MACLIB INST**
  - declarative **ADRCMS**
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  - VSE assembler language macros supported in CMS **ADRCMS**
  - VSE macros supported by CMS/DOS **ADRCMS**
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- VSEVSAM EXEC INTRO**
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  - considerations for 3203-5 **RGOS**
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  - modules and EXPLAIN files **RGOS**
  - virtual machine
    - and problem determination **RGOS**
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- VSE/SP 2.1** virtual machine
  - backup/restore procedures for **RGOS**
  - defining a single **RGOS**
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  - issuing CP commands from **RGOS**

- performance considerations **RGOS**
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- running multiple VSE virtual machines **RGOS**
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- VSE macros supported by CMS **ADGCMS**
- VSE/VSAM Catalog Check Service Aid, invoking **CMSREF**
- VSE/VSAM (Virtual Storage Extension/Virtual Storage Access Method) support using **CMSBAM INST**
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- vstor, variable described **GENCMD, SYSCMD**
- VSYSADR operand
  - of **NAMESYS** macro **PLNGDE**
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  - storage considerations **RGOS**
- V = R operand
  - of **SET** command **SYSCMD**
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- V = V MVS guest **RGOS**
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  - STMULTI, CP SET** command **RGOS**
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## W

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 count **DIAG**  
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virtual machine disabled **DIAG**

**WAIT FAILURE** code (keyword definition)**IPCSREF****WAIT** macro **GCSREF**

description **GCSREF**  
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 ecblist parameter **GCSREF**  
 number of events parameter **GCSREF**  
 related parameter **GCSREF**

**WAIT** operand of **STAT** command**IPCSREF****WAIT** parameter

of **CONNECT** **CONGREF**  
 of **RECEIVE** **CONGREF**  
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 of **SEND DATA** **CONGREF**  
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**RSCS** **SYMSMSG**  
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**SYMSMSG**  
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**SYMSMSG**

**WAIT** (keyword definition) **IPCSREF****WAITD** macro

See also **HNDINT** macro  
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**ERROR** = operand **ADRCMS**  
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**WAITECB** macro

Console I/O wait **ADRCMS**  
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**FORMAT** operand **ADRCMS**  
 OS format, of event control block  
**ADRCMS**

VSE format, of event control block

**ADRCMS**

waiting on event control blocks (ECBs)

**ADRCMS****WAITRD** function

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reading a line of input via **WAITRD**

**ADRCMS**

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**WAITREAD VSCREEN** command**CMSUG****WAITT** macro

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**ADRCMS****WAITT VSCREEN** command **CMSUG**

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**Wait\_on\_Event (XCWOE)** routine **CONGREF**warm start **IPCSREF**, **OPGDE**

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Warning status notice **PRIMER**

**WARNING** virtual screen **PRIMER**

**WARNING** window **PRIMER**

**WEBLOK**, VM SNA support **SFPROG**

**WEEKDAY** option of **DATE** function

**SPIREF**

**WEIBLOK**, VM SNA support **SFPROG**

**WHAT\_RECEIVED** parameter (**APPC**)

of **RECEIVE\_AND\_WAIT** **CONGREF**

**WHEN** clause

See **SELECT** instruction

WHEN command **APGDE**  
 WHEN keyword **SPIUG**  
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     of **TESTCOB** command **APGDE**  
     of **TESTFORT** command **APGDE**  
 WHENEVER command of **SQL** **APGDE**  
 WHERE clause of **SQL** **APGDE**  
 WHERE command **APGDE**  
 WHERE CURRENT OF statement of **SQL**  
     **APGDE**  
 WHERE subcommand of **TESTFORT**  
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     checking with **DATATYPE** **SPIREF**  
     description of **SPIREF**  
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     of **EXTRACT** **XEDIT**  
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     changing location **CMSREF**  
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     clearing **CMSREF**, **PRIMER**  
     **CMS** window **PRIMER**  
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     creating **CMSREF**  
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     definition of **PRIMER**  
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     dropping the **WM** window **CMSREF**  
     expanding the size to the physical screen  
         size **CMSREF**  
     general description **CMSUG**, **XEDIT**  
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     **MAXIMIZE** **WINDOW** **CMSREF**  
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**WM** virtual screen **PRIMER**  
**WM** window **PRIMER**  
     automatically displayed **CMSREF**  
     commands you can enter **CMSREF**  
     customizing **CMSUG**  
     displaying **CMSREF**  
     dropping **CMSREF**  
     exiting **CMSREF**  
     messages **CMSUG**  
 PF keys  
     Backward **CMSUG**  
     Clear **CMSUG**  
     Copy **CMSUG**  
     Forward **CMSUG**  
     Help **CMSUG**  
     Left **CMSUG**  
     Maximize **CMSUG**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



- Restore CMSUG
- Retrieve CMSUG
- Right CMSUG
- Top CMSUG
- using CMSUG
- WN code, exception log messages **SERV**
- wname, variable
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- WNG operand
  - of SET command **GENCMD**
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  - definition of **EXEC2**
  - deleting from a string **SPIREF**
  - description of **SPIUG**
  - extracting from a string **SPIREF**
  - finding in a string **SPIREF**
  - finding length of **SPIREF**
  - functions using **SPIUG**
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  - locating in a string **SPIREF**
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  - processing
    - See formatting; word
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- WORDINDEX function **SPIREF, SPIUG**
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- WORDPOS function **SPIREF**
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  - for administration machines **SFSAD**
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  - for server, replacing **SFSAD**
  - requirements for, during storage group backups **SFSAD**
  - usage of, during **FILEPOOL RESTORE SFSAD**
- work unit **SFSAD**
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  - get **ADRCMS**
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- working set
  - definition **ADMIN, SYSMMSG**
  - projected
    - setting size estimate control algorithm **SYSCMD**
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- workload factors influencing performance
  - VM under VM **RGOS**
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- worksheet to aid in coding **NAMESYS**
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- wrap around **XEDIT**
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  - of **EXTRACT XEDIT**
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- wrapping, automatic line **XEDIT**
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  - implicit **SFSAD**
  - on a directory **CMSUG**
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- write full screen in **DMS/CMS APGDE**
- WRITE macro **ADGCMS**
  - execute format **GCSREF**
  - list format **GCSREF**
- WRITE macro (**BSAM**) **GCSREF**
  - area address parameter **GCSREF**
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  - decb name parameter **GCSREF**
  - description **GCSREF**
  - length parameter **GCSREF**
  - mf parameter **GCSREF**
  - s parameter **GCSREF**
  - sf parameter **GCSREF**
- WRITE parameter
  - DMSGRANT** (SFS Grant Authority) **ADRCMS**
- write pointers, resetting **ADRCMS**
- WRITE VSCREEN command **CMSUG**
- writeshare password **INTRO**
- writing
  - a file on disk **XEDITUG**
  - in typewriter mode **XEDITUG**
  - using **AUTOSAVE CMSLOT**
  - using **FILE CMSLOT, XEDIT**
  - using **SAVE , CMSLOT, XEDIT**
  - using **SET AUTOSAVE XEDIT**
  - a server
    - assembler **SRPI**
    - REXX** and **EXEC 2**
  - accounting records **SFSAD**
  - applications in full-screen **CMS CMSUG**
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  - CMS files onto file mode, file mode
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   with **PUSH SPIREF**  
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   stopping **CONPAO**  
   to CPTRAP spool file **CONPAO**  
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   **CSLENTY** macro **ADRCMS**  
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   **CSLFPI** macro **ADRCMS**  
   **CSLGETP** macro **ADRCMS**  
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   **FSPOINT** macro **ADRCMS**

**WRTAPE** macro  
   **ERROR** = operand **ADRCMS**  
   **MODE** = operand **ADRCMS**  
   **TRAN** = operand **ADRCMS**  
   writing records on tape **ADRCMS**  
**WRTERM** function **IPCSREF**  
**WRTERM** macro  
   **COLOR** = operand **ADRCMS**  
   displaying lines at terminal **ADRCMS**  
   **EDIT** = operand **ADRCMS**  
**WTO** macro **GCSREF**  
   description **GCSREF**  
   execute format **GCSREF**  
   list format **GCSREF**  
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**WTOR** macro **GCSREF**  
   description **GCSREF**  
   ecb parameter **GCSREF**  
   execute format **GCSREF**  
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   mf parameter **GCSREF**  
   reply address parameter **GCSREF**  
   reply length parameter **GCSREF**  
**WUERROR** macro  
   general format **ADRCMS**  
**WVOL1** function in tape command  
   processing **CMSUG**  
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   described **GENCMD, SYSCMD**

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 chart of abbreviations and their corresponding manuals.

## X

X'string operand  
 of LOCATE subcommand **IPCSREF**  
 of LOCATE (UP) subcommand **IPCSREF**

X prefix macro **XEDIT**

X prefix subcommand of XEDIT command  
**APGDE**

X'3C' entries, CPTRAP **DIAG**

X'3C' trace entries **DIAG**

X'3D' entries, CPTRAP **DIAG**

X'3F'  
 CPTRAP entries **DIAG**  
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 CPTRAP **DIAG**

XAB (External Attribute Buffer) **SFPROG**  
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XCAL option of LKED command **CMSREF**

XCIDRM (Identify\_Resource\_Manager)  
 routine **CONGREF**

XCSCSP  
 (Set\_Conversation\_Security\_Password)  
 routine **CONGREF**

XCSCST (Set\_Conversation\_Security\_Type)  
 routine **CONGREF**

XCSCUI (Set\_Client\_Security\_User\_ID)  
 routine **CONGREF**

XCTL macro **GCSREF**  
 de parameter **GCSREF**  
 description **GCSREF**  
 ep parameter **GCSREF**  
 eploc parameter **GCSREF**  
 execute format **GCSREF**  
 list format **GCSREF**  
 mf parameter **GCSREF**  
 param parameter **GCSREF**  
 reg parameter **GCSREF**  
 sf parameter **GCSREF**  
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XCTL (OS macro) **APGDE**

XCTRRM (Terminate\_Resource\_Manager)  
 routine **CONGREF**

XCWOE (Wait\_on\_Event) routine  
**CONGREF**

XEDIT  
 See XEDIT (System Product Editor)

XEDIT command **APGDE, CMSMIG,  
 CMSLOT, PRIMER, XEDIT,  
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**ADD APGDE**  
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**CANCEL APGDE**  
**CHANGE APGDE**  
**COPY APGDE**  
**DELETE APGDE**  
**DUPLICATE APGDE**  
**FILE APGDE**  
**FIND APGDE**  
**FINDUP APGDE**  
**FORWARD APGDE**  
**GET APGDE**  
**INPUT APGDE**  
**JOIN APGDE**  
**LOCATE APGDE**  
**LOWERCASE APGDE**  
**MERGE APGDE**  
**MOVE APGDE**  
**OVERLAY APGDE**  
**POWERINP APGDE**  
**PUT APGDE**  
**PUTD APGDE**  
**QUIT APGDE**  
**QUERY APGDE**  
**QUIT APGDE**  
**RECOVER APGDE**  
**REPLACE APGDE**  
**SAVE APGDE**  
**SCREEN APGDE**  
**SET SCREEN APGDE**  
**SHIFT APGDE**  
**SORT APGDE**  
**SPLIT APGDE**  
**SPLTJOIN APGDE**  
**TOP APGDE**  
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- to invoke System Product Editor
  - CMSUG**
  - used to bypass profile macro
    - XEDITUG**
    - used to specify profile macroname
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- XEDIT file identification line **PRIMER**
- XEDIT file type **APGDE**
- XEDIT macro
  - See also macros, in XEDIT
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    - creating **EXEC2**
    - defining **EXEC2**
    - executing **EXEC2**
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    - sample XEDIT macro **EXEC2**
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    - XEDIT EXTRACT subcommand
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- XEDIT option
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  - of LISTFILE command **CMSREF**
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  - current line positioning **EXEC2**
  - description of **EXEC2**
  - sample of **EXEC2**
  - writing **EXEC2**
- XEDIT subcommand **XEDIT**, **XEDITUG**
  - issued from a logical screen **XEDITUG**
- XEDIT (System Product Editor)
  - TERMREF**
    - changing file mode number with
      - CMSUG**
    - CLOCATE** subcommand **CMSUG**
    - commands, repeating **PRIMER**
    - CTL** option, creating multiple updates
      - to source file **ADGCMS**
    - example **CMSUG**
    - EXTRACT** subcommand **SPIUG**
    - file type usage in CMS **CMSUG**
    - generating full screen menus **SPIUG**
    - introduction to **CMSLOT**, **PRIMER**
    - LOCK** option (default) **CMSUG**
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- XOR, logical **SPIREF**
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  - of **DISPLAY** command **GENCMD**
  - of **STORE** command **GENCMD**
- XTENT option of **FILEDEF** command
  - CMSREF**
- xxx-DEVICE feature operand
  - of **RCTLUNIT** macro **PLNGDE**
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  - described **GENCMD**, **SYSCMD**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

**Y**

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**Y**

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 ZAP List (SNA service)  
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**XEDIT**  
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Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

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- 1 operand  
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- 1017  
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- 1018  
coding RDEVICE macro **PLNGDE**
- 1052  
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- 1053 printer  
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- 138 Display Console **TERMREF**
- 1403  
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**PLNGDE**  
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- 1443  
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- 1443 operand  
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- 148 Display Console **TERMREF**
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- 2250  
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- 2321  
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- 270x  
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- 3031 **TERMREF**
- 3032 **TERMREF**
- 3033 **TERMREF**  
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- 3033 processor **RGOS**
- 3036  
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- 3036 operand  
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- 3066  
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- 3088  
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- 3088 operand  
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- 3090  
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- 31-bit programming conventions **ADGCMS**,  
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- 3148 operand  
of DEFINE command **GENCMD**
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3178 Display Station **TERMREF**

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3203 printer

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3203-5

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3211

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**GENCMD**

UCSB buffer images **ADMIN**

3211 operand

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3215

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3230

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3232 Keyboard-Printer Terminal, Model 51  
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3262

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**GENCMD**

3262 operand

of DEFINE command **GENCMD**

3270

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**PLNGDE**

control unit and device addressing  
**PLNGDE**

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See full screen I/O

Information Display

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**PLNGDE**

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**GENCMD**

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full screen interactions (3270 SIO)

**SFPROG**

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NETWORK command usage **SYSCMD**

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remote resources

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**SYSCMD**

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CLUSTER macro **PLNGDE**

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- 3275  
coding real I/O configuration macros  
**PLNGDE**  
coding **TERMINAL** macro **PLNGDE**
- 3276  
**CLUSTER** macro **PLNGDE**  
coding **TERMINAL** macro **PLNGDE**
- 3277  
coding **RDEVICE** macro **PLNGDE**  
coding **TERMINAL** macro **PLNGDE**  
Display Station **TERMREF**
- 3278  
coding **RDEVICE** macro **PLNGDE**  
coding **TERMINAL** macro **PLNGDE**  
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Model 2A **TERMREF**
- 3279  
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- 328X printer  
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- 3284  
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- 3286  
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coding **TERMINAL** macro **PLNGDE**
- 3287  
coding **RDEVICE** macro **PLNGDE**  
coding **TERMINAL** macro **PLNGDE**
- 3288  
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- 3289  
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- 3289E operand  
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- 3289E printer  
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- 3290  
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- 3310 DASD  
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- 3330  
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- 3330V  
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3850  
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- 3333  
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- 3340  
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- 3350  
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- 3370  
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- 3370 DASD  
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- 3375  
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- 3380  
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- 3380 DASD **ADMIN**  
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 an MVS or CMS guest running with  
**ADMIN**  
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- 3410  
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- 3420  
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- 3422  
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- 3480 devices  
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- 3480 magnetic tape subsystem **SFPROG**  
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- 3480 tape drive  
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- 3505  
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- 3525  
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- 370-XA architecture  
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**ADGCMS, CMSMIG**  
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 AMODE pseudo-op **ADGCMS,**  
**CMSMIG**  
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**CMSMIG**  
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 I/O considerations **CMSMIG**  
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**CMSMIG**  
 PSWs, comparison to System/370  
**ADGCMS, CMSMIG**  
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- 370-XA device information, mapping  
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- 370-XA exploitation  
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- 370-XA mode virtual machine **ADRCMS**

- 370-XA toleration
  - conversion checklist
    - assembler instructions **CMSMIG**
    - CMS/DOS interface **CMSMIG**
    - ENABLE macro **CMSMIG**
    - I/O instructions **CMSMIG**
    - PSWs **CMSMIG**
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  - definition of **CMSMIG**
  - general considerations **CMSMIG**
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- 370E operand
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- 370e option
  - for MVS guest **RGOS**
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  - DIAGNOSE code X'50' **SFPROG**
- 370X dump processing
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- 3704/3705
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- 3704/3705/3725
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  - examples of RDEVICE macro **PLNGDE**
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    - summary of coding considerations **PLNGDE**
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  - emulation program (EP)
    - loading considerations **OPGDE**
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- 3725
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- 3800
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- 3800 printer
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  - as a real spooling device **ADMIN**
    - CHANGE command **ADMIN**
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    - CHANGE command **ADMIN**
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    - START command **ADMIN**
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- features
  - character arrangement tables **ADMIN**
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  - FCB (forms control buffer) **ADMIN**
  - forms overlay (flashing) **ADMIN**
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- imbedding modules in a spool file **ADMIN**
- limits to use of SET MITIME UR
  - command **SYSCMD**
- load CCWs in spool file **SFPROG**
- modifying device attributes **GENCMD**
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- time intervals set and monitored **SYSCMD**
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- 3800 printing subsystem
  - dedicated device support **OPGDE**
  - features **OPGDE**
  - translate tables **OPGDE**
- 3830
  - specifying 64-device feature **PLNGDE**
- 3850 mass storage system (MSS)
  - attaching 3330V devices while using **SYSCMD**
  - error messages **OPGDE**
  - initialization **OPGDE**
  - partitioning **OPGDE**
  - shutdown process **SYSCMD**
- 3851
  - coding RDEVICE macro **PLNGDE**
  - devices, shutdown process **SYSCMD**
- 3880
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  - caching storage, candidates for **ADMIN, PLNGDE**
  - CACHE command **ADMIN**
  - CCW (channel command word) **ADMIN**
  - channel command words **ADMIN**
  - coding RDEVICE macro **PLNGDE**
  - command use **ADMIN**
  - considerations
    - for 308x **ADMIN**
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  - device end posting **ADMIN**
  - diagnostic aids **ADMIN**
  - differences between models **ADMIN**
  - format/allocate
    - considerations **ADMIN**
  - hardware error messages **ADMIN**
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  - MNOTES **ADMIN**
  - Model 11 **ADMIN**
  - Model 13
    - hardware description **ADMIN**
    - subsystem storage **ADMIN**
    - using for paging and spooling **ADMIN**
  - Model 21 **ADMIN**
    - recommended hardware configuration **ADMIN**
  - Model 23
    - hardware description **ADMIN**
    - subsystem storage **ADMIN**
    - using for paging and spooling **ADMIN**
  - programmer considerations
    - addressing characteristics **ADMIN**
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- which minidisks should be allowed to use the cache **ADMIN**
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  - Model 13 **ADMIN**
  - Model 21 **ADMIN**
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- 3380 DASDs **ADMIN**
- 3880 storage control device
  - attaching **SYSCMD**
  - attaching channel **SYSCMD**
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  - limits **SYSCMD**
  - response **SYSCMD**
  - in QUERY command **SYSCMD**
  - in VARY command **SYSCMD**
  - limits to defining **GENCMD**
  - limits to how it can be defined **SYSCMD**
- 3880 Storage Subsystem
  - caching **SYSCMD**
  - RCTLUNIT macro **PLNGDE**
  - RDEVICE macro **PLNGDE**
  - specifying alternate channel **PLNGDE**
- 3880-11 storage control device
  - in QUERY command **SYSCMD**
- 3880-21 storage control device
  - in ATTACH CHANNEL command **SYSCMD**
  - in NETWORK ATTACH command **SYSCMD**
- 3990
  - caching storage
    - candidates for **ADMIN, PLNGDE**
    - coding RDEVICE macro **PLNGDE**
    - command use **ADMIN**
  - configuration
    - DLS (2-path) support **ADMIN, PLNGDE**
    - DLSE (4-path) support **ADMIN, PLNGDE**
    - model 1 **ADMIN**
    - model 2 **ADMIN**
    - model 3 **ADMIN**
  - considerations **ADMIN**
  - real I/O configuration file (DMKRIO) **ADMIN**

- control level authorization  
for channel programs (3880s and 3990s)  
**ADMIN**
- DMKRIO**  
two-path strings **DMKRIO** example  
**ADMIN**
- hardware configuration  
DLS mode (3380 two-path strings)  
**ADMIN**  
DLSE mode (3380 four-path strings)  
**ADMIN**
- IOCP**  
defining to the processor **ADMIN**  
DLS configuration example **ADMIN**  
DLS mode (two-path strings) **ADMIN**  
DLSE configuration example **ADMIN**
- messages **ADMIN**
- model 3  
DASDOPT directory control statement  
**ADMIN**
- models 1, 2 and 3  
MINIOPT directory control statement  
**ADMIN**
- monitor support **ADMIN**  
**RCHANNEL ADMIN**  
**RCTLUNIT ADMIN**  
**RDEVICE ADMIN**
- storage control  
features for the model 3 **ADMIN**  
model 1 **ADMIN**  
model 2 **ADMIN**  
model 3 **ADMIN**
- 4K blocks**  
changing a user's allocation of **SFSAD**  
deleting a users allocation of **SFSAD**  
giving users allocations of **SFSAD**  
maximum number per file pool **SFSAD**  
maximum number per file space **SFSAD**
- 4nxx identifier, messages with SYSMG**
- 4245**  
coding **RDEVICE** macro **PLNGDE**
- 4245 operand**  
of **DEFINE** command **GENCMD**
- 4248**  
coding **RDEVICE** macro **PLNGDE**
- 4248 operand**  
of **DEFINE** command **GENCMD**
- 4250**  
coding **RDEVICE** macro **PLNGDE**
- 4331 Display Console TERMREF**
- 4341 Display Console TERMREF**
- 4361 Display Console TERMREF**
- 4381 Display Console TERMREF**
- 4381 processor RGOS**
- 48C option of OPTION command**  
**CMSREF**
- 5080**  
coding **RDEVICE** macro **PLNGDE**
- 5550 Multi Station TERMREF**
- 5664173H \$PPF file (VM/SP HPO Product**  
Parameter file)
- component override area  
defining **SERV**  
parameters **SERV**  
syntax **SERV**
- creating overrides **SERV**  
function **INST**
- general description **SERV**  
loading **INST**
- override file **SERV**
- sample file  
**VM/SP HPO SERV**
- syntax **SERV**
- tags  
**APP SERV**  
**BLD SERV**  
**CKAUX SERV**  
**CKREQ SERV**  
**CKTXT SERV**  
**CNTRL SERV**  
**CNTRLOP SERV**  
**COMPLST SERV**  
component name **SERV**  
**END SERV**  
**LTO SERV**  
**MDA SERV**  
**MERGE SERV**  
**NLS SERV**  
**OVERLST SERV**  
**OVERLSTP SERV**  
**RECSER SERV**  
**SLVI SERV**  
**UPDTID SERV**  
**USEREXIT SERV**  
tailoring **INST, SERV**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## Numerics

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60C option of OPTION command  
CMSREF

6262  
coding RDEVICE macro PLNGDE

7TRACK option  
of ASSGN command CMSREF  
of FILEDEF command CMSREF

7171 ASCII Device Attachment Control  
Unit TERMREF

7412 Console TERMREF

7443  
coding RDEVICE macro PLNGDE

8809 tape drive  
with compacted DDR data ADMIN

9TRACK option  
of ASSGN command CMSREF  
of FILEDEF command CMSREF

9370 IPCSREF

## Special Characters

¢ logical line delete symbol **GENCMD**,  
**SYSCMD**  
 . (as a placeholder) **SPIUG**  
 . (in compound symbols) **SPIUG**  
 . (period)  
   as placeholder in parsing **SPIREF**  
   causing substitution in variable names  
   **SPIREF**  
   in numbers **SPIREF**  
 .xxxx prefix subcommand **XEDIT**  
 . (period) **SAACOM**  
 .BX (BOX) format word **CMSUG**  
 .CM (Comment) control word **CMSUG**  
 .CS (Conditional Section) control word  
   **CMSUG**  
 .FO (Format Mode) control word **CMSUG**  
 .IL (Indent Line) control word **CMSUG**  
 .IN (indent) control word **CMSUG**  
 .MT (Menu Type) control word **CMSUG**  
 .OF (Offset) control word **CMSUG**  
 .SP (Space Lines) control word **CMSUG**  
 .TR (Translate Character) control word  
   **CMSUG**  
 .xxxx prefix subcommand **XEDITUG**  
 < prefix macro **XEDIT**  
 < prefix subcommand of XEDIT command  
   **APGDE**  
 < SHIFT LEFT MACRO **XEDITUG**  
 < (less than operator) **SPIREF**,  
   **SPIUG**  
 < > (less than or greater than operator)  
   **SPIREF**  
 < = (less than or equal operator) **SPIREF**  
 + and - subcommands of IPCSSCAN  
   command **IPCSREF**  
 + (addition operator) **SPIREF**, **SPIUG**  
 + + + tracing flag **SPIREF**  
 | used in string targets **XEDIT**  
 | (inclusive OR operator) **SPIREF**, **SPIUG**  
 || (concatenation operator) **SPIREF**,  
   **SPIUG**  
 & **EXEC2**  
 & subcommand **XEDIT**  
 & (AND operator) **SPIUG**  
 &ERROR statement **APGDE**  
 &READ **APGDE**

&READ command (for EXEC or EXEC2)  
   **APGDE**  
 &STACK FIFO **APGDE**  
 &STACK FIFO command **APGDE**  
 &STACK LIFO **APGDE**  
 &STACK LIFO command **APGDE**  
 &0 **EXEC2**  
 & used in string targets **XEDIT**  
 & (AND operator) **SPIREF**  
 &ARGS EXEC2 control statements **EXEC2**  
   embedded blanks **EXEC2**  
 &ARGSTRING EXEC2 control statement  
   **EXEC2**  
   embedded blanks **EXEC2**  
 &BEGPRINT EXEC2 control statement  
   **EXEC2**  
   truncation column **EXEC2**  
 &BEGSTACK EXEC2 control statement  
   **EXEC2**  
   first-in/first-out (FIFO) **EXEC2**  
   last-in/first-out (LIFO) **EXEC2**  
   truncation column **EXEC2**  
 &BEGTYPE EXEC2 control statement  
   **EXEC2**  
   truncation column **EXEC2**  
 &BLANK EXEC2 control statement  
   **EXEC2**  
   embedded blanks **EXEC2**  
 &BUFFER EXEC2 control statement  
   **EXEC2**  
 &CALL EXEC2 control statement  
   **EXEC2**  
   label search **EXEC2**  
 &CASE EXEC2 control statement **EXEC2**  
 &CMDSTRING **EXEC2**  
 &COMLINE **EXEC2**  
 &COMMAND EXEC2 control statement  
   **EXEC2**  
   &PRESUME **EXEC2**  
 &CONCAT OF **EXEC2**  
 &CONCATENATION OF **EXEC2**  
 &CRASH **EXEC2**  
 &DATATYPE OF **EXEC2**  
 &DATE **EXEC2**  
   evaluation **EXEC2**  
   Greenwich Mean Time (GMT) **EXEC2**  
 &DEPTH **EXEC2**  
 &DIV OF **EXEC2**  
 &DIVISION OF **EXEC2**  
 &DUMP EXEC2 control statement **EXEC2**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.



**&ERROR EXEC2**  
**&EXIT EXEC2**  
**&FILEMODE EXEC2**  
**&FILENAME EXEC2**  
**&FILETYPE EXEC2**  
**&FROM EXEC2**  
**&GOTO EXEC2**  
    label search EXEC2  
**&IF EXEC2**  
    comparands EXEC2  
    comparatives EXEC2  
    conditional statements EXEC2  
**&INDEX EXEC2**  
**&LEFT OF EXEC2**  
    embedded blanks EXEC2  
**&LENGTH OF EXEC2**  
**&LINE EXEC2**  
**&LINENUM EXEC2**  
**&LINK EXEC2**  
**&LITERAL OF EXEC2**  
    embedded blanks EXEC2  
**&LOCATION OF EXEC2**  
**&LOOP EXEC2**  
    closing EXEC2  
    label search EXEC2  
**&MULT OF EXEC2**  
**&MULTIPLICATION OF EXEC2**  
**&N EXEC2**  
**&name subcommand of IPCSSCAN**  
    command  
    description IPCSREF  
    example output IPCSREF  
    format IPCSREF  
    functional category IPCSREF  
    messages IPCSREF  
    operands IPCSREF  
    responses IPCSREF  
    usage notes IPCSREF  
**&PIECE OF EXEC2**  
**&POSITION OF EXEC2**  
**&PRESUME EXEC2**  
    **&COMMAND EXEC2**  
    **&SUBCOMMAND EXEC2**  
**&PRINT EXEC2**  
**&PUNCH control statement**  
    punching jobs to CMS batch facility  
    CMSUG  
**&RANGE OF EXEC2**  
    embedded blanks EXEC2  
**&RC EXEC2**  
**&READ EXEC2**  
    ARGS EXEC2  
    embedded blanks EXEC2  
    examples EXEC2  
    n,1,\* EXEC2  
**STRING EXEC2**  
**VARS EXEC2**  
    **&TRUNC EXEC2**  
**&RETCODE EXEC2**  
**&RETURN EXEC2**  
**&RIGHT OF EXEC2**  
    embedded blanks EXEC2  
**&SKIP EXEC2**  
**&STACK EXEC2**  
    first-in/first-out (FIFO) EXEC2  
    last-in/first-out (LIFO) EXEC2  
**&STRING OF EXEC2**  
    embedded blanks EXEC2  
**&SUBCOMMAND EXEC2**  
    **&PRESUME EXEC2**  
**&SUBSTR OF EXEC2**  
**&TIME EXEC2**  
    evaluation EXEC2  
    Greenwich Mean Time (GMT)  
    EXEC2  
**&TRACE EXEC2**  
    ALL EXEC2  
    ERR EXEC2  
    example EXEC2  
    OFF EXEC2  
    ON EXEC2  
    output-action EXEC2  
    \* EXEC2  
**&TRACE statement in EXEC 2**  
    CMSUG  
**&TRANS OF EXEC2**  
    embedded blanks EXEC2  
    rules for modification EXEC2  
**&TRANSLATION OF EXEC2**  
    embedded blanks EXEC2  
    rules for modification EXEC2  
**&TRIM OF EXEC2**  
**&TRUNC EXEC2**  
    truncation column EXEC2  
**&TYPE EXEC2**  
**&TYPE OF EXEC2**  
**&UPPER EXEC2**  
**&WORD OF EXEC2**  
**&& (exclusive OR operator) SPIREF,**  
    **SPIUG**  
    ! prefix on TRACE instruction SPIREF  
    \$ (as arbitrary character) XEDITUG  
    \$ (as default arbitrary character) XEDIT  
    \$ source files, updating with EXECUPDT  
    SERV  
    \$ALLOCS system area  
    description PLNGDE  
\$ASIPROC  
    changes in RGOS  
    example RGOS

**\$CPNUC\$** system area  
description **PLNGDE**  
**\$DASD\$** **CONSTS** file **INST**  
loading **INST**  
**\$DIRECT\$** system area  
description **PLNGDE**  
**\$HLPABBR** file type usage in CMS **CMSUG**  
**\$HLPAVS** file type usage in CMS **CMSUG**  
**\$HLPCMS** file type usage in CMS **CMSUG**  
**\$HLPCMSQ** file type usage in CMS **CMSUG**  
**\$HLP CMSS** file type usage in CMS **CMSUG**  
**\$HLP CP** file type usage in CMS **CMSUG**  
**\$HLP CPOT** file type usage in CMS **CMSUG**  
**\$HLP CPQU** file type usage in CMS **CMSUG**  
**\$HLP CPSE** file type usage in CMS **CMSUG**  
**\$HLP DEBU** file type usage in CMS **CMSUG**  
**\$HLP EDIT** file type usage in CMS **CMSUG**  
**\$HLP EXC2** file type usage in CMS **CMSUG**  
**\$HLP EXEC** file type usage in CMS **CMSUG**  
**\$HLP GROU** file type usage in CMS **CMSUG**  
**\$HLP HELP** file type usage in CMS **CMSUG**  
**\$HLP IPCS** file type usage in CMS **CMSUG**  
**\$HLP MACR** file type usage in CMS **CMSUG**  
**\$HLP MENU** file type usage in CMS **CMSUG**  
**\$HLP MSG** file type usage in CMS **CMSUG**  
**\$HLP PREF** file type usage in CMS **CMSUG**  
**\$HLP PVM** file type usage in CMS **CMSUG**  
**\$HLP QUER** file type usage in CMS **CMSUG**  
**\$HLP REXX** file type usage in CMS **CMSUG**  
**\$HLP ROUT** file type usage in CMS **CMSUG**  
**\$HLP RSCS** file type usage in CMS **CMSUG**  
**\$HLP SET** file type usage in CMS **CMSUG**  
**\$HLP SQLD** file type usage in CMS **CMSUG**  
**\$HLP SRPI** file type usage in CMS **CMSUG**  
**\$HLP TASK** file type usage in CMS **CMSUG**  
**\$HLP TSAF** file type usage in CMS **CMSUG**  
**\$HLP XEDI** file type usage in CMS **CMSUG**  
**\$IPLxxx**, changes **RGOS**  
**\$LISTIO EXEC** file **ADGCMS**  
appending information to **CMSREF**  
creating **CMSREF**  
format **CMSREF**  
**\$MDISK\$** system area  
description **PLNGDE**  
**\$PPFTEMP** file **SERV**  
**\$SAVSYS\$** system area  
description **PLNGDE**  
**\$SERVER\$** **NAMES** file **CONGREF**  
description of **CONPAO**  
overview **CONPAO**  
sample entries **CONPAO**  
setting up **CONPAO**  
**\$SETUP** file **SERV**  
**\$SYSCKP\$** system area  
description **PLNGDE**  
**\$SYSERR\$** system area  
description **PLNGDE**  
**\$SYSWRM\$** system area  
description **PLNGDE**  
**\$TDISK\$** system area  
description **PLNGDE**  
**\$TEMP\$** system area  
description **PLNGDE**  
**\$VMFAPP \$ERRLOG** file  
example **SERV**  
general description **SERV**  
message codes **SERV**  
**\$VMFBLD \$ERRLOG** file  
example **SERV**  
general description **SERV**  
message codes **SERV**  
**\$VMFPAT\$ EXEC** **SERV**  
**\$VMFREC \$ERRLOG** file  
example **SERV**  
general description **SERV**  
message codes **SERV**  
**\$VMFREC \$HISTORY** file  
example **SERV**  
general description **SERV**  
**\$\$\$SUPV**  
VSE supervisor for **MODE=VM**  
**RGOS**  
**\$\$\$SUP3**  
VSE supervisor for **MODE=370**  
**RGOS**  
**\$\$\$BCLOSE** transient **ADGCMS**  
**\$\$\$BDUMP** transient **ADGCMS**  
**\$\$\$BOPEN** transient **ADGCMS**  
**\$\$\$BOPENR** transient **ADGCMS**  
**\$\$\$BOPNLB** transient **ADGCMS**  
**\$\$\$BOPNR2** transient **ADGCMS**  
**\$\$\$BOPNR3** transient **ADGCMS**  
**\$\$\$BOSVLT** transient **ADGCMS**  
**\$\$\$SAVED \$POOLDEF** temporary file **SFSAD**  
**\$\$\$TEMP \$BACKUP** temporary file **SFSAD**  
**\$\$\$TEMP \$POOLDEF** temporary file **SFSAD**  
**\$\$\$TEMP \$\$INPUT** temporary file **SFSAD**  
— (dash) **SAACOM**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## Special Characters

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- \* command **CMSUG, GENCMD**  
described **GENCMD**
- \* operand
  - of **CHANGE** command **SYSCMD**
  - of **MESSAGE** command **GENCMD, SYSCMD**
  - of **MIGRATE** command **SYSCMD**
  - of **MSGNOH** command **SYSCMD**
  - of **ORDER** command **SYSCMD**
  - of **PURGE** command **SYSCMD**
  - of **QUERY** command **GENCMD, SYSCMD**
  - of **SPOOL** command **GENCMD**
  - of **SPTAPE** command **SYSCMD**
  - of **START** command **SYSCMD**
  - of **TRANSFER** command **SYSCMD**
  - of **VMDUMP** command **GENCMD**
- \* (asterisk)
  - See also asterisk (\*)
  - as file ID on command line **CMSUG**
  - entered in file ID **CMSREF**
  - in **ACCESS** command **CMSREF**
  - in **COPYFILE** command **CMSREF**
  - in **DLBL** command **CMSREF**
  - in **DSERV** command **CMSREF**
  - in **EDIT** command **CMSREF**
  - in **ERASE** command **CMSREF**
  - in **EXECDROP** command **CMSREF**
  - in **EXECIO** command **CMSREF**
  - in **EXECLOAD** command **CMSREF**
  - in **EXECMAP** command **CMSREF**
  - in **EXECSTAT** command **CMSREF**
  - in file mode field **CMSUG**
  - in **FILEDEF** command **CMSREF**
  - in **FILELIST** command **CMSREF, CMSUG**
  - in **FINIS** command **CMSREF**
  - in **INCLUDE** command **CMSREF**
  - in **LABELDEF** command **CMSREF**
  - in **LISTDS** command **CMSREF**
  - in **LISTFILE** command **CMSREF, CMSUG**
  - in **LOAD** command **CMSREF**
  - in **NAMEFIND** command **CMSREF**
  - in **NUCXDROP** command **CMSREF**
  - in **PEEK** command **CMSREF**
  - in **PRINT** command **CMSREF**
  - in **PUNCH** command **CMSREF**
  - with **RESET** option
    - of **INCLUDE** command **CMSREF**
    - of **LOAD** command **CMSREF**
- \* (multiplication operator) **SPIREF, SPIUG**
- \*-\* tracing flag **SPIREF**
- \***BLOCKIO** (DASD Block I/O System Service) **SFPROG**
- \***CCS** (SNA Console Communication Services) **SFPROG**
- \***COPY** statement **CMSREF**
- \***CRM** (Collection Resource Management System Service) **SFPROG**
  - authorizing a virtual machine to connect to **CONPAO**
  - IUCV directory entry **CONPAO**
- \***dumpid** operand
  - of **DMCP** command **SYSCMD**
  - of **DUMP** command **GENCMD**
  - of **VMDUMP** command **GENCMD**
- \***dumpid**, variable
  - described **GENCMD, SYSCMD**
- \***IDENT** (Identify System Service) **SFPROG**
  - connecting to
    - do a revoke **CONGREF**
    - resource manager **CONGREF**
  - \***IDENT CONGREF**
  - identifying
    - gateways **CONPAO**
    - in **APPCPASS** directory statement **CONPAO**
    - multiple connections to **CONPAO**
    - resources **CONPAO**
    - specified as LU name qualifier **CONPAO**
    - used in resource's locally known LU name **CONPAO**
  - revoking
    - gateways in merging collections **CONGREF**
    - resource **CONGREF**
    - resources in merging collections **CONGREF**
    - your own resources **CONGREF**
- \***LOGREC** (Error Logging System Service) **SFPROG**
- \***MN802\*** monitor records **ADMIN**
- \***MSG** (Message System Service) **SFPROG**
- \***MSGALL** (Message All System Service) **SFPROG**
- \***NCCF** **SFPROG**
- \***SIGNAL** (Signal System Service) **SFPROG**
- \***SPL** (Spool System Service) **SFPROG**
- \***USERID**
  - in **APPCPASS** directory statement **CONPAO**
  - specified as LU name qualifier **CONPAO**
  - used in resource's locally known LU name **CONPAO**
- \*\* (exponentiation operator) **SPIREF, SPIUG**
- \*/ comment delimiter **SPIUG**

- \* / (end of a REXX comment statement)
- CMSUG**
- ¬ (NOT operator) **SPIUG**
- ¬ (NOT operator) **SPIREF**
- ¬ < (not less than operator) **SPIREF**
- ¬ > (not greater than operator) **SPIUG**
- ¬ > (not greater than operator) **SPIREF**
- ¬ = (not equal operator) **SPIUG**
- ¬ = (not equal operator) **SPIREF**
- ¬ = = (not exactly equal operator) **SPIUG**
- ¬ = = (not exactly equal operator) **SPIREF**
- / prefix command **PRIMER**
- / prefix subcommand **XEDIT, XEDITUG**  
practice exercise using **XEDITUG**
- / prefix subcommand of XEDIT command **APGDE**
- / (diagonal)  
used in ACCESS command **CMSREF**  
used in EXECUTE command **CMSREF**
- / (division operator) **SPIREF, SPIUG**
- /JOB control card description **CMSUG**
- /SET control card description **CMSUG**
- /\* comment delimiter **SPIUG**
- /\* (slash asterisk)  
CMS batch facility control card used to  
signal end of job **CMSUG**  
end-of-file indicator in batch job **CMSUG**  
in REXX language interpreted as comment  
**CMSUG**
- // record **ADGCMS**
- // (remainder operator) **SPIREF, SPIUG**
- / = (not equal operator) **SPIREF, SPIUG**
- / = = (not exactly equal operator) **SPIREF, SPIUG**
- , operand  
of STORE command **GENCMD**
- , (comma) **SPIREF**  
as continuation character **SPIREF**
- % (integer division operator) **SPIREF, SPIUG**
- %, used as file ID on command line **CMSUG**
- \_ (underscore) **SAACOM**
- > prefix macro **XEDIT**
- > prefix subcommand of XEDIT command **APGDE**
- > SHIFT RIGHT MACRO **XEDITUG**
- > (greater than operator) **SPIREF, SPIUG**
- > C > tracing flag **SPIREF**
- > F > tracing flag **SPIREF**
- > L > tracing flag **SPIREF**
- > O > tracing flag **SPIREF**
- > P > tracing flag **SPIREF**
- > V > tracing flag **SPIREF**
- > . > tracing flag **SPIREF**
- > < (greater than or less than operator)  
**SPIREF**
- > > > tracing flag **SPIREF**
- > = (greater than or equal operator) **SPIREF**
- ? prefix on TRACE instruction **SPIREF**
- ? operand of PRINT subcommand **IPCSREF**
- ? subcommand **XEDIT, XEDITUG**
- ? subcommand of IPCSSCAN command  
description **IPCSREF**  
example output **IPCSREF**  
format **IPCSREF**  
functional category **IPCSREF**  
messages **IPCSREF**  
response **IPCSREF**  
usage note **IPCSREF**
- ? (question mark)  
used with DISK option of FILEDEF  
command **CMSREF**  
used with DSN option of DLBL command  
**CMSREF**
- # (as default line end character) **XEDIT, XEDITUG**
- # (logical line end character)  
using when setting PF (program function)  
keys **CMSUG**
- #CP command **CMSUG, GENCMD**  
described **GENCMD**  
operand  
commandline **GENCMD**  
responses **GENCMD**  
usage notes **GENCMD**
- #CP function  
used when setting PFnn RETRIEVE  
**CMSUG**  
using on display terminals **CMSUG**
- #CP I CMS **SPIUG**
- @ (logical character delete character)  
using when setting PF (program function)  
keys **CMSUG**
- = command  
using in XEDIT **CMSLOT, PRIMER**  
using on FILELIST screen **PRIMER**

Refer to the foldout page at the back of this book for a chart of abbreviations and their corresponding manuals.

## Special Characters

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- = option
  - of **EXTRACT XEDIT**
  - of **QUERY XEDIT**
  - of **SET XEDIT**
  - of **TRANSFER XEDIT**
- = subcommand of **XEDIT** command
  - APGDE, XEDIT, XEDITUG**
- = (equal operator) **SPIUG**
- = (equal sign)
  - assignment indicator **SPIREF**
  - entered in file IDs on command lines
    - CMSUG**
    - equal operator **SPIREF**
    - immediate debug command **SPIREF**
    - in **COPYFILE** command **CMSREF**
    - in **DO** instruction **SPIREF**
- = = (exactly equal operator) **SPIREF, SPIUG**
- " prefix command **PRIMER**
- " prefix subcommand **XEDIT, XEDITUG**
- " prefix subcommand of **XEDIT** command
  - APGDE**
  - "HT"** flag
    - cleared before error messages **SPIREF**
  - "in memory files" **EXEC2**
  - 'C' or 'CC' pending **XEDITUG**
  - 'C' or 'CC' pending... **XEDIT**
  - 'DD' pending **XEDITUG**
  - 'D' or 'DD' pending... **XEDIT**
  - 'F' pending **XEDITUG**
  - 'F' pending... **XEDIT**
  - 'M' or 'MM' pending **XEDITUG**
  - 'P' pending **XEDITUG**
  - 'P' pending... **XEDIT**
  - 'XX' pending... **XEDIT**
  - '...' pending **XEDITUG**
  - '....' pending... **XEDIT**
  - example of **XEDIT**
  - '< <' pending... **XEDIT**
  - '> >' pending... **XEDIT**
  - "" pending **XEDITUG**
  - "" pending... **XEDIT**

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## Summary of Changes

### Summary of Changes for GC23-0187-4 for VM/SP HPO Release 6

This summary describes the major changes that have been made to this publication for Release 6. The major changes are:

- The Glossary, formerly Chapter 2, has been omitted from the book and is now a separate publication, the *VM/SP HPO Glossary*, SC23-0441-0.
- The Master Index has been replaced by the new index entries compiled from the VM/SP HPO Release 6 and VM/SP Release 6 manuals.
- Diagrams detailing the reorganization of the Release 6 VM/SP HPO library have been added to Chapter 1.
- Abstracts of the manuals that make up the VM/SP HPO library are added and changed as necessary.
- Pseudonumbers for Release 5 and Order Numbers for Release 6 publications have been included.

### Summary of Changes for GC23-0187-3 for VM/SP HPO Release 5

This summary describes the major changes that have been made to this publication for Release 5. The major changes are:

- The transparent services access facility (TSAF) component of VM is added to the technical discussions.
- A section is added to Chapter 1 that details the changes to the library for Release 5.
- Pseudonumbers for the VM/SP HPO Release 4.2 and VM/SP Release 5 manuals are provided.
- Abstracts of the manuals that make up the VM/SP HPO library are added and changed as necessary.
- The glossary is updated.
- Master index (Chapter 3) is replaced by the new index entries compiled from the VM/SP and VM/SP HPO Release 5 manuals.



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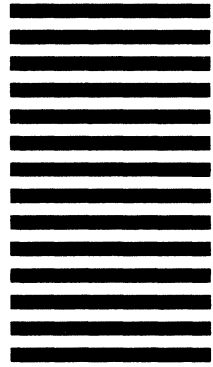
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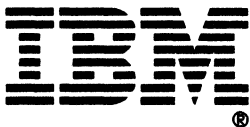
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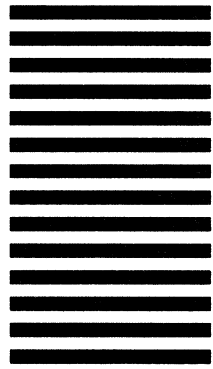
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ADGCMS	<i>Application Development Guide for CMS</i>	SC24-5286
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ADRCMS	<i>Application Development Reference for CMS</i>	SC24-5284
APGDE	<i>Application Development Guide for CMS</i>	SC24-5247
CMSMIG	<i>Application Migration Guide for CMS</i>	SC24-5366
CMSLOT	<i>CMS Primer for Line-Oriented Terminals</i>	SC24-5242
CMSREF	<i>CMS Command Reference</i>	SC19-6209
CMSUG	<i>CMS User's Guide</i>	SC19-6210
CONGREF	<i>Connectivity Programming Guide and Reference</i>	SC24-5377
CONPAO	<i>Connectivity Planning, Administration, and Operation</i>	SC24-5378
DIAG	<i>Diagnosis Guide</i>	LY27-8061
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GCSREF	<i>Group Control System Command and Macro Reference</i>	SC24-5250
GENCMD	<i>CP General User Command Reference</i>	SC19-6227
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INST	<i>Installation Guide</i>	SC38-0107
INTRO	<i>Introduction</i>	GC19-6200
IPCSREF	<i>Interactive Problem Control System Guide and Reference</i>	SC23-0443
OPGDE	<i>Operator's Guide</i>	SC19-6225
PLNGDE	<i>Planning Guide and Reference</i>	SC19-6223
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REL6GDE	<i>Release 6 Guide</i>	SC23-0189
RGOS	<i>Virtual Machine Running Guest Operating Systems</i>	GC19-6212
SAACOM	<i>SAA Common Programming Interface Communications Reference</i>	SC26-4399
SECUR	<i>Introduction to Security</i>	SC24-5316
SERV	<i>Service Guide</i>	SC23-0440
SFPROG	<i>VM System Facilities for Programming</i>	SC24-5288
SFSAD	<i>CMS Shared File System Administration</i>	SC24-5367
SPIREF	<i>System Product Interpreter Reference</i>	SC24-5239
SPIUG	<i>System Product Interpreter User's Guide</i>	SC24-5238
SRPI	<i>Programmer's Guide to the Server-Requested Programming Interface for VM/SP</i>	SC24-5291
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