

CA Disk™ Backup and Restore

Quick Reference Guide

r12.5, Second Edition



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CA Technologies Product References

This document references the following CA Technologies products:

- CA Disk™ Backup and Restore (CADisk)
- CA Vantage™ Storage Resource Manager GMI (CAVantage SRM)

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Chapter 1: Introduction

This document is designed to provide CADisk customers with a quick reminder of the format of CADisk commands and parameters. Some of these commands and parameters are also available under CAVantage SRM.

Chapter 2: Pattern Names and Date Formats

This section contains the following topics:

[Pattern Names](#) (see page 9)

[CADisk Date Formats](#) (see page 11)

Pattern Names

A pattern name consists of the usual alphanumeric and national characters allowed in a data set name but you can also use the following:

The asterisk (*) is used to represent a complete or partial variable index level.

The following are examples of using the asterisk (*):

DSN=*

Selects all single level names.

DSN=*. *

Selects all double level names.

DSN=A.*.SOURCE

Selects all triple level names with a first level of "A" and a third level of "SOURCE."

DSN=A.*.SOURCE

Selects all double level names with a first level beginning with "A" followed by any other characters, and a second level of "SOURCE."

?

The question mark (?) is used to represent any single character within an index level. Multiple question marks in the same level are permitted.

The following are examples of using the question mark (?):

DSN=?

Selects all single character names.

DSN=A.TEST??

Selects all double level names with a first level of "A" and a second level of six characters, the first four of which are "TEST."

/

The slash (/) is used to represent any variable character(s) from that position to the end.

The following are examples of using the slash (/):

DSN=A/

Selects all names beginning with "A".

DSN=A.TEST/

Selects all names beginning with character string "A.TEST" followed by any other characters.

!

The exclamation point (!) is used to represent any variable character up to the character string following the exclamation point; i.e., the exclamation point defines the beginning of a character string (terminated by the next pattern character or the end of the data) that may be found anywhere within the name.

The following are examples of using the exclamation point (!):

DSN=!TEST

Selects all data sets that contain "TEST" somewhere in the name.

DSN=!TEST!LOADLIB

Selects all data sets that contain "TEST" somewhere in the name and "LOADLIB" somewhere following "TEST".

Pattern representations can be combined into a single request.

Examples of combining patterns into a single request

DSN=A?.!DEPT21

Selects all data sets that have a two-character first-level index that starts with an "A" and contain "DEPT21" somewhere in the remainder of the name.

DSN=A.*.C?./

Selects all names with a first level of "A" followed by any second level, followed by a two-character third level starting with a "C" and followed by any other characters.

CADisk Date Formats

The following table shows CADisk date formats:

Gregorian

Formats:

- ddmonyy (23FEB06)
- ddmonYYYY (23FEB2006)
- mm/dd/yy (02/23/06)
- mm/dd/yyyy (02/23/2006)

(February 23, 2006)

Julian

Formats:

- yyddd (06189)
- yyyddd (2006189)
- yy ddd (06.189)
- yyyy ddd (2006.189)
- yy/ddd (06/189)
- yyyy/ddd (2006.189)

(July 8, 2006)

Note: Julian dates 98000, 99000, 99366, and 99999 are also accepted in any of the above formats.

Chapter 3: System Parameters

This section contains the following topics:

[PARMLIB Syntax Rules](#) (see page 13)

[System Parameter Overrides](#) (see page 13)

PARMLIB Syntax Rules

The following syntax rules apply:

- Use columns 1 to 72.
- Multiple lines are permitted.
- For continuation, enclose both lines in quotes and put in a comma after end quote of the first line.
- If it contains embedded blanks, it must be enclosed in quotes.
- To have quotes within an entry, use two quotes.
- An asterisk (*) in column one indicates a comment line.

```
*SAMS:Disk POOLDEFS MEMBER
'ARCHTAPE DMSOS.1CC.ARCOTAPE'
'ARCHTAPE DMSOS.VYK.MERG/'
'ARCHMINI DMSOS.DLG.ARCOMINI/'
```

System Parameter Overrides

System parameters can be overridden through JCL execution. It must have "SYSPARMOy" in SYSPARMS member of PARMLIB.

Use //SYSPARMS DD statement.

Example of a system override

```
//SYSPARMS DD *
DYNEXPDTE99365
PREALLOCY
/*
```

Example for step name overrides

```
//PRINT.SYSPARMS DD *  
FLY COUNT0  
/*
```

Chapter 4: Commands

This section contains the following topics:

[Data Storage Command Language \(DSCL\)](#) (see page 15)
[DSCL Statement Commands](#) (see page 18)
[Criteria Option Conventions and Examples](#) (see page 22)
[Criteria Options \(SMS/Non-SMS\)](#) (see page 23)
[Criteria Options \(SMS\)](#) (see page 26)
[Restore Explicit VSAM and Non VSAM](#) (see page 37)
[Recover VSAM and Non-VSAM](#) (see page 41)
[Deferred Processing - Archive and Backup](#) (see page 44)
[Processing Queued Requests \(Dispose\)](#) (see page 46)
[Billing VSAM](#) (see page 46)
[Billing Non-VSAM](#) (see page 48)
[Archive Management](#) (see page 49)
[LISTD Flags](#) (see page 53)
[PDS Compress](#) (see page 56)
[TSO Commands](#) (see page 58)

Data Storage Command Language (DSCL)

The following is a list of the commands and parameters that make up the Data Storage Command Language (DSCL). The DSCL statements can be used when JCL procedure DMS is executed.

Note: For more information, see the section Data Storage Command Language in the chapter "Basic System – DMS PROC" in the *User Guide*.

The following commands can be used with DSCL statements; ARCHIVE, BACKUP, COPY, DELETE, EXPIRE, MOVE, RELEASE, REPORT, VBACKUP, and VREPORT.

Environment

Command: SET

Parameter: MODE=SIMULATE

VSAM/Non-VSAM: Both

Command: PASSWORD

Parameters:

■ CATALOG=

■ MASTER=

VSAM/Non-VSAM: VSAM

Candidate

Command: FIND

Parameters:

- DSNAMES=
- CATALOG=

VSAM/Non-VSAM: Both

Parameters:

- PASSWORD=

VSAM/Non-VSAM: VSAM

Command: SCAN

Parameters:

- CATALOG=
- EXCCATS=
- BACKUP

VSAM/Non-VSAM: Both

Parameters:

- REALVOLS
- SHOWVOL

VSAM/Non-VSAM: Both

Parameters:

- MSS
- MSVGP=

VSAM/Non-VSAM: Both

Selection

Command: EXCLUDE

Parameters:

- DSNAMES=
- TABLE=
- VOLUMES=
- VAMPOOL=
- SGNAME=
- VTOCS
- CATALOG=
- CRITERIA=

VSAM/Non-VSAM: Both

Parameters:

- COMPONENTS

VSAM/Non-VSAM: VSAM

Command: SELECT

Parameters:

- DSNAMES=
- TABLE=
- VOLUMES=
- VAMPOOL=
- SGNAME=
- VTOCS
- CATALOG=
- CRITERIA=

VSAM/Non-VSAM: Both

Parameters:

- COMPONENTS

VSAM/Non-VSAM: VSAM

DSCL Statement Commands

The following is a list of DSCL statement commands:

ARCHIVE

The command ARCHIVE has the following parameters for VSAM, Non-VSAM, and both:

For VSAM and Non-VSAM:

DISP=
RETPD=
EXPDT=

For VSAM:

ACCESS=
RPT=CIA
CIAOPT=

BACKUP

The command BACKUP has the following parameters for VSAM, Non-VSAM, and both:

For VSAM and Non-VSAM:

- RETPD=
- EXPDT=
- NORESET

For VSAM:

- ACCESS=
- RPT=CIA, CIAOPT=

COPY

The command COPY has the following parameters for VSAM, Non-VSAM, and both:

For VSAM and Non-VSAM: TOVOL=

For Non-VSAM:

- ABSOLUTE
- BLKSIZE=
- CATALOGALL
- CONTIG
- CREATE
- CYLS
- PREALLOC
- REDUCE
- TRACK
- NEWNAME=

For VSAM:

- VATHRESH=
- NEW VOLUMES

DELETE

The command DELETE has the following parameter for VSAM, Non-VSAM, and both:

For VSAM and Non-VSAM: DISP=

EXPIRE

The command EXPIRE has the following parameter for VSAM and Non-VSAM:

For VSAM and Non-VSAM: DATE=

MOVE

The command MOVE has the following parameters for VSAM and Non-VSAM:

For VSAM and Non-VSAM: TOVOL=

For Non-VSAM:

- ABSOLUTE
- BLKSIZE
- CATALOGALL
- CONTIG
- CREATE
- CYLS
- FILL
- PREALLOC
- REDUCE
- TRACK

For VSAM:

- VATHRESH=
- NEWVOLUMES

RELEASE

The command RELEASE has the following parameters for VSAM and Non-VSAM:

For VSAM and Non-VSAM:

- PCTUSED=
- PCTSECONDARY=

For Non-VSAM: CONVERT

REPORT

The command REPORT has the following parameters for VSAM and Non-VSAM:

For VSAM and Non-VSAM:

- DSINDX
- DSUTIL
- MAPPER
- MVDICT
- SVDICT
- ISAMDS
- CMDGENDSN=
- SPFDSNAME=
- SPFRPTS=

For Non-VSAM:

- MEMBER
- MEMBERS=
- PDSTAT
- POCCHH
- PODUMP
- POTTRD
- POXREF
- POIREF
- PO2REF

For VSAM:

- CLDATA
- CLDOPT=
- CIARPT
- CIAOPT=
- COMPONENTS

VBACKUP

The command VBACKUP has the following parameters which are not applicable for VSAM and Non-VSAM:

- RETPD=
- EXPDT=
- DSEQ=
- RESERVE
- RPT=
- LSTAR

VREPORT

The command VREPORT has the following parameters which are not applicable for VSAM and Non-VSAM:

- ALLOCS
- ATTRB
- DISTR
- FREESP
- LAYOUT

Criteria Option Conventions and Examples

The following are the logical operators:

- EQ Equal to
- NE Not equal to
- LT Less than
- LE Less than or equal to
- GT Greater than
- GE Greater than or equal to

Observe the following:

- YES/TRUE/ON - All Equivalent
- NO/FALSE/OFF - All Equivalent

The following are the conventions used:

- Values shown in < > are descriptions for character literal fields.
- Values shown in () are descriptions of numeric literal fields.
- Values shown in ** ** are descriptions for dates that must follow.

Note: For more information, see the section [CADisk Valid Date Formats](#) (see page 11).

Examples of criteria operators

```
CRITERIA=(TRKS,GT,4000)
CRITERIA=(TEMP,EQ,YES,AND,CREDT,LE,
TODAY -2)
CRITERIA=(CATSTAT,NE,YES,AND,CREDT,LE,TODAY -2)
CRITERIA=(GDG,EQ,YES,AND,GDGEN,LE,-2)
CRITERIA=(USEDT,LE,TODAY - 28)
CRITERIA=(MODIFIED,EQ,YES)
CRITERIA=(ARCDT,LE,MDAY -27)
CRITERIA=(DSORG,EQ,VSAM,AND,PCTUSED, LT,70)
CRITERIA=(SCNAME,EQ,<LARGE/>)
```

Criteria Options (SMS/Non-SMS)

The following is a list of field names and valid values for Criteria Options (SMS/Non-SMS):

ARCDT

****Last backup/archive date****

CREDT

****Creation date****

EXPDT

****Expiration date****

MODDT

****Last modification date****

TODAY

****Today's date****

USEDT

****Last use date****

F1CREDT

****Format-1 DSCBs create date****

F1EXPDT

Format-1 DSCBs expiration date

F1MODDT

Format-1 DSCBs last modified date

F1USEDT

Format-1 DSCBs last used date

ALLOBLKS

YES, NO

ALLOCYLS

YES, NO

ALLOPRI

(Primary allocation amount)

ALLOSEC

(Secondary allocation amount)

ALLOTRKS

YES, NO

BLKSZ

(Block size)

CASPLITS

(Control area splits)

CATSTAT

YES, NO, WRONGVOL, CATOTHER

CISPLITS

(Control interval splits)

DSORG

PS, SEQ, PO, PDS, DA, IS, ISAM, VSAM, AM, UNKNOWN, INVALID

EXTENTS

(Extents in the data set)

GDG

YES, NO

GDGEN

(Relative generation number)

GDGSTAT

YES, NO, ROLLOFF, DEFERRED

IDLETRKS

(Idle tracks)

KBYTES

(Kilobytes allocated to the data set)

LRECL

(Logical record length)

MODBIT

YES, NO

MODELSC

YES, NO

MODIFIED

YES, NO

PASSWORD

YES, NO

PASSTYPE

READ, WRITE, CINV, MSTR

PCTUSED

(Percent used)

RACFIND

YES, NO

RECFM

F, FB, FBA, FBM, V, VB, VBA, VBM, U

SVCMODE

(SVC mode)

TEMP

YES, NO

TRKS

(Tracks allocated)

UNMOVE

YES, NO

VOLCNT

(Data set allocated volume count)

VOLSEQNO

(Volume sequence number)

VSAMORG

KSDS, ESDS, RRDS, LDS

Criteria Options (SMS)

The following is a list of field names and valid values for Criteria Options (SMS):

Data Class

DCNAME

<Data Class name>

DCDESC

<Data Class description>

DCUSERID

<Last userid to update Data Class>

DCDATE

Date of update

DCTIME

(Time of update HHMM)

DCFRCORG

YES, NO

DCFLRECL

YES, NO

DCFRECFM

YES, NO

DCFKEYLN

YES, NO

DCFKEYOF

YES, NO

DCFEXPDT

YES, NO

DCFRETPD

YES, NO

DCFPRMSP

YES, NO

DCFSECSP

YES, NO

DCFDIRSP

YES, NO

DCFAUNIT

YES, NO

DCFAVREC

YES, NO

DCFVOLCT

YES, NO

DCFCSIZE

YES, NO

DCFCIFSP

YES, NO

DCFCAFSP

YES, NO

DCFSOREG

YES, NO

DCFSOSYS

YES, NO

DCFIMBED

YES, NO

DCFREPL

YES, NO

DCRECORG

YES, NO

DCLRECL

KSDS, ESDS, RRDS, LDS

DCLRECL

(Logical record length)

DCRECFM

F, FB,FBA, FBM, V, VB,VBA, VBM, U

DCKEYLN

(Key Length)

DCKEYOFF

(Key offset to KSDS key field)

DCEXPTD

Expiration date

DCRETPD

(Retention period)

DCSPPRIM

(Primary space allocation)

DCSPSEC

(Secondary space allocation)

DCSPDIR

(Directory block allocation)

DCAUNIT

U, K, M

DCAVGREC

(Average length of each record)

DCVOLCNT

(Volume count)

DCCISZ

(CI size)

DCCIFRSP

(CI free space percent)

DCCAFRSP

(CA free space percent)

DCXREGSO

1, 2, 3, 4

DCXSYSSO

3, 4

DCINIMBD

YES, NO

DCINREPL

YES, NO

Storage Class**SCNAME**

<Storage Class name>

SCDESC

<Storage Class description>

SCUSERID

<Last userid to update Storage Class>

SCDATE****Date of update******SCTIME**

(time of update HHMM)

SCFGUSPC

YES, NO

SCFAVAIL

YES, NO

SCFDIRET

YES, NO

SCFDIBIA

YES, NO

SCFSERET

YES, NO

SCFSEBIA

YES, NO

SCAVAIL

STANDARD, CONTINUS

SCDRESP

(Direct millisecond response)

SCDBIAS

READ, WRITE

SCSRESP

(Sequence millisecond response)

SCSBIAS

READ, WRITE

Management Class

MCNAME

<Management Class name>

MCDESC

<Management Class description>

MCUSERID

<Last userid to update Management Class>

MCDATE

** Date of update**

MCTIME

(Time of update HHMM)

MCIDSPRL

YES, NO, COND

MCFPRDYS

YES, NO

MCFDADYS

YES, NO

MCFGELP

YES, NO

MCFBKFQ

YES, NO

MCFBVRS

YES, NO

MCFBVRD

YES, NO

MCFBLDY

YES, NO

MCFBDAYS

YES, NO

MCPRDYNU

(Primary days non-usage)

MCADDYNU

(Disk archive days non-usage)

MCARCEA

NONE, COMMAND, BOTH

MCGDGELP

(GDG data sets left on primary)

MCROFGDS

ARCHIVE, EXPIRE

MCEXDNU

0-9999, NOLIMIT

MCEXPDT****Expiration date******MCEXDAYS**

0-9999, NOLIMIT

MCRETLT

0-9999, NOLIMIT

MCBKFEQ

0-9999

MCBKVER

1-13

MCBKVERD

1-13

MCLSTBK

0-9999, NOLIMIT

MCBKDAYS

0-9999, NOLIMIT

MCBKCMD

NONE, ADMIN, BOTH

MCAUTOBK

YES, NO

Storage Group

SGNAME

<Storage Group name>

SGDESC

<Storage Group description>

SGUSERID

<Last userid to update Storage Group>

SGDATE

Date of update

SGTIME

(Time of update HHMM)

SGFAUBUP

YES, NO

SGFAUARC

YES, NO

SGFAVBUP

YES, NO

SGFTHRES

YES, NO

SGTYPE

POOL, VIO, DUMMY

SGVMAX

(Maximum size of VIO data sets)

SGVUNIT

(Generic device type for VIO data sets)

SGHTHR

(High threshold percent)

SGLTHR

(Low threshold percent)

SGVBUPC1

<VBACKUP class 1>

SGVBUPC2

<VBACKUP class 2>

SGVBUPC3

<VBACKUP class 3>

SGVBUPC4

<VBACKUP class 4>

SGVBUPC5

<VBACKUP class 5>

SGSYSST1

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST2

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST3

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST4

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST5

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST6

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST7

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGSYSST8

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS1

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS2

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS3

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS4

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS5

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS6

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS7

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGCSMSS8

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

SGABKSYS

<Auto backup system name>

SGAVBSYS

<Auto backup system name>

SGAARSYS

<Auto backup system name>

Volume Definition

VLNAME

<Volume definition name>

VLUSERID

<Last userid to update volume definition>

VLDATE

Date of update

VLTIME

(Time of update HHMM)

VLFCONVR

YES, NO

VLSTGP

<Storage Group of volume>

VLSSMS1

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS1

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS2

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS2

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS3

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS3

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS4

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS4

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS5

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS5

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS6

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS6

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS7

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS7

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLINE

VLSSMS8

ENABLED, QUIESALL QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLSMVS8

ONLINE, OFFLINE, BOXED, NOTREADY, POFFLLNE

VLUCBA

(UCB address)

VLTCPCY

(Total capacity in megabytes)

VLFREES

(Free space in megabytes)

VLLFEXT

(Largest free extent in megabytes)

VLSTSGS

ENABLED, QUIESALL, QUIESNEW, NOSTATUS, DISABALL, DISABNEW

VLUPLEV

(Volume update level)

VLCSMS1

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS2

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS3

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS4

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS5

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS6

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS7

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

VLCSMS8

ENABLED, QUIESALL, QUIESNEW, DISABALL, DISABNEW, NOSTATUS

Restore Explicit VSAM and Non VSAM

The following is a list for Restore-Explicit VSAM and Non-VSAM:

PROC: RESTORE

Command: PASSWORD

Parameters:

- CATALOG=
- MASTER=
- **VSAM/Non-VSAM:** VSAM

Command: RESTORE

Parameters:

- DSNAME=
- NEWNAME=
- VOLUME=
- VERSION=
- TIMEDATE=
- SCRATCH
- ERASE
- CREATE
- NOLOAD
- **VSAM/Non-VSAM:** Both

Parameters:

- POOL=
- SYSCATLG
- DEFER
- MEMBER=
- REPLACE
- DIRBLKS=
- NOCATALOG
- RECATALOG
- **VSAM/Non-VSAM:** Non-VSAM

Parameters:

- CATALOG=
- PASSWORD=
- AIXDEF
- NOAIXDEF
- BLDINX
- NOBLDINX
- AIXNAME=
- RELATE=
- RELPSWD=
- **VSAM/Non-VSAM:** VSAM

CLUSTER LEVEL PARAMETERS (cannot be used with DEFER):

- ALLOC=
- FREESPACE=
- RECSZ=
- BUFFERSPACE=
- CISZ=
- MASTERPW=
- CONTROLPW=
- UPDATEPW=
- READPW=
- ATI'EMPTS=
- OWNER=
- MVOLERS=
- FOR=
- TO=
- SHROPTIONS=
- KEYS=
- ERASE
- NOERASE
- IMBED
- NOIMBED
- ORDER
- UNORDER
- REPLICATE
- NOREPLICATE
- REUSE
- NOREUSE
- SPAN
- NOSPAN
- SPEED
- RECOVERY
- UNIQUE
- SUBALLOC

- WRITECHK
- NOWRITECHK
- VSAM

VSAM/Non-VSAM: VSAM

DATA LEVEL PARAMETERS (cannot be used with DEFER):

- DNAME=
- DALLOC=
- DCISZ=
- DMASTERPW=
- DCONTROLPW=
- DUPDATEPW=
- DREADPW
- DATTEMPTS=
- DOWNERS=
- DSHROPTIONS=
- DVOLERS=
- DORDER
- DUNORDER
- DWRITECHK
- DNOWRITECHK

VSAM/Non-VSAM: VSAM

INDEX LEVEL PARAMETERS (cannot be used with DEFER):

- INAME=
- IALLOC=
- ICISZ
- IMASTERPW=
- ICONTROLPW=
- IUPDATEPW
- IREADPW=
- IATTEMPTS=
- IOWNER=
- ISHROPTIONS=
- IVOLSERS=
- IORDER
- IUNORDER
- IWRITECHK
- INOWRITECHK

VSAM/Non-VSAM: VSAM

Recover VSAM and Non-VSAM

The following is a list for Recover VSAM and Non-VSAM.

FMS Command Sequence

In the following list, FMS Commands are listed in their proper sequence. Each command is optional, except as described in the list.

Type: Environment

Name: SET

Parameters:

- MODE=
- GEN=
- VTOCMSG=
- MSGLEVEL=
- FROMDATE=
- TODATE=
- FROMTIME=
- TOTIME=

Type: Environment

Name: PASSWORD (VSAM only)

Parameters:

- CATALOG=
- MASTER=

Type: Candidate

Name: SCAN

Parameter: DSNINDEX

Type: Selection

Name: SELECT

Parameters:

- DSNames=
- TABLE=
- VOLUMES=
- VTOCS
- CATALOGS=
- CRITERIA=
- TDSN=

Type: Selection

Name: EXCLUDE

Parameters:

- DSNAMES=
- TABLE=
- VOLUMES=
- VTOCS
- CATALOGS=
- CRITERIA=
- TDSN=

Type: Action

Name: RECOVER

Parameters:

- TOVOLUME=
- POOL=
- DISP=
- NEWHLQ=
- SCRATCH
- CREATE
- PDSECONV
- ERASE
- NOLOAD
- AIX=
- TOCAT=
- EXPORTF=
- DEFALIAS=
- REPORT

Deferred Processing - Archive and Backup

The following is a list of commands for Deferred Processing-Archive and Backup by PROC:

PROC: ARCHIVE

Command: DARCHIVE

Parameters:

- SIMULATE
- DSNAME=
- VOLUME=
- NEWNAME=
- RETPD=
- EXPDT=
- RECATALOG
- SCRATCH
- NOSCRATCH
- RESET
- NORESET

VSAM/Non VSAM: Both

Parameters:

- UNCATALOG
- NOCATALOG

VSAM/Non VSAM: Non-VSAM

Parameters:

- PASSWORD=

VSAM/Non VSAM: VSAM

PROC: RESTORE

Command: DRESTORE

Parameters:

- DSNAME=
- NEWNAME=
- VOLUME=
- VERSION=
- TIMEDATE=
- SCRATCH
- ERASE
- CREATE

VSAM/Non VSAM: Both

Parameters:

- POOL=
- NOCATALOG
- RECATALOG
- SYSCATLG

VSAM/Non VSAM: Non-VSAM

PROC: LISTREQ

Command: LISTREQ

Parameters:

- DSNAME=
- ARCHIVE
- RESTORE
- ALL

VSAM/Non VSAM: Both

PROC: DERASE

Command: DERASE

Parameters:

- DSNAME=
- ARCHIVE
- RESTORE

VSAM/Non VSAM: Both

Processing Queued Requests (Dispose)

The following is a list for Processing Queued Requests (Dispose):

PROC: ARCHIVE

JCL Override: // EXEC ARCHIVE, PARM.ARCHIVE=ADSDM276

PROC: RESTORE

JCL Override: // EXEC RESTORE, PARM.RESTORE=ADSDM279

Billing VSAM

The following is a list of commands for Billing-VSAM by PROC:

PROC: VSAMBILL (Step "DMS")

Command: PASSWORD

Parameters:

- MASTER=
- CATALOG=

Command: SCAN

Parameters:

- CATALOGS=
- EXCCATS=
- ACKUP
- REALVOLS
- SHOWVOL
- MSS
- MSVGP=

Command: SELECT**Parameters:**

- DSNAMES=
- TABLE=
- VOLUMES=
- VAMPOOL=
- SGNAME=
- VTOCS
- CATALOG=
- CRITERIA=
- COMPONENTS

Command: EXCLUDE**Parameters:**

- DSNAMES=
- TABLE=
- VOLUMES=
- VAMPOOL=
- SGNAME=
- VTOCS
- CATALOG=
- CRITERIA=
- COMPONENTS

Command: BILLING**Parameters: N/A**

PROC: (Step "Accum")

Command: ACCUMULATE

Parameters:

- DATE=
- MODE=
- BYPASSNEW
- ADDMISSING
- BEGIN=
- BWEEK=
- BMONTH
- BMEMBER=
- SIMULATE

PROC: EXTEND

Command: EXTEND

Parameters:

- VOLUME=
- DSNAME=
- SIMULATE

Billing Non-VSAM

The following is a list of commands for Billing-Non-VSAM by PROC:

PROC: BILLING

Command: SELECT

Parameters:

- VOLUME=
- MSS
- NOREAL
- MSVGP=
- DSNAME=

Command: ACCUMULATE**Parameters:**

- DATE=
- MODE=
- BYPASSNEW
- ADDMISSING
- BEGIN=
- BWEEK=
- BMONTH
- BMEMBER=
- SIMULATE

PROC: EXTEND**Command: EXTEND****Parameters:**

- VOLUME=
- DSNAME=
- SIMULATE

Archive Management

The following is a list of commands that can be used with Archive Management:

LISTD**Parameters used:**

- DSNAME=
- VOLUMES=
- DATE=
- DUPLICATES

LISTS**Parameters used:**

- DSNAME=
- VOLUMES=
- DATE=
- DUPLICATES

LISTF

Parameters used:

- DSNAME=
- VOLUMES=
- DATE=
- DUPLICATES

LISTV

Parameters used:

- VOLUME=
- DSNAME=
- DATE=

IXMAINT

The following are the commands and parameters:

Command: DSNDELETE

Parameters used:

- DSNAMES=
- VOLUMES=
- SIMULATE
- COPIES=
- DATE=
- SCRATCH
- DELPROF=
- MGMTCLAS=

Command: VOLDELETE

Parameters used:

- VOLUMES=
- SIMULATE
- EXPDSNS
- DATE=
- LIST=
- SCRATCH=
- DELPROF=

Command: PURGE**Parameters used:**

- VOLUMES=
- DSNAMES=
- SIMULATE
- LIST=
- SCRATCH=
- DELPROF=

Command: MERGE**Parameters used:**

- PERCENT=
- MAXVOLS=
- DATE=
- EXPDAYS=
- TDSNAMES=
- LIMIT=
- INCLUDE=
- EXCLUDE=
- SIMULATE
- COPY
- NOMERGEIN
- TAPEPULL=
- LISTALL
- CREDIT=
- DAYSOLD=
- TYPES=
- FCREDIT=
- FDAYSOLD=
- UNCATALOG

Command: REBUILD**Parameters used:**

- EXPDT=
- UNIT=

IXUPDATE

The following are the commands and parameters:

Command: DELETE

Parameters used:

- DSNAMES=
- TIMEDATE=
- ALL

Command: CHANGE

Parameters used:

- DSNAMES=
- TIMEDATE=
- EXPDT=

Command: RESET

Parameters used:

- KEY=
- COPY
- DISABLE
- ENABLE
- SCRATCH
- EXPDT=

Command: BUILDARC

Parameters used:

- DSNAMES=
- VOLUME=
- TYPE=
- ARCTYPE=
- EXPDT=

LISTD Flags

The following is a list for the First Flag field.

Note: For more information, see the section LISTD Flags in the chapter "FILES Management" in the *User Guide*.

Bit: 0

On/Off: ON

Hex: 80

Meaning for First Flag Field: Data set was scratched at time of archival.

Bit: 1

On/Off: ON

Hex: 40

Meaning for First Flag Field: Data set was uncataloged at time of archival.

Bit: 2

On/Off: ON

Hex: 20

Meaning for First Flag Field: Data set was recataloged to the CADisk pseudo volume.

Bit: 3

On/Off: OFF

Hex: 10

Meaning for First Flag Field: Data set was archived explicitly using the ARCHIVE PROC.

Bit: 3

On/Off: ON

Hex: 00

Meaning for First Flag Field: Data set was archived using retention control.

Bit: 4

On/Off: ON

Hex: 08

Meaning for First Flag Field: Data set was archived using EXCP support.

Bit: 5

On/Off: ON

Hex: 04

Meaning for First Flag Field: Data set was archived using incremental backup.

Bit: 6

On/Off: ON

Hex: 02

Meaning for First Flag Field: Data set is DSORG=DA RECFM=U/V, or DSORG=PS RECFM=U/N and was backed up as DA.

Bit: 7

On/Off: ON

Hex: 01

Meaning for First Flag Field: Volume backed up without complete ENQ integrity (VBACKUP only).

The following is a list for the Second Flag Field:

Bit: 0

On/Off: ON

Hex: 80

Meaning for Second Flag Field: Data set was protected by RACF when backed up or archived, but not by a discrete profile. Could have been protected by a generic profile, or the data set's high-level qualifier is the same as the user ID of the task that backed up or archived the data set.

Bit: 0

On/Off: OFF

Hex: 00

Meaning for Second Flag Field: Data set was either not protected by RACF, or was protected by a discrete profile.

Bit: 1

On/Off: ON

Hex: 40

Meaning for Second Flag Field: CADisk has a copy of the RACF discrete profile that protected the data set when it was backed up or archived.

Bit: 1

On/Off: OFF

Hex: 00

Meaning for Second Flag Field: CADisk does not have a copy of the RACF discrete profile, if any, that protected the data set when it was backed up or archived. Causes could be that the data set was not protected by a discrete RACF profile, a non-default value of CADisk sysparm RACFBKUP, or the CADisk saved profile or RACFENCD pointer to it has been lost and the CADisk RACFCHK1 utility corrected the situation.

Bit: 2

On/Off: ON

Hex: 20

Meaning for Second Flag Field: Data set is a VSAM alternate index.

Bit: 3

On/Off: ON

Hex: 10

Meaning for Second Flag Field: Data set is an ICF catalog backup.

Bit: 4

On/Off: ON

Hex: 08

Meaning for Second Flag Field: Data set was backed up with I/O errors.

Bit: 6

On/Off: ON

Hex: 02

Meaning for Second Flag Field: Data set was RACF-indicated when archived or backed up.

Bit: 7

On/Off: ON

Hex: 01

Meaning for Second Flag Field: Extent track image backup (VBACKUP only).

PDS Compress

The following is a list for PDS Compress.

Note: For more information on PDS Compress, see the chapter "PDS Compression" in the *User Guide*.

PROC: COMPRES

Command: SCAN

Parameters:

- SIMULATE
- VOLUMES=
- MSS
- NOREAL
- MSVGP=
- DSNAMES=
- EXTABLE=
- THRESHOLD=
- ALLOCATE=
- USE
- SHRINK
- CONVERT
- RESERVE
- PASSWORD
- EMPTY

Command: COMPRESS**Parameters:**

- DSNNAME=
- VOLUME=
- THRESHOLD=
- ALLOCATE=
- USE
- SHRINK
- CONVERT
- RESERVE
- PASSWORD
- SIMULATE
- EMPTY
- SPACE

Command: RELOAD**Parameters:**

- DSNNAME=
- VOLUME=
- PASSWORD

TSO Commands

The following is a list of TSO Commands.

Note: For more details about TSO Commands, see the chapter "TSO Command Processor" in the *User Guide*.

DARCHIVE

Parameters:

- {DSN(*data set names*)}
- {VOLUME(*volser*)}
- {NEWNAME(*dsname*)}
- {EXPDT(*date*)}
- {RETPD(*nnnnn*)}
- [UNCATALOG]
- [NOCATALOG]
- [RECATALOG]
- [SCRATCH]
- [NOSCRATCH]
- [RESET]
- [NORESET]
- {PASSWORD(*password*)}

DRESTORE

Parameters:

- {DSN(*data set names*)}
- {NEWNAME(*newname*)}
- {VERSION(*-nn*)}
- {TIMEDATE(*hhmmdate*)}
- {VOLUME(*volser*)}
- {POOL(*name*)}
- [NOCATALOG]
- [RECATALOG]
- [SCRATCH]
- [ERASE]
- {PASSWORD(*password*)}

RESTORE**Parameters:**

- [DSNAME-LIST]
- {MEMBER(*mbrlist*)}
- {NEWNAME(*newname*)}
- {VERSION(*-nn*)}
- {TIMEDATE(*hhmmdate*)}
- {VOLUME(*volume*)}
- {POOL(*name*)}
- [NOCATALOG]
- [RECATALOG]
- [SCRATCH]
- [ERASE]
- {PASSWORD(*password*)}

LISTDMS**Parameters:**

- {DA(*dsname-list*)}
- {L(*prefix-list*)}
- [STA]
- [ALL]
- [ARC]
- [DUPLICATES]

LISTREQ**Parameters:**

- {DA(*dsname-list*)}
- {L(*prefix-list*)}
- [ARCHIVE]
- [RESTORE]

DERASE

Parameters:

- {DSNAME(S)}
- [ARCHIVE]
- [RESTORE]

Chapter 5: Recovery Utilities

The following sections describe the recovery utilities available.

This section contains the following topics:

[Archive Tape Analysis Utility](#) (see page 61)

[Archive Extract Utility](#) (see page 61)

[Archive Fix Utility](#) (see page 62)

[Repair Archvols \(REPARCH\) Utility](#) (see page 63)

[Archive Tape Recovery Utility](#) (see page 64)

Archive Tape Analysis Utility

This utility is provided to aid in determining the validity of an archive tape volume. In the event that an archive tape volume becomes damaged, this utility can be used to help determine the extent of the problem. It will indicate what data sets are still valid and which ones have been lost or damaged. This information can then be used to determine if data sets can be recovered from the volume and, if so, which ones.

Command Input

The utility accepts a command as input. It allows the user to specify parameters to control tape processing. Only ANALYZE is required. The command format and parameter descriptions follow:

```
ANALYZE COUNT=nnn, ERRORMAX=nnn,DUMPMAX=nnn,EXITNAME=xxxxxxxx,FILENBR=nnn
```

Archive Extract Utility

This utility extracts data records from CADisk archive volumes. It is normally used to recover data for a data set on damaged archive tapes. It scans the archive tape volume for the specified data set, and then copies the data records or blocks to a sequential data set. For sequential data sets, the output data set is the same format as before it was archived. It can be used directly by application programs. For other data set organizations, the extracted data must be processed by other utilities to reload and recreate the original data set.

This program actually functions as a user exit through the archive analysis utility. The program reviews logical records from the archives, and writes the selected ones to an output sequential file. The user provides the output sequential file to be written. It must contain proper DCB attributes for the data set to be extracted. Partitioned data sets cannot be recovered by this utility. Only one data set can be extracted for each execution of the utility. This program places in the output file data that can most easily be processed by the user. In many cases, the data will be input to a reload utility to actually recover the data into a usable format.

Note: When CADisk encounters data sets with records longer than 32,760 bytes, those records will be split up into records of 32,760 bytes, and messages 2961 issued to let you know this occurred.

Executing the Extract Utility

To recover a data set, the user must know the name of the data set and the volume serial of the archive tape volume on which it resides. The EXTRACT command is to be placed in the command input stream of the archive tape analysis utility. Place it immediately after the ANALYZE command (see Archive Tape Analysis Utility on how to specify and process the ANALYZE command). Specify ADSDM460 as the value to the EXITNAME parameter in the ANALYZE command to cause the EXTRACT utility to be invoked.

EXTRACT Command

Syntax of the EXTRACT command:

```
EXTRACT DSNAME=, TIME=
```

Archive Fix Utility

This utility is provided to aid in correcting errors that exist within archive tape volumes. It consists of a single job step that accepts input transactions and, based on their contents, copies all or specific archive data set files from the input archive tape volume to a new output volume. As the copy process continues, errors that are detected on the archive tape are corrected. Of course, errors cannot always be corrected without loss of data because all the original data cannot be present or is not complete. In cases where the error is simply a bad file number, it can be corrected without data loss. If the error is a truncated or missing record, the rest of the block and any split record at the beginning of the next block will be bypassed. The file can or cannot be able to be restored by normal CADisk restore processing. It is then the user's responsibility to inspect the restored data set for errors and correct them manually. When records of an archived PDS member are corrected, messages are printed to indicate the members that can contain data errors.

It accepts as input a CA-Disk archive tape volume. It does not use the files data set for processing the input tape, so the tape need not be currently defined to CADisk. The SYSUT1 dd statement points to the archive volume to be scanned.

The output volume is referred to by the ARCHIVE0 and ARCHIVEC dd statements. They are coded exactly as they are for normal archive executions.

Note: For more information, see the section Data Storage Command Language in the *User Guide*.

The input command specified what files are to be copied from the input volume to the output volume. It can optionally specify a file number at which to start and a maximum number of records to process.

A user exit can optionally be invoked to provide user programs access to archive tape data at logical record level (EXITNAME). This can be useful in recovering data.

Command Input

The utility accepts a command as input. It allows the user to specify parameters to control tape processing. The command format and parameter descriptions follow:

```
COPY COUNT=nnnnn,FILENBR=(nnnnn,nnnnn,...),  
ALL,EXITNAME=
```

Repair Archvols (REPARCH) Utility

This utility (REPARCH) provides the ability to analyze and synchronize the archive volume (ARCHVOLS) records and the tape pool (DMSPools) records in the files data set. Its repair activities include:

- Deleting corrupted ARCHVOLS records (broken chains)
- Deleting unchained ARCHVOLS records
- Synchronizing DMSPools record status with ARCHVOLS records

It also provides for a user exit that can be used to modify (convert) the device type field in the ARCHVOLS records.

REPARCH Command and Parameters

Syntax of the REPARCH command:

```
REPARCH SIMULATE,PURGE=,DEVTEXTIT,POOL=, TMS=
```

Archive Tape Recovery Utility

The Archive Tape Recovery Utility is intended to perform the function of recovering CADisk archive tapes which have been damaged or partially overwritten. It will read a single archive tape as input and bypass I/O errors and optionally skip parameters to retrieve any archive data blocks which are still intact.

Each complete data set encountered will then be transferred to a new archive tape volume. This tape volume can then be used by the REBUILD utility to identify it to the files data set. The Archive Tape Recovery Utility is designed to recover only archive tapes. It does not use disk sets as input or output.

Command Input

The command used to direct the execution is:

```
TRECOVER ERRLIMIT= EOFSTOP
```