FDREPORT

V5.4 L80

User Documentation

Revised: October 7, 2013 3:37 pm for FDREPORT Version 5.4 Level 80, Released on October 7, 2013

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54 GENERALIZED REPORT WRITER (FDREPORT)

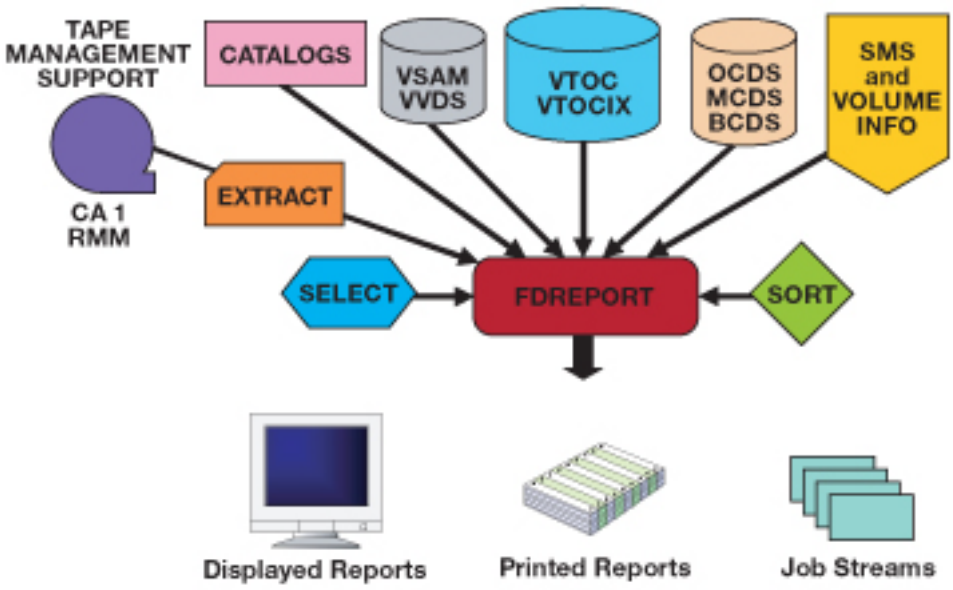
54.1 INTRODUCTION

FDREPORT® is a generalized report writer that can generate custom reports on DASD and TAPE related data. You can generate simple reports with simple control statements, or complex reports using the great power of FDREPORT.

You can generate reports on a few data sets, large numbers of data sets, whole DASD volumes, or your entire installation. You can report on live data, or data archived or backed up by ABR. You can select data through the system catalogs, or directly from DASD volumes or IBM DFSMSrmm and CA 1 or other sources. You can generate a data file for further reporting or pass the data to other programs for further analysis. You can even punch JCL or control statements for other programs using the report data.

FDREPORT is designed to report on large amounts of data from various sources without sacrificing performance. FDREPORT requires less elapsed time and system resources (CPU time and EXCPs) for a given function than any other competitive product.

INPUT SOURCES FDREPORT gathers input from a variety of sources:



- z/OS catalogs – A data set name filter can be specified to quickly search catalogs for the required data sets.
- VTOC of DASD volumes – Information from the DSCBs of the data sets is extracted.
- VVDS of DASD volumes – For VSAM clusters and SMS-managed data sets
- Directories of PDS and PDSE libraries.
- ABR backup information – For data sets processed by ABR incremental backups.
- Archive/Application Control File (ACF) – For archived data sets and those processed by application backups.
- DFHSM or DFSMShsm MCDS and BCDS data.
- Data recorded by previous FDREPORT executions.
- Backup data sets created by ABR, FDR, FDRDSF, or SAR, for information on DASD data sets in those backups.
- IBM DFSMSrmm data and CA-1 data.

From the hundreds of different fields available, each relating to an attribute of a data set or a volume, you can select a subset to be reported, and can optionally specify the positioning of those fields in the report, although FDREPORT does most of the formatting work for you. In addition to simple printed reports, FDREPORT can sort and summarize the data selected. It can also generate control statements and/or JCL for other utilities based on the data collected. Although most reports are based on individual data sets, you can report on the state of entire DASD volumes (such as volume free space).

By default, FDREPORT does not attempt to serialize access to the input sources it is reading. Input data sets (such as the ACF, MCDS, and BCDS) are allocated with DISP=SHR unless you provide a DD statement for them with DISP=OLD. (The option ARCHENQ, if enabled, protects the ACF with a special enqueue to prevent ABR from updating it). VTOCs and VVDSs are read without any enqueue or RESERVE unless you enable the RESERVE option (see "RESERVE" in Section 54.30) that allows updates to take place during the FDREPORT execution. In rare cases, a VTOC/VVDS update may cause FDREPORT to fail or generate incorrect output unless RESERVE is enabled.

At any computer installation, users at a variety of levels need to be able to refer to accurate and timely information about the use of DASD resources. Accurate information is the only basis for sound decision-making and future planning. Without adequate information it is impossible to determine how efficiently DASD space is being used, or predict how needs will grow. Accurate information is also essential for solving existing problems and for preventing problems from arising in the future.

FDREPORT provides easy-to-read management level reporting that allows you to easily see how effectively your DASD storage is being used, broken down by departments, projects, or individual users.

Since storage costs in most shops represent a significant part of the data processing budget, the ability to accurately monitor and adjust for current and future needs results in significant cost savings and a more competitive cost for your end user.

INNOVATION DATA PROCESSING strongly recommends that you run the Innovation Health Check job streams documented in Section 54.2 "INNOVATION DATA PROCESSING Health Check". These help you understand the power, flexibility, and efficiency of FDREPORT.

DATA SET REPORTS

Most reports are about individual data sets or ICF VSAM clusters. Although FDREPORT has a default report format (giving some basic information about each data set) and some "canned" report formats (similar to those produced by FDRABRP in Chapter 53 "Standard Reporting Facility (FDRABRP)"), you probably want to customize your report.

FDREPORT collects its data into hundreds of "fields", each containing some aspect of the data set, such as record format, size, CISIZE, creation date, and many, many others. Section 54.30 "" contains a complete list of the fields available. You can select the data sets to be reported based on the values of most of these fields, and you can report on any set of them you select. You also control the positioning of the fields in the report.

VOLUME REPORTS

FDREPORT can also report on the status of entire DASD volumes, selecting and reporting on fields such as device type, available space, number of data sets (by type) and many others. Section 54.30 "" also contains the list of fields available for volume reports. You have the same selection and reporting options for volume reports as you do for data set reports.

OFFLINE VOLUMES

FDREPORT can produce data set reports from offline volumes, as well as online volumes. Offline volumes may be used with point-in-time backups (such as FDRINSTANT) or with other special volume replication functions (PPRC, SRDF, BCVs, ShadowImage, FlashCopy, SnapShot, and the rest).

SORTING

The report generated by FDREPORT can be sorted using most of the report fields. For example, you may request that it report on all of the data sets currently online in size order. FDREPORT invokes the system SORT product when required, and dynamically allocates required sort libraries and work areas.

SUMMARIES

FDREPORT can generate summaries on many of the report fields. These summaries can show you the various values that the summary fields had and counts of the occurrences of each value. The control break facility can cause summaries to be shown at various points in the report, when the value of some field changes.

PUNCHING

FDREPORT can generate control statements and JCL (or any arbitrary text) using a user-provided mask for the format of the data to be "punched", substituting the values of FDREPORT report fields into that mask. For example, FDREPORT can generate ABR control statements.

DATA EXTRACT

FDREPORT can write the selected data to an extract file (in a unique FDREPORT format). The extract file can be used as input for further reports. This allows you to gather the data once and then report on it in various formats or using varying selection criteria.

It is possible to use this extract file as input to other data analysis programs, such as SAS, if they can read the extract file format. FDREPORT can also "print" data in a simple tabular format (no headings or page breaks) for input into other programs.

54.1 INTRODUCTION

FDREPORT STATEMENTS

The FDREPORT statements specify the format of the report, the sort sequence, summary requirements, and which data sets or volumes are to be selected. **Note that a PRINT statement is always the last statement in any group of statements, since it causes the report to actually be generated**. The statements are:

ACTIVATE	Activate predefined user fields. Section 54.10 "FDREPORT ACTIVATE Statement"
BREAK	Criteria for control breaks and summaries. Section 54.11 "FDREPORT BREAK Statement"
CANCEL	Cancels preceding statement specifications, when producing multiple reports in one execution. Section 54.12 "FDREPORT CANCEL Statement"
DEFAULT	Set processing defaults. Section 54.14 "FDREPORT DEFAULT Statement"
END	Terminate FDREPORT processing. Mainly used when calling FDREPORT under TSO.
EXECUTE	Causes FDREPORT statements to be read from a library. Section 54.15 "FDREPORT EXECUTE Statement"
EXTRACT	Build an extract file from the CA 1 or DFSMSrmm tape management system information. Section 54.16 "FDREPORT EXTRACT Statement"
HEADING	User-defined replacement column heading lines. Section 54.17 "FDREPORT HEADING Statement"
HELP	Provide complete help services. Section 54.18 "FDREPORT HELP Statement"
IF	Alternate form of supplying the selection and exclusion criteria to the report. Section 54.19 "FDREPORT IF Statement"
NEWS	New features and changes.
OPTIMIZE	Specify operands to help optimize FDREPORT execution. Section 54.20 "FDREPORT OPTIMIZE Statement"
PRINT	Generates the report requested by the preceding statements. Section 54.21 "FDREPORT PRINT Statement"
PUNCH	Controls generation of control statements and/or JCL from report data. Section 54.22 "FDREPORT PUNCH Statement"
REPORT	Selects data fields to be reported. Section 54.23 "FDREPORT REPORT Statement"
SET	Set the return code. Section 54.24 "FDREPORT SET Statement"
SORT	Requests sorting on selected data fields. Section 54.25 "FDREPORT SORT Statement"
SUMMARY	Selects data fields to be summarized with optional control break criteria. Section 54.26 "FDREPORT SUMMARY Statement"
TITLE	User defined title line. Section 54.27 "FDREPORT TITLE Statement"
XEXCLUDE	Criteria for excluding certain data from the report. Section 54.28 "FDREPORT XSELECT and XEXCLUDE Statement"
XSELECT	Selection criteria to be included in the report. Section 54.28 "FDREPORT XSELECT and XEXCLUDE Statement"

PRINT is the statement that causes a report to actually be generated. The statements that precede PRINT plus operands on PRINT itself define the report to be generated. Placing statements in the wrong order, such as XSELECT statements after PRINT, usually result in an incorrect report. You may have multiple PRINT statements in a given FDREPORT input to generate multiple reports; note that statements remain in effect for subsequent prints unless overridden or canceled by a CANCEL statement.

NOTE: FDREPORT contains features that are not documented in this manual, due to space limitations. These include special-purpose customization options, special modes of execution, field names and detailed information or special instructions about various selection and reporting criteria. For complete information about these, execute the following job stream

```
//HELP  EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  HELP     ALL
/*
```

This prints a lengthy document with additional information about FDREPORT. This report fits on 8.5x11 inch paper if desired.

For news about enhancements in recent releases, use the command:

```
NEWS
```

54.2 INNOVATION DATA PROCESSING HEALTH CHECK

INNOVATION HEALTH CHECK

INNOVATION DATA PROCESSING has developed a series of job streams, based largely on FDREPORT, that can be used to report on the general status of your DASD installation, and it reports on various "problem" conditions, such as uncataloged data sets, and volumes running out of free space or room in the VTOC. The job streams are also good examples of both simple and sophisticated use of FDREPORT. These job streams are found in the FDR JCL library in members:

- **HCHECKI** – Index to the other members, similar to the list printed below.
- **HCHECK0** – FDREPORT internal parameter check
- **HCHECK1** – DASD with potential problems:
  - Report of volumes that are more than 80% full, fullest first
  - Report of fragmentation index, worst first
  - Report of VTOCs that are more than 80% full, fullest first
  - Report of VVDSs that are more than 80% full, fullest first
  - Report of VVDSs that are multiple extents
  - Report of VTOCIX more Than 80% full
  - Volume Mount, Use, SMS, and VTOCIX status
  - List all VVDS data sets, check for logical errors
  - FDRCPK – FASTCPK simulation – all logical volumes
- **HCHECK2** – Reports for SMS administrator:
  - SMS-managed volumes, threshold status
  - SMS-managed volumes with disabled VTOC indexes
  - Data set SMS attributes
  - PDSE and HFS files on SMS-managed volumes
  - PDSE and HFS files on non SMS-managed volumes
  - Uncataloged data sets on SMS-managed volumes
  - Data sets on SMS-managed volumes that are not SMS-managed
  - Data sets ineligible for SMS management
- **HCHECK3** – Reports for performance analyst:
  - DASD with potential head movement or performance problems
  - Multi-extent, VSAM data sets
  - Multi-extent, non-VSAM data sets
  - Data sets likely to get Sx37 ABENDs
  - Look for PS extended format (striped) data sets
  - Look for extended attribute data sets (from NVR)
  - Look for extended format data sets (from NVR)
  - Look for extended format clusters
  - Multi-volume data sets
  - Multi-volume data sets, Summarized by data set
  - VTOC – VVDS – VTOCIX locations
- **HCHECK4** – Reports for capacity analyst:
  - DASD with potential wasted space
  - Online DASD – Summarized by device type
  - Online DASD – Summarized by type and model
  - Over allocation – Total free space in all data sets
  - Over allocation – Data sets with unused extents

- Data sets passed their expiry dates
- Data sets not referenced in 60 days
- Data sets referenced in 60 days, display over allocation
- Data sets with inefficient block sizes (largest first)
- Data sets with inefficient block sizes (worst first)
- Small data sets with inefficient block sizes
- Total space available, space allocated, and space unused
- Volumes with more than 45% free space
- VTOCs with more than 45% free space
- VVDSs with more than 45% free space
- VTOC indexes with more than 45% free space
- Online DASD – All
- Online DASD – Volume summary, DEVTYPE
- Online DASD – Volume summary, NOBREAK total
- Online DASD – Volume summary, STORGRP
- List all volsers, show online/offline status
- List all offline volumes
- FDRQUERY archive simulation all volumes in 15 day increments
- FDRQUERY backup simulation all volumes

❖ **HCHECK5** – Reports for VSAM tuning analyst:

- Multi-volume VSAM files
- Multi-volume VSAM files summarized by cluster
- Multi-extent clusters
- Badly split clusters
- VSAM clusters with possible excess CA or free space
- Clusters with three or more index levels
- Over allocated VSAM clusters
- Clusters that use obsolete options
- Space occupied by largest VSAM files (size sort)
- Space occupied by busiest VSAM files (EXCPs sort)
- Clusters with high Inserts
- Space occupied by largest KSDS files (size sort)
- Space occupied by busiest KSDS files (EXCPs sort)
- KSDS clusters with high Inserts
- Space occupied by largest ESDS files (size sort)
- Space occupied by busiest ESDS files (EXCPs sort)
- ESDS clusters with high Inserts
- Space occupied by largest RRDS files (size sort)
- Space occupied by busiest RRDS files (EXCPs sort)
- RRDS clusters with high Inserts
- Space occupied by largest variable RRDS files (size sort)
- Space occupied by busiest variable RRDS files (EXCPs sort)
- Variable RRDS clusters with high inserts
- Clusters defined with SHROPTs 3 and 4
- Clusters that have Alternate Indexes (AIXs)

- Extended attribute clusters
- Extended format clusters
- Striped clusters
- Space occupied by HFS files
- Space occupied by zFS files

❖ **HCHECK6** – Reports showing PDS efficiency:

- Basic stats on PDS data sets
- Multi-extent PDS data sets
- PDS data sets with limited free space
- PDS data sets with limited free directory blocks
- PDS data sets with excess free space
- Basic stats on PDSE data sets
- FDRREORG space reclaimable by PDS compression all volumes

❖ **HCHECK7** – Report data sets that may offend standards:

- Uncataloged data sets
- Wrongly cataloged data sets
- Data sets with Undefined DSORG
- Data sets with discrete IBM RACF profile
- Empty PS, PO, ICF-VSAM data sets
- Unmovable data sets
- Files with last ref dates in the future
- Files with creation dates in the future
- Data sets only in the catalog (not on volume)

❖ **HCHECK8** – Project or DASD management reports:

- Summary of data set types
- Catalog usage report
- Summary of ISAM files
- Summary of IAM files
- Space occupied by an application, DASD by DASD
- Space occupied by CNTL or JCL files
- Space occupied by LIST and OUTLIST files, DASD by DASD
- Space occupied by SYS1 & SYS2 data sets on each DASD
- Space occupied by all data sets, summarized by index
- Space occupied by all data sets, summarized by 3rd level index
- DASD utilization by esoteric unit name SYSDA
- DASD utilization by esoteric unit name
- DASD utilization by SMS storage group name
- DASD utilization by volser group
- DASD utilization by device type
- Online DASD – All
- Online DASD – Volume summary, DEVTYPE
- Online DASD – Volume summary, NOBREAK total
- Online DASD – Volume summary, STORGRP
- Online volumes larger than 10,000 cylinders
- Offline DASD – All

- Offline DASD – Volume summary, DEVTYPE
- Offline DASD – Volume summary, NOBREAK total
- Offline DASD – Volume summary, STORGRP
- Offline volumes larger than 10,000 cylinders

❖ **HCHECK9** – Reports for ABR users:

- ABR threshold status, non SMS-managed volumes
- Volumes with pending instant backup
- Volumes with no ABR model

❖ **HCHECKA** – Reports for FDRPAS users

- List volumes flagged as a SYSRES
- List all addresses
- List online volumes
- List offline volumes
- List page or swap data sets
- List all VVDS data sets, check for logical errors
- FDRCPK – FASTCPK simulation – all available volumes

❖ **HCHECKB** – Reports for IAM users

- List and summary of all IAM files
- IAM files that are not enhanced format
- IAM files that are not data compressed
- IAM files that are not key compressed
- IAM file statistics – structure
- IAM file usage statistics – activity
- Files listed in order of overflow used

54.3 FDREPORT JCL REQUIREMENTS

The following Job Control statements are required to execute the FDR Generalized Report Facility.

STEPLIB OR JOBLIB DD STATEMENT

If FDR is not in the system linklist, specifies the program library where FDREPORT resides. The library must be APF authorized.

EXEC STATEMENT

Specifies the program name (PGM=FDREPORT) and region requirement (REGION=). Since the storage requirements of FDREPORT vary depending on the functions requested, INNOVATION DATA PROCESSING recommends that you specify REGION=0M so that the maximum region is available.

ABRMAP DD STATEMENT

Specifies the report data set. It is usually a SYSOUT data set but can be directed to tape or DASD. DCB characteristics are RECFM=FBA and LRECL of the value of the PAGEWIDTH operand (see "PAGEWIDTH=" in Section 54.21) unless you override it; the default block size is BLKSIZE=0 (calculated by OPEN). When ABRMAP is not found within the JCL stream, the reports are output to the SYSPRINT DD Statement. The PAGEWIDTH operand is ignored if ABRMAP is not present.

ABRSUM DD STATEMENT

If specified, the summary reports are printed on this data set. Usually a SYSOUT data set. If summaries are to be printed and ABRSUM is not found in the JCL, summaries are printed on ABRMAP DD Statement or on SYSPRINT DD Statement (if ABRMAP is also absent).

ARCHIVE DD STATEMENT

Specifies the name of an ABR Archive Control File, if the DATATYPE=ARCHIVE option is used to process data from an Archive Control File. This is not required if the Archive Control File whose name is in the ARCDSN option of the FDR Global Options Table is to be read; FDREPORT dynamically allocates it under DD ARCHIVE#. You may also specify the ARCDSN= operand of FDREPORT to dynamically allocate any Archive Control File.

BCDS DD STATEMENT

(Optional). This must point to the DFSMShsm or DFHSM Backup Control Data Set (BCDS). If you provide the data set name of the HSM control file via the BCDSCLUSTER= operand, this DD statement is not necessary; FDREPORT dynamically allocates the required file. This DD statement cannot be used if the BCDS is a multi-cluster file; use the operand instead.

CA1XTR DD STATEMENT

Specifies a data set to be used to access an extract file of the CA 1 tape management system when DATATYPE of CA1DSN or CA1VOL is specified. The DD statement name may be changed by the CA1XDDNAME= operand of the DEFAULT command.

DIAGPCH DD STATEMENT

Specifies the output data set when ENABLE=PUNCHDIAGNOS is specified, for the storage of a job stream to correct VVDS errors. FDREPORT forces DCB characteristics of RECFM=FB,LRECL=80; any valid block size may be specified, but it defaults to 80. DIAGPCH is usually a DASD data set (sequential or a member of a PDS). After reviewing this job stream, you can submit it to correct the VVDS errors.

DISK*xxxx* DD STATEMENTS

Optional and usually unnecessary. When the ENABLE=ONLINE operand is specified on PRINT, VOL=, or VOLG= operands are specified on statements preceding `PRINT`, the desired volumes are dynamically allocated and DISK*xxxx* DD statements are not required.

If used, DISK*xxxx* DD statements specify the DASD volumes to be processed by statements that do not specify ONLINE, VOL=, or VOLG=. The first four characters of the DDname must be "DISK", and the remaining one to four characters may be any characters valid in a DDname (0-9, A-Z, $, #, @). The DD statement should look like:

```
//DISKxxxx DD UNIT=unitname,VOL=SER=volser,DISP=OLD
```

FDRLIB DD STATEMENT

Specifies a data set to be read for extra FDREPORT control statements. This data set is used if FDREPORT encounters an EXECUTE or PUNCH control statement. This data set can be a sequential data set or a partitioned data set but must have characteristics RECFM=FB and LRECL=80. The purpose of this data set is to store canned report formats and punch masks for execution by any user. The DD statement name may be changed by the FDRLIB= operand of the DEFAULT, EXECUTE, or PUNCH command.

FROMDD DD STATEMENT

Required if the COPY statement is used to copy the FDREPORT option values set in a previous version of FDREPORT to the new version. Must point to the load library containing the F$REPOPT module containing the option values set in the previous version.

MCDS DD STATEMENT

(Optional). This must point to the DFSMShsm or DFHSM Migration Control Data Set (MCDS). If you provide the data set name of the HSM control file via the MCDSCLUSTER= operand, this DD statement is not necessary; FDREPORT dynamically allocates the required file. This DD statement cannot be used if the MCDS is a multi-cluster file; use the operand instead.

OCDS DD STATEMENT

(Optional). This must point to the DFSMShsm or DFHSM Offline Control Data Set (OCDS). If you provide the data set name of the HSM control file via the OCDSCLUSTER= operand, this DD statement is not necessary; FDREPORT dynamically allocates the required file. This DD statement cannot be used if the OCDS is a multi-cluster file; use the operand instead.

RMMXTR DD STATEMENT

Specifies a data set to be used to access an extract file of the DFSMSrmm tape management system when DATATYPE of RMMDSN or RMMVOL is specified. The DD statement name may be changed by the RMMXDDNAME= operand of the DEFAULT command.

SORT*xxxx* DD STATEMENTS

(Optional). If you include the SORT or generate a report with data from multiple DASD volumes, you may need to specify DD statements (for example SORTLIB, SORTWK*nn*) required by your system SORT product.

However, any or all of these SORT DD statements may be omitted if you have requested dynamic allocation of the SORT data sets via the SORTALLOC= operand of PRINT.

SYSIN DD STATEMENT

Specifies the control statement data set. Usually a DD * or input data set.

SYSLIB DD STATEMENT

Required if either:

- The CHANGE=PERM or CHANGE=RESET options are specified on a DEFAULT statement, in order to permanently change FDREPORT default processing options.
- The COPY statement is used to copy the FDREPORT option values set in a previous version of FDREPORT to the new version.

Must point to the load library containing FDREPORT and you must have UPDATE authority to that library.

SYSPRINT DD STATEMENT

Specifies the primary output message data set; it is required. It is usually a SYSOUT data set. DCB characteristics are RECFM=FBA and LRECL=121; the block size defaults to 1210 on DASD or tape.

SYSPUNCH DD STATEMENT

Specifies the output data set when RPTYPE=SELPCH is specified, for the storage of generated statements. FDREPORT forces DCB characteristics of RECFM=FB and LRECL=80; any valid block size may be specified, but it defaults to 80.

SYSPUNCH may be a DASD data set (sequential or a member of a PDS), but it may also be assigned to the JES internal reader “SYSOUT=(*class*,INTRDR)” to submit a complete job stream for execution. You may also make SYSPUNCH a normal SYSOUT data set if you wish to view the generated statements.

SYSUDUMP DD STATEMENT

Recommended in all FDREPORT jobs in order to more easily diagnose error conditions that make FDREPORT ABEND. Usually a SYSOUT data set. If you have a debugging aid product on your system that would prevent the desired dump, please add the appropriate one of these statements to the JCL so that a fully-formatted dump is produced.

```
//ABNLIGNR DD DUMMY    Turn off Abend-Aid
//CAOESTOP DD DUMMY    Turn off CA OPT II & CA SYMDUMP
//DMBENAN  DD DUMMY    Turn off DumpMaster
//ESPYIBM  DD DUMMY    Turn off Eye-Spy
//IDIOFF   DD DUMMY    Turn off IBM Fault Analyzer
```

SYSUT1 DD STATEMENT

Required when the RPTYPE=DATA (or COMPDATA) and DATATYPE=EXTRACT operands are *both* specified on the same PRINT statement. Although SYSUT2 would normally be used for the data input, it cannot be used as both input and output in the same operation; in this case, SYSUT1 is used instead of SYSUT2 for the extracted data input, and SYSUT2 is used for output. The SYSUT1 DD statement name may be changed by the ALTDATADDNAME= operand.

SYSUT2 DD STATEMENT

Required when the RPTYPE=DATA (or COMPDATA) or DATATYPE=EXTRACT operands are specified, for the storage of FDREPORT internal data records. Normally a DASD data set but it may be on tape. If you want to use this extract file as input to another reporting program (such as SAS), the format of the records is defined by the **@RPTDS** macro that is a member in the FDR Installation Control Library (ICL).

When RPTYPE=DATA or RPTYPE=COMPDATA is specified it is an output data set and FDREPORT forces DCB characteristics of RECFM=VB,LRECL=8200; any valid block size can be specified, or FDREPORT assigns a default value.

If you execute several PRINT statements in the same FDREPORT step, each with RPTYPE=DATA (or COMPDATA), and you want the extracted data from each to accumulate in the SYSUT2 data set, you must either specify DISP=MOD in the JCL or the ENABLE=MODOUTPUT operand. Otherwise, only data from the last PRINT is available.

For DATATYPE=EXTRACT, SYSUT2 is used as input; it must be a data file created by the RPTYPE=DATA option of FDREPORT in an earlier step or job or earlier in this step. Although the format of the extract file has changed in various releases of ABR, FDREPORT can successfully process any extract file created by any prior release. You can concatenate several extract files as one input if they were created with RPTYPE=DATA; extract files created with RPTYPE=COMPDATA cannot be concatenated.

If required and not present in the JCL, FDREPORT allocates an extract data set. If the EXTRACTDSN= operand is specified, the existing data set named is allocated; you may optionally include the EXTRACTMEMBER= operand to select a member of a PDS for input or output. If EXTRACTDSN= is not included, a temporary data set is allocated, which is retained for the duration of the step so that it can be used as output and later as input when DATATYPE=EXTRACT is specified on another PRINT statement.

The SYSUT2 DD statement name may be changed by the DATADDNAME= operand.

TAPE*xxxx* DD STATEMENTS

Required only if DATATYPE=TVTOC is specified. These DD statements must point to FDR-format backups on tape or DASD; all backups created by FDR, FDRDSF, FDRABR, and SAR can be used. All of the TAPE*xxxx* DD statements in the step are read when DATATYPE=TVTOC is used.

TMC DD STATEMENT

(Optional). This must point to the CA 1 Tape Management Catalog (TMC). If you provide the data set name of the TMC via the CA1TMC= operand, this DD statement is not necessary; FDREPORT dynamically allocates the required file.

FDREPORT UNDER TSO

FDREPORT may also be executed under TSO. Any required files must be preallocated (corresponding to the DD statements above). If the library containing ABR is in the linklist, then wherever you can enter a TSO command, you can simply type:

```
FDREPORT
```

If not, then you can type:

```
CALL 'fdrlib(FDREPORT)'
```

In either case, FDREPORT prompts for statement input**. Enter "END" to terminate FDREPORT. The SYSIN and SYSPRINT file names should be allocated to your terminal before invoking FDREPORT.**

If you have the ABR ISPF panels installed, option A.1 (REPORTS) gives you the ability to generate predetermined reports with FDREPORT (using the EXECUTE statement to select the report format from a library, with a XSELECT statement generated from the panel.

However, ISPF option A.S (the SRS dialog, described in Section 54.80 "FDRSRS – Search, Report, and Services Dialog") internally uses FDREPORT to generate much of its data, giving you the ability to interactively do the same selection and reporting as done by FDREPORT.

54.10 FDREPORT ACTIVATE STATEMENT

ACTIVATE STATEMENT SYNTAX

The syntax of the ACTIVATE statement is:

```
ACTIVATE   DATALENGTH=nn                  ,FIELD=fieldname
           ,DATATYPE=cccc                 ,SOURCE=(type,exitname)
           ,DESCRIPTION=field_desc        ,OUTPUTLENGTH=nn
           ,FORMAT=(format1,format2)      ,REDEFINE
           ,HEADER=('hdr2','hdr3'
                   ,'hdr1')
```

ACTIVATE STATEMENT

The ACTIVATE statement is used to activate predefined user fields in the FDREPORT field definition and processing table. Data for user fields comes exclusively from one or more user exits. The field activation is TEMPORARY only for the given invocation of the FDREPORT that they are specified.

Part of field activation requires setting the name of the exit. Control is passed to the exit via a "BALR 14,15" instruction. Normal save area conventions are followed and register 1 contains the address of a parameter list. Contents of the parameter list are described by the **@RPTUSRX** macro found in the Installation Control Library (ICL) data set shipped with the FDREPORT install, as is a copy of the testing exit, F$REPIXT.

ACTIVATE STATEMENT REQUIRED OPERANDS

DATALENGTH=

(Required operand). Specifies the length in bytes that the field occupies within the report record. The limits of the field vary, based on DATATYPE. The limits are:

DATATYPE=BIN--	1 to 4
DATATYPE=CHAR--	1 to 24
DATATYPE=HEX--	1 to 12

NOTE: The FORMAT operand supplies values for both the DATALENGTH and OUTPUTLENGTH operands when applicable.

DATATYPE=

(Required operand). Specifies the type of data that the field contains. There are three types of data that are supported by FDREPORT and its formatting services for user fields:

BIN – Binary, considered to be numeric.

CHAR – Character.

HEX – Hexadecimal.

FIELD=

(Required operand). Specifies the name of the field to be activated. The valid field names are:

USERFLD1 – Predefined user field 1.

USERFLD2 – Predefined user field 2.

USERFLD3 – Predefined user field 3.

USERFLD4 – Predefined user field 4.

USERFLD5 – Predefined user field 5.

USERFLD6 – Predefined user field 6.

USERFLD7 – Predefined user field 7.

USERFLD8 – Predefined user field 8.

USERFLD9 – Predefined user field 9.

VLUSERF1 – Predefined user volume record field 1.

VLUSERF2 – Predefined user volume record field 2.

VLUSERF3 – Predefined user volume record field 3.

VLUSERF4 – Predefined user volume record field 4.

VLUSERF5 – Predefined user volume record field 5.

VLUSERF6 – Predefined user volume record field 6.

VLUSERF7 – Predefined user volume record field 7.

VLUSERF8 – Predefined user volume record field 8.

VLUSERF9 – Predefined user volume record field 9.

SOURCE=

(Required operand). Specifies where the contents of the field being activated is to be obtained. Two elements comprise the SOURCE operand and both may be specified. The first element determines how the field contents are derived.

EXIT – The field is derived from a user exit. When EXIT is specified for SOURCE, it must be followed by the name of the exit to be invoked. The exit name is from 1 to 8 characters in length. When using EXIT, SOURCE is coded as: SOURCE=(EXIT,*exitname*)

NONE – The field is already in the user portion of the data record and activation is required to process it.

RESET – The user field name is no longer required and is to be deactivated.

See the Installation Control Library (ICL) member **F$REPIXT** for an example of a user exit.

ACTIVATE STATEMENT OPTIONAL OPERANDS

DESCRIPTION=

Specifies the description of the field that is displayed when “HELP DESCRIPTION” is specified. The data may be from 1 to 44 bytes in length. Since the data may contain characters that can be considered delimiters, it is usually a quoted string.

This is an optional operand. A default description is displayed if requested.

FORMAT=

Specifies the extended formatting services required. Use of the `FORMAT` operand is valid only when DATATYPE is binary (BIN). There are two elements in the FORMAT restricted to J3DATE, which defines the field as a 3-byte Julian date field. J3DATE, if the only value specified, causes the field to be formatted as *yy.ddd*. The second element is used to describe the desired output format. The possible values are:

MMDDYY –

MMDDYYYY –

YYYYDDD –

DDMMYY –

DDMMYYYY –

YYDDD –

This is an optional operand, used only to provide access to common output date formatting routines.

HEADER=

Specifies the column headers for the generated reports and for use by the summary and control break routines. There are three headers possible but they are entered in the following sequence because most fields do not have a two line column header: 2, 3, 1. When “2” is the normal one line column header, “3” is a single line header for RPTYPE=TABLE (as well as control breaks and summary), and “1” is the top line of a two line column header. The maximum number of significant characters that can be specified per header is 24, but only the value OUTPUTLENGTH is used in generating the headers. The data is aligned to the left, so if you want leading blanks, then count columns.

This is an optional operand. If HEADER is not specified, a blank field of the appropriate length is used.

OUTPUTLENGTH=

Specifies the number of bytes in the formatted output. The value limit is based on the contents of DATATYPE. If DATATYPE=CHAR, the value for OUTPUTLENGTH may be defaulted to the value of DATALENGTH. If it is specified, it must be greater than zero but less than or equal to the value of DATALENGTH. If DATATYPE=HEX, the value for OUTPUTLENGTH must be an even number of bytes and no greater than twice the value of DATALENGTH. If DATATYPE=BIN, then the following limits apply:

OUTPUTLENGTH DEPENDENCIES FOR DATATYPE=BIN

DATALENGTH	OUTPUTLENGTH
1	2 or 3
2	2, 3, 4, or 5
3	5 or 8
4	4, 5, 6, 8, or 10

This is a required operand except when DATATYPE=CHAR.

NOTE: The FORMAT operand supplies values for both the DATALENGTH and OUTPUTLENGTH operands when applicable.

REDEFINE

Permits the changing of various field descriptive operands. It is not possible to change the characteristics of a previously activated user field unless REDEFINE is specified.

54.11 FDREPORT BREAK STATEMENT

BREAK STATEMENT SYNTAX

The syntax of the BREAK statement is:

```
BREAK     FIELD=(field[,field,…])     ,RESET
                                      ,NORESET
```

BREAK STATEMENT

The BREAK statement provides a simple alternative to the SORT statement when you want to sort every field in ascending order and takes a standard control break when any value changes. In other words,

```
BREAK     FIELD=(A,B,C)
```

is equivalent to

```
SORT      FIELD=(A,B,C),BREAK=(YES,YES,YES)
```

Details are found in Section 54.25 “FDREPORT SORT Statement”.

BREAK STATEMENT OPERANDS

FIELD=

***field* –** Specifies one or more fields to be used by FDREPORT for the SORT. If more than one FIELD is specified, they are sorted in the order specified. All fields are sorted in ascending order.

The table in Section 54.30 “” documents the available FIELD names. Check the SORT column to see which are supported for sorting.

RESET

NORESET

NORESET – Indicates that these fields should be added to the list of fields currently in effect from preceding BREAK or SORT statements.

RESET – Indicates that the list of fields on this BREAK statement completely replaces the values on any preceding BREAK or SORT statement.

Default: RESET.

54.12 FDREPORT CANCEL STATEMENT

CANCEL STATEMENT SYNTAX

The syntax of the CANCEL statement is:

```
CANCEL
                EXCLUDE                 ,SELECT
                ,HEADING                ,SORT
                ,REPORT                 ,SUMMARY
                ,PUNCH                  ,TITLE
```

CANCEL STATEMENT

The CANCEL statement negates the effects of all or some prior statement except DEFAULT. This statement is handy if you have changed your mind about the selection criteria, sort fields, and the rest, or if you wish to generate a totally different report in the same FDREPORT execution.

If no operands are specified, CANCEL cancels the effect of all of the prior statements except DEFAULT.

CANCEL STATEMENT OPERANDS

EXCLUDE

Cancel the current exclusion criteria table as created by the XEXCLUDE statements.

HEADING

Cancel the current HEADING line(s).

REPORT

Cancel the current REPORT field table.

PUNCH

Cancel the current PUNCH mask.

SELECT

Cancel the current selection criteria table as created by the XSELECT statements.

SORT

Cancel the current SORT field table.

SUMMARY

Cancel the current SUMMARY options.

TITLE

Cancel the current TITLE line.

54.13 FDREPORT COPY STATEMENT

COPY STATEMENT SYNTAX

The syntax of the COPY statement is:

```
COPY
```

COPY STATEMENT

The COPY statement is used to copy the FDREPORT option values set in a previous version of FDREPORT by reading the F$REPOPT module from the previous load library and setting the equivalent options in the new F$REPOPT module.

The COPY statement requires the SYSLIB DD Statement to identify the new load library and the FROMDD DD Statement to identify the previous load library. SeeSection 54.3 "FDREPORT JCL Requirements" for information on specifying these DD statements.

COPY STATEMENT OPERANDS

There are no operands for the COPY statement.

54.14 FDREPORT DEFAULT STATEMENT

DEFAULT STATEMENT SYNTAX

The syntax of the DEFAULT statement is:

```
DEFAULT     ABRINDEX=cccccccc
            ,AGE=nnn
            ,AGEACCUM=nn
            ,AGEINC=nnn
            ,ALIASLEVEL=n
            ,ALTDATADDNAME=ddn
            ,ARCDSNAME=dsn
            ,ARCLIMIT=nnnnn
            ,BCDSCLUSTER=dsn
            ,BCDSDDNAME=ddn
            ,BININTERVAL=nn
            ,BYTEFORMAT=BYTES|
                        KILOBYTES|
                        MEGABYTES
            ,CANDSPACE=ccccccccc
            ,CATALOGSEARCH=RELATED|
                           STANDARD
            ,CA1TMC=dsn
            ,CA1XDDNAME=ddn
            ,CA1XPREFIX=pfx
            ,CHANGE=PERM|
                    RESET|
                    TEMP
            ,CHKONLRESERVE=BYPASS|
                           RETRY|
                           WAIT
            ,COPY=BOTH|
                  EITHER|
                  1|
                  2
            ,CRYDSNAME=dsn
            ,DATADDNAME=ddn
            ,DATATYPE=ARCHIVE|
                      BCDS|
                      CATALOG|
                      CATARCH|
                      CATVTOC|
                      ENCRYPT|
                      EXTRACT|
                      MCDS|
                      RMMDSN|
                      RMMVOL|
                      SCRATCH|
                      TVTOC|
                      VOLDATA|
                      VTOC
            ,DATEFORMAT=DDMMYY|
                        DDMMYYYY|
                        MMDDYY|
                        MMDDYYYY|
                        YYDDD|
                        YYDDMM|
                        YYMMDD|
                        YYYYDDD|
                        YYYYDDMM|
                        YYYYMMDD
            ,DDCNT=nnn
            ,DIAGPCHDDNAME=ddn
            ,DISABLE=(options)
            ,DSKIP=n
            ,ENABLE=(options)
            ,ERRCODE=nnn
            ,EXTRACTDSNAME=dsn
            ,EXTRACTMEMBER=mem
            ,FDRLIB=ddn
            ,FIELDPREFIX=c
            ,FIELDSUFFIX=c
            ,FORMAT=CRT|
                    DEVICE|
                    PRINT|
                    TSO
            ,GMSORTLEN=nnn
            ,ICF=IGNORE|
                 YES
            ,ICFSOURCE=LOCATE|
                       VVDS
```

The syntax of the DEFAULT statement (continued):

```
,IFKEYWORDERROR=BYPASS|
                PROCESS
,IFNOVERSION=cccc
,IFSELECTERROR=BYPASS|
               PROCESS
,INDEXNUM=nn
,LBPZERO=INVALID|
         VALID
,LINECNT=nnn
,LOWEXPDATE=yyyyddd
,MAXBKUPARRAY=nn
,MAXCOPY=n
,MAXEXECUTE=nnnnn
,MAXGDG=nnn
,MAXICF=nnnnn
,MAXONLINE=nnnn
,MAXSELCORE=nnnnnnn
,MAXSEPARATE=n...n
,MAXTAPE=nnnnn
,MCDSCLUSTER=dsn
,MCDSDDNAME=ddn
,MIHINTERVAL=n
,MINSEPARATE=nn
,OCDSCLUSTER=dsn
,OCDSDDNAME=ddn
,OLDBACKUP=ALL|
           CUR|
           (nn[,nn,…])
,PAGEWIDTH=nnn
,PCHDATEFORMAT=DDMMYY|
               DDMMYYYY|
               MMDDYY|
               MMDDYYYY|
               YYMMDD|
               YYYYMMDD|
               YYDDMM|
               YYYYDDMM|
               YYDDD|
               YYYYDDD
,PCHDDNAME=ddn
,PCHDEFCATALOG=catn
,PCHSEPCHAR=c
,POFREESPACE=DIR|
             IFREAD|
             LBP
,PRTLENGTH=nnnnn
,RECORDSUMMARY=CLUST|
               COMPON|
               NONE
,REGIONSIZE=nnnnnnnnn
,RESETMASKAFTER=nnnnn
,RESFAILRTNCD=nn
,RESWAITIME=nn
,RETRYLOOPS=nn
,RMMXDDNAME=ddn
.RMMXPREFIX=pfx
,RPTDDNAME=ddn
,RPTSPFC=nn
,RPTSPFI=nn
,RPTYPE=ABRVTOC|
       ARCHIVE|
       COMPDATA|
       DATA|
       GENERATE|
       HEX|
       NONE|
       OSVTOC|
       SELPCH|
       TABLE|
       XREF
,RUNDATE=yyyyddd
,SKIP=n
,SORT=COMBINE|
      NO|
      YES
,SORTALLOC=NO|
           CYL|
           SORTLIB|
           SORTMSG|
           SORTWORK|
           TRK|
           YES
,SORTCORE=nnnnnnn
,SORTLIB=dsn
,SORTPFX=cccc
,SPFC=nn
```

The syntax of the DEFAULT statement (continued):

```
,SPFI=nn                          ,SYSUTSTORCLAS=storclas
,SSPKLINECNT=n                    ,SYSUTUNIT=unit
,STARTCATALOG=catn                ,TITLE=CENTER|
,SORTMSG=AC|                             LEFT|
         AP|                             RIGHT
         CC|                      ,UNITPREFIX=n
         CP|                      ,VOLPREFIX=n
         NO|                      ,VOLSUMMARY=CTLSERNO|
         PC                                  DEVTYPE|
,SORTMSGDDNAME=ddn                           MFRCODE|
,SUMBYTEFORMAT=BYTES|                        NOBREAK|
               KILOBYTES|                    NONE|
               MEGABYTES|                    SSID|
               GIGABYTES|                    STORGRP|
               TERABYTES                     UNITPREFIX|
,SUMDDNAME=ddn                               VOLPREFIX
,SUMDEVICE=BASE|                 ,VTOCPAD=nn
           UNIQUE                ,VTOCREAD=CYL|
,SUMLEVEL=INDEX|                           TRK
          NONE|                  ,WORKDDNAMES=n
          REPORT|                ,WORKSPACE=nnnnn
          YES                    ,WORKSTORCLAS=storclas
,SYSLIB=ddn                      ,WORKUNIT=unit
,SYSUTSPACE=nnnnn
```

DEFAULT STATEMENT

The DEFAULT statement changes FDREPORT's default values for various options used when generating a report. Most of the operands on the DEFAULT statement are also operands of the PRINT statement, and can be specified there. The DEFAULT statement can be used when more than one report (more than one PRINT statement) is to be generated in one FDREPORT run; the DEFAULT statement avoids having to specify options used in more than one report more than once. **Only the operands that are unique to the DEFAULT statement are described below; the other operands are described in Section 54.21 "FDREPORT PRINT Statement".**

The DEFAULT statement may also be used to permanently update default values of most of the operands of DEFAULT in the ABR program library so that all subsequent executions of FDREPORT use the new values without having to specify them. The underlined defaults shown above (and in the PRINT statement) are the distributed defaults; your installation may have changed them. The defaults are permanently changed when the CHANGE=PERM or CHANGE=RESET operand is specified; this requires that a SYSLIB DD Statement be included in the FDREPORT JCL pointing to the ABR program library. The current defaults may be displayed by the ENABLE=DISPLAY operand; this display also shows which values are eligible for permanent change by CHANGE=PERM, which can only be changed in the FDR Global Options Table, and cannot be changed.

DEFAULT STATEMENT OPERANDS

ABRINDEX=

***cccccccc* –** Specifies a character string from 1 to 8 bytes in length that ABR is to use as the first level qualifier for the ABR model DSCBs and for all backup and archive data sets created by FDRABR.

Default: The default is the ABRINDEX value in the FDR Global Options Table and is usually "FDRABR".

ARCDSNAME=

***dsn* –** Specifies the data set name of the Archive Control File to be used as input if DATATYPE=ARCHIVE or DATATYPE=CATARCH is also specified and no ARCHIVE DD Statement is present.

Default: The default is the Archive Control File name in the FDR Global Options Table and is usually "FDRABR.ARCHIVE".

NOTE: This field is not eligible for permanent change.

BCDSCLUSTER=

***dsn* –** Specifies the cluster name of the DFSMShsm BCDS data set. The BCDS cluster is dynamically allocated if DATATYPE=BCDS is used.

If the BCDS is defined to DFSMShsm as a multi-cluster file, specify all the cluster names, in parenthesis (up to 4), for example,

```
BCDSCLUSTER=(cluster1,cluster2,cluster3,cluster4).
```

If these parameters are not specified, FDREPORT expects that the JCL contains a BCDSDD DD statement (for DATATYPE=BCDS).

BCDSDDNAME=

***ddn* –** Specifies the DDname to be used when reading the DFHSM or DFSMShsm BCDS data set if DATATYPE=BCDS is used.

Default: BCDSDD.

CA1TMC=

***dsn* –** Specifies the data set name of the CA 1 Tape Management Catalog (TMC) to be used when extracting data from product CA 1. This value is required when performing an EXTRACT command for PRODUCT=CA1.

CA1XDDNAME=

***ddn* –** Specifies the ddname used when retrieving CA 1 extracted data created by the EXTRACT command using PRODUCT=CA1.

Default: CA1XTR

CA1XPREFIX=

***pfx* –** Specifies the 1 to 8 character prefix to be used when naming the newly created extract field using the EXTRACT command with PRODUCT=CA1.

Default: Use the prefix of the user creating the file.

CHANGE=

Allows the default values used by FDREPORT for other operands on the DEFAULT statement to be permanently changed. The available options are:

PERM – Permanently change the default values for many other operands specified on the DEFAULT statement, as described above.

RESET – Reset all defaults back to the original values distributed with FDREPORT.

TEMP – Operands on the DEFAULT statement affect this execution of FDREPORT only.

PERM or RESET requires that a SYSLIB DD Statement pointing to the ABR program library be included in the FDREPORT JCL; you must have UPDATE authority to this library.

Default: TEMP.

NOTE: This field is not eligible for permanent change.

DDCNT=

nnn **–** Specifies the maximum number of user-specified DISKxxxx DD Statements that can be processed in any execution of FDREPORT, from 5 to 400. Note that INNOVATION DATA PROCESSING recommends dynamic allocation of volumes to be processed, by use of the VOL= and ENABLE=ONLINE options.

Default: 100.

NOTE: This field is not eligible for permanent change.

ENABLE=DISPLAY

Specification of ENABLE=DISPLAY on a DEFAULT statement causes it to display all of the FDREPORT operands that are stored in the FDREPORT option table and their current default values. Disabled by default. See "CHANGE=" in Section 54.14 for information on permanently changing the defaults.

ERRCODE=

nnn **–** Specifies the return code to be issued by FDREPORT when error conditions are encountered. The number can be any value from 5 to 255. FDREPORT reports the highest return code from any service routine at the end of processing.

Default: Taken from the last value specified for ABRCC when updating the ABR option table, FDROPT, and is usually 12.

NOTE: This field is not eligible for permanent change.

FDRLIB=

ddn **–** Specifies the FDRLIB DD Statement name to be used for reading FDREPORT control statements by the EXECUTE statement or punch mask definitions by the PUNCH statement. Can also be specified on those statements.

Default: FDRLIB.

FIELDPREFIX=

c **–** Specifies the character that marks the beginning of a field name in a punch mask or TITLE statement. Valid characters are <|&$*%_>:#@ but the default of "<" should not be overridden unless you need to use that character as data in the mask.

Default: <.

FIELDSUFFIX=

c **–** Specifies the character that marks the end of a field name in a punch mask or TITLE statement. Valid characters are <|&$*%_>:#@ plus a blank but the default of ">" should not be overridden unless you need to use that character as data in the mask.

Default: >.

GMSORTLEN=

nnnn **–** Specifies the number of bytes to be obtained for the generated SORT control statement when sorting is required. The number may be from 200 to 5000.

Default: Calculated based on the number of fields eligible for sorting.

LOWEXPDATE=

Specifies the date to be used as a lower limit when validating the EXPDATE operand. The date may range from 0 to 2155.365.

The date is specified as a Julian date (year plus day number) that may be in the form *yyyyddd* or *yyddd*. For readability, a period may be inserted between the year and day.

MAXEXECUTE=

nnnnn **–** Specifies the number of control statements that can be present in any single predefined report. The number may be a value from 10 to 32766.

MAXICF=

nnnnn **–** Specifies the maximum number of ICF VSAM clusters whose description can be retained in storage for any one report, from 100 to 10000. It is used only with DATATYPE=ARCHIVE or CATARCH.

Default: 400 clusters.

NOTE: This field is not eligible for permanent change.

MAXSELCORE=

nnnnnnn **–** Specifies the amount of main memory, in bytes, to be GETMAIN'd for the storage of user related selection and/or exclusion criteria. The number may be a value from 4000 to 4000000.

Default: 12228 bytes of main memory is GETMAIN'd for selection and/or exclusion processing.

MAXTAPE=

nnnnn **–** Specifies the maximum number of tapes that are tabled for a given DASD volume during the execution of a report that includes backup information. The number may be from 10 to 32000.

Default: 100.

NOTE: This field is not eligible for permanent change,

MCDSCLUSTER=

dsn **–** Specifies the cluster name of the DFSMShsm MCDS data set. The MCDS cluster is allocated if DATATYPE=MCDS is used.

If the MCDS is defined to DFSMShsm as a multi-cluster file, specify all the cluster names, in parenthesis (up to 4), for example,

```
MCDSCLUSTER=(cluster1,cluster2,cluster3,cluster4).
```

If these parameters are not specified, FDREPORT expects that the JCL contains a MCDSDD DD statement (for DATATYPE=MCDS).

MCDSDDNAME=

ddn **–** Specifies the DDname to be used when reading the DFHSM or DFSMShsm MCDS data set if DATATYPE=MCDS is used.

Default: MCDSDD.

PCHDEFCATALOG=

catn **–** Specifies the name of a user catalog to use when creating DEFINE ALIAS control statements with the PUNCHDEFINE function.

Default: All aliases for all catalogs are included in the PUNCHDEFINE.

RMMXDDNAME=

ddn **–** Specifies the ddname used when retrieving DFSMSrmm extracted data created by the EXTRACT command using PRODUCT=RMM.

Default: RMMXTR.

RMMXPREFIX=

pfx **–** Specifies the 1 to 8 character prefix to be used when naming the newly created extract field using the EXTRACT command with PRODUCT=RMM.

Default: Use the prefix of the user creating the file.

RUNDATE=

Specifies the date to be used to simulate an IPL at other than today's date. The date may range from the current date to 2155.365.

The date is specified as a Julian date that may be in the form *yyyyddd* or *yyddd*. For readability, a period may be inserted between the year and day.

Default: Obtain the date from the system via the TIME SVC.

STARTCATALOG=

catn – Specifies the name of a user or alternate master catalog to search when a DATATYPE of CATALOG, CATARCH, or CATVTOC is specified.

Default: The master catalog.

SYSLIB=

ddn – Specifies the DDname to be used when reading or rewriting the module F$REPOPT if the CHANGE operand specifies either PERM or RESET.

Default: SYSLIB.

54.15 FDREPORT EXECUTE STATEMENT

EXECUTE STATEMENT SYNTAX

The syntax of the EXECUTE statement is:

```
EXECUTE   ECHO|                    ,MAXEXECUTE=400|
          NOECHO                                nnnnn

          ,FDRLIB=FDRLIB|          ,REPORT=rptname
                  ddn
```

EXECUTE STATEMENT

The EXECUTE statement reads preestablished FDREPORT report statements from a control statement library. You can setup canned report specifications that any user can execute.

The control statements read by EXECUTE can also be combined with statements in the input stream. For example, you might have XSELECT statements to select the data sets to be reported, followed an EXECUTE to read and execute the REPORT and PRINT statements defining the report.

The control statement library must be a data set that has the attributes: RECFM=FB,LRECL=80. It may be either sequential (DSORG=PS) or partitioned (DSORG=PO). The EXECUTE statement uses the presence or absence of the REPORT= operand to differentiate between sequential or partitioned data sets. If REPORT= is specified, the data set is assumed to be partitioned and REPORT= provides the member name. If REPORT= is omitted, the data set is assumed to be sequential.

NOTE: The ISPF SRS dialog, documented in Section 54.80 "FDRSRS – Search, Report, and Services Dialog", is another way to save selection and/or formatting parameters in a library that can then be executed under TSO or submitted for batch execution.

EXECUTE STATEMENT OPERANDS

ECHO
NOECHO

Specifies that the control statements read by this EXECUTE statement are to be printed "ECHO" on SYSPRINT or not "NOECHO".

Default: NOECHO.

FDRLIB=

ddn – Specifies the FDRLIB DD Statement name FDREPORT scans for the control statements to be processed.

If REPORT is specified this FDRLIB DD Statement must point to a partitioned data set. If REPORT is not specified FDREPORT reads this data set sequentially.

The format of this data set must be fixed blocked with an LRECL of 80. The blocksize is set at user discretion.

Default: FDRLIB.

MAXEXECUTE=

nnnnn – Specifies the number of control statements that can be present in a single predefined report. The number may be from 10 to 32766, inclusive.

Default: 400. If more than 400 control statements are present, it is dynamically adjusted upwards to a design limit of 32,766.

REPORT=

mem – Specifies the name of the report. This name must be a member in the library specified by FDRLIB. This member must contain the control statements defining this report in 80-byte images. The user can specify any of the FDREPORT statements in this member except for EXECUTE. If the last statement in the member is PRINT, the user need not specify any other control statements after this statement.

If REPORT is not specified, FDREPORT assumes that the data set pointed by FDRLIB is a sequential data set

A 1 to 8 character name may be specified.

54.16 FDREPORT EXTRACT STATEMENT

EXTRACT STATEMENT SYNTAX

The syntax of the EXTRACT statement is:

```
EXTRACT     PRODUCT=RMM
                    CA1
            ,DISP=DELETE|          ,SPACE=cyl
                  RETAIN           ,STORCLAS=storclas
            ,DSN=dsn               ,UNIT=unit
```

EXTRACT STATEMENT

The EXTRACT statement is used to specify the options to be used when creating an extraction file from the tape management system.

EXTRACT STATEMENT OPERANDS

PRODUCT=

CA1 – Build an extract file from data in the CA 1 tape management system.

RMM – Build an extract file from data in the DFSMSrmm tape management system.

Default: RMM.

DISP=

DELETE – Delete the extract file after completion of FDREPORT processing.

RETAIN – Keep the extract file after completion of FDREPORT processing.

Default: DELETE if created by the FDREPORT EXTRACT statement.
RETAIN if previously created and passed to FDREPORT via the RMMXTR DD Statement.

DSN=

***dsn* –** The name to use for extraction file. Useful when you are also specifying DISP=RETAIN.

Default: A data set name is generated incorporating the userid, date, and time values.

STORCLAS=

***storclas* –** The SMS Storage class to assign to this extraction file. If STORCLAS= is not specified, then UNIT= is used for allocation of the extract file.

SPACE=

***cyl* –** Specifies the number of cylinders to allocate to this extraction file.

Default: The value specified by the SYSUTSPACE= operand is used.

UNIT=

***unit* –** Specifies the unit value to assign to this extraction file when performing the allocation.

Default: The value specified by SYSUTUNIT= operand is used.

NOTE: When specifying PRODUCT=CA1, SORTALLOC=YES is required to allocate the SORTWORK DD statements necessary when producing the EXTRACT file. This operand must be specified on a prior DEFAULT statement. Additionally, the CA 1 TMC must be identified to FDREPORT prior to the EXTRACT statement. The CA 1 TMC can be identified in the JCL or with the CA1TMC= operand on the DEFAULT statement. For example:

```
DEFAULT SORTALLOC=YES,CA1TMC=CA1.TMC
```

54.17 FDREPORT HEADING STATEMENT

HEADING STATEMENT SYNTAX

The syntax of the HEADING statement is:

```
HEADING   LINE(1)='1st heading line text'
          ,LINE(2)='2nd heading line text'
          ,LINE(3)='3rd heading line text'
```

HEADING STATEMENT

By default, FDREPORT provides column headings with text that is descriptive of the field(s) in each column (for example, DSNAME, SIZE). The HEADING statement allows you to specify replacement text of your choosing. It is your responsibility to line up the heading text with the actual columns generated by FDREPORT; this may take some experimentation.

HEADING STATEMENT OPERANDS

LINE(*n*)=

'*text*' – Specifies the replacement heading text for heading line *n* (*n*=1, 2, or 3).

If the heading text cannot be contained in one control statement (columns 1 to 71), it may be continued using the same conventions described for the TITLE statement (see "FDREPORT XSELECT and XEXCLUDE Statement" in Section 54.28).

54.18 FDREPORT HELP STATEMENT

HELP STATEMENT SYNTAX

The syntax of the HELP statement is:

```
HELP
        ACTIVE                          ,FIELD
        ,ALL                            ,FIELD(cccccccc)
        ,COMMAND                        ,INCLUDE
        ,COMMAND(command)               ,OPERANDS
        ,DESCRIPTION                    ,SEQUENTIAL
        ,DESCRIPTION(cccccccc)          ,SYNTAX
```

HELP STATEMENT

The HELP command prints help by function or command. JCL and CLIST are considered commands by the HELP command.

HELP STATEMENT OPERANDS

ACTIVE

Lists just the field names that are marked in the field name table as being active for the various field selection services (REPORT, SORT, SUMMARY, and PUNCH).

ALL

Lists the entire contents of the help member including all commands and field names and descriptions.

COMMAND

Prints the entire command list.

COMMAND(*command*)

Requests help for a specific command.

DESCRIPTION

List all field names and their descriptions.

DESCRIPTION(*cccccccc*)

List all field names that start with the character string "*cccccccc*" and their descriptions.

FIELD

List all field names.

FIELD(*cccccccc*)

List all field names that start with the character string "cccccccc".

INCLUDE

Include alternative formatting field names.

OPERANDS

When specified with the operand COMMAND(*command*), requests help for only the operands of the command specified.

When specified without the operand COMMAND(*command*), requests help for the operands of the command or program.

SEQUENTIAL

When used in conjunction with the keyword ACTIVE, lists just the field names that are marked in the field name table as being active for the various field selection services (REPORT, SORT, SUMMARY, and PUNCH) in sequential order. When used without the keyword ACTIVE it has no apparent effect.

SYNTAX

When specified with the operand COMMAND(*command*), requests help for only the syntax of the specified command.

When specified without the operand COMMAND(*command*), requests help for the syntax of the command or program.

54.19 FDREPORT IF STATEMENT

IF STATEMENT SYNTAX

The syntax of the IF statement is:

IF	*variable operator variable* THEN(*action*)

IF STATEMENT

The IF statement provides a different means of selection and exclusion of data to be processed by FDREPORT. The IF statements are complied as they are read and stored for use by the standard XSELECT and XEXCLUDE process. Since the statements are complied in this manner, it is possible to perform field to field direct compares as well as field to constant or constant to field compares.

The simplest form of the IF command can be represented as:

```
IF  CRDATE = LRDATE THEN(SELECT)
IF  field_name operator constant  AND +
    field_name operator constant  AND +
    field_name operator constant  THEN(action)
IF  (field_name operator constant)  AND +
    (field_name operator constant)  OR +
    (field_name operator constant)  THEN(action)
```

An example of the use of the IF statement to quickly scan the dasd volumes that are at least 365 days old, have at least one track allocated, and have not been referenced since the day they were created, excluding the ABR Model DSCB's, VTOC's, and indexed VTOC's from this list:

```
IF        (DSN¬='****VTOC' AND DSN¬='***ABR' AND +
          DSN¬='SYS1.VTOC' AND LRDAYS>365 AND +
          CRDATE=LRDATE AND SIZE>0) THEN(SELECT)
REPORT    FIELD=(DSN,VOL,CRDATE,LRDATE,CRDAYS,LRDAYS,SIZE)
SORT      FIELD=(INDEX,CLUSTER,DSN),BREAK=SUB
SUMMARY   FIELD=(DSN,SIZE)
PRINT     SORTALLOCATE=YES,ENABLE=ONLINE
```

You may want to omit some standard data set entries that exist on all volumes or are part of the system. Prior to the addition of the IF command, the only method to do this was with a series of XEXCLUDE statements.

```
XEXCLUDE DSN=****VTOC            ** Exclude VTOC's
XEXCLUDE XDSN=SYS1.VTOCIX.**     ** Exclude VTOC Indexes
XEXCLUDE XDSN=SYS1.VVDS.**       ** Exclude VVDS's
XEXCLUDE XDSN=SYS+++++.**        ** Exclude Temporary data sets
XEXCLUDE DSG=***ABR              ** Exclude ABR Model DSCB's
XEXCLUDE SIZE=0                  ** Exclude Model DSCB's
XEXCLUDE XDSN=**CATINDEX**       ** Exclude Catalog Indexes
XEXCLUDE OPTCD=BC                ** Exclude ICF Catalogs
```

The IF statement can also be used to perform this exclusion using the "EXCLUDE" action on the IF statement.

```
IF  DSN='****VTOC'           THEN(EXCLUDE)
IF  DSN='SYS1.VTOCIX'        THEN(EXCLUDE)
IF  DSN='SYS1.VVDS'          THEN(EXCLUDE)
IF  DSN='SYS+++++'           THEN(EXCLUDE)
IF  DSN='***ABR MODEL'       THEN(EXCLUDE)
IF  SIZE=0                   THEN(EXCLUDE)
IF  DSN='**CATINDEX**'       THEN(EXCLUDE)
IF  OPTCD=BC                 THEN(EXCLUDE)
```

54.20 FDREPORT OPTIMIZE STATEMENT

OPTIMIZE STATEMENT SYNTAX

The syntax of the OPTIMIZE statement is:

```
OPTIMIZE    CATEXCLUDE=(catn[,catn,…]) ,RESET
                                       ,NORESET
```

OPTIMIZE STATEMENT

The OPTIMIZE statement currently permits the inclusion of a list of catalogs that are not to be processed by FDREPORT catalog read service. One or more OPTIMIZE statements are used to define the names of the catalogs to be bypassed during FDREPORT execution when the DATATYPE is CATALOG, CATARCH, or CATVTOC.

If the OPTIMIZE command is not specified, all catalogs encountered when reading the Master Catalog are added to the catalog table for processing.

NOTE: Do NOT include the master catalog in the list of catalogs not to be processed. If the master catalog is encountered in the list it results in message:

```
FDR687** CATALOG SCAN USING FDR$CATP NOT PROCESSED – UNABLE TO
         CREATE ALIAS AND CATALOG TABLES
```

followed by:

```
FDR484** INTERNAL LOGIC ERROR – JOB TERMINATED.
```

OPTIMIZE STATEMENT OPERANDS

CATEXCLUDE=

Specifies a name of a catalog to be added to a list of catalogs that are not to be processed by the catalog read service.

RESET

Indicates that the catalog(s) specified replace the current list of catalogs that are not to be processed and NOT just added to the list.

NORESET

Indicates that the catalog(s) specified are to be added to the current list of catalogs that are not to be processed and NOT replace the list.

54.21 FDREPORT PRINT STATEMENT

PRINT STATEMENT SYNTAX

The syntax of the PRINT statement is:

```
PRINT     AGE=nnn
          ,AGEACCUM=nn
          ,AGEINC=nnn
          ,ALIASLEVEL=n
          ,ALTDATADDNAME=ddn
          ,ARCLIMIT=nnnnn
          ,BININTERVAL=nn
          ,BYTEFORMAT=BYTES|
                      KILOBYTES|
                      MEGABYTES
          ,CANDSPACE=GUARANTEED|
                     POTENTIAL
          ,CATALOGSEARCH=RELATED|
                         STANDARD
          ,CHKONLRESERVE=BYPASS|
                         RETRY|
                         WAIT
          ,COPY=BOTH|
                EITHER|
                1|
                2
          ,DATADDNAME=ddn
          ,DATATYPE=ARCHIVE|
                    BCDS|
                    CATALOG|
                    CATARCH|
                    CATVTOC|
                    CA1DSN|
                    CA1VOL|
                    DEFDASD|
                    ENCRYPT|
                    EXTRACT|
                    MCDS|
                    RACFGRPS|
                    RACFUSER|
                    RMMDSN|
                    RMMVOL|
                    SCRATCH|
                    STORGRP|
                    SYSPLEX|
                    TVTOC|
                    UNITNAME|
                    VOLDATA|
                    VTOC
          ,DATEFORMAT=DDMMYY|
                      DDMMYYYY|
                      MMDDYY|
                      MMDDYYYY|
                      YYDDD|
                      YYDDMM|
                      YYMMDD|
                      YYYYDDD|
                      YYYYDDMM|
                      YYYYMMDD
          ,DIAGPCHDDNAME=ddn
          ,DISABLE=(options)
          ,DSKIP=n
          ,ENABLE=(options)
          ,EXTRACTDSNAME=dsn
          ,EXTRACTMEMBER=mem
          ,FORMAT=CRT|
                  DEVICE|
                  PRINT|
                  TSO
          ,ICF=IGNORE|
               YES
          ,ICFSOURCE=LOCATE|
                     VVDS
          ,IFKEYWORDERROR=BYPASS|
                          PROCESS
          ,IFNOVERSION=cccc
          ,IFSELECTERROR=BYPASS|
                         PROCESS
          ,INDEXNUM=nn
          ,LBPZERO=INVALID|
                   VALID
          ,LINECNT=nnn
          ,MAXBKUPARRAY=nn
          ,MAXCOPY=n
          ,MAXGDG=nnn
          ,MAXONLINE=nnnn
          ,MAXSEPARATE=n...n
          ,MIHINTERVAL=n
          ,MINSEPARATE=nn
```

The syntax of the PRINT statement (continued):

```
,OLDBACKUP=ALL|
           CUR|
           (nn[,nn,…])

,PAGEWIDTH=nnn

,PCHDATEFORMAT=DDMMYY|
               DDMMYYYY|
               MMDDYY|
               MMDDYYYY|
               YYDDD|
               YYDDMM|
               YYMMDD|
               YYYYDDD|
               YYYYDDMM|
               YYYYMMDD

,PCHDDNAME=ddn

,PCHSEPCHAR=c

,POFREESPACE=DIR|
             IFREAD|
             LBP

,PRTLENGTH=nnnnn

,RECORDSUMMARY=CLUST|
               COMPON|
               NONE

,RESETMASKAFTER=nnnnn

,RESFAILRTNCD=nn

,RESWAITIME=nn

,RETRYLOOPS=nn

,RPTDDNAME=ddn

,RPTSPFC=nn
,RPTSPFI=nn

,RPTYPE=ABRVTOC|
       ARCHIVE|
       COMPDATA|
       DATA|
       GENERATE|
       HEX|
       NONE|
       OSVTOC|
       SELPCH|
       TABLE|
       XREF

,SKIP=n

,SORT=COMBINE|
      NO|
      YES

,SORTALLOC=CYL|
           NO|
           SORTLIB|
           SORTMSG|
           SORTWORK|
           TRK|
           YES

,SORTCORE=nnnnnnn

,SORTLIB=dsn

,SORTMSG=AC|
         AP|
         CC|
         CP|
         NO|
         PC

,SORTMSGDDNAME=ddn

,SORTPFX=cccc

,SPFC=nn
,SPFI=nn

,SSPKLINECNT=n

,SUMBYTEFORMAT=BYTES|
               KILOBYTES|
               MEGABYTES|
               GIGABYTES|
               TERABYTES

,SUMDDNAME=ddn

,SUMDEVICE=BASE|
           UNIQUE

,SUMLEVEL=INDEX|
          NONE|
          REPORT|
          YES

,SYSUTSPACE=nnnnn

,SYSUTSTORCLAS=storclas

,SYSUTUNIT=unit

,TITLE=CENTER|
       LEFT|
       RIGHT

,UNITPREFIX=n

,VOLPREFIX=n
```

The syntax of the PRINT statement (continued):

```
                ,VOLSUMMARY=CTLSERNO|       ,VTOCPAD=nn
                            DEVTYPE|
                            MFRCODE|        ,VTOCREAD=CYL|
                            NOBREAK|                 TRK
                            NONE|           ,WORKDDNAMES=n
                            SSID|
                            STORGRP|        ,WORKSPACE=nnnnn
                            UNITPREFIX|     ,WORKSTORCLAS=storclas
                            VOLPREFIX
                                            ,WORKUNIT=unit
```

PRINT STATEMENT

The PRINT statement actually generates the report defined by previous FDREPORT statements and operands on PRINT itself. FDREPORT performs the print using the characteristics specified on the preceding XSELECT, REPORT, DEFAULT, and/or SORT statements. A PRINT statement must be specified; multiple PRINT statements may be given to produce various reports in one execution of FDREPORT. All parameters that define the report to be generated (TITLE, HEADING, REPORT, SORT, SUMMARY, XSELECT, XEXCLUDE, and/or PUNCH) **must precede** the PRINT statement.

PRINT STATEMENT OPERANDS

AGE=

***nnn* –** Specifies the number of days since a data set has been referenced as used by the aging summary in the VTOC lists. The number may be from 1 to 999.

Default: 30.

AGEACCUM=

***nn* –** Specifies the number of age accumulators that are maintained and printed if SUMLEVEL=REPORT is specified. The number may be a value from 0 to 10.

Default: Each report summary block does not contain age accumulators.

AGEINC=

***nnn* –** Specifies the number to be added to the age value to derive the next date control break in the aging summary in the VTOC lists. The number may be from 1 to 999.

Default: 30.

ALIASLEVEL=

***n* –** Specifies an alias level, from 0 to 4, to be used when selecting data sets from the system catalogs. If 0, it uses the Multi-Level Alias (MLA) level currently in effect in the Catalog Address Space (CAS) on your system. If 1 through 4 is specified, it acts as though that is the current MLA level active on your system; this provides a way to test an Multi-Level Alias (MLA) catalog structure before you activate it.

Default: 0.

ALTDATADDNAME=

***ddn* –** Specifies the DDname of the file to be used for the input of FDREPORT internal records when RPTYPE=DATA (or COMPDATA) and DATATYPE=EXTRACT are **both** specified.

Default: SYSUT1.

ARCLIMIT=

***nnnn* –** When DATATYPE=ARCHIVE or CATARCH is specified, only data sets that were archived within the last "*nnnn*" days are selected.

Default: 0, which disables ARCLIMIT checking.

BININTERVAL=

***nn* –** Specifies the wait time interval in hundredths of seconds to wait for an I/O to an offline device to complete before considering it eligible for purge. The value can be from 4 to 49.

Default: 7 hundredths.

BYTEFORMAT=

Specifies the units to be used in fields that represent a number of bytes are to be processed:

BYTES – Actual bytes.

KILOBYTES – Units of kilobytes (1000 bytes).

MEGABYTES – Units of megabytes (1,000,000 bytes).

GIGABYTES – Units of gigabytes (1,000,000,000 bytes).

TERABYTES – Units of terabytes (1,000,000,000,000 bytes).

The fields affected include: BYTES, PRIBYTES, SECBYTES, BYTESUSE, BYTESFRE (see Section 54.30 "" for details). Kilo and megabytes are in units of 1024 and 1048576 if ENABLE=HEXBYTES is in effect.

For printing (REPORT statement), this operand affects both the units in which the field is printed and the width of the field in the report (10 columns for BYTES, 7 for KILOBYTES, 4 for MEGABYTES).

Default: KILOBYTES.

CANDSPACE=

Specifies how candidate space is to be calculated when requested via an ENABLE=CANDSPACE request. The possible values are:

GUARANTEED – Only the already allocated guaranteed space on a volume is included.

POTENTIAL – The maximum possible space, assuming all extents are allocated, is included.

Default: GUARANTEED.

CATALOGSEARCH=

Specifies the search order when issuing locates for data sets or clusters with related catalogs. Related catalogs are usually extracted from a VVR or NVR. They also may be extracted from the master catalog when the data is derived from either DATATYPE=CATARCH or CATVTOC. The possible values are:

RELATED – Use the related catalog when issuing the locate.

STANDARD – Use the standard search order when issuing the locate.

Default: RELATED.

CHKONLRESERVE=

Specifies whether FDREPORT is to check for long term reserves against online DASD UCBs prior to attempting to process them. A long term reserve is one that lasts over "*nn*" seconds. The "*nn*" value for the wait time can be set using the keyword RESWAITIME. RESWAITIME defaults to 2 seconds. The valid responses are:

BYPASS – Check for the reserve and if it is over "*nn*" seconds, bypass the UCB while issuing a message.

RETRY – Check for the reserve and if it is over "*nn*" seconds, add the UCB to a retry queue. Up to 500 UCBs can be added to the retry queue. Any more are automatically bypassed. Entries on the retry queue are retried after all others have been processed. Those that fail after the retry are bypassed.

WAIT – Reserves are not checked. If they are encountered, the program waits until the reserve is freed.

Default: RETRY.

COPY=

When fields relating to ABR backup or archive information are included in the report, specifies which ABR copy (1 or 2) appears in the report. Values are:

1 – Information about COPY1 is used.

2 – Information about COPY2 is used.

ALL – Report information from and apply the selection criteria to all backup copies. The upper limit for copy number is taken from the keyword MAXCOPY that defaults to 2.

ANY – Report information from and apply the selection criteria to the first backup copy located. The upper limit for copy number is taken from the keyword MAXCOPY that defaults to 2.

BOTH – Both copies are used (if both are cataloged). Prints two lines in the report.

EITHER – COPY1 information is used, if a COPY1 backup is recorded, otherwise COPY2 is used.

Default: EITHER.

DATADDNAME=

***ddn* –** Specifies the DD statement name of the file to be used for the output of FDREPORT internal records when RPTYPE=DATA is specified, or for the input of those records when DATATYPE=EXTRACT is specified.

Default: SYSUT2.

DATATYPE=

Specifies the source of FDREPORT's input data. Values are:

ARCHIVE – Read records from an Archive Control File. If an ARCHIVE DD Statement is present, that Archive Control File is read; otherwise the control file name specified in the ABR option table or by ARCDSN= is dynamically allocated.

BCDS – Report on data extracted from a DFSMShsm (Backup Control Data Set (BCDS). See Section 54.31 "FDREPORT DFSMShsm Reporting" for details.

CATALOG – Data set records are extracted from system catalogs.

CATARCH – Data set records are extracted from system catalogs; only those data sets cataloged for auto-recall are selected. The extracted names are used to select data sets from the Archive Control File (see "ARCHIVE" in Section 54.21).

CATVTOC – Data set records are extracted from system catalogs. The extracted names are used to select data sets from the VTOCs of the volumes extracted from the catalog (see "VTOC" in Section 54.21).

CA1DSN – Report on tape data set information extracted from the CA 1 tape management system. See Section 54.32 "FDREPORT Tape Management Reporting" for details.

CA1VOL – Report on tape volume information extracted from the CA 1 tape management system. See Section 54.32 "FDREPORT Tape Management Reporting" for details.

DEFDASD – Information is collected from all defined DASD.

ENCRYPT – Input data is extracted from the Encrypt Key File created and maintained by the INNOVATION DATA PROCESSING product FDRCRYPT.

EXTRACT – FDREPORT internal records are read from the SYSUT2 DD Statement. This data set must have been created by FDREPORT using RPTYPE=DATA or RPTYPE=COMPDATA in this step or a previous step or job. This may be used to produce several reports from the same set of data without the overhead of reconstructing that data. For extract files created with RPTYPE=DATA only, SYSUT2 may be a concatenated DD statement, allowing you to read several extract files as one.

MCDS – Report on data extracted from a DFSMShsm MCDS (Migration Control Data Set). See Section 54.31 "FDREPORT DFSMShsm Reporting" for details.

RACFGRPS – Report on all defined IBM RACF groups using a predefined output format. No selection or output formatting is offered.

RACFUSER – Report on all defined IBM RACF users using a predefined output format. No selection or output formatting is offered.

RMMDSN – Report on tape data set information extracted from the DFSMSrmm tape management subsystem. See Section 54.32 "FDREPORT Tape Management Reporting" for details.

RMMVOL – Report on tape volume information extracted from the DFSMSrmm tape management subsystem. See Section 54.32 "FDREPORT Tape Management Reporting" for details.

SCRATCH – Information is collected from the ABR scratch catalog.

STORGRP – Report on all defined System Managed Storage (SMS) storage groups using a predefined output format. No selection or output formatting offered.

SYSPLEX – Report on the current sysplex definition using a predefined output format. No selection or output formatting offered.

TVTOC – Information is extracted from a backup file created by FDR, FDRDSF, FDRABR, or SAR.

UNITNAME – Report on all defined unit names using a predefined output format.

No selection or output formatting offered.

VOLDATA – Volume summary data is gathered for selected volumes using LSPACE, VTOC, VTOCIX, and VVDS, creating a volume record.

VTOC – Data set information is read from the VTOCs and VVDSs of volumes selected.

Default: VTOC.

DATEFORMAT=

Specifies the format that dates are printed in generated reports. Valid values are:

DDMMYY – Gregorian format, day first "dd/mm/yy".

DDMMYYYY – Gregorian format, day first with 4-digit year "dd/mm/yyyy".

MMDDYY – Gregorian format, month first "mm/dd/yy".

MMDDYYYY – Gregorian format, month first with 4-digit year "mm/dd/yyyy".

YYDDD – Julian format "yy.ddd".

YYDDMM – Gregorian format, 2-digit year first "yy/dd/mm".

YYMMDD – Gregorian format, 2-digit year first "yy/mm/dd".

YYYYDDD – Julian format with 4-digit year "yyyy.ddd".

YYYYDDMM – Gregorian format, 4-digit year first "yyyy/dd/mm".

YYYYMMDD – Gregorian format, 4-digit year first "yyyy/mm/dd".

If one of the Gregorian formats is chosen, then date fields are 8 columns long in reports, instead of the 6 columns shown in the tables that follow. If a 4-digit year format is chosen, the date fields are an additional two bytes. This affects only printing; sorting is always in Julian "*yyyyddd*" format and selection operands can use Julian in either 2- or 4-digit year format.

Default: YYYYDDD (Julian format).

DIAGPCHDDNAME=

ddn **–** Specifies the DDname to be used when ENABLE=PUNCHDIAGNOS is specified causing IDCAMS DELETE statements that are created from VVDS errors encountered in normal processing or the result of running with DIAGNOSEVVDS enabled to be punched.

Default: DIAGPCH; unless the operand DIAGPCHDDNAME was specified on the DEFAULT statement.

DISABLE=

The FDREPORT options specified are to be disabled for this run. Multiple options can be specified by enclosing the list in parentheses, separated by commas. Available options are described in Section 54.30 "FDREPORT Execution Options".

DSKIP=

n **–** Specifies the number of blank lines to be inserted between lines representing separate data sets (differs from SKIP= when multiple lines are required for one data set.

Default: 0.

ENABLE=

The FDREPORT options specified are to be enabled for this run. Multiple options can be specified by enclosing the list in parentheses, separated by commas. Available options are described in Section 54.30 "FDREPORT Execution Options".

EXTRACTDSNAME=

dsn **–** Specifies the data set name of an existing data set to be used for FDREPORT extract data input (if DATATYPE=EXTRACT) or output (RPTYPE=DATA or COMPDATA). This data set is dynamically allocated as SYSUT2 DD Statement (or whatever is specified by DATADDNAME=).

EXTRACTMEMBER=

mem **–** Used in conjunction with EXTRACTDSNAME=. If the data set pointed to by EXTRACTDSNAME= is a PDS, this specifies a member name in that PDS to be used for input or output.

FORMAT=

Specifies that the report is to be prepared using other than the default format selected by the program.

CRT – Defaults to PAGEWIDTH=78 to generate a report formatted for viewing on a terminal. Can also be specified as TSO or T.

DEVICE – Defaults to CRT if the output device type is a terminal and PRT is the output device type is a print device.

PRINT – Defaults to PAGEWIDTH=120 to generate a report formatted for printing. Can also be specified as PRT.

The line length can be overridden by the PAGEWIDTH= operand.

Default: CRT if executed under TSO; PRT otherwise.

ICF=

Specifies how ICF VSAM data sets are to be processed. The available options are:

IGNORE – Bypass relating the ICF components to the base cluster. Permit selection and processing by component name.

YES – Process ICF data sets based on the base cluster only. Do not select or process any component as a separate entity.

Default: YES.

ICFSOURCE=

Specifies how (where) information is to be obtained for reporting on ICF VSAM data and index components.

LOCATE – Issue super-locate to obtain the necessary information.

VVDS – Read the SYS1.VVDS.V*volser* cluster directly and extract the necessary information directly from the VVR records.

NOTE: Specifying VVDS requires that the programs reading the VVDS be fully APF authorized or the end of extent appendage IGG019YZ be placed in the Authorized Appendage List.

Default: LOCATE if FDREPORT is not APF authorized; VVDS if FDREPORT is APF authorized.

IFKEYWORDERROR=

Specifies how FDREPORT is to respond to the PRINT command (or other action commands) if an error is encountered during the parsing of user specified keywords.

BYPASS – Bypass all action commands but continue to parse keywords.

PROCESS – Process all action commands.

Default: PROCESS.

IFSELECTERROR=

Specifies how FDREPORT is to respond to the PRINT command (or other action commands) if an error is encountered during the parsing of user specified keywords and values on any of the XSELECT or XEXCLUDE commands.

BYPASS – Bypass all action commands but continue to parse keywords.

PROCESS – Process all action commands.

Default: PROCESS.

INDEXNUM=

n **–** Field name INDEX allows sorting, summary, and so on, on an index level extracted from each data set name. INDEXNUM= specifies which index level is to be extracted (1 is first, 2 is second, and so on).

Default: 1, the high-level index.

LBPZERO=

Specifies how a PS (sequential) data set whose last block pointer is all zeros is to be treated for used and free track calculations.

VALID – Means that such data sets are considered to have no tracks used and all tracks free.

INVALID – Means they are considered to be entirely used and no tracks free.

Since most access methods maintain a valid last block pointer in the Format 1 DSCB, LBPZERO=VALID (the default) produces correct reports for almost all data sets so it is recommended.

Default: VALID.

NOTE: The LBPZERO operand in FDREPORT is not affected by the default value of LBPZERO in the FDR Global Options Table (that value is used for backups, restores, and similar functions). The default of LBPZERO in FDREPORT can be changed with the procedure described under the DEFAULT statement (Section 54.14 "FDREPORT DEFAULT Statement").

LINECNT=

nn **–** Specifies the maximum number of lines each report page can contain, from 28 to 99 inclusive.

Default: 58.

MAXBKUPARRAY=

nn **–** Specifies the maximum number of backup segments that can be associated with any report data record. The value specified may be any number from 2 through 30.

Default: 26.

MAXCOPY=

n **–** Specifies the maximum value for COPY when executing with COPY=ALL or COPY=ANY. The value specified may be any number from 1 through 9.

Default: 2.

MAXGDG=

nnn **–** When reading from the system catalogs (DATATYPE=CATALOG, CATVTOC, or CATARCH), specifies the maximum number of generations of each Generation Data Group (GDG) that are selected. Only the most recent "*nnn*" generations are processed.

Default: All generations are processed.

MAXONLINE=

nnnnn **–** Specifies the maximum number of DASD volumes that can be processed by this PRINT statement. The value can be from 5 to 32000. If the number of DASD volumes selected exceeds this number, an error occurs. This is a special concern when using ENABLE=ONLINE in installations with large DASD installations.

Default: 256. If ENABLE=AUTOMAXON is in effect, MAXONLINE= is automatically set to the number of DASD volumes online to this system.

MAXSEPARATE=

***nn* –** Specifies the maximum number of spaces that must be left between printed data fields during custom report generation. The number may be a value from the current value of MINSEPARATE to 30 (see "MINSEPARATE=" in Section 54.21).

Default: 1.

MIHINTERVAL=

***n* –** Specifies the wait time interval in seconds when using the Missing Interrupt Handler (MIH) to time I/Os against offline devices. The number may be a value between 1 and 7.

Default: 1.

MINSEPARATE=

***nn* –** Specifies the minimum number of spaces that must be left between printed data fields during custom report generation. The number may be a value from 0 to the current value of MAXSEPARATE (see "MAXSEPARATE=" in Section 54.21).

Default: 1.

OLDBACKUP=

When ABR backup information is requested, and old backups are being recorded, specifies which old backup information is to be printed. Values are:

(*nn*,…,*nn*) – Requests specific old backups. "*nn*" are numbers from 00 to 13 (00 being the most recent backup, 13 being the oldest).

ALL – Requests all old backups existing for a data set are to be printed.

CUR – Requests that only the current backup is to be printed.

If multiple backups exist and are requested for a data set, the report contains multiple lines for the data sets.

Default: CUR.

PAGEWIDTH=

***nnnn* –** Specifies the number of print positions (from 50 to 3072) to be used in creating the report, excluding the printer control character in column 1. Heading lines and formatted data fields should fit within this limit. If the data fields requested exceed the PAGEWIDTH, FDREPORT prints all of the data that fits and displays a warning message.

Default: 78 if FORMAT=CRT and 120 if FORMAT=PRT.

NOTE: PAGEWIDTH is ignored if the report is printed on SYSPRINT. ABRMAP must be present for PAGEWIDTH to be honored.

PCHDATEFORMAT=

Specifies the format that dates are displayed in "punched" output generated by RPTYPE=SELPCH. Valid values are:

DDMMYY – Gregorian format, day first "*dd/mm/yy*".

DDMMYYYY – Gregorian format, day first with 4-digit year "*dd/mm/yyyy*".

MMDDYY – Gregorian format, month first "*mm/dd/yy*".

MMDDYYYY – Gregorian format, month first with 4-digit year "*mm/dd/yyyy*".

YYDDD – Julian format "*yy/ddd*".

YYYYDDD – Julian format with 4-digit year "*yyyy/ddd*".

PCHDDNAME=

***ddn* –** Specifies the DDname to be used when punching for RPTYPE=SELPCH.

Default: SYSPUNCH; unless the operand PCHDDNAME= was specified on the DEFAULT statement.

PCHSEPCHAR=

***c* –** Specifies the character to be used to delimit the elements of dates formatted for punch display (RPTYPE=SELPCH).

Default: /.

POFREESPACE=

Specifies what is used to determine the amount of free space in a partitioned data set (PDS, DSORG=PO). There are three options:

DIR – Cause the directory blocks to be read and, if there are no members, set the number of bytes/tracks used to zero (0).

IFREAD – If the directory blocks are to be read for some other reason (that is, field name) and, if there are no members, set the number of bytes/tracks used to zero (0).

LBP – Use the LSTAR to determine the free space.

Default: IFREAD.

PRTLENGTH=

Limit the amount of data printed for each record output with RPTYPE=HEX to the number of bytes specified.

Default: 10000.

RECORDSUMMARY=

Specifies the level of data set summarization to be done for VSAM clusters (summarize all components) and multi-volume data sets of all kinds (summarize data from all volumes). It is ignored unless DATATYPE=CATALOG, CATARCH, CATVTOC, or EXTRACT is in effect. Valid values are:

CLUSTER – Summarize at the cluster level for VSAM and data set level for non-VSAM.

COMPONENT – Summarize at the component level for VSAM and data set level for non-VSAM.

NONE – Do not summarize.

Default: NONE.

RESETMASKAFTER=

***nnnnn* –** Specifies that the punch mask is to be reset after "*n*" number of records have been processed. The number can be any value from 0 to 32000, where 0 (zero) disables the reset checking.

NOTE: This operand is only significant if executing with RPTYPE=SELPCH.

Default: 0; the punch mask is not reset based on the number of records processed.

RESFAILRTNC=

***nnnn* –** Specifies the return code to be set if a UCB or volume is bypassed due to reserve or enqueue failure. The value may be any value from 0 through 1023, inclusive.

Default: 7.

RESWAITIME=

***nn* –** Specifies the time in seconds to wait for reserve to complete. The value may be any value from 1 to 20, inclusive.

Default: 2.

RETRYLOOPS=

***nn* –** Specifies the number of times a re-queued UCB is to be retried. The value may be any value from 0 to 20, inclusive.

Default: 1 retry.

RPTDDNAME=

ddn **–** Specifies the DDname to be used when creating output reports, other than RPTYPE=SELPCH.

Default: ABRMAP unless the operand RPTDDNAME= was specified on the DEFAULT statement.

RPTSPFC=

nn **–** Specifies the maximum number of characters to use within the RPTSPFI index count when creating SUMLEVEL=INDEX control breaks with NEWSUMFORMAT enabled. The number may be from 1 to 44.

Default: 44.

RPTSPFI=

nn **–** Specifies the maximum number of indexes to consider when creating SUMLEVEL=INDEX control breaks with NEWSUMFORMAT enabled. The number may be from 1 to 21.

Default: 1.

RPTYPE=

Specifies the report type to be generated by FDREPORT, and requests certain predefined report formats or special processing. When predefined reports are requested, the REPORT and HEADING statements and the AUTOSTACK operand are ignored. Values are:

ABRVTOC – A report in standard ABR VTOC format (equivalent to PRINT VTOC) is printed.

ARCHIVE – A standard ABR ARCHIVE report (equivalent to PRINT ARCHIVE) is printed; intended for use with DATATYPE=ARCHIVE.

COMPDATA – Similar to RPTYPE=DATA, except that only the fields named in a REPORT statement are written to the extract file; this makes the extract file much smaller. Note that an extract file created by DATATYPE=COMPDATA cannot be part of a concatenated DD statement when used as input.

DATA – No report is printed, but FDREPORT internal records for every data set or volume selected are written to the extract data file on DD statement name SYSUT2. This data may be read as input to FDREPORT in this or another step (DATATYPE=EXTRACT) allowing multiple reports to be generated without the overhead of reconstructing the data. With RPTYPE=DATA, FDREPORT includes in the extract file all relevant data fields from its primary source specified by DATATYPE=; for example, if you specify DATATYPE=VTOC or CATVTOC, all fields generated from the VTOC and VVDS are available. If you need additional fields from another source, include a REPORT statement requesting at least one such field, for example,

```
REPORT FIELD=(CATALOG,DIRBLOCKS)
```

that gathers ALL catalog and directory fields in addition to the VTOC and VVDS fields.

GENERATE – Generates a customized report based on FDREPORT options (default).

HEX – Prints records from the Archive Control File (if DATATYPE=ARCHIVE) or records generated by FDREPORT (for all other data types) in a dump (hex and character) format.

NONE – Suppresses the detail report, allowing only summaries to be printed (SUM=YES, SUM=INDEX, or the SUMMARY statement should also be specified).

OSVTOC – A report containing information equivalent to an IEHLIST LISTVTOC statement (but not in the same format) is printed.

SELPCH – No report is printed, but for each data set selected a statement is written to SYSPUNCH in the format specified by the MASK operand of the PUNCH statement, or, by default, in the format:

```
XSELECT   VOL=volser,DSN=dsname
```

The SYSPUNCH data set may be passed to a following step, possibly a ABR step, allowing the enhanced selection facilities of FDREPORT to select data sets to be processed by ABR or other programs, or it may be submitted directly to a JES internal reader if a complete job stream is generated by the punch mask. A SORT is forced to properly handle multi-volume data sets unless SORT=NO is specified.

TABLE – Generates output designed to be read by other programs. No titles are printed and the report is not limited by the PAGEWIDTH operand. One set of column headings are printed unless DISABLE=HEADINGS is specified. Records up to 32760 bytes long may be created (depending on the characteristics of the ABRMAP data set). The ABRMAP DD Statement is required; this report cannot go to SYSPRINT. Fields requested by the REPORT statement appear in sequence with single columns between them.

XREF – A report in standard ABR VTOC/BACKUP XREF format (equivalent to PRINT BACKUP) is printed.

SKIP=

n **–** Specifies the number of blank lines to be inserted between report lines. The number can be a value from 0 (single space) to 3.

Default: 0.

SORT=

Specifies if the data is to be sorted. However, sorting is forced by a SORT statement and by some other options that require sorting.

COMBINE – If no SORT statement is present, sorts by data set name, volume sequence number, and volume serial number, all ascending, to produce a report sorted by data set name across all volumes. Ignored if a SORT statement is present.

NO – No sorting is performed. SORT statements and implied sorts are ignored.

YES – Sorts by DASD volume serial. If a SORT statement is present, and the first sort field is not VOL, VOL is temporarily inserted as the first field. If no SORT is present, data is sorted by volume serial and data set name, both ascending.

If sorting is required, any DD statements required by your installation's SORT product must be included in the FDREPORT step unless the SORTALLOC operand is specified.

Default: NO; unless a SORT statement precedes the PRINT statement or SUM or RPTYPE implies sorting.

SORTALLOC=

If sorting is specified or forced, this specifies if FDREPORT dynamically allocates some or all files required by your system sort product.

CYL – If SORTWK*xx* files are allocated, the allocation is in cylinders.

NO – Do not dynamically allocate SORT related data sets. If sorting is required, any necessary DD statements must be included in the JCL.

SORTLIB – Dynamically allocate the SORTLIB data set using the value in the operand SORTLIB for the data set name. Users of the SYNCSORT product should see the note under the SORTLIB= operand.

SORTMSG – Dynamically allocate the SORT message output to SYSOUT using the value in the operand SORTMSGDDNAME for the DDname.

SORTWORK – Dynamically allocate the number of SORTWKnn data sets specified in the operand WORKDDNAMES, using the value in the operand WORKUNIT as the unit name.

TRK – If SORTWK*xx* files are allocated, the allocation is in tracks.

YES – Dynamically allocate all of the above.

More than one option can be specified, in parentheses, separated by commas, for example, SORTALLOC=(YES,CYL).

Default: (NO,TRK).

SORTCORE=

nnnnnnn **–** Specifies the amount of storage the program SORT is to use if external sorting is required. The number may be from 10000 to 8000000 inclusive.

Default: Taken from the FDR Global Options Table and is usually 100000.

SORTLIB=

dsn **–** Specifies the data set name to be allocated to the DDname SORTLIB.

Default: SYS1.SORTLIB.

NOTE: Your SORT product may not require a SORTLIB, so SYS1.SORTLIB may not exist on your system. If SORTALLOC=YES is specified, FDREPORT attempts to allocate it and may fail. To circumvent this, either create an empty PDS called SYS1.SORTLIB, or override the SORTLIB= operand to specify some other existing PDS. Alternately, specify SORTALLOC=(SORTWORK,SORTMSG) or make this the permanent default (see Section 54.14 "FDREPORT DEFAULT Statement").

SORTMSG=

Specifies the message option to be used by the program SORT if external sorting is required.

AC – All messages to the console.

AP – All messages to the printer.

CC – Critical messages to the console.

CP – Critical messages to the printer.

NO – No messages to be produced.

PC – Critical messages to both console and printer.

Default: CC.

SORTMSGDDNAME=

ddn **–** Specifies the DDname to be used by the program SORT if messages are to be printed.

Default: SYSOUT.

SORTPFX=

cccc **–** Specifies the DDname prefix to be used by the program SORT if external sorting is required. If the string specified is less than 4 characters, a dollar sign($) fill character is used.

Default: Taken from the FDR Global Options Table and is usually "SORT".

SPFC=

nn **–** Specifies the maximum number of characters to use within the SPFI index count when creating SUMLEVEL=INDEX control breaks. The number may be from 1 to 23.

Default: 8.

SPFI=

n **–** Specifies the maximum number of indexes to consider when creating SUMLEVEL=INDEX control breaks. The number may be from 1 to 4.

Default: 1.

SSPKLINECNT=

n **–** Specifies the number of blank lines that are to be inserted at each break when BREAK=SSPK is specified on the SORT command. The number may be a value from 1 to 9, inclusive.

Default: 2.

SUMBYTEFORMAT=

Specifies the print value to be used when displaying byte formatted fields if the SUMMARY command is specified.

BYTES – Display the values as a true byte count.

KILOBYTES – Display the values as kilobytes, rounded.

MEGABYTES – Display the values as megabytes, rounded.

GIGABYTES – Display the values as gigabytes when ELEVENBYTES or DECIMALBYTES is enabled.

TERABYTES – Display the values as terabytes when ELEVENBYTES or DECIMALBYTES is enabled.

There are two defaults for the SUMBYTEFORMAT operand. If SUMBYTEFORMAT is not specified on the DEFAULT command, but BYTEFORMAT is specified, the format is taken from the BYTEFORMAT operand. If SUMBYTEFORMAT is not specified on the PRINT command, it retains the format from the last DEFAULT command or the value in F$REPOPT, the FDREPORT Option Table.

SUMDDNAME=

ddn **–** Specifies the DDname to be used when creating output summary reports.

Default: ABRSUM.

NOTE: Memory stacking of summary reports for later printing increases the region size by 100K.

SUMDEVICE=

Specifies how summaries by device type are to be handled if there is more than one density for the device.

BASE – Summary is at the base level, for example, 3390-1, 3390-2, 3390-3, 3390-9 and 3390-27 are summarized as 3390.

UNIQUE – Summary is by individual device type, for example, 3390-1, 3390-2 are summarized separately.

Default: BASE.

NOTE: The SUMDEVICE operand controls the selection and report fields DEVTYPE and VLDEVTYP whether or not a summary command or SUMLEVEL operand is specified.

SUMLEVEL=

Controls the printing of summary reports, in conjunction with the SUMMARY statement. Summaries are printed at indicated points in the detail report (on ABRMAP or SYSPRINT) unless an ABRSUM DD Statement is present, when the summary report is printed on ABRSUM.

INDEX – Summary reports are printed for each high-level data set index encountered. The SUMMARY statement is honored, or if absent defaults as shown above. SUM=INDEX forces a sort on data set name unless SORT=NO is specified.

NONE – No summary reports are printed.

YES – Summary reports are printed as specified by the SUMMARY statement. If no SUMMARY is present, this is assumed:

```
SUMMARY FIELD=(DSN,NOEXTENT,SIZE,SIZEFREE,SIZEUSED).
```

Default: NO; unless a `SUMMARY` statement precedes the PRINT statement.

SYSUTSPACE=

nnnn **–** Specifies the number of tracks or cylinders (controlled by the TRK and CYL operands of SORTALLOC=) to allocate when the temporary SYSUT2 extract file are dynamically allocated, from 10 to 1000.

Default: 100.

SYSUTSTORCLAS=

***cccccccc* –** Specifies the SMS storage class name (1 to 8 characters) to use when dynamically allocating any of the temporary SYSUT*n* files. It must be a value valid for STORCLAS= in the JCL.

There is no default for the SYSUTSTORCLAS keyword. If SYSUTSTORCLAS is not specified, processing continues using the default value for SYSUTUNIT.

SYSUTUNIT=

***cccccccc* –** Specifies the unit name to use when allocating SYSUT*n* DD statements.

Default: SYSALLDA.

TITLE=

Controls the placement of the title line within the current page width. Values are:

CENTER – Center the title line based on the value of PAGEWIDTH.

LEFT – Align the title line with the left margin.

RIGHT – Align the title line with the right margin.

Default: CENTER.

UNITPREFIX=

***n* –** Used in conjunction with the VOLSUMMARY keyword value UNITPREFIX and is used to set the significant length for compares. The value specified may be from 1 to 3.

Default: 2.

VOLPREFIX=

***n* –** Used in conjunction with the VOLSUMMARY keyword value VOLPREFIX and is used to set the significant length for compares. The value specified may be from 1 to 5.

Default: 5.

VOLSUMMARY=

Specifies the level of volume summarization to be done. It is ignored unless DATATYPE=VOLDATA or EXTRACT is in effect. Volume summarization produces volume summary records instead of individual volume records. The fields you have selected in the REPORT statement are totaled, average, or recalculated as appropriate; some fields that are unique (such as volser or address) are blanked. Valid values are:

CTLSERNO – Summarizes volume records based on the serial number of the controller.

DEVTYPE – Summarize volume records based on the device type. The contents of the device type field are controlled by the SUMDEVICE keyword.

MFRCODE – Summarizes volume records based on manufactures code.

NOBREAK – Summarizes all available volume records. No control break is taken.

NONE – No summarization of volume records is performed.

SSID – Summarizes volume records based on subsystem ID.

STORGRP – Summarize by SMS storage group name (non SMS-managed volumes are summarized under a blank storage group name)

UNITPREFIX – Summarize by the first "*n*" hex digits of the device address. The operand **UNITPREFIX=*n*** must also be specified (*n*=1 to 3).

VOLPREFIX – Summarize by the first "*n*" characters of the volume serial. The operand **VOLPREFIX=*n*** must also be specified (*n*=1 to 5).

Default: NONE.

VTOCPAD=

***nn* –** Specifies the number of tracks to be added to the value CVAF returns for the highest DSCB in use when SETVTOCLIMITS is enabled. The value may be any value from 3 to 45.

Default: 15.

VTOCREAD=

Specifies the amount of data FDREPORT reads into storage in one EXCP when processing the VTOC and VVDS.

CYL – Read a minimum of one cylinder into storage with a single EXCP. Chained multi-record read CCWs are used if MULTIRECREAD is enabled, else chained single record CCWs are used to perform the read.

TRK – Read a maximum of one track into storage with one EXCP.

Default: CYL.

WORKDDNAMES=

***n* –** Specifies the number of SORT work DDnames to allocate, from 1 to 5, inclusive.

Default: 3.

WORKSPACE=

***nnnn* –** Specifies the number of tracks or cylinders (controlled by the TRK and CYL operands of SORTALLOC=) to allocate to each of the SORT work files, from 10 to 1000.

Default: 100.

WORKSTORCLAS=

***cccccccc* –** Specifies the SMS storage class name (1 to 8 characters) to use when dynamically allocating any of the temporary SORTWK*nn* files. It must be a value valid for STORCLAS= in JCL.

There is no default for the WORKSTORCLAS keyword. If WORKSTORCLAS is not specified, processing continues using the default value for WORKUNIT.

WORKUNIT=

***cccccccc* –** Specifies the unit name (1 to 8 characters) to use when dynamically allocating sort work files if requested by SORTALLOC=. It must be a value valid for UNIT= in JCL, and the volumes included on those units must include some in STORAGE or PUBLIC status for the allocation to be successful.

Default: SYSALLDA; which is valid on all z/OS systems and includes all DASD.

54.22 FDREPORT PUNCH STATEMENT

PUNCH STATEMENT SYNTAX

The syntax of the PUNCH statement is:

```
PUNCH   COUNTERVALID=NO|          ,MAXSTATEMENTS=nnnn
                       YES
                                  ,SYMBOLS=(sym[,sym,…])
        ,ECHO|
        ,NOECHO                   ,VALUES=(value[,value,…])

        ,FDRLIB=ddn               ,STARTINGPASUNIT=uuuu
                                  ,ENDINGPASUNIT=uuuu
        ,MASKNAME=mem             ,PASUNITINCREMENT=nn
```

PUNCH STATEMENT

The PUNCH statement specifies the location of a mask used to define the “punch” output generated by FDREPORT for the RPTYPE=SELPCH report and is ignored if RPTYPE=SELPCH is not specified.

The punch mask input must be a data set that has the attributes: RECFM=FB,LRECL=80. It may be either sequential (DSORG=PS) or partitioned (DSORG=PO). The PUNCH statement uses the presence or absence of the MASKNAME= operand to differentiate between sequential or partitioned data sets. If MASKNAME= is specified, the data set is assumed to be partitioned and MASKNAME= provides the member name. If MASKNAME= is omitted, the data set is assumed to be sequential (the FDRLIB= operand must be provided to specify the input DD statement name). The punch mask may also be an input stream (DD *) data set.

For each record processed by FDREPORT, it scans the punch mask, copying each mask record to the punch output SYSPUNCH DD Statement, but if any FDREPORT field names or special names are found in the mask, the current value of the name is substituted. These field names and special names must be surrounded by the delimiters specified by the FIELDPREFIX= and FIELDSUFFIX= operands; the defaults for these are < and >, so the field names are usually specified like: <LRECL>. The field names that may appear in the PUNCH mask are found in the table in Section 54.30 “” (check the PUNCH column). In addition to those field names, the following special names may be used:

Field	Len	Description
$$CCL3	3	Continuous counter with three (3) byte significance.
$$CCL4	4	Continuous counter with four (4) byte significance.
$$CCL5	5	Continuous counter with five (5) byte significance.
$$CCL6	6	Continuous counter with six (6) byte significance.
$$CNTFDR	1	Record counter with one (1) byte significance ranging from 0-9, A-Z.
$$CNT2	2	Record counter with two (2) byte significance.
$$CNT3	3	Record counter with three (3) byte significance.
$$CNT4	4	Record counter with four (4) byte significance.
$$CNT5	5	Record counter with five (5) byte significance.
$$CNT6	6	Record counter with six (6) byte significance.
$$CPASUN	4	Unit number for FDRPAS with a four (4) byte hex value.
$$LPCNT2	2	Loop counter with two (2) byte significance.
$$LPCNT3	3	Loop counter with three (3) byte significance.
$$PRCCL3	3	Prior continuous count with three (3) byte significance.
$$PRCCL4	4	Prior continuous count with four (4) byte significance.
$$PRCCL5	5	Prior continuous count with five (5) byte significance.
$$PRCCL6	6	Prior continuous count with six (6) byte significance.
$$PLCNT2	2	Prior loop counter with two (2) byte significance.
$$PLCNT3	3	Prior loop counter with three (3) byte significance.
$$PRCFDR	1	Prior record counter with one (1) byte significance ranging from 0-9, A-Z.
$$PRCNT2	2	Prior record counter with two (2) byte significance.

$$PRCNT3	3	Prior record counter with three (3) byte significance.
TODAY	5	Current date in Julian format (that is, yyddd).
USER-SPECIFIED	Varies	Variable names (see "SYMBOLS=" in Section 54.22).

The counters can be used to generate names (such as step names, DD statement names) that are unique. The $$CNT*xxx* counters are incremented for each FDREPORT record (data set name) passed through the punch mask. The $$LPCNT*x* counters increment each time the punch mask is initialized (such as a control break). The $$P*xxxx* counters contain the prior value of the associated counter (for example, for generating refer-back JCL).

There are special positional statements that can be used within the mask to permit one time generation of a segment of the mask and other special processing. The operands must begin in column one and are described as follows:

)REPRO – Statements that follow this are processed only once.

)PREFIX – Statements that follow this are processed once per loop, at the beginning of the loop, controlled by BREAK=RPM or YES on the SORT statement).

)ENDPREFIX – Terminates the loop prefix statements.

)EXITPREFIX – Terminates the loop prefix statements and bypasses the rest of the punch mask.

)DUPCHECK – Begins checking for duplicate mask generation. If the statements surrounded by ")DUPCHECK" and ")ENDUPCHECK" generate output identical to the previous generation, they are suppressed.

)ENDUPCHECK – Marks the end of the duplicate checking.

)SUFFIX – Statements that follow this are processed once per loop, at the end of the loop.

)INCREMENTCOUNT – Increment current record count. Only valid and detected in the ")SUFFIX" section of a punch mask.

)INCREMENTLOOP – Increment current loop count. Only executed once.

)ONEVALUE – Used in editing a mask with RPTYPE=SELPCH. Substitution stops when the ")ONEVALUE" statement is encountered.

)CONTVALUES – Used to control the formatting of continued variables.

Here is an example of a simple punch mask (the JOB statement is generated once, an IDCAMS step is generated for each selected data set name, and the program SOMEPGM is executed once at the end):

```
)PREFIX
//SOMEJOB  JOB (USER1,123),LISTCAT,MSGCLASS=X,CLASS=C
)ENDPREFIX
//STEP<$$CNT3>  EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
  LISTCAT  ENT(<NAME>) ALL
)SUFFIX
/*
//STEPEND  EXEC PGM=SOMEPGM
//SYSPRINT DD SYSOUT=*
```

For examples and guidance is setting up more complex punch masks, contact INNOVATION Technical Support.

If RPTYPE=SELPCH is specified and no PUNCH statement is present, the default punch mask is:

```
   XSELECT  VOL=<VOL>,DSN=<NAME>
```

which generates statements acceptable to ABR.

PUNCH STATEMENT OPERANDS

COUNTERVALID=

Specifies whether the special counter field names (for example, $$CNT2 and, $$CNT3) are valid and are resolved within this punch mask.

NO – The special counter field names are not valid and are not resolved.

YES – The special counter field names are valid and are resolved.

Default: YES.

ECHO

NOECHO

Specifies whether "ECHO" or not "NOECHO" the punch mask is to be printed on SYSPRINT.

Default: NOECHO; the mask is not printed.

FDRLIB=

***ddn* –** Specifies the DDname to be used when reading punch masks.

Default: FDRLIB.

MASKNAME=

***mem* –** Specifies the member of the data set pointed to by the DDname specified in the operand FDRLIB is to be used as a mask for the RPTYPE=SELPCH output. The FDRLIB data set must be partitioned (PO). Either FDRLIB= or MASKNAME= must be specified.

MAXSTATEMENTS=

***nnnn* –** Specifies the number of control statements that can be present in any single punch mask. The number may be a value from 10 to 4000, inclusive.

Default: 400.

SYMBOLS=

Specifies one or more user-defined field names that can be specified in the punch mask. The corresponding value of each field name must be specified by a VALUES= operand. This can be used to insert variable information (for example, security or accounting parameters) in a punch mask.

VALUES=

Used with the SYMBOLS= operand to specify the values of the user-defined fields to be substituted in the punch mask. There must be as many values specified as there are field names in the SYMBOLS= operand.

STARTINGPASUNIT=

ENDINGPASUNIT=

PASUNITINCREMENT=

Used when the PUNCH statement is used to generate control statements for FDRPAS (FDRPAS is a separately licensed and separately documented product for the non-disruptive movement of online volumes to new devices). The operands specify the starting, ending, and incremental values for $$CPASUN, the field name used for FDRPAS target devices.

STARTINGPASUNIT=*uuuu* – Specifies a 4-digit hexadecimal starting value for $$CPASUN, the first offline FDRPAS target device.

ENDINGPASUNIT=*uuuu* – Specifies a 4-digit hexadecimal ending value for $$CPASUN, the last offline FDRPAS target device.

PASUNITINCREMENT=*nn* – Specifies a 1- or 2-digit decimal value, used to increment $$CPASUN. It defaults to 1.

See Section 54.45 "FDREPORT Punch Examples" for examples of the use of these operands.

NOTE:

54.23 FDREPORT REPORT STATEMENT

REPORT STATEMENT SYNTAX

The syntax of the REPORT statement is:

```
REPORT    FIELD=(field[,field,…])    ,RESET|
                                     ,NORESET
```

REPORT STATEMENT

The REPORT statement specifies the FIELDs that are included in the output generated by the PRINT statement. The FIELDs are placed on the report in the order specified. The appropriate heading is automatically generated for each FIELD selected unless the HEADING statement is present. One blank is inserted between adjacent fields unless overridden by SP*n*. If the FIELDs selected generate a line greater than the page width, FDREPORT truncates the line and issues a warning message. If ENABLE=AUTOSTACK is specified on the PRINT or DEFAULT statement, FDREPORT stacks as many related FIELDs with matching print length and data type as needed to fit the report within the page width. If stacking does not generate a line within the page width, FDREPORT truncates the line and issue a warning message.

DEFAULT REPORT

If the REPORT statement is not specified, FDREPORT generates a report with the following fields: SPLDSN, VOL, DSORG, RECFM, BLKSIZE, LRECL, SIZE, SIZEFREE, and %FREE.

If DATATYPE=VOLDATA, the default report is: VLVOLSER, VLDEVTYP, VLUNIT, VLINDSTA, VLUSEATR, VLUSERS, VLALOTRK, VL%UTRKS, VLFREETRK, VLLRGCYL, VLLRGTRK, VLFREEXT, and VLFRAGIN.

REPORT STATEMENT OPERANDS

FIELD=

Specifies one or more names of the FIELDs to be printed. Hundreds of field names are available, in eight groups: VTOC, VSAM, SMS, PDS, IAM, ABR BACKUP, GENERATED, and VOLUME. Fields from any group may be specified. Any that do not apply to a given report line are blank or zero.

All of the FIELD names that are documented in the tables in Section 54.30 “” are valid.

If SP*n* is specified as one of the FIELD operands, FDREPORT inserts the number of spaces specified by *n* (from 0 to 9) between the previous FIELD specified and the next FIELD.

The following example specifies that three blanks be inserted between the FIELD VOL and DATES.

Example:

```
REPORT FIELD=(DSN,VOL,SP3,DATES)
```

Default: One blank between fields.

RESET

NORESET

NORESET – Indicates that these fields should be added to the list of fields currently in effect from preceding REPORT statements.

RESET – Indicates that the list of fields on this REPORT statement completely replaces the values on any preceding REPORT statement.

Default: RESET.

54.24 FDREPORT SET STATEMENT

SET STATEMENT SYNTAX

The format of the SET is:

SET	IFRETURNCODE=*nnnn* ,RETURNCODE=*nnnn*

SET STATEMENT

The SET statement permits the user to set the current return code to any value from 0 to 4095 either unconditionally or after checking the current return code value.

SET STATEMENT OPERANDS

IFRETURNCODE=

***nnnn* –** Specifies the value to be used to check the current value in the return code. The number can be any value from 0 to 4095.

Default: The current value of the return code is not checked.

NOTE: All operators are valid for this operand.

RETURNCODE=

***nnnn* –** Specifies the return code to be issued by FDREPORT if termination occurs. This value changes any existing return code, regardless of how or why it was set, to the value specified, unless IFRETURNCODE is also specified. The number can be any value from 0 to 4095.

Default: The last return code to be set by any of FDREPORT's process or service routines.

54.25 FDREPORT SORT STATEMENT

SORT STATEMENT SYNTAX

The syntax of the SORT statement is:

```
SORT        FIELD=(field1[,field2,…])   ,LENGTH=(nnn[,nnn,…])
                                        ,OFFSET=(nnn[,nnn,…])
            ,BREAK=(EJ|
                    NO|                 ,RESET|
                    RPM|                ,NORESET
                    SEJ|
                    SP|                 ,SEQUENCE=(A|
                    SSP|                           D[,…])
                    SUB|
                    YES[,…])
```

SORT STATEMENT

The SORT statement specifies the fields to be used to sort the data selected. You can specify one or more fields to be used for the sort. Most of the fields that can be reported on can be selected whether or not that field is to be printed.

If this statement is not specified, the SORT=COMBINE and SORT=YES options on the PRINT and DEFAULT statements, and several other reporting options that require sorting, invoke sorting with default sorting parameters.

Sorting may require that you specify certain DD statements for your SORT product (see Section 54.3 "FDREPORT JCL Requirements") or FDREPORT may dynamically allocate all required SORT files (see "SORTALLOC=" in Section 54.21).

The BREAK statement, described in the next section, provides a simpler alternative to the SORT statement when all fields are to be sorted in ascending order and a standard control break is to be taken on every field.

SORT STATEMENT OPERANDS

FIELD=

Specifies one or more fields to be used by FDREPORT for the SORT. If more than one field is specified, they are sorted in the order specified.

The tables in Section 54.30 "" document the available field names; check the SORT column to see which are supported for sorting.

SEQUENCE=

Specifies the SEQUENCE in which the corresponding SORT field is to be sorted.

A – Ascending sequence.

D – Descending sequence.

If more than one field was specified, each value coded is associated with the relative position of the field specified.

For example, if FIELD=(A,B,C) is specified with SEQUENCE=(D,A,D), field A is sorted descending, field B ascending, and field C descending.

Default: A (ascending).

BREAK=

Specifies if a change in the value of a SORT FIELD is to cause a control break, and what action to take at that break.

EJ – Page eject only.

NO – No control break.

RPM – Reset punch mask (re-initialize punch mask processing, see Section 54.21 "FDREPORT PRINT Statement").

SEJ – Subtotal summary fields and page eject.

SP – Space one line only.

SSP – Subtotal summary fields and space one line.

SUB – Subtotal summary fields.

YES – Subtotal summary fields, space one line, and reset punch mask.

If more than one field was specified, each value coded is associated with the relative position of the field specified.

For example, if FIELD=(A,B,C) is specified with BREAK=(YES,NO,SSP), a change in field A does summary processing, field B does not, and field C causes subtotals with a blank line.

Default: NO for all fields.

LENGTH=

Specifies the length(s) to be used in conjunction with an offset operand.

If the corresponding LENGTH value for an OFFSET is not given, the command is marked in error. If a LENGTH value is given without a corresponding OFFSET, the command is marked in error.

OFFSET=

***nnn* –** Specifies the offset within a DSCB to be used as a sort control. The OFFSET must be in the range of 0 to 104; extent descriptor fields are not supported. If the corresponding LENGTH value for an OFFSET is not given, the command is marked in error.

NOTE: Use of this operand conflicts with the operand FIELD.

RESET

NORESET

NORESET – Indicates that these fields should be added to the list of fields currently in effect from preceding SORT or BREAK statements.

RESET – Indicates that the list of fields on this SORT statement completely replaces the values on any preceding SORT or BREAK statement.

Default: RESET.

54.26 FDREPORT SUMMARY STATEMENT

SUMMARY STATEMENT SYNTAX

The syntax of the SUMMARY statement is:

```
SUMMARY   FIELD=(field[,field,…])   ,RESET
                                    ,NORESET
```

SUMMARY STATEMENT

The SUMMARY statement provides summary reports based on the values of various fields reported by FDREPORT. Summary reports are printed on the ABRSUM DD Statement if present, or are interspersed with the generated report on ABRMAP (or SYSPRINT DD Statement if ABRSUM is absent).

There are three kinds of summarization done, depending on the characteristics of the field being summarized. Fields that always have a unique value (such as DSN) simply print a count of the number of unique occurrences encountered. Certain numeric fields (such as SIZEFREE) are totaled. Other character and numeric fields (such as BLKSIZE) report the number of unique values encountered and the count of times that value was found.

Summaries are printed at control breaks (see "BREAK=" in Section 54.25 of the SORT statement) and at the end of the report. The final summary contains totals for the entire report; control break summaries contain values since the last control break.

Examples of summaries are shown in the FDREPORT examples.

SUMMARY STATEMENT OPERANDS

FIELD=

Specifies one or more fields to be summarized.

The table in Section 54.30 "" documents the available FIELD names. Check the SUMMARY column to see which are supported for summarization and the type of summary that is done.

RESET

NORESET

NORESET – Indicates that these fields should be added to the list of fields currently in effect from preceding SUMMARY statements.

RESET – Indicates that the list of fields on this SUMMARY statement completely replaces the values on any preceding SUMMARY statement.

Default: RESET.

54.27 FDREPORT TITLE STATEMENT

TITLE STATEMENT SYNTAX

The syntax of the TITLE statement is:

```
TITLE    ECHO|          ,LINE='text'
         NOECHO         ,SKIP=n
```

TITLE STATEMENT

The TITLE statement defines a user-specified title line to be displayed on every page of the report between the INNOVATION DATA PROCESSING header identification and the data header lines. Under TSO, the INNOVATION DATA PROCESSING header is not displayed. A maximum of one line may be specified.

TITLE STATEMENT OPERANDS

ECHO

NOECHO

Specifies whether the title line is to be displayed or not on the print output. Each valid field name being processed is also displayed, as well as its location in the title line when ECHO is specified.

Default: NOECHO.

LINE=

***'text'* –** Specifies the text to be printed or displayed. Must be enclosed in quotes. The number of characters specified must not exceed the page width. If the title cannot be contained on one control statement (column 1 to 71), the user can continue the text by specifying a "+" or "–" after the last character on this line.

If "+" is specified, FDREPORT scans for the first non-blank character on the next input line, so you can start the continuation in any column. If "–" is specified FDREPORT starts with column 1 of the next input line.

Example:

```
TITLE    LINE='BACKUP +
         REPORT'
```

The title text may contain FDREPORT fields, so that the title on each may contain data that related to the values displayed on that page. Any FDREPORT field name that is valid for SORT (see "" in Section 54.30) may be included. You surround the field names with the FIELDPREFIX and FIELDSUFFIX characters that are in effect at the time that the TITLE statement is read (set by a previous DEFAULT or PUNCH statement; they default to < and >). FDREPORT substitutes the value for that field that is current at the time each new page is printed.

Example:

```
TITLE    LINE='REPORT FOR VOLUME <VOL>'
```

SKIP=

***n* –** Specifies the number of lines to be left blank between the title line and the data heading line, from 1 to 3.

Default: 1.

54.28 FDREPORT XSELECT AND XEXCLUDE STATEMENT

XSELECT AND XEXCLUDE STATEMENT SYNTAX

The syntax of the XSELECT and XEXCLUDE statements is::

```
XSELECT                %CA=nnn                    ,ARCDSN=dsn
XS                     ,%CAPUSED=nnn              ,ARCFLAG1=CLSERROR|
                       ,%CI=nnn                                     DELCOMP|
XEXCLUDE               ,%DIRFREE=nnn                                EXTRESTR|
XEX                    ,%DIRUSED=nnn                                FIVEVOLS|
                       ,%FREE=nnn                                   INTRESTR|
                       ,%OVER=nnn                                   MULTIVOL|
                       ,%USED=nnn                                   RESTORED|
                       ,ABRCYCLE=nn                                 SULABEL
                       ,ABRGEN=nnnn               ,ARCFLAG2=ABRTAPE|
                       ,ABRHITRS=nnn                                CLUSTER|
                       ,ABRIND=A|                                   DELETE|
                               B|                                   DISKBKUP|
                               N|                                   NOTCAT|
                               R|                                   RECALL
                               X                  ,ARCTTR=nnnnnn
                       ,ABRLOTRS=nnn              ,ATIME=hhmmss
                       ,ACTIVE=NO|                ,ATTR1=ERASE|
                               YES                           INHIBIT|
                       ,ACTTTR=nnnnnn                        RECOVERY|
                       ,ADATE=yyddd|                         REUSEABLE|
                              yyyyddd                        SPEED|
                       ,ADAYS=nnnnn                          TEMPEXPORT|
                       ,AIXATTR=AIX|                         TRACKOVER|
                                UPGRADE                      UNIQUE
                       ,AIXNAME=dsn               ,ATTR2=CATALOGBUSY|
                       ,AMDATTR=ESDS|                        CATALOGLOCK|
                                IMBED|                       COMPNOTUSE|
                                KEYRANGE|                    INTERNALDSN|
                                KSDS|                        REGSHROPT1|
                                ORDERED|                     REGSHROPT2|
                                REPLICATE|                   REGSHROPT3|
                                RRDS|                        REGSHROPT4|
                                SPANNED|                     SYSSHROPT3|
                                WRITECHECK                   SYSSHROPT4
                       ,AMDATTR3=BIND|            ,AXRKP=nnnn
                                 CYLFAULT|         ,BKCYCLE=nnn
                                 LINEAR|           ,BKDATE=yyddd|
                                 LOADED|                      yyyyddd
                                 NONUNIQUE|        ,BKDAYS=nnnnn
                                 SHRBCS|           ,BKDEVCLS=cccc
                                 VARIABLE|         ,BKDEVTYP=ccccccc
                                 WAITON            ,BKDSNS=nnn
                                                   ,BKEXDATE=yyddd|
                                                             yyyyddd
                                                   ,BKEXDAYS=nnnnn
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
,BKFILENO=nnnnn
,BKGEN=nnnn
,BKSUFFIX=cccccccc
,BKTAPCNT=nnn
,BKTIME=hhmmss
,BKVOL=v...v
,BLKSIZE=nnnnn
,BLKSTRK=nnnn
,BUFSIZE=nnnnnn
,BYTES=nnnnnnnnnn
,BYTESUSE=nnnnnnnnnn
,CANDVOLC=nnn
,CAPBYTES=nnnnnnnnnn
,CASPLIT=nnnnnnnn
,CASPLITR=nnnnnn
,CATALOG=CAN|
         DRF|
         ERR|
         NO|
         ONL|
         YES|
         UNK
,CATGROUP=catn
,CATNAME=catn
,CATTTR=nnnnnn
,CATVOL=vvvvvv
,CATVOLCT=nnn
,CATVOLTL=nnn
,CCA=xx
,CICA=nnn
,CISIZE=nnnnn
,CISPLIT=nnnnnnnn
,CISPLITR=nnnnnn
,CLUSATTR=ATL|
          ATTREXT|
          EXTEND|
          FORMAT|
          PAGESPACE|
          SWAPSPACE|
          TIMESTAMP|
          VERIFYREQ
,CLUSTER=dsn
,CLUSTGROUP=dsn
,CMPCANDV=nnn
,CMPVOLCT=nnn
,CMPVOLTL=nnn
,COMPTYPE=DATA|
          INDEX|
          AIXDATA|
          AIXINDEX
,COMPUSER=nnnnnnnnnn
,CRDATE=yyddd|
        yyyyddd
,CRDAYS=nnnnn
,CRJOBNAM=cccccccc
,CRSTEPNM=cccccccc
,CRTIME=hhmmss
,CTFLD=cccchhhhrr
,CTLSERNO=ccccc
,DATACLAS=dataclas
,DELETES=nnnnnnnnnn
,DEVCLASS=cccc
,DEVTYPE=ccccccc
,DIRBFREE=nnnnn
,DIRBLOCK=nnnnn
,DIRBUSED=nnnnn
,DSGROUP=dsn
,DSIND=LASTV|
       RACF|
       MULT8|
       PASSA|
       PASSW|
       UPDAT
,DSNALCNT=nnnnn
,DSNALIAS=dsn
,DSNAME=dsn
,DSNEIFLG=GIGABYTE|
          RELCI|
          ZFS
,DSNFLAGS=RLS
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
,DSORG=AM|
       DA|
       EF|
       HFS|
       IAM|
       IS|
       PO|
       POE|
       PS|
       PSE|
       U|
       UM|
       UN
,DSSN=vvvvvv
,ENCRBDAY=nnnnn
,ENCRBDSN=dsn
,ENCRBVOL=vvvvvv
,ENCRDATE=yyddd|
          yyyyddd
,ENCRFLGS=DELETE|
          FDRCAMS|
          GENERATEDKEY|
          MASTERKEYAPPLIED|
          PUBLICKEYAPPLIED|
          TAPEFILE|
          UPSTREAM
,ENCRFLSQ=nnnnn
,ENCRKEY=c...c
,ENCRTIME=hhmmss
,ENCRTYPE=AES128|
          AES192|
          AES256
,ENCRVOL=vvvvvv
,EXCPEXIT=cccccccc
,EXCPS=nnnnnnnnn
,EXPDATE=yyddd|
         yyyyddd
,EXPDAYS=nnnnn
,EXTENTS=ccccchhhh
,EXTYPE=CYLBN|
        INDEX|
        PRIME|
        OFLOW|
        SUL
,FILESEQ=nnnnn
,FLAG1=CHKPTDSN|
       COMPRESS|
       EATTR|
       EATTRNO
       EATTROPT|
       LARGE|
       RECALL
,FREEEXT=nnnn
,GDGENTRY=nnn
,GDGFLAGS=EMPTY|
          NOEMPTY|
          NOSCRATCH|
          SCRATCH
,GDGGENER=nnnn
,GDGLADAT=yyddd|
          yyyyddd
,GDGLADAY=nnnnn
,GDGLIMIT=nnn
,GDGRELGN=nnn
,GDGVERSN=nn
,HIALOBLK=nnnnnnnnnn
,HIALORBA=nnnnnnnnnn
,HIKEYRBA=nnnnnnnnnn
,HIUSEBLK=nnnnnnnnnn
,HIUSERBA=nnnnnnnnnn
,HSMCSCSZ=nnnnnnnnnn
,HSMIGVOL=vvvvvv
,IAMINDIC=ALTINDEX|
          DATACOMPRESS|
          ENHANCED|
          EXTENDED|
          HARDEWARECOMP|
          KEYCOMPRESS|
          PATH|
          SPANNED
,INDEXLEV=nnnnn
,INSERTS=nnnnnnnnnn
,KEYLEN=nnn
,LASTBKUP=yyddd/hhmm|
          yyyyddd/hhmm
,LINKLIST
,LMJOB=cccccccc
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
,LRDATE=yyddd|
        yyyyddd
,LRDAYS=nnnnn
,LRECL=nnnnn
,LSTAR=ttttttrrr|
       X'ttttrr'
,MAXLRECL=nnnnnn
,MAXSIZE=nnnnn
,MEMBABAS=cccccccc
,MEMBAMOD=ccc
,MEMBATTR=AC1|
          NOEX|
          OL|
          REFR|
          RENT|
          REUS
,MEMBCRDT=yyddd|
          yyyyddd
,MEMBCURR=nnnnn
,MEMBENTR=nnnnnnnn
,MEMBERS=nnnnnn
,MEMBID=cccccccc
,MEMBINTR=nnnnn
,MEMBLMDT=yyddd|
          yyyyddd
,MEMBLMTI=hhmmss
,MEMBMOD=nn
,MEMBMODR=nnnnn
,MEMBRMOD=ccc
,MEMBSSI=cccccccc
,MEMBSTOR=nnnnnnnnnn|
          X'xxxxxxxx'
,MEMBTTR=ttttttrrr|
         X'xxxxxx'
,MEMBVER=nn
,MEMNAMES=cccccccc
,MFRCODE=ccc
,MGMTCLAS=mgmtclas
,NOBDB=nnn
,NOEPV=nnn
,NOEXTENT=nnn
,NTMIGRAT=nnnnn
,NVSAMATR=ACTGDG|
          DEFGDG|
          PDSE|
          POSIX|
          ROLGDG
,NVSAMFLG=ATTREXT|
          EXTEND
,OFFSET=nnn
,OPTCD=A|
       BC|
       C|
       DB|
       E|
       F|
       I|
       IC|
       L|
       M|
       R|
       RB|
       RE|
       TO|
       UF|
       W|
       Y
,OVERFLOW=nnnnnnnnnn
,OVERFPER=nnn
,OVERUSED=nnnnnnnnnn
,OWNER=cccccccc
,PATHNAME=dsn
,PRIALLOC=nnnnnnnn
,PRIBYTES=nnnnnnnnnn
,RANK=nnnnnn
,RECFM=A|
       B|
       F|
       M|
       S|
       T|
       U|
       V|
       *
,RECORDS=nnnnnnnnnn
,RECOVDTA=cccccccc
,RELALCNT=nnnnn
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
,RESOROWN=ccccccccccccccc ,SSID=cccc
,RETRIEVE=nnnnnnnnnn       ,STORCLAS=storclas
,RKP=nnnn                  ,STORGRP=storgrp
,RUNDATE=yyddd|            ,STRIPECT=nnn
         yyyyddd           ,SUBCFLAG=FUZZYBK1|
,RUNTIME=hhmmss                      FUZZYBK2|
,SECAFLAG=BLK|                       LOGRECVR
          CON|             ,SUBCVERS=nnn
          CYL|             ,SYSCODE=ccccccccccccc|
          FIV|                     C'ccccccccccccc'|
          MAX|                     X'xxxxxxxxxxxx'
          RND|
          TRK              ,SYSID=cccc
,SECALLOC=nnnnnnnn         ,TRKBAL=nnnnn
,SECBYTES=nnnnnnnnnn       ,TRKSCA=nnn
,SECURITY=DSCB|            ,TVTOCDSN=dsn
          NODS|            ,UCBID=xxxxxxxx
          NONE|
          PROFILE          ,UCBSTATS=ccccccc
,SECVERMO=ccccccccc        ,UNIT=xxxx
,SIZE=nnnnn                ,UNITNAME=ccccccccc
,SIZEFREE=nnnnn            ,UPDATES=nnnnnnnnnn
,SIZEUSED=nnnnn            ,USEDEXT=nnnn
,SMSFLAGS=ATTREXTN|        ,USERDATA=nnnnnnnnnn
          DADSMCRT|        ,VALUE=ccccccccccccc|
          MANAGED|               C'ccccccccccccc'|
          NOBCS|                 X'xxxxxxxxxxxx'
          PDSE|            ,VL%FDSCB=nnn
          PDSEX|           ,VL%FINDX=nnn
          REBLOCK|         ,VL%FTRKS=nnn
          STRIPE           ,VL%FVVDS=nnn
,SOURCE=ARCHIVE|           ,VL$UDSCB=nnn
        BCDS|              ,VL%UINDX=nnn
        CATALOG|           ,VL%UTRKS=nnn
        CATARCH|           ,VL%UVVDS=nnn
        CATVTOC|           ,VLABRCYC=nn
        MCDS|              ,VLABRGEN=nnnn
        TVTOC|             ,VLABRHTR=nnn
        VTOC|              ,VLABRINT=NO|
        VTOCVVR                      YES
,SPACEFLG=CYLINDERS|
          KILOBYTES|
          MEGABYTES|
          RECORDS|
          TRACKS
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
,VLABRLTR=nnn
,VLABROPT=C|
          I|
          N|
          S|
          T|
          X|
          Y|
          O
,VLALOBYT=nnnnnnnnnnnnnn
,VLALOCYL=nnnnnn
,VLALOSTA=ALLOC|
          ONLINE|
          SYSRES|
          UNLOAD
,VLALOTRK=nnnnnn
,VLALTRKS=nnnnnn
,VLAVGBYT=nnnnnnnnnnnnnn
,VLAVGTRK=nnnnnn
,VLBYTVOL=nnnnnnnnnnnnnn
,VLCCA=xx
,VLCM%FTK=nnn
,VLCM%TOT=nnn
,VLCM%UTK=nnn
,VLCMABYT=n...n
,VLCMALOC=n...n
,VLCMALOT=n...n
,VLCMFBYT=n...n
,VLCMNFCY=n...n
,VLCMNFTK=n...n
,VLCMNFXT=n...n
,VLCMTBYT=n...n
,VLCMTCMG=n...n
,VLCMTTMG=n...n
,VLCTLSER=ccccc
,VLCYLVOL=nnnnnn
,VLDCEACT=CCC|
          CFW|
          DCA|
          DFW|
          TKC
,VLDCEFLG=CSW|
          DPX|
          PKC|
          PRI|
          PVM|
          SEC|
          SHR|
          SSV
,VLDCEFL8=CYMG|
          F8F9
,VLDEVTYP=ccccccc
,VLDSCB=nnnnnnnnnnn
,VLDSCBU=nnnnnnnnnnn
,VLDSCBO=nnnnnnnnnnn
,VLDSCB1=nnnnnnnnnnn
,VLDSCB3=nnnnnnnnnnn
,VLDSCB8=nnnnnnnnnnn
,VLDSCB9=nnnnnnnnnnn
,VLDSOAM=nnnnnn
,VLDSODA=nnnnnn
,VLDSOEF=nnnnnn
,VLDSOHFS=nnnnnn
,VLDSOIAM=nnnnnn
,VLDSOIS=nnnnnn
,VLDSOPO=nnnnnn
,VLDSOPOE=nnnnnn
,VLDSOPS=nnnnnn
,VLDSOPSE=nnnnnn
,VLDSOUN=nnnnnn
,VLFRAGIN=nnnn
,VLFREBYT=nnnnnnnnnnnnnn|
          nnnnnnnnnnnnK|
          nnnnnnnnnM
,VLFRECYL=nnnnnn
,VLFREEXT=nnnnnn
,VLFRETRK=nnnnnn
,VLFREVCI=nnnnnn
,VLFREVIR=nnnnnn
,VLIDLBYT=nnnnnnnnnnnnnn|
          nnnnnnnnnnnnK|
          nnnnnnnnnM
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
,VLIDLTRK=nnnnnn
,VLINDSTA=ACTIVE|
          NONE|
          YES
,VLLRGCYL=nnnnnn
,VLLRGTRK=nnnnnn
,VLMFRCOD=ccc
,VLMINACY=nnn
,VLMOUSTA=RESERVED|
          RESIDENT
,VLOPENDC=n...n
,VLRANK=nnnnnnn|
        nnnnK|
        nM
,VLSPRETN=c...c
,VLSMSGST=ENABLED|
          DISABLEA|
          DISABLEN|
          NONE|
          QUIESCEA|
          QUIESCEN
,VLSMSHTR=nnn
,VLSMSLTR=nnn
,VLSMSSTG=storgrp
,VLSMSTAT=INITIAL|
          MANAGED|
          NONE
,VLSMSVST=ENABLED|
          DISABLEA|
          DISABLEN|
          NONE|
          QUIESCEA|
          QUIESCEN
,VLSSID=cccc
,VLSYSID=cccc
,VLTM%FTK=nnn
,VLTM%TOT=nnn
,VLTM%UTK=nnn
,VLTMABYT=n...n
,VLTMALOC=n...n
,VLTMALOT=n...n
,VLTMFBYT=n...n
,VLTMFRAG=nnnn
,VLTMLFCY=n...n
,VLTMLFTK=n...n
,VLTMNFCY=n...n
,VLTMNFTK=n...n
,VLTMNFXT=n...n
,VLTMTBYT=n...n
,VLTMTCMG=n...n
,VLTMTTMG=n...n
,VLTRKVOL=nnnnnn
,VLUCBFL4=cccc
,VLUCBID=xxxxxxxx
,VLUNIT=xxxx
,VLUNITNA=c...c
,VLUSEATR=PRIVATE|
          PUBLIC|
          STORAGE
,VLUSERS=nnnn
,VLVOLID=cccc
,VLVOLSER=vvvvvv
,VLVTIXTR=nnnnnn
,VLVTOCTR=nnnnnn
,VLVVDSTR=nnnnnn
,VLVVDSXT=nnnnn
,VLXTFLAG=EAV
,VOLCFLAG=CANDWSPACE|
          EXTENTSYNC|
          GUARSPACE|
          OVERFLOWVOL|
          PRIMEVOLUME|
          RELCIADDR
,VOLGROUP=vvvvvv
,VOLID=cccc
,VOLSQ=nnn
,VOLUME=vvvvvv
,VSFREBYT=nnnnnnnnnn|
          nnnnnnnK|
          nnnnM
```

The syntax of the XSELECT and XEXCLUDE statements (continued):

```
                ,VVRSTATS=DPLR|          ,XDSNAME=dsn
                          EXTM|
                          MLTQ|          ,XLSTAR=ttttttttrrr|
                          MLTR|                  X'xxxxxxxx'
                          NONE|
                          NVVR
```

XSELECT AND XEXCLUDE STATEMENTS

These statements act as a filter for the data sets to be processed by FDREPORT. The XSELECT and XEXCLUDE statements use sophisticated comparisons (less than or equal, greater than, not equal, and the rest), as well as a data set name masking capability.

On the XSELECT and XEXCLUDE statements, one of a number of comparison operators may follow the operands. Since one form of those operators involve special characters (such as the not "¬" and less-than "<"), alternate forms of each operator without special characters are provided. The operators are:

=	or .EQ. equal
¬ or ¬=	or .NE. not equal
<	or .LT. less than
>	or .GT. greater than
<=	or .LE. less than or equal to
>=	or .GE. greater than or equal to

The test is true if the indicated comparison of the FIELD value and the value you provide is true.

For example,

```
SIZE>15,DSORG.NE.PS
```

If the operation is equal (= or .EQ.) or not-equal (¬=, or .NE.), several values may be provided in parentheses. For equal, the test is true if any of the comparisons are equal. For not-equal, the test is true if all of the comparisons are **not** equal.

For example,

```
LRECL=(80,133)
```

selects data sets whose LRECL is either 80 or 133. In addition, a given FIELD name may be specified more than once with several different operators; all of the tests must be true for the data set to be selected (unless all of the operators are equal (= or .EQ.) when it is sufficient for any one of the tests on that field to be true).

For example:

```
SIZE>50,SIZE<100,DSORG=PS,DSORG=PO
```

selects any PS or PO data sets between 50 and 100 tracks in size.

When processing data sets from the source selected by DATATYPE= on the PRINT statement, each data set is passed through this filtering process:

- If any XEXCLUDE statements are present, the data set's FIELD values are compared to each statement. If **all** of the tests on a given statement are true for that data set, it is excluded from processing.
- If any XSELECT statements are present then for any data set that was not excluded, the data set's FIELD values are compared to each of them. If **all** of the tests on a given statement are true for that data set, it is processed.
- If there are no XSELECT statements present then all data sets that are not excluded are processed. If none of the above statements is present, then all data sets found on FDREPORT's input are processed.

The order of the XSELECT and XEXCLUDE statements is not significant. However, **each statement operates independently**. For example, if you want to select all PDSs on volumes starting with "ABC", code:

```
XSELECT  DSORG=PO,VOL=ABC*          <--- CORRECT
```

If you code:

```
XSELECT  DSORG=PO                   <--- INCORRECT
XSELECT  VOL=ABC*
```

it selects **all** of the data sets on volumes starting with "ABC", not just the PDSs.

For most of the FIELD operands, the values that you specify are obvious. For example, LRECL= takes numeric values specifying logical record lengths. For some FIELDs the rules are not so obvious:

- For fields that represent dates, such as ADATE, EXPDATE, and LRDATE, the value must be specified as a Julian date, that is, year plus day number.
  - For years in the 19*xx* range you can specify a 2-digit year, for example, `ADATE=95123`.
  - For any year you can specify a 4-digit year, for example, EXPDATE=2013123 (required for years beyond 1999).
  - To improve readability, you can insert a period between the year and day, for example, `BKDATE=95.321`.
  - The date fields do **not** accept Gregorian dates (month, day, and year), but you can request **display** of dates in Gregorian format with the DATEFORMAT= operand on the PRINT or DEFAULT statement.
- For fields that represent a number of bytes, such as BYTES and PRIBYTES, you may specify values in bytes (a simple number, such as BYTESFRE=5000), kilobytes (a number followed by K, such as BYTES=250K), or megabytes (a number followed by M, such as BYTESUSE=450M). See "HEXBYTES" in Section 54.30 for the interpretation of kilobytes and megabytes.
- For fields that represent flags or similar attributes, such as ARCFLAG1, ATTR1, DSIND, and SMSFLAGS, the values that you use on XSELECT and XEXCLUDE statement may be different from the values that are displayed in a report. The field values are often abbreviated by 1 or 2 characters in a report to save space, but on these statements you may need to put the longer description. For example, ARCFLAG2 displays a value of "A" if the data set is cataloged for auto-recall, but you would say XSELECT ARCFLAG2=(RECALL) to select on that flag. The tables in Section 54.30 "" show the report values and the selection values for such fields.

XSELECT AND XEXCLUDE STATEMENT OPERANDS

%CA=

nnn – Specifies the ICF VSAM cluster(s) or components selected or excluded have a percent of free control areas that is within the percentage specified. The number may be from 0 to 100 inclusive.

%CAPUSED=

%CAPU=

nnn **–** Specifies the data set(s) selected or excluded must have a percent of the used allocation capacity within the percentage specified. The used allocation capacity is calculated by multiplying the number of tracks allocated by the track capacity in bytes. The percentage is derived by dividing the allocation capacity into the number of bytes allocated. The number may be from 0 to 100 inclusive.

%CI=

nnn **–** Specifies the ICF VSAM cluster(s) or components selected or excluded have a percentage of free control intervals that is within the percentage specified. The number may be from 0 to 100 inclusive.

%DIRFREE=

%DIRF=

nnn **–** Specifies the data set(s) selected or excluded must have a percent of free (unused) directory blocks that is within the percentage specified. The number may be from 0 to 100 inclusive.

%DIRUSED=

%DIRU=

nnn **–** Specifies the data set(s) selected or excluded must have a percent of used directory blocks that is within the percentage specified. The number may be from 0 to 100 inclusive.

%FREE=

%F=

nnn **–** Specifies the data set(s) selected or excluded must have a percent of free (unused) tracks in the allocation that is within the percentage specified. The number may be from 0 to 100 inclusive.

%OVER=

%O=

nnn **–** Specifies the data set(s) selected or excluded must be an IAM file and must have a percent of used independent OVERFLOW that is within the percentage specified. The value may be from 0 to 100 inclusive.

%USED=

%U=

nnn **–** Specifies the data set(s) selected or excluded must have a percent of used tracks in the allocation that is within the percentage specified. The number may be from 0 to 100 inclusive.

ABRCYCLE=

ABRC=

nn **–** Specifies the data set(s) selected or excluded must have a current ABR backup that is within the ABR cycle number supplied. The number may be from 0 to 63 inclusive.

ABRGEN=

ABRG=

nnnn **–** Specifies the data set(s) selected or excluded must have a current ABR backup that is within the ABR generation number supplied. The number may be from 0 to 9999 inclusive.

ABRHITRS=

nnn **–** Specifies the data set(s) selected or excluded must come from a volume with a ABR high threshold within the value specified. The number may be from 0 to 100 inclusive.

ABRIND=

ABRI=

Specifies the data set(s) selected or excluded must have an ABR indicator that corresponds to the indicator supplied. Valid indicators are:

A – Always backup / never archive.

B – Current ABR backup.

N – Normal backup / never archive.

R – Archiving requested.

X – Exclude from ABR processing.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ABRLOTRS=

***nnn* –** Specifies the data set(s) selected or excluded must come from a volume with an ABR low threshold within the value specified. The number may be from 0 to 100 inclusive.

ACTIVE=

Specifies the data set(s) selected or excluded have been tested with the ENQUEUE macro to determine if the data set is currently in use.

NO – The data set is not in use.

YES – The data set is in use.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ACTTTR=

***nnnnnn* –** Specifies the data set(s) selected or excluded must reside on the block within the Archive Control File that is within the relative block number provided.

ADATE=

ADAT=

***datespec* –** Specifies the data set(s) selected or excluded must have an archive date that is within the date specified.

The date is specified as a Julian date (year plus day number) that may be in the form "*yyyyddd*" or "*yyddd*". For readability, a period may be inserted between the year and day.

NOTE: 2-digit years less than 70 are assumed to be in the 21st century (for example, 13123 = 2013.123).

ADAYS=

ADAY=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of days since it was archived that is within the number of days supplied. The number may be from 0 to 32000, inclusive.

AIXNAME=

AIXN=

***dsn* –** Specifies the alternate index cluster name used for selection or exclusion; following the rules for data set selection.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

AIXATTR=

Specifies the ICF VSAM cluster(s) or components selected or excluded have an alternate index attribute with one or more of the following characteristics:

AIX – An alternate index.

UPGRADE – The alternate index is upgraded to reflect changed data when the base cluster's records are added to, updated, or erased.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

AMDATTR=

Specifies the ICF VSAM cluster(s) or components selected or excluded have one or more of the following attributes indicated in the AMDATTR field in the Access Method Data Statistics Block (AMDSB):

ESDS – Entry sequenced cluster.

IMBED – Sequence set placed with data component.

KEYRANGE – Key range defined component.

KSDS – Key sequenced cluster.

ORDERED – Volumes to be used in the order they are specified in the VOLUMES parameter.

REPLICATE – Each index record to be written on a track as many times as it fits.

RRDS – Relative record data set.

SPANNED – Data record can cross control interval boundary.

WRITECHECK – Perform write check during write processing.

NOTE: Data sets created by the Innovation Access Method (IAM) also have indicators set in the AMDATTR.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

AMDATTR3=

Specifies the ICF VSAM cluster(s) or components selected or excluded have one or more of the following attributes indicated in the AMDATTR3 field in the Access Method Data Statistics Block (AMDSB):

BIND – Cluster or component that is allocated to MSS device is staged at open and retained on staging device until closed.

CYLFAULT – Cluster or component that is allocated to MSS device is not staged at open, but data is to be staged as needed.

LINEAR – Linear cluster (ESDS that is processed using control intervals).

LOADED – Data set is loaded.

NONUNIQUE – Data set has non unique keys.

SHRBCS – Shared basic catalog structure (sub-cell exists).

VARIABLE – Variable RRDS.

WAITON – De-staging is to complete before control is returned to the program that closes the data set.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ARCDSN=

***dsn* –** Specifies the data set(s) selected or excluded must have been obtained from the Archive Control File specified when an extract file was created using RPTYPE=DATA or RPTYPE=COMPDATA and DATATYPE=ARCHIVE or DATATYPE=CATARCH.

ARCFLAG1=

Specifies the data set(s) selected or excluded must have the first archive flag byte set to the indicator(s) supplied. The valid indicators are:

CLSERROR – Component marked for delete because there is no corresponding cluster.

DELCOMP – Component marked for delete because cluster is to be deleted.

EXTRESTR – External restore from archive.

FIVEVOLS – Archive backup spans more than five volumes.

INTRESTR – Internal restore from archive.

MULTIVOL – Portion of multi-volume data set archived from one volume.

RESTORED – Entry restored from archive or restore from archive was attempted.

SULABEL – Data set is restored with a Standard User Label (SUL).

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ARCFLAG2=

Specifies the data set(s) selected or excluded must have the second archive flag byte set to the indicator(s) supplied. The valid indicators are:

ABRTAPE – Backup is an ABR tape, not an archive tape.

CLUSTER – Cluster entry.

DELETE – External delete from archive.

DISKBKUP – Backup data set created on DASD device (as opposed to tape device).

NOTCAT – Backup data set is not cataloged.

RECALL – Data set archived with the auto-recall option.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ARCTTR=

Specifies the data set(s) selected or excluded must contain the relative Archive Control File block number (with the auto recall indicator set) that matches the value provided. This value is extracted from the data set record within the Archive Control File, It is also placed in the catalog entry created when RECALL=YES is specified on the DUMP TYPE=ARC control statement and serves as a quick path into the Archive Control File for the restore server.

***nnnnnn* –** The value specified is a decimal number.

X*'xxxxxx*' – The value specified is a hexadecimal number.

ATIME=

***hhmmss* –** Specifies the data set(s) selected or excluded must have an archive time stamp that matches the value, range, or values supplied.

ATTR1=

Specifies the ICF VSAM cluster(s) or components selected or excluded have one or more of the following data set attributes found in the ATTR1 field in the VSAM data set information cell of an ICF VSAM data or index component.

ECS – Catalog eligible for Enhanced Catalog Sharing.

ERASE – Erase components when cluster deleted.

INHIBIT – component can be accessed for read only.

RECOVERY – Data component's control areas are preformatted.

REUSEABLE – Cluster can be re-opened as a new cluster.

SPEED – Data component's control areas are not preformatted.

TEMPEXPORT – Portable copy has been made.

TRACKOVER – Track overflow.

UNIQUE –

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ATTR2=

Specifies the ICF VSAM cluster(s) or components selected or excluded have one or more of the following data set attributes found in the ATTR2 field in the VSAM data set information cell of an ICF VSAM data or index component.

CATALOGBUSY – Catalog busy (no access allowed).

CATALOGLOCK – Catalog is locked.

COMPNOTUSE – Component is not usable.

INTERNALDSN – Internal system data set.

REGSHROPT1 – Any number of users for read or one user for read/write.

REGSHROPT2 – Any number of users for read and one user for write.

REGSHROPT3 – Fully shared by any number of users. Users are responsible for read/write integrity.

REGSHROPT4 – Fully shared by any number of users with direct access buffer refresh. Users are responsible for read/write integrity.

SYSSHROPT3 – Cross system fully shared by any number of users. Users are responsible for read/write integrity.

SYSSHROPT4 – Cross system fully shared by any number of users with direct access buffer refresh. Users are responsible for read/write integrity.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

AXRKP=

***nnnn* –** Specifies the ICF VSAM alternate index cluster(s) or components selected or excluded must have an alternate relative key position within the number specified. The number may be from 0 to 4095 inclusive.

BKCYCLE=

***nn* –** Specifies the data set(s) selected or excluded must have an ABR backup tape cycle number that is within the ABR cycle number supplied. The number may be from 0 to 63 inclusive.

BKDATE=

BKDAT=

***datespec* –** Specifies the data set(s) selected or excluded must have an ABR last processed date within the date supplied. The date is specified as a Julian date that may be in the form "*yyyyddd*" or "*yyddd*". For readability, a period may be inserted between the year and day.

NOTE: 2-digit years less than 70 are assumed to be in the 21st century (for example, 13123 = 2013.123).

BKDAYS=

BKDAY=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of days since last processed by ABR that is within the number of days supplied. The number may be from 0 to 32000, inclusive.

BKDEVCLS=

BKDEVC=

Specifies the data set(s) selected or excluded must have been backed up or archived to the device class entered.

DISK – The data set(s) have been backed up or archived to DASD.

TAPE – The data set(s) have been backed up or archived to tape.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

BKDEVTYP=

BKDEV=

Specifies the data set(s) selected or excluded must have been backup up or archived to the device type entered. Some valid backup device types are:

3380 –

3390 –

DISK – Any DASD device type.

3480 –

3480X –

3490 –

3590-1 –

TAPE – Any tape device type.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

BKDSNS=

***nnn* –** Specifies the data set(s) selected or excluded must have a number of active backup files (after exclusion or selection) that satisfies the criteria specified. The value specified may be any number from 0 through 999, inclusive.

BKEXDATE=

BKEXDAT=

***datespec* –** Specifies the data set(s) selected or excluded must have an ABR backup tape with an expiration date that matches the date supplied.

For DATATYPE=ARCHIVE or CATARCH, this field is the expiration date of the archive backup file. For DATATYPE=VTOC or CATVTOC, ABR does not record the expiration date of the backup file and this field is not meaningful. For DATATYPE=VOLDATA, this field is the expiration date of the most current full volume backup and not necessarily the expiration date of the most current cycle. For DATATYPE=EXTRACT, the contents of this field depend on the original source. For other DATATYPEs, this field is not meaningful.

The date is specified as a Julian date that may be in the form "*yyyyddd*" or "*yyddd*". For readability, a period may be inserted between the year and day.

NOTE: It is impossible to determine the correct century if the year is to be displayed as only two digits. (for example, 13123 = 13.123 may be 2013 or 2113.)

BKEXDAYS=

BKEXDAY=

***nnnnn* –** Specifies the data set(s) selected or excluded must have an ABR backup tape with a number of days until expiration that is within the number of days supplied. If the ABR backup tape's expiration date is earlier than today, then the value of BKEXDAYS is zero. If the ABR backup tape's expiration date is 1999.000 or 199.*xxx* (where "*xxx*" is 365 or greater), then the value of BKEXDAYS is 65535.

For DATATYPE=ARCHIVE or CATARCH, this field is the number of days until expiration of the archive backup file. For DATATYPE=VTOC or CATVTOC, ABR does not record the expiration date of the backup file and this field is not meaningful. For DATATYPE=VOLDATA, this is the number of days until expiration of the most recent full volume backup and not necessarily the number of days until expiration of the most recent cycle. For DATATYPE=EXTRACT, the contents of this field depend on the original source. For other DATATYPEs, this field is not meaningful.

BKFILENO=

BKF=

***nnnnn* –** Specifies the data set(s) selected or excluded must have an ABR tape file number that is within the number specified. The number may be from 0 to 65534 inclusive.

BKGEN=

***nnnn* –** Specifies the data set(s) selected or excluded must have an ABR backup tape generation number that is within the number supplied. The number may be from 1 to 9999 inclusive.

BKSUFFIX=

BKS=

***cccccccc* –** Specifies the data set(s) selected or excluded must have the value specified in an ABR backup tape data set name suffix.

This operand supports full masking. The string may be from 1 to 8 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

BKTAPCNT=

BKT=

***nn* –** Specifies the data set(s) selected or excluded must have an ABR tape volume count that is within the number specified. The number may be from 1 to 19 inclusive.

BKTIME=

***hhmmss* –** Specifies the data set(s) selected or excluded must have an ABR backup time stamp that matches the value or range of values supplied. Currently, data sets that are archived for application backup are the only entries with a backup time stamp.

BKVOL=

BKV=

***vvvvvv* –** Specifies the data set(s) selected or excluded must have the ABR backup tape volume specified in the volumes required to restore.

This operand supports full masking. The string may be from 1 to 6 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

BLKSIZE=

BL=

***nnnnn* –** Specifies the data set selected or excluded must have a block size that is within the value specified. The number may be from 0 to 32760 inclusive.

BLKSTRK=

BLKST=

***nnnnn* –** Specifies the data set selected or excluded must have a number of blocks per track that is within the value specified. The number of blocks per track is determined by the TRKCALC service routine for non-VSAM data sets based on the block size. If the block size is zero, the number of blocks per track are zero. The number of blocks per track is obtained from the VVR for ICF VSAM components. The value may be from 0 to 32000 inclusive.

BUFSIZE=

BUF=

***nnnnn* –** Specifies the ICF VSAM cluster(s) or components selected or excluded have a minimum buffer size that is within the value specified. The value may be from 0 to 32000 inclusive.

BYTES=

Specifies the data set(s) selected or excluded have a number of bytes allocated that is within the value specified. The number of bytes allocated is equivalent to the high allocated RBA for ICF VSAM components and is a calculated value for non-VSAM data sets, based on the block size. If the block size is zero, the number of bytes allocated are zero. The value may be from 0 to 4294967294 inclusive.

***nnnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnn*M –** Indicates the value should be multiplied by 1,000,000.

BYTESFRE=

BYTESF=

Specifies the data set(s) selected or excluded have a number of bytes free within the allocated space that is within the value specified. The number of bytes free within the allocated space is equivalent to the high used RBA for ICF VSAM components and is a calculated value for non-VSAM data sets, based on the block size. If the block size is zero, the number of bytes free within the allocated space are zero. The value may be from 0 to 4294967294 inclusive.

***nnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnn*M –** Indicates the value should be multiplied by 1,000,000.

BYTESTRK=

BYTEST=

***nnnnnn* –** Specifies the data set(s) selected or excluded have a number of bytes utilized per track that is within the value specified. The number of bytes utilized per track is equivalent to the number of blocks per track multiplied by the physical block size for ICF VSAM components and the number of blocks per track multiplied by the block size for non-VSAM data sets. If the block size is zero, the number of bytes utilized per track are zero. The value may be from 0 to 999999 inclusive.

BYTESUSE=
BYTESU=

Specifies the data set(s) selected or excluded have a number of bytes used within the allocated space that is within the value specified. The number of bytes used within the allocated space is equivalent to the difference between the high allocated and the high used RBA for ICF VSAM components and is a calculated value for non-VSAM data sets, based on the block size. If the block size is zero, the number of bytes free within the allocated space are zero. The value may be from 0 to 4294967294 inclusive.

***nnnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnn*M –** Indicates the value should be multiplied by 1,000,000.

CANDVOLC=
CANDV=

***nnn* –** Specifies the data sets or cluster name(s) selected or excluded must be cataloged to a number of candidate volumes that is within the value specified. The value may be from 1 to 200 inclusive. For VSAM, this field reflects the entire sphere (base cluster plus alternate indexes), not an individual component.

Candidate volumes are volumes that were requested when a VSAM cluster or SMS-managed non-VSAM data set was created, but that have not yet been used for data. For non SMS-managed VSAM clusters, candidate volumes are actual volumes on which no space has been allocated yet for the cluster. For SMS-managed data sets (VSAM or non-VSAM) with guaranteed space, candidate volumes are actual volumes on which space has been allocated, but not used. For SMS-managed data sets (VSAM or non-VSAM) without guaranteed space, candidate volumes are not-specific volumes shown as asterisk (*). There may be multiple (*) volumes.

A volume that is a candidate for one component of a cluster but contains used space for another component of that cluster is counted in CATVOLCT and not counted in CANDVOLC. Exception, for non SMS-managed, non-VSAM data sets, volumes that were requested when the data set was created but have not been used for data are counted in CATVOLCT and not counted in CANDVOLC, because there is no indicator in the catalog that the volume is a candidate.

CAPBYTES=

Specifies the data sets selected or excluded have a number of capacity allocated bytes that is within the value specified. The number capacity allocated bytes is equivalent to the number of tracks allocated times the track capacity in bytes. The value may be from 0 to 4294967294 inclusive.

***nnnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnn*M –** Indicates the value should be multiplied by 1,000,000.

CASPLIT=
CASP=

***nnnnnnnn* –** Specifies the ICF VSAM cluster(s) or components selected or excluded have a number of control area splits that is within the value specified. The value may be from 0 to 99999999 inclusive.

CASPLITR=

***nnnnnn* –** Specifies the ICF VSAM cluster(s) or data components selected or excluded have a control area split ration that is within the value specified. The control area split ration is defined as the number of control area splits per 100 control areas of the prime volume data component in an ICF VSAM KSDS. The value may be from 0 to 999999 inclusive.

CATALOG=

CA=

Specifies the data set(s) selected or excluded must have a catalog status indicator that corresponds to the indicator supplied. Valid indicators are:

CAN – Cataloged to candidate volume.

DRF – DASD read failed. Normally the entry would be marked "ONL" (only cataloged), but DASD I/O errors or VTOC open failure prevented the VTOC from being read. Can only occur when DATATYPE=CATVTOC is specified.

ERR – Cataloged to another volume.

NO – Not cataloged.

ONL – Only cataloged.

YES – Cataloged to this volume.

UNK – Cataloged, but unable to process with LOCATE (for example, unmounted CVOL).

CATGROUP=

CATG=

***dsnspec* –** Specifies string(s) from 1 to 44 characters in length. All ICF VSAM clusters that show as being cataloged into an ICF catalog that matches the selection or exclusion criteria (e.e., compare length is the length of the data specified) are selected or excluded.

There is a special form of the CATGROUP= operand. Leading periods "." after CATGROUP= indicate that the group name starts after one ore more index levels. Each period indicates that one index level is to be bypassed.

CATNAME=
CATN=

***dsnspec* –** Specifies the catalog name selection or exclusion. Only standard catalog names are supported. Standard catalog names contain only alphabetic (character A to Z), number (numeric character 0 to 9), or national (characters (#), ($), and (@)), and periods.

The syntax for the CATNAME= operand is as follows:

1. Valid characters (alphabetic, numeric, national) represent themselves.
2. (/) (slash) is a masking character that is used to represent a single valid character of any value.
3. (|) (vertical bar) is a masking character that is used to represent a single valid alphabetic character.
4. (+) (plus) is a masking character that is used to represent a single valid numeric character.
5. (?) (question mark) is a masking character that is used to represent a single valid national character.
6. (*) (single asterisk) represents zero or more valid characters within an index level that are to be skipped.
7. (**) (double asterisk) represents zero or more valid characters and/or index levels that are to be skipped.
8. (.) (period) represents a period in the catalog name, except for the following special cases:
   - "**." (double asterisk, period) at the beginning of what is specified means that a matching catalog name contains the pattern following the "**." after one or more index levels.
   - ".**." (period, double asterisk, period) means that a matching catalog name contains at least one period at the point specified (not necessarily two periods).
   - ".**" (period, double asterisk) at the end of what is specified means that, at the point specified, a matching catalog name contains one or more index levels.
9. Embedded blanks are not supported.
10. The last character specified cannot be a period.
11. "***" is invalid.
12. "**.**" is invalid.

CATTTR=

Specifies the data set(s) selected or excluded must contain a TTR value from the catalog that matches the value provided. For a data set on DASD, this field indicates the location (TTR) of the DSCB within the VTOC. However, if the x'80' bit is on in the first byte, it indicates that the data set has been archived by ABR and is eligible for auto recall. This CATTTR= value is placed in the catalog entry when RECALL=YES is specified on the DUMP TYPE=ARC control statement and serves as a quick path into the Archive Control File for the restore server.

***nnnnnn* –** The value specified is a decimal number.

***X'xxxxxx'* –** The value specified is a hexadecimal number.

CATVOL=

***cccccccc* –** Specifies the data set(s) selected or excluded must have the first cataloged volume serial number that matches the character string specified.

This operand supports full masking. The string may be from 1 to 8 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

CATVOLCT=

CATVOLC=

***nnn* –** Specifies the data set or cluster name(s) selected or excluded must be cataloged to a number of non-candidate volumes that is within the value specified. The number of candidate volumes is provided separately in the field CANDVOLC. The value may be from 1 to 200 inclusive.

For VSAM, this field reflects the entire sphere (base cluster plus alternate indexes), not an individual component.

CATVOLTL=

CATVOLT=

***nnn* –** Specifies the data set or cluster name(s) selected or excluded must be cataloged to a total number of volumes that is within the value specified. This value includes both the number of candidate volumes that is found in the field CANDVOLC and the number of non-candidate volumes that is found in the field CATVOLCT. The value may be from 1 to 200 inclusive.

For VSAM, this field reflects the entire sphere (base cluster plus alternate indexes), not an individual component.

CCA=

***xx* –** Specifies that data sets or clusters must reside on DASD that has a channel connect address that matches the value(s) specified. The value specified is two hexadecimal characters in length.

CICA=

***nnnnn* –** Specifies the ICF VSAM cluster(s) or components selected or excluded have a number of control intervals per control area that is within the value specified. The value may be from 0 to 65535.

CISIZE=

CISI=

***nnnnn* –** Specifies that ICF VSAM cluster(s) or components selected (or excluded) have a control interval size that is within the value specified. The value may be from 0 to 32760 inclusive.

CISPLIT=

CISP=

***nnnnnnnn* –** Specifies the ICF VSAM cluster(s) or components selected or excluded have a number of control interval splits that is within the value specified. The value may be from 0 to 99999999 inclusive.

CISPLITR=

***nnnnnn* –** Specifies the ICF VSAM cluster(s) or data components selected or excluded have a control interval split ratio that is within the value specified. The control interval split ratio is defined as the number of control interval splits per 100 control intervals of the prime volume data component in an ICF VSAM KSDS. The value may be from 0 to 999999 inclusive.

CLUSATTR=

Specifies the ICF VSAM cluster(s) or components selected or excluded have one or more of the following attributes indicated in the `CLUSATTR=` cluster attribute flag in the VSAM data set information cell:

ATL – Automated Tape Library (ATL) catalog.

ATTREXT – Attribute extension data set.

EXTEND – Extended format data set.

FORMAT – Formatted page space.

PAGESPACE – Cluster describes PAGESPACE.

SWAPSPACE – Cluster describes SWAPSPACE.

TIMESTAMP – Timestamps exist in this cell.

VERIFYREQ – Verify required (catalog only).

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

CLUSTER=

CLUST=

***dsnspec* –** Specifies string(s) from 1 to 44 characters in length. All ICF VSAM clusters having a cluster name that matches the selection or exclusion criteria (that is, compare length is 44) are selected or excluded.

There is a special form of the CLUSTER= operand. Leading periods "." after CLUSTER= indicate that the name starts after one or more index levels. Each period indicates that one index level is to be bypassed. The resulting compare must be exact (that is, a value of "..LIST" does not match a cluster with a name of A.B.LIST.D).

CLUSTGROUP=

CLUSTG=

***dsnspec* –** Specifies string(s) from 1 to 44 characters in length. All ICF VSAM clusters having a cluster name that matches the selection or exclusion criteria (that is, compare length is the length of data specified) are selected or excluded.

There is a special form of the CLUSTGROUP= operand. Leading periods "." after CLUSTGROUP= indicate that the group name starts after one or more index levels. Each period indicates that one index level is to be bypassed.

CMPCANDV=

CMPCAND=

***nnn* –** Specifies the VSAM component(s) selected or excluded must be cataloged to a number of candidate volumes that is within the value specified. The value may be from 0 to 200 inclusive.

Candidate volumes are volumes that were requested with a VSAM cluster or SMS-managed, non-VSAM data set was created but have not yet been used for data.

For non SMS-managed VSAM components, candidate volumes are actual volumes on which no space has been allocated yet for the cluster.

For SMS-managed data sets (VSAM or non-VSAM) with guaranteed space, candidate volumes are actual volumes on which space has been allocated but not used.

For SMS-managed data sets (VSAM or non-VSAM) without guaranteed space, candidate volumes are non-specific volumes shown as asterisk (*). There may be multiple asterisk (*) volumes.

CMPVOLCT=

CMPCOLC=

***nnn* –** Specifies VSAM component(s) selected or excluded must be cataloged to a number of non-candidate volumes that is within the value specified. The number of candidate volumes is provided separately in the field CMPCANDV. The value may be from 1 to 200 inclusive.

CMPVOLTL=

CMPVOLT=

***nnn* –** Specifies the VSAM component(s) selected or excluded must be cataloged to a total number of volumes that is within the value specified. This value includes both the number of candidate volumes that is found in the field CMPCANDV and the number of non-candidate volumes that is found in the field CMPVOLCT. The value may be from 1 to 200 inclusive.

COMPTYPE=

COMPT=

Specifies the type of ICF VSAM component that is to be selected or excluded. Valid component types are:

DATA – Data component.

INDEX – Index component.

AIXDATA – Alternate index data component.

AIXINDEX – ALternate index index component.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

COMPUSER=

COMPU=

Specifies the data set(s) or cluster(s) selected or excluded must have a value for the Compressed User Data SIze (taken from either the Type=27 or Type=28 Extended Format Cell in the VVDS) within the value specified. The number may be from 0 to 999999999999999 inclusive.

***nnnnnnnnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnnnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnnnnnnn*M –** Indicates the value should be multiplied by 1,000,000.

CRDATE=

CRDAT=

***datespec* –** Specifies the data set(s) selected or excluded must have a creation date that is within the date supplied. The date is specified as a Julian date that may be in the form "*yyyyddd*" or "*yyddd*". For readability, a period may be inserted between the year and day.

NOTE: 2-digit years less than 70 are assumed to be in the 21st century (for example, 13123 = 2013.123).

CRDAYS=

CRDAY=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of days since cretion that is within the number of days supplied. The number may be from 0 to 32000 inclusive.

CRJOBNAM=

CRJOB=

***cccccccc* –** Specifies the data set(s) selected or excluded must have a creation job name as extracted from the Format_9 DSCB that matches the character string specified.

This operand supports full masking. The string may be from 1 to 8 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

CRSTEPNM=

CRSTEP=

***cccccccc* –** Specifies the data set(s) selected or excluded must have a creation step name as extracted from the Format_9 DSCB that matches the character string specified.

This operand supports full masking. The string may be from 1 to 8 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

CRTIME=

***hhmmss* –** Specifies the data set(s) selected or excluded must have a creation time that matches the value or range of values supplied. Currently, data sets that were defined under z/OS 1.11, prior releases of ICF VSAM, and IAM have a creation time.

CTFLD=

Specifies the DSCB for the data set(s) selected or excluded must reside on a track within the VTOC that matches the value specified.

***cccccchhhhrr* –** Specify the value in decimal specifying all of the necessary initial zeros.

***ccccc.hhhh.rr* –** Specify the value in decimal where the cylinder number is 1 to 5 digits, the head number is 1 to 4 digits, and the record number is 1 or 2 digits where the cylinder number, head number, and record number are separated by periods.

X'*cccccchhhhrr*' – Specify the value in hexadecimal.

CTLSERNO=

***ccccc* –** Specifies the data set(s) or cluster(s) selected or excluded must be connected to the DASD control unit with the serial number that matches the value specified.

This operand supports full masking. The string may be from 1 to 5 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

DATACLAS=

DATAC=

***dataclas* –** Specifies the data set(s) selected or excluded must have an SMS data class that matches the character string specified.

This operand supports full masking. The string may be from 1 to 8 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME= operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DELETES=

DEL=

Specifies the ICF VSAM cluster(s) or components selected or excluded have a number of records deleted that is within the value specified. The value may be from 0 to 4294967294 inclusive.

***nnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnn*M –** Indicates the value should be multiplied by 1,000,000.

DEVCLASS=

DEVC=

Specifies the data set(s) selected or excluded must reside only on the device class specified. FDREPORT recognizes the following device classes:

DISK –

TAPE –

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DEVTYPE=

DEV=

Specifies the data set(s) selected or excluded must reside only on the device type specified. Some valid DASD device types are:

3390 –

3390-A – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-E2 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-F – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-2 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-3 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-9 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-27 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-53 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

3390-54 – Recognized only if `SUMDEVICE=UNIQUE` is in effect.

SYSRES – When executing with DATATYPE=CATALOG, represents data sets cataloged with indirect volume serials.

Some valid tape devices are:

3480 –

3480X –

3490 –

3590-1 –

TAPE –

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DIRBFREE=

DIRBF=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of free (unused) directory blocks that is within the number specified. The number may be from 0 to 32000 inclusive.

DIRBLOCK=
DIRB=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of directory blocks that is within the number specified. The number may be from 0 to 32000 inclusive.

DIRBUSED=
DIRBU=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of used director blocks that is within the number specified. The number may be from 0 to 32000 inclusive.

DSGROUP=
DSG=

***dsnspec* –** Specifies string(s) of 1 to 44 characters in length. All data sets having a name that matches the selection or exclusion criteria (that is, compare length is the length of data specified) are selected or excluded.

There is a special form of the DSGROUP= operand. Leading periods "." after DSGROUP= indicate that the group name starts after one or more index levels. Each period indicates that one index level is to be bypassed.

Multiple data set group values using the same operator may be entered as (*dsnspec*,…,*dsnspec*).

NOTE: DSN= and DSG= operands can be repeated and/or intermixed. The XDSNAME= operand cannot be used on the same command as DSN= or DSG= operands.

DSIND=
DSI=

Specifies the data set(s) selected or excluded must have data set indicators that correspond to the indicator(s) supplied. Valid indicators are:

LASTV – Last volume on which data set resides.

RACF – IBM RACF defined data set.

MULT8 – Block size is multiple of 8.

PASSA – Password required for read or write.

PASSW – Password required only for write.

UPDAT – Data set has been updated.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DSNALCNT=
DSNALC=

***nnnnn* –** Specifies the data set(s) selected or excluded must have been extracted from a system catalog using DATATYPE=CATALOG, CATARCH, or CATVTOC and must contain a number of aliases that satisfies the value and operator specified.

DSNALIAS=
DSNALI=

***dsnspec* –** Specifies the data set(s) selected or excluded must have been extracted from a system catalog using DATATYPE=CATALOG, CATARCH, or CATVTOC and must contain the character string specified as an alias name or an alias name prefix.

DSNAME=

DSN=

***dsnspec* –** Specifies string(s) from 1 to 44 characters in length. All data sets having a name that matches the selection or exclusion criteria (that is, compare length is 44) are selected or excluded.

There is a special form of the DSNAME operand. Leading periods "." after DSN= indicate that the name starts after one or more index levels. Each period indicates that one index level is to be bypassed. The resulting compare must be exact (that is, a value of "..LIST" does not match a data set with a name of "A.B.LIST.D").

It is also possible to cause the DSN= operand to act like the DSG= operand by indication argument truncation with an asterisk (*). The resulting compare would not be an exact compare (that is, a value of "..LIST*" would then match a data set "A.B.LIST.D").

Multiple data set name values using the same operator may be entered as (*dsnspec*,…,*dsnspec*).

NOTE: Relative GDG generations, for example, DSN=ABC.GDG(-1) are **not** supported.

DSNEIFLG=

DSNEI=

Specifies the extended data set criteria associated with the ICF VSAM component. This information is extracted from the VVR. The values are:

GIGABYTE – The data set / component has extended addressability and may exceed 4G. GIGABYTE may be abbreviated as "G".

RELCI – The ICF VSAM component uses relative control interval (CI) addressing. RELCI may be abbreviates as "R".

ZFS – The data set contains a zSeries File System. ZFS may be abbreviated as "Z"

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DSNFLAGS=

Specifies the data set or component selected or excluded must have a data set attribute value that matches the value specified. The only valid attribute is:

RLS – Data set or component is defined as supporting record level sharing.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DSORG=

DSO=

Specifies the data set(s) selected or excluded must have a data set organization that corresponds to the data set organization supplied. Valid data set organizations are:

AM – All VSAM.

DA – Direct Access.

EF – ICF VSAM.

HFS – Hierarchical File Structure.

IS – Indexed Sequential.

PS – Physical Sequential.

PSE – Physical Sequential Extended.

PO – Partitioned.

POE – Partitioned Extended.

U – Unmovable. May be appended to all other data set organizations or used independently.

UM – Alternate form of Unmovable.

UN – Undefined.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

DSSN=

Specifies the data set(s) selected or excluded must have the value specified in the volume serial number location in the Format_1 DSCB. This capability is provided because many installations use the field for other than the current volume serial number.

This operand supports full masking. The string may be from 1 to 6 characters in length, including mask characters.The characteristics of the mask are defined under the VOLUME= operand.

cccccc **–** The value specified is in character format.

C*'cccccc'* **–** The value specified is in character format.

X*'xxxxxxxxxxxx'* **–** The value specified is in hexadecimal format.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ENCRBDAY=

nnnnn **–** Specifies the volume(s) selected or excluded must have a number of days since backed up by FDRCRYPT that is within the number of days supplied. The number may be from 0 to 32000 inclusive.

ENCRBDSN=

dsn **–** Specifies backup data set name selection or exclusion, subject to the rule that only standard data set names are supported. Standard data set names contain only alphabetic (character A to Z), number (numeric character 0 to 9), or national character ((#), ($), (@)), and periods.

The syntax for the ENCRBDSN= operand is as follows:

1. Valid characters (alphabetic, numeric, national) represent themselves.
2. slash (/) is a masking character that is used to represent a single valid character of any value.
3. vertical bar (|) is a masking character that is used to represent a single valid alphabetic character.
4. plus (+) is a masking character that is used to represent a single valid numeric character.
5. question mark (?) is a masking character that is used to represent a single valid national character.
6. single asterisk (*) represents zero or more valid characters within an index level that are to be skipped.
7. double asterisk (**) represents zero or more valid characters and/or index levels that are to be skipped.
8. period (.) represents a period in the catalog name, except for the following special cases:
   - "**." (double asterisk, period) at the beginning of what is specified means that a matching catalog name contains the pattern following the "**." after one or more index levels.
   - ".**." (period, double asterisk, period) means that a matching catalog name contains at least one period at the point specified (not necessarily two periods).
   - ".**" (period, double asterisk) at the end of what is specified means that, at the point specified, a matching catalog name contains one or more index levels.
9. Embedded blanks are not supported.
10. The last character specified cannot be a period.
11. "***" is invalid.
12. "**.**" is invalid.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ENCRBVOL=

vvvvvv **–** Specifies the volume(s) selected or excluded must have the first backup volume that matches the value(s) specified. This operand currently supports full masking. The string may be from 1 to 6 characters in length, including mask characters. The characters of the mask are defined under the VOLUME operand.

ENCRDATE=

***yyyyddd* –** Specifies the volume(s) selected or excluded must have been a backup date within the date supplied. The date is specified as a Julian date (year plus day number) that may be in the form "*yyyyddd*" or "*yyddd*". For readability, a period may be inserted between the year and day.

ENCRFLGS=

Specifies the volume(s) selected or excluded must have record indicators that match one or more of the values specified. Valid values are:

DELETE – Record marked for deletion.

FDRCAMS – File was encrypted by FDRCAMS.

GENERATEDKEY – Key was generated by FDRCRYPT.

MASTERKEYAPPLIED – A master key was used during the encryption.

PUBLICKEYAPPLIED – A public key was used during the encryption.

TAPEFILE – The backup file resides on a tape device.

UPSTREAM – The backup file was created by UPSTREAM.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ENCYFLSQ=

nnnnn – Specifies the volume(s) selected or excluded must have a backup file sequence number that matches the value provided. This field only applies to tape data sets; the tile sequence number of DASD data sets is always shown as zero. The number may be from 0 to 65535 inclusive.

ENCRKEY=

X'x...x' – Specifies the volume(s) selected or excluded must have an encryption key that matches the value provided. The key is 32 bytes long and must be entered as pairs of valid hexadecimal characters, from 2 character to 64 characters in length.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ENCRTIME=

***hhmmss* –** Specifies the volume(s) selected or excluded must have a backup time stamp that matches the value or range of values supplied.

ENCRTYPE=

Specifies the volume(s) selected or excluded must have an encryption type that matches the encryption type(s) specified. Valid encryption types are:

AES128 – Encryption using the current US-government supported encryption technique (Advanced Encryption Standard (AES) with an 128 bit (16 byte) key).

AES192 – Encryption using the Advanced Encryption Standard (AES) with a 192 bit (24 byte) key.

AES256 – Encryption using the Advanced Encryption Standard (AES) with a 256 bit (32 byte) key.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

ENCRVOL=

***vvvvvv* –** Specifies the DASD volume serial number that was encrypted with be tested. If the volume serial number test is successful, the record is eligible for selection or exclusion. This operand supports full masking. The string may be from 1 to 6 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

EXCPEXIT=

EXCPE=

***cccccccc* –** Specifies the ICF VSAM cluster(s) or components selected or excluded have an exception exit name that matches the character string specified. This operand supports full masking. The string may be from 1 to 8 characters in length, including mask characters. The characteristics of the mask are defined under the VOLUME operand.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

EXCPS=

EXC=

Specifies the ICF VSAM cluster(s) or components selected or excluded have a number of DASD excps recorded that is within the value specified. The value may be from 0 to 4294967294 inclusive.

***nnnnnnnnnn* –** Specifies the exact value to be compared.

***nnnnnnn*K –** Indicates the value should be multiplied by 1,000.

***nnnn*M –** Indicates the value should be multiplied by 1,000,000.

EXPDATE=

EXPDAT=

***datespec* –** Specifies the data set(s) selected or excluded must have an expiration date that is within the date supplied. The date is specifies as a Julian date (year plus day number)) that may be in the form "*yyyyddd*" or "*yyddd*". For readability, a period may be inserted between the year and day.

EXPDAYS=

EXPDAY=

***nnnnn* –** Specifies the data set(s) selected or excluded must have a number of days until expiration that is within the number of days supplied. The number may be from 0 to 32000, inclusive. If a data set's expiration date is earlier than today, then the value of EXPDAYS is zero. If a data set's expiration date is 1999.000 or 1999.*xxx* ("*xxx*" is 365 or greater), then the value of EXPDAYS is 65535.

EXTENTS=

EXT=

***ccccchhhh* –** Specifies the data set(s) selected or excluded must have one or more extents that contain the "*ccccchhhh*" specified. The value specified is checked against the "*ccccchhhh*" values represented by the extent descriptor(s). If the extent descriptor describes a "*ccccchhhh*" that matches the value/operator specified, the data set is accepted for processing.

EXTYPE=

EXTY=

Specifies the data set(s) selected or excluded must have at least one extent that matches the type specified. Valid extent types are:

CYLBN – Extent on cylinder boundary.

INDEX – Index extent.

PRIME – Prime extent.

OFLOW – Overflow extent.

SUL – Standard User Label extent.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

FILESEQ=

nnnnn **–** Specifies the data set(s) selected or excluded must have a file sequence number that matches the value provided. This field only applies to tape data sets; the file sequence number of DASD data sets is always shown as zero. The number may be from 0 to 65535 inclusive.

NOTE: If ABR archives a multi-volume DASD data set for recall, ABR sets the file sequence number to 32768 or higher and uses it as a pointer into the Archive Control File. In this case, FDREPORT reports the file sequence number in the CATTTR field.

FLAG1=

Specifies the data set(s) selected or excluded must have an extended format data set flag byte value that matches the value provided. Valid indicators are:

CHKPTDSN – Check-pointed data set.

COMPRESS – Data set is compressible.

EATTR – Extended attribute setting.

EATTRNO – EATTR=NO.

EATTROPT – EATTR=OPT.

LARGE – Data set may exceed 65535 tracks on volume.

RECALL – Data set has been recalled (by DFSMShsm).

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

FREEEXT=

nnn **–** Specifies the data set(s) selected or excluded must have a number of free or unused extents on a DASD volume (including the SUL extent, if present) that is within the value specified. The number may be from 0 to 127 inclusive.

GDGENTRY=

GDGE=

nnn **–** Specifies the data set(s) selected or excluded must be part of a generation data group having a number of active entries that matches the value provided. The number may be from 0 to 255 inclusive.

NOTE: In order for a GDG base entry to be made available to the selection routines, ALLFILTER must be enabled.

GDGFLAGS=

GDGF=

Specifies the data set(s) selected or excluded must be part of a generation data group having the indicators that match those provided. Valid indicators are:

EMPTY – All data sets within the GDG are to be uncataloged with the limit is reached.

NOEMPTY – Only the oldest data set of the GDG is to be uncataloged when the limit is reached.

NOSCRATCH – The data set is not to be removed from the VTOC of the volume on which it resides when it is uncataloged.

SCRATCH – The data set is to be removed from the VTOC of the volume on which it resides.

NOTE: Operators value for this operand are equal "=" and not-equal "¬=".

MEMNAMES

For PDSs, matches the data set only if it contains "MEMNAMES=" or does not contain "MEMNAMES¬=" the members specified. The member names can be specified as masks, as described under the VOL= operand in this section.

STORGRP

Selects “STORGRP=” or excludes “STORGRP¬=” all online volumes defined as belonging to the specified SMS storage group. A storage group prefix can be specified by following the prefix with an asterisk, for example, STORGRP=DB*. Multiple storage groups and/or prefixes may be specified by enclosing them in parentheses, separated by commas. Valid only on systems with SMS active.

UNIT

Selects online volumes based on their device address, up to four hexadecimal digits. UNIT= can also select offline DASD volumes if the SELECTOFFLIN option is enabled.

All comparison operands are valid (for example, UNIT>=140).

UNITNAME

Selects “UNITNAME=” or excludes “UNITNAME¬=” all online volumes that are mounted on a DASD unit that is included in the specified generic (for example, UNITNAME=3390) or esoteric name (for example, UNITNAME=SYSDA). This is limited to names that are valid for UNIT= in JCL at your installation. Multiple units may be specified by enclosing them in parentheses, separated by commas.

XDSNAME

Selects or excludes data sets based on a mask tested against the data set name or VSAM cluster name. XDSNAME= and XDSNAME¬= are supported. This mask may contain:

- Any valid (alphanumeric or national) character representing itself.
- / (slash) or % (percent) represents a single valid character.
- | (vertical bar) represents a single valid alphabetic character.
- + (plus) represents a single valid numeric character.
- ? (question) represents a single valid national character (#, $, or @ in the US).
- * (single asterisk) represents zero or more valid characters within one index level.
- ** (double asterisk) represents zero or more valid characters contained in one or more index levels (including their periods).
- . (period) represents a period (index level) in the data set name except for the special cases below.
- **. (double asterisk, period) at the beginning of the string represents one or more index levels at the beginning of the data set name.
- .** (period, double asterisk) at the end of the string represents one or more index levels at the end of the data set name.
- .**. (period, double asterisk, period) in the middle of the string represents either a SINGLE period or one or more index levels at that point.

Examples:

`XDSN=A.**`	Selects any data set with a first index level of exactly “A.”.
`XDSN=A**`	Selects any data set with a first index level that begins with “A”.
`XDSN=A*.**`	Is equivalent to XDSN=A**.
`XDSN=A*.*.*.**`	Selects any data set with a first index level beginning with “A” that has at least four index levels.
`XDSN=A*.*.*`	Selects any data set with a first index level beginning with “A” that has exactly three index levels.
`XDSN=**.*.CNTL`	Selects any data set of at least two index levels ending in “.CNTL”.
`XDSN=///.**`	Selects any data set starting with a first index level exactly three characters long.

Relative GDG generations, for example, XDSNAME=*.MASTER(0) is **not** supported.

NOTE: The XDSNAME operand can be repeated. The XDSNAME operand cannot be used on the same command as DSN or DSG operands.

VOLUME=
VOL=

Specifies one or more DASD volume serial numbers. Volume serials may be specified by a mask. This mask may contain:

- Any valid (alphanumeric or national) character representing itself.
- / (slash) or % (percent) represents a single valid character.
- | (vertical bar) represents a single valid alphabetic character.
- + (plus) represents a single valid numeric character.
- ? (question) represents a single valid national character (#, $, or @ in the US).
- * (single asterisk) represents zero or more valid characters.

Examples:

```
VOL=X**Z
VOL=//PR*   VOL=TSO+++
```

NOTE: This masking syntax is also supported for the following data field operands: BKSUFFIX, BKVOL, DATACLAS, DSSN, EXCPEXIT, LMJOB, MGMTCLAS, MEMNAMES, STORCLAS, STORGRP, and SYSCODE.

XSELECT and XEXCLUDE support both VOL= and VOL¬=. Multiple volume serials and/or masks may be specified by enclosing them in parentheses, separated by commas. For example, VOL=(SYS123,TSO+++)

The VOL= operand may be repeated on a single statement; all of the specified volumes are selected (or excluded). Prior releases of FDREPORT permitted you to have STORGRP, UNIT, UNITNAME, VOLUME, and VOLGROUP specified on the same command and, if the operator was equal (=, .EQ.) each time, the operands were OR'd. This new code prevents this. Since STORGRP, UNIT, and UNITNAME have their own imprint on the selection process, specification of them on the same command results in them being AND'd together to make a complete argument. The only exceptions currently permitted on the XSELECT and XEXCLUDE commands are: "If a given field name is specified more than once on the same command, and the operator is equal (=, .EQ.) each time, then the occurrences of that field name are OR'd. If any combination of the field names VLVOLSER, VOLUME, and VOLGROUP is specified on the same command, and the operator is equal (=, .EQ.) each time, then these operands are OR'd. If none of these operands is specified, then the volumes on which the data sets reside are not criteria for selection.

FDREPORT dynamically allocates any online DASD volume identified by VOL, UNIT, UNITNAME, and/or STORGRP if a DISKxxxx DD Statements are not specified for that volume. The ENABLE=ONLINE operand of the PRINT statement is not required.

54.30 FDREPORT EXECUTION OPTIONS

These are sub-operands of the ENABLE= and DISABLE= operands on the PRINT and DEFAULT statements. They control various execution options of FDREPORT and invoke special functions. Because of space limitations, some options that are for special purposes and are of limited use are not documented here. To see the complete list of options, execute FDREPORT with the control statement:

```
HELP      COMMAND(PRINT)
```

The defaults shown for each option are the defaults distributed with FDREPORT. However, all of these defaults can be permanently changed as described under the DEFAULT statement in Section 54.14 "FDREPORT DEFAULT Statement".

ABENDIFSET

Honor the ABRCC=ABEND option set in the FDR Option Table, FDROPT. Enabling this option when ABRCC=ABEND is set causes FDREPORT to terminate with an U0888 ABEND without a dump whenever a non-zero return code would normally be encountered at termination.

Default: FDREPORT converts the ABRCC=ABEND into ABRCC=12 and terminates with a return code of 12 when error conditions are encountered.

ACCEPTSTORGRP

Accept the value specified in STORGRP without checking the value against the SMS Storage Group Table.

Default: Enabled.

ADDGDGBASE

Summarize all generations under the GDGBASE name when running with the RECORDSUMMARY=CLUSTER option.

Default: GDG generations are not summarized.

AIXCLUSTER

For VSAM Alternate Indexes (AIXs) the name of the AIX cluster is displayed as the cluster name instead of the base cluster name.

Default: Disabled.

ALLCATVOL

For a multi-volume data set, the field CATVOL (first volser in the catalog), if selected, is displayed with all records for all volumes of the data set. If disabled, CATVOL is not displayed with the record for volume sequence 1 of the data set.

Default: Disabled.

ALLFILTER

When scanning the catalog (DATATYPE=CATALOG, CATVTOC, or CATARCH), select data sets even if they are cataloged to tape or marked for ABR auto-recall. If disabled, only data sets cataloged to DASD without auto-recall are selected.

Default: Disabled.

ALLVOLUMES

Select all volumes in the storage group if STORGRP= is specified, even if some of the volumes are offline. If disabled, only online volumes in the storage group are selected. To be effective, ENABLE=ALLVOLUMES must be specified on a DEFAULT statement that precedes the XSELECT STORGRP= statement.

Default: Disabled.

NOTE: This options is effective only for DATATYPE=ARCHIVE, CATALOG, CATARCH, EXTRACT, SCRATCH, VOLDATA, and VTOC. This option does not cause offline volumes to be selected based on STORGRP= for DATATYPE=CATVTOC or TVTOC.

ARCHENQUEUE

When reporting on the Archive Control File (ACF), a special ABR ENQ is issued to prevent ABR from updating the ACF during the report.

Default: Disabled.

AUTOEAVDISK

Automatically determine if EAV support should be enabled. If 3390 devices are installed on the system, each address is tested to see if EAV support is required. If any 3390 EAV devices are found, EAVDISK is enabled.

NOTE: Disabling AUTOEAVDISK has no effect unless it is performed with CHANGE=PERM and then only on the next invocation of FDREPORT.

Default: Enabled.

AUTOFATDISK

Automatically determine if support for IBM 3390-9 DASD and other DASD with more than 65,535 tracks but less than 150,256 tracks (10,017 cylinders) should be enabled; if any DASD of this size is online, the FATDISK option is automatically enabled.

NOTE: Disabling AUTOFATDISK has no effect unless it is performed with CHANGE=PERM and then only on the next invocation of FDREPORT.

Default: Enabled.

AUTOLARGEDISK

Automatically determine if support for 3390-27 or 3390-54 DASD devices should be enabled. If 3390 devices are installed on the system, each address is tested to see if support for 3390-27 or 3390-54 devices is required. If any 3390-27 or 3390-54 devices are found, LARGEDISK is enabled.

NOTE: Disabling AUTOLARGEDISK has no effect unless it is performed with CHANGE=PERM and then only on the next invocation of FDREPORT.

Default: Disabled.

AUTOMAXONLIN

Automatically determine the number of DASD volumes online to this processor and set the MAXONLINE= operand to default to that value. This enables you to report on any number of DASD volumes up to your entire DASD installation.

Default: Enabled.

AUTONEWS

Display the NEWS related to the current version of FDREPORT when a command or operand that has changed from the prior release is specified with what was valid syntax.

Default: Disabled.

AUTOSIMULSP

Automatically simulate the LSPACE SVC when processing online volumes and the VTOC is read. This service is used when processing offline volumes to gather the data normally returned by SVC 78 (LSPACE).

Default: Enabled.

AUTOSTACK

If the fields to be printed exceed the page width, fields with similar attributes are printed stacked one above the other.

Default: Disabled.

AVERAGING

If summarization is requested, print the average value of all numeric summarized fields.

Default: Disabled.

BCDSMSCLASS

Extract SMS class data from the BCDS backup record.

Default: Enabled.

NOTE: This feature can cause high overhead when accessing the BCDS.

CANDSPACE

Include candidate space in calculations of space utilization.

Default: Disabled.

CHAREXPDATES

If enabled, expiration dates of 1999.365 through 1999.999 are displayed as "NEVER". An expiration date of 1999.000 (99000) is displayed as "CATCTL".

Default: Disabled.

COMBINEDRANK

When enabled, causes the RANK service to check for multiple occurrences of the same data set or cluster and, if present, assign the same RANK value to all.

Default: Disabled.

COMPDSORT

When enabled, permits direct sorting of files created with RPTYPE=COMPDATA.

Default: Disabled.

COMPSELECT

If data set name selection does not select an ICF VSAM cluster based on the cluster name, the component names are also checked; if any match the cluster is selected.

Default: Enabled.

CONTROLBREAK

Default a control break on volume serial, if there is no BREAK or SORT command, or there is a SORT command with no BREAK operand, and SORT=YES or SORT=NO is in effect. If CONTROLBREAK is disabled, then control breaks can only be set with the BREAK or SORT commands.

Default: Enabled.

COUNTERVALID

Counter fields are valid in a punch mask.

Default: Enabled.

DAFREESPACE

Calculate free space in Direct Access (DA) data sets.

Default: Disabled.

DATELOCATE

Catalog LOCATEs are issued to get creation/expiration dates for ICF VSAM clusters.

Default: Disabled.

DATESTAMP

Report heading is to contain a date.

Default: Enabled, except disabled under TSO.

DEBUG

Debugging features of FDREPORT are to be enabled.

Default: Disabled.

DECIMALBYTES

Format the byte related fields as *nnnnnn.dddk* where "*k*" is the qualifier that describes the field formatting. See "BYTEFORMAT=" in Section 54.21 for the values of "*k*".

Default: Disabled.

DECIMALSUMBYT

Format the byte related summary fields as *nnnnnn.dddk* where "*k*" is the qualifier that describes the field formatting. See "SUMBYTEFORMAT=" in Section 54.21 for the values of *k*.

Default: Disabled.

DETAIL

When AVERAGING is enabled, display the detail information on averaged fields.

Default: Enabled.

DIAGNOSEVVDS

When executing any FDREPORT function that accesses DASD VTOCs, for volumes that have a VVDS, FDREPORT checks the VVDS for orphan DSCBs (an entry in the VTOC with no matching VVR or NVR in the VVDS. Other VVDS errors may be detected regardless of this option.

Default: Disabled.

DIRBLOCKS

Causes FDREPORT to read the directory of any selected PDS, even if directory-related fields have not been requested.

Default: Disabled, but assumed if directory fields are requested.

DIRDEBUG

Requests that errors while reading directory blocks are documented with FDR648 messages accompanied by mini-dumps created by the EXCP server.

Default: Disabled.

DIREXTRACT

Causes FDREPORT to read the directory of any selected PDS and create multiple records for the data set, one for each member selected.

Default: Disabled, but assumed if member names are requested.

DISPLAY

Specification of ENABLE=DISPLAY on a DEFAULT statement causes it to display all of the FDREPORT operands that are stored in the FDREPORT option table and their current default values.

Default: Disabled. See "CHANGE=" in Section 54.14 for information on permanently changing the defaults.

DISPLSPACE

Display the values resulting from the execution of a LSPACE command or the equivalent.

Default: Disabled.

DSCBDISPLAY

Displays the DSCBs read from VTOCs for all selected data sets.

Default: Disabled.

DUMPALIAS

Format and print the alias table created from the master catalog to SYSPRINT. This operand is only honored when and if the DATATYPE is CATALOG, CATARCH, or CATVTOC.

Default: Disabled.

DUMPDATES

Format and print all dates input to FDREPORT via control statements. This is a diagnostic tool for use by INNOVATION Technical Support.

Default: Disabled.

DUPBYPASS

Bypass field names that are specified more than once with the BREAK, REPORT, or SORT commands. The duplicate condition is documented with a FDR559 message without signifying an error condition and the command detected error return code is not set.

Default: Enabled.

DUPDSNCHECK

During PUNCH processing, bypasses duplicate data set names, generating only one PUNCH output for each name; for multi-volume data sets and ICF VSAM clusters, ensures that only one output is generated per data set. It is effective only if the data is sorted by data set name.

Default: Enabled.

EAVDISK

The 3390 EAV DASD is to be supported. Various field formats are expanded to support 3390 EAV DASD. These include the extend descriptors and counts of byte, tracks, DSCBs, and data set organization. The new field formats are automatically used if EAVDISK is enabled, causing the format of generated reports to change.

Default: Disabled, but may be automatically enabled if AUTOEAVDISK is enabled.

ELEVENBYTES

Format byte related fields as eleven bytes using *n*…*nk*, where "*k*" is the qualifier that describes the field formatting. See "BYTEFORMAT=" in Section 54.21 for the values of "*k*".

Default: Disabled.

EXTENDEDSIZE

Format size related values as eight bytes.

Default: Disabled.

ESTAE

Prevent termination error messages with an ESTAE recovery routine.

Default: Enabled.

EXTRACTLOCATE

When processing an extract file (DATATPE=EXTRACT) that includes the CATALOG field, a LOCATE is done to determine the current catalog status of each data set. If disabled, the catalog status at the time of the extract is reported.

Default: Disabled.

FAMSFREESP

Issue a call to FAMS to facilitate the calculation of free space within POE and HFS data sets.

Default: Disabled.

FASTPATH

Uses a low-overhead technique for reading DASD volumes. FASTPATH does not dynamically allocate DASD volumes, nor does it OPEN each one. When processing a number of DASD volumes, this significantly reduces the time required to read the VTOC and VVDS on each volume. FASTPATH must be enabled in order to report on offline DASD volumes. The FASTPATH technique for gaining control of DASD volumes has been refined and now is always used for DATATYPE=VTOC and DATATYPE=VOLDATA instead of z/OS dynamic allocation. ENABLE=FASTPATH or DISABLE=FASTPATH has no effect on DATATYPE=VTOC and DATATYPE=VOLDATA. For DATATYPE=CATVTOC, the default has been changed to ENABLE=FASTPATH. If you disable FASTPATH when running with DATATYPE=CATVTOC, it is honored.

FATDISK

Required for proper reporting when processing 3390-9 DASD or any DASD with more than 65,535 tracks but less than 150,256 tracks (10,017 cylinders). This option changes the size of some of the fields to accommodate the larger DASD.

Default: Disabled, but may be automatically enabled by the AUTOFATDISK option described above. See "LARGEDISK" in Section 54.30 for support of DASD larger than a 3390-9.

FINALTOTALS

Summaries contain a final total display if more than one control break is taken.

Default: Enabled.

FIVEBYTEBKFS

Request that the field BKFILENO is to be displayed as a five byte field. This field has previously been limited to 4,095 when stored in the Archive Control File. It has been expanded to 65,634, requiring the additional display byte.

Default: The extra byte is displayed in the blank byte between BKFILENO and the preceding field.

FLAGDIAGNOSE

Requests that any messages generated as the result of FDREPORT's DIAGNOSEVVDS operand cause a failing return code to be generated and, if any standard FDREPORT messages are issued, they are issued as error messages.

Default: Disabled.

FORMAT4DSCB

Request that the VTOC itself be identified by the name "`FORMAT4.DSCB`" in reports generated from the VTOC, rather than the default of "`****VTOC`".

Default: Disabled.

FOURBYTEXTENT

Displays the NOEXTENT field (total extents in a data set) as four digits instead of three digits. Only Extended Format Striped data sets can exceed 999 extents.

Default: Disabled.

GDGBASEONLY

The catalog scan is to return only the base segment of a Generation Data Group (GDG).

Default: Disabled.

GDGONLY

When scanning the catalog (DATATYPE=CATALOG, CATVTOC, or CATARCH), only generations of a Generation Data Group (GDG) are to be selected.

Default: Disabled.

HEADINGS

Field column heading lines are to be included in the report.

Default: Enabled.

HEXBYTES

Kilobyte and megabyte calculations are to be based on division by 1,024 (hex) rather than 1,000 (decimal).

Default: Disabled.

HFSEXCLUDE

Do not use FAMS to determine the amount of free space in HFS or zFS data sets.

Default: Disabled.

IAM

FDREPORT attempts to identify IAM files. IAM is a separately priced product from INNOVATION DATA PROCESSING.

Default: IAM is enabled if any IAM fields are requested (IAMINFO, IAMUSE, %OVER, OVERFLOW, OVERUSED), or if DSORG is specified on a XSELECT or XEXCLUDE command; and disabled otherwise.

NOTE: If DSORG is requested as a report field, but not as a selection field, and no IAM fields are requested, you must specify ENABLE=IAM if you want IAM data sets to be identified in the DSORG. Otherwise, IAM data sets show a DSORG of DA.

ICFERRPRT

Print error messages from the ICF VSAM identification processor.

Default: Disabled.

INDEX

Extract an index level from the name of every data set for sorting purposes and other uses. The index level to be extracted (1, 2, and so on) is controlled by the INDEXNUM operand of the PRINT statement. The extracted index is available as the INDEX field name.

Default: Enabled.

INCLUDEDETAIL

Include data set detail information when creating records from the alias table produced by FDR$CATP, the catalog driver. See "REPORTALIASTB" in Section 54.30 for additional information.

Default: Disabled.

INDEXDISPLAY

FDREPORT currently indexes the VVDS to provide rapid access to the entries. INDEXDISPLAY causes the index to be displayed. This is a diagnostic tool that is reserved for use by INNOVATION Technical Support.

Default: Disabled.

INDEXPROCESS

Process the index component of an ICF VSAM cluster when performing selection based on last referenced date.

Default: Disabled.

INDEXVALID

Consider the last referenced date of the index component of an ICF VSAM cluster to be valid.

Default: The last referenced date of ICF VSAM clusters is set to zero.

INFOMSG

Failure to process or select any data sets from a specified volume results in an informative message.

Default: Enabled.

LARGEDISK

Required for proper reporting when processing 3390-27 DASD or any DASD with more than 10,017 cylinders (up to 32,760 cylinders). This option changes the size of some of the fields to accommodate the larger DASD.

Default: Disabled.

LIMITALIASTB

Requests that the effect of the DUMPALIAS support be limited to the aliases required for this execution.

Default: Enabled.

LSPACERECOVER

Requests that failing LSPACE requests be driven through the LSPACE simulator while masking the failure.

Default: Disabled.

MAXAVAILABLE

FDREPORT gathers all information about selected data sets from all available sources. If disabled, only the sources required to provide the field names referenced in FDREPORT statements are read. For example, the VVDS is not read for cluster information unless you request a field that comes from the VVDS. MAXAVAILABLE is useful if you are creating an extract file for later processing.

Default: Disabled.

MEMBEREXTRACT

FDREPORT extracts member names from the directories of PDS and PDSE libraries. Multiple records are created for these data sets, one record per member.

Default: Disabled.

MODELDSCB

Use the actual name of the ABR Model DSCB in any report generated from a VTOC, instead of the "***ABR" name.

Default: Disabled.

MODOUTPUT

When RPTYPE=DATA or COMPDATA is specified, open the output extract file (SYSUT2) with DISP=MOD (extend) in order to add data to the file. If disabled and DISP=MOD is not specified on the SYSUT2 DD Statement, every PRINT with RPTYPE=DATA or COMPDATA overwrites the extract file so that only the latest output is available.

Default: Disabled.

MULTIRECREAD

Use chained multi-record read CCWs to read the VTOC and VVDS into storage.

Default: Enabled.

NEWSUMFORMAT

Use the summary format from the current release of FDREPORT. If NEWSUMFORMAT is disabled, summaries are in the format used in releases of FDREPORT prior to V5.1/30.

Default: Enabled.

NOGENERICAN

Do not include generic (asterisk defined) candidate volumes in the CANDVOLC count of candidate volumes.

Default: All candidate volumes are included in the CANDVOLC count.

NOTABRVOLMSG

Issue the message documenting that a volume is not initialized for ABR processing if ABR data is required for selection or exclusion.

Default: Disabled.

NOTREADYUCB

Set a failing return code if an online UCB is marked as not ready.

Default: Disabled.

OFFLINE

All offline DASD volumes with at least one online path are to be processed by DATATYPE=VTOC. FASTPATH must also be enabled. Also, see "SELECTOFFLINE" in Section 54.30.

Default: Disabled.

OFFLINERRMSG

Print error messages against offline devices.

Default: Disabled.

ONELINESUM

Summary processing generates only one line/record per summary value, if all the data fits on one line.

Default: Disabled.

ONLINE

All online DASD volumes are to be processed.

Default: Disabled. If disabled, volumes specified by DISKxxxx DD Statements, VOL, VOLG, and STORGRP operands, and volumes selected from the catalog, are processed.

OWNERCLUSTER

Obtain creation date, expiration date, excpexit, ownerid, volvrba, and security verification module for ICF components from the catalog by cluster name, rather than component name.

Default: Disabled.

PAGENUMBER

Report headings are to contain a page number.

Default: Enabled.

POEUSEPAGE

Calculate free and used space for POE data sets using pages rather than tracks. This option only takes effect if FAMSFREESP or DIRBLOCKS is enabled.

Default: Disabled.

PRINTALIAS

Format alias messages when alias entries are found during the catalog scan. These messages are printed if PRINTSTATUS is also enabled.

Default: Disabled.

PRINTALL

Format messages for each catalog entry processed by the catalog scan. These messages are printed if PRINTSTATUS is also enabled.

Default: Disabled.

PRINTCATSTAT

Format all FDR435 messages dealing with problems extracting information from ICF catalogs. These messages are printed if PRINTSTATUS is also enabled.

Default: FDR435 messages with reason codes of 2, 5, and 8 are not formatted.

PRINTSELECT

Format messages for each catalog entry selected by the catalog scan. These messages are printed if PRINTSTATUS is also enabled.

Default: Disabled.

PRINTSTATUS

Print the messages formatted by the catalog scan service.

Default: Enabled.

PRINTZERODATE

If enabled, date fields that are zero are displayed, otherwise zero dates display as blanks.

Default: Disabled.

PUNCHDEFINE

Punch IDCAMS DEFINE ALIAS control statements for all active alias entries currently in the catalog to the DDname described by the PCHDDNAME operand.

Default: Disabled.

PUNCHDIAGNOS

Punch the IDCAMS DELETE statements that are created from VVDS errors encountered during normal processing or the result of running with DIAGNOSEVVDS enabled. Note that the DDname specified by the DIAGPCHDDNAME operand is used to output the resulting IDCAMS DELETE statements.

Default: Disabled; the results of VVDS errors or DIAGNOSEVVDS are only printed.

PUNCHMASK

Process the punch mask during output termination if no records match the selection criteria resulting in no data input to the SELPCH server.

Default: Disabled.

PUNCHSEPCHAR

Separate the elements of dates formatted for punch display (RPTYPE=SELPCH) with the character described by the PCHSEPCHAR operand.

Default: Disabled.

RECHECKRESERV

Recheck the unit's reserve status just prior to reserving the device.

Default: Disabled.

REPORTALIASTB

Create report records from the alias table produced by FDR$CATP, the FDREPORT catalog driver. These records contain limited data and are only created when executing with DATATYPE=CATALOG. The field names available are: ALILEVEL, ALISTATS, CATNAME, SELALIAS, and SOURCE.

Default: Enabled.

RESERVE

VTOCs are protected from change by a RESERVE while being read.

Default: Disabled.

RESETDEVTYPE

Reset the device type, if required, when executing with DATATYPE=EXTRACT.

Default: Disabled.

RESETEXCLUDE

Reset exclusion criteria after executing a PRINT command.

Default: Disabled.

RESETSELECT

Reset selection criteria after executing each PRINT command.

Default: Disabled.

RETAINRANK

Normally, the value for RANK and VLRANK is reset each time a record is processed by the control break service. This option allows the rank value to be retained when the data is retrieved from an extract file.

Default: Disabled.

RPMSUFFIX

Process the suffix, if present, before resetting the punch mask.

Default: Disabled.

RPTDUPDSNCHK

During report generation, bypasses duplicate data set names, generating only one report line for each name. It is effective only if the data is sorted by data set name.

Default: Disabled.

SELECTEDTAPES

Specifies that only backup files that match the selection or exclusion criteria are to be carried in the report record.

Default: Disabled.

SELECTOFFLINE

Enables offline DASD devices to be selected by the UNIT= operand of the XSELECT statement for DATATYPE=VTOC. FASTPATH must also be enabled. Also, see "OFFLINE" in Section 54.30.

Default: Disabled.

SELTERR

Set an error code if no data sets are selected (for DATATYPE=VOLDATA, if no volumes are selected).

Default: Enabled unless overridden in the FDR Global Options Table.

SETREGIONSIZE

Specifies that during startup, FDREPORT should ensure that the region value for the address space in use should be at least as large as the value specified in REGIONSIZE. If the region value is smaller, it is saved, replaced by the value in REGIONSIZE, and restored to its original value during termination.

Default: Disabled.

SETVTOCLIMITS

If enabled, VTOCs are only read up to their high-water mark; if disabled, the entire VTOC is read (this can be used if you suspect that the high-water mark in some VTOCs is inaccurate).

Default: Enabled.

SHROPTMODIFY

Specified that the catalog driver FDR$CATP is to use a reduced level of enqueue protection when reading catalog records using VSAM. This permits greater speed while at the same time introducing an acceptable level of inaccuracy.

Default: Enabled. Disabling SHROPTMODIFY results in job elongation times.

SIMULSPACE

Simulate the LSPACE SVC when processing online volumes. This service is used when processing offline volumes to gather the data normally returned by SVC 78 (LSPACE).

Default: Disabled.

SORTPUNCHDEF

Specifies that the alias table is to be sorted into catalog/alias sequence prior to performing the PUNCHDEFINE function.

Default: Enabled.

STARTCATONLY

Process only the starting catalog with the catalog scan.

Default: Disabled.

SUMOVERRIDE

Provide summary services at the volume level for DATATYPEs EXTRACT and ARCHIVE when NEWSUMFORMAT is disabled. The old summary processing (used when NEWSUMFORMAT is disabled) only summarizes by device type for DATATYPEs EXTRACT and ARCHIVE. Enabling SUMOVERRIDE implies data is in volume sequence. If sorting is required, specify SORT=YES. Use the SORT command to augment sorting only (for example, use SORT FIELD=(VOL,DEVTYPE) with Archive data to cause proper control breaks). If the SORT command is specified without SORT=YES, summary processing is bypassed.

Default: Disabled.

SUMVALUES

Display summary values for those fields that are to be summarized but do not contain data classically thought of as normally summarized (that is, VOL, CREATE). Disabling SUMVALUE provides just a count of the values.

Default: Enabled.

TABLESUMMARY

Insert summary values into the table output if RPTYPE=TABLE is specified.

Default: Place the summary values on either the ABRSUM DD Statement, ABRMAP DD Statement, or SYSPRINT DD Statement.

TAPEREAD

When DATATYPE=TVTOC is specified (to extract information from an FDR backup file), causes the entire backup to be read, collecting additional data about IAM files and directories of PDS data sets. If disabled, only the control records at the beginning of the backup are read, which generates all VTOC and VVDS related fields.

Default: Disabled.

TAPERRORMSGS

Specifies that the error messages documenting missing backup tapes are printed.

Default: Enabled.

TERMIFDEFINE

Specifies that the PRINT command is to be terminated immediately after the completion of the PUNCHDEFINE function.

Default: Disabled.

TIMESTAMP

Report heading is to contain a timestamp.

Default: Disabled.

TSOPARSE

TSO parsing is available for all environments.

Default: TSO parsing is only available in a TSO session.

UNKNBCSCELLS

Specifies what FDREPORT is to do with Basic Catalog Structure (BCS) records that contain cell types that are not known to the program. If UNKNBCSCELLS is enabled, the unknown cell types are accepted, but not processed, allowing the processing of the BCS record to continue. If UNKNBCSCELLS is disabled, the unknown cell type and the BCS record are bypassed.

Default: Enabled.

UNKNBCSPRINT

Specifies if FDREPORT is to display Basic Catalog Structure (BCS) records that contain cell types that are not known to the program. If UNKNBCSPRINT is enabled, message FDR702 is displayed documenting the unknown cell type. It is followed by the first forty (40) bytes of the BCS record. Next the name of the catalog containing the record is displayed followed by an action message detailing if the record was accepted or bypassed.

Default: Enabled.

USELOCATE

Use CAMLST LOCATE instead of the CAMLST simulator.

Default: Disabled.

USEMIH

Use the system Missing Interrupt Handler to time I/Os to offline devices. The MIH does not consider an I/O eligible for purge until five seconds have elapsed.

Default: Use an internal timing service that uses the BININTERVAL value.

VSAMRLS

Open the DFSMShsm clusters using VSAM's Record Level Sharing (RLS).

Default: Disabled.

VVRDISPLAY

The VVDS records (VVRs for all VSAM clusters, and NVRs for non-VSAM, SMS-managed data sets) are displayed for all selected data sets.

Default: Disabled.

XREFERROR

Print backup information warning messages only if no other backup tape messages are to be printed.

Default: Disabled.

54.31 FDREPORT DFSMSHSM REPORTING

DFSMSHSM REPORTING

FDREPORT customers who are also using IBM's DFSMShsm DASD management system (or its older version DFHSM), can use FDREPORT to read the database files created by HSM and report on their contents. The HSM data sets supported by FDREPORT are:

- MCDS – information on migrated data sets.
- BCDS – information on backups of current data sets.

This allows you to use all the power and flexibility of FDREPORT to generate reports about the data that HSM is managing.

With the exception of HSMCDCSZ, HSMIGVOL, and NTMIGRAT, there are no new field names defined when reporting from HSM data. Instead, data fields from the HSM records and calculated values are mapped into standard FDREPORT field names.

For DATATYPE=MCDS, the MCDS data set record is described by the IBM MCD macro and the mapping is:

MCDS Field Name	FDREPORT Field Name	Field Description
MCK	DSN	Data set name
MCDFRVSN	VOL	Volume Serial Number
MCDUCBTY	UCBID	UCB 4-byte device type(hex)
	DEVTYPE	DASD device type (for example, 3390)
MCDFLGS	DSSN	MGRAT*x* (*x*=migration level)
MCDDLC	CRDATE	Creation Date
	CRDAYS	Days since Creation (calculated)
MCDEXPDT	EXPDATE	Expiration Date
	EXPDAYS	Days since Expiration (calculated)
MCDDLR	LRDATE	Last Reference Date
MCDTLR	LRTIME	Last Referenced Time
	LRDAYS	Days since Last Reference (calculated)
MCDDMIG	ADATE	Date Archived (Migrated)
MCDTMIG	ATIME	Time Archived (Migrated)
	ADAYS	Days since Migration (calculated)
MCDDSORG	DSORG	Data set Organization
MCDRECFM	RECFM	Record Format
MCDOPTCD	OPTCD	Option Code
MCDBLKSZ	BLKSIZE	Block Size
	BLKSTRK	Blocks/track (calculated)
	BYTESTRK	Bytes/track (calculated)
MCDKEYLN	KEYLEN	Key Length
MCDDSIND	DSIND	Data set Indicators
MCDSIZE	SIZE	Allocated Tracks
	SIZEUSED	Used Tracks (calculated)
	SIZEFREE	Free Tracks (calculated)
MCDSIZEB	BYTES	Bytes Allocated
	BYTESUSE	Bytes Used (calculated)
	BYTESFRE	Bytes Free (calculated)
	%USED	Percentage used (calculated)
	%FREE	Percentage free (calculated)
	LSTAR	Last Used *ttttrr*
MCDSCNAM	STORCLAS	SMS storage class
MCDMCNAM	MGMTCLAS	SMS management class
MCDMDNAM	DATACLAS	SMS data class
MCDSMSFG	SMSFLAGS	SMS-managed data set Flag Byte
MCDSCAL1	SECAFLAG	Secondary Allocation Flags
MCDSCAL3	SECALLOC	Secondary Allocation Quantity

MCDNMIG	NTMIGRAT	Number of times data set was migrated
MCDVSN	HSMIGVOL	First migration volser
MCDCSZ	HSMCDCSZ	Size on Migration Volume
MCDMCANM	TVTOCDSN	Name of Migration Copy
	SOURCE	“MCDS”

For DATATYPE=BCDS, the BCDS data set record is described by the IBM MCB macro and the mapping is:

BCDS Field Name	FDREPORT Field Name	Field Description
MCK	DSN	Data set name
MCBFRVOL	VOL	Volume Serial Number
MCBDBU	ADATE	Date Backed Up
MCBTBU	ATIME	Time Backed Up
	ADAYS	Days since backup (calculated)
MCBDLRPD	LRDATE	Last Reference Date
	LRDAYS	Days since last reference (calculated)
MCBDSORG	DSORG	Data set Organization
MCBRECFM	RECFM	Record Format
MCBBLKSZ	BLKSIZE	Block Size
MCBKEYLN	KEYLEN	Key Length
MCBDSIND	DSIND	Data set Indicators
MCBSIZE	SIZE	Allocated Tracks
MCBSIZEB	BYTESUSE	Bytes Used
	BYTES	Bytes Allocated (calculated)
MCBNBC	NTMIGRAT	Number of times data set was backed up
MCBVSN	HSMIGVOL	First Backup Volume
MCCFRUCB	UCBID	UCB 4-byte Device Type (hex)
MCCSCNAM	STORCLAS	SMS storage class
MCCMCNAM	MGMTCLAS	SMS management class
MCCMDNAM	DATACLAS	SMS data class
MCCSMSFG	SMSFLAGS	SMS-managed data set Flag Byte
MCBBDSN	TVTOCDSN	Name of Backup Copy
	SOURCE	“BCDS”

54.32 FDREPORT TAPE MANAGEMENT REPORTING

Data is not all DASD related. Much exists on tape, and those tapes can reside on racks within an installation's data center, in powerful Virtual Tape System (VTS), or in external vaults for use as backups or for disaster recovery. Tape Management systems have evolved to manage the physical tapes, but only have basic reporting systems. Complex reports must be generated by the installation's staff writing programs or command procedures.

FDREPORT is able to extract information from CA Technologies CA 1 product and IBM's DFSMSrmm product and process it just as it does for DASD related information. This information can be formatted, filtered, sorted, and summarized using FDREPORT's existing facilities.

NOTE: An extract file must be created prior to creating FDREPORT reports. The extract can be done in the same FDREPORT execution using the EXTRACT command (see Section 54.16 "FDREPORT EXTRACT Statement") or from a prior execution of FDREPORT that used the EXTRACT command to create an extraction file.

These tables list the field names that can be used in REPORT, SORT, and SUMMARY statements as well as PUNCH masks and TITLE statements. See Section 54.60 "FDREPORT Field Names" for a description of layout of these tables.

- DATATYPE CA1DSN Field Name Table - for tape data set fields in CA 1
- DATATYPE CA1VOL Field Name Table - for tape volume fields in CA 1
- DATATYPE RMMDSN Field Name Table - for tape data set fields in DFSMSrmm
- DATATYPE RMMVOL Field Name Table - for tape volume fields in DFSMSrmm

54.40 FDREPORT VTOC EXAMPLES

This section shows examples that read the VTOCs of selected volumes directly (DATATYPE=VTOC, which is the default). All examples in this section are found in the JCL library installed with FDR. The member names are EX5440*x*.

A sample of the generated report is shown after each example; because of space limitations, it may be condensed. In examples where sorting is required, SORTALLOC=YES has been specified to dynamically allocate required SORT files; in your installation you may have to provide SORT JCL.

REPORT ON PREFIX EXAMPLE

Report on all data sets starting with the hi-level index "ABC" on any online volume. The default report (see Section 54.23 "FDREPORT REPORT Statement") is printed. No sorting is done; a separate page is generated for data sets selected from each DASD volume. Messages about volumes for which no data sets are selected are suppressed. The report is printed on SYSPRINT.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='ABC DATA SETS ON VOLUME <VOL>'
  XSELECT  XDSN=ABC.**
  PRINT    ENABLE=ONLINE,DISABLE=INFOMSG
/*
```

The generated report looks like:

```
ABC DATASETS ON VOLUME ABC123

                        D/S
DATA SET NAME     VOLSER  ORG  RECFM  BLKSZ  LRECL  ALLOC  FREE  %FR
----------------- ------  ---  -----  -----  -----  -----  ----  ---
ABC.FINDMAC.LIST  ABC123  PS   FB      3120     80      1     0    0
ABC.JCL.CNTL      ABC123  PO   FB      6160     80      5     2   40
```

REPORT BY DATA SET NAME MASK EXAMPLE

Report on all data sets residing on online volumes starting with "TSO" whose last qualifier is "LIST" or "OUTLIST" and that have not been referenced in two or more days. Only the data set name, volume, and date of last use is printed. The generated report is printed on ABRMAP. A standard summary is printed for each volume processed. The summary report is printed on ABRSUM.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//ABRSUM   DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='TSO LIST AND OUTLIST DATA SETS'
  XSELECT  XDSN=(**.LIST,**.OUTLIST),VOLG=TSO,LRDAYS>1
  REPORT   FIELD=(DSN,VOL,LRDATE)
  PRINT    SUM=YES
/*
```

The generated report looks like:

```
                                        TSO LIST AND OUTLIST DATA SETS
DATA SET NAME                           VOLSER   LRDATE
-------------                           ------ --------
USER1.SPFTEMP1.LIST                     TSO092 2002.134
USER3.PRT.OUTLIST                       TSO094 2002.257
```

The summary looks like:

```
SUBTOTAL -- VOL-------TSO092
  DSN----------------1  NOEXTENT-----------1  SIZE---------------1  SIZEFREE-----------0  SIZEUSED-----------1

SUBTOTAL -- VOL-------TSO094
  DSN----------------1  NOEXTENT-----------1  SIZE---------------1  SIZEFREE-----------0  SIZEUSED-----------1

FINAL TOTALS --
  DSN----------------3  NOEXTENT-----------2  SIZE---------------2  SIZEFREE-----------0  SIZEUSED-----------2
```

VSAM REPORT EXAMPLE

Report on selected ICF VSAM clusters on all online volumes whose serial number starts with "PROD". A variety of VSAM fields are reported (many others are available). ENABLE=AUTOSTACK allows FDREPORT to stack fields with like attributes in order to fit the fields within the page width of 80 characters. All selected clusters are combined into one report, sorted on cluster name and component name within cluster.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  XSELECT  DSG=(IPCS,MVS,M211),DSORG=EF,VOL=PROD*
  REPORT   FIELD=(CLUSTER,DSN,VOL,RECORDS,
           INSERTS,DELETES,EXCPS,%CI,%CA,
           BUFSIZE,CISIZE,CICA)
  SORT     FIELD=(CLUSTER,DSN)
  PRINT    ENABLE=AUTOSTACK,SORTALLOC=YES,PAGEWIDTH=80
/*
```

The generated report looks like:

```
                                RECORDS
                                INSERTS
CLUSTER NAME                    DELETES  %CI   BUFSI   CI
DATA SET NAME          VOLSER     EXCPS  %CA   CISIZ   CA
-------------------    ------  ---------  ---  ------  ---
USER1.KSDS             ABC123         290   10    9216  150
USER1.KSDS.DATA                       340   20    4096
                                       25
                                      267
USER1.KSDS             ABC456           1    0       0   31
USER1.KSDS.INDEX                        0    0    1024
                                        0
                                       20
```

REPORT ON ABR BACKUPS EXAMPLE

Report on the current ABR backup for all data sets with the index of "PAYROLL". The page width is expanded to 132 characters. Associated DSCB information is also requested. All online volumes beginning with certain prefixes are searched. The report is sorted by DSN. The summary shows all ABR backup volumes required to restore all of the payroll data sets, which might be useful as a tape pick list. The backup date is printed with a 2-digit year.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//ABRSUM   DD SYSOUT=*
//SYSIN    DD *
  REPORT   FIELD=(SPLDSN,VOL,LRDATE,DSORG,RECFM,
                  BLKSIZE,LRECL,SIZE,SIZEUSED,BKINFO)
  XSELECT  DSG=PAYROLL,VOL=(PAY*,PROD*)
  SUMMARY  FIELD=(BKVOL)
  PRINT    PAGEWIDTH=132,SORT=COMBINE,SORTALLOCATE=YES,
           DATEFORMAT=YYDDD
/*
```

The generated report looks like:

```
                                                    BKUP
DATA SET NAME    VOLSER  ...  BKDATE  BKSUFFIX  FILE  TAPE VOLUME(S)
--------------   ------  ...  ------  --------  ----  --------------
PAYROLL.FILE1    PAY001  ...  02.304  C1028400     4  BV1048,BV1050
PAYROLL.FILE2    PROD23  ...  02.308  C1027902    19  BV1056
```

The summary looks like:

```
FINAL TOTALS
 VALUE SUMMARY OF BKVOL --- TOTAL NUMBER OF VALUES-----17
   BKVOL-----BV1044 (    1) BV1048 (    3) BV1050 (    3)
```

EXECUTE PREDEFINED REPORT EXAMPLE

Execute a report that has been set up in advance. The name of this report is "VTOCREP1", which is a member in the data set "USER.REPORT". This member contains a TITLE, REPORT, and PRINT statements. The FDREPORT step includes an XSELECT statement to identify the data sets to be reported; in this example, all data sets starting with "USER" and a numeric digit are selected.

Predefined reports are useful for end-users who have little knowledge of FDREPORT. Report formats and controls can be predefined by others and executed by end-users. The FDRLIB members can also contain XSELECT statements so that they can be entirely self-contained.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//FDRLIB   DD DSN=USER.REPORT,DISP=SHR
//SYSIN    DD *
  XSELECT  DSN=USER+.**
  EXECUTE  REPORT=VTOCREP1
/*
```

If member "VTOCREP1" in data set "USER.REPORT" contains:

```
  TITLE    LINE='VTOC REPORT 1'
  REPORT   FIELD=(SPLDSN,VOL,SIZEINFO)
  PRINT    DATATYPE=CATVTOC
```

then those data sets are selected from the catalog, VTOC information extracted, and the report looks like:

```
VTOC REPORT 1
DATA SET NAME       VOLSER  ALLOC  FREE  %FR
------------        ------  -----  -----  ---
USER2.JCL.CNTL      TSO123     10      3   30
USER1.ISPF.ISPPROF  LIBR12      3      0    0
```

REPORT ON POORLY BLOCKED DATA SETS EXAMPLE

Report on all data sets that are using less than 70% of the maximum track capacity for the device they reside. Generally, this is data sets with small blocksizes, or blocksizes over a half-track (which wastes the rest of the track). The tests on blocksize and size (in tracks) are to eliminate data sets for which no meaningful capacity calculation can be done.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='POORLY BLOCKED DATA SETS'
  XSELECT  %CAPUSED.LT.70,SIZE.GT.0,BLKSIZE.GT.0
  REPORT   FIELD=(DSN,VOL,BLKSIZE,DEVTYPE,
                  BLKSTRK,BYTESTRK,TRACKCAP,%CAPUSED)
  SUMMARY  FIELD=(DSN,BLKSIZE)
  PRINT    ENABLE=ONLINE,DISABLE=INFOMSG
/*
```

The generated report looks like:

```
POORLY BLOCKED DATA SETS
                                        BLKS
DATA SET NAME     VOLSER  BLKSZ  DEVTYPE   TRK  BYTTK  TRCAP  %CP
----------------  ------  -----  -------  ----  -----  -----  ---
SYS1.PARMLIB      SYSRES     80  3390       83   6640  47476   14
XYZ.JCL.CNTL      TSO123    800  3380       36  28800  47476   61
YZX.SEQ.DS        PROD01  28672  3390        1  28672  47476   61
```

The summary reports by volume, and total for all volume in the form:

```
DSN--------25
VALUE SUMMARY OF BLKSIZE --- TOTAL NUMBER OF VALUES-----3
BLKSIZE--- 80 (    1) 160 (   17) 25000 (    7)
```

SELECT BY FILTER EXAMPLE

Select any online data set that contains a 3-character first-level qualifier that starts with the letter "T" and contains the character string "YM" anywhere within any qualifier other than the first. Only data sets between 100 and 200 tracks in size are included. The report is sorted by data set name within volume, and is in standard ABR VTOC format (see Section 53.7 "FDRABRP VTOC Report").

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  XSELECT  XDSN=T//.**YM**,SIZE.GE.100,SIZE.LE.200
  PRINT    ENABLE=ONLINE,RPTYPE=ABRVTOC,SORT=YES,SORTALLOC=YES
/*
```

The generated report looks like:

```
ABR VTOC LIST OF VOLUME SERIAL NUMBER TEST01 -- DEVICE TYPE 3380
                 VOLUME  LS  VOL  LAST REF  ABR  ...  EXTENT DESCRIPTORS
DATA SET NAME    SERIAL  CY  SEQ    DATE    IND  ...  CT   CCC-HH   CCC-HH
---------------  ------  --  ---  ------   ---       --  ---- --  ---- --
TST.NYMASTER     TEST01  00  001  2002.150       ...   1  0296-00  0308-14
TU1.ONLYM.ZEBRA  TEST01  02  001  2002.320  U    ...   2  1250-00  1252-14
                                                       0303-00  0303-14
```

REPORT ON IAM FILES EXAMPLE

Select all online IAM data sets and print statistics about them.

IAM is a product from INNOVATION DATA PROCESSING that provides a high-performance data-compressed transparent alternative for many VSAM clusters. Contact INNOVATION Technical Support for more information.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='IAM STATISTICS'
  XSELECT  DSORG=IAM
  REPORT   FIELD=(DSN,VOL,SIZE,IAMUSE)
  PRINT    ENABLE=ONLINE,ENABLE=IAM
/*
```

The generated report looks like:

```
IAM STATISTICS
DATA SET NAME    VOLSER  ALLOC  RECORDS  ...  OVERFLOW  OVERUSED  %OF
---------------  ------  -----  -------       --------  --------  ---
POLICY.MASTER    PROD23  2500     42155           2000        23    2
```

REPORT ON SPECIAL IAM FILES EXAMPLE

Select all enhanced or extended-format IAM data sets and all IAM Alternate Indexes (AIXs) on production volumes and print information about them.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='ENHANCED/EXTENDED IAM DATA SETS'
  XSELECT  DSORG=IAM,IAMINDIC=ENHANCED Select IAM Enhanced
  XSELECT  DSORG=IAM,SMSFLAGS=STRIPE   Select IAM Extended-Format
  XSELECT  DSORG=IAM,AIXATTR=AIX     Select IAM Alternate Indexes
  REPORT   FIELD=(DSN,VOL,SIZE,HIALORBA,HIUSERBA)
  PRINT    ENABLE=(ONLINE,IAM)
/*
```

IDENTIFY FULL PARTITIONED DATA SETS EXAMPLE

Locate all partitioned (PO) data sets on TSO volumes and report those that have less than five percent free space in the data set or the directory.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='ALMOST FULL TSO PDS DATA SETS'
  XSELECT  DSORG=(PO),VOL=TSO*,%FREE<5
  XSELECT  DSORG=(PO),VOL=TSO*,%DIRFREE<5
  REPORT   FIELD=(SPLDSN,VOL,SIZEINFO,DIRBINFO)
  PRINT
/*
```

The generated report looks like:

```
ALMOST FULL TSO PDS DATA SETS
DATA SET NAME     VOLSER  ALLOC   FREE  %FR  DIRBK  DIRFB  %DF
---------------  ------  -----  -----  ---  -----  -----  ---
USER1.JCL.CNTL    TSO123     30      1    3     25     23   92
USER1.ISPF.PROF   TSO123      5      2   40     25      1    4
```

REPORT ON ALL OFFLINE DASD EXAMPLE

Report on data sets in the VTOC of all offline DASD. The FASTPATH and OFFLINE options must be enabled. UCBSTATS=OFFLINE reports on only offline DASD (otherwise both offline and online DASD are included).

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='OFFLINE DASD'
  XSELECT  UCBSTATS=OFFLINE
  REPORT   FIELD=(SPLDSN,VOL,UNIT,DEVTYPE,SIZEINFO)
  PRINT    ENABLE=(OFFLINE,FASTPATH)
/*
```

REPORT ON SELECTED OFFLINE DASD EXAMPLE

Report on data sets in the VTOC of offline DASD in a range of device addresses. The FASTPATH and SELECTOFFLIN options must be enabled.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='OFFLINE DASD'
  XSELECT  UNIT.GE.04F0,UNIT.LE.054F,UCBSTATS=OFFLINE
  XSELECT  UNIT.GE.17C0,UNIT.LE.17CF,UCBSTATS=OFFLINE
  REPORT   FIELD=(SPLDSN,VOL,UNIT,DEVTYPE,SIZEINFO)
  PRINT    ENABLE=(SELECTOFFLIN,FASTPATH)
/*
```

REPORT SAME DATA TWO WAYS EXAMPLE

Report on data sets on a set of DASD volumes, once for all data sets sorted by name within volume, and once for only ICF VSAM sorted by cluster name for all volumes together, reporting different fields in each report. To reduce overhead by reading the VTOCs only once, RPTYPE=DATA is used to generate a file of FDREPORT internal records on SYSUT2, then that data is read twice to produce the two reports.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSUT2   DD UNIT=SYSALLDA,SPACE=(CYL,(20,5),RLSE)
//SYSIN    DD *
  DEFAULT  SORTALLOC=YES
*  SELECT ALL DATA WITHOUT REPORT
  XSELECT  VOL=PROD*
  PRINT    RPTYPE=DATA
*  GENERATE REPORT 1
  TITLE    LINE='LISTING OF PRODUCTION VOLUMES'
  REPORT   FIELD=(DSN,DSORG,DATES,SIZE,EXTENTS)
  PRINT    DATATYPE=EXTRACT,SORT=YES
*  GENERATE REPORT 2
  CANCEL   SELECT
  TITLE    LINE='LISTING OF PRODUCTION VSAM'
  XSELECT  DSORG=EF
  REPORT   FIELD=(CLUSTER,DSN,VOL,DATES,SIZEINFO)
  SORT     FIELD=(CLUSTER)
  PRINT    DATATYPE=EXTRACT
/*
```

REPORT POORLY ORGANIZED VSAM CLUSTERS EXAMPLE

Report on all ICF VSAM clusters over three Megabytes in size with more than five CA splits or more than 20 CI splits, and all clusters with over 16 extents, since all these might be candidates for reorganization. Clusters with the highest CA splits are listed first.

NOTE: FDRREORG, a separately priced component, may be used to automate the reorganization of such clusters as well as IAM files and PDSs. See Chapter 30 "FDRREORG" for more information.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  DEFAULT  SORTALLOC=YES,BYTEFORMAT=MEGABYTES
  TITLE    LINE='VSAM CLUSTERS IN NEED OF REORG'
  XSELECT  DSORG=EF,BYTES>3M,CASPLIT>5
  XSELECT  DSORG=EF,BYTES>3M,CISPLIT>20
  XSELECT  DSORG=EF,NOEXTENT>16
  SORT     FIELD=(CASPLIT,CISPLIT),SEQUENCE=(D,D)
  REPORT   FIELD=(CLUSTER,VOL,PRIALLOC,BYTES,
                  BYTESUSE,CASPLIT,CISPLIT,NOEXTENT)
  PRINT    ENABLE=ONLINE
/*
```

The generated report looks like:

```
VSAM CLUSTERS IN NEED OF REORG
CLUSTER NAME      VOLSER  PRALO  MBYT  MBUS  CASPL  CISPL  EXT
---------------  ------  -----  ----  ----  -----  -----  ---
MASTER.FILE       PROD12     32    22    22     42    175    5
PERM.HISTORY      PROD99     15   125   120      3     27   25
```

REPORT DATA SETS LIKELY TO GET SX37 EXAMPLE

Identify data sets likely to get S*x*37 (out of space) ABENDs or the equivalent VSAM error. All data sets with less than 10% free space are reported if they have no secondary allocation, or if they have 13 or more extents (50 or more for VSAM).

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='DATA SETS THAT MAY RUN OUT OF SPACE'
  XSELECT  SECALLOC.EQ.0,%FREE.LT.10
  XSELECT  DSORG.NE.EF,NOEXTENT.GE.13,%FREE.LT.10
  XSELECT  DSORG.EQ.EF,NOEXTENT.GE.50,%FREE.LT.10
  REPORT   FIELD=(DSN,DSORG,SECALLOC,%FREE,NOEXTENT,SIZE)
  PRINT    ENABLE=ONLINE
/*
```

The generated report looks like:

```
DATA SETS THAT MAY RUN OUT OF SPACE
                    D/S
DATA SET NAME       ORG  VOLSER  SCALO  %FR  EXT  ALLOC
----------------    ---  ------  -----  ---  ---  -----
MASTER.FILE         EF   PROD12     10    7   72    780
PROD.CNTL.CARDS     PO   SYS123      0    3    1     20
```

DIAGNOSE PROBLEMS IN VVDS EXAMPLE

Check the VVDS on specified volumes, reporting on all duplicate records (more than one VVR or NVR for the same data set or component) and orphan records (a VVR or NVR with no corresponding DSCB in the VTOC). Such errors may cause failures when accessing these data sets. Although the DIAGNOSE function of IDCAMS can do the same checks, there is no easy way to do multiple volumes; also, FDREPORT is faster than IDCAMS. The PUNCHDIAGNOS option cause the suggested IDCAMS repair JCL to be written to the data set specified by the DIAGPCH DD Statement.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//DIAGPCH  DD DISP=SHR,DSN=MYPDS(FIXVVDS)
//SYSIN    DD *
  XSELECT  VOL=(TST*,PROD*,SMS*)
  PRINT    RPTYPE=NONE,ENABLE=(DIAGNOSEVVDS,PUNCHDIAGNOS)
/*
```

When errors are found, FDREPORT prints:

```
ORPHANED VVR ON VOLUME TST089 AT RBA 00002511 WITHIN VVDS SYS1.VVDS.VTST089
  <dump format print of the VVR>
        REMOVE ORPHANED VVR WITH:
           //STEPXX EXEC PGM=IDCAMS
           //SYSPRINT DD SYSOUT=*
           //DD1      DD UNIT=SYSALLDA,DISP=SHR,VOL=SER=TST089
           //SYSIN    DD *
            DELETE TST.VSAM.TEST3.INDEX   -
              FILE(DD1) VVR CATALOG(CATALOG.TSOUSER)
           //
FDR421   ICF LOCATE ERROR -- MULTIPLE VVRS (02) ON VOLUME TST089   -- DSN=TST.VSAM.TEST1.DATA
```

You can also select data sets with VVDS errors and report on the type of error, using the VVRSTATS field name.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  XSELECT  VOL=(TST*,PROD*,SMS*),VVRSTATS.NE.NONE
  REPORT   FIELD=(DSN,VOL,VVRSTATS)
  PRINT
/*
```

Produces a report similar to:

```
DATA SET NAME     VOLSER  VVDSERRST
---------------   ------  ---------
MASTER.FILE.DATA  PROD12  EXTM NVVR
PAYROLL.DB.INDEX  SMS123  NVVR
INVENTORY.DATA    TST002  DPLR
```

NOTE: NVVR (no VVDS entry) may be reported along with other errors if there are matching VVDS entries, but because of the errors, none of them appears to be the correct VVR.

54.41 FDREPORT ARCHIVE EXAMPLES

This section shows examples that read an Archive Control File (DATATYPE=ARCHIVE). All examples in this section are found in the JCL library installed with FDR. The member names are EX5441*x*.

A sample of the generated report is shown after each example; because of space limitations, it may be condensed. In examples where sorting is required, SORTALLOC=YES has been specified to dynamically allocate required SORT files; in your installation you may have to provide SORT JCL.

REPORT ON EXPIRING DATA SETS EXAMPLE

Report on all data sets in the Archive Control File that expire within the next 30 days, showing information about the location of both archive copies if both exist.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//ARCHIVE  DD DSN=FDRABR.ARCHIVE,DISP=SHR
//SYSIN    DD *
  TITLE    LINE='ARCHIVED FILES EXPIRING WITHIN 30 DAYS'
  XSELECT  BKEXDAYS<31
  REPORT   FIELD=(DSN,VOL,BKEXDATE,BKINFO)
  PRINT    DATATYPE=ARCHIVE,COPY=BOTH,SORT=YES,SORTALLOC=YES
/*
```

The generated report looks like:

```
ARCHIVED FILES EXPIRING WITHIN 30 DAYS
                                                          BKUP
DATA SET NAME    VOLSER   BKEDAT    BKDATE   BKSUFFIX  FILE  TAPE VOLUME(S)
--------------  ------  --------  --------  --------  ----  --------------
USER1.FILE1      TSO001  2002.304  2001.304  B102304A     2  BA1234
                         2002.304  2001.304  B202304A     5  BA5432
USER2.JCL.CNTL   TSO023  2002.308  2001.308  B102308B    12  BA1234
```

SELECTIVE ARCHIVE REPORT EXAMPLE

Report on all archived data sets that have one of several hi-level indexes, summarized by index. A standard archive report is to be printed. The Archive Control File whose name is in the ABR option table is to be dynamically allocated and processed. See Section 53.3 "FDRABRP Archive Report" for a sample of the report format.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  DEFAULT  SORT=COMBINE,SUM=INDEX,COPY=BOTH
  XSELECT  DSG=(FINANCE.,PAYROLL.,LEDGER.)
  PRINT    DATATYPE=ARCHIVE,RPTYPE=ARCHIVE,SORTALLOC=YES
/*
```

REPORT ON SHORT-TERM DATA SETS EXAMPLE

Report on all archived data sets that were archived within the last two weeks but that have already been recalled. This might be used to identify data sets that should not have been archived in the first place.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='ARCHIVED DATA SETS RECALLED WITHIN 14 DAYS'
  DEFAULT  DATEFORMAT=MMDDYYYY
  XSELECT  ARCFLAG1=RESTORED,BKDAYS<15
  REPORT   FIELD=(DSN,VOL,DSORG,SIZE,BKDATE,ARCFLAGS)
  PRINT    DATATYPE=ARCHIVE
/*
```

The generated report looks like:

```
ARCHIVED DATA SETS RECALLED WITHIN 14 DAYS
                        D/S
DATA SET NAME    VOLSER  ORG  ALLOC    BKDATE    ARFL1  ARFL2
--------------   ------  ---  -----  ----------  -----  -----
USER1.FILE1      TSO001  PS      22  10/20/2002  R      A
USER2.JCL.CNTL   TSO023  PS     150  10/22/2002  R
```

ARCHIVE TAPE REPORT EXAMPLE

Produce a report of the archive tapes in use and the number of archive backup files on each of them.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRSUM   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='ARCHIVE TAPE REPORT'
  SORT     FIELD=BKVOL
  SUMMARY  FIELD=BKVOL
  PRINT    DATATYPE=ARCHIVE,COPY=BOTH,SORTALLOCATE=YES,
           RPTYPE=NONE
/*
```

The generated report looks like:

```
                                        ARCHIVE TAPE REPORT
 FINAL TOTALS --
   VALUE SUMMARY OF BKVOL   --- TOTAL NUMBER OF VALUES------24
    BKVOL-----CCR151 (        1)  DV20FE (        7)  DV20FF (       70)  RVA7C7 (        2)
              SAFEC5 (        3)  SAFEC9 (       38)  SCR081 (        8)  SCR082 (        5)
              SCR083 (      229)  SCR084 (        1)  SCR085 (        3)  SCR087 (        6)
              SCR089 (        2)  SCR093 (       13)  SY3108 (     2531)  001022 (        1)
              001133 (        1)  001188 (        1)  001404 (        1)  001419 (        1)
              001422 (        1)  001429 (        1)  001433 (        1)  003342 (        2)
```

If you want to run the report against a control file that is not the installation default Archive Control File, such as an application backup control file, then add an ARCHIVE DD Statement pointing to the desired control file, for example:

```
//ARCHIVE  DD DSN=APPL.BACKUP.CNTLFILE,DISP=SHR
```

54.42 FDREPORT CATALOG EXAMPLES

This section shows examples that read the system catalogs. FDREPORT can be directed to gather more information about the cataloged data sets from the VTOCs of the volumes in the catalog (DATATYPE=CATVTOC) or from the Archive Control File (DATATYPE=CATARCH). All examples in this section are found in the JCL library installed with FDR. The member names are EX5442*x*.

You may also report strictly on the catalog information (DATATYPE=CATALOG) but in this case a limited set of fields are available.

A sample of the generated report is shown after each example; because of space limitations, it may be condensed. In examples where sorting is required, SORTALLOC=YES has been specified to dynamically allocate required SORT files; in your installation you may have to provide SORT JCL.

IDENTIFY MULTI-VOLUME DATA SETS EXAMPLE

Identify all data sets that are cataloged to more than one volume. Because of the way that FDREPORT reads the catalogs, the report is naturally sorted by data set name.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='MULTI-VOLUME DATA SETS'
  XSELECT  CATVOLCT>1
  REPORT   FIELD=(DSN,VOL,CATVOLCT)
  PRINT    DATATYPE=CATALOG
/*
```

The generated report looks like:

```
MULTI-VOLUME DATA SETS
DATA SET NAME    VOLSER  CVC
--------------   ------  ---
PROD.MV.FILE     PROD11    2
PROD.MV.FILE     PROD22    2
```

REPORT RECENT TEST DATA SETS EXAMPLE

Report on the size of the non-VSAM data sets that have the character string “TEST” anywhere within their data set name, and that were created within the last two weeks. The data set names are selected from the system catalogs, and then the volumes from the catalog are accessed to get the rest of the information. The tracks allocated, %FREE, data set name, and volume serial are be printed, sorted by size in descending sequence.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='RECENTLY CREATED TEST DATA SETS'
  REPORT   FIELD=(SIZE,%FREE,DSN,VOL)
  SORT     FIELD=(SIZE),SEQUENCE=(D)
  XSELECT  XDSN=**TEST**,CRDAYS.LE.14,DSORG.NE.EF,CATALOG=YES
  PRINT    SORTALLOC=YES,DATATYPE=CATVTOC
/*
```

The generated report looks like:

```
RECENTLY CREATED TEST DATA SETS
ALLOC  %FR  DATA SET NAME     VOLSER
-----  ---  ---------------  ------
 450    95  USER1.TEST.JCL    TSO001
 295    12  TEST.GL.MASTER1   TEST12
```

54.43 FDREPORT SMS EXAMPLES

FDREPORT has many uses in a system with System Managed Storage (SMS) active. These are some examples of ways it can be used to aid in the management of an SMS system. All examples in this section are found in the JCL library installed with FDR. The member names are EX5443*x*.

REPORT BY MANAGEMENT CLASS EXAMPLE

Report on all online SMS-managed data sets whose SMS management class is “TSO1”. The data set name, volume, and the SMS class names are to be reported. The FASTPATH option is enabled to improve FDREPORT performance.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='MANAGEMENT CLASS TSO1'
  XSELECT  MGMTCLAS=TSO1
  REPORT   FIELD=(DSN,VOL,SMSCLASS)
  PRINT    ENABLE=(ONLINE,FASTPATH)
/*
```

The generated report looks like:

```
MANAGEMENT CLASS TSO1
DATA SET NAME     VOLSER  STORCLAS  DATACLAS  MGMTCLAS
---------------   ------  --------  --------  --------
USER1.TEST.JCL    SMS002  TEST                TSO1
USER3.ISPF.PROF   TSO123  TSO       PROFILE   TSO1
```

SUMMARIZE BY STORAGE CLASS EXAMPLE

Scan on all online SMS-managed data sets (STORCLAS.NE.' ' selects SMS-managed data sets since they must all have an assigned storage class), and produce only summaries showing all storage class names in use, and the number of data sets and the number of tracks allocated to those data sets in each class.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRSUM   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='SMS STORAGE CLASS SUMMARY'
  XSELECT  STORCLAS.NE.' '
  SORT     FIELD=(STORCLAS),BREAK=(Y)
  SUMMARY  FIELD=(STORCLAS,DSN,SIZE)
  PRINT    ENABLE=(ONLINE,FASTPATH),RPTYPE=NONE,
           DISABLE=INFOMSG,SORTALLOC=YES
/*
```

The summary looks like:

```
SUBTOTAL -- STORCLAS--GS812
  DSN-----2   SIZE----75
SUBTOTAL -- STORCLAS--PRODDB
  DSN----27   SIZE--4250
```

REPORT BY STORAGE GROUP EXAMPLE

Report on all data sets in two specific SMS storage groups. For PDS (PO) and PDSE (POE) data sets, member counts are displayed.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='SMS STORAGE GROUPS PROD AND TEST'
  XSELECT  STORGRP=(PROD,TEST)
  SORT     FIELD=(STORGRP,DSN)
  REPORT   FIELD=(SPLDSN,STORGRP,VOL,DSORG,LRDATE,SIZE,MEMBERS)
  PRINT    SORTALLOC=YES
/*
```

The generated report looks like:

```
SMS STORAGE GROUPS PROD AND TEST
                                 D/S
DATA SET NAME     STORGRP   VOLSER  ORG    LRDATE  ALLOC  MEMBER
---------------  --------  ------  ---  --------  -----  ------
PAYROLL.MASTER    PROD      PROD02  PS   2002.305    750       0
PROD.CARD.CNTL    PROD      PROD12  POE  2002.301     30      27
```

PREPARE FOR SMS CONVERSION EXAMPLE

Report on data sets that are ineligible for SMS conversion, so that they can be manually handled. Ineligible data sets are ISAM, non-ICF VSAM, unmovable, and uncataloged data sets. CATALOG=NO selects uncataloged data sets, while CATALOG=ERR selects those cataloged to another volume. In the report, the catalog status is printed, as well as the volume where the data set is cataloged, if any.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='DATA SETS INELIGIBLE FOR SMS'
  XSELECT  DSORG=(U,IS,AM),DSORG.NE.EF,VOLG=TSO
  XSELECT  CATALOG=NO,VOLG=TSO
  XSELECT  CATALOG=ERR,VOLG=TSO
  REPORT   FIELD=(DEFAULTS,CATALOG,CATVOL)
  PRINT
/*
```

SMS STORAGE GROUP SUMMARY EXAMPLE

Summarize and produce a single-line of information for all the SMS Storage Groups. This is done using the VOLUME SUMMARY service that summarizes on volume fields.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  DEFAULT  ENABLE=FASTPATH,DISABLE=INFOMSG
  HEADING  LINE(1)='STORAGE       TOTAL        FREE        +
                    FREE  FREE',
           LINE(2)='GROUP     CYLINDERS   CYLINDERS      +
                    TRACKS   PCT',
           LINE(3)='-------- ----------- ----------- +
                    -----------  ---'
  XSELECT  STORGRP=*
  REPORT   FIELD=(VLSMSSTG,VLCYLVOL,VLFRECYL,
                  VLFRETRK,SP2,VL%FTRKS)
  PRINT    VOLSUMMARY=STORGRP,DATATYPE=VOLDATA
/*
```

The generated report looks like:

```
STORAGE       TOTAL        FREE        FREE  FREE
GROUP     CYLINDERS   CYLINDERS      TRACKS   PCT
-------- ----------- ----------- -----------  ---
DATABASE      60705       26041      391437    42
PRODRSVD      99057       88217     1323304    89
PROD0         25599        6267       94804    24
PROD1         23373        2468       37050    10
TEMP          70119       69718     1045898    99
```

54.44 FDREPORT VOLUME EXAMPLES

This section shows examples that produce volume-level reports (DATATYPE=VOLDATA). All examples in this section are found in the JCL library installed with FDR. The member names are EX5444*x*.

VOLUME USAGE REPORT EXAMPLE

Report on the percentage of the volume allocated, plus percentage used for the VTOC, VTOCIX, and VVDS, for all PROD volumes.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='PRODUCTION VOLUME USAGE'
  XSELECT  VOL=PROD*
  SORT     FIELD=(VLVOLSER)
  REPORT   FIELD=(VLVOLSER,VLUNIT,VLDEVTYP,VL%UTRKS,
                  VL%UDSCB,VL%UINDX,VL%UVVDS)
  PRINT    SORTALLOC=YES,DATATYPE=VOLDATA
/*
```

The generated report looks like:

```
PRODUCTION VOLUME USAGE
VOLSER   UAD  DEVTYPE  %TU  %DU  %IU  %VU
-------  ---  -------  ---  ---  ---  ---
PROD07   143  3380      37   42   12   45
PROD12   148  3380      76   17    6   15
```

VOLUME STATUS REPORT EXAMPLE

Report on the mount, usage, and SMS status of every online volume. The FASTPATH option improves FDREPORT performance when reporting on many volumes.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  REPORT   FIELD=(VLVOLSER,VLUNIT,VLDEVTYP,
                  VLUSEATR,VLMOUSTA,VLSMSTAT,VLSMSVST)
  PRINT    ENABLE=(ONLINE,FASTPATH),DATATYPE=VOLDATA
/*
```

The generated report looks like:

```
VOLSER   UADR  DEVTYPE  USEATTR  MOUNT     SMS STA VOLUM STATUS
-------  ----  -------  -------  --------  ------- ------------
TSO123   0252  3380     STORAGE  RESIDENT  NONE    NONE
DBLRG1   3175  3390     PRIVATE  RESIDENT  MANAGED ENABLED
```

IDENTIFY DISABLED INDEXED VTOCS EXAMPLE

Identify volumes that have an Indexed VTOC (VTOCIX) that has been disabled. A status of “YES” indicates that the VTOCIX exists but is not active.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='DISABLED VTOC INDEXES'
  XSELECT  VLINDSTA=YES
  REPORT   FIELD=(VLVOLSER,VLINDSTA)
  PRINT    ENABLE=ONLINE,DATATYPE=VOLDATA
/*
```

The generated report looks like:

```
DISABLED VTOC INDEXES
VOLSER   VTOCIX
------   ------
TSO123   YES
DBLRG1   YES
```

VOLUME STATISTICS FOR IMPORT EXAMPLE

Generate statistics for all online volumes in a tabular format for import into another program, such as SAS. If this is done at regular intervals, the other program might be used to keep a history of the values, generating history, statistical, and trend reports. You might also download the report file to a PC for analysis by PC-based programs such as EXCEL. The tabular format contains no titles or page breaks; it contains one set of headings but you can add DISABLE=HEADINGS to suppress them.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//ABRMAP   DD DSN=SYSTEMS.VOLSTAT(+1),UNIT=DISK,
//            SPACE=(TRK,3),DISP=(,CATLG)
//SYSIN    DD *
  XSELECT  VLINDSTA=YES
  REPORT   FIELD=(VLVOLSER,VLUNIT,VLDEVTYP,VLTRKVOL,
                  VLALOTRK,VLDSCB1)
  PRINT    ENABLE=ONLINE,DATATYPE=VOLDATA
/*
```

The generated file looks like:

```
TSO123 1A3 3390  50085 25173   236
MVSRES 1C7 3380  39825 37900  1274
```

The program that reads the file must, of course, be aware of the meaning and position of each column.

VOLUME SUMMARY REPORT EXAMPLE

The VOLSUMMARY operand allows you to create reports that summarize data from many volumes, instead of reporting on individual volumes. You can summarize based on SMS storage group, volume serial or unit address prefix, device type, or all volumes. The values from the various volumes are totaled, averaged, or maxed depending on the meaning of the field. Fields that are unique to a volume (such as volser) are simply blanked.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='VOLUME SUMMARY BY STORAGE GROUP'
  REPORT   FIELD=(VLSMSSTG,VLCYLVOL,VLFRECYL,VLDSCB1)
  PRINT    DATATYPE=VOLDATA,VOLSUMMARY=STORGRP,
           ENABLE=(ONLINE,FASTPATH)
/*
```

Generates a report showing the total data cylinders, total free cylinders, and total data sets in each group (the blank group includes all non SMS-managed volumes).

```
VOLUME SUMMARY BY STORAGE GROUP
STORGRP  CYL VOLUME    FREE CYL  FMT1 DSCBS
-------- ----------- ----------- -----------
           1090368      779068       16242
PRODRSVD     99057       95883          26
PROD0        25599        7091        1424
PROD1        23373       10091        1170
PROD10       60705       22730         496
PROD11       70119       70076          19
PROD12        6678        5548         144
```

```
  TITLE    LINE='VOLUME SUMMARY BY DEVICE TYPE'
  REPORT   FIELD=(VLDEVTYP,VLCYLVOL,VLFRECYL,VLLRGCYL)
  PRINT    DATATYPE=VOLDATA,VOLSUMMARY=DEVTYPE,
           ENABLE=(ONLINE,FASTPATH)
```

Generates a report showing total data cylinders, total free cylinders, and largest free area for each type:

```
VOLUME SUMMARY BY DEVICE TYPE
DEVTYPE CYL VOLUME    FREE CYL  LFCYL
------- ----------- ----------- -----
3380        131865       91901  2654
3390       1584384     1085842 32759
```

54.45 FDREPORT PUNCH EXAMPLES

This section shows examples of generating JCL and control cards using FDREPORT data fields (RPTYPE=SELPCH). All examples in this section are found in the JCL library installed with FDR. The member names are EX5445*x*.

GENERATE ABR STATEMENTS EXAMPLE

Use FDREPORT as a front-end filter for ABR, selecting data sets to be scratched by Superscratch. All data sets whose last index level begins with “LIST” or “TEMP” are scratched, if they were created more than 1 day ago. FDREPORT generates ABR control statements in the default format:

```
SELECT DSN=dsname,VOL=volser
```

and writes them to the SYSPUNCH temporary data set that is read by the following ABR step.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSPUNCH DD DSN=&&ABRIN,UNIT=SYSALLDA,SPACE=(TRK,(2,1)),
//            DISP=(NEW,PASS),DCB=BLKSIZE=6160
//SYSIN    DD *
  XSELECT  XDSN=(**.LIST*,**.TEMP*),CRDAYS>1
  PRINT    ENABLE=ONLINE,RPTYPE=SELPCH
/*
//SUPERSCR EXEC PGM=FDRABR,COND=(0,NE,REPORT)
//SYSPRINT DD SYSOUT=*
//SYSPRIN1 DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//TAPE1    DD DUMMY
//SYSIN    DD *
  DUMP     TYPE=SCR,ONLVOL,DSNENQ=USE,MAXCARDS=1000
/*
//         DD DSN=&&ABRIN,DISP=(OLD,DELETE)
```

GENERATE ABR RESTORE SELECT STATEMENTS EXAMPLE

Generate a data set containing SELECT statements specifying the data set name, volume, and ABR generation and cycle for each selected data set, using a punch mask. This might be used at a disaster recovery site to do data set restores of selected data sets from their most recent ABR backup.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSPUNCH DD DSN=SELPCH.OUTPUT,UNIT=3590,DISP=(,CATLG),
//            DCB=BLKSIZE=6160
//SYSIN    DD *
  XSELECT  XDSN=PAYROLL.**
  PUNCH    FDRLIB=MASK
  PRINT    ENABLE=ONLINE,RPTYPE=SELPCH
//MASK     DD *
  SELECT   DSN=<NAME>,VOL=<VOL>,
           GEN=<ABRGEN>,CYCLE=<ABRCYCLE>,NVOL=PAY*
/*
```

The generated statements on SYSPUNCH look like:

```
  SELECT   DSN=PAYROLL.HOURLY.MASTER,VOL=PAY001,
           GEN=0123,CYCLE=005,NVOL=PAY*
```

GENERATE IDCAMS DELETE EXAMPLE

Generate an IDCAMS job stream to delete selected clusters and data sets. The job is submitted directly to the JES internal reader for execution. The punch mask is read from a member of the FDRLIB library.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSPUNCH DD SYSOUT=(A,INTRDR)
//SYSUDUMP DD SYSOUT=*
//FDRLIB   DD DSN=USER1.FDREPORT,DISP=SHR
//SYSIN    DD *
  XSELECT  XDSN=OLDFILES.**
  PUNCH    MASKNAME=IDCDEL,ECHO
  PRINT    DATATYPE=CATALOG,RPTYPE=SELPCH
/*
```

Member `IDCDEL` of library `USER1.FDREPORT` contains:

```
)PREFIX
//DELETE   JOB (ACCT),CLASS=M,MSGCLASS=X
//*        DELETE OLD FILES
//DELETE   EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
)ENDPREFIX
  DELETE   <NAME>  PURGE
)SUFFIX
/*
```

The job submitted to the internal reader looks like:

```
//DELETE   JOB (ACCT),CLASS=M,MSGCLASS=X
//*        DELETE OLD FILES
//DELETE   EXEC PGM=IDCAMS
//SYSPRINT DD SYSOUT=*
  DELETE   OLDFILES.JCL.CNTL  PURGE
  DELETE   OLDFILES.RECORDS.KSDS  PURGE
/*
```

GENERATE A JOB PER VOLUME EXAMPLE

FDREPORT can be used to generate a job or job step for each selected volume. This can be used to submit FDR backups, ICKDSF jobs, or other volume-oriented utility steps. This example shows using FDREPORT to submit ICKDSF jobs to initialize newly added volumes with UCB addresses 3340-334F.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//PCHSEL   DD SYSOUT=(A,INTRDR)    SUBMIT THE INIT JOBS TO JES
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  DEFAULT  IFSELECTERR=BYPASS,IFKEYWORDERR=BYPASS
  XSELECT  VLUNIT>=3340,VLUNIT<=334F,UCBSTATS=OFFLINE
  PUNCH    FDRLIB=MASKDD,ECHO
  PRINT    RPTYPE=SELPCH,DATATYPE=VOLDATA,PCHDDNAME=PCHSEL
/*
//MASKDD   DD DATA
//INIT<VLUNIT> JOB ...
//INIT     EXEC PGM=ICKDSF,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSIN    DD *
  INIT     UNITADDRESS(<VLUNIT>)  +
           NOVERIFY               +
           NOCHECK                +
           NOMAP                  +
           PURGE                  +
           VALIDATE               +
           VOLID(SH<VLUNIT>)      +
           VTOC(0000,0001,14)
/*
```

54.46 FDREPORT TAPE EXAMPLES

NOTE: The PRINT TVTOC function of program FDRABRP (see Section 53.9 "FDRABRP Tape VTOC Report") can also be used to generate fixed-format reports from FDR-format backup tapes. PRINT TVTOC is available even to FDR customers who are not also ABR customers, while FDREPORT is only available if you have licensed ABR or FDREPORT.

All examples in this section are found in the JCL library installed with FDR. The member names are EX5446*x*.

MAP BACKUP TAPE EXAMPLE

Read an FDR-format backup tape and report on the data sets included in that backup using the default report. The JCL shows an ABR full-volume backup, but it could be any backup created by FDR, DSF, ABR, or SAR.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//TAPE001  DD DSN=FDRABR.VPROD01.C1002300,DISP=SHR
//SYSIN    DD *
  TITLE    LINE='DATA SETS ON BACKUP <TVTOCDSN>'
  PRINT    DATATYPE=TVTOC
/*
```

The generated report looks like:

```
DATA SETS ON BACKUP FDRABR.VPROD01.C1002300
                      D/S
DATA SET NAME     VOLSER  ORG  RECFM  BLKSZ  LRECL  ALLOC  FREE  %FR
----------------- ------  ---  -----  -----  -----  -----  ----  ---
PAYROLL.TRANS     PROD01  PS   FB      3120     80     10     0    0
PROD.JCL.CNTL     PROD01  PO   FB      6160     80      5     2   40
```

MAP BACKUP TAPES EXAMPLE

Read several FDR backup tapes on one tape drive and report on the PDS data sets included in those backups. The ENABLE=TAPEREAD option is included so that FDREPORT reads the entire backup to extract PDS directory information. The report is sorted by backup data set name and by size within backup.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//TAPE1    DD DSN=PROD.BACKUP.VTSO001(0),DISP=SHR
//TAPE2    DD DSN=PROD.BACKUP.VTSO002(0),DISP=SHR,UNIT=AFF=TAPE1
//TAPE3    DD DSN=PROD.BACKUP.VTSO003(0),DISP=SHR,UNIT=AFF=TAPE1
//SYSIN    DD *
  TITLE    LINE='PO DATA SETS ON BACKUP <TVTOCDSN>'
  XSELECT  DSORG=PO
  SORT     FIELD=(TVTOCDSN,SIZE),SEQUENCE=(A,D),
           BREAK=(YES,NO)
  REPORT   FIELD=(SPLDSN,VOL,SIZE,MEMBERS)
  PRINT    DATATYPE=TVTOC,ENABLE=TAPEREAD,SORTALLOC=YES
/*
```

The generated report looks like:

```
PO DATA SETS ON BACKUP PROD.BACKUP.VTSO001.G0123V00
DATA SET NAME     VOLSER  ALLOC MEMBER
----------------- ------  ----- ------
USER1.JCL.CNTL    TSO001     20    125
```

PRINT ARCHIVE INFORMATION EXAMPLE

The Archive Control File contains only limited information about the original DASD data sets recorded in it. This job stream selects a data set from the control file and submits a second job that reads the archive backup that contains it and reports on selected fields.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSPUNCH DD SYSOUT=(A,INTRDR)  <== SUBMIT TO JES
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  XSELECT  DSN=datasetname       <== specify data set name here
  PUNCH    FDRLIB=MASK,ECHO
  PRINT    DATATYPE=ARCHIVE,RPTYPE=SELPCH,COPY=1
/*
//MASK     DD DATA,DLM=$$
//jobname  JOB …required parameters
//REPORT2  EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//TAPE1    DD UNIT=<BKDEVTYP>,DISP=SHR,LABEL=<BKFILENO>,
//            VOL=SER=<BKVOL>,DSN=FDRABR.V<VOL>.<BKSUFFIX>
//SYSIN    DD *
  TITLE    LINE='ARCHIVED DATA SET <NAME>'
  XSELECT  DSN=<NAME>
  REPORT   FIELD=(SPLNAME,VOL,DATES,SIZEINFO,EXTENTS)
  PRINT    DATATYPE=TVTOC
/*
$$
```

54.47 FDREPORT DFSMSHSM EXAMPLES

Please review Section 54.31 "FDREPORT DFSMShsm Reporting" for details on the FDREPORT field names that are available when you are reporting on data in a DFSMShsm or DFHSM MCDS or BCDS database. All examples in this section are found in the JCL library installed with FDR. The member names are EX5447*x*.

MCDS REPORT EXAMPLE

Report on data from the HSM MCDS. Only certain data sets are selected, and certain fields that are valid for the MCDS are included in the report. Include the migration volume where the data set currently resides using field HSMIGVOL. The MCDS is dynamically allocated.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='HSM MIGRATED DATA SETS'
  DEFAULT  MCDSCLUSTER=HSM.MCDS
  XSELECT  XDSN=USER1**
  REPORT   FIELD=(DSN,VOL,DSORG,SIZE,SIZEFREE,
                  ADATE,ATIME,ADAYS,HSMIGVOL)
  PRINT    DATATYPE=MCDS
/*
```

The generated report looks like:

```
HSM MIGRATED DATA SETS
                          D/S
DATA SET NAME     VOLSER ORG  ALLOC   FREE    ADATE    ATIME ADAYS FMIVOL
---------------   ------ --- ------ ------ -------- -------- ----- ------
USER1.TEST.ESDS   SMS802 EF       1      0 2008.056 11.54.49  1055 BM1800
```

BCDS REPORT EXAMPLE

Report on data from the HSM BCDS. Only certain data sets are selected, and certain fields that are valid for the BCDS are included in the report. The BCDS name is specified in JCL.

```
//REPORT   EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//BCDSDD   DD DISP=SHR,DSN=HSM.BCDS
//SYSIN    DD *
  TITLE    LINE='HSM BACKUPS OF DATA SETS'
  XSELECT  XDSN=USER1**
  REPORT   FIELD=(DSN,VOL,DSORG,SIZE,ADATE,ATIME,ADAYS)
  PRINT    DATATYPE=BCDS
/*
```

The generated report looks like:

```
HSM BACKUPS OF DATA SETS
                          D/S
DATA SET NAME     VOLSER ORG  ALLOC    ADATE    ATIME ADAYS
---------------   ------ --- ------ -------- -------- -----
USER1.AC.DATA     SMS802 PS       5 2002.048 20.15.35    16
```

54.48 FDREPORT DFSMSRMM TAPE MANAGEMENT REPORTING EXAMPLES

Please review Section 54.32 "FDREPORT Tape Management Reporting" for details on the FDREPORT field names that are available when you are reporting on data in a Tape Management System database. All examples in this section are found in the JCL library installed with FDR. The member names are EX5448*x*.

REPORT ON TAPES WITH PERMANENT RETENTION EXAMPLE

Extract data from the DFSMSrmm tape management system and report on the tapes that have a permanent retention status (TVEXDATE=1999365). A second title line is printed showing the creating date and time of the extraction file.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE    LINE='RMM EXTRACTION ON <TVXTDATE> AT <TVXTTIME>'
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  REPORT   FIELD=(TVVOLSER,TVF1DSN,TVEXDATE,TVCRDATE,
                  TVLRDATE,TVSTATUS)
  SORT     FIELD=TVVOLSER
  XSELECT  TVEXDATE=99.365
  PRINT    DATATYPE=RMMVOL,ENABLE=CHAREXPDATES,
           DATEFORMAT=MMDDYYYY
/*
```

The generated report looks like:

```
                                  RMM EXTRACTION ON 06/12/2013 AT 10.02.04

VOLSER FIRST FILE DATASET                              EXDATE     CRDATE     LRDATE VOLSTAT
------ ------------------                          ---------- ---------- ---------- -------
BA0124 FDRABR.VIDPBK0.B197338A                     NEVER      12/04/1997 08/20/1998 MASTER
BA0125 FDRABR.VIDPLB5.B298008A                     NEVER      12/04/1997 08/20/1998 MASTER
BA0126 FDRABR.VIDPLB2.B298041A                     NEVER      12/04/1997 08/20/1998 MASTER
BA0127 FDRABR.VIDPBK0.B198064A                     NEVER      12/04/1997 08/20/1998 MASTER
BA0128 FDRABR.VIDPPM4.B198071A                     NEVER      12/04/1997 08/20/1998 MASTER
BA0129 FDRABR.VIDPBK0.B198085A                     NEVER      12/04/1997 09/16/1998 MASTER
BA1003 FDRABR.VIDPLB4.B286322A                     NEVER      03/27/1998 03/15/2006 MASTER
BA1004 FDRABR.VIDPLB1.B186316A                     NEVER      03/27/1998 03/13/2006 MASTER
BA1005 FDRABR.VIDPBK0.B198064A                     NEVER      03/27/1998 03/10/2006 MASTER
BA1006 FDRABR.VIDPLB7.B201206A                     NEVER      03/27/1998 03/10/2006 MASTER
BA1008 FDRABR.VSYSLB8.B103092A                     NEVER      03/27/1998 03/07/2006 MASTER
BA1010 FDRABR.VIDPLB4.B205180A                     NEVER      03/27/1998 03/03/2006 MASTER
B90002 FDRABR.VIDPPM3.B109014A                     NEVER      04/22/1997 12/18/2009 MASTER
B90003 FDRABR.VIDPLB4.B205180A                     NEVER      04/22/1997 09/18/2008 MASTER
…
```

REPORT ON SCRATCH TAPES IN THE 900*XXX* RANGE EXAMPLE

Extract data from DFSMSrmm tape management system and create a permanent extraction file that can be used after this execution of FDREPORT. From this extraction file, select all the tapes in "SCRATCH" status for all tape volumes that begin with "900".

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=PRODDATA,
           DISP=RETAIN,DSN=RMM.DATA
  REPORT   FIELD=(TVVOLSER,TVSTATUS,TVEXDATE,
                  TVLWDATE,TVLRDATE,TVLRUN4B)
  XSELECT  TVVOLSER=900*,TVSTATUS=SCRATCH
  PRINT    DATATYPE=RMMVOL
/*
```

The generated report looks like:

```
VOLSER VOLSTAT   EXDATE  LWRDATE   LRDATE LUNI
------ ------- -------- -------- -------- ----
900001 SCRATCH                            0000
900008 SCRATCH          2001.046 2001.051 03A3
900021 SCRATCH          2000.094 2000.094 03A1
```

REPORT OF TAPES CREATED ON SPECIFIC TAPE DRIVE EXAMPLE

Report on data previously extracted from the DFSMSrmm tape management system. From the extracted file, select all the tapes created on a specific tape drive during a specific date range. This report can be useful if tape errors were detected on a specific drive and you want to identify all the tapes that were created on that drive during that time frame.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//RMMXTR   DD DISP=SHR,DSN=RMM.DATA
//SYSIN    DD *
  XSELECT  TVLRUNIT=03A0,TVLRDATE>=2012001,TVLRDATE<=2012007
  REPORT   FIELDS=(TVLRUN4B,TVVOLSER,TVLWDATE,TVLRDATE)
  PRINT    DATATYPE=RMMVOL
/*
```

The generated report looks like:

```
LUNI VOLSER   LWRDAT   LRDATE
---- ------ -------- --------
03A0 BU1043 2012.006 2012.006
03A0 BU1050 2012.006 2012.006
03A0 BU1081 2012.005 2012.005
03A0 BU1105 2012.006 2012.006
03A0 BU1113 2012.006 2012.006
03A0 BU1140 2012.005 2012.005
03A0 BU1142 2012.005 2012.005
03A0 BU1149 2012.005 2012.005
03A0 BU1155 2012.006 2012.006
03A0 BU1194 2012.006 2012.006
03A0 BU1199 2012.006 2012.006
```

REPORT ON TAPES FOR MULTIPLE OWNERS GROUPED BY OWNER EXAMPLE

Extract data from the DFSMSrmm tape management system selecting the tapes owned by users starting with "USER" and "QA", displaying the creation date, last-used date, and the home location for each volume. The report is sorted by creation date, from oldest to newest.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  TITLE LINE='VOLUMES OWNED BY <TVOWNER> SORTED BY CREATION DATE'
  EXTRACT  PRODUCT=RMM
  XSELECT  TVOWNER=(USER*,QA*)
  REPORT   FIELD=(TVVOLSER,TVOWNER,TVCRDATE,TVLRDATE,TVHOMLOC)
  SORT     FIELD=(TVOWNER,TVCRDATE),SEQUENCE=(A,A),BREAK=(SEJ,NO)
  PRINT    DATATYPE=RMMVOL
/*
```

The generated report looks like:

```
FDR400    FDRABR CUSTOM REPORTS - FDREPORT VER 5.4/80     INNOVATION DATA PROCESSING    DATE - 2013.006    PAGE - 0001
                                  VOLUMES OWNED BY QAUSR01  SORTED BY CREATION DATE

VOLSER   OWNER   CRDATE   LRDATE  HOMELOC
------ -------- -------- -------- --------
003168 QAUSR01  1999.307 2011.088 SHELF
003210 QAUSR01  2001.361 2011.227 SHELF
CCR004 QAUSR01  2002.227 2012.135 SHELF
…
FDR400    FDRABR CUSTOM REPORTS - FDREPORT VER 5.4/80     INNOVATION DATA PROCESSING    DATE - 2013.006    PAGE - 0003
                                 VOLUMES OWNED BY USER02   SORTED BY CREATION DATE

VOLSER   OWNER   CRDATE   LRDATE  HOMELOC
------ -------- -------- -------- --------
CCR039 USER02   2002.227 2012.146 SHELF
EE0496 USER02   2008.311          DDUPFATS
E10008 USER02   2008.311 2012.030 NDUPFDR
…
FDR400    FDRABR CUSTOM REPORTS - FDREPORT VER 5.4/80     INNOVATION DATA PROCESSING    DATE - 2013.006    PAGE - 0004
                                  VOLUMES OWNED BY USER03   SORTED BY CREATION DATE

VOLSER   OWNER   CRDATE   LRDATE  HOMELOC
------ -------- -------- -------- --------
001028 USER03   1994.269 2011.164 SHELF
E10157 USER03   2008.311 2011.304 NDUPFDR
…
```

REPORT ON TAPES FOR A SINGLE OWNER LAST USED WITHIN A RANGE OF DATES EXAMPLE

Extract data from the DFSMSrmm tape management system selecting the tapes owned by "TEST02" that were last used in 2011. The creation date, last-used date, and the home location are displayed for each volume. The report is sorted by last-used date, from oldest to newest.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  XSELECT  TVOWNER=TEST02,TVLRDATE.GE.2011.001,
           TVLRDATE.LE.2011.365
  REPORT   FIELD=(TVVOLSER,TVLRDATE,TVCRDATE,TVOWNER,TVHOMLOC)
  SORT     FIELD=TVLRDATE,SEQUENCE=A
  PRINT    DATATYPE=RMMVOL
/*
```

The generated report looks like:

```
VOLSER   LRDATE   CRDATE OWNER     HOMELOC
------ -------- -------- -------- --------
E10049 2011.220 2008.311 TEST02   NDUPFDR
003210 2011.227 2001.361 TEST02   SHELF
E10148 2011.243 2008.311 TEST02   NDUPFDR
CCR120 2011.245 2002.289 TEST02   SHELF
…
```

EXTEND THE EXPIRATION FOR SELECTED TAPE VOLUMES THAT EXPIRE IN A SPECIFIC DATE RANGE EXAMPLE

Extract data from the DFSMSrmm tape management system saving the file for use after the FDREPORT run by specifying DISP=RETAIN. From this extract file, select the tapes owned by "TEST3" that expire in January 2013. Submit the RMM command via a TSO batch job that changes the expiration dates on these volumes to December 31, 2013. The RMMFDR DD statement contains the job that is created by the PUNCH statement and is submitted to the internal reader.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//SYSPUNCH DD SYSOUT=(A,INTRDR)
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA,
           DISP=RETAIN,DSN=RMM.DATA
  XSELECT  TVOWNER=TEST3,TVEXDATE.GE.2013.001,
                         TVEXDATE.LE.2013.031
  PUNCH    FDRLIB=MASK,ECHO
  PRINT    RPTYPE=SELPCH,DATATYPE=RMMVOL,
           SORT=NO,DISABLE=DUPDSNCH
  REPORT   FIELD=(TVVOLSER,TVOWNER,TVEXDATE)
  PRINT    DATATYPE=RMMVOL
/*
//MASK     DD DATA,DLM=$$
//TEST3RMM JOB (J),'RMM BATCH CMDS',CLASS=M,MSGCLASS=X,
//         NOTIFY=X,TYPRUN=HOLD
//*
//* BATCH JOB TO ISSUE RMM COMMANDS
//TSOBATCH EXEC PGM=IKJEFT01,REGION=0M,TIME=30
//SYSTSPRT DD SYSOUT=*
//SYSTSIN  DD *
)ENDPREFIX
 RMM CHANGEVOLUME <TVVOLSER> EXPDT(2013/365)
)SUFFIX
/*
$$
```

The generated report looks like:

```
VOLSER OWNER     EXPDATE
------ -------- --------
CCR033 TEST3    2013.030
CCR049 TEST3    2013.020
E10014 TEST3    2013.001
E10034 TEST3    2013.026
```

The output job that is punched to the SYSPUNCH DD Statement looks like:

```
//TEST3RMM JOB (J),'RMM BATCH CMDS',CLASS=M,MSGCLASS=X,
//         NOTIFY=X,TYPRUN=HOLD
//*
//* BATCH JOB TO ISSUE RMM COMMANDS
//TSOBATCH EXEC PGM=IKJEFT01,REGION=0M,TIME=30
//SYSTSPRT DD SYSOUT=*
//SYSTSIN  DD *
 RMM CHANGEVOLUME CCR033 EXPDT(2013/365)
 RMM CHANGEVOLUME CCR049 EXPDT(2013/365)
 RMM CHANGEVOLUME E10014 EXPDT(2013/365)
 RMM CHANGEVOLUME E10034 EXPDT(2013/365)
/*
```

REPORT ON TAPE FILES WITH PERMANENT RETENTION EXAMPLE

Extract data from the DFSMSrmm tape management system and report on tape data sets created by jobs with names beginning with “FDR” and have a permanent retention status (EXPDATE=1999365). The report groups the data sets by owner.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  XSELECT  TDEXDATE=1999365,TDCRJOB=FDR*
  SORT     FIELD=(TDOWNER,TDVOLSER),BREAK=SP
  REPORT   FIELD=(TDVOLSER,TDDSNAME,TDCRJOB,TDOWNER,
                  TDCRPGM,TDCRDATE,TDLUPGM,TDLRDATE)
  PRINT    DATATYPE=RMMDSN
/*
```

The generated report looks like:

```
VOLSER DATA SET NAME                CREATJOB OWNER    CREATPGM   CRDATE LASTUPGM   LRDATE
------ -------------                -------- -------- -------- -------- -------- --------
003104 IDP.SCL00A.D05021            FDR11    USR      FDR      2005.021 FDR      2005.021
003104 IDP.SCL00B.D05021            FDR11    USR      FDR      2005.021 FDR      2005.021
003104 IDP.SCL00C.D05021            FDR11    USR      FDR      2005.021 FDR      2005.021
003104 IDP.SCL00D.D05021            FDR11    USR      FDR      2005.021 FDR      2005.021
003104 IDP.SCL00E.D05021            FDR11    USR      FDR      2005.021 FDR      2005.021
003104 IDP.SCL00F.D05021            FDR11    USR      FDR      2005.021 FDR      2005.021
003176 SCR084.ICF10KD               FDRTCPYH USR      FDRTCOPY 2009.063 AUTHOR   2009.113

ST0069 USR.VRVA7D1.BKUP             FDR22    USR0     FDR      2010.259 FDR      2012.180
ST0246 USR.D33903.BACKUP            FDRTCPYK USR0     FDRTCOPY 2009.174 AUTHOR   2012.189
ST0246 USR.CPKV0578                 FDRTCPYK USR0     FDRTCOPY 2009.174 FDRTCOPY 2009.174
ST0246 USR.P510400.BKUP             FDRTCPYK USR0     FDRTCOPY 2009.174 FDRDSF   2012.189
ST0246 USR.VSCR082.VSAM2A           FDRTCPYK USR0     FDRTCOPY 2009.173 AUTHOR   2012.191
ST0246 CPKV0170.BKUP                FDRTCPYK USR0     FDRTCOPY 2009.173 AUTHOR   2012.189
ST0246 SCR084.ICF10KD               FDRTCPYK USR0     FDRTCOPY 2009.173 FDR      2012.206
…
```

REPORT ON LARGE FILES CREATED BY SELECTED PROGRAMS WITH A SPECIFIC EXPIRATION PERIOD EXAMPLE

Extract data from the DFSMSrmm tape management system and report on data sets larger than 100MB created by programs with names beginning with “FAT” and expire in 2013. The report sorts the data sets by expiration date, then by size showing the last used date for the data set.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  XSELECT  TDCRPGM=FAT*,TDFILESZ>100M,
           TDEXDATE>2013001,TDEXDATE<2013365
  SORT     FIELD=(TDEXDATE,TDFILESZ)
  REPORT   FIELD=(TDEXDATE,TDFILESZ,TDVOLSER,TDCRDATE,
                  TDCRPGM,TDLUPGM,TDLRDATE,TDDSNAME)
  PRINT    DATATYPE=RMMDSN
/*
```

The generated report looks like:

```
  EXPDAT   FILE SIZE VOLSER   CRDATE CREATPGM LASTUPGM   LRDATE DATA SET NAME
-------- ----------- ------ -------- -------- -------- -------- -------------
2013.061 223346.688K 003431 2011.061 FATAR    FATAR    2011.061 USR.MAGSTAR.F1
2013.061 223346.688K 003431 2011.061 FATAR    FATAR    2011.061 USR.MAGSTAR.F10
2013.061 223346.688K 003431 2011.061 FATAR    FATAR    2011.061 USR.MAGSTAR.F11
2013.151 922746.880K 003482 2012.144 FATAR    FATAR    2012.144 USR.RMM.MVOLFIL2
2013.151   2476.737M 003045 2012.144 FATAR    FATAR    2012.145 USR.RMM.MVOLFIL2
2013.155 917504.000K E70431 2012.153 FATSCOPY FATSCOPY 2012.153 USR.RMM.MVOLFIL2
2013.159 108003.328K E70446 2012.157 FATSCOPY FATAR    2012.157 USR.RMM.MVOLFIL2
…
```

REPORT ALL TAPE FILES WITH VRS NAME OF ABEND

Extract data from the DFSMSrmm tape management system and report all data sets residing on non-scratch volumes that have a VRS name of "ABEND".

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  XSELECT  TDMVNAME.EQ.ABEND,TDSTATUS.NE.SCRATCH
  SORT     FIELD=TDCRDATE
  REPORT   FIELD=(TDDSNAME,TDVOLSER,TDCRPGM,TDCRDATE,
                  TDLUJOB,TDLRDATE,TDOWNER,TDSTATUS)
  PRINT    DATATYPE=RMMDSN
/*
```

The generated report looks like:

```
DATA SET NAME                   VOLSER CREATPGM   CRDATE LASTUJOB   LRDATE OWNER   VOLSTAT
-------------                   ------ -------- -------- -------- -------- ------- -------
USR.ABEND.DATASET               001149 IEBGENER 2001.004 USRANAL9 2002.318 USR2     MASTER
FDRABR.VIDPBK0.C3028500         M21002 FDRTSEL  2002.280 MVAULTC  2002.280 DMAINT   MASTER
USR1.TAPEALLC.MULTFILE.A06534   003078          2004.071          2004.071 USR2     MASTER
USR.TSTPERM3.DATASET            CCR093 FATSCOPY 2006.166 TST5057A 2011.192 USR1     MASTER
USR.STK.CPK.TEST.BACKUP         001086 FATAR    2008.052 USRCOPY1 2008.052 USR1     USER
USR.UPSTREAM.TAPE64K.TESTTAPE   CCR089 FATSCOPY 2008.336 USRANLY1 2011.214 USR2     MASTER
FATTESTS.FCRBLK04.VB.FILE2      CCR067 FATSCOPY 2010.237 USRIMPRT 2011.165 OPER     MASTER
FATTESTS.FCRBLK04.VB.FILE2      CCR074 FATSCOPY 2010.237 USRIMPRT 2011.165 OPER     MASTER
FATTESTS.FCRBLK04.VB.FILE2      CCR077 FATSCOPY 2010.237 TST5057A 2011.189 OPER     MASTER
USR.DFDSS.BACKUP                003380 FATSCOPY 2010.291 USRCOPY1 2010.291 USR1     MASTER
USR.WHACKED.DATASET             001052 FATSCOPY 2010.313 USRIMPRT 2011.124 USR2     MASTER
USR.DFDSS.BACKUP                003109 FATSCOPY 2011.020 USRZ4920 2011.020 USR2     MASTER
PRD.THREEVOL                    CCR013 FATSCOPY 2011.227 USR237A  2012.135 PRD      MASTER
USR.DUMP03                      E10146 FATSCOPY 2011.304 USRPROB2 2011.304 USR1     MASTER
USR.DUMP03                      E10132 FATSCOPY 2011.318 USRPROB2 2011.318 USR1     MASTER
…
```

REPORT ON TAPE FILES LAST USED BY DFSMSHSM

Extract data from the DFSMSrmm tape management system and report on non-scratch data sets that were created by DFSMShsm.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  XSELECT  TDCRPGM=ARC*,TDSTATUS.NE.SCRATCH
  SORT     FIELD=TDLRDATE
  REPORT   FIELD=(TDDSNAME,TDVOLSER,TDCRPGM,TDLRDATE,TDOWNER)
  PRINT    DATATYPE=RMMDSN
/*
```

The generated report looks like:

```
DATA SET NAME                                VOLSER CREATPGM   LRDATE OWNER
-------------                                ------ -------- -------- --------
SYSPSMS.PERFTEST.C.C01V0001                  003106 ARCWCTL  2000.020 HSMABR
SYSPSMS.PERFTEST.D.C01V0001                  003106 ARCWCTL  2000.020 HSMABR
SYSPSMS.PERFTEST.I.C01V0001                  003106 ARCWCTL  2000.020 HSMABR
SYSPSMS.PERFTEST.O.C01V0001                  003106 ARCWCTL  2000.020 HSMABR
HSM.BACKTAPE.DATASET                         003154 ARCCTL   2000.047 RAM
HSM.DMP.SUNDAY.VBMRK01.D00055.T300321        003159 ARCCTL   2000.055 RAM
HSM.DMP.SUNDAY.VBMRK01.D00060.T013410        003145 ARCCTL   2000.060 RAM
HSM.BACKTAPE.DATASET                         003033 ARCCTL   2000.061 RAM
BMRK0.TEST6.C.C01V0003                       003230 ARCWCTL  2005.300 SYSTASK
BMRK0.TEST6.D.C01V0003                       003230 ARCWCTL  2005.300 SYSTASK
BMRK0.TEST6.I.C01V0003                       003230 ARCWCTL  2005.300 SYSTASK
BMRK0.TEST6.O.C01V0003                       003230 ARCWCTL  2005.300 SYSTASK
HSM.BACKTAPE.DATASET                         003162 ARCCTL   2010.018 OMVSKERN
HSM.BACKTAPE.DATASET                         003367 ARCCTL   2010.018 OMVSKERN
HSM.BACKTAPE.DATASET                         003225 ARCCTL   2010.049 OMVSKERN
…
```

PRODUCE AN DFSMSRMM TAPE INVENTORY

Extract data from the DFSMSrmm tape management system and print an inventory of all the tapes sorted by tape volser.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  EXTRACT  PRODUCT=RMM,STORCLAS=TEMPDATA
  TITLE    LINE='DFSMSrmm TAPE INVENTORY'
  SORT     FIELD=TVVOLSER
  REPORT   FIELD=(TVVOLSER,TVF1DSN,TVCRJOB,TVVOLSEQ,TVCRDATE,
                  TVEXDATE,TVRTDATE,TVSTATUS)
  PRINT    DATATYPE=RMMVOL
/*
```

The generated report looks like:

```
                                                DFSMSrmm TAPE INVENTORY

VOLSER FIRST FILE DATASET                        CREATJOB VSQ   CRDATE   EXPDAT   RTDATE VOLSTAT
------ -----------------                         -------- --- -------- -------- -------- -------
I00000 BACKUP.VRMG005.C1033704                   FDRTSOIN   2 2003.297          2012.250 SCRATCH
I00001 BACKUP.VT34881.B111176A                   SS040STK  11 2003.300 2012.094 2013.123 MASTER
I00002 BACKUP.VIMTS09.C2122100                   FDRIMSBK   2 2003.297          2012.247 SCRATCH
I00003 BACKUP.VT34938.B111302A                   SS040STK   2 2003.301 2012.144 2013.173 MASTER
I00004 BACKUP.VT34894.B111142A                   SS040STK   1 2003.301 2012.088 2013.117 MASTER
I00005 BACKUP.VPR0019.B110326A                   SS040SIM   7 2003.301 2011.066          MASTER
I00006 PROD.XPTR.ARC70.ATL.R06350                XPT010D    1 2003.301 2011.067          MASTER
I00007 BACKUP.VRMG036.B110328A                   SS040SIM   8 2003.301 2011.066          MASTER
I00008 BACKUP.VT34938.B112168B                   FDRAGUBK   1 2003.301 2012.234 2013.202 MASTER
I00009 BACKUP.VARC536.C1029800                   FDRARCBK   3 2008.335          2012.140 SCRATCH
…
```

USE DFSMSRMM UTILITY TO CREATE AN EXTRACT FILE

Create a DFSMSrmm extract file to be used by FDREPORT using the DFSMSrmm utilities instead of using the EXTRACT command. PARM='RPTEXT,DATEFORM(J)' must be coded to get the data in the format that FDREPORT uses. The DFSMSrmm utility requires pre-allocation of the data sets for the MESSAGE and XREPTEXT DD statements. Please see the DFSMSrmm documentation for further information.

RECOMMENDATION: *INNOVATION DATA PROCESSING recommends the use of the EXTRACT command to simplify the need of pre-allocating this file.*

```
//EXTRACT  EXEC PGM=EDGHSKP,PARM='RPTEXT,DATEFORM(J)'
//SYSPRINT DD SYSOUT=*
//MESSAGE  DD DISP=SHR,DSN=your.dfsmsrmm.messages.file
//XREPTEXT DD DISP=SHR,DSN=your.dfsmsrmm.extract.file
```

REPORT ON TAPE DATA SETS ON ALL VOLUMES WITH VOLUME EXPIRATION DATES AFTER TODAY

Select all the volumes with volume expiration dates in the next 31 days. Display all the data sets on those tape volumes and display their creation job, last used job, last used date, expiration date, and the rest.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSPUNCH DD UNIT=VIO,SPACE=(CYL,(10,10)),DSN=&&SYSPUNCH
//SYSIN    DD *
  DEFAULT  SORTALLOC=(SORTWORK,CYL),
           WORKDDNAMES=5,WORKSPACE=750,WORKSTORCLAS=TEMPDATA,
           SYSUTSPACE=500,SYSUTSTORCLAS=TEMPDATA,
           IFSELECTERROR=BYPASS,IFKEYWORDERROR=BYPASS,
           ENABLE=(ALLFILTER,ONELINESUM),DISABLE=SELTERR,
           DATEFORMAT=MMDDYYYY
  EXTRACT  PRODUCT=RMM,STORCALS=TEMPDATA,DISP=DELETE
  XSELECT  TVEXDAYS>0,TVEXDAYS<31
  PUNCH    FDRLIB=MASK,ECHO
  PRINT    DATATYPE=RMMVOL,RPTYPE=SELPCH,DISABLE=DUPDSNCHECK
  CANCEL
  TITLE    LINE='DATA SETS ON VOLS THAT EXPIRE WITHIN A MONTH'
  EXEC     FDRLIB=SYSPUNCH,ECHO,MAXEXECUTE=32766
  REPORT   FIELD=(TDVOLSER,TDVOLSEQ,TDLABLNO,TDDSNAME,
                  TDCRJOB,TDLUJOB,TDLRDATE,TDEXDATE,TDSTATUS)
  SORT     FIELD=(TDVOLSER,TDVOLSEQ,TDLABLNO,TDDSNAME)
  SUMMARY  FIELD=TDVOLSER
  PRINT    DATATYPE=RMMDSN
/*
//MASK     DD *
)DUPCHECK
  XSELECT TDVOLSER=<TVVOLSER>
)ENDUPCHECK
/*
```

The generated report looks like:

```
                                DATA SETS ON VOLS THAT EXPIRE WITHIN A MONTH

VOLSER VSQ LBLNO DATA SET NAME                              CREATJOB LASTUJOB     LRDATE     EXPDAT VOLSTAT
------ --- ----- -------------                              -------- -------- ---------- ---------- -------
B90007   1     1 FDRABR.VIDPBK0.B109364A                    VARCHIVE VARCHIVE 09/12/2012 09/19/2012 MASTER
B90007   1     2 FDRABR.VSYSLB2.B110006A                    VARCHIVE VARCHIVE 09/12/2012 09/19/2012 MASTER
B90007   1     3 FDRABR.VSYTS38.B110027A                    VARCHIVE VARCHIVE 09/12/2012 09/19/2012 MASTER
B90007   1     4 FDRABR.VSYTS18.B110027A                    VARCHIVE VARCHIVE 09/12/2012 09/19/2012 MASTER
B90007   1     5 FDRABR.VSYSLB5.B110034A                    VARCHIVE VARCHIVE 09/12/2012 09/19/2012 MASTER
…
```

54.49 FDREPORT CA 1 TAPE MANAGEMENT REPORTING EXAMPLES

Please review Section 54.32 "FDREPORT Tape Management Reporting" for details on the FDREPORT field names that are available when you are reporting on data in a Tape Management System database. All examples in this section are found in the JCL library installed with FDR. The member names are EX5449*x*.

CREATE AN EXTRACT FILE FROM CA 1 TMC EXAMPLE

Create an extract file from the CA 1 Tape Management Catalog (TMC) to be used later when running tape reports. The name of the TMC is specified on the DEFAULT Statement. The SORTALLOC= operand is specified in a prior DEFAULT statement as it is required when extracting from the CA 1 TMC. The name of the extract file created by FDREPORT is automatically generated.

NOTE: An alternate method of specifying the name of the TMC is by specifying the TMC DD card in the JCL. See "TMC DD Statement" in Section 54.3 for more information.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  DEFAULT  SORTALLOC=YES,CA1TMC=CA1.TMC
  EXTRACT  PRODUCT=CA1,STORCLAS=TEMPDATA,DISP=RETAIN
/*
```

REPORT ON TAPE VOLUMES THAT EXPIRE IN THE NEXT 30 DAYS EXAMPLE

Extract data from the CA 1 tape management system and report on the tapes that are expiring in the next 30 days.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//CA1XTR   DD DISP=SHR,DSN=ca1.extract.dataset
//SYSUDUMP DD SYSOUT=*
//SYSIN   DD *
  TITLE   LINE='VOLUMES EXPIRING IN NEXT 30 DAYS'
  SELECT  TVEXDAYS<31,TVEXDAYS>0
  REPORT  FIELD=(TVVOLSER,TVVOLSEQ,TVEXDATE,TVCRDATE,TVF1DSN)
  SORT    FIELD=(TVEXDATE,TVVOLSER)
  PRINT   DATATYPE=CA1VOL,ENABLE=CHAREXPDATES,SORTALLOC=YES
/*
```

The generated report looks like:

```
                          VOLUMES EXPIRING IN NEXT 30 DAYS

VOLSER VSQ   EXPDAT   CRDATE FIRST FILE DATASET
------ --- -------- -------- ------------------
V02202   1 2013.205 2012.171 $AVRS.BACKUP.SYSLOG.G2485V00
V24690   1 2013.205 2013.145 ARWQNAT.PUSM502C.G0004V00
X03114   1 2013.211 2011.212 SYSPNA.CAI.CA7.LOG.MONTHLY.G0052V00
C00188   2 2013.226 2006.183 ARWPAPT.PMS0001.APR2006.DR
C01946   1 2013.226 2006.183 ARWPAPT.PMS0001.APR2006.DR
…
```

LIST OF TAPES VOLUMES IN SCRATCH STATUS EXAMPLE

Extract data from the CA 1 tape management system and produce a report of the volumes that are in scratch status.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//CA1XTR   DD DISP=SHR,DSN=ca1.extract.dataset
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE   LINE='VOLUMES IN SCRATCH STATUS'
  XSELECT TVSTATUS=SCRATCH
  REPORT  FIELD=(TVVOLSER,TVSTATUS,TVLRDATE,TVLRUNIT,TVC1RECT)
  SORT    FIELD=TVVOLSER
  PRINT   DATATYPE=CA1VOL,ENABLE=CHAREXPDATES,SORTALLOC=YES
/*
```

The generated report looks like:

```
                              VOLUMES IN SCRATCH STATUS

VOLSER VOLSTAT   LRDATE LUNI CA-1 RECORD TECHNIQUE
------ ------- -------- ---- --------------------
050000 SCRATCH 2009.210 0292 3590-H 384 TRK
050001 SCRATCH 2009.163 0290 3590-H 384 TRK
050002 SCRATCH 2009.052 0294 3590-H 384 TRK
050006 SCRATCH 2009.146 0293 3590-H 384 TRK
…
```

REPORT ON TAPE DATA SETS THAT WERE CREATED IN THE PAST 60 DAYS EXAMPLE

Extract data from the CA 1 tape management system and report on the tape data sets that were created in the past 60 days.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//CA1XTR   DD DISP=SHR,DSN=ca1.extract.dataset
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  TITLE   LINE='DATA SETS CREATED IN THE PAST 60 DAYS'
  REPORT  FIELD=(TDVOLSER,TDDSNAME,TDEXDATE,TDCRDAYS,
                 TDCRDATE,TDCRTIME,TDBLKSIZ)
  XSELECT TDCRDAYS<60
  SORT    FIELD=TDCRDATE
  PRINT   DATATYPE=CA1DSN,SORTALLOC=YES
/*
```

The generated report looks like:

```
                          DATA SETS CREATED IN THE PAST 60 DAYS

VOLSER DATA SET NAME                                 EXPDAT CRDAY   CRDATE   CRTIME BKSIZE
------ -------------                                -------- -----  -------- -------- ------
800204 TESTG.VTGS051.B113148A                       2013.163    59 2013.148 08.22.00  32760
801613 SYS2.SYSB.SMFDATA.M1052813.T0010P01          2020.147    59 2013.148 00.10.00  32760
809965 TESTS.QC4U.SEQ.REP.CI010060.CIC              1998.060    59 2013.148 08.30.00  32760
810708 BKUP.CCS.PROD.DCOM.BKUP.G0226V00             1999.000    59 2013.148 12.01.00   4096
…
```

REPORT OF TAPE DATA SETS CREATED BY A SPECIFIC PROGRAM

Extract data from the CA 1 tape management system and report on the tape data sets that were created by the program $AVRPULL.

```
//FDREPORT EXEC PGM=FDREPORT,REGION=0M
//SYSPRINT DD SYSOUT=*
//ABRMAP   DD SYSOUT=*
//CA1XTR   DD DISP=SHR,DSN=ca1.extract.dataset
//SYSUDUMP DD SYSOUT=*
//SYSIN    DD *
  DEFALTS ENABLE=COMPDSORT,SORTALLOC=(YES,TRK),
          WORKDD=5,WORKSPACE=1500
  TITLE   LINE='DATA SETS CREATED BY PROGRAM=$AVRPULL'
  REPORT  FIELD=(TDVOLSER,TDDSNAME,TDEXDATE,
                 TDCRDATE,TDCRTIME,TDCRPGM)
  XSELECT TDCRPGM=$AVRPULL
  SORT    FIELD=TDEXDATE
  PRINT   DATATYPE=CA1DSN
/*
```

The generated report looks like:

```
DATA SETS CREATED BY PROGRAM $AVRPULL

VOLSER DATA SET NAME                                  EXPDAT   CRDATE   CRTIME CREATPGM
------ -------------                                -------- -------- -------- --------
DM0061 SYSDRP.NABOOT.$AVRS.OUTPUT                   2013.151 2013.133 07.46.00 $AVRPULL
DM0050 SYSDRP.APBOOT.$AVRS.OUTPUT                   2013.152 2013.134 02.42.00 $AVRPULL
DM0052 SYSDRP.NABOOT.$AVRS.OUTPUT                   2013.152 2013.134 09.16.00 $AVRPULL
DM0008 SYSDRP.APBOOT.$AVRS.OUTPUT                   2013.153 2013.135 03.22.00 $AVRPULL
...
```

54.60 FDREPORT FIELD NAMES

FIELD NAME TABLES

The following tables list the field names that can be used in REPORT, SORT, and SUMMARY statements as well as PUNCH masks and TITLE statements. The tables show the following information for each field:

- **Field Name** – On a REPORT, SORT, or SUMMARY statement, the field name in the FIELD= operand. In a PUNCH mask or TITLE statement, specify it where you want its value substituted, surrounded by the field prefix/suffix characters (for example, <DSN>). On an XSELECT or XEXCLUDE statement, the field name may be followed by any of the operations supported (for example, %CI>10).
- **XSELECT** – A value in this column indicates that the field can be specified on the XSELECT or XEXCLUDE statements as (*fieldname operand value*). The current value of the field is compared to the value specified using the comparison specified by the operand and the data set or volume may be selected if the comparison is true:

  E – the equal (= or .EQ.) and the not equal (¬= or .NE.) comparisons are valid.

  A – all comparison operands supported by the XSELECT and XEXCLUDE statements are valid.

  N – display-only option, cannot be used for selection or exclusion.
- **REPORT** – This column indicates whether the field can be specified on the REPORT statement.
- **SORT** – This column indicates whether the field can be specified on the SORT statement. Fields valid for SORT can also be specified in a TITLE statement.
- **SUMMARY** – A value in this column indicates that the field is eligible for the SUMMARY statement.

  C (count) – the number of unique occurrences of the value are simply counted.

  V (value) – each unique value of the field is displayed with the number of occurrences of that value.

  S (sum) – a total of all values of the field is displayed.
- **PUNCH** – Indicates whether the field can be specified in the punch mask.
- **Length** – The number of print positions the field occupies on the report.

  B – Byte formatted field. The format and width of byte fields varies depending on the value of the BYTEFORMAT= operand.

  D – Date formatted field. The format and width of date fields varies depending on the value of the DATEFORMAT= operand.
- **Attribute** – How the field is displayed.

  BYTE – Byte formatted field. The format and width of byte fields varies depending on the value of the BYTEFORMAT= operand.

  CHAR – Character field.

  DATE – Date formatted field. The format and width of date fields varies depending on the value of the DATEFORMAT= operand.

  HEX – Hexadecimal field.

  NUM – Numeric field.

  TIME – Time formatted field.
- **Description** – A brief description of the field. For fields that represent attributes or flag bytes, the strings that are used in XSELECT and XEXCLUDE statements are shown, for example, one of the values of CATALOG is YES, so you may specify CATALOG=YES. For some such fields, the value is abbreviated in the report so the abbreviated printed value is shown in parenthesis, for example, under ARCFLAG2 it says RECALL (A), so you specify ARCFLAG2=RECALL, but in a report, ARCFLAG2 includes “A” if the recall flag is set.

54.60 FDREPORT FIELD NAMES

The field name tables are listed by DATATYPE showing the fields available for the specified DATATYPE.

- DATATYPE ARCHIVE Field Name Table
- DATATYPE BCDS Field Name Table
- DATATYPE CATALOG Field Name Table
- DATATYPE CATARCH Field Name Table
- DATATYPE CATVTOC Field Name Table
- DATATYPE CA1DSN Field Name Table
- DATATYPE CA1VOL Field Name Table
- DATATYPE DEFDASD Field Name Table
- DATATYPE ENCRYPT Field Name Table
- DATATYPE EXTRACT Field Name Table
- DATATYPE MCDS Field Name Table
- DATATYPE RMMDSN Field Name Table
- DATATYPE RMMVOL Field Name Table
- DATATYPE SCRATCH Field Name Table
- DATATYPE TVTOC Field Name Table
- DATATYPE VOLDATA Field Name Table
- DATATYPE VTOC Field Name Table

DATATYPE ARCHIVE FIELD NAME TABLE

This is the operand list for all data sets (both VSAM and non-VSAM). ARCHIVE extracts data set information from the FDRABR Archive Control File (ACF). Backup information, if requested, is gathered from the catalog using the LOCATE SVC.

DATATYPE=ARCHIVE Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
%FREE	A	Y	Y	V	Y	3	NUM	Tracks not in use within a data set as a percentage
%USED	A	Y	Y	V	Y	3	NUM	Tracks in use within a data set as a percentage
ACTTTR	A	Y	Y	V	Y	6	HEX	Actual TTR of archive record
ADATE	A	Y	Y	V	Y	D	DATE	Archive date
ADAYS	A	Y	Y	V	Y	5	NUM	Days since archived
ARCDSN	A	Y	N	V	Y	44	CHAR	Archive Control File (ACF) name
ARCFLAG1	E	Y E	Y	V	Y	5	CHAR	Archive Flags (byte 1): CLSERROR (X) - Component marked for delete because there is no corresponding cluster DELCOMP (Z) - Component marked for delete because cluster is to be deleted EXTRESTR (E) - External restore from archive FIVEVOLS (F) - Archive backup spans more than five volumes INTRESTR (I) - Internal restore from archive MULTIVOL (M) - Portion of multi-volume data set archived from one volume RESTORED (R) - Entry restored from archive or restore from archive was attempted SULABEL (S) - Data set is restored with an SUL
ARCFLAG2	E	Y	Y	V	Y	5	CHAR	Archive Flags (byte 2): ABRTAPE (T) - Backup is an ABR tape, not archive tape CLUSTER (C) - Cluster entry DELETE (D) - External delete from archive DISKBKUP (B) - Backup data set created on DASD device NOTCAT (N) - Backup data set not cataloged RECALL (A) - Data set archived with auto-recall
ARCTTR	A	Y	Y	V	Y	6	HEX	Archive record auto-recall TTR
ATIME	A	Y	Y	V	Y	8	TIME	Archive time - *hh.mm.ss* (APPL backup only)
BKDATE	A	Y	Y	V	Y	D	DATE	Backup date
BKDAYS	A	Y	Y	V	Y	5	NUM	Days since backup
BKDEVCLS	E	Y	Y	V	Y	4	CHAR	Backup tape device class: DISK TAPE
BKDEVTYP	E	Y	Y	V	Y	7	CHAR	Backup tape device type
BKDSNS	A	Y	Y	V	Y	3	NUM	Number of active backup data sets
BKEXDATE	A	Y	V	Y	Y	D	DATE	Backup expiration date
BKEXDAYS	A	Y	V	Y	Y	5	NUM	Days until backup expiration Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
BKFILENO	A	Y	V	Y	Y	4	NUM	Backup tape file number
BKSUFFIX	E	Y	V	Y	Y	8	CHAR	Backup tape data set name suffix Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BKTAPCNT	A	Y	N	Y	Y	2	NUM	Backup tape volume count
BKVOL	E	Y	Y	V	Y	34	CHAR	Backup tape volumes required to restore Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BLKSIZE	A	Y	Y	S	Y	5	NUM	Block size

DATATYPE=ARCHIVE Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
BLKSTRK	A	Y	Y	V	Y	4	NUM	Blocks per track
BYTES	A	Y	Y	S	Y	B	BYTE	Allocated space (bytes / kB / MB)
BYTESFRE	A	Y	Y	S	Y	B	BYTE	Unused space (bytes / KB / MB)
BYTESTRK	A	Y	Y	V	Y	5	NUM	Bytes per track (calculated)
BYTESUSE	A	Y	Y	S	Y	B	BYTE	Used space (bytes / KB / MB)
CATALOG	E	Y	Y	V	Y	3	CHAR	Catalog status: CAN - Cataloged to candidate volume DRF - DASD read failure ERR - Cataloged to another volume NO - Not cataloged ONL - Only cataloged UNK - Cataloged, but unable to process with LOCATE YES - Cataloged to this volume Note: This can be expensive to collect if a large number of data sets are to be reported
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
CRDATE	A	Y	Y	V	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DSGROUP	A	Y				44	CHAR	Data set group name
DSIND	E	Y	Y	V	N	2	HEX	Data set indicators (printed in hex): LASTV (x'80') - Last volume MULT8 (x'20') - Block size multiple of 8 PASSA (x'10') - Read / write password PASSW (x'14') - Write password RACF (x'40') - Discrete profile UPDAT (x'02') - Data set updates
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date

DATATYPE=ARCHIVE Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
INDEX	E	Y	Y	V	Y	8	CHAR	Index volume from data set name (
LRDATE	A	Y	Y	Y	Y	D	DATE	Last reference date
LRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last referenced
LRECL	A	Y	Y	V	Y	5	NUM	Data set logical reference length
LSTAR	A	Y	Y	N	Y	6	HEX	Data set last block pointer; specify as LSTAR=X'tttttrrr'
NOEPV	A	Y	Y	S	Y	3	NUM	Number of extents for data set on this volume
OLDBKUP		Y	Y	V	N	2	NUM	ABR old backup # of ABR backup
OPTCD	E	Y	Y	V	Y	2	HEX	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECFM	E	Y	Y	V	Y	5	CHAR	Record format: A - ASA control character B - Blocked F - Fixed M - Machine control character S - Standard/spanned T - Track overflow U - Undefined V - Variable * - None of the above
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER	N	Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SCLUSTER		Y	N	N	N	20	CHAR	Short cluster name (first 20 bytes only)
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)

DATATYPE=ARCHIVE Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SECAFLAG	E	Y	Y	V	Y	5	CHAR	Secondary allocation flags: BLK - Allocated in blocks CON - Contiguous (CONTIG) CYL - Allocated in cylinders FIV - Five largest extents (ALX) MAX - Largest extent (MXIG) RND - Rounded to cylinders (ROUND) TRK - Allocated in tracks
SIZE	A	Y	Y	S	Y	5*	NUM	Allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEFREE	A	Y	Y	S	Y	5*	NUM	Tracks not in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEUSED	A	Y	Y	S	Y	5*	NUM	Tracks in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data
SPLCLS		Y	N	N	N	27	CHAR	Split ICF cluster name on two lines
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
TRACKCAP		Y	Y	V	Y	5	NUM	Maximum track capacity of device in bytes
TRKCYL		Y	Y	V	N	3	NUM	Number of tracks per cylinder
TRKSVOL		Y	Y	S	Y	6	NUM	Number of tracks on this volume
UCBID	A	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
XDSNAME	E	Y					CHAR	Extended data set name (selection only)

DATATYPE BCDS FIELD NAME TABLE

This is the operand list for all data sets (both VSAM and non-VSAM). BCDS extracts data set information from the DFSMShsm Backup Control Data Set (BCDS), a VSAM cluster.

DATATYPE=BCDS Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
%FREE	A	Y	Y	V	Y	3	NUM	Tracks not in use within a data set as a percentage
%USED	A	Y	Y	V	Y	3	NUM	Tracks in use within a data set as a percentage
ADATE	A	Y	Y	V	Y	D	DATE	Archive date
ADAYS	A	Y	Y	V	Y	5	NUM	Days since archived
ATIME	A	Y	Y	V	Y	8	TIME	Archive time - *hhmmss* (APPL backup only)
BYTES	A	Y	Y	S	Y	B	BYTE	Allocated space (bytes / kB / MB)
BYTESFRE	A	Y	Y	S	Y	B	BYTE	Unused space (bytes / KB / MB)
BYTESTRK	A	Y	Y	V	Y	5	NUM	Bytes per track (calculated)
BYTESUSE	A	Y	Y	S	Y	B	BYTE	Used space (bytes / KB / MB)
BLKSIZE	A	Y	Y	V	Y	5	NUM	Data set block size
BLKSTRK	A	Y	Y	V	Y	4	NUM	Number of blocks per track
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DSGROUP	A	Y				44	CHAR	Data set group name
DSIND	E	Y	Y	V	N	2	HEX	Data set indicators (printed in hex): LASTV (x'80') - Last volume MULT8 (x'20') - Block size multiple of 8 PASSA (x'10') - Read / write password PASSW (x'14') - Write password RACF (x'40') - Discrete profile UPDAT (x'02') - Data set updates
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined

DATATYPE=BCDS Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
INDEX	E	Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
KEYLEN	A	Y	Y	V	Y	3	NUM	Data set key length
LRDATE	A	Y	Y	Y	Y	D	DATE	Last reference date
LRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last referenced
LRECL	A	Y	Y	V	Y	5	NUM	Data set logical reference length
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NAME		Y	Y	N	Y	44	CHAR	Data set name or VSAM cluster name
NTMIGRAT	A	Y	Y	N	N	8	CHAR	Number of times data set has been migrated (MCDS) or backed up (BCDS)
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECFM	E	Y	Y	V	Y	5	CHAR	Record format: A - ASA control character B - Blocked F - Fixed M - Machine control character S - Standard/spanned T - Track overflow U - Undefined V - Variable * - None of the above
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hhmmss*
SIZE	A	Y	Y	S	Y	5*	NUM	Allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEFREE	A	Y	Y	S	Y	5*	NUM	Tracks not in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEUSED	A	Y	Y	S	Y	5*	NUM	Tracks in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data

DATATYPE=BCDS Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SPLCLS		Y	N	N	N	27	CHAR	Split ICF cluster name on two lines
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
TRKCYL		Y	Y	V	N	3	NUM	Number of tracks per cylinder
TRKSVOL		Y	Y	S	Y	6	NUM	Number of tracks on this volume
TVTOCDSN	A	Y	Y	V	Y	44	CHAR	Input backup dsn
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
XDSNAME	E	Y					CHAR	Extended data set name (selection only)

DATATYPE CATALOG FIELD NAME TABLE

This is the operand list for all data sets (both VSAM and non-VSAM). CATALOG extracts data set information from the Catalog.

DATATYPE=CATALOG Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
ACTIVE	E	Y	N	C	N	3	CHAR	ENQUEUE status: NO YES
AIXNAME	E	Y				44	CHAR	Alternate index cluster name (ICF VSAM only)
ALILEVEL		Y	N	C	Y	2	NUM	Alias level
ALISTATS		Y	N	C	N	3	CHAR	Alias stats: NO - alias is not currently active YES - alias is currently active
ATTR1	E	Y	Y	N	N	24	CHAR	Attribute byte one (ICF VSAM only): ERASE - Erase when deleted INHIBIT - Access for read only RECOVERY - Control areas preformatted REUSEABLE - Can be reopened as NEW SPEED - Control areas not preformatted TEMPEXPORT - Portable copy has been made TRACKOVER - Track overflow UNIQUE
CANDVOLC	A	Y	Y	V	Y	3	NUM	Number of unique candidate volumes where the data set is cataloged
CATALOG	E	Y	Y	V	Y	3	CHAR	Catalog status: CAN - Cataloged to candidate volume DRF - DASD read failure ERR - Cataloged to another volume NO - Not cataloged ONL - Only cataloged UNK - Cataloged, but unable to process with LOCATE YES - Cataloged to this volume Note: This can be expensive to collect if a large number of data sets are to be reported
CATNAME	A	Y	Y	V	Y	44	CHAR	Name of the catalog
CATTTR	A	Y	Y	X	Y	6	HEX	DSCBTTR from catalog
CATVOL	E	Y	Y	X	Y	6	CHAR	Volume where the data set is cataloged Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CATVOLCT	A	Y	Y	V	Y	3	NUM	Number of unique non-candidate volumes where the data set is cataloged
CATVOLTL	A	Y	Y	V	Y	3	NUM	Total number of unique volumes where the data set is cataloged
CATVRBA		Y	Y	V	Y	8	HEX	Relative byte address of VVR from catalog
CLUSATTR	E	Y	Y	N	N	24	CHAR	Cluster attributes (ICF VSAM): ATL - Tape volume catalog ATTREXT - Extended attribute (EA) EXTEND - Extended format (EF) FORMAT - Formatted pagespace PAGESPACE - Pagespace SWAPSPACE - Swapspace TIMESSTAMP - Timestamps exist VERIFYREQ - Verify is required (catalog only)
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
CMPCANDV	A	Y	Y	V	Y	3	NUM	Number of candidate volumes cataloged to component
CMPVOLCT	A	Y	Y	V	Y	3	NUM	Number of volumes cataloged to this component

DATATYPE=CATALOG Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
CMPVOLTL	A	Y	Y	V	Y	3	NUM	Total volumes cataloged to this component
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
CRDATE	A	Y	Y	V	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created
CTLMODEL		Y						
CTLSERNO	E	Y	Y	Y	Y	5	CHAR	Controller serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DSGROUP	A	Y				44	CHAR	Data set group name
DSNALCNT	A	Y	Y	Y	Y	5	NUM	Number of associated aliases
DSNALIAS	A	Y	Y	Y	Y	44	CHAR	Data set name alias
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
FILESEQ	A	Y	Y	N	Y	5	NUM	File sequence number (from catalog)
GDGBASE		Y	Y	N	Y	44	CHAR	Generation Data Group base name
GDGENTRY	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry count
GDGFLAGS	E	Y	Y	Y	Y	9	CHAR	Generation Data Group flag byte
GDGGENER	A	Y	Y	Y	Y	4	NUM	Generation Data Group generation number
GDGLADAT	A	Y	Y	Y	Y	D	DATE	Generation Data Group last altered date (GDGBASE only)
GDGLADAY	A	Y	Y	Y	Y	5	NUM	Generation Data Group days since last altered (GDGBASE only)
GDGLIMIT	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry limit

DATATYPE=CATALOG Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
GDGRELGN	A	Y	Y	Y	Y	3	NUM	Generation Data Group relative generation
GDGVERSN	A	Y	Y	Y	Y	2	NUM	Generation Data Group version number
INDEX	E	Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
MFRCODE	E	Y	Y	Y	Y	3	CHAR	Manufactures code Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NAME		Y	Y	N	Y	44	CHAR	Data set name or VSAM cluster name
NVSAMATR	E	Y	Y	Y	N	6	CHAR	SMS-managed non-VSAM attributes (in NVR)
OPTCD	E	Y	Y	V	Y	2	HEX	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
OWNER	A	Y	Y	Y	Y	8	CHAR	Owner ID
PATHNAME	E	Y	Y	Y	Y	44	CHAR	Path name (ICF VSAM)
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RELALCNT	A	Y	Y	Y	Y	5	NUM	Relative number of associated aliases
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SCLUSTER		Y	N	N	N	20	CHAR	Short cluster name (first 20 bytes only)
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)
SECURFLG	Y	Y	Y	Y	N	4	CHAR	Security Flags: RACF - Discrete IBM RACF profile OWNC - Ownership cluster

DATATYPE=CATALOG Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SECURITY	E	Y	N	Y	N	4	CHAR	Results of RACROUTE invocation DSCB - Data set protected by a specific profile NODS - No decision returned by SAF NONE - No protection PROFILE - Data set protected by a generic profile
SELALIAS		Y	Y	Y	Y	35	CHAR	Selecting alias
SGDGBASE		Y	N	N	N	20	CHAR	Short GDG base name (first 20-bytes)
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SPLCLS		Y	N	N	N	27	CHAR	Split ICF cluster name on two lines
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLGDGB		Y	N	N	N	27	CHAR	Split GDG base name
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
SSID	E	Y	Y	Y	Y	4	CHAR	Control unit subsystem identifier Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORGRP	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
UNIT	Y	Y	Y	Y	Y	3	CHAR	Unit address of DASD volume
VOLCFLAG	Y	Y	Y	Y	N	8	CHAR	Volume cell flags (ICF VSAM): CANDWSPACE (C) - Candidate with space EXTENTSYNC (E) - Extents do not match VTOC GUARSPACE (G) - SMS guaranteed space OVERFLOWVOL (O) - Overflow volume PRIMEVOLUME (P) - Prime volume RELCIADDR (R) - Relative CI addressing
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
XDSNAME	E	Y					CHAR	Extended data set name (selection only)

DATATYPE CATARCH FIELD NAME TABLE

This is the operand list for all data sets (both VSAM and non-VSAM). CATARCH starts the search process at the catalog and using data derived from the catalog, extracts data set information from the FDRABR Archive Control File (ACF).

DATATYPE=CATARCH Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
%FREE	A	Y	Y	V	Y	3	NUM	Tracks not in use within a data set as a percentage
%USED	A	Y	Y	V	Y	3	NUM	Tracks in use within a data set as a percentage
ACTTTR	A	Y	Y	V	Y	6	HEX	Actual TTR of archive record
ADATE	A	Y	Y	V	Y	D	DATE	Archive date
ADAYS	A	Y	Y	V	Y	5	NUM	Days since archived
AIXNAME	E	Y				44	CHAR	Alternate index cluster name (ICF VSAM only)
ARCFLAG1	E	Y E	Y	V	Y	5	CHAR	Archive Flags (byte 1): CLSERROR (X) - Component marked for delete because there is no corresponding cluster DELCOMP (Z) - Component marked for delete because cluster is to be deleted EXTRESTR (E) - External restore from archive FIVEVOLS (F) - Archive backup spans more than five volumes INTRESTR (I) - Internal restore from archive MULTIVOL (M) - Portion of multi-volume data set archived from one volume RESTORED (R) - Entry restored from archive or restore from archive was attempted SULABEL (S) - Data set is restored with an SUL
ARCFLAG2	E	Y	Y	V	Y	5	CHAR	Archive Flags (byte 2): ABRTAPE (T) - Backup is an ABR tape, not archive tape CLUSTER (C) - Cluster entry DELETE (D) - External delete from archive DISKBKUP (B) - Backup data set created on DASD device NOTCAT (N) - Backup data set not cataloged RECALL (A) - Data set archived with auto-recall
ARCTTR	A	Y	Y	V	Y	6	HEX	Archive record auto-recall TTR
ATIME	A	Y	Y	V	Y	8	TIME	Archive time - *hh.mm.ss* (APPL backup only)
ATTR1	E	Y	Y	N	N	24	CHAR	Attribute byte one (ICF VSAM only): ERASE - Erase when deleted INHIBIT - Access for read only RECOVERY - Control areas preformatted REUSEABLE - Can be reopened as NEW SPEED - Control areas not preformatted TEMPEXPORT - Portable copy has been made TRACKOVER - Track overflow UNIQUE
BKDATE	A	Y	Y	V	Y	D	DATE	Backup date
BKDAYS	A	Y	Y	V	Y	5	NUM	Days since backup
BKDEVCLS	E	Y	Y	V	Y	4	CHAR	Backup tape device class
BKDEVTYP	E	Y	Y	V	Y	7	CHAR	Backup tape device type
BKDSNS	A	Y	Y	V	Y	3	NUM	Number of active backup data sets
BKEXDATE	A	Y	V	Y	Y	D	DATE	Backup expiration date
BKEXDAYS	A	Y	V	Y	Y	5	NUM	Days until backup expiration Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
BKFILENO	A	Y	V	Y	Y	4	NUM	Backup tape file number

DATATYPE=CATARCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
BKSUFFIX	E	Y	V	Y	Y	8	CHAR	Backup tape dsname suffix Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BKTAPCNT	A	Y	N	Y	Y	2	NUM	Backup tape volume count
BKVOL	E	Y	Y	V	Y	34	CHAR	Backup tape volumes required to restore Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BYTES	A	Y	Y	S	Y	B	BYTE	Allocated space (bytes / kB / MB)
BYTESFRE	A	Y	Y	S	Y	B	BYTE	Unused space (bytes / KB / MB)
BYTESTRK	A	Y	Y	V	Y	5	NUM	Bytes per track (calculated)
BYTESUSE	A	Y	Y	S	Y	B	BYTE	Used space (bytes / KB / MB)
BLKSIZE	A	Y	Y	V	Y	5	NUM	Data set block size
BLKSTRK	A	Y	Y	V	Y	4	NUM	Number of blocks per track
CANDVOLC	A	Y	Y	V	Y	3	NUM	Number of unique candidate volumes where the data set is cataloged
CATALOG	E	Y	Y	V	Y	3	CHAR	Catalog status: CAN - Cataloged to candidate volume DRF - DASD read failure ERR - Cataloged to another volume NO - Not cataloged ONL - Only cataloged UNK - Cataloged, but unable to process with LOCATE YES - Cataloged to this volume Note: This can be expensive to collect if a large number of data sets are to be reported
CATNAME	A	Y	Y	V	Y	44	CHAR	Name of the catalog
CATTTR	A	Y	Y	X	Y	6	HEX	DSCBTTR from catalog
CATVOL	E	Y	Y	X	Y	6	CHAR	Volume where the data set is cataloged Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CATVOLCT	A	Y	Y	V	Y	3	NUM	Number of unique non-candidate volumes where the data set is cataloged
CATVOLTL	A	Y	Y	V	Y	3	NUM	Total number of unique volumes where the data set is cataloged
CATVRBA		Y	Y	V	Y	8	HEX	Relative byte address of VVR from catalog
CLUSATTR	E	Y	Y	N	N	24	CHAR	Cluster attributes (ICF VSAM): ATL - Tape volume catalog ATTREXT - Extended attribute (EA) EXTEND - Extended format (EF) FORMAT - Formatted pagespace PAGESPACE - Pagespace SWAPSPACE - Swapspace TIMESSTAMP - Timestamps exist VERIFYREQ - Verify is required (catalog only)
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
CRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created
CTLMODEL		Y	Y	Y	Y	3	CHAR	Controller model

DATATYPE=CATARCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DSGROUP	A	Y				44	CHAR	Data set group name
DSIND	E	Y	Y	V	N	2	HEX	Data set indicators (printed in hex): LASTV (x'80') - Last volume MULT8 (x'20') - Block size multiple of 8 PASSA (x'10') - Read / write password PASSW (x'14') - Write password RACF (x'40') - Discrete profile UPDAT (x'02') - Data set updates
DSNALCNT	A	Y	Y	Y	Y	5	NUM	Number of associated aliases
DSNALIAS	A	Y	Y	Y	Y	44	CHAR	Data set name alias
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
FILESEQ	A	Y	Y	N	Y	5	NUM	File sequence number (from catalog)
GDGBASE	N	Y	Y	N	Y	44	CHAR	Generation Data Group base name
GDGENTRY	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry count
GDGFLAGS	E	Y	Y	Y	Y	9	CHAR	Generation Data Group flag byte
GDGGENER	A	Y	Y	Y	Y	4	NUM	Generation Data Group generation number
GDGLIMIT	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry limit
GDGRELGN	A	Y	Y	Y	Y	3	NUM	Generation Data Group relative generation
GDGVERSN	A	Y	Y	Y	Y	2	NUM	Generation Data Group version number
INDEX	E	Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
LRECL	A	Y	Y	V	Y	5	NUM	Data set logical reference length
LSTAR	A	Y	Y	N	Y	6	HEX	Data set last block pointer; specify as LSTAR=X'tttttrrr'

DATATYPE=CATARCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NAME		Y	Y	N	Y	44	CHAR	Data set name or VSAM cluster name
NVSAMATR	E	Y	Y	Y	N	6	CHAR	SMS-managed non-VSAM attributes (in NVR)
OPTCD	E	Y	Y	V	Y	2	HEX	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
OWNER	A	Y	Y	Y	Y	8	CHAR	Owner ID
NOEPV	A	Y	Y	S	Y	3	NUM	Number of extents for data set on this volume
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECFM	E	Y	Y	V	Y	5	CHAR	Record format: A - ASA control character B - Blocked F - Fixed M - Machine control character S - Standard/spanned T - Track overflow U - Undefined V - Variable * - None of the above
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RELALCNT	A	Y	Y	Y	Y	5	NUM	Relative number of associated aliases
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SCLUSTER		Y	N	N	N	20	CHAR	Short cluster name (first 20 bytes only)
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)

DATATYPE=CATARCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SECAFLAG	E	Y	Y	V	Y	5	CHAR	Secondary allocation flags: BLK - Allocated in blocks CON - Contiguous (CONTIG) CYL - Allocated in cylinders FIV - Five largest extents (ALX) MAX - Largest extent (MXIG) RND - Rounded to cylinders (ROUND) TRK - Allocated in tracks
SECURFLG	Y	Y	Y	Y	N	4	CHAR	Security Flags: RACF - Discrete IBM RACF profile OWNC - Ownership cluster
SELALIAS		Y	Y	Y	Y	35	CHAR	Selecting alias
SGDGBASE		Y	N	N	N	20	CHAR	Short GDG base name (first 20-bytes)
SIZE	A	Y	Y	S	Y	5*	NUM	Allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEFREE	A	Y	Y	S	Y	5*	NUM	Tracks not in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEUSED	A	Y	Y	S	Y	5*	NUM	Tracks in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data
SPACEFLG	E	Y	Y	Y	Y	3	CHAR	Space allocation flags (ICF VSAM) CYLINDERS - Allocated in cylinders KILOBYTES - Allocated in kilobytes MEGABYTES - Allocated in megabytes RECORDS - Allocated in records TRACKS - Allocated in tracks
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORGRP	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
TRACKCAP		Y	Y	V	Y	5	NUM	Maximum track capacity of device in bytes

DATATYPE=CATARCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TRKCYL		Y	Y	V	N	3	NUM	Number of tracks per cylinder
TRKVOL		Y						
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
VOLCFLAG	Y	Y	Y	Y	N	8	CHAR	Volume cell flags (ICF VSAM): CANDWSPACE (C) - Candidate with space EXTENTSYNC (E) - Extents do not match VTOC GUARSPACE (G) - SMS guaranteed space OVERFLOWVOL (O) - Overflow volume PRIMEVOLUME (P) - Prime volume RELCIADDR (R) - Relative CI addressing
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
XDSNAME	E	Y					CHAR	Extended data set name (selection only)

DATATYPE CATVTOC FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=CATVTOC. They provide the ability to select all data sets, both VSAM and non-VSAM, directory entries and members from any form of partitioned data set, generation data groups. The volumes and/or the data sets may be managed by ABR, SMS or not managed.

DATATYPE=CATVTOC Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
%CA	A	Y	Y	Y	Y	3	NUM	Free percentage in Control Area (CA)
%CAPUSED	A	Y	Y	Y	Y	3	NUM	Used percentage of allocation capacity
%CI	A	Y	Y	Y	Y	3	NUM	Free percentage in Control Interval (CI)
%DIRFREE	A	Y	Y	Y	Y	3	NUM	Free percentage of PDS directory blocks
%DIRUSED	A	Y	Y	Y	Y	3	NUM	Used percentage of PDS directory blocks
%FREE	A	Y	Y	V	Y	3	NUM	Tracks not in use within a data set as a percentage
%OVER	A	Y	Y	Y	Y	3	NUM	Overflow records used as a percentage (IAM)
%USED	A	Y	Y	V	Y	3	NUM	Tracks in use within a data set as a percentage
ABRCYCLE	A	Y	Y	Y	Y	3	NUM	ABR current cycle number
ABRGEN	A	Y	Y	Y	Y	4	NUM	ABR current generation number
ABRHITRS	A	Y	Y	Y	Y	3	NUM	ABR high volume threshold
ABRIND	E	Y	Y	Y	N	5	CHAR	ABR indicators: A - Always backup / Never archive B - Current ABR backup exists N - Normal backup / Never archive R - Archive requested X - Exclude from ABR processing For reports only, not for selection: C - No current ABR backup exists I - Instant backup is pending - SNAP, SPLIT, PSPLIT, or FCOPY has been done, but the point-in-time image has not yet been copied to a backup file M - Multi-volume data set T - Old backup recording is enabled U - Updated since last ABR backup
ABRLOTRS	A	Y	Y	Y	Y	3	NUM	ABR low volume threshold
ABRVPOPT		Y	Y	Y	N	7	CHAR	ABR volume processing options: C - Cycle table is active I - Instant backup attempted N - Never archive from this volume S - Scratch is permitted T - ABR thresholds are enabled X - COPY1 expiration date active Y - COPY2 expiration date active 0 (zero) - None of the above
ACTIVE	E	Y	N	C	N	3	CHAR	ENQUEUE status: NO YES
AIXATTR	E	Y	Y	Y	N	7	CHAR	Alternate index attributes (IAM / ICF VSAM only): AIX - This is an AIX UPGRADE - AIX with upgrade
AIXNAME	E	Y				44	CHAR	Alternate index cluster name (ICF VSAM only)

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
AMDATTR	E	Y	Y	N	N	24	CHAR	AMDATTR attributes (IAM / ICF VSAM only): ESDS (ES) - Entry sequenced cluster IMBED (IM) - Sequence set placed with data component KEYRANGE (KE) - Key range defined KSDS (KS) - Key sequenced cluster ORDERED (OR) - Volumes to be used in the order they are specified in the VOLUMES parameter REPLICATE (RE) - Each index record to be written on a track as many times as it fits RRDS (RR) - Relative record data set SPANNED (SP) - Data record can cross control interval boundary WRITECHECK (WR) - Perform write check during WRITE processing
AMDATTR3	E	Y	Y	N	N	24	CHAR	AMDATTR3 attributes (ICF VSAM / Enhanced IAM): BIND (BI) - Cluster / component allocated to MSS device is stated at open and retained on device until closed CYLFAULT (CY) - Cluster / component allocated to MSS device is not staged at open, but data is to be staged as needed LINEAR (LI) - Linear cluster LOADED (LO) - Data set is loaded NONUNIQUE (NO) - Data set has non-unique keys SHRBCS (SH) - Shared basic catalog VARIABLE (VR) - Variable RRDS WAITON (WA) - Destaging is to complete before control returned to programs that closes data set
ATTR1	E	Y	Y	N	N	24	CHAR	Attribute byte one (ICF VSAM only): ERASE - Erase when deleted INHIBIT - Access for read only RECOVERY - Control areas preformatted REUSEABLE - Can be reopened as NEW SPEED - Control areas not preformatted TEMPEXPORT - Portable copy has been made TRACKOVER - Track overflow UNIQUE
ATTR2	E	Y	Y	N	N	24	CHAR	Attribute byte two (ICF VSAM only): CATALOGBUSY - Catalog busy CATALOGLOCK - Catalog is locked COMPNOTUSE - Component is not usable INTERNALDSN - Internal system data set REGSHROPT1 - Share options 1 REGSHROPT2 - Share options 2 REGSHROPT3 - Share options 3 REGSHROPT4 - Share options 4 SYSSHROPT3 - Cross system share option 3 SYSSHROPT4 - Cross system share option 4
AXRKP	A	Y	Y	Y	Y	4		Alternate key RKP (ICF VSAM only)
BKCYCLE	A	Y	Y	Y	Y	3	NUM	ABR cycle number of backup tape
BKDATE	A	Y	Y	V	Y	D	DATE	Backup date
BKDAYS	A	Y	Y	V	Y	5	NUM	Days since backup
BKDEVCLS	E	Y	Y	V	Y	4	CHAR	Backup tape device class
BKDEVTYP	E	Y	Y	V	Y	7	CHAR	Backup tape device type
BKDSNS	A	Y	Y	V	Y	3	NUM	Number of active backup data sets
BKEXDATE	A	Y	V	Y	Y	D	DATE	Backup expiration date
BKEXDAYS	A	Y	V	Y	Y	5	NUM	Days until backup expiration Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
BKFILENO	A	Y	V	Y	Y	4	NUM	Backup tape file number
BKGEN	A	Y	Y	Y	Y	4	NUM	ABR generation number of backup tape
BKSUFFIX	E	Y	V	Y	Y	8	CHAR	Backup tape dsname suffix Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BKTAPCNT	A	Y	N	Y	Y	2	NUM	Backup tape volume count
BKTIME	A	Y	Y	Y	Y	8	TIME	Backup time - *hhmmss* (APPL backup / ABREXIT)
BKVOL	E	Y	Y	V	Y	34	CHAR	Backup tape volumes required to restore Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BLKSIZE	A	Y	Y	V	Y	5	NUM	Data set block size
BLKSTRK	A	Y	Y	V	Y	4	NUM	Number of blocks per track
BPTR		Y	Y	N	N	10	HEX	Format 1 DSCB pointer to Format 2 / 3 DSCB
BUFSIZE	A	Y	Y	Y	Y	6	NUM	Buffer size (ICF VSAM only)
BYTES	A	Y	Y	S	Y	B	BYTE	Allocated space (bytes / kB / MB)
BYTESFRE	A	Y	Y	S	Y	B	BYTE	Unused space (bytes / KB / MB)
BYTESTRK	A	Y	Y	V	Y	5	NUM	Bytes per track (calculated)
BYTESUSE	A	Y	Y	S	Y	B	BYTE	Used space (bytes / KB / MB)
CANDVOLC	A	Y	Y	V	Y	3	NUM	Number of unique candidate volumes where the data set is cataloged
CAPBYTES	A	Y	Y	Y	Y	B	BYTE	Alloc capacity (Bytes / kB / MB)
CASPLIT	A	Y	Y	Y	Y	8	NUM	Control area splits (ICF VSAM only)
CASPLITR	A	Y	Y	Y	Y	6	NUM	Control area split ratio (ICF VSAM only)
CATALOG	E	Y	Y	V	Y	3	CHAR	Catalog status: CAN - Cataloged to candidate volume DRF - DASD read failure ERR - Cataloged to another volume NO - Not cataloged ONL - Only cataloged UNK - Cataloged, but unable to process with LOCATE YES - Cataloged to this volume Note: This can be expensive to collect if a large number of data sets are to be reported
CATGROUP	A					44	CHAR	Catalog group name
CATNAME	A	Y	Y	V	Y	44	CHAR	Name of the catalog
CATTTR	A	Y	Y	X	Y	6	HEX	DSCBTTR from catalog
CATVOL	E	Y	Y	X	Y	6	CHAR	Volume where the data set is cataloged Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CATVOLCT	A	Y	Y	V	Y	3	NUM	Number of unique non-candidate volumes where the data set is cataloged
CATVOLTL	A	Y	Y	V	Y	3	NUM	Total number of unique volumes where the data set is cataloged
CATVRBA		Y	Y	V	Y	8	HEX	Relative byte address of VVR from catalog
CCA	A	Y	Y	N	Y	2		Channel connect address
CICA	A	Y	Y	Y	Y	3	NUM	Number of control intervals
CISIZE	A	Y	Y	Y	Y	5	NUM	Control interval (CI) size (ICF VSAM)
CISPLIT	A	Y	Y	Y	Y	8	NUM	Number of CI splits (ICF VSAM)
CISPLITR	A	Y	Y	Y	Y	6	NUM	Control interval split ratio (ICF VSAM)

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
CLUSATTR	E	Y	Y	N	N	24	CHAR	Cluster attributes (ICF VSAM): ATL - Tape volume catalog ATTREXT - Extended attribute (EA) EXTEND - Extended format (EF) FORMAT - Formatted pagespace PAGESPACE - Pagespace SWAPSPACE - Swapspace TIMESSTAMP - Timestamps exist VERIFYREQ - Verify is required (catalog only)
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
CLUSTGROUP	A					44	CHAR	Cluster group name (ICF VSAM)
CMPCANDV	A	Y	Y	V	Y	3	NUM	Number of candidate volumes cataloged to component
CMPVOLCT	A	Y	Y	V	Y	3	NUM	Number of volumes cataloged to this component
CMPVOLTL	A	Y	Y	V	Y	3	NUM	Total volumes cataloged to this component
COMPATTR		Y	N	N	Y	24	CHAR	Component attributes (ICF VSAM): ERAS - Erase IMBD - Imbedded IXD - Indexed KRNG - Keyrange NIXD - Non-indexed NUMD - Relative ORD - Ordered RCVY - Recovery REPL - Replicate RUS - Reusable SPED - Speed SPND - Spanned WCK - Write check
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
COMPUSER	A	Y	Y	Y	Y	10	NUM	Compressed user data size - extended
CRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created
CRJOBNAM	E	Y	Y	Y	Y	8	CHAR	Creating job name from Format9 DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CRSTEPNM	E	Y	Y	Y	Y	8	CHAR	Creating job step name from Format9 DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CRTIME	A	Y	Y	N	N	8	TIME	Creation time - *hh.mm.ss*
CTFLD	A	Y	Y	N	Y	10	HEX	Count field of data set DSCB - *ccccchhhhrr*
CTLMODEL		Y	Y	Y	Y	3	CHAR	Controller model
CTLSERNO	E	Y	Y	Y	Y	5	CHAR	Controller serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CTLTYPE		Y	Y	Y	Y	6	CHAR	Controller type
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
DELETES	A	Y	Y	Y	Y	10	NUM	Number of records deleted (IAM / ICF VSAM)
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DIRBFREE	A	Y	Y	Y	Y	5	NUM	Number of unused PDS directory blocks
DIRBLOCK	A	Y	Y	Y	Y	5	NUM	Number of PDS directory blocks
DIRBUSED	A	Y	Y	Y	Y	5	NUM	Number of used PDF directory blocks
DSGROUP	A	Y				44	CHAR	Data set group name
DSIND	E	Y	Y	V	N	2	HEX	Data set indicators (printed in hex): LASTV (x'80') - Last volume MULT8 (x'20') - Block size multiple of 8 PASSA (x'10') - Read / write password PASSW (x'14') - Write password RACF (x'40') - Discrete profile UPDAT (x'02') - Data set updates
DSNALCNT	A	Y	Y	Y	Y	5	NUM	Number of associated aliases
DSNALIAS	A	Y	Y	Y	Y	44	CHAR	Data set name alias
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSNEIFLG	E	Y	Y	Y	N	2	CHAR	Data set info flags (ICF VSAM) GIGABYTE (G) - Extended addressability (>4gb) RELCI (R) - Relative CI addressing ZFS (Z) - Contains zSeries File System (zFS)
DSNFLAGS	E	Y	N	Y	N	4	CHAR	Assorted data set flags RLS - Record level sharing
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
DSSN	E	Y	Y	Y	Y	6	CHAR HEX	Volume serial number field in DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
EXCPEXIT	E	Y	N	Y	N	8	CHAR	Exception exit name (ICF VSAM) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
EXCPS	A	Y	Y	Y	Y	10	NUM	Number of EXCP's (ICF VSAM)
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
EXTENTS	A	Y	N	N	N	15		Data set extent descriptors; each extent is stacked, up to 123 extents may be printed - *ccccchhhh* Note: The length of this field is two (2) bytes larger if the FATDISK option is enabled.

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
EXTYPE	E	N	N	N	N		CHAR	Extent type CYLBN - Extent on cylinder boundary INDEX - Index extent PRIME - Prime extent OFLOW - Overflow extent SUL - Standard user label extent
FILESEQ	A	Y	Y	N	Y	5	NUM	File sequence number (from catalog)
FLAG1	E	Y	Y	Y	N	7	CHAR	Data set flag byte (extended format) CHKPTDSN (CHK) - Check-pointed data set COMPRESS (COM) - Data set is compressible EATTR (ENO & EOP) - Extended attribute setting EATTRNO (ENO) - EATTR=NO EATTROPT (EOP) - EATTR=OPT LARGE (LRG) - Data set may exceed 65,535 tracks RECALL (RCL) - Data set has been recalled (by DFSMShsm)
FREEEXT	A	Y	Y	Y	Y	4	NUM	# of free extents this volume
GDGBASE		Y	Y	N	Y	44	CHAR	Generation Data Group base name
GDGENTRY	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry count
GDGFLAGS	E	Y	Y	Y	Y	9	CHAR	Generation Data Group flag byte
GDGGENER	A	Y	Y	Y	Y	4	NUM	Generation Data Group generation number
GDGLIMIT	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry limit
GDGRELGN	A	Y	Y	Y	Y	3	NUM	Generation Data Group relative generation
GDGVERSN	A	Y	Y	Y	Y	2	NUM	Generation Data Group version number
HIALOBLK	A	Y	Y	Y	Y	10	NUM	High allocated block (IAM)
HIALORBA	A	Y	Y	N	Y	10	NUM	High allocated RBA (ICF VSAM / Enhanced IAM)
HIKEYRBA	A	Y	Y	N	Y	10	NUM	High key RBA (ICF VSAM)
HIUSEBLK	A	Y	Y	Y	Y	10	NUM	High used block (IAM)
HIUSERBA	A	Y	Y	N	Y	10	NUM	High used RBA (ICF VSAM / Enhanced IAM)
IAMINDIC	E	Y	Y	Y	N	5	CHAR	IAM data set indicators: ALTINDEX - Alternate index DATACOMPRESS - Data compression threshold ENHANCED - Enhanced file structure EXTENDED - Extended format HARDWARECOMP - Hardware compression KEYCOMPRESS - Compressed index PATH - Path SPANNED - Spanned records
INDEX	E	Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
INSERTS	A	Y	Y	Y	Y	10	NUM	Number of records inserted (IAM / ICF VSAM)
KEYLEN	A	Y	Y	V	Y	3	NUM	Data set key length
LASTBKUP	E	Y	Y	N	N	13	CHAR	SMS last backup date/time from VVR - *yyyyddd/hhmm*
LINKLIST	*	N	N	N	N	n/a	n/a	Retrieve data set list from LINKLIST (selection only)
LMJOB	E	Y	Y	Y	Y	8	CHAR	Last modifying job name (ASM2 users only) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
LRDATE	A	Y	Y	Y	Y	D	DATE	Last reference date

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
LRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last referenced
LRECL	A	Y	Y	V	Y	5	NUM	Data set logical reference length
LRTIME		Y	Y	N	N	8	TIME	Last reference time - *hh.mm.ss* (IAM / ICF VSAM)
LSTAR	A	Y	Y	N	Y	6	HEX	Data set last block pointer; specify as LSTAR=X'tttttrrr'
MAXLRECL	A	Y	Y	Y	Y	6	NUM	Maximum record length (IAM / ICF VSAM)
MAXSIZE	A	Y	Y	Y	Y	5	NUM	Maximum allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
MEMBABAS	E	Y	Y	Y	Y	8	CHAR	PDS / PDSE member name alias base Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
MEMBAMOD	E	Y	Y	Y	N	3		PDS / PDSE member load module AMODE
MEMBATTR	E	Y	Y	Y	N	19	CHAR	PDS / PDSE member load module attributes AC1 - Authorization code 1 NOEX - Not executable OL - Only loadable REFR - Refreshable RENT - Reentrant REUS - Serially reusable
MEMBCRDT	E	Y	Y	Y	Y	D	DATE	PDS / PDSE member creation date
MEMBCURR	E	Y	Y	Y	Y	5	NUM	PDS / PDSE member current record count
MEMBENTR	E	Y	Y	Y	Y	8		PDS / PDSE member load module entry point
MEMBERS	A	Y	Y	Y	Y	6	NUM	Number of PDS members
MEMBID	E	Y	Y	Y	Y	8	CHAR	PDS / PDSE member ID Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
MEMBINTR	E	Y	Y	Y	Y	5	NUM	PDS / PDSE member initial record count
MEMBLMDT	E	Y	Y	Y	Y	D	DATE	PDS / PDSE member last mod date
MEMBLMTI	E	Y	Y	Y	Y	8	TIME	PDS / PDSE member last mod time - *hhmmss*
MEMBMOD	E	Y	Y	Y	Y	5	NUM	PDS / PDSE member modified record count
MEMBMODR	E	Y	Y	Y	Y	5	NUM	PDS / PDSE member modified record count
MEMBRMOD	E	Y	Y	Y	N	3		PDS / PDSE member load module RMODE
MEMBSSI	E	Y	Y	Y	Y	8	CHAR	PDS / PDSE member SSI Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
MEMBSTOR	E	Y	Y	Y	Y	8		PDS / PDSE member load module storage required
MEMBTTR	E	Y	Y	N	Y	6		PDS member TTR - *tttttrrr* or X'*xxxxxx*'
MEMBVER	E	Y	Y	Y	Y	2	NUM	PDS / PDSE member version number
MEMBVFM		Y	N	Y	N	5	CHAR	PDS / PDSE member formatted version / mod
MEMNAME	E	Y	Y	Y	Y	8	CHAR	PDS / PDSE member name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
MFRCODE	E	Y	Y	Y	Y	3	CHAR	Manufactures code Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NAME		Y	Y	N	Y	44	CHAR	Data set name or VSAM cluster name
NOBDB	A	Y	Y	N	Y	3	NUM	Number of bytes used in last directory block
NOEPV	A	Y	Y	S	Y	3	NUM	Number of extents for data set on this volume

DATATYPE=CATVTOC Field Name Table								
Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
NOEXTENT	A	Y	Y	Y	Y	3	NUM	Number of extents on this volume (total)
NVSAMATR	E	Y	Y	Y	N	6	CHAR	SMS-managed non-VSAM attributes (in NVR)
NVSAMFLG	E	Y	Y	Y	N	7	CHAR	SMS-managed non-VSAM flags in NVR: ATTREXT - Extended attribute (EA) EXTEND - Extended Format (EF)
OLDBKUP		Y	Y	V	N	2	NUM	ABR old backup # of ABR backup
OPTCD	E	Y	Y	V	Y	2	CHAR	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
OVERFLOW	A	Y	Y	Y	Y	10	NUM	Number of overflow records available (IAM)
OVERFPER	A	Y	Y	Y	Y	3	NUM	Overflow percent of used blocks (IAM)
OVERUSED	A	Y	Y	Y	Y	10	NUM	Number of overflow records used (IAM)
OWNER	A	Y	Y	Y	Y	8	CHAR	Owner ID
PATHNAME	E	Y	Y	Y	Y	44	CHAR	Path name (ICF VSAM)
PRIALLOC	A	Y	Y	Y	Y	8	NUM	Primary allocation quantity (ICF VSAM / Enhanced IAM)\
PRIBYTES	A	Y	Y	Y	Y	B	BYTE	Primary allocation in bytes (ICF VSAM / Enhanced IAM)
PRIMEUSE		Y	Y	Y	Y	8	NUM	Number of used prime extension blocks (IAM)
PRIMEXTN		Y	Y	Y	Y	8	NUM	Number of prime extension blocks (IAM)
PROTECT		Y	N	Y	N	4	CHAR	Protection indicators: PASR - Password required for read and write PASW - Password required for write RACF - Protected by IBM RACF or equivalent product NONE - No security indicated in Format1 DSCB
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECFM	E	Y	Y	V	Y	5	CHAR	Record format: A - ASA control character B - Blocked F - Fixed M - Machine control character S - Standard/spanned T - Track overflow U - Undefined V - Variable * - None of the above
RECORDS	A	Y	Y	Y	Y	10	NUM	Number of records (IAM / ICF VSAM)

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
RECOVDTA	E	Y	Y	Y	N	8		SMS recovery data in VVR
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RELALCNT	A	Y	Y	Y	Y	5	NUM	Relative number of associated aliases
RESOROWN	E	Y	Y	Y	N	16	CHAR	SMS resource ownership in VVR
RETRIEVE	A	Y	Y	Y	Y	10	NUM	Number of records retrieved (IAM / ICF VSAM)
RKP	A	Y	Y	Y	Y	4	NUM	Data set relative key position
RSVD1		Y	Y	Y	Y	2		Reserved field (offset 61 / x'3D')
RSVD2		Y	Y	Y	Y	8		Reserved field (offset 78 / x'4E')
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SCLUSTER		Y	N	N	N	20	CHAR	Short cluster name (first 20 bytes only)
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)
SECAFLAG	E	Y	Y	V	Y	5	CHAR	Secondary allocation flags: BLK - Allocated in blocks CON - Contiguous (CONTIG) CYL - Allocated in cylinders FIV - Five largest extents (ALX) MAX - Largest extent (MXIG) RND - Rounded to cylinders (ROUND) TRK - Allocated in tracks
SECALLOC	A	Y	Y	Y	Y	8	NUM	Secondary allocation quantity
SECBYTES	A	Y	Y	Y	Y		BYTE	Secondary allocation (Bytes, kBytes, MBytes)
SECURFLG		Y	Y	Y	N	4	CHAR	Security Flags: RACF - Discrete IBM RACF profile OWNC - Ownership cluster
SECURITY	E	Y	N	Y	N	4	CHAR	Results of RACROUTE invocation DSCB - Data set protected by a specific profile NODS - No decision returned by SAF NONE - No protection PROFILE - Data set protected by a generic profile
SECVERMO	E	Y	N	Y	N	8	CHAR	Security verification module (ICF VSAM) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SECXFLAG		Y	Y	Y	N	3	CHAR	Secondary allocation extension flag: ABL - Average block length BYT - Bytes KBY - Kilobytes MBY - Megabytes
SELALIAS		Y	Y	Y	Y	35	CHAR	Selecting alias
SGDGBASE		Y	N	N	N	20	CHAR	Short GDG base name (first 20-bytes)
SHROPT		Y	N	Y	Y	3	CHAR	Share options (ICF VSAM / IAM)

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SIZE	A	Y	Y	S	Y	5*	NUM	Allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEFREE	A	Y	Y	S	Y	5*	NUM	Tracks not in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEUSED	A	Y	Y	S	Y	5*	NUM	Tracks in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data
SPACEFLG	E	Y	Y	Y	Y	3	CHAR	Space allocation flags (ICF VSAM) CYLINDERS - Allocated in cylinders KILOBYTES - Allocated in kilobytes MEGABYTES - Allocated in megabytes RECORDS - Allocated in records TRACKS - Allocated in tracks
SPLCLS		Y	N	N	N	27	CHAR	Split ICF cluster name on two lines
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLGDGB		Y	N	N	N	27	CHAR	Split GDG base name
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
SSID	E	Y	Y	Y	Y	4	CHAR	Control unit subsystem identifier Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORGRP	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STRIPECT	A	Y	Y	Y	N	3	NUM	Extended format stripe count
SUBCFLAG	E	Y	Y	Y	N	17	CHAR	SMS sub-cell flag byte in VVR FUZZYBK1 - Data set eligible for backup while open for update FUZZYBK2 - Data set backup while open for update is blocked LOGRECVR - Data set was restored with a backup copy taken when the data set was open for update
SUBCVERS	A	Y	Y	Y	N	3	NUM	SMS sub-cell version number in VVR

DATATYPE=CATVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SYSCODE	E	Y	Y	Y	N	13	CHAR / HEX	System code field in DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
TBLKCNT		Y	Y	Y	Y	8	NUM	Total block count
TIMESTMP		Y	Y	N	N	16	CHAR	Time stamp (IAM / ICF VSAM)
TRACKCAP		Y	Y	V	Y	5	NUM	Maximum track capacity of device in bytes
TRKBAL		Y	Y	N	Y	5	NUM	Data set track balance; number of free bytes on last active track
TRKCYL		Y	Y	V	N	3	NUM	Number of tracks per cylinder
TRKSCA		Y	Y	Y	Y	3	NUM	Number of tracks per Control Area (CA) (ICF VSAM)
TVTOCDSN	A	Y	Y	V	Y	44	CHAR	Input backup data set name
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
UCBSTATS	E	Y	Y	Y	N	7	CHAR	UCB status indicators: OFFLINE ONLINE
UNIT	Y	Y	Y	Y	Y	3	CHAR	Unit address of DASD volume
UPDATES	A	Y	Y	Y	Y	10	NUM	Number of records updated (IAM / ICF VSAM)
USEDEXT	A	Y	Y	Y	Y	4	NUM	Number of used extents this volume
USERDATA	A	Y	Y	Y	Y	10	CHAR	User data size - extended
VOLCFLAG	Y	Y	Y	Y	N	8	CHAR	Volume cell flags (ICF VSAM): CANDWSPACE (C) - Candidate with space EXTENTSYNC (E) - Extents do not match VTOC GUARSPACE (G) - SMS guaranteed space OVERFLOWVOL (O) - Overflow volume PRIMEVOLUME (P) - Prime volume RELCIADDR (R) - Relative CI addressing
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLID	E	Y	Y	Y	Y	4	CHAR	DASD volume identification Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VSFREBYT	A	Y	Y	Y	N	10	NUM	Bytes of free space (ICF VSAM)
VVRSTATS	E	Y	Y	Y	N	9	CHAR	Indicates VVDS errors for this data set (up to 2 may be displayed): DPLR - Multiple identical VVR / NVR records EXTM - Extent mismatch between VVR and DSCB MLTQ - Multiple VVR "Q" records MLTR - Multiple non-identical VVR / NVR records NONE - No errors NVVR - No VVR / NVR record (or all matching records have errors)
XDSNAME	E	Y					CHAR	Extended data set name (selection only)
XLSTAR	A	Y	Y	N	Y	8	HEX	Extended last block pointer - *ttttttttrrr* or X'*xxxxxxxx*'

DATATYPE CA1DSN FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=CA1DSN. They provide the ability to select all data set records from CA Technologies tape management product, CA 1.

DATATYPE=CA1DSN Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
TD%FULL	A	Y	Y	Y	Y	3	NUM	Percent of volume used by data set.
TDAPRSIZ	A	Y	Y	Y	Y	11	NUM	Approximate file size in bytes
TDBESKEY	A	Y	Y	Y	Y	8	NUM	BES key index
TDBLKCNT	A	Y	Y	Y	Y	11	NUM	Block count
TDBLKSIZ	A	Y	Y	Y	Y	5	NUM	Block size
TDCATFLG	E	Y	Y	Y	N	14	CHAR	Tape data set catalog flags: ERR - not cataloged to this volume MVC - multi-volume NO - not cataloged SBC - should be cataloged (IBM DFSMSrmm) SBN - should be not cataloged (IBM DFSMSrmm) SBU - should be unknown (IBM DFSMSrmm) UNK - unknown YES - cataloged
TDCATVCT	A	Y	N	Y	Y	3	NUM	Number of volumes cataloged this data set
TDCATVOL	E	Y	Y	Y	Y	6	CHAR	First cataloged volume this data set Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCOMPRT		Y	N	Y	N	6	NUM	Compression ratio
TDCRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
TDCRDAYS	A	Y	Y	Y	Y	5	NUM	Days since created
TDCRDDNM	E	Y	Y	Y	Y	8	CHAR	Creation DD statement name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRJOB	E	Y	Y	Y	Y	8	CHAR	Creation job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRPGM	E	Y	Y	Y	Y	8	CHAR	Creation program name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRSTEP	E	Y	Y	Y	Y	8	CHAR	Creation step name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRTIME	A	Y	Y	Y	Y	8	TIME	Creation time - *hh.mm.ss*
TDCRUNIT	A	Y	Y	Y	Y	4	CHAR	Creation unit address
TDC1CDSB	A	Y	Y	Y	Y	9	NUM	Current DSNB address
TDC1DB1F	E	Y	Y	Y	Y	3	CHAR	DSNB flag: CAT - file is on z/OS catalog CBA - data set closed at ABEND DUU - DSNB updated by user DXO - default expiration date at open DXU - default expiration date used WCA - file was cataloged XCC - expired by catalog control XTI - expired by CA 1 interface

DATATYPE=CA1DSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDC1DENS	E	Y	Y	Y	Y	6	CHAR	Density value 1600B - 1600 BPI 200B - 200 BPI 3480C - 3480 cart tape 3480C3 - 3480 cart 38000 3590C - 3590 cart tape 3592C - 3592 cart tape 3592W - 3592 WORM tape 556B - 556 BPI 6250B - 6250 BPI 800B - 800 BPI
TDC1DIND	E	Y	Y	Y	Y	4	CHAR	DSNB indicator DSNB - DSNB is active VOLD - volume definition record
TDC1FLG1	E	Y	Y	Y	Y	3	CHAR	Volume flag 1 ABN - volume closed by ABEND CLN - tape is to be cleaned CLO - volume closed by CA 1 DEL - volume deleted from library INT - internal field changed by user RDS - default expiration date used SCR - listed on scratch list UPD - TMC record updated by user
TDC1FLG2	E	Y	Y	Y	Y	3	CHAR	Volume flag 2 CAT - data set was cataloged ECC - cycle control EDD - frequency control ETM - expired by CA 1 E99 - catalog controlled OUT - data set opened for output REC - data set recreated TEM - temporary data set
TDC1FLG3	E	Y	Y	Y	Y	3	CHAR	Volume flag 3 BAD - bad tape, do not mount for scratch COP - file created by COPYCAT DEF - default EXPDT used at open DYN - CA DYNAM-T owned tape EDM - external data managed ERS - data set erase required EVM - tape released by external vault manager MTF - additional files exist on tape
TDC1FLG4	E	Y	Y	Y	Y	3	CHAR	Volume flag 4 ACV - actual volser in use DEG - tape has been degaussed ESM - tape expired by SMS NRS - non-resident tape OSC - file on z/OS catalog SIU - tape is in-use SNO - no stacking allowed VSR - vault specific request
TDC1FLG5	E	Y	Y	Y	Y	3	CHAR	Volume flag 5 AGT - agent tape STF - files where dynamically VTX - virtual volume exported WID - WORM WWID present WTP - 3592 WORM tape
TDC1FLG6	E	Y	Y	Y	Y	3	CHAR	Volume flag 6

DATATYPE=CA1DSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDC1F2V1	A	Y	Y	Y	Y	6	CHAR	First volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDC1LUDT	A	Y	Y	Y	Y	D	DATE	Last used date
TDC1LUDY	A	Y	Y	Y	Y	5	NUM	Number of days since last used
TDC1NDSB	Y	Y	Y	Y	Y	5	NUM	Next DSNB address
TDC1PDSB	A	Y	Y	Y	Y	5	NUM	Previous DSNB address
TDC1RECT	E	Y	Y	Y	Y	8	CHAR	Recording technique (CA 1)) RED12G - REDWOOD 12.5G capacity RED25G - REDWOOD 25G capacity RED50G - REDWOOD 50G capacity TITANCAR - Titanium STK cartridge TITANSPC - Titanium STK sport cart T1CART - T10000B STK cartridge T1SPCART - T1000B STK sport cart 18TCART - 18 trk cartridge tape 3590H38T - 3590-H 384 trk 3590H38X - 3590-H 384 trk extended length 3590128T - 128 trk 3590 cartridge 3590128X - 3590 128 trk extended length 3590256T - 256 trk 3590 cartridge 3590256X - 3590 256 trk extended length 3592CART - 3592 cartridge 3592CT2 - 3592 format-2 cartridge 3592CT3 - 3592 format-3 cartridge 3592EC2 - 3592 economy format-2 3592EN2 - 3592 format-2 encrypted 3592EN3 - 3592 format-3 encrypted 3592EX2 - 3592 extended length format-2 3592LE2 - 3592 long format-2 encrypted 3592LE3 - 3592 long format-3 encrypted 3592LO3 - 3592 long format-3 3592ME2 - 3592 mini format-2 encrypted 3592ME3 - 3592 mini format-3 encrypted 3592MINI - 3592 mini economy cart 3592MI3 - 3592 mini format-3 3592SCAL - 3592 with scaled capacity 36TCART - 36 trk cartridge tape 36TCARTD - 36 trk cartridge tape double 9TRKREL - 9 trk reel 9840C - 9840-C STK device 9840D - 9840-D STK cartridge 984020M - 9840 20M STK device 9940BSTK - 9940-B STK device 994060M - 9940 60M STK device
TDDATES		Y	N	N	N	D	DATE	Tape data set date fields – includes: TDCRDATE, TDEXDATE, TDLCDATE, TDLRDATE, TDLWDATE, TDOEDATE, TDPVDATE, TDRTDATE TDSVDATE, TDUCDATE. TDXTDATE
TDDEFAUL		Y	N	N	N			Tape data set default fields – includes: TDDSNAME, TDVOLSER, TDOWNER, TDEXDATE, TDRTDATE
TDDEVCLS		Y	Y	Y	Y	7	CHAR	Device class
TDDSNAME	E	Y	Y	Y	Y	44	CHAR	Data set name
TDDSNSEQ	A	Y	Y	Y	Y	5	NUM	Data set sequence

DATATYPE=CA1DSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDEXDATE	A	Y	Y	Y	Y	D	DATE	Expiration date
TDEXDAYS	A	Y	Y	Y	Y	5	NUM	Days until expire
TDINDEXN		Y	Y	Y	Y	3		Index number (in data set name)
TDINDEXV		Y	Y	Y	Y	8		Index value (from data set name)
TDLCUSER	Y	Y	Y	Y	Y	8	CHAR	Last change user id Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLRDATE	A	Y	Y	Y	Y	D	DATE	Date last read
TDLRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last read
TDLRECL	A	Y	Y	Y	Y	5	NUM	Logical record length
TDLUJOB	E	Y	Y	Y	Y	8	CHAR	Last used job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLUPGM	E	Y	Y	Y	Y	8	CHAR	Last used program name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDOEDATE	A	Y	Y	Y	Y	D	DATE	Original expiration date
TDOEDAYS	A	Y	Y	Y	Y	5	NUM	Days since original expiration
TDRANK	A	Y	Y	N	Y	6	NUM	Rank within sorted data
TDRECFM	E	Y	Y	Y	Y	5	CHAR	Record format A – ASA control character B – Blocked F – Fixed M – Machine control character S – Standard/spanned U – Undefined V – Variable * – None of the above
TDRTVALU	E	Y	Y	Y	N	10	CHAR	Retention value: CATALOG CYCLE/*nnn* LDATE/*nnn* PERMANENT STATS/*nnn* USER/*nnn* Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSMSMGC	E	Y	Y	Y	Y	8	CHAR	SMS management class name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSTATUS	E	Y	Y	Y	Y	7	CHAR	Volume status: MASTER USER SCRATCH INIT ENTRY
TDSYSID	E	Y	Y	Y	Y	4	CHAR	System identification from SMF
TDUCBID	A	Y	Y	Y	Y	8	HEX	UCB 4-byte hex device type from catalog
TDUCDATE	A	Y	Y	Y	Y	D	DATE	Last user change date
TDUCDAYS	A	Y	Y	Y	Y	5	NUM	Days since last user change
TDUCTIME	A	Y	Y	Y	Y	8	TIME	Last user change time – *hh.mm.ss*
TDVEDATE	A	Y	Y	Y	Y	D	DATE	Volume expiration date
TDVEDAYS	A	Y	Y	Y	Y	5	NUM	Days until volume expires

DATATYPE=CA1DSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDVOLSEQ	A	Y	Y	Y	Y	3	NUM	Volume sequence number
TDVOLSER	A	Y	Y	Y	Y	6	CHAR	Tape volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDXTDATE	A	Y	Y	Y	Y	6	DATE	Extract date
TDXTTIME	A	Y	Y	Y	Y	8	TIME	Extract time – *hh.mm.ss*

DATATYPE CA1VOL FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=CA1VOL. They provide the ability to select volume records from CA Technologies tape management product, CA 1.

DATATYPE=CA1VOL Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
TV%FULL	A	Y	Y	Y	Y	3	NUM	Volume full percentage
TVACCNT1	E	Y	Y	Y	Y	50	CHAR	Account number
TVCAPBYT	A	Y	Y	Y	Y	11	NUM	Volume capacity bytes
TVCRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
TVCRDAYS	A	Y	Y	Y	Y	5	NUM	Days since created
TVCRJOB	E	Y	Y	Y	Y	8	CHAR	Creating job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVCRTIME	A	Y	Y	Y	Y	8	TIME	Creation time - *hh.mm.ss*
TVC1AIVO	A	Y	Y	Y	Y	6	CHAR	Actual internal volser Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVC1CATC	A	Y	Y	Y	Y	3	NUM	Volume catalog count
TVC1CLCT	A	Y	Y	Y	Y	3	NUM	Tape clean count
TVC1CLDT	A	Y	Y	Y	Y	D	DATE	Clean date
TVC1CLDY	A	Y	Y	Y	Y	5	NUM	Days since cleaned
TVC1CPRE	A	Y	Y	Y	Y	5	NUM	Clean permanent read errors
TVC1CPWE	A	Y	Y	Y	Y	5	NUM	Clean permanent write errors
TVC1CTRE	A	Y	Y	Y	Y	5	NUM	Clean temporary read errors
TVC1CTWE	A	Y	Y	Y	Y	5	NUM	Clean temporary write errors
TVC1CLUC	A	Y	Y	Y	Y	5	NUM	Use count when tape cleaned
TVC1DENS	E	Y	Y	Y	N	15	CHAR	Density 1600B - 1600 BPI 200B - 200 BPI 3480C - 3480 cart tape 3480C3 - 3480 cart 38000 3590C - 3590 cart tape 3592C - 3592 cart tape 3592W - 3592 WORM cart 556B - 556 BPI 6250B - 6250 BPI 800B - 800 BPI
TVC1DSBF	A	Y	Y	Y	Y	8	NUM	Relative number of first DSNB
TVC1DSBL	A	Y	Y	Y	Y	8	NUM	Relative number of last DSNB
TVC1EDM	E	Y	Y	Y	Y	4	CHAR	External data manager
TVC1FLG1	E	Y	Y	Y	N	19	CHAR	Flag byte 1: ABN - Volume closed by abend CLN - Tape is to be cleaned CLO - Volume closed by TMS DEL - Volume deleted from library INT - Internal field changed by user RDS - Default expiration date used SCR - Listed on scratch list UPD - TMC record updated by user

DATATYPE=CA1VOL Field Name Table								
Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
TVC1FLG2	E	Y	Y	Y	N	19	CHAR	Flag byte 2: CAT - Data set was cataloged ECC - Cycle control EDD - Frequency control ETM - Expired by TMS E99 - Catalog controlled OUT - Data set opened for output REC - Data set recreated TEM - Temporary data set
TVC1FLG3	E	Y	Y	Y	N	19	CHAR	Flag byte 3: BAD - Bad tape, do not mount for scratch COP - File created by COPYCAT DEF - Default EXPDT used at open DYN - CA DYNAM-T owned tape EDM - External data managed ERS - Data set erase required EVM - Tape rel by external vault manager MTF - Additional files exist on tape
TVC1FLG4	E	Y	Y	Y	N	19	CHAR	Flag byte 4: ACV - Actual volser in use DEG - Tape has been degaussed ESM - Tape expired by SMS NRS - Non-resident tape OSC - File on OS catalog SIU - Tape is in use SNO - No stacking allowed VSR - Vault specific request
TVC1FLG5	E	Y	Y	Y	N	19	CHAR	Flag byte 5: AGT - Agent tape STF - Files were dynamically VTX - Virtual volume exported WID - WORM WWID present WTP - 3592 WORM tape
TVC1FUDT	A	Y	Y	Y	Y	D	DATE	First used date
TVC1FUDY	A	Y	Y	Y	Y	5	NUM	Days since first used
TVC1LUJB	E	Y	Y	Y	Y	8	CHAR	Last used job Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVC1LUTI	A	Y	Y	Y	Y	8	TIME	Last used time
TVC1NDSB	A	Y	Y	Y	Y	5	NUM	Number of DSNBs
TVC1OACD	E	Y	Y	Y	Y	4	CHAR	Out area code
TVC1OADT	A	Y	Y	Y	Y	D	DATE	Out of area date
TVC1OADY	A	Y	Y	Y	Y	5	NUM	Days out of area
TVC1OPNC	A	Y	Y	Y	Y	5	NUM	Total open count
TVC1RECT	E	Y	Y	Y	N	21	CHAR	Record technique

DATATYPE=CA1VOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVC1ROBT	E	Y	Y	Y	N	9	CHAR	Robotic type BOS - Bosch COM - Comparex GRA - Grau HDS - HDS IBM - IBM STO - Stortek SUT - Sutmyn VBO - VBosch VCO - VComparex VEM - VEMC VGR - VGrau VHD - VHDS VIB - VIBM VST - VStortek VSU - VSutmyn VTA - VTape
TVC1TUDT	A	Y	Y	Y	Y	D	DATE	Last TMR update date
TVC1TUDY	A	Y	Y	Y	Y	5	NUM	Days since last TMR update
TVC1TUTI	A	Y	Y	Y	Y	8	TIME	Last TMR update time - *hh.mm.ss*
TVC1UCWC	A	Y	Y	Y	Y	5	NUM	Total use count
TVC1VLSN	A	Y	Y	Y	Y	8	NUM	Vault slot number
TVDBNMED	E	Y	Y	Y	Y	8	CHAR	Destination bin media name
TVDEVCLS		Y	Y	Y	Y	7	CHAR	Device class
TVEXDATE	A	Y	Y	Y	Y	D	DATE	Expiration date
TVEXDAYS	A	Y	Y	Y	Y	5	NUM	Days until expiration
TVF1DSN	E	Y	Y	Y	Y	44	CHAR	First file data set name
TVLABEL	E	Y	Y	Y	Y	3	CHAR	Volume label: AL – ISO/ANSI label AUL – Both ISO/ANSI and user header or trailer labels BLP - Bypass label processing NL – No label SL – IBM standard label SUL – Standard user label UL - User label
TVLCSYS	E	Y	Y	Y	Y	8	CHAR	Last change system
TVLCUSER	E	Y	Y	Y	Y	8	CHAR	Last change user id Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVLRDATE	A	Y	Y	Y	Y	D	DATE	Date last read
TVLRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last read
TVLRUNIT	A	Y	Y	Y	Y	3	CHAR	Last used 3-byte device number
TVNXTVOL	A	Y	Y	Y	Y	6	CHAR	Next volume Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVPRDERR	A	Y	Y	Y	Y	9	NUM	Permanent read errors
TVPRVVOL	A	Y	Y	Y	Y	6	CHAR	Previous volume Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVPWTERR	A	Y	Y	Y	Y	9	NUM	Permanent write errors
TVRANK	A	N	Y	N	N	3	NUM	Internal FDREPORT rank number

DATATYPE=CA1VOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVRTVALU	E	Y	Y	Y	N	10	CHAR	Retention value: CATALOG CYCLE/*nnn* LDATE/*nnn* PERMANENT STATS/*nnn* USER/*nnn* Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVSTATUS	E	Y	Y	Y	Y	7	CHAR	Volume status: ENTRY (E) – Scratch volume awaiting entry into a system-managed tape library INIT (I) – Scratch volume awaiting initialization MASTER (M) – Master SCRATCH (S) – Scratch volume USER (U) – User volume
TVSYSID	E	Y	Y	Y	Y	4	CHAR	System identification from SMF
TVTRDERR	A	Y	Y	Y	Y	9	NUM	Temporary read errors
TVTWTERR	A	Y	Y	Y	Y	9	NUM	Temporary write errors
TVUSEBYT	A	Y	Y	Y	Y	11	NUM	Volume use bytes
TVVENDOR	E	Y	Y	Y	Y	8	CHAR	Vendor Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVVOLSEQ	A	Y	Y	Y	Y	3	NUM	Volume sequence number
TVVOLSER	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVWRMTCT	A	Y	Y	Y	Y	9	NUM	Volume write mount count
TVWWID	E	Y	Y	Y	Y	24	CHAR	Worldwide ID Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVXTDATE	A	Y	N	N	Y	D	DATE	The extraction date
TVXTTIME	A	Y	N	N	Y	8	TIME	The extraction time

DATATYPE DEFDASD FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=DEFDASD. DEFDASD attempts to extract a limited set of data from all defined DASD devices, regardless of their current state. DEFDASD also provides access to the storage resident fields that describe the available storage for System Managed Storage (SMS) volumes.

DATATYPE=DEFDASD Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
UCBSTATS	E	Y	Y	Y	N	7	CHAR	UCB status indicators: OFFLINE ONLINE
VL%FTRKS	A	Y	Y	Y	Y	3	NUM	Volume tracks free percent
VL%UTRKS	A	Y	Y	Y	Y	3	NUM	Volume tracks used percent
VLALOSTA	E	Y	Y	Y	N	6	CHAR	Volume allocation status ALLOC - allocated device ONLINE - online only SYSRES - system residence (IPL volume) UNLOAD - scheduled for unload
VLBYTCYL		Y	Y	Y	Y	10	NUM	Bytes/cylinder
VLBYTTRK		Y	Y	Y	Y	5	NUM	Bytes/track
VLBYTVOL	A	Y	Y	Y	Y	10	NUM	Bytes/volume
VLCCA	A	Y	Y	N	Y	2	HEX	Channel connect address
VLCTLSER	E	Y	Y	Y	Y	5	CHAR	Controller serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VLCTLTYP		Y	Y	Y	Y	6	CHAR	Controller type
VLCYLVOL	A	Y	Y	Y	Y	5	NUM	Number of cylinders/volume
VLDCEACT	E	Y	Y	Y	N	19	CHAR	DCE active features CCC - Extended remote copy CFW - Cache fast write DCA - Dual copy active DFW - DASD fast write TKC - Track caching
VLDCEFLG	E	Y	Y	Y	N	19	CHAR	DCE flag byte 2 CSW - Compare swap bit DPX - Duplex device PKC - Pack change in process PRI - Primary duplex device PVM - Non-full pack VM minidisk SEC - Secondary duplex device SHR - Device sysgen'd SHARED SSV - Subsystem is valid
VLDCEFL8	E	Y	Y	Y	N	9	CHAR	DCE flag byte 8 CYMG - Cylinder managed storage exists F8F9 - Format 8 and Format 9 DSCB can exist on this volume
VLDEVCLS		Y	Y	Y	Y	4	CHAR	Device class
VLDEVTYP	E	Y	Y	Y	Y	7	CHAR	Device type
VLDIRBTR		Y	Y	Y	Y	3	NUM	Number of directory blocks/track
VLDSCBTR		Y	Y	Y	Y	3	NUM	Number of DSCBs/track
VLMFRCOD	E	Y	Y	Y	Y	3	CHAR	Manufactures' code Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=DEFDASD Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
VLMOUSTA	E	Y	Y	Y	N	8	CHAR	Volume mount status RESERVED - Reserved volume RESIDENT - Permanently resident volume
VLRANK	A	Y	Y	N	Y	6	NUM	Rank within sorted data
VLSMSMBC		Y	Y	Y	Y	11	NUM	SMS volume capacity in megabytes
VLSMSMBF		Y	Y	Y	Y	11	NUM	SMS volume free space in megabytes
VLSMSSTG	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VLSSID	E	Y	Y	Y	Y	4	CHAR	SSID Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VLSYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
VLTRKCYL		Y	Y	Y	Y	3	NUM	Number of tracks/cylinder
VLTRKVOL	A	Y	Y	Y	Y	5	NUM	Number of tracks/volume
VLUCBFLA		Y	Y	N	N	24	CHAR	UCB flags (UCBFLA)
VLUCBFL4	IF	Y	Y			24	CHAR	Indicators from the UCB field UCBFL4 CMBU - CMB update required MDSE - DSE1 is required during MSI PAVA - PAV-alias device PAVB - PAV-base capable device PAVH - HiperPAV base or alias device SDSE - DSE1 is required during SIO WDAV - DAVV waiting for mount
VLUCBID	A	Y	Y	Y	Y	8	HEX	UCB 4-byte device type (hex)
VLUNIT	A	Y	Y	Y	Y	3	CHAR	Unit address
VLUNITNA		Y	Y	Y	Y	8	CHAR	Generic unit name
VLUSEATR	E	Y	Y	Y	Y	7	CHAR	Volume use attribute: PRIVATE - Allocated only to a specific volume request PUBLIC - Allocated to temporary non-specific volume request STORAGE - Allocated primarily to non-temporary, non-specific volume request.
VLVOLSER	A	Y	Y	Y	Y	6	CHAR	DASD volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE ENCRYPT FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=ENCRYPT representing the data sets residing in the FDRCRYPT "keyfile". The name of the "keyfile" is usually stored in the FDR Global Options Table. Complete access to the "keyfile" requires the completion of a successful RACROUTE command using:

```
REQUEST=AUTH ENTITY="keyfile" ATTR=ALTER VOLSER=volser
```

Only with successful completion of the RACROUTE request is permission given to fully display the encryption key.

DATATYPE=ENCRYPT Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
ENCRBDAY	A	Y	Y	Y	Y	5	NUM	Number of days since encrypted
ENCRGDSN	E	Y	Y	Y	Y	44	CHAR	Original backup data set name
ENCRBVOL	E	Y	Y	Y	Y	6	CHAR	Original first backup volume Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
ENCRDATE	A	Y	Y	Y	Y	D	DATE	Backup date
ENCRFLGS	E	Y	Y	Y	N	5	CHAR	Encryption flag byte DELETE - Record marked for deletion FDRCAMS - File was encrypted by FDRCAMS GENERATEDKEY - Key was generated by FDRCRYPT MASTERKEYAPPLIED - A master key was used during the encryption PUBLICKEYAPPLIED - A public key was used during the encryption TAPEFILE - The backup file resides on a tape device UPSTREAM - The backup file was created by FDR/UPSTREAM
ENCRGLSQ	A	Y	Y	N	Y	5	NUM	Original backup file sequence number
ENCRKEY	E	Y	N	N	N	32	HEX	Encryption key
ENCRTIME	A	Y	Y	N	N	8	TIME	Backup time - *hh.mm.ss*
ENCRTYPE	E	Y	Y	Y	N	6	CHAR	Encryption type AES128 - Advanced Encryption Standard (AES) with a 128 bit (16 byte) key AES192 - Advanced Encryption Standard (AES) with a 192 bit (24 byte) key AES256 - Advanced Encryption Standard (AES) with a 256 bit (32 byte) key AESFAST - Advanced Encryption Standard (AES) with a 128 bit (16 byte) key CIPHER - Transformation consisting of character substitution plus transposition based on a randomly generated 4096 bit (512 byte) key SUBSTITUTE - Character substitution transformation of the data based on a randomly generated 2048 bit (256 byte) key
ENCRVOL	E	Y	Y	Y	Y	6	CHAR	Original serial number encrypted Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SPLEBDSN		Y				20	CHAR	Original backup data set name - ABR split format

DATATYPE EXTRACT FIELD NAME TABLE

This is a list of the specific operands that are available for use with DATATYPE=EXTRACT. EXTRACT reads data files created by FDREPORT from all other data sources. This means all operands that are used for other data sources can be used, based on the original data type or source. Refer to the original DATATYPE for a complete list of the accepted operands.

DATATYPE=EXTRACT Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
ARCDSN	A	Y	Y	Y	Y	44	CHAR	Archive Control File name

DATATYPE MCDS FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=MCDS. MCDS extracts data set information from the DFSMShsm Migration Control Data Set (MCDS), a VSAM cluster. A LOCATE SVC (SVC 26) is issued to determine if data sets extracted from the MCDS are still cataloged for auto recall under DFSMShsm.

DATATYPE=MCDS Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
%FREE	A	Y	Y	V	Y	3	NUM	Tracks not in use within a data set as a percentage
%USED	A	Y	Y	V	Y	3	NUM	Tracks in use within a data set as a percentage
ADATE	A	Y	Y	V	Y	D	DATE	Archive date
ADAYS	A	Y	Y	V	Y	5	NUM	Days since archived
ATIME	A	Y	Y	V	Y	8	TIME	Archive time - *hh.mm.ss*
BYTES	A	Y	Y	S	Y	B	BYTE	Allocated space (bytes / kB / MB)
BYTESFRE	A	Y	Y	S	Y	B	BYTE	Unused space (bytes / KB / MB)
BYTESTRK	A	Y	Y	V	Y	5	NUM	Bytes per track (calculated)
BYTESUSE	A	Y	Y	S	Y	B	BYTE	Used space (bytes / KB / MB)
BLKSIZE	A	Y	Y	V	Y	5	NUM	Data set block size
BLKSTRK	A	Y	Y	V	Y	4	NUM	Number of blocks per track
CATALOG	E	Y	Y	V	Y	3	CHAR	Catalog status: CAN - Cataloged to candidate volume DRF - DASD read failure ERR - Cataloged to another volume NO - Not cataloged ONL - Only cataloged UNK - Cataloged, but unable to process with LOCATE YES - Cataloged to this volume Note: This can be expensive to collect if a large number of data sets are to be reported
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
CRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DSGROUP	A	Y				44	CHAR	Data set group name
DSIND	E	Y	Y	V	N	2	HEX	Data set indicators (printed in hex): LASTV (x'80') - Last volume MULT8 (x'20') - Block size multiple of 8 PASSA (x'10') - Read / write password PASSW (x'14') - Write password RACF (x'40') - Discrete profile UPDAT (x'02') - Data set updates

DATATYPE=MCDS Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSSN	E	Y	Y	Y	Y	6	CHAR HEX	Volume serial number field in DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
HSMCDCSZ	A	Y	Y	Y	Y	10	NUM	Size of migration volume in 2k blocks (HSM MCDS)
HSMIGVOL	E	Y	Y	Y	Y	6	CHAR	First migration volume (HSM BCDS / MCDS) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
INDEX		Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
KEYLEN	A	Y	Y	V	Y	3	NUM	Data set key length
LRDATE	A	Y	Y	Y	Y	D	DATE	Last reference date
LRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last referenced
LRECL	A	Y	Y	V	Y	5	NUM	Data set logical reference length
LRTIME		Y	Y	N	N	8	TIME	Last reference time - *hh.mm.ss* (IAM / ICF VSAM)
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NTMIGRAT	A	Y	Y	N	N	8	CHAR	Number of times data set has been migrated (MCDS) or backed up (BCDS)
NAME		Y	Y	N	Y	44	CHAR	Data set name or VSAM cluster name

DATATYPE=MCDS Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
OPTCD	E	Y	Y	V	Y	2	CHAR	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECFM	E	Y	Y	V	Y	5	CHAR	Record format: A - ASA control character B - Blocked F - Fixed M - Machine control character S - Standard/spanned T - Track overflow U - Undefined V - Variable * - None of the above
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SCLUSTER		Y	N	N	N	20	CHAR	Short cluster name (first 20 bytes only)
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)
SECAFLAG	E	Y	Y	V	Y	5	CHAR	Secondary allocation flags: BLK - Allocated in blocks CON - Contiguous (CONTIG) CYL - Allocated in cylinders FIV - Five largest extents (ALX) MAX - Largest extent (MXIG) RND - Rounded to cylinders (ROUND) TRK - Allocated in tracks
SECALLOC	A	Y	Y	Y	Y	8	NUM	Secondary allocation quantity
SIZE	A	Y	Y	S	Y	5*	NUM	Allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.

DATATYPE=MCDS Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SIZEFREE	A	Y	Y	S	Y	5*	NUM	Tracks not in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEUSED	A	Y	Y	S	Y	5*	NUM	Tracks in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data
SPLCLS		Y	N	N	N	27	CHAR	Split ICF cluster name on two lines
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
TRKCYL		Y	Y	V	N	3	NUM	Number of tracks per cylinder
TRKSVOL		Y	Y	S	Y	6	NUM	Number of tracks on this volume
TVTOCDSN	A	Y	Y	V	Y	44	CHAR	Input backup data set name
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
XDSNAME	E	Y					CHAR	Extended data set name (selection only)

DATATYPE RMMDSN FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=RMMDSN. They provide the ability to select all data sets managed by DFSMSrmm. Input for this data type is an extended extract file created by the DFSMSrmm utility EDGHSKP using PARM='RPTEXT,DATEFORM(J)'. FDREPORT's EXTRACT command with PROD=RMM uses the same utility to create the extract file.

DATATYPE=RMMDSN Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
NAME		Y	Y	N	Y	44	CHAR	Data set name
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
TD%FULL	A	Y	Y	Y	Y	3	NUM	Percent of volume used by data set.
TDAPRSIZ	A	Y	Y	Y	Y	11	NUM	Approximate file size in bytes
TDBESKEY	A	Y	Y	Y	Y	8	NUM	BES key index
TDBLKCNT	A	Y	Y	Y	Y	11	NUM	Block count
TDBLKSIZ	A	Y	Y	Y	Y	5	NUM	Block size
TDCATFLG	E	Y	Y	Y	N	14	CHAR	Tape data set catalog flags ERR - not cataloged to this volume MVC - multi-volume NO - not cataloged SBC - should be cataloged (IBM DFSMSrmm) SBN - should be not cataloged (IBM DFSMSrmm) SBU - should be unknown (IBM DFSMSrmm) UNK - unknown YES - cataloged
TDCATVCT	A	Y	N	Y	Y	3	NUM	Number of volumes cataloged this data set
TDCATVOL	E	Y	Y	Y	Y	6	CHAR	First cataloged volume this data set Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCOMPRT		Y	N	Y	N	6	NUM	Compression ratio
TDCRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
TDCRDAYS	A	Y	Y	Y	Y	5	NUM	Days since created
TDCRDDNM	E	Y	Y	Y	Y	8	CHAR	Creation DD statement name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRJOB	E	Y	Y	Y	Y	8	CHAR	Creation job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRPGM	E	Y	Y	Y	Y	8	CHAR	Creation program name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDCRSTEP	E	Y	Y	Y	Y	8	CHAR	Creation step name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=RMMDSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDCRSYS		Y	Y	Y	Y	8	CHAR	Creation system ID
TDCRTIME	A	Y	Y	Y	Y	8	TIME	Creation time - *hh.mm.ss*
TDCRUNIT	A	Y	Y	Y	Y	4	CHAR	Creation unit address
TDDEVCLS		Y	Y	Y	Y	7	CHAR	Device class
TDDSNAME	E	Y	Y	Y	Y	44	CHAR	Data set name
TDDSNSEQ	A	Y	Y	Y	Y	5	NUM	Data set sequence
TDESDATE	E	Y	Y	Y	Y	D	DATE	Function that set the expiration date
TDEXDATE	A	Y	Y	Y	Y	D	DATE	Expiration date
TDEXDAYS	A	Y	Y	Y	Y	5	NUM	Days until expire
TDFILESZ	A	Y	Y	Y	Y	11	NUM	File size in bytes
TDLABLNO	A	Y	Y	Y	Y	5	NUM	Label number
TDLCDATE	A	Y	Y	Y	Y	D	DATE	Last change date
TDLCDAYS	A	Y	Y	Y	Y	5	NUM	Days since last change
TDLCSYS	E	Y	Y	Y	Y	8	CHAR	Last change system Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLCTIME	A	Y	Y	Y	Y	8	TIME	Last change time (hh.mm.ss)
TDLCUSER	E	Y	Y	Y	Y	8	CHAR	Last change user id Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLRDATE	A	Y	Y	Y	Y	D	DATE	Date last read
TDLRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last read
TDLRECL	A	Y	Y	Y	Y	5	NUM	Logical record length
TDLUDDNM	E	Y	Y	Y	Y	8	CHAR	Last used DD statement name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLUJOB	E	Y	Y	Y	Y	8	CHAR	Last used job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLUPGM	E	Y	Y	Y	Y	8	CHAR	Last used program name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLUSTEP	E	Y	Y	Y	Y	8	CHAR	Last used step name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDLUUNIT	A	Y	Y	Y	Y	3	CHAR	Last used 3-byte device number
TDLWDATE	A	Y	Y	Y	Y	D	DATE	Date last written
TDLWDAYS	A	Y	Y	Y	Y	5	NUM	Days since last written
TDMVJOB	E	Y	Y	Y	Y	8	CHAR	Matching VRS job name mask Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDMVLSID	E	Y	Y	Y	Y	16	CHAR	Multi-volume set id value
TDMVNAME	E	Y	Y	Y	Y	44	CHAR	Matching VRS name
TDOEDATE	A	Y	Y	Y	Y	D	DATE	Original expiration date
TDOEDAYS	A	Y	Y	Y	Y	5	NUM	Days since original expiration
TDOWNER	E	Y	Y	Y	Y	8	CHAR	Owner ID Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDPHYSIZ	A	Y	Y	Y	Y	11	NUM	Physical size after compression in bytes
TDPVDATE	A	Y	Y	Y	Y	D	DATE	Primary VRS start date

DATATYPE=RMMDSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDPVRSUB	E	Y	Y	Y	Y	8	CHAR	Primary VRS sub-chain name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDRANK	A	Y	Y	N	Y	6	NUM	Rank within sorted data
TDRECFM	E	Y	Y	Y	Y	5	CHAR	Record format: A – ASA control character B – Blocked F – Fixed M – Machine control character S – Standard/spanned U – Undefined V – Variable * – None of the above
TDRTDATE	A	Y	Y	Y	Y	D	DATE	Retention date
TDRTDAYS	A	Y	Y	Y	Y	5	NUM	Days to retain
TDRTVALU	E	Y	Y	Y	N	10	CHAR	Retention value: CATRETPD CYCL//*nnnnn* PERMANENT WHILECATLG Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSCLASS		Y	Y	Y	Y	30	CHAR	Security class (long) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSECCLS	E	Y	Y	Y	Y	8	CHAR	Security class (short) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSIFACT		Y	Y	Y	N	2	CHAR	Size factor: KB - multiply the listed fields by 1024 MB - multiply the listed fields by 1024*1024 GB - multiply the listed fields by 1024*1024*1024 TB - multiply the listed fields by 1024*1024*1024*1024
TDSMSDTC	E	Y	Y	Y	Y	8	CHAR	SMS data class name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSMSMGC	E	Y	Y	Y	Y	8	CHAR	SMS management class name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSMSSTC	E	Y	Y	Y	Y	8	CHAR	SMS storage class name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSMSSTG	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSTATUS	E	Y	Y	Y	Y	7	CHAR	Volume status: MASTER USER SCRATCH INIT ENTRY
TDSVDATE	A	Y	Y	Y	Y	D	DATE	Secondary VRS start date
TDSVRSJN	E	Y	Y	Y	Y	8	CHAR	Secondary VRS job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSVRSNM	E	Y	Y	Y	Y	8	CHAR	Secondary VRS name mask Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSVRSUB	E	Y	Y	Y	Y	8	CHAR	Secondary VRS sub-chain Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDSYSID	E	Y	Y	Y	Y	4	CHAR	System identification from SMF

DATATYPE=RMMDSN Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TDTAPFLG	E	Y	Y	Y	N	19	CHAR	Tape data set flags ABN - closed by ABEND CPK - compaction used DRU - default retention period used DSP - deleted by disposition VEX - VRSEL exclude VRS - retained by VRS
TDTBKCNT	A	Y	Y	Y	Y	11	NUM	Total block count
TDUCBID	A	Y	Y	Y	Y	8	HEX	UCB 4-byte hex device type from catalog
TDUCDATE	A	Y	Y	Y	Y	D	DATE	Last user change date
TDUCDAYS	A	Y	Y	Y	Y	5	NUM	Days since last user change
TDUCTIME	A	Y	Y	Y	Y	8	TIME	Last user change time – *hh.mm.ss*
TDVOLSEQ	A	Y	Y	Y	Y	3	NUM	Volume sequence number
TDVOLSER	A	Y	Y	Y	Y	6	CHAR	Tape volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDVRSMVA	E	Y	Y	Y	Y	8	CHAR	VRS management value Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TDVRSTYP	E	Y	Y	Y	Y	8	CHAR	VRS type (IBM DFSMSrmm) DATASET - DSNAME type vital record specification DSNMC - DSNAME type vital record specification and a SMS management class DSNMV - DSNAME type vital record specification and a management class SMSMC - SMS management class VRSMV - vital record specification
TDXTDATE	A	Y	Y	Y	Y	6	DATE	Extract date
TDXTTIME	A	Y	Y	Y	Y	8	TIME	Extract time – *hh.mm.ss*

DATATYPE RMMVOL FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=RMMVOL. They provide the ability to select all tape volumes managed by DFSMSrmm. Input for this data type is an extended extract file created by the DFSMSrmm utility EDGHSKP using PARM='RPTEXT,DATEFORM(J)'. FDREPORT's EXTRACT command with PROD=RMM uses the same utility to create the extract file.

DATATYPE=RMMVOL Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
TV%FULL	A	Y	Y	Y	Y	3	NUM	Volume full percentage
TVACCESS	E	Y	Y	Y	Y	6	CHAR	Volume access: ALTER (A) READ (R) UPDATE (U)
TVACCNT	E	Y	Y	Y	Y	40	CHAR	Accounting data
TVACTION	E	Y	Y	Y	N	7	CHAR	Actions on release: ERASE (ERA) – Erase volume on release INIT (INI) – Initialize volume on release NOTIFY (NOT) – Notify owner on release REPLACE (REP) – Replace volume on release RETURN (RET) – Return volume to owner on release SCRATCH (SCR) – Return to scratch on release
TVASDATE	A	Y	Y	Y	Y	D	DATE	Assigned date
TVASTIME	A	Y	Y	Y	Y	8	TIME	Assigned time - *hhmmss*
TVAVAIL	E	Y	Y	Y	N	15	CHAR	Volume availability: ONLOAN (ON) OPEN (OP) PENDINGREL (PE) VITALRECORD (VI) VOLUMEHOLD (VH)
TVBIN	A	Y	Y	Y	Y	6	CHAR	Current bin number
TVBINMED	E	Y	Y	Y	Y	8	CHAR	Bin number media name
TVCAPBYT	A	Y	Y	Y	Y	11	NUM	Volume capacity bytes
TVCOMPRT		Y	N	Y	N	6	CHAR	Compression ratio
TVCONTNR	A	Y	Y	Y	Y	16	CHAR	Container
TVCRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
TVCRDAYS	A	Y	Y	Y	Y	5	NUM	Days since created
TVCRJOB	E	Y	Y	Y	Y	8	CHAR	Creating job name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVCRSYS	E	Y	Y	Y	Y	8	CHAR	Creating system Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVCRSYS1	E	Y	Y	Y	Y	8	CHAR	Creating system for the first file Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=RMMVOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVCRTIME	A	Y	Y	Y	Y	8	TIME	Creation time - *hh.mm.ss*
TVDBNMED	E	Y	Y	Y	Y	8	CHAR	Destination bin media name
TVDBNNUM		Y	Y	Y	Y	6	CHAR	Destination bin number
TVDESTNM	E	Y	Y	Y	Y	8	CHAR	Destination name
TVDESTYP	E	Y	Y	Y	Y	6	CHAR	Destination type: AUTO (A) - Automatically determined MANUAL (M) - manually determined STORE (S) - storage
TVDSNCNT	A	Y	Y	Y	Y	7	NUM	Data set count
TVEKEYL1	E	Y	N	N	N	32	HEX	Encryption key label 1
TVEKEYL2	E	Y	N	N	N	32	HEX	Encryption key label 2
TVEKEYM1	E	Y	Y	Y	Y	5	CHAR	Key encoding mechanism 1
TVEKEYM2	E	Y	Y	Y	Y	5	CHAR	Key encoding mechanism 2
TVESDATE	E	Y	Y	Y	Y	8	CHAR	Function that set the expiration date
TVEXDATE	A	Y	Y	Y	Y	D	DATE	Expiration date
TVEXDAYS	A	Y	Y	Y	Y	5	NUM	Days until expiration
TVEXPTOK	A	Y	Y	Y	Y	16	HEX	RMM export token
TVFCODE	E	Y	Y	Y	Y	4	CHAR	Product feature code
TVF1DSN	E	Y	Y	Y	Y	44	CHAR	First file data set name
TVHOMLOC	E	Y	Y	Y	Y	8	CHAR	Home location name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVHOMTYP	E	Y	Y	Y	Y	6	CHAR	Home location type: AUTO (A) MANUAL (M) STORE (S)
TVLABEL	E	Y	Y	Y	Y	3	CHAR	Volume label: AL – ISO/ANSI label AUL – Both ISO/ANSI and user header or trailer labels BLP - Bypass label processing NL – No label SL – IBM standard label SUL – Standard user label UL - User label
TVLBLCUR	E	Y	Y	Y	Y	3	CHAR	ANSI current label version: (blank) 1 3 4
TVLBLREQ	E	Y	Y	Y	Y	3	CHAR	ANSI Required label version: (blank) 3 4
TVLCUSER	E	Y	Y	Y	Y	8	CHAR	Last change user id Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVLOAN	E	Y	Y	Y	Y	8	CHAR	Loan location Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVLOCAT	E	Y	Y	Y	Y	8	CHAR	Current location name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=RMMVOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVLOCTYP	E	Y	Y	Y	Y	6	CHAR	Current location type: AUTO (A) MANUAL (M) STORE (S)
TVLRDATE	A	Y	Y	Y	Y	D	DATE	Date last read
TVLRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last read
TVLRUNIT	A	Y	Y	Y	Y	3	CHAR	Last used 3-byte device number
TVLVDATE	A	Y	Y	Y	Y	D	DATE	Last VOLREC change date
TVLVDAYS	A	Y	Y	Y	Y	5	NUM	Days since last VOLREC change
TVLVSOVS	A	Y	Y	Y	Y	3	NUM	Last vol seq number of volume set
TVLVTIME	A	Y	Y	Y	Y	8	TIME	Last VOLREC change time - *hhmmss*
TVLWDATE	A	Y	Y	Y	Y	D	DATE	Date last written
TVLWDAYS	A	Y	Y	Y	Y	5	NUM	Days since last written
TVMEDDEN	E	Y	N	Y	Y	8	CHAR	Media density:: COMPACT UNKNOWN 1600 3480 6250
TVMEDFIN	E	Y	Y	Y	Y	8	CHAR	Media information name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVMEDNAM	E	Y	Y	Y	Y	8	CHAR	Current media name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVMEDRFM	E	Y	Y	Y	Y	8	CHAR	Media recording format: EEFMT2 – Enterprise Encrypted Format 2 EEFMT3 – Enterprise Encrypted Format 3 EEFMT4 – Enterprise Encrypted Format 4 EFMT1 – Enterprise Format 1 EFMT2 – Enterprise Format 2 EFMT3 – Enterprise Format 3 EFMT4 – Enterprise Format 4 18TRK – 18 track format 36TRK – 36 track format 128TRK – 128 track format 256TRK – 256 track format 384TRK – 384 track format NOCART

DATATYPE=RMMVOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVMEDTYP	E	Y	Y	Y	Y	8	CHAR	Media type: CST – Cartridge System Tape EAETC – Enterprise Advanced Economy Tape Cartridge - JK EATC – Enterprise Advanced Tape Cartridge - JC EAWTC – Enterprise Advanced WORM Tape Cartridge - JY ECCST – Enhanced Capacity Cartridge System Tape EETC – Enterprise Economy Tape Cartridge - JJ EEWTC – Enterprise Economy WORM Tape Cartridge - JR EHPCT – Extended High Performance Cartridge Tape - K ETC – Enterprise Tape Cartridge - JA EWTC – Enterprise WORM Tape Cartridge - JW EXTC – Enterprise Extended Tape Cartridge - JB EXWTC – Enterprise Extended WORM Tape Cartridge - JX HPCT – High Performance Cartridge Tape MEDIAS – UNDEFINED Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVMVDATE	A	Y	Y	Y	Y	D	DATE	Movement tracking date
TVMVDAYS	A	Y	Y	Y	Y	5	NUM	Days since last moved
TVMVLSID	E	Y	Y	Y	N	16	CHAR	Multi-volume set id value
TVMVPRTY	A	Y	Y	Y	Y	4	NUM	Required movement priority
TVNXTVOL	A	Y	Y	Y	Y	6	CHAR	Next volume Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVOBIN	A	Y	Y	Y	Y	6	NUM	Old bin number
TVOBNMED	E	Y	Y	Y	Y	8	CHAR	Old bin number media name
TVOEDATE	A	Y	Y	Y	Y	D	DATE	Original expiration date
TVOEDAYS	A	Y	Y	Y	Y	5	NUM	Days since original expiration
TVOLOC	E	Y	Y	Y	Y	8	CHAR	Old location name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVOLOCTY	E	Y	Y	Y	Y	6	CHAR	Old location type: AUTO (A) MANUAL (M) STORE (S)
TVOWNACC	E	Y	Y	Y	Y	6	CHAR	Owner access: ALTER READ UPDATE
TVOWNER	E	Y	Y	Y	Y	8	CHAR	User id of the owner Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVPEND	E	Y	Y	Y	N	11	CHAR	Actions pending: ERA – Erase INI – Initialize NOT – Notify REP – Replace RET – Return SCR – Scratch
TVPHYSPA	A	Y	Y	Y	Y	11	NUM	Physical space used (bytes)
TVPRDERR	A	Y	Y	Y	Y	9	NUM	Permanent read errors
TVPRDNUM	A	Y	Y	Y	Y	8	CHAR	Product software number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=RMMVOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVPRDVER	A	Y	Y	Y	Y	8	CHAR	Product software version Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVPRVVOL	A	Y	Y	Y	Y	6	CHAR	Previous volume Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVPVLOAN	E	Y	Y	Y	Y	8	CHAR	Previous loan location Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVPWTERR	A	Y	Y	Y	Y	9	NUM	Permanent write errors
TVRACK	A	Y	Y	Y	Y	6	CHAR	Rack number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVRANK	A	N	Y	N	N	3	NUM	Internal FDREPORT rank number
TVREQLOC	E	Y	Y	Y	Y	8	CHAR	Required location name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVRETMET	E	Y	Y	Y	Y	5	CHAR	Retention method Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVRETMSB	E	Y	Y	Y	Y	10	CHAR	Retention method set by function Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVRQLOCT	E	Y	Y	Y	Y	6	CHAR	Required location type: AUTO (A) MANUAL (M) STORE (S)
TVRTDATE	A	Y	Y	Y	Y	D	DATE	Retention date
TVRTDAYS	A	Y	Y	Y	Y	5	NUM	Days to retention date
TVRTVALU	E	Y	Y	Y	N	10	CHAR	Retention value: CATRETPD CYCL//*nnnnn* PERMANENT WHILECATLG Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVSCLASS	E	Y	Y	Y	Y	30	CHAR	Security class (long) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVSECCLS	E	Y	Y	Y	Y	8	CHAR	Security class (short) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVSIFACT		Y	N	Y	N	2	CHAR	Size factor: KB - multiply the listed fields by 1024 MB - multiply the listed fields by 1024*1024 GB - multiply the listed fields by 1024*1024*1024 TB - multiply the listed fields by 1024*1024*1024*1024
TVSMSSTG	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVSTATUS	E	Y	Y	Y	Y	7	CHAR	Volume status: ENTRY (E) – Scratch volume awaiting entry into a system-managed tape library INIT (I) – Scratch volume awaiting initialization MASTER (M) – Master SCRATCH (S) – Scratch volume USER (U) – User volume
TVSTKCNT	A	Y	Y	Y	Y	9	NUM	Stacked volume count
TVSYSID	E	Y	Y	Y	Y	4	CHAR	System identification from SMF

DATATYPE=RMMVOL Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
TVTAPFL1	E	Y	Y	Y	N	4	CHAR	Tape Flag 1: LOGI – logical volume MEDI – media compaction used PHYS – physical volume READ – read compat RECO – recorded data to EOV RETA – retained by set STAC – stacked volume WORM – WORM
TVTAPFL2	E	Y	Y	Y	N	4	CHAR	Tape Flag 2: CLOS – closed by ABEND DATA – data set recording EXPD – expire date ignore MANU – manual move SCRA – scratch immediate STAC – stacked volumes enabled and set VOLU – volume in transit
TVTAPFL3	E	Y	Y	Y	N	7	CHAR	Tape Flag 3: DRU – Default parmlib retention used
TVTRDERR	A	Y	Y	Y	Y	9	NUM	Temporary read errors
TVTWTERR	A	Y	Y	Y	Y	9	NUM	Temporary write errors
TVUCDATE	A	Y	Y	Y	Y	D	DATE	Last user change date
TVUCDAYS	A	Y	Y	Y	Y	5	NUM	Days since last user change
TVUCTIME	A	Y	Y	Y	Y	8	TIME	Last user change time – *hhmmss*
TVUSEBYT	A	Y	Y	Y	Y	11	NUM	Volume use bytes
TVUSECNT	A	Y	Y	Y	Y	5	NUM	Volume use count
TVUSERID	E	Y	Y	Y	Y	8	CHAR	User id Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVUSRDSC	E	Y	Y	Y	Y	30	CHAR	User description Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVVENDOR	E	Y	Y	Y	Y	8	CHAR	Vendor Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVVOLENV	E	Y	Y	Y	N	9	CHAR	Volume environment: IRMM (I) – Open systems managed by IRMM MVS (M) – MVS systems VM (V) – VM systems
TVVOLSEQ	A	Y	Y	Y	Y	3	NUM	Volume sequence number
TVVOLSER	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVWRMTCT	A	Y	Y	Y	Y	9	NUM	Volume write mount count
TVWWID	E	Y	Y	Y	Y	24	CHAR	Worldwide ID Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
TVXTDATE	A	Y	N	N	Y	D	DATE	The extraction date
TVXTTIME	A	Y	N	N	Y	8	TIME	The extraction time
TV1LBVOL	A	Y	Y	Y	Y	6	CHAR	VOL1 label volser Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE SCRATCH FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=SCRATCH. They provide the ability to select data set information, both VSAM and non-VSAM, from the FDRABR scratch catalog and backup data from the FDRABR catalog.

DATATYPE=SCRATCH Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
ABRCYCLE	A	Y	Y	Y	Y	3	NUM	ABR current cycle number
ABRGEN	A	Y	Y	Y	Y	4	NUM	ABR current generation number
BKCYCLE	A	Y	Y	Y	Y	3	NUM	ABR cycle number of backup tape
BKDATE	A	Y	Y	V	Y	D	DATE	Backup date
BKDAYS	A	Y	Y	V	Y	5	NUM	Days since backup
BKDEVCLS	E	Y	Y	V	Y	4	CHAR	Backup tape device class
BKDEVTYP	E	Y	Y	V	Y	7	CHAR	Backup tape device type
BKDSNS	A	Y	Y	V	Y	3	NUM	Number of active backup data sets
BKEXDATE	A	Y	V	Y	Y	D	DATE	Backup expiration date
BKEXDAYS	A	Y	V	Y	Y	5	NUM	Days until backup expiration Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
BKFILENO	A	Y	V	Y	Y	4	NUM	Backup tape file number
BKGEN	A	Y	Y	Y	Y	4	NUM	ABR generation number of backup tape
BKSUFFIX	E	Y	V	Y	Y	8	CHAR	Backup tape dsname suffix Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BKTAPCNT	A	Y	N	Y	Y	2	NUM	Backup tape volume count
BKTIME	A	Y	Y	Y	Y	8	TIME	Backup time - *hhmmss* (APPL backup / ABREXIT)
BKVOL	E	Y	Y	V	Y	34	CHAR	Backup tape volumes required to restore Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CATALOG	E	Y	Y	V	Y	3	CHAR	Catalog status: CAN - Cataloged to candidate volume DRF - DASD read failure ERR - Cataloged to another volume NO - Not cataloged ONL - Only cataloged UNK - Cataloged, but unable to process with LOCATE YES - Cataloged to this volume Note: This can be expensive to collect if a large number of data sets are to be reported
CATNAME	A	Y	Y	V	Y	44	CHAR	Name of the catalog
CATTTR	A	Y	Y	X	Y	6	HEX	DSCBTTR from catalog
CATVOL	E	Y	Y	X	Y	6	CHAR	Volume where the data set is cataloged Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CATVOLCT	A	Y	Y	V	Y	3	NUM	Number of unique non-candidate volumes where the data set is cataloged
CATVOLTL	A	Y	Y	V	Y	3	NUM	Total number of unique volumes where the data set is cataloged

DATATYPE=SCRATCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
CLUSATTR	E	Y	Y	N	N	24	CHAR	Cluster attributes (ICF VSAM): ATL - Tape volume catalog ATTREXT - Extended attribute (EA) EXTEND - Extended format (EF) FORMAT - Formatted pagespace PAGESPACE - Pagespace SWAPSPACE - Swapspace TIMESSTAMP - Timestamps exist VERIFYREQ - Verify is required (catalog only)
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
CLUSTGROUP	A					44	CHAR	Cluster group name (ICF VSAM)
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
CRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DSGROUP	A	Y				44	CHAR	Data set group name
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
GDGENTRY	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry count
GDGFLAGS	E	Y	Y	Y	Y	9	CHAR	Generation Data Group flag byte
GDGGENER	A	Y	Y	Y	Y	4	NUM	Generation Data Group generation number
GDGLIMIT	A	Y	Y	Y	Y	3	NUM	Generation Data Group active entry limit
GDGRELGN	A	Y	Y	Y	Y	3	NUM	Generation Data Group relative generation
GDGVERSN	A	Y	Y	Y	Y	2	NUM	Generation Data Group version number

DATATYPE=SCRATCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
INDEX		Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
LRTIME		Y	Y	N	N	8	TIME	Last reference time - *hh.mm.ss* (IAM / ICF VSAM)
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NAME		Y	Y	N	Y	44	CHAR	Data set name
NVSAMATR	E	Y	Y	Y	N	6	CHAR	SMS-managed non-VSAM attributes (in NVR)
OLDBKUP		Y	Y	V	N	2	NUM	ABR old backup # of ABR backup
OPTCD	E	Y	Y	V	Y	2	CHAR	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
OWNER	A	Y	Y	Y	Y	8	CHAR	Owner ID
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)

DATATYPE=SCRATCH Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORGRP	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
XDSNAME	E	Y					CHAR	Extended data set name (selection only)

DATATYPE TVTOC FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=TVTOC. This data type extracts data set information from backup files produced by the INNOVATION DATA PROCESSING backup and recovery products FDR, FDRABR, and FDRDSF..

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
%CA	A	Y	Y	Y	Y	3	NUM	Free percentage in Control Area (CA)
%CAPUSED	A	Y	Y	Y	Y	3	NUM	Used percentage of allocation capacity
%CI	A	Y	Y	Y	Y	3	NUM	Free percentage in Control Interval (CI)
%DIRFREE	A	Y	Y	Y	Y	3	NUM	Free percentage of PDS directory blocks
%DIRUSED	A	Y	Y	Y	Y	3	NUM	Used percentage of PDS directory blocks
%FREE	A	Y	Y	V	Y	3	NUM	Tracks not in use within a data set as a percentage
%OVER	A	Y	Y	Y	Y	3	NUM	Overflow records used as a percentage (IAM)
%USED	A	Y	Y	V	Y	3	NUM	Tracks in use within a data set as a percentage
ABRCYCLE	A	Y	Y	Y	Y	3	NUM	ABR current cycle number
ABRGEN	A	Y	Y	Y	Y	4	NUM	ABR current generation number
ABRHITRS	A	Y	Y	Y	Y	3	NUM	ABR high volume threshold
ABRIND	E	Y	Y	Y	N	5	CHAR	ABR indicators: A - Always backup / Never archive B - Current ABR backup exists N - Normal backup / Never archive R - Archive requested X - Exclude from ABR processing For reports only, not for selection: C - No current ABR backup exists I - Instant backup is pending - SNAP, SPLIT, PSPLIT, or FCOPY has been done, but the point-in-time image has not yet been copied to a backup file M - Multi-volume data set T - Old backup recording is enabled U - Updated since last ABR backup
ABRLOTRS	A	Y	Y	Y	Y	3	NUM	ABR low volume threshold
ABRVPOPT		Y	Y	Y	N	7	CHAR	ABR volume processing options: C - Cycle table is active I - Instant backup attempted N - Never archive from this volume S - Scratch is permitted T - ABR thresholds are enabled X - COPY1 expiration date active Y - COPY2 expiration date active 0 (zero) - None of the above
AIXATTR	E	Y	Y	Y	N	7	CHAR	Alternate index attributes (IAM / ICF VSAM only): AIX - This is an AIX UPGRADE - AIX with upgrade

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
AMDATTR	E	Y	Y	N	N	24	CHAR	AMDATTR attributes (IAM / ICF VSAM only): ESDS (ES) - Entry sequenced cluster IMBED (IM) - Sequence set placed with data component KEYRANGE (KE) - Key range defined KSDS (KS) - Key sequenced cluster ORDERED (OR) - Volumes to be used in the order they are specified in the VOLUMES parameter REPLICATE (RE) - Each index record to be written on a track as many times as it fits RRDS (RR) - Relative record data set SPANNED (SP) - Data record can cross control interval boundary WRITECHECK (WR) - Perform write check during WRITE processing
AMDATTR3	E	Y	Y	N	N	24	CHAR	AMDATTR3 attributes (ICF VSAM / Enhanced IAM): BIND (BI) - Cluster / component allocated to MSS device is stated at open and retained on device until closed CYLFAULT (CY) - Cluster / component allocated to MSS device is not staged at open, but data is to be staged as needed LINEAR (LI) - Linear cluster LOADED (LO) - Data set is loaded NONUNIQUE (NO) - Data set has non-unique keys SHRBCS (SH) - Shared basic catalog VARIABLE (VR) - Variable RRDS WAITON (WA) - Destaging is to complete before control returned to programs that closes data set
ATTR2	E	Y	Y	N	N	24	CHAR	Attribute byte two (ICF VSAM only): CATALOGBUSY - Catalog busy CATALOGLOCK - Catalog is locked COMPNOTUSE - Component is not usable INTERNALDSN - Internal system data set REGSHROPT1 - Share options 1 REGSHROPT2 - Share options 2 REGSHROPT3 - Share options 3 REGSHROPT4 - Share options 4 SYSSHROPT3 - Cross system share option 3 SYSSHROPT4 - Cross system share option 4
AXRKP	A	Y	Y	Y	Y	4		Alternate key RKP (ICF VSAM only)
BKCYCLE	A	Y	Y	Y	Y	3	NUM	ABR cycle number of backup tape
BKDATE	A	Y	Y	V	Y	D	DATE	Backup date
BKDAYS	A	Y	Y	V	Y	5	NUM	Days since backup
BKDEVCLS	E	Y	Y	V	Y	4	CHAR	Backup tape device class
BKDEVTYP	E	Y	Y	V	Y	7	CHAR	Backup tape device type
BKDSNS	A	Y	Y	V	Y	3	NUM	Number of active backup data sets
BKEXDATE	A	Y	V	Y	Y	D	DATE	Backup expiration date
BKEXDAYS	A	Y	V	Y	Y	5	NUM	Days until backup expiration Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
BKFILENO	A	Y	V	Y	Y	4	NUM	Backup tape file number
BKGEN	A	Y	Y	Y	Y	4	NUM	ABR generation number of backup tape
BKSUFFIX	E	Y	V	Y	Y	8	CHAR	Backup tape dsname suffix Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BKTAPCNT	A	Y	N	Y	Y	2	NUM	Backup tape volume count
BKVOL	E	Y	Y	V	Y	34	CHAR	Backup tape volumes required to restore Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
BLKSIZE	A	Y	Y	V	Y	5	NUM	Data set block size
BLKSTRK	A	Y	Y	V	Y	4	NUM	Number of blocks per track
BPTR		Y	Y	N	N	10	HEX	Format 1 DSCB pointer to Format 2 / 3 DSCB
BYTES	A	Y	Y	S	Y	B	BYTE	Allocated space (bytes / kB / MB)
BYTESFRE	A	Y	Y	S	Y	B	BYTE	Unused space (bytes / KB / MB)
BYTESTRK	A	Y	Y	V	Y	5	NUM	Bytes per track (calculated)
BYTESUSE	A	Y	Y	S	Y	B	BYTE	Used space (bytes / KB / MB)
CAPBYTES	A	Y	Y	Y	Y	B	BYTE	Alloc capacity (Bytes / kB / MB)
CASPLIT	A	Y	Y	Y	Y	8	NUM	Control area splits (ICF VSAM only)
CASPLITR	A	Y	Y	Y	Y	6	NUM	Control area split ratio (ICF VSAM only)
CATVRBA		Y	Y	V	Y	8	HEX	Relative byte address of VVR from catalog
CICA	A	Y	Y	Y	Y	3	NUM	Number of control intervals
CISIZE	A	Y	Y	Y	Y	5	NUM	Control interval (CI) size (ICF VSAM)
CISPLIT	A	Y	Y	Y	Y	8	NUM	Number of CI splits (ICF VSAM)
CISPLITR	A	Y	Y	Y	Y	6	NUM	Control interval split ratio (ICF VSAM)
CLUSATTR	E	Y	Y	N	N	24	CHAR	Cluster attributes (ICF VSAM): ATL - Tape volume catalog ATTREXT - Extended attribute (EA) EXTEND - Extended format (EF) FORMAT - Formatted pagespace PAGESPACE - Pagespace SWAPSPACE - Swapspace TIMESSTAMP - Timestamps exist VERIFYREQ - Verify is required (catalog only)
CLUSTER	A	Y	Y	V	Y	44	CHAR	Cluster name (ICF VSAM)
CLUSTGROUP	A					44	CHAR	Cluster group name (ICF VSAM)
COMPATTR		Y	N	N	Y	24	CHAR	Component attributes (ICF VSAM): ERAS - Erase IMBD - Imbedded IXD - Indexed KRNG - Keyrange NIXD - Non-indexed NUMD - Relative ORD - Ordered RCVY - Recovery REPL - Replicate RUS - Reusable SPED - Speed SPND - Spanned WCK - Write check
COMPTYPE	E	Y	Y	N	N	5	CHAR	Component type (ICF VSAM): AIXDA - AIX data component AIXIN - AIX index component DATA - Base cluster data component INDEX - Base cluster index component
CRDATE	A	Y	Y	Y	Y	D	DATE	Creation date
CRDAYS	A	Y	Y	V	Y	5	NUM	Days since created

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
CRJOBNAM	E	Y	Y	Y	Y	8	CHAR	Creating job name from Format9 DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CRSTEPNM	E	Y	Y	Y	Y	8	CHAR	Creating job step name from Format9 DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
CRTIME	A	Y	Y	N	N	8	TIME	Creation time - *hh.mm.ss*
CTFLD	A	Y	Y	N	Y	10	HEX	Count field of data set DSCB - *ccccchhhhrr*
CTLMODEL		Y	Y	Y	Y	3	CHAR	Controller model
DATACLAS	E	Y	Y	V	Y	8	CHAR	SMS data class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
DAYSEXP	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
DELETES	A	Y	Y	Y	Y	10	NUM	Number of records deleted (IAM / ICF VSAM)
DEVCLASS	E	Y	N	V	Y	4	CHAR	Device class
DEVTYPE	E	Y	Y	V	Y	7	CHAR	Device type
DIRBFREE	A	Y	Y	Y	Y	5	NUM	Number of unused PDS directory blocks
DIRBLOCK	A	Y	Y	Y	Y	5	NUM	Number of PDS directory blocks
DIRBUSED	A	Y	Y	Y	Y	5	NUM	Number of used PDF directory blocks
DSGROUP	A	Y				44	CHAR	Data set group name
DSIND	E	Y	Y	V	N	2	HEX	Data set indicators (printed in hex): LASTV (x'80') - Last volume MULT8 (x'20') - Block size multiple of 8 PASSA (x'10') - Read / write password PASSW (x'14') - Write password RACF (x'40') - Discrete profile UPDAT (x'02') - Data set updates
DSNAME	A	Y	Y	C	Y	44	CHAR	Data set name / VSAM component name
DSORG	E	Y	Y	V	Y	3	CHAR	Data set organization AM - All VSAM DA - Direct access EF - ICF VSAM HFS - Hierarchical File System IAM - Innovation Access Method IS - ISAM PO - Partitioned (PDS) POE - Partitioned Data Set Extended (PDSE) PS - Physical Sequential PSE - PS Extended format (large sequential) U - Unmovable (may be appended to other forms) UM - Unmovable (alternate format) UN - Undefined
DSSN	E	Y	Y	Y	Y	6	CHAR HEX	Volume serial number field in DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
EXCPS	A	Y	Y	Y	Y	10	NUM	Number of EXCP's (ICF VSAM)
EXPDATE	A	Y	Y	V	Y	D	DATE	Expiration date
EXPDAYS	A	Y	Y	V	Y	5	NUM	Days until expire Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
EXCPEXIT	E	Y	N	Y	N	8	CHAR	Exception exit name (ICF VSAM) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
EXTENTS	A	Y	N	N	N	15		Data set extent descriptors; each extent is stacked, up to 123 extents may be printed - *ccccchhhh* Note: The length of this field is two (2) bytes larger if the FATDISK option is enabled.
EXTYPE	E	N	N	N	N		CHAR	Extent type CYLBN - Extent on cylinder boundary INDEX - Index extent PRIME - Prime extent OFLOW - Overflow extent SUL - Standard user label extent
FLAG1	E	Y	Y	Y	N	7	CHAR	Data set flag byte (extended format) CHKPTDSN (CHK) - Check-pointed data set COMPRESS (COM) - Data set is compressible EATTR (ENO & EOP) - Extended attribute setting EATTRNO (ENO) - EATTR=NO EATTROPT (EOP) - EATTR=OPT LARGE (LRG) - Data set may exceed 65,535 tracks RECALL (RCL) - Data set has been recalled (by DFSMShsm)
FREEEXT	A	Y	Y	Y	Y	4	NUM	# of free extents this volume
GDGBASE		Y	Y	N	Y	44	CHAR	Generation Data Group base name
HIALOBLK	A	Y	Y	Y	Y	10	NUM	High allocated block (IAM)
HIALORBA	A	Y	Y	N	Y	10	NUM	High allocated RBA (ICF VSAM / Enhanced IAM)
HIKEYRBA	A	Y	Y	N	Y	10	NUM	High key RBA (ICF VSAM)
HIUSEBLK	A	Y	Y	Y	Y	10	NUM	High used block (IAM)
HIUSERBA	A	Y	Y	N	Y	10	NUM	High used RBA (ICF VSAM / Enhanced IAM)
IAMINDIC	E	Y	Y	Y	N	5	CHAR	IAM data set indicators: ALTINDEX - Alternate index DATACOMPRESS - Data compression threshold ENHANCED - Enhanced file structure EXTENDED - Extended format HARDWARECOMP - Hardware compression KEYCOMPRESS - Compressed index PATH - Path SPANNED - Spanned records
INDEX		Y	Y	V	Y	8	CHAR	Index volume from data set name (
INDEXLEV		Y	Y	Y	Y	5	NUM	Number of index levels (ICF VSAM only)
INDEXNUM		Y	Y	V	Y	3	NUM	# of index level in the data set or cluster name that is extracted into field INDEX
INSERTS	A	Y	Y	Y	Y	10	NUM	Number of records inserted (IAM / ICF VSAM)
KEYLEN	A	Y	Y	V	Y	3	NUM	Data set key length
LRDATE	A	Y	Y	Y	Y	D	DATE	Last reference date
LRDAYS	A	Y	Y	Y	Y	5	NUM	Days since last referenced
LRECL	A	Y	Y	V	Y	5	NUM	Data set logical reference length
LRTIME		Y	Y	N	N	8	TIME	Last reference time - *hh.mm.ss* (IAM / ICF VSAM)
LSTAR	A	Y	Y	N	Y	6	HEX	Data set last block pointer; specify as LSTAR=X'tttttrrr'
MAXLRECL	A	Y	Y	Y	Y	6	NUM	Maximum record length (IAM / ICF VSAM)
MAXSIZE	A	Y	Y	Y	Y	5	NUM	Maximum allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
MEMBERS	A	Y	Y	Y	Y	6	NUM	Number of PDS members
MGMTCLAS	E	Y	Y	V	Y	8	CHAR	SMS management class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
NAME		Y	Y	N	Y	44	CHAR	Data set name
NOBDB	A	Y	Y	N	Y	3	NUM	Number of bytes used in last directory block
NOEPV	A	Y	Y	S	Y	3	NUM	Number of extents for data set on this volume
NOEXTENT	A	Y	Y	Y	Y	3	NUM	Number of extents on this volume (total)
NVSAMATR	E	Y	Y	Y	N	6	CHAR	SMS-managed non-VSAM attributes (in NVR)
NVSAMFLG	E	Y	Y	Y	N	7	CHAR	SMS-managed non-VSAM flags in NVR: ATTREXT - Extended attribute (EA) EXTEND - Extended Format (EF)
OLDBKUP		Y	Y	V	N	2	NUM	ABR old backup # of ABR backup
OPTCD	E	Y	Y	V	Y	2	CHAR	Option code byte: A - (DAM) Actual addressing BC - ICF VSAM catalog C - (SAM) Chained scheduling using PCI DB - (DAM) Dynamic buffering E - (DAM) Extended search F - (DAM) Feedback I - (IS) Independent overflow area IC - ICF VSAM data set L - (IS) Delete M - (IS) Master index R - (IS) Reorganization criteria RB - (DAM) Relative block addressing RE - (DAM) Read exclusive TO - (DAM) Track overflow UF - (IS) Full track index write W - (All) Write validity check Y - (IS) Cylinder overflow area
OVERFBLK	A	Y	Y	Y	Y	10	NUM	Number of overflow blocks (IAM)
OVERFLOW	A	Y	Y	Y	Y	10	NUM	Number of overflow records available (IAM)
OVERFPER	A	Y	Y	Y	Y	3	NUM	Overflow percent of used blocks (IAM)
OVERUSED	A	Y	Y	Y	Y	10	NUM	Number of overflow records used (IAM)
OWNER	A	Y	Y	Y	Y	8	CHAR	Owner ID
PRIALLOC	A	Y	Y	Y	Y	8	NUM	Primary allocation quantity (ICF VSAM / Enhanced IAM)\
PRIBYTES	A	Y	Y	Y	Y	B	BYTE	Primary allocation in bytes (ICF VSAM / Enhanced IAM)
PRIMEUSE		Y	Y	Y	Y	8	NUM	Number of used prime extension blocks (IAM)
PRIMEXTN		Y	Y	Y	Y	8	NUM	Number of prime extension blocks (IAM)
PROTECT		Y	N	Y	N	4	CHAR	Protection indicators: PASR - Password required for read and write PASW - Password required for write RACF - Protected by IBM RACF or equivalent product NONE - No security indicated in Format1 DSCB
RANK	A	Y	Y	N	N	6	NUM	Rank within sorted data (assigned)

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
RECFM	E	Y	Y	V	Y	5	CHAR	Record format: A - ASA control character B - Blocked F - Fixed M - Machine control character S - Standard/spanned T - Track overflow U - Undefined V - Variable * - None of the above
RECORDS	A	Y	Y	Y	Y	10	NUM	Number of records (IAM / ICF VSAM)
RECOVDTA	E	Y	Y	Y	N	8		SMS recovery data in VVR
RECTYPE		Y	Y	V	N	3	NUM	FDREPORT data record type: 1 - Volume record 2 - Data set / component record 4 - Volume summary record 8 - Prior compressed data record 9 - Prior active fields record 64 - Compressed data record 128 - Active fields record
RECVER		Y	Y	V	Y	4	CHAR	FDREPORT product version record format
RESOROWN	E	Y	Y	Y	N	16	CHAR	SMS resource ownership in VVR
RETRIEVE	A	Y	Y	Y	Y	10	NUM	Number of records retrieved (IAM / ICF VSAM)
RKP	A	Y	Y	Y	Y	4	NUM	Data set relative key position
RSVD1		Y	Y	Y	Y	2		Reserved field (offset 61 / x'3D')
RSVD2		Y	Y	Y	Y	8		Reserved field (offset 78 / x'4E')
RUNDATE	A	Y	Y	Y	Y	D	DATE	Run date
RUNTIME	A	Y	Y	Y	Y	8	TIME	Run time - *hh.mm.ss*
SCLUSTER		Y	N	N	N	20	CHAR	Short cluster name (first 20 bytes only)
SECAFLAG	E	Y	Y	V	Y	5	CHAR	Secondary allocation flags: BLK - Allocated in blocks CON - Contiguous (CONTIG) CYL - Allocated in cylinders FIV - Five largest extents (ALX) MAX - Largest extent (MXIG) RND - Rounded to cylinders (ROUND) TRK - Allocated in tracks
SECALLOC	A	Y	Y	Y	Y	8	NUM	Secondary allocation quantity
SECBYTES	A	Y	Y	Y	Y		BYTE	Secondary allocation (Bytes, kBytes, MBytes)
SECVERMO	E	Y	N	Y	N	8	CHAR	Security verification module (ICF VSAM) Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SDSN		Y	N	N	N	20	CHAR	Short data set name (first 20 bytes only)
SECURFLG		Y	Y	Y	N	4	CHAR	Security Flags: RACF - Discrete IBM RACF profile OWNC - Ownership cluster
SECXFLAG		Y	Y	Y	N	3	CHAR	Secondary allocation extension flag: ABL - Average block length BYT - Bytes KBY - Kilobytes MBY - Megabytes

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SELALIAS		Y	Y	Y	Y	35	CHAR	Selecting alias
SGDGBASE		Y	N	N	N	20	CHAR	Short GDG base name (first 20-bytes)
SHROPT		Y	N	Y	Y	3	CHAR	Share options (ICF VSAM / IAM)
SIZE	A	Y	Y	S	Y	5*	NUM	Allocated tracks Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEFREE	A	Y	Y	S	Y	5*	NUM	Tracks not in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SIZEUSED	A	Y	Y	S	Y	5*	NUM	Tracks in use within data set extents Note: The width of the size fields (in tracks) is 6 if the FATDISK option is enabled.
SMSFLAGS	E	Y	Y	V	N	4	CHAR	SMS-managed data set flag byte in DSCB: MANAGED (S) - SMS-managed NOBCS (N) - Not cataloged REBLOCK (R) - Reblockable DADSMCRT (D) - DADSM assigned blksize PDSE (I) - Partitioned data set extended PDSEX (X) - Hierarchical File System (HFS) ATTREXTN (E) - Extended Attribute (EA) STRIPE (Z) - Extended Format (EF)
SNAME		Y	N	N	N	20	CHAR	Short data set name or VSAM cluster name (first 20 bytes only)
SOURCE	E	Y	Y	N	N	7	CHAR	Source of the data record: ARCHIVE - Archive control file BCDS - HSM backup control data set CATALOG - System catalog CATARCH - Auto-recall records from catalog appended with Archive Control File (ACF) data CATVTOC - Catalog records appended with VTOC and VVR data of selected volume(s) MCDS - DFSMShsm migration control data set TVTOC - FDR, FDRABR, or FDRDSF backup file(s) VTOC - VTOC of volume VTOCVVR - VTOC of volume appended with VVDS data
SPACEFLG	E	Y	Y	Y	Y	3	CHAR	Space allocation flags (ICF VSAM) CYLINDERS - Allocated in cylinders KILOBYTES - Allocated in kilobytes MEGABYTES - Allocated in megabytes RECORDS - Allocated in records TRACKS - Allocated in tracks
SPLCLS		Y	N	N	N	27	CHAR	Split ICF cluster name on two lines
SPLDSN		Y	N	N	N	27	CHAR	Split data set name on two lines
SPLGDGB		Y	N	N	N	27	CHAR	Split GDG base name
SPLNAME		Y	N	N	N	27	CHAR	Split data set name or ICF cluster name on two lines
STORCLAS	E	Y	Y	V	Y	8	CHAR	SMS storage class Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STORGRP	E	Y	Y	Y	Y	8	CHAR	SMS storage group name Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
STRIPECT	A	Y	Y	Y	N	3	NUM	Extended format stripe count
SUBCFLAG	E	Y	Y	Y	N	17	CHAR	SMS sub-cell flag byte in VVR FUZZYBK1 - Data set eligible for backup while open for update FUZZYBK2 - Data set backup while open for update is blocked LOGRECVR - Data set was restored with a backup copy taken when the data set was open for update

DATATYPE=TVTOC Field Name Table								
Field Name	**XSELECT**	**REPORT**	**SORT**	**SUMMARY**	**PUNCH**	**Length**	**Attribute**	**Description**
SUBCVERS	A	Y	Y	Y	N	3	NUM	SMS sub-cell version number in VVR
SYSCODE	E	Y	Y	Y	N	13	CHAR / HEX	System code field in DSCB Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
SYSID	A	Y	Y	Y	Y	4	CHAR	System identification from SMF
TIMESTMP		Y	Y	N	N	16	CHAR	Time stamp (IAM / ICF VSAM)
TRACKCAP		Y	Y	V	Y	5	NUM	Maximum track capacity of device in bytes
TRKBAL		Y	Y	N	Y	5	NUM	Data set track balance; number of free bytes on last active track
TRKCYL		Y	Y	V	N	3	NUM	Number of tracks per cylinder
TRKSCA		Y	Y	Y	Y	3	NUM	Number of tracks per Control Area (CA) (ICF VSAM)
TRKSVOL		Y	Y	S	Y	6	NUM	Number of tracks on this volume
TVTOCDSN	A	Y	Y	V	Y	44	CHAR	Input backup data set name
UCBID	E	Y	N	V	Y	8	HEX	UCB 4-byte device type (hex)
UPDATES	A	Y	Y	Y	Y	10	NUM	Number of records updated (IAM / ICF VSAM)
USEDEXT	A	Y	Y	Y	Y	4	NUM	Number of used extents this volume
USERDATA	A	Y	Y	Y	Y	10	CHAR	User data size - extended
VOLGROUP	A	Y					CHAR	Volume group Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLID	E	Y	Y	Y	Y	4	CHAR	DASD volume identification Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VOLSQ	A	Y	Y	V	Y	3	NUM	Data set volume sequence number
VOLUME	A	Y	Y	Y	Y	6	CHAR	Volume serial number Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
VSFREBYT	A	Y	Y	Y	N	10	NUM	Bytes of free space (ICF VSAM)
VVRSTATS	E	Y	Y	Y	N	9	CHAR	Indicates VVDS errors for this data set (up to 2 may be displayed): DPLR - Multiple identical VVR / NVR records EXTM - Extent mismatch between VVR and DSCB MLTQ - Multiple VVR "Q" records MLTR - Multiple non-identical VVR / NVR records NONE - No errors NVVR - No VVR / NVR record (or all matching records have errors)
XDSNAME	E	Y					CHAR	Extended data set name (selection only)
XLSTAR	A	Y	Y	N	Y	8	HEX	Extended last block pointer - *ttttttttrrr* or X'*xxxxxxxx*'

DATATYPE VOLDATA FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=VOLDATA. They provide the ability to select all DASD volumes, either online or offline.

DATATYPE=VOLDATA Field Name Table

Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description
BKCYCLE	A	Y	Y	Y	Y	3	NUM	ABR cycle number of backup tape
BKDATE	A	Y	Y	V	Y	D	DATE	Backup date
BKDAYS	A	Y	Y	V	Y	5	NUM	Days since backup
BKDEVCLS	E	Y	Y	V	Y	4	CHAR	Backup tape device class
BKDEVTYP	E	Y	Y	V	Y	7	CHAR	Backup tape device type
BKDSNS	A	Y	Y	V	Y	3	NUM	Number of active backup data sets
BKEXDATE	A	Y	V	Y	Y	D	DATE	Backup expiration date
BKEXDAYS	A	Y	V	Y	Y	5	NUM	Days until backup expiration Note: If the expiration date is 99.000 or 99.365 or above, this is set to 65535.
BKFILENO	A	Y	V	Y	Y	4	NUM	Backup tape file number
BKGEN	A	Y	Y	Y	Y	4	NUM	ABR generation number of backup tape
BKSUFFIX	E	Y	V	Y	Y	8	CHAR	Backup tape dsname suffix Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BKTAPCNT	A	Y	N	Y	Y	2	NUM	Backup tape volume count
BKTIME	A	Y	Y	Y	Y	8	TIME	Backup time - *hhmmss* (APPL backup / ABREXIT)
BKVOL	E	Y	Y	V	Y	34	CHAR	Backup tape volumes required to restore Note: This field supports selection via a mask. See "VOLUME=" in Section 54.28.
BLKSIZE	A	Y	Y	V	Y	5	NUM	Data set block size
BLKSTRK	A	Y	Y	V	Y	4	NUM	Number of blocks per track
UCBSTATS	E	Y	Y	Y	N	7	CHAR	UCB status indicators: OFFLINE ONLINE
VL%FDSCB	A	Y	Y	Y	Y	3	NUM	Volume DSCBs free percent
VL%FINDX	A	Y	Y	Y	Y	3	NUM	Volume VTOCIX free percent
VL%FTRKS	A	Y	Y	Y	Y	3	NUM	Volume tracks free percent
VL%FVVDS	A	Y	Y	Y	Y	3	NUM	Volume VVDS free percent

DATATYPE VTOC FIELD NAME TABLE

This is complete list of all operands that are available for use with DATATYPE=VTOC. They provide the ability to select all data sets, both VSAM and non-VSAM, directory entries and members from any form of partitioned data set, generation data groups. The volumes and/or the data sets may be managed by ABR, SMS or not managed.

DATATYPE=VTOC Field Name Table								
Field Name	XSELECT	REPORT	SORT	SUMMARY	PUNCH	Length	Attribute	Description

54.80 FDRSRS – SEARCH, REPORT, AND SERVICES DIALOG

INTRODUCTION

The FDRSRS ISPF dialog provides a fast and easy way of selecting, reporting, and performing services against data sets and volumes. FDRSRS uses FDREPORT to do most of the data gathering and formatting, but it makes the selection and display of the data easy to do. Various commands and functions can be executed against the data displayed. It can be used by all types of ISPF users, from DASD managers to end-users. FDRSRS is divided into a Data Set Application and a Volume Application.

SRS is superior to the data set and volume functions of ISMF and ISPF 3.4 in speed, flexibility, and ease of use.

DATA SETS

The Data Set Application selects data sets from a variety of sources, reports the requested data set attributes (VOLSER, DSORG, RECFM, BLKSIZE, and the rest, over 150 selectable attributes), and performs ABR and other services against the selected data sets. The sources that may be searched are system catalogs, VTOCs of online volumes, the ABR Archive Control File, the ABR Scratch Catalog, or an extract file created by FDREPORT or FDRSRS.

The Data Set Selection Criteria Panel displays rows of data set attributes and columns where the user may specify selection, reporting, summary, and sorting criteria. Additionally, each row has columns describing the attribute.

The Data Set List Panel displays rows containing the selected data sets and columns containing the requested (or defaulted) data set attributes. Additionally, each row contains a command column where the user may request ABR services (such as RECALL, REORG, COPY), ISPF services (such as EDIT, BROWSE), TSO commands (such as DELETE, LISTDS), CLISTs, and REXX execs. The format of the data set list can be easily modified. You can specify which data set attributes should be displayed and in what order (or let SRS pick the order). You can print a hard-copy of any data set list.

VOLUMES

The Volume Application selects online volumes and reports the requested volume attributes (over 50 selectable attributes).

The Volume Selection Criteria Panel displays rows of volume attributes and columns where the user may specify selection, reporting, summary, and sorting criteria. Additionally, each row has columns describing the volume attribute and its output length.

The Volume List Panel displays rows containing the selected volumes and columns containing the requested (or defaulted) volume attributes.

SAVING LISTS

The selection, report, summary, and sort criteria specified may be saved on DASD as a member in the Selection Criteria set of libraries. To allow for further customization of the Selection Criteria, a user comments area is provided and each row contains a command column where commands may be issued to delete unwanted rows, repeat rows, or move rows before or after other rows. This allows users to save commonly used selection and reporting criteria for reuse. Storage Managers may also setup criteria for use by other users.

A Data Set or Volume List (the output of SRS) may be also saved on DASD for later use. When a list is saved, its associated Selection Criteria is also saved. A saved list may be refreshed in the future using its original Selection Criteria. Additionally, the Selection Criteria associated to a data set or volume list may be modified and processed in the future. The Data Set or Volume List is saved as a member in the List set of libraries.

TRY IT!

The following sections provide an overview of SRS with simple examples. The power of SRS can be appreciated only by experimenting with it. Context-sensitive help is available at every point within SRS. The panels you see may differ slightly from those printed here.

NOTE: Module FDRSRSA must be placed in the TSO authorized program name table before FDRSRS is invoked. Please refer to Section 90.40 "Authorize the FDR Programs" for instructions on updating this table.

SAMPLE SELECTION CRITERIA PANEL

```
------------------------ DATASET SELECTION: DEFAULT ---- LINE 1/221 COL 4:6/10
COMMAND ===>                                                 SCROLL ===> CSR
ENTER SELECTION CRITERIA
            Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD         SELECTION VALUE                                       REPORT SORT
-----         -----------------------------------------------------  ------ ----
SOURCE FIELDS
DSNAME   ===> JSB.**_______________________________________________  ____  ___
VOL      ===> _____________________________________________________  ____  ___

SOURCE   ===> CATALOG (Catalog Volume Archive Appl Scratch Extract)  ____  ___

CATALOGN ===> _____________________________________________________
ARCDSN   ===> _____________________________________________________  ____
EXTDSN   ===> FDRABR.SRS.EXTRACT___________________________________

VTOC FIELDS
DEFAULTS ===>                                                        ____
UNIT     ===> _____________________________________________________  ____  ___
UNITNAME ===> _____________________________________________________
DEVTYPE  ===> _____________________________________________________  ____  ___
DEVCLASS ===> _____________________________________________________  ____  ___
UCBSTATS ===> _____________________________________________________  ____  ___
 ...
VVDS FIELDS
CLUSTER  ===> _____________________________________________________  ____  ___
SPLCLS   ===>                                                        ____
SCLUSTER ===>                                                        ____
VSAMID   ===>                                                        ____
 ...
SMS FIELDS
SMSCLASS ===>                                                        ____
STORCLAS ===> _____________________________________________________  ____  ___
MGMTCLAS ===> _____________________________________________________  ____  ___
DATACLAS ===> _____________________________________________________  ____  ___
STORGRP  ===> _____________________________________________________  ____  ___
 ...
ABR FIELDS
ABRGEN   ===> ________                                   __________  ____  ___
ABRCYCLE ===> ________                                   __________  ____  ___
BKGEN    ===> ________                                   __________  ____  ___
BKCYCLE  ===> ________                                   __________  ____  ___
 ...
GENERATED FIELDS
SIZEINFO ===>                                                        ____
SIZE     ===>
BYTES    ===>
CAPBYTES ===>
 ...
OTHER FIELDS
%OVER    ===>
OVERFLOW ===>
```

Example of some VTOC, VVDS, SMS, ABR, Generated, and Other fields that can be Selected, Sorted, and/or Reported

Printd command allows the user to change the order in which the dataset attributes are printed and the number of copies to print.

Dataset JSB.FDR.ASM is archived. Specifying B (Browse) in the command column will cause an automatic recall of this dataset before going to Browse.

```
--------                      IST: DSLIST ------- LINE 1/103 COL 3:8/10
COMMAND =                                           SCROLL ===> CSR

           R                   Refresh   Next   Message   Printd   Help

COMMAND    DATA SET NAME                 VOLSER DSO RECFM BKSIZ LRECL  ALLOC
--------   ---------------------------   ------ --- ----- ----- -----  -------
           JSB.BNCHMARK.CNTL             IDPLB2 PO  FB    23040    80       22
           JSB.CALL.LOG                  IDPLB0 PO  FB    27936    72       60
E          JSB.DOC.CNTL                  IDPLB2 PO  FB     8000    80       42
           JSB.ENCRYPT.KEYFILE           MIGRAT ARCHIVED
           JSB.FATSCOPY.AUDITDSN         IDPLB0 PS  FB     8800   220        1
B          JSB.FDR.ASM                   MIGRAT ARCHIVED
```

SAMPLE SELECTION CRITERIA PANEL

```
--------------------------- DATASET LIST: DSLIST ------- LINE 9/103 COL 3:8/10
COMMAND ===>                                                   SCROLL ===> CSR

          Read   Save   Find   Locate   Refresh   Next   Message   Printd   Help

COMMAND    DATA SET NAME                 VOLSER DSO RECFM BKSIZ LRECL  ALLOC
---------  ---------------------------   ------ --- ----- ----- -----  -------
           JSB.FDR.CNTL                  IDPLB3 PO  FB     8000    80       42
DELETE     JSB.FDR.CNTL2                 IDPLB3 PS  FB     8000    80       20
           JSB.FDR.DOC                   IDPPM1 PO  FB     9040    80       15
           JSB.FDR.JCL                   MIGRAT ARCHIVED
REORG      JSB.FDR.LOAD                  IDPPM3 PO  U     32760   256       10
RESTORE    JSB.FDRABR.ARCHIVE            MIGRAT ARCHIVED
```

Dataset JSB.FDR.CNTL2 is no longer required. Specifying DELETE will cause the dataset to be scratched and uncataloged.

The SRS dialog is invoked by selecting option "S" in the ABR Primary Options Menu. For faster access, or if you wish to give users access to SRS without the other ABR dialogs, you may add the SRS option to the ISPF system command table. Section 54.87 "FDRSRS ISPF Fastpaths and Commands" discusses fastpaths for invoking the SRS dialog, bypassing some of the preliminary SRS panels.

For simplicity, the panel names and options shown in the rest of this section assume that option "A" on the ISPF main menu is used for accessing the ABR Primary Options menu. Therefore, you can get to the SRS Primary Menu by entering "S" on the ABR Primary Options Menu, or "A.S" on the ISPF Primary Options Menu.

SRS PRIMARY MENU

FDRSRS – PRIMARY MENU – PANEL A.S

```
------------------------ FDRSRS - Primary Menu -----------------------------
OPTION  ===> 1                                              SCROLL ===> HALF
                                                                More:     +
   0  OPTIONS  - Set Dialog Options and Defaults

   1  SELECT   - Data Set Selection
                 Name ===> *                (*, member name, or blanks)

   2  DSLIST   - Data Set List - display saved
                 Name ===> *                (*, member name, or blanks)

   3  SELVOL   - Volume Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   4  VOLLIST  - Volume List - display saved
                 Name ===> *                (*, member name, or blanks)

   OR Select one of the following services:
   _  ARCDEL   - DELETE DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCHIVE  - ARCHIVE DATA SET
   _  ARCMOD   - MODIFY DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCRECAT - RECATALOG ARCHIVED DATA SET FOR AUTO-RECALL
   _  ARCRESET - RESET DATA SET ENTRY IN THE ARCHIVE FILE
   _  BACKAPPL - DATA SET APPLICATION BACKUP
   _  BACKUP   - ADD BACKUP REQUEST TO REMOTE QUEUE
   _  COPY     - COPY DATA SETS
   _  FDRREORG - FDRREORG DATA SET REORGANIZATION
   _  MOVE     - MOVE DATA SETS
   _  REMOVEA  - DELETE ARCHIVE RESTORE REQUEST FROM REMOTE QUEUE
   _  REMOVEB  - DELETE BACKUP RESTORE REQUEST FROM REMOTE QUEUE
   _  REORG    - COMPRESS PDS DATA SETS
   _  RESETARC - DELETE ARCHIVE REQUEST FROM REMOTE QUEUE
   _  RESETBKP - DELETE BACKUP REQUEST FROM REMOTE QUEUE
   _  RESTAPPL - RESTORE DATA SETS FROM APPLICATION BACKUP
   _  RESTARC  - RESTORE DATA SETS FROM ARCHIVE
   _  RESTBKP  - RESTORE DATA SETS FROM BACKUP
   _  SIMREORG - SIMULATE FDRREORG DATA SET REORGANIZATION
```

The SRS primary menu is used to select the SRS function desired. **Option 0** allows each user to set options and defaults that affect his/her use of SRS. **Options 1** and **2** select the data set application; **options 3** and **4** select the volume application. The odd-numbered options actually select data sets or volumes; you can optionally retrieve a saved selection criteria. The even-numbered options retrieve a data set or volume list previously selected and saved.

The various name fields refer to members in SRS libraries of saved selection criteria and lists. The names of these libraries can be specified via option 0.2 or overridden by specifying blanks for the member name. The libraries can include private user SRS libraries and/or shared or installation-wide libraries.

The Selection Name field specifies the member name of a previously saved Selection Criteria, or one of the following special values:

DEFAULT – This is the built-in selection criteria starter set containing all the available fields.

***blanks* –** Display a panel containing the names of the libraries that are used to read the Selection Criteria.

*** –** Display a panel containing the names of the Selection Criteria that were previously saved.

The List Name field specifies the member name of a previously saved List, or one of the following special values:

***blanks* –** Display a panel containing the names of the libraries that is used to read the list.

*** –** Display a panel containing the names of the Lists that were previously saved.

NOTE: When the first SAVE command is specified, if the library specified in the SRS options as the READ/WRITE library for that type of save does not exist, the dialog displays a panel containing allocation parameters for creating the Selection Criteria or List library. There is no need to preallocate the FDRSRS libraries.

The SRS primary menu also presents a list of FDR functions that can be invoked from SRS. Placing an "S" next to any one of them invokes the SRS dialog for that function. These are the same functions that can be selected from an SRS display of the results of a data set or volume report; in that case, SRS fills in fields on the following panels with information about the data set or volume selected. Since no search is done when these functions are invoked from this panel, the user may have to fill in additional information.

54.81 FDRSRS DIALOG OPTIONS AND DEFAULTS PANELS

The FDRSRS Defaults and Options Panels are displayed by selecting option 0 from the main FDRSRS panel, or by issuing the command OPTIONS (or O) from the Selection Criteria panel or the List panel.

SRS OPTIONS AND DEFAULTS

FDRSRS – USER OPTIONS AND DEFAULTS – PANEL A.S.0

```
------------------------ FDRSRS - User Options and Defaults -----------------
OPTION  ===>

Select an option or use PF8/20 (DOWN) to display the options panels in sequence

    1  - Processing Options

    2  - Data Set Names

    3  - Batch JCL submission options

    4  - Report format options

   -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -  -

   FF -  FDR Function Commands (saved in a private table library)

   FS -  FDR Function Commands (for all users, saved in a common table library)
```

The panels that are invoked by each of these options are displayed on the following pages, to show you the options that are available. However, they are not described here. Please refer to the HELP tutorial for current and detailed information on the user options and defaults.

Options changed on these panels are permanently stored in the user's ISPF profile data set. To change installation-wide default option values, use ISPF to edit member FDRSRSD in the FDR panel library and follow the instructions contained in this member.

NOTE: The modification of an installation-wide default option value only affects those users who have not explicitly changed the option value.

For example, you may want to provide libraries of saved queries and lists that any user can invoke; these can be specified as read-only libraries on the Default Data set Names panel.

Most users of SRS probably do not need to modify the options.

SRS PROCESSING OPTIONS

FDRSRS – PROCESSING OPTIONS – PANEL A.S.0.1

```
------------------------ FDRSRS - Processing Options -----------------------
OPTION  ===>

Number of selected data sets after which to suspend selection and display list:
  Suspend  ===> 100
Search only the specified catalog  (i.e., do not switch to connected catalogs):
  Onecat   ===> YES        (yes | no)
Report errors involving OS CVOLs (unsupported) and offline catalogs:
  Caterr   ===> NO         (yes | no)

Select all entries from the catalog  (including tape data sets):
  Allent   ===> NO         (yes | no)
Use FDREPORT processor for all catalog processing:
  Catproc  ===> NO         (yes | no)
Execute the Selection Criteria when the Enter key is pressed,or RUN is entered:
  Execute  ===> ENTER      (Enter | Run)

Convert data set name into data set name filter for selection:
  Convert  ===> YES        (yes | no | dsg)
Enable offline disk devices to be selected by the UNIT= operand.
  Offline  ===> NO         (yes | no)

Press PF3 (END) or PF7/19 PF8/20 (UP DOWN) to display other options panels.
```

SRS DEFAULT DATA SET NAMES

FDRSRS – DEFAULT DATA SET NAMES – PANEL A.S.0.2

```
------------------------ FDRSRS - Default Data Set Names --------------------
OPTION  ===>

Default Selection Criteria library names:
   Read/Write dsn ===> 'FDRABR.SRS.SELECT'
   Read only  dsn ===>
   Read only  dsn ===>

Default Data Set List/Volume List library names:
   Read/Write dsn ===> 'FDRABR.SRS.LIST'
   Read only  dsn ===>
   Read only  dsn ===>

Default FDREPORT Extract data set name:
   Extract dsname ===> 'FDRABR.SRS.EXTRACT'

Default ABR Archive Control File name (or blank):
   Archive dsname ===>

Default Catalog name where to search (or blank to use the master catalog):
   Catalog dsname ===>

Press PF3 (END) or PF7/19 PF8/20 (UP DOWN) to display other options panels.
```

SRS BATCH JCL OPTIONS

FDRSRS – BATCH SUBMISSION OPTIONS – PANEL A.S.0.3

```
------------------------ FDRSRS - Batch Submission Options -------------------
OPTION  ===>

Job Statement Information:
  ===> //useridA JOB (ACCOUNT),'NAME',NOTIFY=userid
  ===> //*
  ===> //*
  ===> //*

FDR Program Library for STEPLIB DD (blank if LINKLIST) :
  Steplib  ===>

SYSOUT Class  ===> *

Press PF3 (END) or PF7/19 PF8/20 (UP DOWN) to display other options panels.
```

SRS REPORT FORMAT OPTIONS

FDRSRS – REPORT FORMAT OPTIONS – PANEL A.S.0.4

```
------------------------ FDRSRS - Report Format Options ------------------
OPTION  ===>

Date Format  ===> MMDDYYYY           ( YYDDD | MMDDYY | DDMMYY | YYYYDDD |
                                       MMDDYYYY | DDMMYYYY )
Byte Format  ===> KILOBYTES          ( bytes | kilobytes | megabytes )

Fold Dsname  ===> YES                ( yes | no )

Backup Copy  ===> EITHER             ( both | either | 1 | 2 )

Oldbackup    ===> ALL                ( all | cur | (n,n,n,...) )

Optional FDREPORT DEFAULT statement:
===> DEFAULT


Use FDREPORT performance option to access disk volumes with minimum overhead:
  Fastpath   ===> ENABLE             ( enable | disable )
3390-27 device support:
  Largedisk  ===> ENABLE             ( enable | disable )

Press PF3 (END) or PF7/19 PF8/20 (UP DOWN) to display other options panels.
```

FDR FUNCTION COMMANDS

FDRSRS – FDR FUNCTION COMMAND – PANEL A.S.0.FF & A.S.0.FS

```
------------------------ FDRSRS - FDR Function Command ---------- Row 1 of 19
COMMAND ===>                                                  SCROLL ===> PAGE

Select one of the following row selection codes, or press PF3 (END) to exit.
  S - Select   R - Repeat   I - Insert   D - Delete

Sel   Command  Command                                                  Command
Code   Name    Description                                              Origin
---- -------- ---------------------------------------------------------  ------
     ARCDEL   DELETE DATA SET ENTRY IN THE ARCHIVE FILE                 DEFAULT
     ARCHIVE  ARCHIVE DATA SET                                          DEFAULT
     ARCMOD   MODIFY DATA SET ENTRY IN THE ARCHIVE FILE                 DEFAULT
     ARCRECAT RECATALOG ARCHIVED DATA SET FOR AUTO-RECALL               DEFAULT
     ARCRESET RESET DATA SET ENTRY IN THE ARCHIVE FILE                  DEFAULT
     BACKAPPL DATA SET APPLICATION BACKUP                               DEFAULT
     BACKUP   ADD BACKUP REQUEST TO REMOTE QUEUE                        DEFAULT
 s   COPY     COPY DATA SETS                                           DEFAULT
     FDRREORG FDRREORG DATA SET REORGANIZATION                          DEFAULT
     MOVE     MOVE DATA SETS                                           DEFAULT
     REMOVEA  DELETE ARCHIVE RESTORE REQUEST FROM REMOTE QUEUE          DEFAULT
     REMOVEB  DELETE BACKUP RESTORE REQUEST FROM REMOTE QUEUE           DEFAULT
     REORG    COMPRESS PDS DATA SETS                                   DEFAULT
     RESETARC DELETE ARCHIVE REQUEST FROM REMOTE QUEUE                  DEFAULT
     RESETBKP DELETE BACKUP REQUEST FROM REMOTE QUEUE                   DEFAULT
     RESTAPPL RESTORE DATA SETS FROM APPLICATION BACKUP                 DEFAULT
     RESTARC  RESTORE DATA SETS FROM ARCHIVE                            DEFAULT
     RESTBKP  RESTORE DATA SETS FROM BACKUP                             DEFAULT
     SIMREORG SIMULATE FDRREORG DATA SET REORGANIZATION                 DEFAULT
```

This table defines the FDR and ABR commands that can be entered on the report output panels of SRS. On any line, enter “S” to view or edit a command, “I” to insert a new command, “R” to copy and edit an existing command, or “D” to delete one. All except “D” take you to another panel, shown below, where you can view or modify the command.

Each FDR command consists of a main statement, a data set statement that is repeated for each selected data set, the program name to invoke and how to invoke it. The FDR Function commands are fully customizable. The user may change existing commands and define new commands with different keyword values in the main or data set statements. Keyword values may be automatically extracted from the Data set List. The FDR Function commands may be saved in a private table library or in a common table library shared between users.

FDR FUNCTION COMMAND OPTIONS

```
------------------------ FDRSRS - FDR Function Command ----------------------
COMMAND ===>                                                 SCROLL ===> PAGE

Command Name ===> COPY       Min number of characters for abbrev ===> 4  (0:8)
Description  ===> COPY DATA SETS

Main Control Statement:
===> COPY TYPE=DSF

Control Statement for Data Set Entry:   (omit DSN= and VOL= operands)
===> SELECT NOTIFY=&USERID

Default action after command is entered:
===> DISPLAY   ( DISPLAY | FG | RQ | SUBMIT | EDIT )

Request type ===> COPY      ( blank REORG COPY MOVE RESTARC RESTBKP RESTAPPL
   and/or                                  BACKUP ARCHIVE BACKAPPL other)
Program Name ===> FDRCOPY   (FDRABR FDRDSF FDRCOPY FDRABRUT)

Job Statement Information:    (only specify to override default)
===>
===>
===>
===>

SYSOUT Class ===>

TSO Userid group(s) of authorized users: (YES = all users; NO = no users)
FG ===> YES

BG ===> YES

RQ ===> NO

Recall dataset ===> YES     (yes no)   Suppress VOL=  ===> NO      (yes no)
Setup CLIST    ===>                    Cleanup CLIST  ===>
Table Panel    ===>                    JCL Skeleton   ===>
Pass entries   ===> NO      (yes no)   Menu Selection ===> DISPLAY (no|action)

Enter ADDISPF in the command line to make this command an ISPF command.
Enter ADDTSO  in the command line to make this command a TSO command.

Press PF3 (END) to save changes, or enter the CANCEL command to ignore changes.
```

This example shows the parameters for the COPY command. You can modify them if you like. Press “PF3” (END) to save the changes.

Use the **ADDISPF** and the **ADDTSO** commands to add the FDR function command to the ISPF command table and as TSO command. This enables the FDR function commands to be invoked as ISPF commands or as TSO commands in any panel in any application (including ISPF 3.4).

54.82 FDRSRS DATA SET SELECTION CRITERIA PANEL

The selection, reporting and sorting criteria for data set selection and the source to be searched are specified in the Data Set Selection Criteria panel. On this panel, you specify the source for information about the data sets to be selected, give the tests that are used to select those data sets, indicate how the data is to be sorted, and select the information fields that are included in the display of the selected data sets

SRS DATA SET SELECTION

FDRSRS DATA SET SELECTION – PANEL A.S.1

```
------------------------ DATASET SELECTION: DEFAULT ---- LINE 1/221 COL 4:6/10
COMMAND ===>                                                SCROLL ===> HALF
ENTER SELECTION CRITERIA
            Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD          SELECTION VALUE                                    REPORT SORT
-----         ------------------------------------------------- ------ ----
SOURCE FIELDS
DSNAME   ===> ____________________________________________________  ____  ____
VOL      ===> ____________________________________________________  ____  ____

SOURCE   ===> CATALOG (Catalog Volume Archive Appl Scratch Extract)  ____  ____

CATALOGN ===> ____________________________________________________
ARCDSN   ===> ____________________________________________________  ____
EXTDSN   ===> FDRABR.SRS.EXTRACT_____________________________

VTOC FIELDS
DEFAULTS ===>                                                        ____
UNIT     ===> ____________________________________________________  ____  ____
UNITNAME ===> ____________________________________________________
DEVTYPE  ===> ____________________________________________________  ____  ____
DEVCLASS ===> ____________________________________________________  ____  ____
UCBSTATS ===>                                                        ____
```

The panel shown above is the default, which shows every field available to SRS. Since there are over 100 available fields, the panel is scrollable in four directions (UP, DOWN, LEFT, RIGHT). By scrolling UP (PF7/19) and DOWN (PF8/20) you can view all of the fields. By scrolling LEFT (PF10/22) and RIGHT (PF11/23) you can view a command column on the left, and summary, summary break and field descriptions columns on the right (these are illustrated later).

Many users may never need to do selection on more than a data set name filter and/or volume serial mask. They never need to use more than the first few fields and need not be concerned about scrolling or the other fields. However, the power of SRS is available when they need it.

The **FIELD column** contains the name of a data set attribute (except for the SOURCE FIELDS, which specify the source to be searched). The fields available are essentially the same available for FDREPORT, the ABR Generalized Reporting Program, as described in Section 54.30 “”.

For those fields where the **SELECTION VALUE column** is underlined, you can specify a selection criteria based on that field (other fields are for reporting only and cannot be tested). To select on a given field, enter one or more values (separated by spaces) in the SELECTION VALUE column next to that field (the type of values depend on the nature of the field). Relational operators (= ¬= < > <= >= or EQ NE LT GT LE GE) can be inserted in front of each value (again separated by spaces) and supported in most fields. If a relational operator is not specified, = (equal) is the default.

For a data set to be selected by SRS, it must pass the tests for every Selection Value specified. If multiple Selection Values are specified for the same field, and no relational operators are specified (or they are all = or EQ), the test on that field passes if it matches ANY of the values. If other relational operators are used, the field must match on ALL of the values.

The **REPORT column** indicates which report fields (data set attributes) are displayed for the selected data sets, allowing you to totally customize the report. An “S” or a number (representing the order in which the fields are to be displayed) may be specified to select a field to be reported. If no REPORT fields are specified, then the Data set List contains the DEFAULTS fields (SPLDSN, VOL, DSORG, RECFM, BLKSIZE, LRECL, SIZE, SIZEFREE, %FREE).

The **SORT column** indicates which fields (data set attributes) should be sorted. This column does not apply when the Source is the ABR SCRATCH Catalog (in that case, the Data set List is sorted by data set name). Not all fields can be selected for sorting. An “S”, a number (representing the order in which the fields are to be sorted) or a number followed by an “A” (for ascending) or a “D” (for descending) may be specified to select a field to be sorted. If more than one field is specified with an “S”, or if equal numbers are specified, those fields are sorted in the order in which they appear in the Selection Criteria panel. If both “S” and numbers are used in the Selection Criteria, then the fields with numbers are sorted before the fields with “S”. If no sorting is requested, the data sets are in the order they were selected from the indicated source.

The **SUMMARY column** indicates which fields should be totaled for the selected data sets. An “S” or a number (representing the order in which the fields are to be displayed) may be specified to select a field to be summarized.

The **BREAK column** enables the user to select the fields that are to be sub-totaled and summarized in the Data set List when the field value changes causing a control break. The break column is selected by specifying an “S” or the relative break position number.

A short list of Data Set Selection Criteria commands appears in the fourth line of the panel. These commands provide functions such as READing and SAVing Selection Criteria on DASD, FINDing a string, LOCATing a field, SUBMITting a batch job to process the Selection Criteria, and so on. These commands may be entered on the COMMAND line at the top of the screen. However, simply pressing ENTER executes the data set selection that has been specified on the panel, and displays the Data set List panel with the data sets selected. A complete list and description of these commands is contained in the SRS HELP tutorials.

PANEL A.S.1 SCROLLED LEFT

Scrolling LEFT (PF10/22) reveals the CMD column. Line commands such as D, DD (delete), R (repeat), M, MM (move), A (after), and B (before) may be entered to change the display panel.

These line commands can be used to customize which fields are displayed on the Selection panel and what order they are displayed in. This is used when you are developing a data set selection list to be saved for future use. Selection lists with a restricted set of commonly used fields might be saved in an installation-wide library for end-user use.

```
------------------------ DATASET SELECTION: DEFAULT ---- LINE 1/221 COL 1:5/10
COMMAND ===>                                                 SCROLL ===> HALF

            Read   Save   Submit   Find   Locate   Extract   Options   Help

CMD  FIELD         SELECTION VALUE                                      REPORT
---- -----         ---------------------------------------------------- ------
____ SOURCE FIELDS
____ DSNAME   ===> ____________________________________________________  ____
____ VOL      ===> ____________________________________________________  ____
____
____ SOURCE   ===> CATALOG (Catalog Volume Archive Appl Scratch Extract)  ____
____

____ CATALOGN ===> ____________________________________________________
____ ARCDSN   ===> ____________________________________________________
____ EXTDSN   ===> FDRABR.SRS.EXTRACT_____________________________________
____
____ VTOC FIELDS
____ DEFAULTS ===>                                                       ____
____ UNIT     ===> ____________________________________________________  ____
____ UNITNAME ===> ____________________________________________________
____ DEVTYPE  ===> ____________________________________________________  ____
____ DEVCLASS ===> ____________________________________________________  ____
____ UCBSTATS ===>                                                       ____
```

PANEL A.S.1 SCROLLED RIGHT

Scrolling RIGHT (PF11/23) reveals the SUMMARY, BREAK, LEN, and DESCRIPTION columns. LEN is the number of bytes that the field value occupies in the data set list. DESCRIPTION is a brief description of the field. For some fields, such as SOURCE, it is necessary to press RIGHT several times to see the entire field DESCRIPTION. A detailed description of all fields is contained in the HELP tutorials.

```
------------------------ DATASET SELECTION: DEFAULT --- LINE 1/221 COL 7:10/10
COMMAND ===>                                                 SCROLL ===> HALF

            Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD          SUMM BREAK LEN DESCRIPTION
-----         ---- ----- --- ------------------------------------------------>
SOURCE FIELDS
DSNAME   ===>  ____  ____  27 Data Set Name/VSAM cluster name
VOL      ===>  ____  ____   6 Volume Serial Data Set resides on

SOURCE   ===>  ____  ____   7 Source of input data: CATALOG (any or specified b

CATALOGN ===>              44 Catalog Name where to search (optional)
ARCDSN   ===>              44 Archive Control File data set name (optional)
EXTDSN   ===>              54 Data Set Name containing extracted data

VTOC FIELDS
DEFAULTS ===>             72 Includes: SPLDSN,VOL,DSORG,RECFM,BLKSIZE,LRECL,SI
UNIT     ===>  ____  ____   4 Device address the dataset is on.
UNITNAME ===>               8 Esoteric or generic unit name
DEVTYPE  ===>  ____  ____   7 Type of Device Data Set resides on
DEVCLASS ===>  ____  ____   4 Class of Device Data Set resides on,
UCBSTATS ===>               7 UCB status: ONLINE/OFFLINE
```

The default source to be searched is the CATALOG. Based on DSNAME, VOL, and CATALOGN, data sets are selected from the system catalogs, and then the volsers indicated in the catalog are accessed to extract additional fields relating to the data sets; if selection values for other fields were specified, the selected data sets are filtered to eliminate those that do not match. The remaining data sets are displayed with the requested (or default) report fields. If only DSNAME, VOL, and/or CATALOGN are selected on, you have to press RIGHT (PF11/23) to view the other requested report fields.

For instance, to list all cataloged data sets starting with JSB, either specify the high level index JSB (which is automatically converted into a data set filter), or the data set filter JSB.** in the Selection Value column in the DSNAME row and press the ENTER key. The catalogs are searched and a Data set List is displayed.

PANEL A.S.1
SIMPLE CATALOG EXAMPLE

```
------------------------ DATASET SELECTION: DEFAULT ---- LINE 1/221 COL 4:6/10
COMMAND ===>                                                 SCROLL ===> HALF

           Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD         SELECTION VALUE                                      REPORT SORT
-----        ------------------------------------------------------ ------ ----
SOURCE FIELDS
DSNAME   ===> JSB.**_____________________________________________  ____  ____
VOL      ===> _____________________________________________________  ____  ____

SOURCE   ===> CATALOG (Catalog Volume Archive Appl Scratch Extract)  ____

CATALOGN ===> _____________________________________________________
ARCDSN   ===> _____________________________________________________
EXTDSN   ===> FDRABR.SRS.EXTRACT__________________________________
VTOC FIELDS
DEFAULTS ===>                                                        ____
UNIT     ===> _____________________________________________________  ____  ____
UNITNAME ===> _____________________________________________________
DEVTYPE  ===> _____________________________________________________  ____  ____
VOLSQ    ===> _____________________________________________________  ____  ____
DATES    ===>                                                        ____
```

The data set name is automatically converted into a data set filter, unless it is imbedded in apostrophes, or already is a data set filter. The data set name filter uses the XDSNAME syntax of FDREPORT, documented earlier in this section. In simplest form, alphanumeric characters and periods represent themselves, * (one asterisk) represents any number of characters within a single index level, and ** (two asterisks) represent any number of characters in any number of index levels. Other special characters (such as + for any single numeric) are available.

Other sources are:

- VOLUME – The data sets are selected directly from the VTOCs of the indicated volumes; specify * on the VOL line to search all online volumes.
- ARCHIVE – Archived data sets are selected from an Archive Control File. By default, the common ACF indicated in the ABR Option table is used, but any ACF can be specified by ARCDSN.
- APPL – Application Backup data sets are selected from the Control File. By default, the common ACF indicated in the ABR Option table is used, but any Control file (see Section 52.8 "FDRAPPL RESTORE Statement") can be specified by ARCDSN.
- SCRATCH – Selects from the ABR scratch catalog.
- EXTRACT – Reads an extract file produced by FDREPORT (see "RPTYPE=" in Section 54.21).

54.83 FDRSRS DATA SET LIST PANEL

The SRS Data set List Panel is displayed when data sets are selected from a Data Set Selection panel, or when a saved Data set list is selected from the SRS primary panel. The format depends on the report fields selected on the original selection panel. If the selected report fields do not fit on one screen, you can scroll LEFT and RIGHT to view it all. If the selected data sets do not fit on one screen, you can scroll UP and DOWN.

The following Data set List Panel was displayed after a catalog search using the data set name filter JSB.** as shown in the example in the previous section. The default report fields are shown.

DATA SET LIST

FDRSRS – DATA SET LIST – PANEL A.S.2

```
---------------------------- DATASET LIST: DSLIST ------- LINE 1/104 COL 3:6/10
COMMAND ===>                                                 SCROLL ===> CSR

        Read   Save   Find   Locate   Refresh   Next   Message   Printd   Help

COMMAND   DATA SET NAME                                 VOLSER DSO RECFM BKSIZ
--------- ------------------------------------------- ------ --- ----- -----
          JSB.BNCHMARK.CNTL                            IDPLB2 PO  FB    23040
          JSB.CALL.LOG                                 IDPLB0 PO  FB    27936
copy      JSB.DOC.CNTL                                 IDPLB2 PO  FB     8000
          JSB.EMC.CNTL                                 MIGRAT ARCHIVED
          JSB.ENCRYPT.KEYFILE                          MIGRAT ARCHIVED
          JSB.EXHPDM.CNTL                              MIGRAT ARCHIVED
          JSB.FATSCOPY.AUDITDSN                        IDPLB0 PS  FB     8800
          JSB.FDR.ASM                                  MIGRAT ARCHIVED
          JSB.FDR.CNTL                                 IDPLB3 PO  FB     8000
          JSB.FDR.CNTL2                                MIGRAT ARCHIVED
          JSB.FDR.DOC                                  IDPPM1 PO  FB     9040
          JSB.FDR.JCL                                  MIGRAT ARCHIVED
copy      JSB.FDR.LOAD                                 IDPPM3 PO  U     32760
          JSB.FDRABR.ARCHIVE                           MIGRAT ARCHIVED
          JSB.FDRMOVE.DS8100                           SYTS36 PO  VB    27998
```

Since the Data set List column headers may be different from the selection field names (to occupy fewer columns). Column description may be obtained by positioning the cursor at the column and pressing the HELP key, or by entering the VIEW primary command.

Archived data sets are marked as ARCHIVED, and data sets not found on their cataloged volumes are marked as *NO VOLUME DATA. Unwanted data set entries in the Data set List may be excluded from the display by entering the “X” or “XX” line commands in the COMMAND field. The Data set List can be saved for re-display at any time with option 2 on the SRS primary menu, and can be REFRESHed by regathering the report fields at any time.

Various services can be invoked by the user for one or more of the data sets displayed:

- SRS services (such as I (info), M (member list))
- ABR functions (such as RECALL, REORG, COPY)
- ISPF services (such as EDIT, BROWSE)
- TSO commands (such as DELETE, LISTDS, LISTCAT, RENAME)
- CLISTs and REXX execs

By entering the command name in the COMMAND column next to the data set to be processed. Most commands need nothing more than the data set name, but some TSO commands and CLIST/REXX execs may need the data set name passed in a special way. If so, specify the complete command, with all operands, substituting a slash (/) where SRS is to substitute the data set name in apostrophes (You can type over the dsname on the panel; SRS remembers it). For example,

```
LISTCAT ENTRY(/) ALL
```

When you enter the name of an ABR service (such as COPY), operands valid for the service may also be included in the command. Action strings may also be included in the command, as follows:

- DISPLAY – display a table for additional operands and execution
- FG – execute the Service in the foreground (under TSO)
- RQ – add request to the ABR remote queue immediately
- SUBMIT – submit the generated JCL immediately
- EDIT – edit the generated JCL

For instance, to copy a data set to another name in the foreground, specify:

```
COPY  /  NEWINDEX=++XYZ   FG
```

To perform the same function or service with the same operands on another data set further down in the Data Set List, enter the = (equal sign) repeat row command next to that data set.

Once a command is executed, it is displayed in the row COMMAND field preceded by an indicator representing the return code from the command: * (asterisk) for return code 0, ¬ (not-sign) for return code 4, or ? (question mark) for all other return codes.

You can also specify a command to apply to *all* data sets displayed by entering it on the COMMAND line at the top of the screen. It *must* include a slash (/).

Data set List commands, such as SAVE, READ, REFRESH, FIND, PRINTD, and the rest, may also be specified in the COMMAND line at the top of the screen. Please refer to the SRS HELP tutorial for a complete list and detailed description of the Data set List commands.

The PRINTD (abbreviated “P”) command allows you to generate a printed report from the information in the Data Set List. A prompting panel allows you to print all of the fields displayed, or to customize the report.

54.84 FDRSRS DATA SET LIST ABR FUNCTIONS

The ABR functions supported on the Data Set List panel each have options that can be customized on the SRS option panels, as shown in Section 54.81 "FDRSRS Dialog Options and Defaults Panels". When you enter an ABR function name, you may be prompted to override those defaults. For example, for a COPY function:

```
------------------------------ Copy Data Set ---------------- Row 1 to 2 of 2
COMMAND ===>                                                  SCROLL ===> CSR

  Edit generated JCL   Submit generated JCL    FG - execute in the foreground

Operands for COPY TYPE=DSF statement (section 21.04):
===> COPY TYPE=DSF

FROM DSNAME / Filter ===> 'JSB.DOC.CNTL'
     Volume Serial   ===> IDPLB2
TO   New DSNAME      ===>
     or NEWINDEX     ===>
New Volume Serial(s) ===>
Operands for SELECT DSN= statement (section 21.05):
===> NOTIFY=JSB
FROM DSNAME / Filter ===> 'JSB.FDR.LOAD'
     Volume Serial   ===> IDPPM3
TO   New DSNAME      ===>
     or NEWINDEX     ===>
New Volume Serial(s) ===>
Operands for SELECT DSN= statement (section 21.05):
===> NOTIFY=JSB
```

The defaults for each ABR function can be modified using option "**0**" on the SRS Primary Menu, or the FUNCTION (FF or FS) command can be used on the COMMAND line of the Data set List panel. For convenience, you can go directly to the options panel for a particular function, for instance: FF COPY.

54.85 FDRSRS VOLUME SELECTION CRITERIA PANEL

The selection, reporting, and sorting criteria for volume selection are specified in the Volume Selection Criteria panel. On this panel, you give the tests that are used to select volumes, indicate how the volume data is to be sorted, and select the information fields that are included in the display of the selected volumes.

VOLUME SELECTION CRITERIA

FDRSRS – VOLUME SELECTION – PANEL A.S.3

```
------------------------  VOLUME SELECTION: DEFAULT ---- LINE 1/132 COL 4:6/10
COMMAND ===>                                                  SCROLL ===> CSR
ENTER SELECTION CRITERIA
            Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD          SELECTION VALUE                                      REPORT SORT
-----          ---------------------------------------------------- ------ ----
VLVOLSER ===> IDPPM*_____________________________________________  ____  ____
VLUNIT   ===> _____________________________________________________  ____  ____
UNITNAME ===> _____________________________________________________
VLDEVTYP ===> _____________________________________________________  ____  ____
STORGRP  ===> _____________________________________________________  ____  ____

VLDEFAUL ===>                                                        ____
UCBSTATS ===> _____________________________________________________  ____  ____
UCBID    ===> _____________________________________________________  ____  ____
VLOPENDC ===> _____________________________________________________  ____  ____
VL%FTRKS ===> _____________________________________________________  ____  ____
VL%UTRKS ===> _____________________________________________________  ____  ____
VL%FDSCB ===> _____________________________________________________  ____  ____
VL%UDSCB ===> _____________________________________________________  ____  ____
VL%FINDX ===> _____________________________________________________  ____  ____
VL%UINDX ===> _____________________________________________________  ____  ____
VL%FVVDS ===> _____________________________________________________  ____  ____
```

The Volume Selection Criteria Panel functions in a similar fashion to the Data Set Selection Criteria Panel documented in the preceding sections. There are more fields that can be viewed by scrolling UP and DOWN. The command field and field descriptions can be viewed by scrolling LEFT and RIGHT. Selection, reporting, summary, and sorting criteria are specified just like the Data Set Selection Criteria.

Volume selection differs from data set selection in that one line of the generated volume list contains fields relating to one whole DASD volume. There is no SOURCE field since there is no choice of source with volume selection; information is gathered from the VTOC, VTOCIX, and VVDS of the volumes selected, and the LSPACE SVC.

54.86 FDRSRS VOLUME LIST PANEL

The following Volume List was generated by specifying IDPPM* in the VLVOLSER field in the Volume Selection Criteria. The volume list shown is the default if no report fields are selected.

VOLUME LIST

FDRSRS – VOLUME LIST – PANEL A.S.4

```
--------------------------  VOLUME LIST: VOLLIST -------- LINE 1/7 COL 3:11/14
COMMAND ===>                                                 SCROLL ===> CSR

        Read   Save   Find   Locate   Refresh   Next   Message   Printd   Help

COMMAND   VOLSER DEVTYPE UADR VTINDX USEATTR USERS ALLOTRK %TU FREETRK LGFCYL
--------- ------ ------- ---- ------ ------- ----- ------- --- ------- ------
          IDPPM7 3390-27 7011 ACTIVE PRIVATE     7  124073  42  176437  11429
          IDPPM1 3390-27 7012 ACTIVE PRIVATE    10  107965  36  192545  12359
          IDPPM2 3390-27 7013 ACTIVE PRIVATE     8   27961  10  272549  18043
          IDPPM3 3390-27 7014 ACTIVE PRIVATE    17   69693  24  230817  14946
          IDPPM4 3390-27 7015 ACTIVE PRIVATE     6   80189  27  220321  14688
          IDPPM5 3390-27 7016 ACTIVE PRIVATE     6  185707  62  114803   5209
          IDPPM6 3390-9  7053 ACTIVE PRIVATE   335   61480  41   88775   5583
```

Since the Volume List column headers may be different from the selection field names (to occupy fewer columns), column descriptions may be obtained by positioning the cursor at the column and pressing the HELP key, or by entering the VIEW primary command.

Since the volume column headings may not be immediately obvious, here is what some of them mean (the last two are not shown on the panel above since you must scroll right to see them:

ALLOTRK	Total allocated tracks on the volume.
%TU	Percentage of tracks allocated.
FREETRK	Total free tracks on volume.
LGFCYL	Largest free cylinder extent on the volume.
LRGFTRK	Largest free track extent on the volume.
FREXT	Number of free extents on the volume.
FRAG	IBM fragmentation index for the volume.

You may enter an “S” in the command column to display the SRS data set list for all the data sets on the selected volume.

54.87 FDRSRS ISPF FASTPATHS AND COMMANDS

ISPF FASTPATHS

Once you have become familiar with using SRS, you can use these ISPF *fastpath* options from the ISPF main menu to invoke SRS without going through the intermediate panels:

- **A.S..** – Executes the DEFAULT Data Set Selection Criteria and selects data sets matching your TSO prefix or TSO user ID.
- **A.S.*dsfilter*** – Executes the DEFAULT Data Set Selection Criteria, and selects the data sets matching the data set name filter specified. The filter can be any type of data set filter supported by the XDSN= operand of FDREPORT as documented earlier in this section. If the data set filter is not in quotes, SRS assumes that it is a prefix and append ".**" to the end. For fully-qualified names, place them in single quotes. For example:

  ```
  A.S.TSO1
  A.S.'TSO1.JCL.CNTL'
  A.S.'TSO+.*.CNTL'
  ```

- **A.S.*selname*,*dsfilter*** – Same as the previous fastpath except that the Data Set Selection Criteria saved under name "*selname*" is used. For example:

  ```
  A.S.ABRBKUP,TSO1
  ```

In all of the preceding A.S fastpaths, you may optionally follow them with a backslash and a volume serial or volume prefix to limit the display to those volumes. For example:

```
A.S.TSO1\PUB*
A.S.ABRBKUP,PROD.PAYROLL\PAY123
A.S..\WORK*
```

- **A.S1** – Displays the most recently used saved Data Set Selection Criteria, allowing you to modify and execute it.
- **A.S1.*selname*** – Displays the named saved Data Set Selection Criteria. For example,

  ```
  A.S1.ABRBKUP
  ```

- **A.S2** – Displays the most recently used saved Data set List.
- **A.S2.*listname*** – Displays the named Data set List.
- **A.S3** – Displays the most recently used Volume Selection Criteria list.
- **A.S3.*volser*** – Executes the most recently used Volume Selection Criteria list against the volume serial or volser prefix specified. For example,

  ```
  A.S3.TSO123
  A.S3.TSO1*
  ```

- **A.S3.*selname*,** – Displays the named Volume Selection Criteria list.
- **A.S3.*selname*,*volser*** – Executes the named Volume Selection Criteria list against the volume serial or volser prefix specified.
- **A.S4** – Displays the most recently used saved Volume List.
- **A.S4.*listname*** – Displays the named saved Volume List.

Since ISPF also allows you to stack ISPF commands on one line, separated by a semicolon (by default), when the ISPF fastpath results in a data set or volume list being displayed, you can also specify a command to be executed against all of the displayed data sets or volumes. For example:

- **A.S.PDS,USER1;REORG / FG** – Assuming that PDS is a saved selection criteria that selects only PDSs, this executes a reorganization (PDS compression) against every PDS belonging to USER1.

ISPF AND TSO COMMANDS

You can invoke SRS or an FDR function as a primary ISPF command from any panel in any ISPF application. See Section 90.46 "Installing the FDR Dialogs" for details.

Using this method, you can create primary ISPF commands for common tasks that can easily access from the ISPF primary command line. From the data set or volume selection list, fill in the desired values and enter the SAVE command enter the dialog to save the selection and entered values as an ISPF command.

```
------------------------ DATASET SELECTION: DEFAULT ---- LINE 1/267 COL 4:6/10
COMMAND ===> save                                          SCROLL ===> CSR
ENTER SELECTION CRITERIA
           Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD         SELECTION VALUE                                    REPORT SORT
-----         ------------------------------------------------- ------ ----
SOURCE FIELDS
DSNAME   ===> jsb.**_____________________________________________  ____  ____
VOL      ===> _____________________________________________________  ____  ____

SOURCE   ===> CATVTOC (Catalog Volume Archive Appl Scratch Extract)  ____  ____
-
```

This displays the "Save Selection Criteria" panel where you specify the member name and the optional description. On the command line, enter "ADDISPF" or "ADDTSO" to make the selection criteria available as an ISPF or TSO command.

```
------------------------ FDRSRS - Save Selection Criteria --------------------
Command ===> addispf


Specify the library and member name where the Selection Criteria will be saved:

   Data Set Name  ===> 'JSB.SRS.SELECT'
   Member Name    ===> LISTJSB
   Description    ===> List all data sets with HLQ=JSB

Save option:
   Replace an existing member ===> YES  (Yes or No)


Enter ADDISPF in the command line to make this accessible as an ISPF command.
Enter ADDTSO  in the command line to make this accessible as a TSO command.

Enter CANCEL  in the command line to cancel the save operation.
```

The ADDISPF command presents the following panel that allows entering of the options to add the command to the ISPF command table.

```
---------------- Add FDR Commands to an ISPF Command Table -- Row 1 to 1 of 1
COMMAND ===> add                                              SCROLL ===> PAGE

       ADD - add the selected table entries     CANCEL - exit immediately

How are the FDR dialog libraries allocated ?
  Allocation      ===> 2   (1 - at TSO LOGON time, by the LOGON proc or CLIST)
                           (2 - on demand, by the ABRALLOC CLIST)

ISPF table library to update:     (optional)
  Data set name   ===> 'SYSP.JSB.TABLES'

ISPF command table to update:
  Application ID  ===> ISP

Sel Command Truncate Type Description
--- ------- -------- ---- ------------------------------------------------------
 S  LISTJSB    7     S1   LIST ALL DATA SETS WITH HLQ=JSB
```

The ADDTSO command presents the following panel that allows entering of the options to add the command to the TSO command table.

```
------------------------ FDRSRS - Add TSO Command ----------------------------
COMMAND ===>

FDR Function Command: LISTJSB

TSO Command Name to be added  ===> LISTJSB

Description  ===> LIST ALL DATA SETS WITH HLQ=JSB

How are the FDR dialog libraries allocated ?
===> 2     (1 - at TSO logon time, by the Logon Proc or logon CLIST)
           (2 - on demand, by the ABRALLOC CLIST)

FDR dialog CLIST library to update:    (blank and press enter for default name)
  Data set name   ===> 'JSB.DIALOG.CLIST'




Press PF3 (END) to continue processing.  Enter CANCEL to bypass operation.
```

54.88 FDRSRS EXAMPLES

This section "walks" you through several examples showing the ease of use and power of SRS for several common functions. The display at each step in each example is shown; data in *italics* was entered on that panel by the user.

RESTORE FROM ARCHIVE

A user wishes to display all of his archived data sets and select several for restore. From the SRS main menu, option 1 (select data sets) with the default selection criteria is chosen:

```
----------------------- FDRSRS - Primary Menu -------------------------------
OPTION  ===> 1                                              SCROLL ===> CSR
                                                               More:     +
   0  OPTIONS  - Set Dialog Options and Defaults

   1  SELECT   - Data Set Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   2  DSLIST   - Data Set List - display saved
                 Name ===> *                (*, member name, or blanks)

   3  SELVOL   - Volume Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   4  VOLLIST  - Volume List - display saved
                 Name ===> *                (*, member name, or blanks)

   OR Select one of the following services:
   _  ARCDEL   - DELETE DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCHIVE  - ARCHIVE DATA SET
   _  ARCMOD   - MODIFY DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCRECAT - RECATALOG ARCHIVED DATA SET FOR AUTO-RECALL
   _  ARCRESET - RESET DATA SET ENTRY IN THE ARCHIVE FILE
   _  BACKAPPL - DATA SET APPLICATION BACKUP
```

On the selection panel, a data set prefix is entered, and the source is changed to ARCHIVE. If you need to report on a special Archive Control File or a control file used for Application Backup, you can enter the control file name under ARCDSN; if left blank, the Archive Control File used for auto-recall (from the FDR Global Options Table) is automatically used. Since no reporting criteria are specified, the default report is displayed.

```
------------------------ DATASET SELECTION: DEFAULT ---- LINE 1/181 COL 4:6/10
COMMAND ===>                                                SCROLL ===> HALF
ENTER SELECTION CRITERIA
           Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD         SELECTION VALUE                                    REPORT SORT
-----         ------------------------------------------------- ------ ----
SOURCE FIELDS
DSNAME   ===> qrp.**_____________________________________________  ____  ____
VOL      ===> _____________________________________________________  ____  ____

SOURCE   ===> archive (Catalog Volume Archive Appl Scratch Extract)  ____  ____

CATALOGN ===> _____________________________________________________
ARCDSN   ===> _____________________________________________________
EXTDSN   ===> _____________________________________________________

VTOC FIELDS
DEFAULTS ===>                                                        ____
UNIT     ===> _____________________________________________________  ____  ____
UNITNAME ===> _____________________________________________________
DEVTYPE  ===> _____________________________________________________  ____  ____
VOLSQ    ===> _____________________________________________________  ____  ____
DATES    ===>                                                        ____
CRDATE   ===> _____________________________________________________  ____  ____
CRDAYS   ===> _____________________________________________________  ____  ____
```

A list of archived data sets that match the data set filter are displayed with their characteristics. The list can be scrolled up and down to see all the data sets, and left and right to see all of the fields that SRS displays by default. If you want to restore any of them, simply type “restore” next to them.

```
--------------------------- DATASET LIST: DSLIST ------ LINE 73/420 COL 3:9/13
COMMAND ===>                                                SCROLL ===> HALF
420 DATA SETS SELECTED.
        Read   Save   Find   Locate   Refresh   Next   Message   Printd   Help

COMMAND   ENTRY NAME                VOLSER DSO RECFM BKSIZ LRECL ALLOC  FREE
--------- ------------------------- ------ --- ----- ----- ----- ----- -----
          QRP.FLOR.INFO             IDPLB3 PS  FB     3120    80     2     0
restore   QRP.DEFRAG.TXT            IDPLB4 PS  FB     9040    80     1     0
          QRP.IAM.THIRD             IDPLB3 PS  FB     3120    80     5     0
          QRP.V2R3.TABLES           IDPLB4 PO  FB     6160    80     1     0
restore   QRP.JCL.CNTL              IDPLB3 PO  FB     3120    80    90    19
          QRP.DASD.D33909           IDPLB1 PS  FBA    8000    80     1     0
```

The “restore” command displays a panel where options for the restore, such as new name or new volser, can be specified for each of the selected data sets. If more data sets were selected than can fit on the screen, the list is scroll-able. Enter a command on the command list to submit the restore as a batch job (or edit the JCL before submission), execute the restore immediately under TSO, or add it to the ABR remote queue for later processing.

```
------------------------ FDRSRS - Archive Restore ----------- Row 1 to 2 of 2
COMMAND ===> submit                                          SCROLL ===> HALF

  Edit JCL   Submit JCL   FG - execute in the foreground   RQ - add to remote q

Operands for RESTORE TYPE=ARC statement (section 51.06):
===> RESTORE TYPE=ARC,DT,DYNARC

DSNAME / Filter ===> 'QRP.DEFRAG.TXT'
Volume Serial   ===> IDPLB4                      Archive date ===>
New DSNAME      ===>
or NEWINDEX     ===> .defrag2
New Volser(s)   ===>                                      Copy ===>
Operands for SELECT DSN= statement (section 51):
===> NOTIFY=BAB

DSNAME / Filter ===> 'QRP.JCL.CNTL'
Volume Serial   ===> IDPLB3                      Archive date ===>
New DSNAME      ===>
or NEWINDEX     ===>
New Volser(s)   ===> tsowk*                               Copy ===>
Operands for SELECT DSN= statement (section 51):
===> NOTIFY=BAB
```

RESTORE FROM BACKUP

A user needs to restore several of his data sets from ABR backups. From the SRS main menu, option 1 (select data sets) was chosen and a selection name of asterisk (*) is specified to list all available saved selection lists:

```
------------------------ FDRSRS - Primary Menu -------------------------------
OPTION  ===> 1                                              SCROLL ===> CSR
                                                               More:     +
   0  OPTIONS  - Set Dialog Options and Defaults

   1  SELECT   - Data Set Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   2  DSLIST   - Data Set List - display saved
                 Name ===> *                (*, member name, or blanks)

   3  SELVOL   - Volume Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   4  VOLLIST  - Volume List - display saved
                 Name ===> *                (*, member name, or blanks)

   OR Select one of the following services:
   _  ARCDEL   - DELETE DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCHIVE  - ARCHIVE DATA SET
   _  ARCMOD   - MODIFY DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCRECAT - RECATALOG ARCHIVED DATA SET FOR AUTO-RECALL
   _  ARCRESET - RESET DATA SET ENTRY IN THE ARCHIVE FILE
   _  BACKAPPL - DATA SET APPLICATION BACKUP
```

```
------------------------ FDRSRS - Selection Criteria List - Row 1 to 15 of 15
Command ===>                                                  Scroll ===> HALF

Place an "S" to select the Selection Criteria to process, or "D" to delete.

Sel Member   Description                                                Date
--- -------- ---------------------------------------------------------- ---------
s   ABRBKUP  abr backup info                                           06/11/2002
    ARCBKUP  archive backup info                                       06/11/2002
    ARCEF    archived icf datasets                                     10/20/2002
    BACKEXT  report from backup extract                                09/10/2002
```

The list of saved selection and reporting criteria is displayed. Depending on the SRS options set, these saved criteria might have been previously created by the user, or might be criteria available to all SRS users, or both. The ABRBKUP list is selected, since it displays all information about the ABR backups of selected data sets

The selection panel is now displayed, preset with the selection and reporting criteria from the ABRBKUP list. In this case, ABRBKUP simply defines a report format, so only REPORT fields are prespecified; the numbers shown in the REPORT column is the order that those fields are displayed on the screen. The list has been customized so that only the selected report fields are displayed. Several data set name filters are entered to display backup info about those data sets.

```
------------------------ DATASET SELECTION: ABRBKUP ----- LINE 1/16 COL 4:6/10
COMMAND ===>                                                  SCROLL ===> HALF
ENTER SELECTION CRITERIA
           Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD          SELECTION VALUE                                      REPORT SORT
-----          ---------------------------------------------------- ------ ----
DSNAME    ===> bab.*.jcl  bab.ac**_____________________________________ 1___  ____
VOL       ===> ________________________________________________________ 2___  ____

SOURCE    ===> CATALOG (Catalog Volume Archive Appl Scratch Extract)   ____  ____

CATALOGN  ===> ____________________________________________________________

DEVTYPE   ===> ________________________________________________________ 3___  ____
DSORG     ===> ________________________________________________________ 4___  ____
BKGEN     ===> ________________________________________________________ 6___  ____
BKCYCLE   ===> ________________________________________________________ 7___  ____
BKINFO    ===>                                                         8___
OLDBKUP   ===> ALL_____________________________________________________ ____  ____
SIZE      ===> ________________________________________________________ 5___  ____
```

A list of the selected data sets is displayed, along with backup information for each. For those that have more than one backup recorded (the OLDBACKUP option), *all* of the recorded backups are displayed, including the date that each backup was taken. Since this selected data sets from the system catalogs, archived data sets may also be selected, as shown. To restore a data set from backup, simply type "restore" on the line for the backup desired:

```
--------------------------- DATASET LIST: DSLIST -------- LINE 1/20 COL 3:9/12
COMMAND ===>                                                SCROLL ===> HALF
3 DATA SETS SELECTED.
        Read    Save    Find    Locate    Refresh    Next    Message    Printd    Help

COMMAND   DATA SET NAME            VOLSER DEVTYPE DSO  ALLOC BKGN BKC    BKDATE
--------- ----------------_------- ------ ------- --- ------ ---- --- ----------
 restore   BAB.JCL.CNTL            TSOWK2 3390-2  PO     150    3   5 03/13/2002
                                                              3   4 03/12/2002
 restore   BAB.AC.DATA             IDPLB3 3390-2  PS       1  764   0 03/06/2002
                                                            763  18 03/05/2002
```

The "restore" command displays a panel where options for the restore, such as new name or new volser, can be specified for each of the selected data sets. Note that the correct volume, gen, and cycle to restore the backup selected are already filled in. If more data sets were selected than can fit on the screen, the list is scrollable. Enter a command on the command list to submit the restore as a batch job (or edit the JCL before submission), execute the restore immediately under TSO, or add it to the ABR remote queue for later processing.

```
------------------------ FDRSRS - Backup Restore ------------ Row 1 to 2 of 2
COMMAND ===> edit                                            SCROLL ===> HALF

  Edit JCL   Submit JCL   FG - execute in the foreground   RQ - add to remote q

Operands for RESTORE TYPE=ABR statement (section 50):
===> RESTORE TYPE=ABR,DT

DSNAME/Filter ===> 'BAB.JCL.CNTL'                              Gen ===> 0003
Volume Serial ===> TSOWK0                                      Cycle => 05
New DSNAME    ===>                                             OLDB  =>
or NEWINDEX   ===>                                             Copy  => 1
New Volser(s) ===>
Operands for SELECT DSN= statement (section 50):
===> NOTIFY=BAB

DSNAME/Filter ===> 'BAB.AC.DATA'                               Gen ===> 0764
Volume Serial ===> IDPLB3                                      Cycle => 00
New DSNAME    ===>                                             OLDB  =>
or NEWINDEX   ===>                                             Copy  => 1
New Volser(s) ===>
Operands for SELECT DSN= statement (section 50):
===> NOTIFY=BAB
```

VOLUME REPORTS

A Storage Analysis wants to monitor usage and free space on production and database volumes. From the SRS main menu, option "3" (select volumes) with the default selection criteria is chosen:

```
----------------------- FDRSRS - Primary Menu -------------------------------
OPTION  ===> 3                                          SCROLL ===> HALF
                                                              More:     +
   0  OPTIONS  - Set Dialog Options and Defaults

   1  SELECT   - Data Set Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   2  DSLIST   - Data Set List - display saved
                 Name ===> *                (*, member name, or blanks)

   3  SELVOL   - Volume Selection
                 Name ===> DEFAULT          (*, member name, or blanks)

   4  VOLLIST  - Volume List - display saved
                 Name ===> *                (*, member name, or blanks)

   OR Select one of the following services:
   _  ARCDEL   - DELETE DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCHIVE  - ARCHIVE DATA SET
   _  ARCMOD   - MODIFY DATA SET ENTRY IN THE ARCHIVE FILE
   _  ARCRECAT - RECATALOG ARCHIVED DATA SET FOR AUTO-RECALL
   _  ARCRESET - RESET DATA SET ENTRY IN THE ARCHIVE FILE
   _  BACKAPPL - DATA SET APPLICATION BACKUP
```

On the selection panel, volume serial prefixes are entered. Since no reporting criteria are specified, the default report is displayed.

```
------------------------  VOLUME SELECTION: DEFAULT -----  LINE 1/72 COL 4:6/10
COMMAND ===>                                              SCROLL ===> HALF
ENTER SELECTION CRITERIA
            Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD          SELECTION VALUE                                    REPORT SORT
-----          -------------------------------------------------- ------ ----
VLVOLSER ===> IDPPM* IDPWH*                                        ____   ____
VLUNIT   ===> ____________________________________________________ ____   ____
UNITNAME ===> ____________________________________________________
VLDEVTYP ===> ____________________________________________________ ____   ____
STORGRP  ===> ____________________________________________________ ____   ____

VLDEFAUL ===>
VL%FTRKS ===> ____________________________________________________ ____   ____
VL%UTRKS ===> ____________________________________________________ ____   ____
VL%FDSCB ===> ____________________________________________________ ____   ____
VL%UDSCB ===> ____________________________________________________ ____   ____
VL%FINDX ===> ____________________________________________________ ____   ____
VL%UINDX ===> ____________________________________________________ ____   ____
VL%FVVDS ===> ____________________________________________________ ____   ____
VL%UVVDS ===> ____________________________________________________ ____   ____
VLALOTRK ===> ____________________________________________________ ____   ____
```

The status of the selected volumes is displayed, including Indexed VTOC status, mount status, tracks allocated, percentage used, and free space information. If you scroll right, the number of free extents and the IBM fragmentation index for each volume is visible.

```
--------------------------  VOLUME LIST: VOLLIST -------  LINE 1/11 COL 3:11/14
COMMAND ===>                                              SCROLL ===> CSR

        Read    Save    Find    Locate    Refresh    Next    Message    Printd    Help

COMMAND    VOLSER DEVTYPE UADR VTINDX USEATTR USERS ALLOTRK %TU FREETRK LGFCYL
---------  ------ ------- ---- ------ ------- ----- ------- --- ------- ------
           IDPPM7 3390-27 7011 ACTIVE PRIVATE     7  124073  42  176437  11429
           IDPPM1 3390-27 7012 ACTIVE PRIVATE    10  107965  36  192545  12359
           IDPPM2 3390-27 7013 ACTIVE PRIVATE     8   27961  10  272549  18043
           IDPPM3 3390-27 7014 ACTIVE PRIVATE    17   69693  24  230817  14946
           IDPPM4 3390-27 7015 ACTIVE PRIVATE     6   80189  27  220321  14688
           IDPPM5 3390-27 7016 ACTIVE PRIVATE     6  185707  62  114803   5209
           IDPWH1 3390-27 704E ACTIVE PRIVATE    77  260311  53  231089   7249
           IDPWH2 3390-27 704F ACTIVE PRIVATE    63  228218  47  263182  10462
           IDPPM6 3390-9  7053 ACTIVE PRIVATE   335   61480  41   88775   5583
           IDPWH3 3390-27 7054 ACTIVE PRIVATE    27  215190  44  276210  11265
           IDPWH4 3390-27 7056 ACTIVE PRIVATE    77  266405  55  224995  10057

                                11 VolumeS SELECTED.
```

FASTPATH
VOLUME DISPLAY

```
------------------------  VOLUME SELECTION: DEFAULT ------  LINE 1/7 COL 4:6/10
COMMAND ===> save freespc                                   SCROLL ===> HALF
ENTER SELECTION CRITERIA
            Read   Save   Submit   Find   Locate   Extract   Options   Help

FIELD          SELECTION VALUE                                    REPORT SORT
-----          ---------------------------------------------------- ------ ----
VLVOLSER ===> ____________________________________________________  S___  ____
VLUNIT   ===> ____________________________________________________  S___  ____
VLDEVTYP ===> ____________________________________________________  S___  ____

VL%FTRKS ===> <20_________________________________________________  S___  ____
VL%FDSCB ===> ____________________________________________________  S___  ____
VLFRETRK ===> ____________________________________________________  S___  ____
```

Operations staff wants to regularly check on the free space available on various volumes, to anticipate and avoid allocation problems. Previously, an SRS volume report was customized and saved as FREESPC, as shown here. It displays the percentage of free space on the volume and in the VTOC as well as total free tracks on each volume. It only selects volumes that have less than 20% free space.

Once this is saved, the operators can request the report from the ISPF main menu, specifying the volume serial or volser prefix to be displayed:

```
Menu  Utilities  Compilers  Options  Status  Help
------------------------------------------------------------------------------
                            ISPF Primary Option Menu
 Option ===> a.s3.freespc,syts2*

 0  Settings      Terminal and user parameters
 1  View          Display source data or listings
 2  Edit          Create or change source data
 3  Utilities     Perform utility functions
 4  Foreground    Interactive language processing
 5  Batch         Submit job for language processing
 6  Command       Enter TSO or Workstation commands
 7  Dialog Test   Perform dialog testing
 8  LM Facility   Library administrator functions
 9  IBM Products  IBM program development products
 10 SCLM          SW Configuration Library Manager
 A  FDR/ABR       FDR/ABR DASD Management Functions
```

and receive a report such as:

```
--------------------------  VOLUME LIST: FREESPC ----------  LINE 1/2 COL 3:7/7
COMMAND ===>                                                 SCROLL ===> HALF

        Read   Save   Find   Locate   Refresh   Next   Message   Printd   Help

COMMAND   VOLSER UADR DEVTYPE %TF %DF  FRTRK
--------- ------ ---- ------- --- --- ------
          SYTS23 70A6 3390-27  15  98  74765
          SYTS24 70A7 3390-27  11  98  58716

                                2 VolumeS SELECTED
```

Reader's Comment Form

FDR User Documentation V5.4 L80

INNOVATION DATA PROCESSING

If you have comments on this manual, including:

- ❒ Errors in the text or typographical errors
- ❒ Clarity
- ❒ Suggestions for improvement in the manual
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- ❒ Any other comments

Please complete this form and fax it to INNOVATION DATA PROCESSING at 973-890-7147 (in Europe you may fax it to your local INNOVATION DATA PROCESSING office as shown on the front page of the manual). You may also e-mail your comments to INNOVATION DATA PROCESSING at support@fdrinnovation.com (be sure to identify the manual name in the message).

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