

z/OS
2.5

DFSMSrmm Reporting



Note

Before using this information and the product it supports, read the information in [“Notices” on page 333](#).

This edition applies to Version 2 Release 5 of z/OS® (5650-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this document

This document tells you how to create reports for DFSMSrmm resources. It is intended for storage administrators, system programmers, and application programmers who are responsible for implementing, customizing, and using DFSMSrmm. A topic about using DFSORT ICETOOL symbols is included. Using ICETOOL symbols can simplify report writing.

For information about accessibility features of z/OS, for users who have a physical disability, see [Appendix D, “Accessibility,”](#) on page 329.

Required product knowledge

To use this document effectively, you should be familiar with:

- Using DFSMSrmm Utilities
- Using DFSORT's ICETOOL
- Using ISPF
- Writing REXX EXECs
- Using TSO Commands

z/OS information

This information explains how z/OS references information in other documents and on the web.

When possible, this information uses cross document links that go directly to the topic in reference using shortened versions of the document title. For complete titles and order numbers of the documents for all products that are part of z/OS, see *z/OS Information Roadmap*.

To find the complete z/OS library, go to [IBM Documentation \(www.ibm.com/docs/en/zos\)](http://www.ibm.com/docs/en/zos).

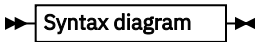
Notational conventions

This section explains the notational conventions used in this document.

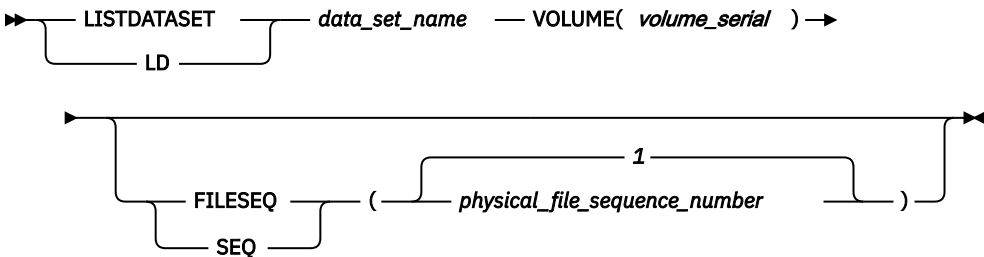
How to read syntax diagrams

Throughout this library, diagrams are used to illustrate the programming syntax. Keyword parameters are parameters that follow the positional parameters. Unless otherwise stated, keyword parameters can be coded in any order. The following list tells you how to interpret the syntax diagrams:

- Read the diagrams from left-to-right, top-to-bottom, following the main path line. Each diagram begins on the left with double arrowheads and ends on the right with two arrowheads facing each other.



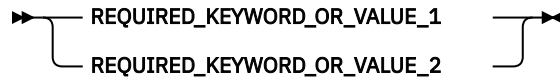
- If a diagram is longer than one line, each line to be continued ends with a single arrowhead and the next line begins with a single arrowhead.



- Required keywords and values appear on the main path line. You must code required keywords and values.

► REQUIRED_KEYWORD ◄

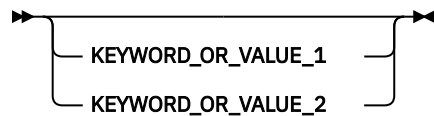
If several mutually exclusive required keywords or values exist, they are stacked vertically in alphanumeric order.



- Optional keywords and values appear below the main path line. You can choose not to code optional keywords and values.



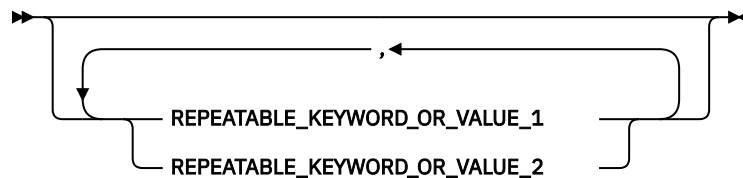
If several mutually exclusive optional keywords or values exist, they are stacked vertically in alphanumeric order below the main path line.



- An arrow returning to the left above a keyword or value on the main path line means that the keyword or value can be repeated. The comma means that each keyword or value must be separated from the next by a comma.



- An arrow returning to the left above a group of keywords or values means more than one can be selected, or a single one can be repeated.



- A word in all uppercase is a keyword or value you must spell exactly as shown. In this example, you must code **KEYWORD**.

► KEYWORD ◄

If a keyword or value can be abbreviated, the abbreviation is discussed in the text associated with the syntax diagram.

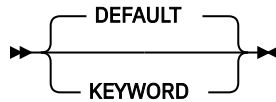
- If a diagram shows a character that is not alphanumeric (such as parentheses, periods, commas, and equal signs), you must code the character as part of the syntax. In this example, you must code **KEYWORD=(001,0.001)**.

► KEYWORD=(001,0.001) ◄

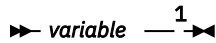
- If a diagram shows a blank space, you must code the blank space as part of the syntax. In this example, you must code **KEYWORD=(001 FIXED)**.

► KEYWORD=(001 FIXED) ◄

- Default keywords and values appear above the main path line. If you omit the keyword or value entirely, the default is used.



- A word in all lowercase italics is a *variable*. Where you see a variable in the syntax, you must replace it with one of its allowable names or values, as defined in the text.



Notes:

¹ An example of a syntax note.

- References to syntax notes appear as numbers enclosed in parentheses above the line. Do not code the parentheses or the number.



- Some diagrams contain *syntax fragments*, which serve to break up diagrams that are too long, too complex, or too repetitious. Syntax fragment names are in mixed case and are shown in the diagram and in the heading of the fragment. The fragment is placed below the main diagram.



Syntax fragment



The following is an example of a syntax diagram.



newowner



Notes:

¹ Must be specified if the owner owns one or more volumes.

The possible valid versions of the RMM DELETEOWNER command are:

```
RMM DELETEOWNER owner
RMM DO owner
RMM DELETEOWNER owner NEWOWNER(new_owner)
RMM DO owner NEWOWNER(new_owner)
```

How to abbreviate commands and operands

The TSO abbreviation convention applies for all DFSMSrmm commands and operands. The TSO abbreviation convention requires you to specify as much of the command name or operand as is necessary to distinguish it from the other command names or operands.

Some DFSMSrmm keyword operands allow unique abbreviations. All unique abbreviations are shown in the command syntax diagrams.

How to use continuation characters

The symbol - is used as the continuation character in this document. You can use either - or +.

-

Do not ignore leading blanks on the continuation statement

- + Ignore leading blanks on the continuation statement

Delimiters

When you type a command, you must separate the command name from the first operand by one or more blanks. You must separate operands by one or more blanks or a comma. Do not use a semicolon as a delimiter because any character you enter after a semicolon is ignored.

Character sets

To code job control statements, use characters from the character sets in [Table 1 on page xxiv](#). [Table 2 on page xxiv](#) lists the special characters that have syntactical functions in job control statements.

Table 1. Character sets		
Character Set	Contents	
Alphanumeric	Alphabetic Numeric	Capital A through Z 0 through 9
National (See note)	“At” sign Dollar sign Pound sign	@ (Characters that can be \$ represented by hexadecimal # values X'7C', X'5B', and X'7B')
Special	Comma Period Slash Apostrophe Left parenthesis Right parenthesis Asterisk Ampersand Plus sign Hyphen Equal sign Blank	, . / ' () * & + - =
EBCDIC text	EBCDIC printable character set	Characters that can be represented by hexadecimal X'40' through X'FE'
Note: The system recognizes the following hexadecimal representations of the U.S. National characters; @ as X'7C'; \$ as X'5B'; and # as X'7B'. In countries other than the U.S., the U.S. National characters represented on terminal keyboards might generate a different hexadecimal representation and cause an error. For example, in some countries the \$ character may generate a X'4A'.		

Table 2. Special characters used in syntax	
Character	Syntactical Function
,	To separate parameters and subparameters
=	To separate a keyword from its value, for example, BURST=YES
(b)	To enclose subparameter list or the member name of a PDS or PDSE
&	To identify a symbolic parameter, for example, &LIB
&&	To identify a temporary data set name, for example, &&TEMPDS, and, to identify an in-stream or sysout data set name, for example, &&PAYOUT
.	To separate parts of a qualified data set name, for example, A.B.C., or parts of certain parameters or subparameters, for example, nodename.userid
*	To refer to an earlier statement, for example, OUTPUT=*.name, or, in certain statements, to indicate special functions: //label CNTL * //ddname DD * RESTART=* on the JOB statement
'	To enclose specified parameter values which contain special characters
(blank)	To delimit fields

How to send your comments to IBM

We invite you to submit comments about the z/OS product documentation. Your valuable feedback helps to ensure accurate and high-quality information.

Important: If your comment regards a technical question or problem, see instead [“If you have a technical problem”](#) on page xxv.

Submit your feedback by using the appropriate method for your type of comment or question:

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If your comment or question is about z/OS itself, submit a request through the [IBM RFE Community](#) (www.ibm.com/developerworks/rfe/).

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To help us better process your submission, include the following information:

- Your name, company/university/institution name, and email address
- The following deliverable title and order number: z/OS DFSMSrmm Reporting, SC23-6875-50
- The section title of the specific information to which your comment relates
- The text of your comment.

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Summary of changes

This information includes terminology, maintenance, and editorial changes. Technical changes or additions to the text and illustrations for the current edition are indicated by a vertical line to the left of the change.

Note: IBM z/OS policy for the integration of service information into the z/OS product documentation library is documented on the z/OS Internet Library under [IBM z/OS Product Documentation Update Policy \(www-01.ibm.com/servers/resourcelink/svc00100.nsf/pages/ibm-zos-doc-update-policy?OpenDocument\)](http://www-01.ibm.com/servers/resourcelink/svc00100.nsf/pages/ibm-zos-doc-update-policy?OpenDocument).

Summary of changes for z/OS Version 2 Release 5

The following changes are made for z/OS Version 2 Release 5 (V2R5). The most recent updates are listed at the top of each section.

This information contains no technical changes for this release.

Summary of changes for z/OS Version 2 Release 4

The following changes are made for z/OS Version 2 Release 4 (V2R4). The most recent updates are listed at the top of each section.

New

Prior to June 2020 refresh

The following content is new.

- Added new sample report definition EDGGR16. For more information, see [“Sample report definitions” on page 37](#).
- Added new REXX variable EDGGFDAT. For more information, see [“Reporting tool REXX variables” on page 28](#).
- Added description for usage of the new sample EDGMKVRS. For more information, see [“EDGMKVRS EXEC to make backup of VRS policies” on page 159](#).
- Added bullet to describe date format for American and European. For more information, see [“Running a report generator report” on page 7](#).
- Added EDGMKVRS and EDGJMVERS to the table of DFSMSrmm sample reporting jobs. For more information, see [Appendix C, “List of DFSMSrmm samples,” on page 327](#).

Changed

December 2020 refresh

With APAR OA56852, the following macros were updated:

- [“Extract data set data set record: EDGRDTEXT” on page 237](#).
- [“Extract data set extended data set record: EDGRXEXT” on page 265](#).

Prior to June 2020 refresh

The following content is changed.

- Updated the source code for the EDGACTSY, EDGACXSY, EDGEXTSY, and EDGSRCSY macros. For more information, see [Appendix A, “DFSORT symbols for use with DFSMSrmm,” on page 161](#).
- Added 1770, 1771 and 1772 to the 'Structure RXEXT' table. For more information, see [“Extract data set extended data set record: EDGRXEXT” on page 265](#).

- Added 618, 619 and 620 to the 'Structure RDEXT' table. For more information, see [“Extract data set data set record: EDGRDEXT” on page 237](#).

Deleted

No content was removed from this information.

Summary of changes for z/OS Version 2 Release 3

This edition contains updates for Version 2 Release 3 (V2R3).

Changed information

This edition includes the following topics that contain changed information:

- [“EDGEEXTSY: Extract data set symbols ” on page 168](#)
- [“EDGSRC SY: SMF record” on page 190](#)
- [“Extract data set data set record: EDGRDEXT” on page 237](#) added constants.
- [“Extract data set volume record: EDGRVEXT” on page 254](#) added constants.
- [“Extract data set extended data set record: EDGRXEXT” on page 265](#) added constants.
- [“SMF data set information: EDGSDREC” on page 281](#) added constants.
- [“SMF volume information: EDGSVREC” on page 305](#) added constants.
- [“Reporting tool REXX variables” on page 28](#) added REXX variables.
- [“Adding a report definition” on page 12](#) updated panel.
- [“Changing a report definition” on page 15](#) updated panel.
- [“Adding a new report definition from a report type” on page 22](#) updated panel.
- [“Creating a report that contains statistics and counts” on page 31](#) changed title.
- [“Tailoring the EDGJRPT sample JCL” on page 86](#)

Chapter 1. Creating DFSMSrmm reports

DFSMSrmm is a z/OS feature. You can use different ways to create DFSMSrmm reports or get DFSMSrmm information. You should select the best approach each time you gather your information. First, identify the kind of information you need and the way you will read or present the information. You might find that RMM TSO subcommands or the DFSMSrmm ISPF dialog provides the best approach.

The RMM TSO subcommands and the DFSMSrmm ISPF dialog share some similarities. The dialog allows you to view the information in real time and in predefined formats. The dialog also allows you to decide dynamically which further details you want to view. You can use the RMM TSO subcommands to obtain the kind of information that you obtain when you use the DFSMSrmm ISPF dialog. The difference is that you cannot view the full-screen when you use the RMM TSO subcommands. You can use the commands interactively or submit them in batch. You can save the batch job input, which allows you to reuse the commands so you can run the job again.

Consider using the DFSMSrmm-supplied standard reports for reporting requirements, so that you can view online or printed reports on an impromptu or regular basis. DFSMSrmm has included many standard reports that you can create using the EDGRPTD and EDGAUD utilities or the EDGRRPTE reporting EXEC. DFSMSrmm also provides standard reports that are generated from inventory management and that cover vital record specification matching and retention, run-time statistics, and control data set change activity.

Another way to produce reports is to use a sort utility like DFSORT or DFSORT's ICETOOL. With DFSORT or DFSORT's ICETOOL, you can create customized reports from the available DFSMSrmm information, such as the extract data set, the activity file, and System Management Facility (SMF) records. Use the DFSMSrmm report generator with utilities like DFSORT's ICETOOL to create customized reports. You can create report definitions, save reporting jobs, and submit reporting jobs using the DFSMSrmm report generator. The DFSMSrmm report generator can also create reports on non-DFSMSrmm data and includes sample reports for reporting on DFSMS DCOLLECT records and DFSMSHsm records.

Finally, if you need to provide information from DFSMSrmm directly into an application or product, you can use the DFSMSrmm application programming interface (API). You need high-level assembler knowledge and skills to implement the API. For additional information, see [z/OS DFSMSrmm Application Programming Interface](#).

Using the DFSMSrmm ISPF dialog and RMM TSO subcommands

You can search online, using the DFSMSrmm ISPF dialog or RMM TSO subcommands, to create lists of resources and display information recorded in the DFSMSrmm control data set. Here are some examples:

- Operators can create lists of scratch volumes to be pulled for use.
- Tape librarians and system programmers can create lists of software products and the volumes on which they reside.
- General users can create lists of volumes they own, such as the example in [Figure 1 on page 1](#):

Volume	Owner	Rack	Assigned date	Expiration date	Location	Dsets	St	Act	Dest.
VOL600	AMYW01	RAC500	06/11/2012	11/11/2012	SHELF	0	UR	SI	
VOL601	AMYW01	RAC501	06/11/2012	11/11/2012	SHELF	0	UR	SI	
VOL603	AMYW01	RAC502	06/11/2012	11/11/2012	SHELF	0	UR	SI	
EDG3011I 3 ENTRIES LISTED									

Figure 1. Example of a list of volumes owned by a single user

With the DFSMSrmm ISPF Report Generator option, you can run batch reports by selecting predefined reports or creating your own custom reports. See [Chapter 2, "Using the DFSMSrmm report generator," on page 5](#) for a detailed description.

With DFSMSrmm, you can use the RMM TSO SEARCH subcommands with the CLIST operand to create a data set of executable subcommands. For example, you can create subcommands to confirm volume movement for volumes that are identified during a SEARCHVOLUME request. See *z/OS DFSMSrmm Managing and Using Removable Media* for more information about the RMM SEARCHVOLUME subcommand.

Using the DFSMSrmm inventory management EDGHSKP utility

DFSMSrmm provides the EDGHSKP utility to help you perform inventory management. You can create reports as part of inventory management processing as described in Chapter 3, “Creating inventory management reports,” on page 49. See *z/OS DFSMSrmm Implementation and Customization Guide* for information about DFSMSrmm inventory management processing.

Using the EDGRPTD and EDGAUD report utilities

You can create several types of standard reports by using the DFSMSrmm report utilities EDGRPTD and EDGAUD. See Chapter 4, “Creating reports with DFSMSrmm utilities,” on page 65 for additional information. Use EDGRPTD to create movement, inventory, and scratch reports and EDGAUD to create security and audit reports. EDGRPTD uses the DFSMSrmm extract data set created with EDGHSKP,PARM=RPTXT as input. EDGAUD uses SMF records as input.

You can use the reports to perform these activities.

- Identify volumes that should be moved between the removable media library and storage locations.
- Determine your volume inventory in the removable media library and storage locations.
- Identify volumes that are in transit.
- Identify volumes that should be marked as moved.
- Identify all accesses to volumes and changes to information recorded in the DFSMSrmm control data set.
- Separate volumes that are waiting to return to scratch from those that are private or have other release actions pending.
- Identify new scratch volumes or the entire scratch inventory.

Using the DFSMSrmm EDGRRPTE EXEC

DFSMSrmm provides standard reports and samples that are shipped in SAMPLIB. Use the EDGJRPT sample job control language (JCL) to run the EDGRRPTE EXEC to produce reports, using the DFSMSrmm extract data set as input. See Chapter 5, “Creating reports using DFSMSrmm-supplied EXECs,” on page 85 for additional information.

Using DFSORT and the DFSORT ICETOOL utility

You can use DFSORT or a similar program to generate a formatted report using the DFSMSrmm extract data set, activity file, or SMF records. For example, you could produce a list of volumes on virtual machine (VM) with information about volume owners. Then use DFSORT's ICETOOL utility to sort the information by volume and produce a report, complete with title and header information. Use the DFSMSrmm ISPF Report Generator to build customized reports using utilities like DFSORT's ICETOOL.

You can use DFSORT symbols for fields and constants to further simplify the report writing process. Using symbols increases your productivity by automatically providing the positions, lengths, and formats of the fields, and the values of the constants associated with the particular records you are processing with DFSORT and DFSORT's ICETOOL. See Chapter 6, “Using DFSMSrmm with DFSORT,” on page 117 for further information.

Related reading:

1. See [Chapter 2, “Using the DFSMSrmm report generator,” on page 5](#) for information about using the report generator to create customized reports.
2. See [Chapter 6, “Using DFSMSrmm with DFSORT,” on page 117](#) for information about using DFSMSrmm with DFSORT.

Using the DFSMSrmm application programming interface

You can use the DFSMSrmm application programming interface to obtain information about the resources that are defined to DFSMSrmm. See the *z/OS DFSMSrmm Application Programming Interface* for information about how to use the DFSMSrmm application programming interface.

Chapter 2. Using the DFSMSrmm report generator

The DFSMSrmm report generator is an Interactive System Productivity Facility (ISPF) application that you can use to create reports. The report generator:

- Provides reports that you can run as-is or that you can modify as you wish. You can use samples to create reports for volumes, data sets, racks, owners, and the retention and movement policies that are established for your installation. You can modify these samples to create tailored reports. DFSMSrmm ships samples in SYS1.SAMPLIB. See [“Running a report generator report” on page 7](#) to run one of these reports.
- Generates job control language (JCL) that is based on specifications that you use to submit the report jobs. The generation of JCL depends on the report type and therefore the macros that map the data records. The generation knows, based on the macro name and keyword options used, whether to generate a DCOLLECT jobstep, a DFSMSHsm FSR and WWFSR reformat, a DFSMSrmm extract, or a copy of SMF records.
- Includes samples for reporting from DCOLLECT and DFSMSHsm data.
- Provides a ‘Report Migration Tasks’ dialog to cause new information shipped in report types to be inherited into existing report definitions.

To create reports with the report generator, provide any input data along with an Assembler language mapping macro to map the input data. The DFSMSrmm samples use the DFSMSrmm extract data set, the System Management Facility (SMF) file, and the ACTIVITY file as input. DFSMSrmm mapping macros map the input data.

The report definitions and report types specify the format and contents of reports, the input files for the reports, and the tools used to create the reports. To use or modify a report, you work with report definitions as described in [“Working with report definitions” on page 10](#). Create new report definitions for reports that are required by your users. Store the report definitions in the installation library to make the reports available to all your users from the installation library. To create a new report that uses input data other than the DFSMSrmm files, you work with report types as described in [“Working with report types” on page 17](#).

The report generator samples use DFSORT ICETOOL as the default tool. The report generator creates a DFSORT ICETOOL job that you can run in batch. See [“Working with reporting tools” on page 24](#) for information about specifying a tool for creating reports.

You store report definitions, report types, and the reporting tools in three separate libraries.

- The product library which contains predefined report definitions, report types, and reporting tools.
- The installation library which contains any versions that your installation has modified or created.
- The user library where any new or modified versions are stored.

The DFSMSrmm report generator also uses a JCL library to save and submit the DFSMSrmm-generated report JCL to run your reports.

Define all the libraries as partitioned data sets with fixed 80 byte records. When you do not allocate libraries, DFSMSrmm allocates the libraries automatically with a primary and secondary space of 10 tracks and 50 directory blocks. Specify the data set names as fully qualified names with single quotation marks or without quotation marks and a high-level qualifier. DFSMSrmm automatically expands the data set names to the fully qualified name including the single quotes. DFSMSrmm uses the RACF® user ID as the high level qualifier for the data sets if you do not specify NOPREFIX in the TSO profile. See [“Specifying libraries for the report generator” on page 9](#) for information about setting up the libraries for the report generator.

When you install new function APARs onto your system for the report generator and then create or update any report types, reports, or tool definitions, you must ensure that any other system that uses those new or updated report types, reports, or tool definitions also has the new function installed.

Setting up the report generator for your installation

Here are steps for setting up the report generator for your installation.

1. Select the Report Options panel described in “Specifying libraries for the report generator” on page 9. Specify the installation library that you want to use as your user library. If you do not allocate the library, DFSMSrmm automatically allocates the library by using a primary space and secondary space of 10 tracks and 50 directory blocks
2. Specify the name of the JCL library and the product library. The product library by default is SYS1.SAMPLIB.
3. Set up the access lists for the libraries. Provide READ authority to the users of the installation libraries and the product libraries.
4. Return to the Report primary panel and select the Report Types panel. You can optionally customize the report types shipped with DFSMSrmm and set them up for your users as described in “Working with report types” on page 17. You can also add new report types for data other than data that are created by DFSMSrmm. For example, the report types shipped with the report generator include types for DCOLLECT and DFSMSshm reporting. The report type contains information about a specific type of record in an input data set, the Assembler language macro that defines the record format, and basic record selection criteria. For example, the report type “Extract Records for Data Sets” in the product library contains information about the data set record in the extract data set, the EDGRDEXT mapping macro, and the minimum subset definition of records that are used in the report. Report types contain only the base information from which report definitions are created.
5. Select the Report Definition panel to customize report definitions that are shipped with the product. The report definition is a report file that contains all of the information that is needed to run a report. Each report definition in the product library, installation library, or user library contains the report type information, reporting tool information, the data fields that are used in the report, and the sort order of the records. The report selection criteria specify the subset of records that are used for a report. The reporting tool is a REXX EXEC that builds control statements to create reports that use a reporting utility, such as DFSORT's ICETOOL. You can change the reporting tool at any time.
6. Customize the EDGRMAIN EXEC. The REXX variable names that you can customize all start with the characters 'cedggrdl'. Here is the section of the EDGRMAIN EXEC that you must customize.

```
/* Initialise Report library names */                                /*@09A*/
address "ISPEXEC" "VGET ZPREFIX"                                  /*@09A*/
If length(zprefix) = 0 then                                        /*@10C*/
    edggpref = sysvar('SYSUID')                                    /*@09A*/
else                                                                /*@10C*/
    edggpref = zprefix                                            /*@10C*/

cedggrdlu = " "edggpref||".REPORT.LIB" /* User Library      @10C*/
cedggrdlj = " "edggpref||".REPORT.JCL" /* User JCL Library   @10C*/
cedggrdlp = "SYS1.SAMPLIB"             /* Product Library    @10C*/
cedggrdli = " "                        /* Installation Library @10A*/
```

- a. Define the installation library name and optionally customize the product library name in EXEC EDGRMAIN. There is no installation library name in the EXEC, so you must add the name.
- b. Update the default naming convention in EXEC EDGRMAIN for the user library name and the JCL library name, if necessary.

Steps for using the report generator

The system programmer or storage administrator might have created some specialized report definitions for your installation and placed them in the installation library. You can modify the report definitions, report types, and reporting tools that are found in the product library or the installation library. When you

modify a report definition, the report generator stores the modified report definitions in your user library. You can create new report definitions from report types or from existing report definitions.

These are the steps you follow to create reports by using the report generator.

1. Verify the user library names and the JCL library names that are defined in the Report Options panel. Allocate the libraries manually or automatically as described in [“Specifying libraries for the report generator”](#) on page 9.
2. Specify the product library name and the installation library name as described in [“Working with report definitions”](#) on page 10. Obtain the names from the person who set up the report generator for your installation.
3. Select the Report Type panel to add or to change report types that are shipped with DFSMSrmm as described in [“Working with report types”](#) on page 17.
4. Select the Report Definition panel to add or to change report definitions that are shipped with DFSMSrmm. See [“Working with report definitions”](#) on page 10 for more information.
5. Fill out the job card in the DFSMSrmm options panel. If you do not provide a job card, the report generator uses the ISPF job card, if one is available, otherwise, it generates a default job card.
6. Create the report JCL. See [“Running a report generator report”](#) on page 7 for more information.
7. Submit the report JCL.

Running a report generator report

Before you begin: Ask your system programmer or storage administrator for the name of an input data set for the report generator. You need this input data set to run your report. If you are running a DFSMSrmm-supplied report, you need an input data set created during the latest inventory management run. The input data set can be a DFSMSrmm extract data set, an SMF file, or an ACTIVITY report. You can use non-DFSMSrmm input data sets when there is a mapping of the records in the input data set.

You can run a report that is stored in the product library by using this procedure.

1. Select the REPORT option on the DFSMSrmm User Menu panel as shown in [Figure 2](#) on page 7. Press the ENTER key. (Another way to select the REPORT option is for a storage administrator to select the 'G' 'Report Generation' option from the ISMF primary selection panel.)

```
Panel  Help
-----
EDGP@USR                      DFSMSrmm User Menu - z/OS V2R1
Option ==>R

0  OPTIONS    - Specify dialog options and defaults
1  VOLUME     - Display list of volumes
2  DATA SET  - Display list of data sets
3  PRODUCTS  - Display list of products
4  OWNER      - Display or change owner information
5  REQUEST    - Request a new volume
6  RELEASE    - Release an owned volume
R  REPORT     - Work with reports

Enter selected option or END command. For more info., enter HELP or PF1.
```

Figure 2. Running a report using the DFSMSrmm User Menu panel

2. Type S next to the product library on the DFSMSrmm Report Definition Search panel shown in [Figure 3](#) on page 8. Press the ENTER key.

```

Panel  Help
-----
EDGPG010          DFSMSrmm Report Definition Search
Command ==>

Report name . .      May be generic.  Leave blank for all reports.
User id . . . .      Leave blank for all user ids.

Select one or more library. Default is all defined libraries.
Libraries (enter S):  Currently defined Libraries:
  S User              USER.REPORT.LIB
  S Installation      LOCAL.REPORT.LIB
  S Product           SYS1.SAMPLIB

The following line commands will be available when the list is displayed:
  A - Add a new report definition      D - Delete a report definition
  G - Generate and save the JCL        H - View the report help information
  J - Edit and submit the JCL         L - List macro assembly results
  M - Browse macros for the report     N - Copy a report definition
  S - Display/change the report        T - Select a reporting tool

```

Figure 3. Select the input data set in the product library using the DFSMSrmm Report Definition search panel

3. Select a report by typing G in the S column on the DFSMSrmm Report Definitions panel as shown in [Figure 4 on page 8](#). Press the ENTER key.

```

Panel  Help
-----
EDGPG020          DFSMSrmm Report Definitions          Row 1 to 2 of 2
Command ==>                                           Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S Name      Report title      Report type      User id
-----
EDGGR01    Scratch tapes by volume serial Extended Extract Records D094746
G SCRVL0    Scratch Volume List Extract Records for Volumes D094746
***** Bottom of data *****

```

Figure 4. Selecting a report using the DFSMSrmm Report Definitions panel

Note: If JCL help information exists for this report, then this information is displayed in a pop-up panel when panel EDGPG022 appears.

4. Specify these parameters in panel EDGPG022 as shown in [Figure 5 on page 9](#).
 - The input data set name is mandatory. Enter the name of the input data set for the reporting step.
 - The date format is optional. Possible date format values are:
 - AMERICAN - dates in format MM/DD/YYYY
 - EUROPEAN - dates in format DD/MM/YYYY
 - ISO - dates in format YYYY/MM/DD
 - JULIAN - dates in format YYYY/DD
 - free form - The free form has a maximum length of 20 bytes and contains DD and MM (alternatively DDD), and YY or YYYY or CYY. The C (century) is set to 1 for years after 2000. These values can contain separator characters.
 - For American and European, mark the date fields in the report as containing a date (in the Report Controls panel which can be reached by pressing R next to the field in the report definition) in order to ensure that the dates are sorted in the correct order, and that comparison operators are applied correctly when selecting records based on the date.

For dates in the year 2000 and or in the 21st century or higher, you can only use the yyyy/ddd format. If you use the yyddd format, DFSMSrmm defaults to the 20th century. DFSMSrmm uses the date format to determine a real date based on the compare value &TODAY and the actual run date.

- Specify Y if you want to create report data rather than use an existing input data set. This adds an extra step in the generated JCL that creates an extract data set. The extract step includes relevant parameters like date format and input data set name. You can use the existing date format and input data set name. You can also change them by entering information in the *Skeleton Variable_1*, *Skeleton Variable_2*, and *Skeleton Variable_3* fields.

If you are using the &TODAY variable for dates, the date format you specify for *Skeleton Variable_1* must match the date format specified in panel EDGPG022. If the date formats are not the same, report results can be unpredictable. You can use European, American, Julian and ISO date formats together with date comparison operators such as 'greater than' and 'less than'. For European and American date formats, ensure that the field is marked as a date in the Report Controls panel, which can be reached by pressing R next to the field in the report definition.

```
EDGPG022          DFSMSrmm Report Generation - SCR VOL
Command ==>

Enter or change the skeleton variables for the generated JCL:

Input data set . . . . 'RMM.EXTRACT'

Date format . . . . . ISO
(American, European, Iso, Julian, or free form)
Required if you use variable dates (&TODAY) in your selection criteria.

Create report data . . Y (Y/N)
Choose Y if you want an extract step included into your generated JCL.

Additional skeleton variables, for example if an extract step is included:
Skeleton Variable_1 . . DATEFORM(I)
Skeleton Variable_2 . . 'D016216.RMMHSPK.MESSAGE'
Skeleton Variable_3 . .
The skeleton selection depends on the reporting macro . . : EDGRXEXT
and macro keyword . . : TYPE=V
Enter END command to start the report generation or CANCEL
```

Figure 5. Specifying the report generator parameters

The extract step for inventory management includes the DATEFORM parameter and a name for the DFSMSrmm message data set, which then is pre-allocated by the system, unless it already exists.

5. Press the END key to create the report.
6. Type J in the S column on the DFSMSrmm Report Definitions panel as shown in [Figure 6 on page 9](#). Press the ENTER key.

```
Panel  Help
-----
EDGPG020          DFSMSrmm Report Definitions          Row 1 to 2 of 2
Command ==>                                           Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S Name      Report title      Report type      User id
-----
EDGGR01    Scratch tapes by volume serial Extended Extract Records D094746
J SCR VOL   Scratch Volume List Extract Records for Volumes D094746
***** Bottom of data *****
```

Figure 6. Running your report using the DFSMSrmm Report Definitions panel

7. Change the DFSMSrmm-generated JCL as required and enter the SAVE command to save it in your JCL library.
8. Use the SUBMIT command to submit the job for batch processing.

Specifying libraries for the report generator

Follow these steps to specify the product library, installation library, or user library to be used with the report generator.

1. Select the OPTIONS option on the DFSMSrmm User Menu panel, as shown in [Figure 7 on page 10](#). Press the ENTER key.

```

Panel  Help
-----
EDGP@USR                      DFSMSrmm User Menu
Option ==>0

0  OPTIONS   - Specify dialog options and defaults
1  VOLUME    - Display list of volumes
2  DATA SET - Display list of data sets
3  PRODUCTS  - Display list of products
4  OWNER     - Display or change owner information
5  REQUEST   - Request a new volume
6  RELEASE   - Release an owned volume
R  REPORT    - Work with reports

Enter selected option or END command. For more info., enter HELP or PF1.

```

Figure 7. Selecting the options option on the DFSMSrmm User Menu panel

2. Select Option 3 on the DFSMSrmm Dialog Options Menu panel as shown in [Figure 8 on page 10](#).

```

Panel  Help
-----
EDGP@OPT                      DFSMSrmm Dialog Options Menu
Option ==>3

1  USER     - Specify processing options
2  SORT      - Specify list sort options
3  REPORT    - Specify report options

Enter selected option or END command. For more info., enter HELP or PF1.

```

Figure 8. Selecting the options option on the DFSMSrmm dialog options menu panel

3. Review the library names on the DFSMSrmm Report Options panel, as shown in [Figure 9 on page 10](#). This panel shows the three libraries that you use to create reports and the JCL library where your JCL is stored. DFSMSrmm initializes the default user library name and JCL library name with your user ID and a default second-level qualifier. Your system programmer or storage administrator sets up the names for the product library and the installation library when the DFSMSrmm report generator is installed. You can change the product library name, installation library name, and the user library name. If you add any members to the product library, use member names that start with the ARCG or EDGG prefix. Use the END command to save your changes.

```

Panel  Help
-----
EDGP@OP3                      DFSMSrmm Report Options
Command ==>

Report definition libraries:
  User      . . . . . 'D094746.REPORT.LIB'
  Installation . . . . .
  Product   . . . . . 'SYS1.SAMPLIB'

User report JCL library . 'D094746.REPORT.JCL'

DFSMSrmm allocates user libraries if they do not exist.

```

Figure 9. Specifying library names on the DFSMSrmm Report Options panel

Working with report definitions

You use report definitions to create reports with the report generator.

1. Select the REPORT option on the DFSMSrmm User Menu panel. Press the ENTER key.
2. Type S next to the libraries that you want to search on the DFSMSrmm Report Definition Search panel. Press the ENTER key. You can search for a report definition by name or by user ID. If you select more than one library and press the ENTER key, DFSMSrmm searches the libraries starting with the user library, the installation library, and then the product library. If DFSMSrmm finds duplicate report definition names, DFSMSrmm ignores all subsequent report definitions in the DFSMSrmm report definition list.

3. Enter a line command in the S column on the DFSMSrmm Report Definitions panel, as shown in [Figure 10 on page 11](#) to perform one of these actions.
 - A** Add a report definition to your user library. See [“Adding a report definition” on page 12](#).
 - D** Delete a report definition from your user library. See [“Deleting a report definition” on page 17](#). If you delete a report definition that resides in the installation library or product library, the report definition is only removed from the report definition list, not from the library itself.
 - G** Generate and save the JCL to run the report. See [“Running a report generator report” on page 7](#).
 - H** View the Help information for this report.
 - J** Edit and submit the report definition for batch processing. See [“Running a report generator report” on page 7](#).
 - L** View the assembler listing, created by the report generator dialog assembling the macros and their keywords, if any. Use this listing to review any errors that may have occurred because you specified the macro or the keywords incorrectly. If more than one macro is specified for the report definition, then this listing shows the concatenated assembler listings.
 - M** View the macro or macros specified for the report type. The report generator dialog uses the PDF View utility to enable you to see the macro source in the library you have specified. You can use this line command to review the entire macro and determine the keywords and values that might be valid.
 - N** Create a new report definition that uses an existing one. See [“Modifying an existing report definition” on page 16](#).
 - S** Display or change a report definition. To change a report definition, See [“Changing a report definition” on page 15](#). If you change a report definition that resides in the installation library or product library, DFSMSrmm stores the changed report definition in your user library, not the installation library or product library.
 - T** Select the reporting tool that you want to use for your report. See [“Working with reporting tools” on page 24](#). If you change a report definition that resides in the installation library or product library, DFSMSrmm stores the changed report definition in your user library, not the installation library or product library.

Panel Help			
EDGPG020		DFSMSrmm Report Definitions	Row 1 to 17 of 17
Command ==>			Scroll ==>PAGE
The following line commands are valid: A,D,G,H,J,L,M,N,S, and T			
S	Name	Report title	Report type
-	ARCGAB01	ABARS ABACKUP Statistics	DFSMSHsm ABARS Report
-	ARCGAR01	ABARS ARECOVER Statistics	DFSMSHsm ABARS Report
-	ARCGDB01	DCOLLECT BACKUP DATA	DFSMSHsm DCOLLECT BACKUP
-	ARCGDM01	DCOLLECT MIGRATION DATA	DFSMSHsm DCOLLECT MIGRATION
-	ARCGS001	Statistics for DFSMSHsm	DFSMSHsm FSR-SMF Records
-	EDGGAUD2	SMF Audit of Volume by Rack	SMF Records for Volumes
-	EDGGAUD3	SMF42 Audit of Volumes by Vols	SMF42 Records for Volumes
-	EDGGR01	Scratch tapes by volume serial	Extended Extract Records
-	EDGGR02	List of SCRATCH Volumes by Dat	Extended Extract Records
***** Bottom of data *****			

Figure 10. Selecting a report definition using the DFSMSrmm Report Definitions panel

Adding a report definition

To add a new report definition, you can modify an existing report definition or you can create a new report definition. To use an existing report definition, See [“Modifying an existing report definition” on page 16](#). To add a new report definition to your library, follow this procedure.

1. Type A in the S column for any report on the DFSMSrmm Report Definitions panel as shown in [Figure 11 on page 12](#). Press the ENTER key.

Panel Help

EDGPG020 DFSMSrmm Report Definitions Row 1 to 16 of 16
Command ==> Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S	Name	Report title	Report type	User id
	EDGGAUD1	SMF Audit of Volumes by Volser	SMF Records for Volumes	RMM
	EDGGAUD2	SMF Audit of Volume by Rack	SMF Records for Volumes	RMM
A	EDGGR02	List of SCRATCH Volumes by Dat	Extended Extract Records	RMM
	EDGGR03	Inventory List by Volume Serial	Extended Extract Records	RMM
	EDGGR04	Inventory List by Dataset Name	Extended Extract Records	RMM
	EDGGR06	Inventory of Volumes by Location	Extended Extract Records	RMM
	EDGGR07	Inventory of Dataset by Location	Extended Extract Records	RMM
	EDGGR08	Inventory of Bin by Location	Extended Extract Records	RMM
	EDGGR09	Datasets in Loan Location	Extended Extract Records	RMM
	EDGGR10	Volumes in Loan Location	Extended Extract Records	RMM
	EDGGR11	List MultiVolume and MultiFile	Extended Extract Records	RMM
	EDGGR12	Movement Report by Dataset	Extended Extract Records	RMM
	EDGGR13	Movement Report by Bin	Extended Extract Records	RMM
	EDGGR14	Movement Report by Volume Serial	Extended Extract Records	RMM
	EDGGR15	Volume Inventory Including Vol	Extended Extract Records	RMM
	EDGGSEC1	Report of Accesses to Secure V	SMF Security Records	RMM

***** Bottom of data *****

Figure 11. Adding a report definition using the DFSMSrmm Report Definitions panel

2. Enter a one to eight character report name on the popup window that DFSMSrmm displays as shown in [Figure 12 on page 12](#). Press the ENTER key.

EDGPG021

Enter the report name . . . SCR VOL

Figure 12. Adding a report definition and specifying a report name

3. Type S in the S column on the Select Report Type panel shown in [Figure 13 on page 12](#) to select the report type you want to use for the new report. Press the ENTER key.

Panel Help

EDGPG030 Select Report Type Row 1 to 12 of 17
Command ==> Scroll ==>PAGE

S	Report type	Name
	Extended Extract Records	EDGRXEXT
	Extract Records for Bins	EDGRSEXT
	Extract Records for Data Sets	EDGRDEXT
	Extract Records for Owners	EDGROEXT
	Extract Records for Products	EDGRPEXT
	Extract Records for Racks	EDGRREXT
S	Extract Records for Volumes	EDGRVEXT
	Extract Records for VRs	EDGRKEXT
	HSKP ACTIVITY file records	EDGACTRC
	SMF Records for Bins	EDGSSREC
	SMF Records for Data Sets	EDGSDREC
	SMF Records for Owners	EDGSOREC

Figure 13. Adding a report definition using the Select Report Type panel

4. Type S in the S column on the Select Reporting Tool panel as shown in [Figure 14 on page 13](#) to select the reporting tool that you want to use for the new report. Press the ENTER key.


```

Panel  Help
-----
EDGPG040          Select Reporting Tool      Row 1 to 3 of 3
Command ==>          Scroll ==>PAGE

S Reporting tool
-----
DFSORT
S ICETOOL
SYNCTOOL
***** Bottom of data *****

```

Figure 14. Adding a report definition using the Select Reporting Tool panel

5. Select the fields that you want in your report by typing a number in the CO column. Begin with the number 1 on the DFSMSrmm Report Definition panel, as shown in [Figure 15 on page 13](#).

```

Panel  Help
-----
EDGPG050          DFSMSrmm Report Definition - SCR VOL      Row 1 to 22 of 214
Command ==>          Scroll ==>PAGE

Report title . . . Scratch Volume List                      +
Report footer . . . IBM Internal
Reporting tool . : ICETOOL                                Report width: 187
Show minimum values: (N/Y)          Show average values: (N/Y)
Show maximum values: (N/Y)          Show totals : (N/Y)
Show counts : (N/Y)
Enter "/" to select option
Edit the help information for this report

Use END to save changes or CANCEL
The following line commands are valid: S, and R

S CO SO  Field name      Column header text      CW  Len Typ
-----
  G 1A  XVLCDATE         Last change date of volume recor  10  10 C
  1  XVVOLSER           Volser                      6   6 C
  2  XVLCTIME           Last change time of volume recor  10   6 C
  3  XVEXPDTO           Org. Exp. Date              14  10 C
  4  XVEXPDT            Expiration date - current     10  10 C
  5  XVLCAUID           Last change user id of volume    9   8 C
  6  XDDSDNAME          Data set name                44  44 C
*   RXTYPE             Record type - C'X'           6   1 C
*   XVSTATUS            Volume status                 8   8 C
*   XDDSDNSEQ           Data set sequence number new    9   5 C
   XVPVOL              Previous volume in sequence     9   6 C
   XNVVOL              Next volume in sequence      7   6 C

```

Figure 15. Adding a report definition using the DFSMSrmm Report Definition panel

The S column can display the following characters:

The field is already used as a record selection criteria.

+

The field has reporting control information.

&

The field is already used as a record selection criteria and has reporting control information.

Type one of these commands in the S column on one or more fields to:

R

View and update report control information.

S

Select a subset of input records for your report

and press the ENTER key.

6. Enter the record selection criteria on the DFSMSrmm Report Criteria panel, as shown in [Figure 16 on page 14](#), to select a subset of the input records for your report. DFSMSrmm only includes the records that meet the criteria that you specify as input to your report. Use the Op (Operator) column to specify the logical operator that you want to use for comparing the field contents with the values in the Compare value(s) column. Use the Compare value(s) column to specify the values that you want to compare. Type the exact value that you want to compare because the comparisons are case-sensitive. The Compare value(s) field is a scrollable field, so that up to 100 characters can be entered. If you want to use the same field for a second criteria, press the END key after you have specified all compare values and select the field name again. DFSMSrmm displays the existing criteria and the field you

selected. Press the PF1 key with the cursor on any input field to display a help panel that describes the field and the values that you can use.

```

Panel  Help
-----
EDGPG060      DFSMSrmm Report Criteria - SCRVOL      Row 1 to 3 of 3
Command ==>>      Scroll ==>PAGE

Report title : Scratch Volume List

Use END to save changes or CANCEL
The following line commands are valid: B,D,N,P,R,T, and I (for details)
Operators: EQ = NE <> GT > GE >= LT < LE <= IN BW SE SN BO BM BZ NO NM NZ
Conjunction: AND, OR, AND(, )AND

S Field name      Op Compare value(s)      Conj Len Typ
-----
I RVLCDATE        IN 1999/12/31,2000/01/31,2000/03/31,2000/0  AND  10  C
  RVEXPDT         BW 1999/01/01,&TODAY - 3 Months      AND  10  C
  RVTYPE          EQ V                                AND   1  C
***** Bottom of data *****

```

Figure 16. Adding a report definition using the DFSMSrmm Report criteria panel

- Figure 17 on page 14 shows the values you have specified, with additional options for selection.

```

EDGPG061      DFSMSrmm Report Criteria Details - SCRVOL

Field name . . . . : RVLCDATE
Operation . . . . . IN
Enter "/" to select additional options:
  Select from available equated values
Or enter compare value(s):
Compare value(s) . . 1999/12/31,2000/01/31,2000/03/31,2000/04/30,2000/  +
Conjunction . . . . AND
Substring position
Substring length . .
Orig field length : 10
Type . . . . . C      Original field type . . . : C

```

Figure 17. Adding a report definition using the DFSMSrmm Report Criteria Details panel

Add, change, or delete any of the values on this panel.

For some variables, such as XVVOLTYPE, EQUATES are defined from which you can select a value. In this case, if you specify '/' in the "Select from available equated values" field, the Report Criteria Equates panel (EDGPG062) is displayed as shown in Figure 18 on page 14, from which you can select from the available values. If you select one or more of these values, they will be displayed on the EDGPG061 panel Compare values field when you return to it.

```

EDGPG062      DFSMSrmm Report Criteria Equates - MIKES

Field name . . . . : XVVOLTYPE

Enter "S" to select equates:
S Equate name      Description      Value
-----
s XVVOLTYPE_LOGICAL Logical volume      L
s XVVOLTYPE_PHYSICAL Physical volume      P
  XVVOLTYPE_STACKED Stacked            S

```

Equat

Figure 18. Selecting values using the DFSMSrmm Report Criteria Equates panel

Press the ENTER key to display your changes on the DFSMSrmm Report Criteria panel, as shown in Figure 16 on page 14.

- Press the END key on the DFSMSrmm Report Criteria panel, as shown in Figure 16 on page 14, to save the report criteria and return to the DFSMSrmm Report Definitions panel that was shown in Figure 11 on page 12.

Related reading:

- See "Working with reporting tools" on page 24.
- See "Running a report generator report" on page 7.

Changing a report definition

To change a report definition and save it in your user library, follow this procedure.

1. Type S in the S column on the DFSMSrmm Report Definitions panel as shown in [Figure 19 on page 15](#). Press the ENTER key. If you change a report definition, that resides in the product library or installation library, DFSMSrmm adds the changed report definition to your user library.

```

Panel  Help
-----
EDGPG020          DFSMSrmm Report Definitions          Row 1 to 2 of 2
Command ==>                               Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S Name      Report title          Report type          User id
-----
EDGGR01    Scratch tapes by volume serial Extended Extract Records D094746
S BCKVOL    Backup Volume List    Extract Records for Volumes D094746
***** Bottom of data *****

```

Figure 19. Changing a report definition using the DFSMSrmm Report Definitions panel

2. Select the fields that you want in your report by typing a number in the CO column. Begin with the number 1 on the DFSMSrmm Report Definition panel, as shown in [Figure 20 on page 15](#). The fields are ordered from left to right across the report. The report definition name for the report that you selected appears in the title of the DFSMSrmm Report Definition panel. The panel displays the Report title, the Report footer, and the Reporting tool for this report. To group your data and produce a page break when the data content of the group field changes, enter a G (Group) in the CO column for the field name. Group field names do not appear as columns on the report, but appear as field names in the report header.
3. Enter the sort fields in numerical order, beginning with the number 1 in the SO (Sort Order) column. Then enter the direction of the sorted data. Because the data for a group field must be in sorted sequence, this field must have a sort entry in the SO column. For example, the report definition that is defined on this panel has six columns of data. The left-hand column contains the volume serial number. The right-hand column contains the data set name of the first file on the volume. The data is grouped by the last change date of the volume record with the earliest date appearing at the top of the report and a new page printed when the date changes.
4. Type S in the S column on one or more fields to select a subset of input records for your report and press the ENTER key. (An asterisk in the S column indicates that the field is already used as a record selection criteria.)

```

Panel  Help
-----
EDGPG050          DFSMSrmm Report Definition - BCKVOL    Row 1 to 22 of 214
Command ==>                               Scroll ==>PAGE

Report title . . . Backup Volume List, created on &RHCRDATE(1,49,10,CH)  +
Report footer . . IBM Internal
Reporting tool . : ICETOOL
Show minimum values: (N/Y)          Show average values: (N/Y)
Show maximum values: (N/Y)          Show totals : (N/Y)
Show counts : (N/Y)
Enter "/" to select option
Edit the help information for this report

Use END to save changes or CANCEL
The following line commands are valid: S, and R

S CO SO  Field name          Column header text          CW Len Typ
-----
* G 1A  XVLCDATE             Last change date of volume recor 10 10 C
1     XVVOLSER              Volser                      6  6 C
2     XVLCTIME              Last change time of volume recor 10  6 C
3     XVEXPDTO              Org. Exp. Date              14 10 C
* 4     XVEXPDT              Expiration date - current    10 10 C
5     XVLGUID              Last change user id of volume   9  8 C
* 6     XVDSNAM1            First file data set name      44 44 C
*     RXTYPE                Record type - C'X'           6  1 C
     XVPVOL                Previous volume in sequence    9  6 C
     XNVVOL                Next volume in sequence       7  6 C

```

Figure 20. Changing a report definition using the DFSMSrmm Report Definition panel

- Enter the record selection criteria on the DFSMSrmm Report Criteria panel, as shown in [Figure 21 on page 16](#), to select a subset of the input records for your report. DFSMSrmm uses the records that meet your criteria as input to your report. Use the S column to order the listed fields from top to bottom or to add or change the record selection criteria. Use the Op (Operator) column to specify the logical operator that you want to use for comparing the field contents with the values in the Compare value(s) column. Use the Compare value(s) column to specify the values that you want to compare. Type the exact value you want to compare because the comparisons are case sensitive. The Compare value(s) field is a scrollable field, so that up to 100 characters can be entered. Use the Conj (Conjunction) column to specify how the fields are logically connected.

```

Panel  Help
-----
EDGPG060      DFSMSrmm Report Criteria - BCKVOL      Row 1 to 4 of 4
Command ==>    Scroll ==>PAGE

Report title : Backup Volume List

Use END to save changes or CANCEL
The following line commands are valid: B,D,N,P,R,T, and I (for details)
Operators: EQ = NE < > GT > GE >= LT < LE <= IN BW SE SN BO BM BZ NO NM NZ
Conjunction: AND, OR, AND(, )AND

S Field name      Op Compare value(s)      Conj Len Typ
-----
I RVLCDATE        IN 1999/12/31,2000/01/31,2000/03/31,2000/0  AND   10  C
  RVDSNAM1        SE BACKUP                          AND   44  C
  RVEXPDT         BW 1999/01/01,2000/12/31      AND   10  C
  RVTYPE          EQ V                          AND    1  C
  RVTYPE          EQ V                          AND    1  C
***** Bottom of data *****

```

Figure 21. Changing a report definition using the DFSMSrmm Report Criteria panel

- Add, change, or delete any of the values on the panel shown in [Figure 22 on page 16](#) and press the ENTER key. Your changes are displayed on the DFSMSrmm Report Criteria panel, as shown in [Figure 21 on page 16](#).

```

EDGPG061      DFSMSrmm Report Criteria Details - BCKVOL

Field name . . . : RVLCDATE
Operation . . . : IN
Enter "/" to select additional options:
  Select from available equated values
Or enter compare value(s):
Compare value(s) . . 1999/12/31,2000/01/31,2000/03/31,2000/04/30,2000/  +
Conjunction . . . : AND
Substring position
Substring length . .
Orig field length :
Length . . . . . : 10
Type . . . . . : C      Original field type . . . : C

```

Figure 22. Changing a report definition using the DFSMSrmm Report Criteria Details panel

- Press the END key on the DFSMSrmm Report Criteria panel, as shown in [Figure 21 on page 16](#), to save the report criteria and return to the DFSMSrmm Report Definitions panel that was shown in [Figure 19 on page 15](#).

Related reading:

- See [“Working with reporting tools” on page 24](#).
- See [“Running a report generator report” on page 7](#).

Modifying an existing report definition

To modify an existing report definition, follow this procedure.

- Type N in the S column on the DFSMSrmm Report Definitions panel as shown in [Figure 23 on page 17](#). Press the ENTER key.

```

Panel  Help
-----
EDGPG020          DFSMSrmm Report Definitions          Row 1 to 2 of 2
Command ==>                               Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S Name      Report title          Report type          User id
-----
EDGGR01    Scratch tapes by volume serial Extended Extract Records D094746
N SCRVL    Scratch Volume List      Extract Records for Volumes D094746
***** Bottom of data *****

```

Figure 23. Copying a report definition using the DFSMSrmm Report Definitions panel

2. Enter a one to eight character report name in the popup window that DFSMSrmm displays as shown in Figure 24 on page 17. Press the ENTER key to save the copy in your user library.

```

EDGPG021

Enter the report name . . . SCRALL

```

Figure 24. Copying a report definition and specifying a report name

DFSMSrmm creates a new entry in the report definition list for the report name that you have specified. You can now process the new entry with the available line commands, such as 'S' which enables you to modify the copied report definition.

Related reading:

1. See “Working with reporting tools” on page 24.
2. See “Running a report generator report” on page 7.

Deleting a report definition

To delete a report definition from your library, follow this procedure.

1. Type D in the S column on the DFSMSrmm Report Definitions panel as shown in Figure 25 on page 17. Press the ENTER key. If you delete a report definition that resides on the product library or installation library, DFSMSrmm removes the report from the DFSMSrmm report definition list, not from the library itself.

```

Panel  Help
-----
EDGPG020          DFSMSrmm Report Definitions          Row 1 to 3 of 3
Command ==>                               Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S Name      Report title          Report type          User id
-----
EDGGR01    Scratch tapes by volume serial Extended Extract Records D094746
D SCRALL   Scratch Volume List      Extract Records for Volumes D094746
SCRVL      Scratch Volume List      Extract Records for Volumes D094746
***** Bottom of data *****

```

Figure 25. Deleting a report definition using the DFSMSrmm Report Definitions panel

2. Confirm the delete request on the popup window as shown on the panel in Figure 26 on page 17. Press the ENTER key to remove the report definition from your user library.

```

EDGPG023

Name . . : SCRALL
Use ENTER to confirm the Delete, else Cancel.

```

Figure 26. Deleting a report definition and confirming the delete

Working with report types

A report type contains information about a specific record type in the control data set, the mapping macro that defines the record format, and the record selection criteria that is used to select records for a

report. Use the DFSMSrmm Command Menu or enter the fastpath command REPORT on any ISPF panel to manage report types.

Creating a report type

To create a report type, follow this procedure.

1. Type R on the DFSMSrmm Command Menu to select the Report option. Press the ENTER key.
2. Select the REPORT TYPE option on the DFSMSrmm Report Generator panel as shown in [Figure 27 on page 18](#). Press the ENTER key.

```
Panel  Help
-----
EDGPG000          DFSMSrmm Report Generator
Option ==>2

0  OPTIONS          - Specify dialog options and defaults
1  REPORT           - Work with reports
2  REPORT TYPE      - Work with report types
3  REPORTING TOOL   - Work with reporting tools
4  MIGRATION        - Migration tasks for reporting

Enter selected option or END command. For more info., enter HELP or PF1.
```

Figure 27. DFSMSrmm Report Generator panel

3. Enter a line command in the S column on the DFSMSrmm Report Types panel, as shown in [Figure 28 on page 19](#), to perform one of these actions:
 - A** Add a new report type to your library. See [“Adding a report type” on page 19](#).
 - C** Change a report type in your library. See [“Changing a report type” on page 21](#).
 - D** Delete a report type from your library. See [“Deleting a report type” on page 22](#).
 - H** View the report type help information
 - L** View the assembler listing, created by the report generator dialog assembling the macros and their keywords, if any. Use this listing to review any errors that may have occurred because you specified the macro or the keywords incorrectly. If more than one macro is specified for the report definition, then this listing shows the concatenated assembler listings.
 - M** View the macro or macros specified for the report type. The report generator dialog uses the PDF View utility to enable you to see the macro source in the library you have specified. You can use this line command to review the entire macro and determine the keywords and values that might be valid.
 - R** Add a new report from an existing report type. See [“Adding a new report definition from a report type” on page 22](#).
 - S** Specify new report type criteria. See [“Specifying report type criteria” on page 19](#).

```

Panel  Help
-----
EDGPG200          DFSMSrmm Report Types          Row 1 to 4 of 17
Command ===>          Scroll ===>PAGE

The following line commands are valid: A,C,D,H,L,M,R, and S

S Name      Description
-----
ARCGWFSR DFSMSHsm ABARS Report
Macro library . . : 'SYS1.MACLIB'
Applicable macros : ARCWFSR2
Input data set. . : 'DFHSM.EXTRACT.ABARS.REFORMAT'
-----
ARCGDBCK DFSMSHsm DCOLLECT BACKUP
Macro library . . : 'SYS1.MACLIB'
Applicable macros : ARCUTILP
Input data set. . : 'DFHSM.DCOLLECT.DATA'
-----
ARCGDDSD DFSMSHsm DCOLLECT DASD CAP
Macro library . . : 'SYS1.MACLIB'
Applicable macros : ARCUTILP
Input data set. . : 'DFHSM.DCOLLECT.DATA'
-----
EDGRXEXT Extended Extract Records
Macro library . . : 'SYS1.MACLIB'
Applicable macros : EDGRXEXT
Input data set. . : 'RMM.EXTRACT'
-----
EDGRSEXT Extract Records for Bins
Macro library . . : 'SYS1.MACLIB'
Applicable macros : EDGRSEXT
Input data set. . : 'RMM.EXTRACT'
-----

```

Figure 28. DFSMSrmm Report Types panel

Adding a report type

To add a new report type to your library, follow this procedure. Refer to [“Specifying report type criteria”](#) on page 19 for information about adding basic record selection criteria for this report type.

1. Type A in the S column to select a report type on the DFSMSrmm Report Types panel. Press the ENTER key to display the Add a Report Type panel, as shown in [Figure 29](#) on page 19.
2. Enter a report type name and overwrite any other field on the Add a Report Type panel as shown in [Figure 29](#) on page 19. You can optionally specify keywords for each of the macro names you enter. Specify the keywords and values using assembler syntax to avoid problems within the report generator. The macro keywords are used together with the macro name as input to the High Level Assembler and could be used to determine the subset of the possible range of mappings to be used for this report type. The macros specified can be in up to two macro libraries. Separate the libraries using a comma (.). Press the ENTER key to save the new report type in your user library. You can enter the input data set name later. DFSMSrmm prompts you to enter the input data set name when you generate and save your JCL or when you submit your report for processing. Ensure that you store any macro that you specify in the macro library before you define report type criteria or generate a report.

```

EDGPG230          Add a Report Type

Report type name . . SCRVL
Description . . . . storage reporting
Macro library . . . 'SYS1.MACLIB'
Applicable macros: Macro Keywords (LEFT / RIGHT to scroll or EXPAND)
                  . ARCUTILP IDCDOU=NO,TYPE=T          +
                  .                                     +
                  .                                     +
                  .                                     +
                  .                                     +
RDW in 1st macro . . N (Y/N)
Input data set . . . 'DFRMM1.DCOLLECT'

```

Figure 29. Adding a report type using the Add a Report Type panel

Specifying report type criteria

To specify report type basic record selection criteria, follow this procedure.

1. Type S in the S column for a report type on the DFSMSrmm Report Types panel. Press the ENTER key.
2. Type S in the S column on the DFSMSrmm Report Type panel as shown in [Figure 30](#) on page 20 to select the fields to use in your selection criteria and press the ENTER key. An asterisk in the S column

indicates that the field is already used as a report selection criteria. The name of the report type that you selected appears in the title of this panel.

The **Typ** (field type) data column displays the data type of the field. You can override the data type of the field by specifying a new data type, which is saved in the report type. The data type is used during report record selection and for converting the data into the report. The original field type is saved and can be restored by deleting the current value.

Possible macro derived values are:

- B** Bitstring (for example, X'A5FC39')
- C** Character (for example, ABC or My Vol1)
- N** Numeric (for example, 25)

Possible user specified values are:

- F** Binary (length 1,2,4, or 8 bytes)
- P** Packed
- Z** Zoned decimal

ccc

Any valid data type supported by your reporting tool, such as DT1, TM2

Panel Help		

EDGPG210	DFSMSrmm Report Type - EDGRXEXT	Row 1 to 29 of 188
Command ==>		Scroll ==> CSR
Report type : Extended Extract Records		
Select a field name with S to specify a field selection criterion		
S Field name	Column header text	Typ

* RXTYPE	Record type - C'X'	C
XVOLSER	Volume serial number	C
XVPVOL	Previous volume in sequence	C
XVNVOL	Next volume in sequence	C
XVSTVOL	Stacked volume VolSer (SV/LV)	C
XVMDMVID	Multi-dataset multi-volume id	C
S XVCRDATE	Create date of volume record	C

Figure 30. Specifying report type criteria using the DFSMSrmm Report Type panel

- Enter the record selection criteria on the DFSMSrmm Report Criteria panel, as shown in [Figure 31 on page 21](#), to select a subset of the input records for your report. DFSMSrmm only includes the records that meet the criteria that you specify as input to your report. Press the PF1 key with the cursor on any input field and a help panel describes the field and the valid values to be used. Use the S column to order the listed fields from top to bottom or to add or change the record selection criteria. Use the Op (Operator) column to specify the logical operator that you want to use for comparing the field contents with the values in the Compare value(s) column. Use the Compare value(s) column to specify the values that you want compared. Type the exact value that you want to compare because the comparisons are case sensitive. The Compare value(s) field is a scrollable field, so that up to 100 characters can be entered. The I line command can be used to see the original field type, if it has been changed. Use the Conj (Conjunction) column to specify how the fields are logically connected.


```

Panel  Help
-----
EDGPG220      DFSMSrmm Report Type Criteria - EDGRVSCR      Row 1 to 2 of 2
Command ==>                                         Scroll ==>PAGE
Report type   : List of Volumes

Use END to save changes or CANCEL
The following line commands are valid: B,D,N,P,R,T, and I (for details)
Operators: EQ = NE <> GT > GE >= LT < LE <= IN BW SE SN BO BM BZ NO NM NZ
Conjunction: AND, OR, AND(, )AND

S Field name      Op Compare value(s)      Conj Len Typ
-----
I RVTYP           EQ X                      AND    1  C
  RVLUCID         EQ NE &Field=RVOWNID      8  C

```

Figure 31. Specifying report type criteria using the DFSMSrmm Report Type Criteria panel

4. Add, change, or delete any of the values on this panel and press the ENTER key to show your changes on the DFSMSrmm Report Criteria panel, as shown in [Figure 31 on page 21](#).

```

EDGPG221      DFSMSrmm Report Type Criteria Details - EDGRVSCR

Field name . . . : RVTYP
Operation . . . : EQ
Enter "/" to select additional options:
  Select from available equated values
Or enter compare value(s):
Compare value(s) . . X
Conjunction . . . : AND
Substring position .
Substring length .
Orig field length : 1
Type . . . . . C      Original field type . . . : C

```

Figure 32. Specifying report type criteria using the DFSMSrmm Report Criteria Details panel

5. Press the END key on the DFSMSrmm Report Criteria panel, as shown in [Figure 31 on page 21](#), to save the report criteria and to return to the DFSMSrmm Report Types panel that was shown in [Figure 28 on page 19](#).

Related reading: See [“Running a report generator report” on page 7](#).

Changing a report type

To change a report type in your library, follow this procedure. Refer to [“Specifying report type criteria” on page 19](#) for information about adding basic record selection criteria for this report type.

1. Type C in the S column to select a report type on the DFSMSrmm Report Types panel. Press the ENTER key to display the Change a Report Type panel as shown in [Figure 33 on page 22](#).
2. Overwrite any field except the report type name field on the Change a Report Type panel as shown in [Figure 33 on page 22](#). Press the END key to save the changed report type in your user library. DFSMSrmm prompts you to enter the input data set name when you generate and save your JCL or when you submit your report for processing. If you change a report type that resides in the product library or installation library, DFSMSrmm adds the changed report type to your user library.

When you edit the help information for either a report type or a report definition, you view the existing help information and can change any of the existing information or add new information. The results are stored back into the report type definition. Help information from report types is automatically included into any report definitions created from the report type. Help information can also be inherited from a report type into an existing report definition.

```

EDGPG240          Change a Report Type

Report type name . : DCOLLECT
Description . . . : storage reporting
Macro library . . : 'SYS1.MACLIB'
Applicable macros: Macro      Keywords (LEFT / RIGHT to scroll or EXPAND)
                  . .ARCUITLP IDCDOU=NO,TYPE=T
                  .
                  .
                  .
                  .
RDW in 1st macro . : N (Y/N)
Input data set . . : 'DFRMM1.DCOLLECT'
Enter "/" to select option
                  Edit the help information for this report type

```

Figure 33. Changing a Report type using the Change a Report Type panel

Deleting a report type

To delete a report type from your library, follow this procedure.

1. Type D in the S column for a report type that is displayed on the DFSMSrmm Report Types panel. Press the ENTER key.
2. Confirm the delete request on the popup window as shown in Figure 34 on page 22. Press the ENTER key to remove the report type from your user library. If you delete a report type that resides in the product library or the installation library, DFSMSrmm removes the report type from the report type list. DFSMSrmm does not remove the report type from the library.

```

EDGPG023
Name . . : SCR VOL
Use ENTER to confirm the Delete, else Cancel.

```

Figure 34. Deleting a Report type and confirming the delete

Adding a new report definition from a report type

To add a new report definition from an existing report type, follow this procedure.

1. Type R in the S column for a report type on the DFSMSrmm Report Types panel. Press the ENTER key.
2. Enter a one to eight character report name on the popup window as shown in Figure 35 on page 22. Press the ENTER key.

```

EDGPG021

Enter the report name . . . MYREP1

```

Figure 35. Adding a new report definition from a report type and specifying a report name

3. Type S in the S column on the Select Reporting Tool panel as shown in Figure 36 on page 22 to select a reporting tool. Press the END key to save the reporting tool with the report definition.

```

Panel  Help
-----
EDGPG040      Select Reporting Tool      Row 1 to 2 of 2
Command ==>      Scroll ==>PAGE

S Reporting tool
-----
DFSORT
S ICETOOL
SYNCTOOL
***** Bottom of data *****

```

Figure 36. Adding a new Report definition from a Report type using the Select Reporting Tool panel

4. Select the fields that you want in your report by typing a number in the CO column. Begin with the number 1 on the DFSMSrmm Report Definition panel as shown in Figure 37 on page 23. The fields are ordered from left to right across the report. The report definition name for the report that you selected appears in the title of the DFSMSrmm Report Definition panel. The panel displays the Report title, the Report footer, and the Reporting tool for this report. To group your data and produce a page break when the data content of the group field changes, enter a G (Group) in the CO column for the field

name. Group field names do not appear as columns on the report, but appear as field names in the report header.

5. Enter the sort fields in numerical order, beginning with the number 1 in the SO (Sort Order) column. Then enter the direction of the sorted data. Because the data for a group field must be in sorted sequence, this field must have a sort entry in the SO column. For example, the report definition that is defined on this panel has six columns of data. The left-hand column contains the volume serial number. The right-hand column contains the data set name of the first file on the volume. The data is grouped by the last change date of the volume record with the earliest date appearing at the top of the report and a new page printed when the date changes.
6. Type S in the S column on one or more fields to select a subset of input records for your report and press the ENTER key. An asterisk in the S column indicates that the field is already used as a report selection criteria.

```

Panel  Help
-----
EDGPG050          DFSMSrmm Report Definition - MYREP1          Row 1 to 22 of 214
Command ==>                               Scroll ==> PAGE

Report title . . . My RMM Datasets
Report footer . . IBM Internal
Reporting tool . : ICETOOL
Show minimum values: (N/Y)          Show average values: (N/Y)
Show maximum values: (N/Y)          Show totals : (N/Y)
Show counts : (N/Y)
Enter "/" to select option
Edit the help information for this report

Use END to save changes or CANCEL
The following line commands are valid: S, and R

S CO SO  Field name          Column header text          CW  Len Typ
-----
* 1  2A XDDSNNAME          Data set name                44  44 C
  2  XVVOLSER              Volser                        6   6 C
  3  XDDSNSEQ              FSEQ                          5   5 C
  4  XDCCDATE              Create date                   11  10 C
  5  XDCRTIME              Create time                   11   6 C
  6  XDCCSID              Create system                 13   8 C
  1A XDOWNSN              Data set owner                8   8 C
*  RXTYPE                  Record type - C'X'           6   1 C
  XVPVOL                  Previous volume in sequence   9   6 C
  XNVVOL                  Next volume in sequence       7   6 C
  XVSTVOL                  Stacked volume VolSer (SV/LV) 9   6 C
  XVMDMVID                Multi-dataset multi-volume id 9   8 C
  XVCRCREATE              Create date of volume record  10  10 C
  XVCRTIME                Create time volume record (hhmmss) 10   6 C
  XVCRSID                 Create system id of volume recor 10   8 C
  XVLCDATE                Last change date of volume recor 10  10 C
  XVLCTIME                Last change time of volume recor 10   6 C
  XVLCUID                 Last change user id of volume   9   8 C
  XVLCSID                 Last change system id of volume 10   8 C
  XVEXPDT0                Expiration date - original     10  10 C
  XVEXPDT                 Expiration date - current      10  10 C
  XVDEN                   Recording density              5   4 C

```

Figure 37. Adding a new report definition from a report type using the DFSMSrmm Report Definition panel

7. Enter the record selection criteria on the DFSMSrmm Report Criteria panel, as shown in Figure 38 on page 24, to select a subset of the input records for your report. DFSMSrmm only includes the records that meet the criteria that you specify as input to your report. Press the PF1 key with the cursor on any input field and DFSMSrmm displays a help panel that describes the field and the valid values that you should use. Use the S column to order the listed fields from top to bottom or to add or change the record selection criteria. Use the Op (Operator) column to specify the logical operator that you want to use for comparing the field contents with the values in the Compare value(s) column. Use the Compare value(s) column to specify the values that you want to compare. Type the exact value that you want to compare because the comparisons are case sensitive. The Compare value(s) field is a scrollable field, so that up to 100 characters can be entered. The I line command can be used to see the original field type, if it has been changed. Use the Conj (Conjunction) column to specify how the fields are logically connected.

```

Panel  Help
-----
EDGPG060          DFSMSrmm Report Criteria - MYREP1          Row 1 to 2 of 2
Command ==>          Scroll ==>PAGE

Report title : Datasets for project BUDGET

Use END to save changes or CANCEL
The following line commands are valid: B,D,N,P,R,T, and I (for details)
Operators: EQ = NE <> GT > GE >= LT < LE <= IN BW SE SN BO BM BZ NO NM NZ
Conjunction: AND, OR, AND(, )AND

S Field name          Op Compare value(s)          Conj Len Typ
-----
RDTYPE                +
I RDDSNAM             EQ D                      AND 1 C
I RDDSNAM             EQ BUDGET                  OVR C
***** Bottom of data *****

```

Figure 38. Adding a new report definition from a report type using the DFSMSrmm Report criteria panel

8. Add, change, or delete any of the values on this panel and press the ENTER key to show your changes on the DFSMSrmm Report Criteria panel, as shown in [Figure 38 on page 24](#).

```

EDGPG061          DFSMSrmm Report Criteria Details - MYREP1

Field name . . . . : RDDSNAM
Operation . . . . : EQ
Enter "/" to select additional options:
Select from available equated values
Or enter compare value(s) . . BUDGET
Compare value(s) . .
Conjunction . . . .
Substring position . 8
Substring length . . 6
Orig field length : 44
Type . . . . . C          Original field type . . . : C

```

Figure 39. Adding a new report definition from a report type using the DFSMSrmm Report Criteria Details panel

9. Press the END key on the DFSMSrmm Report Criteria panel, as shown in [Figure 38 on page 24](#), to save the report criteria and return to the DFSMSrmm Report Types panel that was shown in [Figure 28 on page 19](#).

Related reading: See [“Running a report generator report” on page 7](#).

Working with reporting tools

A reporting tool is a combination of a REXX EXEC and an ISPF skeleton to build control statements for reporting utility, such as DFSORT's ICETOOL. The EXEC processes a report definition and uses an ISPF skeleton to generate the JCL to run the report job. You can add, change, or delete reporting tools in the report generator as described in these procedures.

Changing the reporting tool in a report definition

When you change the reporting tool defined in a report definition from the product library or installation library, DFSMSrmm stores the modified report definition in the user library. To change the reporting tool defined in a report definition, follow this procedure.

1. Type T in the S column on the DFSMSrmm Report Definitions panel as shown in [Figure 40 on page 24](#). Press the ENTER key.

```

Panel  Help
-----
EDGPG020          DFSMSrmm Report Definitions          Row 1 to 2 of 2
Command ==>          Scroll ==>PAGE

The following line commands are valid: A,D,G,H,J,L,M,N,S, and T

S Name      Report title          Report type          User id
-----
EDGGR01    Scratch tapes by volume serial Extended Extract Records D094746
T SCRVL    Scratch Volume List      Extract Records for Volumes D094746
***** Bottom of data *****

```

Figure 40. Selecting a reporting tool using the DFSMSrmm Report Definitions panel

2. Type S in the S column on the Select Reporting Tool panel, as shown in Figure 41 on page 25, to select a reporting tool. Press the END key to save the reporting tool with the report definition.

```

Panel  Help
-----
EDGPG040          Select Reporting Tool          Row 1 to 2 of 2
Command ==>>>          Scroll ==>>PAGE

S Reporting tool
-----
DFSORT
S ICETOOL
SYNCTOOL
***** Bottom of data *****

```

Figure 41. Selecting a reporting tool using the Select Reporting Tool panel

Adding a new reporting tool

To add a new reporting tool, follow this procedure.

1. From the DFSMSrmm Report Generator panel, select Option 3 and press the ENTER key.

```

Panel  Help
-----
EDGPG000          DFSMSrmm Report Generator
Option ==>>3

0  OPTIONS          - Specify dialog options and defaults
1  REPORT           - Work with reports
2  REPORT TYPE      - Work with report types
3  REPORTING TOOL   - Work with reporting tools
4  MIGRATION        - Migration tasks for reporting

Enter selected option or END command. For more info., enter HELP or PF1.

```

Figure 42. Adding a new reporting tool from the DFSMSrmm Report Generator panel

2. Type A in the S column next to any item in the reporting tool list and press the ENTER key.

```

Panel  Help
-----
EDGPG300          DFSMSrmm Reporting Tools          Row 1 to 2 of 2
Command ==>>>          Scroll ==>>PAGE

The following line commands are valid: A,C, and D

S Reporting tool          Exec          Skeleton Colspace Group sort
-----
DFSORT                   EDGRGDFS  EDGSGDFS          0          U
A ICETOOL                 EDGRGGEN EDGSGICE          3          U
SYNCTOOL                  EDGRGGEN EDGSGSYN          3          U
***** Bottom of data *****

```

Figure 43. Requesting the addition of a reporting tool

3. DFSMSrmm displays the Add a Reporting Tool panel shown in Figure 44 on page 25. Update the information and press the ENTER key to make the changes. In the example, MYSKEL is a skeleton that should be stored in a ISPF skeleton library.

```

EDGPG310          Add a Reporting Tool

Reporting tool . . MY OWN REPORTING TOOL
Exec . . . . . EDGRGGEN
Skeleton . . . . . MYSKEL
Colspace . . . . . 3
Group sort . . . . . U

```

Figure 44. An example of adding a tool called MY OWN REPORTING TOOL

Changing a reporting tool

To change a reporting tool in a library, follow this procedure.

1. Type C in the S column next to the reporting tool you want to change and press the ENTER key.

```

S Reporting tool      Exec      Skeleton Colspace Group sort
-----
  ICETOOL            EDGRGGEN EDGSGICE      3      U
C MY OWN REPORTING TOOL EDGRGGEN MYSKEL      3      U
  SYNCTOOL            EDGRGGEN EDGSGSYN      3      U
***** Bottom of data *****

```

Figure 45. Changing a reporting tool

2. DFSMSrmm displays the Change a Reporting Tool panel shown in Figure 46 on page 26 in which you can specify the Exec name, the Skeleton name, the spacing between columns in a report, and the way groups are sorted in a report. Use the Colspace column to specify the number of spaces between the report columns. This value is dependent on the reporting tool used in the EXEC and is only considered for the calculation of the report width. The Colspace column values can be a decimal number between 0 and 9. Use the Group Sort column to specify how the reporting tool sorts grouped field names. Group sorting depends on the way the reporting utility you select sorts fields. For example, DFSORT's ICETOOL supports unique sorting while SAS** support is for mixed sorting. Specify U to sort all the grouped field names in either ascending or descending order. Specify M to sort grouped field names in mixed order with some groups in ascending order and some groups in descending order.

```

EDGPG320      Change a Reporting Tool

Reporting tool . . MY OWN REPORTING TOOL
Exec . . . . . EDGRGGEN
Skeleton . . . . . MYSKELTT
Colspace . . . . . 3
Group sort . . . . . U

```

Figure 46. Changing reporting tool values

Deleting a reporting tool

To delete a reporting tool from the list of reporting tools, follow this procedure.

1. Type D in the S column next to the reporting tool you want to remove from the list of reporting tools and press the ENTER key.

```

Panel Help
-----
EDGPG300      DFSMSrmm Reporting Tools      Row 1 to 3 of 3
Command ==>      Scroll ==>PAGE

The following line commands are valid: A,C, and D

S Reporting tool      Exec      Skeleton Colspace Group sort
-----
  ICETOOL            EDGRGGEN EDGSGICE      3      U
D MY OWN REPORTING TOOL EDGRGGEN MYSKEL      3      U
  SYNCTOOL            EDGRGGEN EDGSGSYN      3      U
***** Bottom of data *****

```

Figure 47. Deleting a reporting tool

2. DFSMSrmm displays the confirmation panel shown in Figure 48 on page 26. Press the ENTER key to confirm that you want to remove the reporting tool.

```

EDGPG023

Name . . : MY OWN REPORTING TOOL
Use ENTER to confirm the Delete, else Cancel.

```

Figure 48. Confirming the deletion of a reporting tool

Tailoring report tool ISPF skeletons

DFSMSrmm provides several ISPF skeletons that you can modify to suit your installation requirements. For example, you can use the DFSMSrmm-supplied skeletons EDGSGICE or EDGSGSYN to generate JCL to create reports using other report utilities. You can use the DFSMSrmm-supplied skeleton EDGSGEXT to create a job step to create the input for the reporting job step. The existing skeleton can create a DFSMSrmm extract file, extract SMF records, or create a DFSMSrmm ACTIVITY file. You need to tailor the

skeleton to perform processing based on the JCL and control statements required for your selected data and reporting utility.

The DFSMSHsm supplied skeletons ARCGFSRC and ARCGWFSC are used by the generator to convert FSR and WWFSR records to FSR2 and WFSR2 records respectively. For details about reporting with DFSMSHsm and DCOLLECT data, see the DFSMSHsm section of *z/OS DFSMSdfp Storage Administration*.

Figure 49 on page 27 shows part of the EDGSGEXT skeleton that contains the SMF extract step. The ISPF variable &EDGGFILE contains the name of the input file for the reporting tool step that must be used as the name of the output file of the extract step.

```

SYS1.DGTSLIB(EDGSGEXT) - 01.00                Columns 00001 00072
==>                                           Scroll ==>HALF
:
:
)CM *****
)SEL &EDGGMAC1 = EDGSMFAR ! &EDGGMAC1 = EDGSMFSR
//STEP01 EXEC PGM=IFASMFDP
//INDD1 DD DSN=&EDGGVAR1,
//      DISP=SHR
//OUTDD1 DD DSN=&EDGGFILE,
//        UNIT=SYSALLDA,
//        DISP=(NEW,PASS),SPACE=(TRK,(5,5),RLSE)
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
INDD(INDD1,OPTIONS(DUMP))
OUTDD(OUTDD1,TYPE(248:249))
)ENDSEL
)CM *****
:
:
)SEL &EDGGMAC1 = ANYTHING
)CM ADD YOUR REPORT DATA CREATION FILE JCL HERE AND CUSTOMIZE THE
)CM 'ANYTHING' TO YOUR MAPPING MACRO NAME OR USE ANY OTHER AVAILABLE
)CM ISPF VARIABLE TO SELECT THE JCL STEP
:
)ENDSEL
***** Bottom of Data *****

```

Figure 49. Adding an extract step by tailoring the EDGSGEXT ISPF skeleton

You could, for example, tailor the EDGSGICE skeleton to produce an XMIT job step in the JCL to send the completed report to the correct user on another system as shown in Figure 50 on page 27.

```

EDGPG022                DFSMSrmm Report Generation - C07005
:
:
Additional skeleton variables, for example if an extract step is included:
Skeleton Variable_1 . .
Skeleton Variable_2 . .
Skeleton Variable_3 . . MAZVM02.WSMITH
The skeleton selection depends on the reporting macro . . : EDGRXEXT
and macro keyword . . : TYPE=V
Enter END command to start the report generation or CANCEL

```

Figure 50. Adding an XMIT statement to Report JCL

The skeleton contains an XMIT step as shown in Figure 51 on page 27.

```

:
//WRITE1 EXEC PGM=ICETOOL,REGION=0M
:
//OUTDD DD UNIT=SYSALLDA,SPACE=(TRK,(5,25)),DISP=(,PASS)
:
:
//**
//TSOBAT EXEC PGM=IKJEFT01                XMIT STEP
//SYSTSPRT DD SYSOUT=*
//REPORT DD DSN=*.WRITE1.OUTDD,DISP=SHR
//SYSTSIN DD *
XMIT &EDGGVAR3 FILE(REPORT)
***** Bottom of Data *****

```

Figure 51. Setting up notification to a user ID

The DFSMSrmm-supplied skeletons include the DATECONV step where variable dates (&TODAY ...) are converted to real dates to be used in date comparisons. Here is how the dates are converted.

- A selection criteria contains &TODAY - 2 Months. DFSMSrmm builds an INCLUDE statement like this:

```
.. INCLUDE COND=((6,10,CH,LT,'&TODAY-002M')
```

- The date format ISO was specified in the DFSMSrmm Report Generation panel.

- The report job was run on July 14th, 2013.
- The DATECONV step reads all INCLUDE statements and replaces the variable dates:

```
.. INCLUDE COND=((6,10,CH,LT,'2013/05/14'))
```

The modified INCLUDE statements are input for the reporting tool step (for example for ICETOOL).

If you use the extract data set as input, you must use the DFSMSrmm date formats AMERICAN, EUROPEAN, ISO, or JULIAN. For other types of input, you can use DFSMSrmm date formats or a free form of the date format that you specify in panel EDGPG022. You must ensure that all date fields in the input data set that are selected with a variable date compare value (&TODAY), are in the same date format.

The DATECONV step issues messages to show the date conversion that took place during processing.

```
EDGRGDAT. RUNDATE: 26 Mar 2013 TIME: 03:23:45 STARTED
EDGRGDAT. DATE CALCULATIONS WILL BE DONE WITH THIS DATE FORMAT:
EDGRGDAT. DATE PATTERN:YYYY/MM/DD
EDGRGDAT. LINE 4: ((77,10,CH,GE,C'&TODAY-008M'),
EDGRGDAT. CHNGD: ((77,10,CH,GE,C'2012/07/26'),
EDGRGDAT. LINE 6: (77,10,CH,LE,C'&TODAY-002D'))))
EDGRGDAT. CHNGD: (77,10,CH,LE,C'2013/03/24'))))
EDGRGDAT. 12 CONTROL STATEMENTS CHECKED. 2 WITH &TODAY FOUND. 2 RECORDS MODIFIED.
```

Writing reporting tool EXECs

A reporting tool EXEC is a REXX EXEC that uses a report definition to create control statements for a report utility such as DFSORT's ICETOOL. The DFSMSrmm report generator uses the EXEC to process a report definition and uses an ISPF skeleton to generate the JCL to run the report. You need ISPF and REXX skills to code or update reporting tool EXECs to use a reporting utility other than DFSORT's ICETOOL. You can use DFSMSrmm-supplied reporting tool EXEC EDGRGGEN as a model for your processing. You can use ISPF skeletons to create the JCL to run your selected report utility. Tailor the skeletons to perform processing based on the JCL and control statements required for your selected reporting utility. When your reporting tool EXEC is called to generate the reporting JCL, the DFSMSrmm report generator has read the report definition and created REXX variables from the details within the definition. You must process these variables to create the reporting utility JCL and control statements. Refer to [“Reporting tool REXX variables”](#) on page 28 for the list of REXX variables that are created by the report generator for use by your reporting tool EXEC.

Reporting tool REXX variables

Table 3 on page 28 describes the REXX variables that you use when writing the reporting tool EXECs and indicates which ISPF table contains each variable.

Table 3. Report generator variables

Variable Name (in which ISPF table)	Contents	Format
EDGGAvg (In EDGGTVAR)	Show average values and group averages values for numeric fields.	1 Character: Y or N
EDGGCNT (In EDGGTVAR)	Show counts and group counts.	1 Character: Y or N
EDGGMAX (In EDGGTVAR)	Show maximums and group maximums for numeric fields.	1 Character: Y or N
EDGGMIN (In EDGGTVAR)	Show minimums and group minimums for numeric fields.	1 Character: Y or N

Table 3. Report generator variables (continued)

Variable Name (in which ISPF table)	Contents	Format
EDGGNOST (In EDGGTVAR)	Display statistics for numeric field.	1 Character: Y or N, or blank if not numeric N = no statistics Y = display statistics
EDGGTOT (In EDGGTVAR)	Show totals and group totals.	1 Character: Y or N
EDGGTVAR	Name of the "variable" ISPF table	Dynamically built. For example, EDGT23
EDGGTCON	Name of the "selection criteria" ISPF table	Dynamically built. For example, EDGT24
EDGGTEQU	Name of the "equates" ISPF table	Dynamically built. For example, EDGT25
EDGGALEN (in EDGGTVAR)	Variable substring length	1 to length of field or blank
EDGGAPOS (in EDGGTVAR)	Variable substring position	1 to length of field or blank
EDGGCLEN (in EDGGTCON)	Compare substring length	1 to length of field or blank
EDGGCNAM (in EDGGTCON)	Criteria field name	66 character
EDGGCOMP (in EDGGTCON)	Comparison operator	2 character
EDGGCOMV (in EDGGTCON)	Compare values	100 character
EDGGCONJ (in EDGGTCON)	Conjunction operator	4 character - 'AND', 'OR', 'AND(', ')AND'
EDGGCPOS (in EDGGTCON)	Compare substring position	1 to length of field or blank
EDGGDFMT	Date pattern	20 character
EDGGENAM (in EDGGTEQU)	Field name	66 character
EDGGEQMA (in EDGGTEQU)	Macro flag	1 character, M if macro-originated
EDGGEQNA (in EDGGTEQU)	Equate name	28 character
EDGGEQSE (in EDGGTEQU)	Flag: selected for field replacement	1 character, S if selected
EDGGEQVA (in EDGGTEQU)	Equate value	11 character
EDGGEQVC (in EDGGTEQU)	Equate change value	11 character
EDGGEXYN	Extract step requested	Y or N
EDGGFILE	Input file	44 character
EDGGFDAT	Field contains date	1 Character: Y, N, or blank if does not contain date. Mark a field as containing a date when working with the European and American date formats to ensure that the dates are sorted in the correct order, and that comparison operators are applied correctly when selecting records based on the date

Table 3. Report generator variables (continued)

Variable Name (in which ISPF table)	Contents	Format
EDGGMAC1 - 5	Macro name	8 character
EDGGMACL	Macro library	44 character
EDGGMCP1 - 5	Macro keyword parameter	60 character
EDGGOVTY (in EDGGTVAR)	Field type	3 characters, for example, "C" for character, or a data type which is accepted by the reporting tool
EDGGRDES	Report title	117 character
EDGGRFOT	Report footer	59 character
EDGGRDLJ	Report JCL library	44 character
EDGGRDLI	Installation Report def. lib.	44 character
EDGGRDLP	Product Report def. lib.	44 character
EDGGRDLU	User Report def. lib.	44 character
EDGGRNAM	Report name	8 character
EDGGROID	Report originator ID	8 character
EDGGRCID	Report last change ID	8 characters
EDGGRTD	Reporting tool name	30 characters
EDGGRTN	Reporting tool name (EXEC)	8 characters
EDGGRTSK	Reporting tool skeleton name	30 characters
EDGGTDES	Report type description	30 characters
EDGGTNAM	Report type name	8 characters
EDGGVAR1 - 3	Skeleton variable 1 -3	50 characters
EDGGVCO (in EDGGTVAR)	Column order or group field	1 to 99 or G
EDGGVCW (in EDGGTVAR)	Column width	1 to 999
EDGGVDES (in EDGGTVAR)	Column header text taken from the macro variable description	37 characters
EDGGVL (in EDGGTVAR)	Macro variable length	1 to 999
EDGGVNAM (in EDGGTVAR)	Field name	66 characters
EDGGVPOS (in EDGGTVAR)	Field position (offset)	1 to 99999
EDGGVSO (in EDGGTVAR)	Sort order	1 to 99
EDGGVSD (in EDGGTVAR)	Sort direction	1 character - A or D
EDGGVTYP (in EDGGTVAR)	Field type	1 character - Character, Decimal, or Hex
EDGXOVTC (in EDGGTCON)	Compare field type	3 characters, for example, "C" for character, or a data type that is accepted by the reporting tool

Creating a report that contains statistics and counts

You can use the DFSMSrmm-supplied reporting tool EXEC EDGRGGEN to create a report that generates:

- The MINIMUM statement, which contains the text “MINIMUM:”
- The BMINIMUM: statement, which contains the text “GROUP MINIMUM:”
- The MAXIMUM statement, which contains the text “MAXIMUM:”
- The BMAXIMUM: statement, which contains the text “GROUP MAXIMUM:”
- The AVERAGE statement, which contains the text “AVERAGE:”
- The BAVERAGE: statement, which contains the text “GROUP AVERAGE:”
- The TOTAL statement, which contains the text “TOTAL:” The BTOTAL statement, which contains the text “GROUP TOTAL:”

The above ICETOOL statistics statements will be generated when the report contains a column with numeric values, if the appropriate (Show minimum values, Show maximum values, Show average values, and/or Show totals) options are selected on the DFSMSrmm Report Definition panel.

The statements COUNT and BCOUNT will be generated if you enter Y in the field “Show counts” on the DFSMSrmm Report Definition panel.

The report footer information is independent of the TOTAL statement, and is displayed at the end of the report using the following statement: COPY FROM(FOOTERDD) TO(OUTDD).

Figure 52 on page 31 shows the panel that produces the JCL shown in Figure 53 on page 32.

```
EDGPG050      DFSMSrmm Report Definition - COUNT07      Row 1 to 22 of 214
Command ==>      Scroll ==> PAGE

Report title . . . List of Data Sets (Size + Usage)      +
Report footer . . . RMM Removable Media Manager
Reporting tool . . : ICETOOL                               Report width:  70
Show minimum values: Y (N/Y)      Show average values: Y (N/Y)
Show maximum values: Y (N/Y)      Show totals       : Y (N/Y)
Show counts       : Y (N/Y)

Enter "/" to select option
Edit the help information for this report

Use END to save changes or CANCEL
The following line commands are valid: S, and R

S CO SO  Field name      Column header text      CW Len Typ
-----
  G 1A  XVVOLSER         Volume                  6   6  C
* 1 2A  XDDSDNAME        Dataset name          44  44  C
+ 2      XDDSSIZE         Approx. size of file Kbytes  10  10  N
+ 3      XVTUSE           Tape usage in Kbytes      10  10  N
*      RXTYPE            Record type - C'X'         6   1  C
*      XVPVOL            Previous volume in sequence      9   6  C
```

Figure 52. Defining a Report that shows column totals

When a numeric field is defined as C (character) in the applied macro, you can override the data type with ZD (zoned decimal) to obtain the total for the column. In Figure 53 on page 32, no change is required because the field XDDSSIZE is already declared as a numeric field. You could also change other lines in the JCL like text used for the statistics statements.

```

//TOOLIN DD *
SORT FROM(INDD) TO(TEMP) USING(INCL)
DISPLAY FROM(TEMP) LIST(OUTDD) -
TITLE(VT1) -
TITLE(VT2) -
TITLE('Size of data sets per volume') -
PAGE DATE(4MD/) TIME -
HEADER('Data set name') -
ON(12,44,CH) -
HEADER('Size of file Kbytes ') -
ON(57,10,ZD,A0) -
HEADER('Tape usage','in Kbytes') -
ON(68,10,ZD,U10,NOST)
BTITLE('Volume serial number') -
BREAK(5,7,CH) -
BMINIMUM('GROUP MINIMUM:') -
BMAXIMUM('GROUP MAXIMUM:') -
BAVERAGE('GROUP AVERAGE:') -
BTOTAL('GROUP TOTAL:') -
BCOUNT('GROUP COUNT:') -
BLANK -
MINIMUM('MINIMUM:') -
MAXIMUM('MAXIMUM:') -
AVERAGE('AVERAGE:') -
TOTAL('TOTAL:') -
COUNT('COUNT:')
COPY FROM(FOOTERDD) TO(OUTDD)

```

Figure 53. ICETOOL statements

The statements produce the sectioned report shown in [Figure 54 on page 33](#).

```

List of Data Sets (Size + Usage)                - 1 -          2016/12/09
Extract file was created on 2016/181   at 011308
Volume  RFA016

Dataset name                                Approx.    Tape usage
                                size of      in Kbytes
                                file Kbyte
-----
RMMTST.DSN.TEMP1                      1563      5079
RMMTST.DSN.TEMP2                      1172      5079
RMMTST.DSN.TEMP3                      2344      5079

GROUP MINIMUM:                        1172
GROUP MAXIMUM:                        2344
GROUP AVERAGE:                       1693
GROUP TOTAL:                          5079
GROUP COUNT:                          3

List of Data Sets (Size + Usage)                - 2 -          2016/12/09
Extract file was created on 2016/181   at 011308
Volume  RFA017

Dataset name                                Approx.    Tape usage
                                size of      in Kbytes
                                file Kbyte
-----
RMMTST.DSN.TEMP4                      1954      4689
RMMTST.DSN.TEMP5                      2735      4689

GROUP MINIMUM:                        1954
GROUP MAXIMUM:                        2735
GROUP AVERAGE:                       2344
GROUP TOTAL:                          4689
GROUP COUNT:                          2

List of Data Sets (Size + Usage)                - 3 -          2016/12/09
Extract file was created on 2016/181   at 011308
Volume  RFA018

Dataset name                                Approx.    Tape usage
                                size of      in Kbytes
                                file Kbyte
-----
RMMTST.DSN.TEMP6                      391       4688
RMMTST.DSN.TEMP7                     4297      4688

GROUP MINIMUM:                        391
GROUP MAXIMUM:                        4297
GROUP AVERAGE:                       2344
GROUP TOTAL:                          4688
GROUP COUNT:                          2

List of Data Sets (Size + Usage)                - 4 -          2016/12/09
Extract file was created on 2016/181   at 011308

Dataset name                                Approx.    Tape usage
                                size of      in Kbytes
                                file Kbyte
-----
MINIMUM:                              391
MAXIMUM:                              4297
AVERAGE:                             2065
TOTAL:                                14456

COUNT:                               7
RMM Removable Media Manager

```

Figure 54. Sectioned Report

A numeric field can be excluded from calculating all statistics. For that, select the field in the Report Definition panel with an R, and you get the Reports Controls panel for this field. If an N is entered for "Show statistics if numeric" the minimum, maximum, and average values as well as totals will not be displaying for the field.

EDGPG051 DFSMSrmm Report Controls - C01001

```
Field name . . . . : XDDSSIZE
Enter "/" to select additional options:
  Use available changed values to convert report data
Or enter control information:
Substring position .
Substring length . .
Orig field length :   10      Field contains date          N  Y or N
Column width . . . .      Show statistics if numeric      N  Y or N
Type . . . . . N          Original field type . . . . : N
```

Creating a dataset instead of a report

If you use the reporting tool DFSORT, the output is not a report, but rather reformatted records. The JCL generated by the reporting tool includes comments that contain DFSORT symbol definitions, so that you can easily process the record further using DFSORT or ICETOOL. The name of the output dataset can be provided by Skeleton Variable_3 on the Report Generation panel EDGPG022.

Using report generator sample report types and sample report definitions

All of the shipped report types and report samples are provided in internal form in SAMPLIB. The report generator manages the provided types and samples along with all your own customized reports and JCL and enables you to generate and run the JCL for the SAMPLIB reports. The report generator also enables you to customize or copy a sample for your own use. During the report generation an extract or a conversion step can be optionally added. The extract JCL skeletons are provided in DGTSLIB. You can modify a shipped skeleton by copying it to a pre-concatenated ISPF skeleton library (ISPSLIB allocation). To use different skeleton JCL for your customized reporting you can modify existing reporting tool definitions or by adding new reporting tool definitions.

Sample report types

ARCGDBCK

DFSMSHsm DCOLLECT BACKUP

Applicable macros: ARCUTILP **Macro keyword:** IDCDOUT=NO,TYPE=B

Skeleton: within EDGSGEXT

ARCGDDSD

DFSMSHsm DCOLLECT DASD CAP

Applicable macros: ARCUTILP **Macro keyword:** IDCDOUT=NO,TYPE=C

Skeleton: within EDGSGEXT

ARCGDMIG

DFSMSHsm DCOLLECT MIGRATION

Applicable macros: ARCUTILP **Macro keyword:** IDCDOUT=NO,TYPE=M

Skeleton: part of EDGSGEXT

ARCGDTAP

DFSMSHsm DCOLLECT TAPE CAP

Applicable macros: ARCUTILP **Macro keyword:** IDCDOUT=NO,TYPE=T

Skeleton: within EDGSGEXT

ARCGFSR2

DFSMSHsm FSR-SMF Records

Applicable macros: ARCF SR2

Skeleton: ARCGFSRC

ARCGWFSR

DFSMSHsm ABARS Report

Applicable macros: ARCWFSR2

Skeleton: ARCGWFSC

DCOLLECT

DFSMS DCOLLECT for Data Sets

Applicable macros: IDCDOU **Macro keyword:** TYPE=D

Skeleton: within EDGSGEXT

EDGACTRC

HSKP ACTIVITY file records

Applicable macros: EDGACTRC

Skeleton: within EDGSGEXT, call of inventory management VRSEL

EDGRDEXT

Extract Records for Data sets

Applicable macros: EDGRDEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGRKEXT

Extract Records for VRSs

Applicable macros: EDGRKEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGROEXT

Extract Records for Owners

Applicable macros: EDGROEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGRPEXT

Extract Records for Products

Applicable macros: EDGRPEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGRREXT

Extract Records for Racks

Applicable macros: EDGRREXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGRSEXT

Extract Records for Bins

Applicable macros: EDGRSEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGRVEXT

Extract Records for Volumes

Applicable macros: EDGRVEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGRXEXT

Extended Extract Records

Applicable macros: EDGRXEXT

Skeleton: within EDGSGEXT, call of inventory management RPTEXT

EDGSMFSR

SMF Security Records

Applicable macros: EDGSMFSR

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSDREC

SMF Records for Datasets

Applicable macros: EDGSMFAR EDGSDREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSKREC

SMF Records for VRSs

Applicable macros: EDGSMFAR EDGSKREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSOREC

SMF Records for Owners

Applicable macros: EDGSMFAR EDGSOREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSPREC

SMF Records for Products

Applicable macros: EDGSMFAR EDGSPREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSRREC

SMF Records for Racks

Applicable macros: EDGSMFAR EDGSRREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSSREC

SMF Records for Bins

Applicable macros: EDGSMFAR EDGSSREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

EDGSVREC

SMF Records for Volumes

Applicable macros: EDGSMFAR EDGSVREC

Skeleton: within EDGSGEXT, call of SMF dump for type 248:249

IGWSMFS

SMF42 Security Records

Applicable macros: IGWSMF

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAD

SMF42 Records for Data Sets

Applicable macros: IGWSMF EDGSDREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAK

SMF42 Records for VRSs

Applicable macros: IGWSMF EDGSKREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAO

SMF42 Records for Owners

Applicable macros: IGWSMF EDGSOREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAP

SMF42 Records for Products

Applicable macros: IGWSMF EDGSPREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAR

SMF42 Records for Racks

Applicable macros: IGWSMF EDGSRREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAS

SMF42 Records for Bins

Applicable macros: IGWSMF EDGSSREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

IGWSMFAV

SMF42 Records for Volumes

Applicable macros: IGWSMF EDGSVREC

Skeleton: within EDGSGEXT, call of SMF dump for type 42, subtypes 22:23

Sample report definitions

ARCGAB01

ABARS ABACKUP Statistics

Type: ARCGWFSR DFSMSHsm ABARS Report

Usage: See DFSMSHsm manual

ARCGAR01

ABARS ARECOVER Statistics

Type: ARCGWFSR DFSMSHsm ABARS Report

Usage: See DFSMSHsm manual

ARCGDB01

DCOLLECT BACKUP DATA

Type: ARCGDBCK DFSMSHsm DCOLLECT BACKUP

Usage: See DFSMSHsm manual

ARCGDD01

DCOLLECT DASD CAPACITY PLANNING

Type: ARCGDDSD DFSMSHsm DCOLLECT DASD CAP

Usage: See DFSMSHsm manual

ARCGDM01

DCOLLECT MIGRATION DATA

Type: ARCGDMIG DFSMSHsm DCOLLECT MIGRATION

Usage: See DFSMSHsm manual

ARCGDT01

DCOLLECT TAPE CAPACITY PLANNING

Type: ARCGDTAP DFSMSHsm DCOLLECT TAPE CAP

Usage: See DFSMSHsm manual

ARCGS001

Statistics for DFSMSHsm

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS002

Statistics for Backup

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS003

Statistics for Migration

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS004

Statistics for Recall

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS005

Statistics for Recovery

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS006

Statistics for Volume Dump

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS007

Statistics for Restore from Dump Copy

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS008

Statistics for FRBACKUP

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS009

Statistics for FRRecover

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS010

DFSMSHsm Thrashing Report

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

ARCGS011

Statistics for Class Transition

Type: ARCGFSR2 DFSMSHsm FSR-SMF Records

Usage: See DFSMSHsm manual

EDGGAHLD

Held Volumes by Volume Serial

Type: EDGRXEXT Extended Extract Records

Usage: Lists all volumes where the Hold attribute is set.

EDGGAUD1

SMF Audit of Volume by Volser

Type: EDGSVREC SMF Records for Volumes

Usage: List of SMF records type 248, sorted by volser

EDGGAUD2

SMF Audit of Volume by Rack

Type: EDGSVREC SMF Records for Volumes

Usage: List of SMF records type 248, sorted by rack

EDGGAUD3

SMF42 Audit of Volumes by Vols

Type: IGWSMFAV SMF42 Records for Volumes

Usage: List of SMF records type 42, sub type 22, sorted by volser

EDGGAUD4

SMF42 Audit of Volume by Rack

Type: IGWSMFAV SMF42 Records for Volumes

Usage: List of SMF records type 42, sub type 22, sorted by rack

EDGGBESK

Data sets containing an encryption key index (BESKEY)

Type: EDGRXEXT Extended Extract Records

Usage: Lists all data sets where the XDBESKEY field is not blank or 0.

EDGGDCDS

DCOLLECT for Data Sets

Type: DCOLLECT DCOLLECT for Data Sets

Usage: List of IDCAMS DCOLLECT data, sorted by storage group

EDGGDSNM

Mixed Case data sets Retained by VRS

Type: EDGRXEXT Extended Extract Records

Usage: Helps to identify mixed case data sets that are retained by upper case DSNAME VRs in release 1.8 and lower.

EDGGREPL

Volumes to be replaced

Type: EDGRXEXT Extended Extract Records

Usage: Volumes are selected if pending release with the REPLACE action or if the release action is set to REPLACE.

EDGGREPV

Volumes to be replaced based on defined criteria

Type: EDGRXEXT Extended Extract Records

Usage: Provides a customizable report that can identify volumes that should be replaced, based on criteria you select. The sample report is set up to select volumes if one or more of the following is detected:

- Write mount count >99
- >25 years old and >50% used
- Temporary write errors >20
- Permanent write errors >1

This report is provided to help define the criteria in your Volume Replacement Policies.

EDGGR01

Scratch tapes by volume serial

Type: EDGRXEXT Extended Extract Records

Usage: List of scratch volumes

EDGGR02

List of SCRATCH Volumes by Data Set Name

Type: EDGRXEXT Extended Extract Records

Usage: List of scratch volumes, sorted by data set name

EDGGR03

Inventory List by Volume Serial

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes sorted by volser

EDGGR04

Inventory List by Dataset Name

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes sorted by data set

EDGGR06

Inventory of Volumes by Location

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes sorted by location

EDGGR07

Inventory of Dataset by Location

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes sorted by data set and location

EDGGR08

Inventory of Bin by Location

Type: EDGRXEXT Extended Extract Records

Usage: List of bin numbers sorted by location

EDGGR09

Datasets in Loan Location

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes in loan location sorted by location and data set name

EDGGR10

Volumes in Loan Location

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes in loan location sorted by location and volser

EDGGR11

List MultiVolume and MultiFile Sets

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes containing more than one data set or only a part of a data set

EDGGR12

Movement Report by Dataset

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes with a filled volume destination field sorted by data set

EDGGR13

Movement Report by Bin

Type: EDGRXEXT Extended Extract Records

Usage: List of all volumes sorted by destination location, origination location, and bin number

EDGGR14

Movement Report by Volume Serial

Type: EDGRXEXT Extended Extract Records

Usage: List of volumes with a filled volume destination field sorted by volser

EDGGR15

Volume Inventory Including Volume Count

Type: EDGRXEXT Extended Extract Records

Usage: List of all volumes and data sets sorted by volser and data set sequence number

EDGGR16

List of Data Sets blocked by DSNEXPIRE(BLOCK)

Type: EDGRXEXT Extended Extract Records

Usage: List of data sets that are blocked by the DSNEXPIRE(BLOCK) option, sorted by volser and data set sequence number

EDGGSEC1

Report of Accesses to Secure Volumes

Type: EDFSMFSR SMF Security Records

Usage: List of SMF records type 249

EDGGSEC2

SMF42 Report of Accesses to Secure Volumes

Type: IGWSMFS SMF Security Records

Usage: List of SMF records type 42, sub type 23

Migration tasks for reporting

Using the Report Migration Tasks panel you can compare report types, reports, check for inheritance of new information and criteria, and merge report types. You might use these migration tasks as you migrate to a new release of z/OS or after maintenance has been installed that enhances or corrects the distributed report types and reports.

Note: To avoid loss of existing customized reports or report types in your user library, consider allocating and using an alternative data set for the user library when performing the migration tasks.

When you compare report types, DFSMSrmm checks the report type level between the source and compare report types and report definitions. Only those report types which are common to the source and compare libraries are compared. DFSMSrmm compares report type level, library and macro names, description, RDW setting, input data set name, help information, and field data types. You can select the report type information which should be copied from source to target library, and then select the report types and definitions to be processed. The updated report types are stored on the User library.

To perform one of the report migration tasks, follow this procedure:

1. Type R on the DFSMSrmm Command Menu to select the Report option. Press the ENTER key.
2. Select the MIGRATION option on the DFSMSrmm Report Generator panel as shown in [Figure 55 on page 42](#). Press the ENTER key.

```
Panel  Help
-----
EDGPG000          DFSMSrmm Report Generator
Option ==>4

0  OPTIONS          - Specify dialog options and defaults
1  REPORT           - Work with reports
2  REPORT TYPE      - Work with report types
3  REPORTING TOOL   - Work with reporting tools
4  MIGRATION        - Migration tasks for reporting

Enter selected option or END command. For more info., enter HELP or PF1.
```

Figure 55. DFSMSrmm Report Generator panel - migration tasks

3. Select Source (S) and Compare (C) libraries on the DFSMSrmm Report Migration Tasks panel, as shown in [Figure 56 on page 43](#), to perform one of these actions:
 - 1 Compare report types.
 - 2 Compare report definitions.
 - 3 Check report type inheritance.
 - 4 Merge report types from installation library to user library.

```

Panel  Help
-----
EDGPG400      DFSMSrmm Report Migration Tasks
Command ==>

_  1. Compare report types
   2. Compare report definitions
   3. Check report type inheritance
   4. Merge report types from installation library to user library

Select Source (S) and Compare (C) Libraries: Default is compare with Product
S  C Libraries:      Currently defined Libraries:
   C User           USER.REPORT.LIB
   C Installation   LOCAL.REPORT.LIB
S  Product          SYS1.SAMPLIB

Enter selected task or END command. For more info., enter HELP or PF1.

```

Figure 56. DFSMSrmm Report Migration Tasks panel

```

Panel  Help
-----
EDGPG411      DFSMSrmm Report Type Compare
Command ==>

The following line commands are valid:
L - List the results of the compare
S - Display the source report type
C - Display the compare report type
U - Update the compare report type with the new report type data

S Type          Differences          Type description
   Lev Help Typ Mac Sel
-----
EDGRSEXT   Y    Y    Y    N    N Bin extract
***** Bottom of data *****

```

Use the L line command to view the results of the compare.

```

***** Top of Data *****
Report Generator - Report Type differences          2011/03/17 08:20
                        Level      Library
Source: Report type    EDGRSEXT 01.11.00 Product    SYS1.SAMPLIB
Compare: Report type    EDGRSEXT none      Installation LOCAL.REPORT.LIB

==> Differences found with: Record selection criteria
-----
The specific differences are not shown here. Please display the
Source report type and the compare report type for details.

N- RSTYPE      refer to source report type
O- RSTYPE      refer to compare report type
N- RSTYPE2     missing in source report type

==> Differences found with: Data type information (with field and/or selection criteria)
-----
N- DCUTIME TM1
O- DCUTIME
==> No differences found with: Macros, macro libraries and keywords
==> No differences found with: RDW setting

==> Differences found with: Help for report type
-----
N- Here appears the full new text
N- Here appears the full new text
N- Here appears the full new text
N- Here appears the full new text

O- Here appears the full old text
O- Here appears the full old text
O- Here appears the full old text

==> No differences found with: Help for report
==> No differences found with: Help for JCL generation
***** Bottom of Data *****

```

Use the S line command to enter the report type dialog for the selected source report type – the EDGPG200 panel is displayed.

Use the C line command to enter the report dialog for the compare report type – the EDGPG200 panel is displayed.

When you specify the U line command you can select which information is used to update the report type from the compare library with selected information from the report type in the source library. The updated report types are stored on the user library.

```

Panel  Help
-----
EDGPG412          DFSMSrmm Report Type Compare
Command ===>

Source report type . : EDGRVEXT  Compare report type . . . . : EDGRVEXT
Enter "/" to select the values to be copied:
Report type level
Help for report type
Help for report
Help for JCL generation
Data type information
Macros, macro libraries and keywords
RDW setting
Record selection criteria

```

You can select to copy the report type level to the target report type so that you know that you have reviewed and applied all the changes you want.

When you compare report definitions, DFSMSrmm checks the report type and level used between the source and compare report definitions. Only those reports that are common to the source and compare libraries are compared. DFSMSrmm compares report type level, last change user ID, library and macro names, description, RDW setting, input data set name, report title, selection compare fields and values, sort fields and direction, report column information, help information, and field data types. You can select the report definition information to be copied from source to compare library and then select the report definitions to be processed. The updated report definitions are stored on the user library.

```

Panel  Help
-----
EDGPG421          DFSMSrmm Report Definition Compare
Command ===>

The following line commands are valid:
L - List the results of the compare
S - Display the source report definition
C - Display the compare report definition
U - Update the report definition with the new report definition data

S Report          Differences          Report title
  Lev Help Typ Mac Sel Sort Rep Dsn Ttl
-----
+
AA1186      Y   Y   Y   N   N   Y   Y   N   N SMF REPORT 1
***** Bottom of data *****

```

Use the L line command to view the results of the compare.


```

[part panel only]
***** Top of Data *****
Report Generator - Report definition differences 2011/03/17 08:20
Source: Report definition AA1186 01.11.00 Product SYS1.SAMPLIB
Compare: Report definition AA1186 none User MY.REPORT.LIB

==> Differences found with: Record selection criteria
-----
The specific differences are not shown here. Please display the
report definitions for details.
N- RSTYPE refer to source report definition
O- RSTYPE refer to compare report definition
N- RSTYPE2 missing in compare report definition

==> Differences found with: Data type information (with field and/or selection criteria)
-----
N- DCUTIME TM1
O- DCUTIME

==> No differences found with: Macros, macro libraries and keywords
==> No differences found with: RDW setting
==> No differences found with: Change values

==> Differences found with: Help for report type
-----
N- Here appears the full new text
N- Here appears the full new text
N- Here appears the full new text
N- Here appears the full new text

O- Here appears the full old text
O- Here appears the full old text
O- Here appears the full old text

==> No differences found with: Help for report
==> No differences found with: Help for JCL generation
***** Bottom of Data *****

```

Use the S line command to enter the report definition dialog for the selected source report – the EDGPG020 panel is displayed.

Use the C line command to enter the report dialog for the compare report definition – the EDGPG020 panel is displayed.

When you specify the U line command you can select which information is used to update the report definition from the compare library with selected information from the report definition in the source library. The updated report definitions are stored on the User library. You can select to copy the report type level to the target report definition so that you know that you have reviewed and applied all the desired changes.

```

Panel  Help
-----
EDGPG422          DFSMSrmm Report Definition Compare
Command ===>

Report definition . : EDGRVEXT
Enter "/" to select the values to be copied:
Report type level
Help for report type
Help for report
Help for JCL generation
Data type information
Macros, macro libraries and keywords
RDW setting
Record selection criteria
Sort criteria
Report information
Input data set name
Report title

```

You can select to copy the report type level to the target report definition so that you know that you have reviewed and applied all the desired changes.

When you Check Report Type inheritance, DFSMSrmm compares the detailed attributes for the report types in the source library with those for the report definitions in the compare library, and for those report definitions using report types in the source library displays those which do not contain all the inherited information from the report type. DFSMSrmm compares the help information and field data type information and the report type level.

```

Panel  Help
-----
EDGPG431          DFSMSrmm Report Type Inheritance
Command ===>

The following line commands are valid:
L - List the results of the compare
S - Display the source report type
C - Display the compare report definition
U - Update the report definition with the new report type data

S Report   Type          Differences          Report title
   Lev Help Typ Mac Sel
-----
AA1186  EDGRSEXT    Y    Y    Y    N    N SMF REPORT 1
***** Bottom of data *****

```

Use the L line command to view the results of the compare.

```

[part panel only]
***** Top of Data *****
Report Generator - Inheritance differences          2011/03/17 08:20
Level
Source: Report type          EDGRSEXT 01.11.00 Product      SYS1.SAMPLIB
Compare: Report definition AA1186 none Installation LOCAL.REPORT.LIB

==> Differences found with: Record selection criteria
-----
The specific differences are not shown here. Please display the
report type and the report definition for details.
N- RSTYPE refer to source report type
O- RSTYPE refer to compare report definition
N- RSTYPE2 missing in compare report definition

==> Differences found with: Data type information (with field and/or selection criteria)
-----
N- DCUTIME TM1
O- DCUTIME

==> No differences found with: Macros, macro libraries and keywords
==> No differences found with: RDW setting
==> No differences found with: Change values

==> Differences found with: Help for report type
-----
N- Here appears the full new text
N- Here appears the full new text
N- Here appears the full new text
N- Here appears the full new text

O- Here appears the full old text
O- Here appears the full old text
O- Here appears the full old text

==> No differences found with: Help for report
==> No differences found with: Help for JCL generation
***** Bottom of Data *****

```

Use the S line command to enter the report type dialog for the selected source report type – the EDGPG200 panel is displayed.

Use the C line command to enter the report dialog for the compare report definition – the EDGPG020 panel is displayed.

When you specify the U line command you can select which information is used to update the report definition from the compare library with selected information from the report type in the source library. The updated report definitions are stored on the user library.

```
Panel  Help
-----
EDGPG432          DFSMSrmm Report Type Inheritance
Command ==>

Source report type . : EDGRVEXT  Compare report definition . : AA1186
Enter "/" to select the values to be copied/inherited:
Report type level
Help for report type
Help for report
Help for JCL generation
Data type information
Macros, macro libraries and keywords
RDW setting
Record selection criteria
```

You can select to copy the report type level to the target report definition so that you know that you have reviewed and applied all the desired changes.

When you merge report types, DFSMSrmm copies all the report types which are not in the user library from the Installation library to the user library. DFSMSrmm never merges from the Product library.

Report types merged successfully from the Installation to User library

After you have completed the merge of report types, you can use the new, merged report types in your installation library by copying the member EDGGRTD from the user library to the installation library.

Chapter 3. Creating inventory management reports

DFSMSrmm provides the EDGHSKP utility to help you perform inventory management. You can create standard reports as part of inventory management processing, as described in [z/OS DFSMSrmm Implementation and Customization Guide](#). These reports include the vital record specification reports, the extract data set that is used as input to report utilities, and the activity file.

You can specify different date formats and dates in the EDGHSKP execution parameters. The execution parameters are DATE and DATEFORMAT. The DATE parameter only affects the content of the ACTIVITY file and the REPORT file. DFSMSrmm produces the reports using any date you specify as the run date. For example, you can use a date in the future to create a report on the actions DFSMSrmm might take in the future. The DATEFORM parameter determines the date format used in each of the ACTIVITY file, REPORT file, and extract data set file.

Before you can run the EDGHSKP utility, you need to define several data sets. Some data sets used during inventory management must be pre-allocated and cataloged because these data sets are used by both the EDGHSKP utility and the DFSMSrmm subsystem. To retain multiple versions of these data sets, consider using a subsequent job step to copy them to a new generation of a generation data group (GDG).

Table 4 on page 49 shows the data sets that are used for inventory management reports, along with a description of each.

Table 4. Data sets used for inventory management reports

Report	Description
ACTIVITY	Contains detailed information about data set related changes DFSMSrmm makes to the control data set during inventory management. This data set is required when you specify the VERIFY parameter.
MESSAGE	Lists the messages the DFSMSrmm subsystem issues during inventory management. This data set is required.
REPORT	Contains a detailed report of DFSMSrmm vital record specification processing. The data set is optional and is used when you have specified the VRSEL parameter.
REPTTEXT	Contains the extract copy of the DFSMSrmm control data set. The extract copy is called the extract data set. The REPTTEXT DD or the XREPTTEXT DD is required when you specify the EDGHSKP utility RPTTEXT parameter.
XREPTTEXT	Contains the extract data set that contains the extended extract records consisting of records with combined data set and volume information.

When you protect these data sets, make sure that the RACF user ID that is associated with the DFSMSrmm subsystem has the authority to write to the data sets. RACF is a component of the Security Server for z/OS.

Using the DFSMSrmm inventory management vital record specification report

DFSMSrmm produces a vital records retention report to the REPORT DD during inventory management processing. Use the report to perform these tasks:

- Check the vital record specifications that match to data sets and volumes.
- Identify the versions of the data sets that are being retained.
- Check the required location for each data set and volume.

See *z/OS DFSMSrmm Implementation and Customization Guide* for details about setting up DFSMSrmm to produce the report.

Using the extract data set

You can request that an extract data set that contains information from the control data set is created during DFSMSrmm inventory management. Use the extract data set as input to the DFSMSrmm reporting utility EDGRPTD and to the EDGRRPTE EXEC to create reports. See Chapter 4, “Creating reports with DFSMSrmm utilities,” on page 65 for information about using the EDGRPTD utility and the EDGRRPTE EXEC. Requests for extract data sets can be submitted at any time. To obtain extract data sets at the same time that DFSMSrmm is processing other extract data sets, run the EDGHSKP with the RPTEXT parameter. Define your own extract data set and message file to avoid contention with other users.

DFSMSrmm reads sequentially through its control data set and creates extract records for each shelf location, volume, data set, software product, owner, and vital record specification record. In addition, DFSMSrmm optionally creates extended records, which contain merged volume and data set information. You have two ways control which type of extract data set record is produced:

1. Using the RPTEXT command in the EDGHSKP SYSIN file, you can explicitly specify which type of records are to be extracted. The output can go to either the REPTTEXT or XREPTTEXT data set.
2. Using DD statements, if you do not use the RPTEXT command in SYSIN, the DD name you use determines whether extended records are created. When you specify the REPTTEXT DD statement, DFSMSrmm creates all records, except for extended records. When you specify the XREPTTEXT DD statement, DFSMSrmm creates only extended records.

DFSMSrmm converts this information to a printable format and can convert date fields into a format you specify. The extract data set is a point-in-time extract of the control data set contents. Use the RMM TSO SEARCH and LIST subcommands to obtain the most current information.

The extract data set can be sorted and used to create reports or lists of executable commands. See “Using EDGRPTD to create reports” on page 65 and Chapter 6, “Using DFSMSrmm with DFSORT,” on page 117 for information about creating reports. You can place the extract data set on any volume.

You can specify different date formats for the extract data set by using the DATEFORMAT execution parameter of the DFSMSrmm EDGHSKP utility. DFSMSrmm writes a header record to the extract data set that contains the date format that was used. You can base your processing of the extract data set on this value rather than by analyzing the date fields themselves. Refer to “Extract data set extended data set record: EDGRXEXT” on page 265 for the layout of the header record.

Table 5 on page 51 shows the date formats that can be used for the records that are written to the extract data set, records that are written to the ACTIVITY file, and any messages that are issued during inventory management. The default date format for all date fields is the value that is specified in the parmlib member EDGRMMxx. The value is initially set to J for Julian. To change the date format for each run of EDGHSKP, use the DATEFORM parameter, which is described in *z/OS DFSMSrmm Implementation and Customization Guide*.

Table 5. Date formats

Value	Language	Format	Example
A	American	mm/dd/yyyy	12/15/2012
E	European	dd/mm/yyyy	15/12/2012
I	International Organization for Standardization (ISO)	yyyy/mm/dd	2012/12/15
J	Julian	yyyy/ddd	2012/350
D	Default	The date format specified in the DFSMSrmm EDGRMMxx parmlib member.	Initially set to Julian

DFSMSrmm provides the format of the records in the extract data set in mapping macros. See [Appendix B, “DFSMSrmm mapping macros,”](#) on page 227 for layouts of the macros. You can use DFSORT to sort the extract data set records to create many types of reports. See [Appendix A, “DFSORT symbols for use with DFSMSrmm,”](#) on page 161.

For example, you could select the extract records that show volumes with temporary read errors. Sort the resulting list by descending number of errors. Use this list to determine which volumes you want to replace. You can then use the information as input to the RMM CHANGEVOLUME subcommand with the RELEASEACTION(REPLACE) operand to update DFSMSrmm with the required action.

Using the inventory management ACTIVITY file

The ACTIVITY file is a pre-allocated direct access storage device (DASD) data set, like the REPORT file. The ACTIVITY file is not intended to be a report. The ACTIVITY file contains detailed information about data set and volume related changes that DFSMSrmm makes to the control data set during inventory management. The DFSMSrmm-supplied sample EDGJHKPA shows the JCL to allocate the ACTIVITY file, as well as other DFSMSrmm inventory management data sets. The DFSMSrmm-supplied sample EDGJACTP shows the JCL to report on the contents of the ACTIVITY file.

The ACTIVITY file is a variable-blocked file with the record length set to the largest record created by DFSMSrmm. The system determines the block size of the ACTIVITY file. See [“ACTIVITY file record: EDGACTRC”](#) on page 227 for a mapping of the ACTIVITY file.

DFSMSrmm writes an activity record for data set changes only when a change is identified in the ACTRC_DSN_CHANGE section of the record. During vital record processing, if an ACTIVITY file is allocated, DFSMSrmm writes information about changes made to the matching vital record specification, the vital record status, and the retention date to the ACTIVITY file.

DFSMSrmm writes an activity record for volume changes only when a change is identified in the ACTRC_VOL_CHANGE section of the record and when the VRSRETAIN or EXPDTRDROP action is not set to OFF. Activity records are written by VRSEL only for newly assigned volumes that are to be changed from not VRS-retained to either VRS-retained or set-retained. This is limited to volumes that are retained only for volume VRS, and those that are retained because of RETAINBY(SET) and another volume in the set is VRS-retained. Activity records are written by EXPROC only for EXPDT-retained volumes that are to be set pending release

You can view the ACTIVITY file online. To print the ACTIVITY file, use a product such as DFSORT or DFSORT's ICETOOL to selectively format and print fields.

DFSMSrmm provides a sample job EDGJACTP in SAMPLIB that shows how to selectively format and print fields. The sample EDGJACTP produces reports in pairs: a report containing detailed information and a summary report that is broken down by category and a count within each category. The reports focus on the different types of changes that DFSMSrmm makes to data set and volume records during inventory management. For example, DFSMSrmm can change the vital record specification or vital record

specification subchain that retains the data sets. You can use these reports to help you understand the updates that DFSMSrmm is making to data sets that are based on matching vital record specifications.

VRS report

The VRS report, as shown in [Figure 57 on page 52](#), provides information about the retention status of a data set. The report includes a data set when the status of the data set changes between being retained by a vital record specification and not retained by a vital record specification. Use the VRS report to determine changes in the retention status of a data set. Use the VRS and VRSS reports together to analyze how DFSMSrmm handles the VRSDROP retention limit.

The data columns in the VRS report provide the following information:

DSNAME

The name of the data set that has had a change in status as a result of running vital record processing.

JOBNAME

The jobname associated with the data set.

VOLSER

The volume serial number of the volume on which the data set resides.

O-ST

The old vital record status. Y is the VRS-retained status. N is the Not VRS-retained status.

N-ST

The new vital record status. Y is the VRS-retained status. N is the Not VRS-retained status.

RSN

The reason the data set is no longer retained by a vital record specification. See [“ACTIVITY file record: EDGACTRC” on page 227](#), which provides the drop reasons.

PRIMARY VRS

The name from the first vital record specification in the matching vital record specification chain.

JOB MASK

The jobname from the first vital record specification in the matching vital record specification chain.

TYPE

The type of the vital record specification matched to the data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the vital record specification types.

1Data Sets Changed VRS Status 05/31/12 02:02:20 - 1 -									
Status Change and Drop Reason: RETAINED									
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	RSN	PRIMARY VRS	JOB MASK	TYPE	
RMMUSER.D001		A00001	N	Y		RMMUSER.D001		D	
RMMUSER.D002		A00004	N	Y		RMMUSER.D002		D	
RMMUSER.D002		A00005	N	Y		RMMUSER.D002		D	
RMMUSER.D003		A00007	N	Y		RMMUSER.D003		D	
RMMUSER.D003		A00008	N	Y		RMMUSER.D003		D	
2Data Sets Changed VRS Status 05/31/12 02:02:20 - 3 -									
Status Change and Drop Reason: DROPPED DAYS									
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	RSN	PRIMARY VRS	JOB MASK	TYPE	
DSMASTER.DS2	JNAME001	A00021	Y	N	D	DSM*.DS2		D	
DSMASTER.DS2	JNAME001	A00022	Y	N	D	DSM*.DS2		D	
DSMASTER.DS3	JNAME002	A00022	Y	N	D	DSM*.DS3		D	
DSMASTER.DS3	JNAME002	A00023	Y	N	D	DSM*.DS3		D	
DSMASTER.DS4	JNAME002	A00024	Y	N	D	DSM*.DS4		D	
DSMASTER.DS4	JNAME002	A00024	Y	N	D	DSM*.DS4		D	

Figure 57. Sample VRS Report

VRSS report

The VRSS report, as shown in [Figure 58 on page 53](#), summarizes details from the VRS report. The VRSS report provides a summary of all the data sets that have changed during the current run of inventory management. You can use the report to determine if any unusual activity has taken place during vital records processing. For example, the report might show a significant number of data sets that were dropped from retention by vital record specifications. You might want to check that the vital record specifications you have defined are defined correctly.

The VRSS report lists the number of data sets that are in each vital record specification status category.

The data columns in the VRSS report provide the following information:

Status Change

The new vital record status. The status is DROPPED or RETAINED.

Drop Reason

The reason that a vital record specification no longer retains a data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the drop reasons.

COUNT

The number of data sets with the same status and drop reason.

1Data Set VRS status change summary			05/31/12	02:02:20	- 1 -
Status Change	Drop Reason	COUNT			
DROPPED	DAYS	6			
RETAINED		5			

Figure 58. Sample VRSS Report

RETDATE report

The RETDATE report, as shown in [Figure 59 on page 54](#), provides information about the changes to the retention date of a data set that occur when you run vital record processing. DFSMSrmm has changed information about the data set or is using a new vital record specification in a vital record specification chain.

You can use the VRS report described in [“VRS report” on page 52](#) to determine the old and new retention dates for an updated data set. You can use the RETDATE report to see how DFSMSrmm has applied vital record specifications you have defined.

The data columns in the RETDATE report provide the following information:

DSNAME

The name of the data set information updated by vital record processing.

JOBNAME

The jobname associated with the data set.

VOLSER

The volume serial number of the volume on which the data set resides.

PREVIOUS

The old retention date for the data set.

NEW DATE

The new retention date for the data set.

PRIMARY VRS

The name from the first vital record specification in the matching vital record specification chain.

JOB MASK

The jobname from the first vital record specification in the matching vital record specification chain.

TYPE

The type of the vital record specification matched to the data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the vital record specification types.

SUBCHAIN

This is the name of the vital record specification in the primary vital record specification chain that DFSMSrmm is currently using to retain the data set.

1Data Sets Changed Retention Date	05/31/12	02:02:22	- 1 -						
New Retention Date: CYCL/00001									
DSNAME	JOBNAME	VOLSER	PREVIOUS	NEW DATE	PRIMARY VRS	JOB MASK	TYPE	SUBCHAIN	
RMUSER.D003		A00007		CYCL/00001	RMUSER.D003		D	N1D003	
RMUSER.D005		A00012		CYCL/00001	RMUSER.D005		D		
RMUSER.D005		A00013		CYCL/00001	RMUSER.D005		D		
RMUSER.D006		A00015		CYCL/00001	D006		S		
RMUSER.D007		A00017		CYCL/00001	D007		V		
RMUSER.D008		A00020		CYCL/00001	RMUSER.D008		M		
RMUSER.D009		A00025		CYCL/00001	RMUSER.D009		M		
RMUSER.D011		A00030		CYCL/00001	A00030		V	N1A00030	
RMUSER.D011		A00031		CYCL/00001	A00031		V	N1A00031	
1Data Sets Changed Retention Date	05/31/12	02:02:22	- 2 -						
New Retention Date: CYCL/00002									
DSNAME	JOBNAME	VOLSER	PREVIOUS	NEW DATE	PRIMARY VRS	JOB MASK	TYPE	SUBCHAIN	
RMUSER.D008		A00019		CYCL/00002	RMUSER.D008		M		
RMUSER.D009		A00023		CYCL/00002	RMUSER.D009		M		
RMUSER.D012		A00034		CYCL/00002	A00034		V	N1D012	
RMUSER.D012		A00035		CYCL/00002	A00035		V	N1D012	
RMUSER.D008		A00019		CYCL/00002	RMUSER.D008		M		
RMUSER.D009		A00023		CYCL/00002	RMUSER.D009		M		
RMUSER.D012		A00034		CYCL/00002	A00034		V	N1D012	
RMUSER.D012		A00035		CYCL/00002	A00035		V	N1D012	
RMUSER.D008		A00019		CYCL/00002	RMUSER.D008		M		
RMUSER.D009		A00023		CYCL/00002	RMUSER.D009		M		
RMUSER.D012		A00034		CYCL/00002	RMUSER.D012		V	N1D012	
RMUSER.D012		A00035		CYCL/00002	A00035		V	N1D012	
1Data Sets Changed Retention Date	05/31/12	02:02:22	- 3 -						
New Retention Date: 2011/099									
DSNAME	JOBNAME	VOLSER	PREVIOUS	NEW DATE	PRIMARY VRS	JOB MASK	TYPE	SUBCHAIN	
RMUSER.D003		A00008		2011/099	RMUSER.D003		D		
RMUSER.D004		A00009		2011/099	RMUSER.D004		D	D004	
RMUSER.D009		A00022		2011/099	RMUSER.D009		M		
RMUSER.D009		A00024		2011/099	RMUSER.D009		M		
RMUSER.D010		A00027		2011/099	RMUSER.D010		M		
RMUSER.D010		A00028		2011/099	RMUSER.D010		M		
RMUSER.D003		A00008		2011/099	RMUSER.D003		D		
RMUSER.D004		A00009		2011/099	RMUSER.D004		D	D004	
RMUSER.D009		A00022		2011/099	RMUSER.D009		M		
RMUSER.D010		A00024		2011/099	RMUSER.D010		M		
RMUSER.D010		A00027		2011/099	RMUSER.D010		M		
RMUSER.D010		A00028		2011/099	RMUSER.D010		M		
1Data Sets Changed Retention Date	05/31/12	02:02:22	- 4 -						
New Retention Date: 2011/100									
DSNAME	JOBNAME	VOLSER	PREVIOUS	NEW DATE	PRIMARY VRS	JOB MASK	TYPE	SUBCHAIN	
RMUSER.D001		A00001		2011/100	RMUSER.D001		D		
RMUSER.D002		A00004		2011/100	RMUSER.D002		D		
RMUSER.D002		A00005		2011/100	RMUSER.D002		D		
RMUSER.D010		A00029		2011/100	RMUSER.D010		M		
RMUSER.D001		A00001		2011/100	RMUSER.D001		D		
RMUSER.D002		A00004		2011/100	RMUSER.D002		D		
RMUSER.D002		A00005		2011/100	RMUSER.D002		D		
RMUSER.D010		A00029		2011/100	RMUSER.D010		M		
1Data Sets Changed Retention Date	05/31/12	02:02:22	- 5 -						
New Retention Date: 2011/335									
DSNAME	JOBNAME	VOLSER	PREVIOUS	NEW DATE	PRIMARY VRS	JOB MASK	TYPE	SUBCHAIN	
RMUSER.D003		A00008		2011/335	RMUSER.D003		D		
RMUSER.D004		A00009		2011/335	RMUSER.D004		D	D004	
RMUSER.D009		A00022		2011/335	RMUSER.D009		M		
RMUSER.D009		A00024		2011/335	RMUSER.D009		M		
RMUSER.D010		A00027		2011/335	RMUSER.D010		M		
RMUSER.D010		A00028		2011/335	RMUSER.D010		M		
1Data Sets Changed Retention Date	05/31/12	02:02:22	- 6 -						
New Retention Date: 2011/336									
DSNAME	JOBNAME	VOLSER	PREVIOUS	NEW DATE	PRIMARY VRS	JOB MASK	TYPE	SUBCHAIN	
RMUSER.D001		A00001		2011/336	RMUSER.D001		D		
RMUSER.D002		A00004		2011/336	RMUSER.D002		D		
RMUSER.D002		A00005		2011/336	RMUSER.D002		D		
RMUSER.D010		A00029		2011/336	RMUSER.D010		M		

Figure 59. Sample RETDATE Report

RETDS report

The RETDS report, as shown in [Figure 60 on page 54](#), summarizes details from the RETDATE report. The RETDS report provides a summary of the data set retention dates that have changed during vital record processing. The RETDS lists the retention dates that have been used to update data set information and the number of data sets that have the same retention date value. The report consists of one line for each retention date.

The data columns in the RETDS report provide the following information:

New Retention Date

A new retention date that was updated for data sets.

COUNT

The number of data sets with the same retention date value.

1Summary of new Data Set retention dates	05/31/12	02:02:23	- 1 -						
New Retention Date	COUNT								
CYCL/00001	33								
CYCL/00002	12								
2011/099	12								
2011/100	8								
2011/335	6								
2011/336	4								

Figure 60. Sample RETDS Report

MATCHVRS report

The MATCHVRS report, as shown in [Figure 61 on page 56](#), provides information about the vital record specifications that match to data sets updated when you run vital record processing. The data sets are added to the report because DFSMSrmm has matched the data set to a different primary or secondary vital record specification. The report provides change information and does not necessarily provide information on the retention of the data set.

The data columns in the MATCHVRS report provide the following information:

DSNAME

The name of the data set affected by vital record processing.

JOBNAME

The jobname associated with the data set.

VOLSER

The volume serial number of the volume on which the data set resides.

O-ST

The old vital record status. Y is the VRS-retained status. N is the Not VRS-retained status.

N-ST

The new vital record status. Y is the VRS-retained status. N is the Not VRS-retained status.

DROPRSN

The reason the vital record specification no longer retains the data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the reason codes.

OLD PRIMARY VRS

The vital record specification that was previously used to retain the data set.

JOB MASK

The jobname from the first vital record specification in the matching vital record specification chain.

TYPE

The vital record specification types. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the vital record specification types.

2nd. VRS

This is the name of the first VRS in the secondary VRS chain that DFSMSrmm applies to a data set.

2nd. JOB

This is the jobname of the first VRS in the secondary VRS chain that DFSMSrmm applies to a data set.

Data Sets Matching to different VRS	05/31/12	02:02:25	- 1 -							
NEW PRIMARY VRS: DRMMUSER.D001										
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	DROPSN	OLD PRIMARY VRS	JOB MASK	TYPE	2nd. VRS	2nd. JOB
RMUSER.D001		A00001	N	Y						
RMUSER.D001		A00002	N	N	D					
RMUSER.D001		A00001	N	Y						
RMUSER.D001		A00002	N	N	D					
RMUSER.D001		A00001	N	Y						
RMUSER.D001		A00002	N	N	D					
Data Sets Matching to different VRS	05/31/12	02:02:25	- 2 -							
NEW PRIMARY VRS: DRMMUSER.D002										
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	DROPSN	OLD PRIMARY VRS	JOB MASK	TYPE	2nd. VRS	2nd. JOB
RMUSER.D002		A00003	N	N	C					
RMUSER.D002		A00004	N	Y						
RMUSER.D002		A00005	N	Y						
RMUSER.D002		A00003	N	N	C					
RMUSER.D002		A00004	N	Y						
RMUSER.D002		A00005	N	Y						
RMUSER.D002		A00003	N	N	C					
RMUSER.D002		A00004	N	Y						
RMUSER.D002		A00005	N	Y						
Data Sets Matching to different VRS	05/31/12	02:02:25	- 3 -							
NEW PRIMARY VRS: DRMMUSER.D003										
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	DROPSN	OLD PRIMARY VRS	JOB MASK	TYPE	2nd. VRS	2nd. JOB
RMUSER.D003		A00006	N	N	C					
RMUSER.D003		A00007	N	Y						
RMUSER.D003		A00008	N	Y						
RMUSER.D003		A00006	N	N	C					
RMUSER.D003		A00007	N	Y						
RMUSER.D003		A00008	N	Y						
RMUSER.D003		A00006	N	N	C					
RMUSER.D003		A00007	N	Y						
RMUSER.D003		A00008	N	Y						
Data Sets Matching to different VRS	05/31/12	02:02:25	- 4 -							
NEW PRIMARY VRS: DRMMUSER.D004										
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	DROPSN	OLD PRIMARY VRS	JOB MASK	TYPE	2nd. VRS	2nd. JOB
RMUSER.D004		A00009		Y						
RMUSER.D004		A00009	N	Y						
RMUSER.D004		A00009	N	Y						
Data Sets Matching to different VRS	05/31/12	02:02:25	- 5 -							
NEW PRIMARY VRS: DRMMUSER.D005										
DSNAME	JOBNAME	VOLSER	O-ST	N-ST	DROPSN	OLD PRIMARY VRS	JOB MASK	TYPE	2nd. VRS	2nd. JOB
RMUSER.D005		A00010	N	N	B					
RMUSER.D005		A00011	N	N	B					
RMUSER.D005		A00012	N	Y						
RMUSER.D005		A00013	N	Y						
RMUSER.D005		A00010	N	N	B					
RMUSER.D005		A00011	N	N	B					
RMUSER.D005		A00012	N	Y						
RMUSER.D005		A00013	N	Y						
RMUSER.D005		A00010	N	N	B					
RMUSER.D005		A00011	N	N	B					
RMUSER.D005		A00012	N	Y						
RMUSER.D005		A00013	N	Y						

Figure 61. Sample MATCHVRS Report

MATCHVS report

The MATCHVS report, as shown in [Figure 62 on page 57](#), summarizes details from the MATCHVRS report. The report provides the vital record specification name and the number that are newly matched by the vital record specification. Use this report to help you determine if any new vital record specifications now match to your data sets.

The data columns in the MATCHVS report provide the following information:

New Primary VRS

The name from the first vital record specification in the matching vital record specification chain.

Jobname mask

The jobname from the first vital record specification in the matching vital record specification chain.

Match Type

The type of the vital record specification matched to the data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the vital record specification types.

COUNT

The number of data sets with the same matching primary VRS.

1Summary of new matching VRSs	05/31/12	02:02:28	- 1 -	
New Primary VRS	Jobname mask	Match Type		COUNT
A00030		V		3
A00031		V		3
A00032		V		3
A00033		V		3
A00034		V		3
A00035		V		3
A00036		V		3
D006		S		6
D007		V		6
RMMUSER.D001		D		6
RMMUSER.D002		D		9
RMMUSER.D003		D		9
RMMUSER.D004		D		3
RMMUSER.D005		D		12
RMMUSER.D008		M		9
RMMUSER.D009		M		15
RMMUSER.D010		M		12

Figure 62. Sample MATCHVS Report

SUBCHN report

During vital record processing, DFSMSrmm processes chains of vital record specifications if you have defined them. The SUBCHN report, as shown in [Figure 63 on page 58](#), shows the vital record specification within a vital record specification chain that now matches to a data set. Data sets are listed if they reach a new subchain during the current run of vital record processing.

The data columns in the SUBCHN report provide the following information:

DSNAME

The name of the data set that has had a change in status as a result of running vital record processing.

JOBNAME

The jobname associated with the data set.

VOLSER

The volume serial number of the volume on which the data set resides.

PRIMARY VRS

The name from the first vital record specification in the matching vital record specification chain.

JOB MASK

The jobname from the first vital record specification in the matching vital record specification chain.

TYPE

The type of the vital record specification matched to the data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the vital record specification types.

2nd.VRS

The name of the first VRS in the secondary VRS chain that DFSMSrmm matches to a data set.

JOB

The job name of the first VRS in the secondary VRS chain that DFSMSrmm matches to a data set.

SUBCHAIN DATE

The name of the primary vital record specification subchain retaining the data set and the date it started to retain the data set.

2nd.SUBC DATE

The name of the secondary vital record specification subchain retaining the data set and the date it started to retain the data set.

Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 1 -						
NEW SUBCHAIN AND DATE: D004 2011/098									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D004		A00009	RMMUSER.D004		D				
RMMUSER.D004		A00009	RMMUSER.D004		D				
Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 2 -						
NEW SUBCHAIN AND DATE: D004 2011/334									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D004		A00009	RMMUSER.D004		D				
Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 3 -						
NEW SUBCHAIN AND DATE: N1A000302011/098									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D011		A00030	A00030		V				
RMMUSER.D011		A00030	A00030		V				
Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 4 -						
NEW SUBCHAIN AND DATE: N1A000302011/334									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D011		A00030	A00030		V				
Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 5 -						
NEW SUBCHAIN AND DATE: N1A000312011/098									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D011		A00031	A00031		V				
RMMUSER.D011		A00031	A00031		V				
Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 6 -						
NEW SUBCHAIN AND DATE: N1A000312011/334									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D011		A00031	A00031		V				
Data Sets Changed VRS Subchain	05/31/12	02:02:30	- 7 -						
NEW SUBCHAIN AND DATE: N1D003 2011/098									
DSNAME	JOBNAME	VOLSER	PRIMARY VRS	JOB MASK	TYPE	2nd.VRS JOB	SUBCHAIN DATE	2nd.SUBC DATE	
RMMUSER.D003		A00007	RMMUSER.D003		D				
RMMUSER.D003		A00007	RMMUSER.D003		D				

Figure 63. Sample SUBCHN Report

SUBCHNS report

The SUBCHNS report, as shown in [Figure 64](#) on page 58, summarizes details from the SUBCHN report. You can use the SUBCHNS report to see the vital record specification chains that DFSMSrmm is using to retain data sets.

The data columns in the SUBCHNS report provide the following information:

New Subchain

The primary vital record specification, the secondary vital record specification subchain names, and the dates the vital record specifications started to retain the data set.

COUNT

The number of data sets with the same new subchain.

1Summary of new Data Set subchains	05/31/12	02:02:31	- 1 -	
New Subchain	COUNT			
D004 2011/098	2			
D004 2011/334	1			
N1A000302011/098	2			
N1A000302011/334	1			
N1A000312011/098	2			
N1A000312011/334	1			
N1D003 2011/098	2			
N1D003 2011/334	1			
N1D012 2011/098	4			
N1D012 2011/334	2			

Figure 64. Sample SUBCHNS Report

VRSRETN report

The sample report is created from data set and volume ACTIVITY file records and from extended records in the report extract file. The detailed report is presented by data set, but is grouped based on whether the volume is retained or not.

Newly assigned volumes subject to VRSRETAIN	01/15/09	06:46:27	- 1
Status:			
RETAINED			

D A T A S E T V O L U M E				D A T A S E T V R S					V R S			
RETAIN VOLSER REASON	FILE FSEQ COUNT	IN DSNAME SET	JOBNAME	X	RETAINED	PRIM	2nd	PRIMARY VRS	JOB	MASK	TYPE	VRS
A01504 VOLUME	1 N	RMMUSER.A01504.DS1			Y							A01504
A01509 VOLUME	1 N	RMMUSER.A01509.DS1			N							A01509
A01509 VOLUME	2 N	RMMUSER.A01509.DS2			Y							A01509
A01510 VOLUME	2 N											A01510
A01512 DATASET	1 N	RMMUSER.A01512.DS1			N	Y		RMMUSER.A01512.DS1			D	
A01513 DATASET	1 N	RMMUSER.A01513.DS1			N	Y		RMMUSER.A01513.DS1			D	
A01601 IMPLICIT	1 N	RMMUSER.A01601.DS1			Y							
A01601 DATASET	2 N	RMMUSER.A01601.DS2	JA01601		N	Y	D	RMMUSER.A01601.DS2	JA01601		C	
A01601 IMPLICIT	3 N	RMMUSER.A01601.DS3			Y							
A01601 DATASET	4 N	RMMUSER.A01601.DS4			N	Y		RMMUSER.A01601.DS4			C	
A01602 DATASET	1 Y	RMMUSER.A01602.DS1			N	Y		RMMUSER.A01602.DS1			D	
A01604 VOLUME	1 N											A01604

data sets in this status:
12

Newly assigned volumes subject to VRSRETAIN 01/15/09 06:46:27 - 2

Status:
NOTRETAINED

D A T A S E T V O L U M E				D A T A S E T V R S					V R S			
RETAIN VOLSER REASON	FILE FSEQ COUNT	IN DSNAME SET	JOBNAME	X	RETAINED	PRIM	2nd	PRIMARY VRS	JOB	MASK	TYPE	VRS
A01505 D	1 N	RMMUSER.A01505.DS1			N	N		C				RMMUSER.A01505.DS1
A01506 Y	1	RMMUSER.A01506.DS1										1 N
A01507 N	1	RMMUSER.A01507.DS1										1 N
A01508 N	1	RMMUSER.A01508.DS1										1 N
A01511 Y	1	RMMUSER.A01511.DS1										3 N
A01511 D	2 N	RMMUSER.A01511.DS2			N	N		C				RMMUSER.A01511.DS2
A01511 Y	3	RMMUSER.A01511.DS3										3 N
A01603 N	1	RMMUSER.A01603.DS1										1 Y

data sets in this status:
8

The data columns in the VRSRETN report are presented in three groups:

- DATA SET
- DATA SET VRS
- VOLUME

and provide the following information:

DATA SET group

VOLSER

The volume serial number of the volume on which the data set resides.

FSEQ

The file sequence number of the data set on the volume on which the data set resides.

DSNAME

The name of the data set that is on a volume subject to VRSRETAIN processing during vital record processing.

JOBNAME

The jobname associated with the data set.

VX

The data set is excluded from VRSEL processing by VRSELEXCLUDE: Y - Yes, N - No

DATA SET VRS group**RETAINED**

The vital record status for the data set or volume. Y is the VRS-retained status. N is the Not VRS-retained status. Blank indicates there is no VRS matching information available.

DROP REASON

The reason the data set is not retained by a vital record specification. See [“ACTIVITY file record: EDGACTRC” on page 227](#), which provides the drop reasons.

PRIM

The reason for the primary VRS chain

2nd.

The reason for the secondary VRS chain

PRIMARY VRS

For data sets matching to a data set VRS, this is the name from the first vital record specification in the matching vital record specification chain. For volumes being retained only by a specific or generic volume VRS, this is the volser mask from the VRS.

JOB MASK

For data sets matching to a data set VRS this is the jobname from the first vital record specification in the matching primary vital record specification chain.

TYPE

The type of the vital record specification matched to the data set. See [“ACTIVITY file record: EDGACTRC” on page 227](#) for the vital record specification types.

VOLUME group**RETAINED**

The new vital record status for the volume. Y is the VRS-retained status. N is the Not VRS-retained status.

RETAIN REASON

The reason that the data set is retained. The value displayed is one of the following:

DATASET

VRS Retained by a data set VRS

IMPLICIT

Retained either because another data set on the volume is VRS retained or the volume is retained only by a volume VRS or the volume is retained by set.

VOLUME

Retained only because the volume is VRS retained

SET

Retained only because the volume is part of a multi-volume set and another volume in the set is VRS retained

FILE COUNT

The number of data sets (files) on the volume.

IN SET

Shows if the volume is in a multi-volume set. Y the volume is in a multi-volume set. N the volume is not in a multi-volume set.

VRSRETNS report

1Summary of newly assigned volumes for VRSRETAIN	07/30/09	10:00:22	- 1 -
Status	VOLUME COUNT		
-----	-----		

NOTRETAINED	7
RETAINED	9

The data columns in the VRSRETNS report provide the following information:

Status

The new vital record status. The status is one of:

RETAINED

The volume is VRS retained.

NOTRETAINED

The volume is not VRS retained.

VOLUME COUNT

The number of volumes with the same determined status. The status for a volume with multiple data sets is determined in the following sequence:

1. If any data set is VRS retained or the volume is VRS retained, including volumes retained by set, the volume status is RETAINED
2. If any data sets match to a data set VRS but are dropped, or there is no match to either a data set or volume VRS, or a volume matches a volume VRS and is not retained the volume status is NOTRETAINED.

EXPDROP report

Here is an example of the EXPDROP report:

EXPDT retained volumes subject to EXPDTRDOP																		09/03/12		06:28:51		- 1 -													
Status: RELEASED																																			
VOLSER		VSEQ		DSNAME		JOBNAME		EXPRSN		ASSIGNED		EXPDT		RM		RB		RETDATE		ACTIONS		LOCATION		HOME		DEST		RLS		ACT		HOLD		EDM	
A01502		1		RMMUSER.A01502.A111111.B222222.C333333.D4444		RMMTEST1		X		2012/243		2012/245		V								SHELF		SHELF				S				N		N	
A01503		1		RMMUSER.A01503.A111111.B222222.C333333.D4444		RMMTEST1		X		2012/243		2012/245		E		V						SHELF		SHELF				S				N		N	
A01504		2		RMMUSER.A01504.X111111.Y222222		RMMTEST1		X		2012/243		2012/245		E		V						SHELF		SHELF				S				N		N	
A01505		1		RMMUSER.A01505.X111111.Y222222		RMMTEST1		X		2012/243		2012/245		E		S						SHELF		SHELF				S				N		N	
A01506		1		RMMUSER.A01506.X111111.Y222222		RMMTEST1		X		2012/243		2012/245		V								SHELF		SHELF		SHELF				O I		N		N	
A01507		1		RMMUSER.A01507.X111111.Y222222		RMMTEST1		X		2012/243		2012/245		E		F						SHELF		SHELF						R		E		N	
A01508		1		RMMUSER.A01508				X		2012/243		2012/246		V								SHELF		SHELF		SHELF		S				N		N	
A01509		2		RMMUSER.A01509				X		2012/243		2012/246		V								SHELF		SHELF		SHELF		S				N		N	
A01510		3		RMMUSER.A01510				X		2012/243		2012/246		V								SHELF		SHELF		SHELF		S				N		N	
A01511		4		RMMUSER.A01511				X		2012/243		2012/246		V								SHELF		SHELF		SHELF		S				N		N	
A01512		1		RMMUSER.A01512				X		2012/243		2012/245		E		V						SHELF		SHELF		SHELF		S				N		N	
A01513		2		RMMUSER.A01519				X		2012/243		2012/245		E		V						SHELF		SHELF		SHELF		S				N		N	
Volumes in this status: 12																																			
EXPDT retained volumes subject to EXPDTRDOP																		09/03/12		06:28:51		- 2 -													
Status: NOCHANGE																																			
VOLSER		VSEQ		DSNAME		JOBNAME		EXPRSN		ASSIGNED		EXPDT		RM		RB		RETDATE		ACTIONS		LOCATION		HOME		DEST		RLS		ACT		HOLD		EDM	
A01500		1		RMMUSER.A01500.DATA.SET1						2012/243		2012/248		E		V						SHELF		SHELF				S				N		N	
A01501		1		RMMUSER.A01501						2012/243		2012/249		V								SHELF		SHELF				S				N		N	
A01514		1		RMMUSER.JUST.ANOTHER.DS						2012/243		2012/248		V								SHELF		SHELF				S				N		N	
A01515		1		RMMUSER.THE.LAST.ONE						2012/243		2012/248		E		F						SHELF		SHELF				S				N		N	
Volumes in this status: 4																																			

The data columns in the EXPDROP report provide the following information:

VOLSER

The volume serial number of the volume subject to EXPDTRDROP.

VSEQ

The volume sequence number.

DSNAME

The name of the data set for the first file on the volume.

JOBNAME

The jobname associated with the data set.

EXPRSN

The reason the volume is no longer retained by EXPDT. See [“ACTIVITY file record: EDGACTRC” on page 227](#), which provides the reasons.

ASSIGNED

The date the volume was assigned from scratch status.

EXPDT

The volume expiration date.

RM

The retention method for this volume: E - EXPDT, V - VRSEL.

RB

The RETAINBY value for RM(EXPDT) managed volumes:

V

Volume retention

S

Set retention

F

FIRSTFILE retention

The entry is blank for RM(VRSEL) managed volumes.

RETDATE

The retention date for the volume. If there is no date it indicates the volume has never been VRS retained, otherwise this is the date the volume was dropped from vital record status.

ACTIONS

The pending actions for the volume. The values are:

S

Return to scratch

R

Replace volume

O

Return to owner

I

Initialize

E

Erase

N

Notify

A character indicates the action is set. A blank indicates the action is not set.

LOCATION

The volume's current location.

HOME

The volume's home location.

DEST

The volume's destination.

RLS ACT

The release actions for the volume. The values are:

S

Return to scratch

R

Replace volume

O

Return to owner

I

Initialize

E

Erase

N

Notify

A character indicates the action is set. A blank indicates the action is not set.

HOLD

The volume hold attribute. The values are:

N

The volume hold attribute is not set.

Y

The volume hold attribute is set.

EXPDROPS report

Sample JCL for creating an EXPDROPS report is provided in SYS1.SAMPLIB(EDGJACTP)..

```
1Summary of EXPDT retained volumes for EXPDTRDOP      05/11/12      07:17:42      - 1 -
Status          VOLUME COUNT
-----
NOCHANGE                1
RELEASED                7
```

The data columns in the EXPDROPS report provide the following information:

Status

The new EXPDT status. The status is one of:

NOCHANGE

The volume is EXPDT retained

RELEASED

The volume's EXPDT is reached and the volume set to pending release.

VOLUME COUNT

The number of volumes with the same determined status.

Chapter 4. Creating reports with DFSMSrmm utilities

The DFSMSrmm report utilities EDGRPTD and EDGAUD help you keep track of your removable media inventory and monitor access to classified tape data. [Table 6 on page 65](#) shows information that you can obtain using EDGRPTD and EDGAUD.

Table 6. DFSMSrmm Report utilities and samples

To Obtain	Use	Which Requires the
Inventory, movement, and scratch reports	EDGRPTD, described in “Using EDGRPTD to create reports” on page 65	Extract data set
Audit reports and security reports using System Management Facility (SMF) records	EDGAUD, described in “Using EDGAUD to create security and audit reports” on page 77	SMF data set

You can write customized reports by using DFSORT's ICETOOL. For information on using DFSORT's ICETOOL, see [Chapter 6, “Using DFSMSrmm with DFSORT,” on page 117](#).

Using EDGRPTD to create reports

The DFSMSrmm utility EDGRPTD produces reports from the extract data set created using the EDGHSKP utility. Run storage location management before you create the extract data set to ensure that the extract data set contains the most current information about volumes that should move within the library, between the library and storage locations, or among storage locations. Use EDGRPTD to create inventory reports, movement reports, and scratch list reports.

- Inventory reports for auditing the physical contents of the installation media library and storage locations. See [“Using inventory reports” on page 70](#).
- Movement reports that list volumes to be moved from one location to another. Use these reports to make an inventory of your volumes and to identify volumes that need to be pulled and moved to other locations. See [“Using movement reports” on page 72](#).
- Scratch list reports that list scratch volumes in your installation. You can list all scratch volumes and new scratch volumes. See [“Using scratch list reports” on page 74](#).

EDGRPTD reads the volume records from the extract data set and uses DFSORT to order the records to produce the reports you request.

You do not need to provide DFSORT parameters or work data sets because EDGRPTD specifies the necessary parameters for DFSORT and requests dynamic allocation of work data sets. You can combine the production of scratch reports with movement reports and inventory reports in the same run of EDGRPTD.

Creating scratch list reports

You can create reports that list scratch volumes by specifying the NEWSCR and SCRLIST output files. The contents of the reports is controlled by the volume scratch date and time information in the SCRDATE. For information about the NEWSCR file, the SCRLIST file, and the SCRDATE file, see [“DD statements for scratch list reports” on page 69](#). You can produce scratch reports with movement reports and inventory reports in the same run of EDGRPTD.

The NEWSCR and SCRLIST reports use the same format. DFSMSrmm starts a new page for each scratch pool or storage group. The reports list volumes within a storage group by storage group and location. The reports list volumes with no storage group by storage group when the matching pool has a NAME value. The report lists the remaining scratch volumes by matching pool prefix and location.

Use the new scratch list report (NEWSCR) to list volumes that were returned to scratch status since the last time you ran the scratch list report. Specify a date and time in the SCRDATE file to control the list of volumes that DFSMSrmm returns in the NEWSCR file. To create a report that only lists new scratch volumes that were returned to scratch since the last time you requested a scratch list, specify a date and time in the SCRDATE file. To obtain a report that contains all the volumes that are in scratch status, specify an empty SCRDATE file.

To create a report that contains just the new scratch volumes you can choose one of these options:

1. Use the RMM LISTCONTROL subcommand to obtain the last run date and time of expiration processing. Specify this date and time in the SCRDATE file. If you specify the last run date and time of expiration processing, DFSMSrmm lists all volumes that have returned to scratch status during or since the last run of expiration processing.
2. Use the EDGRPTD utility with at least one inventory management run before you start using the new scratch list. When you run EDGRPTD before you start using the new scratch list, DFSMSrmm produces a new scratch report that contains all the volumes in scratch status. During the first run, DFSMSrmm sets the date and time in the SCRDATE file. This ensures that the next time you run EDGRPTD, such as after the next expiration processing run, DFSMSrmm produces a report that contains only new scratch volumes.

Use the scratch list report (SCRLIST) to list all of the volumes in scratch status. DFSMSrmm returns all the volumes that are in scratch status at the time you run the job. The scratch list report includes all the information available at the time you run the report. As a result, you might find differences between the information in the report and the information in the DFSMSrmm control data set. For example, the volume information in the scratch list report might not reflect the scratch volumes that have been used or the volumes that were made available as part of expiration processing. Both of these events can change information in the control data set that might not be reflected in the report.

JCL for EDGRPTD

To create a report, submit a job with JCL, as shown in [Figure 65 on page 66](#).

```
//D021906H JOB ('T,H,IOM,,',SYSPROG),'***IBMUSER***',
// MSGLEVEL=(1,1),MSGCLASS=H,CLASS=S,REGION=4096K,
// NOTIFY=D021906
//RPTD EXEC PGM=EDGRPTD,
// PARM='SEC('INTERNAL USE ONLY')',DATEFORM(I),LINECOUNT(54)'
//REPTXT DD DISP=SHR,DSN=RMMTST.PR0914X.REPTXT
//SYSPRINT DD SYSOUT=*
//INSTVOL DD DISP=SHR,DSN=RMMTST.REPORT.INSTVOL
//INSTBIN DD DISP=SHR,DSN=RMMTST.REPORT.INSTBIN
//INSTOWN DD DISP=SHR,DSN=RMMTST.REPORT.INSTOWN
//TOSTRCK DD DISP=SHR,DSN=RMMTST.REPORT.TOSTRCK
//TOSTOWN DD DISP=SHR,DSN=RMMTST.REPORT.TOSTOWN
//FMSTBIN DD DISP=SHR,DSN=RMMTST.REPORT.FMSTBIN
//FMSTOWN DD DISP=SHR,DSN=RMMTST.REPORT.FMSTOWN
//RDYTOSCR DD DISP=SHR,DSN=RMMTST.REPORT.RDYTO SCR
//SYSOUT DD DISP=SHR,DSN=RMMTST.REPORT.DFSORT
//SCRDATE DD DISP=OLD,DSN=RMMTST.LAST.RUN.DATE
//SCRLIST DD DISP=SHR,DSN=RMMTST.REPORT.SCRLIST
//NEWSCR DD DISP=SHR,DSN=RMMTST.REPORT.NEWSCR
```

Figure 65. Example of JCL for EDGRPTD to create inventory reports, movement reports, and scratch list reports

Note that each DD statement is optional and needs to be specified only for the reports you want.

EXEC parameters for EDGRPTD

[Figure 66 on page 67](#) shows the EXEC parameters for EDGRPTD.

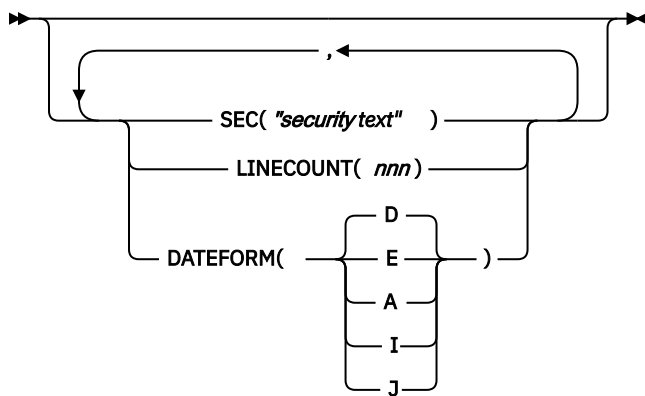


Figure 66. EDGRPTD EXEC parameters

The EXEC parameters for EDGRPTD are:

DATEFORM(A/E/I/J/D)

Use the DATEFORM parameter to specify the format for date fields in the report. The DATEFORM parameter can be:

Value	Language	Format	Example
A	American	mm/dd/yyyy	12/15/2012
E	European	dd/mm/yyyy	15/12/2012
I	International Organization for Standardization (ISO)	yyyy/mm/dd	2012/12/15
J	Julian	yyyy/ddd	2012/350
D	Default	Installation default in EDGRMMxx	Initially set to Julian

LINECOUNT(nnn)

nnn specifies the number of lines per page for reports, including the heading and trailer lines. Specify a value between 10 and 999. Specify LINECOUNT to override the LINECOUNT value specified by the LINECOUNT operand of the EDGRMMxx parmlib member OPTION command. See [z/OS DFSMSrmm Implementation and Customization Guide](#) for information about the LINECOUNT operand.

The default is 54 lines per page.

SEC("security text")

Specify up to 32 characters of security heading text for the reports. If the text contains blanks or special characters, enclose it in double quotes when specifying blanks or special characters.

DD statements for input and output

The DD statements you code for input and output are:

REPTTEXT

REPTTEXT is an input file that contains the DFSMSrmm extract data set used to create reports. REPTTEXT is required.

SYSOUT

SYSOUT is an output file used by the sort program. It contains information for sorting that is performed by EDGRPTD.

SYSPRINT

SYSPRINT is an output file for the messages DFSMSrmm issues for EDGRPTD. SYSPRINT is required.

DD statements for inventory reports

The DD statements you can code for inventory reports are:

INSTVOL

INSTVOL is an output file for the report. INSTVOL contains the inventory of volumes by location that is sorted by volume serial number.

INSTBIN

INSTBIN is an output file for the report containing the inventory of volumes by location that is sorted by rack number or bin number. The storage location report is sorted by bin number. All other reports are sorted by rack number.

INSTOWN

INSTOWN is an output file for the report containing the inventory of volumes by location that is sorted by owner.

DD statements for movement reports

The DD statements you can code for movement reports are:

FMSTBIN

FMSTBIN is an output file for movement reports that are sorted by bin number. FMSTBIN includes information about:

- Volumes to be moved between storage locations
- Volumes to be moved from storage locations to SHELF
- Volumes to be moved from storage locations to system-managed tape libraries

FMSTOWN

FMSTOWN is an output file for movement reports that are sorted by owner. FMSTOWN includes information about:

- Volumes to be moved from storage locations to SHELF
- Volumes to be moved from storage locations to system-managed libraries
- Volumes to be moved between storage locations

RDYTOSCR

RDYTOSCR is an output file for movement reports. It is sorted in ascending order. The rack report column contains either a bin or rack number. RDYTOSCR includes information about volumes to be moved from locations to home locations. DFSMSrmm excludes volumes listed in the Ready-To-Scratch report from either the TOSTRCK or FMSTBIN report.

TOSTOWN

TOSTOWN is an output file for movement reports that are sorted by owner. TOSTOWN includes information about:

- Volumes to be moved from SHELF to storage location
- Volumes to be moved from system-managed libraries to storage locations
- Volumes to be moved between system-managed libraries

TOSTRCK

TOSTRCK is an output file for movement reports that are sorted by rack number. TOSTRCK includes information about:

- Volumes to be moved from SHELF to storage locations
- Volumes to be moved between system-managed libraries
- Volumes to be moved from system-managed libraries to storage locations

DD statements for scratch list reports

The DD statements you can code for scratch list reports are:

NEWSCR

NEWSCR is the output file for the listing of all scratch volumes returned to scratch status since the last scratch list was produced. DFSMSrmm produces the NEWSCR file when there is a valid date and time in the SCRDATE file or the SCRDATE file contains no record.

SCRDATE

This file is used to produce the scratch list report. Each time a scratch list report is produced, DFSMSrmm updates the SCRDATE file with the highest scratch date and time for a volume. DFSMSrmm uses the date and time to determine which volumes to include in the new scratch list report. DFSMSrmm includes all scratch volumes with a newer assigned date and time in the new scratch listings. You can edit the SCRDATE file, which is a single record of LRECL 80 that contains a 10-character date and an eight-character time in external format. The date format must be the same format you specified for EDGRPTD. DFSMSrmm produces a new scratch list report only if there is a valid date or time for a volume. If there is no date or time, or the date is not valid, DFSMSrmm does not produce a new scratch list but produces a full scratch listing only in the SCRDATE DD. If the SCRDATE file is empty, the NEWSCR and SCRLIST reports are identical, and DFSMSrmm writes the highest scratch date and time to the SCRDATE file.

Here is an example of the 80 byte input record.

```
01/12/201223:01:00
```

This example uses American date format. The date is 10 characters long and must start in column 1. The time is 8 characters and starts in column 11. The SCRDATE file can be a new data set or an existing data set. Do not specify the date and time in the JCL using DD * because EDGRPTD updates the file with the highest scratch date and time.

The SCRLIST DD can be in any format, even a partitioned data set (PDS) member. The SCRDATE DD can be preallocated with any disposition.

SCRLIST

Output file for the full scratch list report.

Return codes for EDGRPTD

EDGRPTD issues one of the return codes that are shown in [Table 7 on page 69](#).

Table 7. EDGRPTD return codes

Return Code	Explanation
0	All requested functions completed successfully.
4	DFSMSrmm encountered a minor error during processing. It issues a warning message and continues processing.
12	DFSMSrmm encountered a severe error during processing of one of the requested functions. DFSMSrmm stops the utility.
16	DFSMSrmm encountered a severe error during a required communication with the DFSMSrmm subsystem. DFSMSrmm stops the utility.

EDGRPTD report samples

This topic contains examples of reports that you can create by using the DFSMSrmm EDGRPTD report utility described in [“Using EDGRPTD to create reports” on page 65](#).

Using inventory reports

Before you begin: To obtain the most up-to-date inventory report, move all volumes that are in transit to their destinations and confirm that all moves have been completed before you produce the extract data set from which you produce inventory reports.

You can use inventory reports for performing audits of your library and storage locations. You can use the inventory reports to track logical volumes. DFSMSrmm lists all the logical and stacked volumes in the library. When you request an inventory of a VTS location, DFSMSrmm lists all the logical volumes in the library. For exported logical volumes, DFSMSrmm lists the stacked volume in the report rather than the exported logical volume.

Non-shelf-managed locations do not have bin numbers. Inventory reports list a bin number column, leaving the bin number field blank.

DFSMSrmm produces inventory reports in INSTVOL, INSTBIN, INSTOWN output files. Each output file can contain multiple reports.

Because volumes that are in transit can appear in multiple reports, you must determine the location of those volumes based on your installation's movement process.

DFSMSrmm produces a separate report for each location where volumes reside. The reports are composed of repeated data columns. The data columns for the inventory reports are:

VOLUME

The volume serial number

RACK

The rack number and external volume serial number. The Rack field contains the volume serial number when no rack number has been defined for the volume.

BIN

The bin number in which the volume resides. The Bin field contains information only when you specify the EDGRMMxxparmlib member LOCDEF MANAGEMENTTYPE(BINS) command.

OWNER

The owner of the volume

MEDIANAME

The media name or type of media of the volume

T

The volume in-transit status can be one of the following:

N

The volume is not in transit or waiting to be moved so you should expect to find the volume in the location identified by the inventory report.

I

The volume is moving to the listed shelf location. DFSMSrmm lists the volume in the report for the current location of the volume, as well as the target location.

O

The volume is moving from the listed shelf location. DFSMSrmm lists the volume in the report for the current location of the volume, as well as the target location.

INSTBIN report

The INSTBIN report, as shown in [Figure 67 on page 71](#), is a report that contains the inventory of volumes by location that is sorted by rack number or bin number.

REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				INVENTORY OF VOLUMES IN LOCATION ATL10001				PAGE DATE 07/05/2012		1	
RACK	VOLUME	OWNER	MEDIANAME T	RACK	VOLUME	OWNER	MEDIANAME T	RACK	VOLUME	OWNER	MEDIANAME T
RMM102	RMM102		N								
RMM103	RMM103		N								
RMM104	RMM104		N								
RMM105	RMM105	RMMUSER	N								
RMM106	RMM106	RMMUSER	N								
RMM107	RMM107	RMMUSER	N								
TOTAL NUMBER OF ENTRIES LISTED = 6											
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				INVENTORY OF VOLUMES IN LOCATION MTL13480				PAGE DATE 07/05/2012		1	
RACK	VOLUME	OWNER	MEDIANAME T	RACK	VOLUME	OWNER	MEDIANAME T	RACK	VOLUME	OWNER	MEDIANAME T
A10604	A10604		N								
A10605	A10605		N								
A10606	A10606		N								
A10607	A10607		N								
A10608	A10608		N								
TOTAL NUMBER OF ENTRIES LISTED = 5											
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				INVENTORY OF VOLUMES IN LOCATION SHELF				PAGE DATE 07/05/2012		1	
RACK	VOLUME	OWNER	MEDIANAME T	RACK	VOLUME	OWNER	MEDIANAME T	RACK	VOLUME	OWNER	MEDIANAME T
A00150	A00150		3480 0								
A00151	A00151		3480 0								
A00152	A00152		3480 0								
A00153	A00153		3480 0								
A00154	A00154		3480 0								
TOTAL NUMBER OF ENTRIES LISTED = 5											

Figure 67. INSTBIN Report sample

INSTOWN report

The INSTOWN report, as shown in [Figure 68 on page 71](#), is a report that contains the inventory of volumes by location that is sorted by owner name.

REMOVABLE MEDIA MANAGER				INVENTORY OF VOLUMES IN LOCATION ATL10001				PAGE		1	
5650-ZOS Copyright IBM Corp. 1993,2012				-----				DATE		07/05/2012	
OWNER	VOLUME	RACK	MEDIANAME T	OWNER	VOLUME	RACK	MEDIANAME T	OWNER	VOLUME	RACK	MEDIANAME T
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	RMM102	RMM102	N								
	RMM103	RMM103	N								
	RMM104	RMM104	N								
RMMUSER	RMM105	RMM105	N								
RMMUSER	RMM106	RMM106	N								
RMMUSER	RMM107	RMM107	N								
TOTAL NUMBER OF ENTRIES LISTED = 6											
REMOVABLE MEDIA MANAGER				INVENTORY OF VOLUMES IN LOCATION MTL13480				PAGE		1	
5650-ZOS Copyright IBM Corp. 1993,2012				-----				DATE		07/05/2012	
OWNER	VOLUME	RACK	MEDIANAME T	OWNER	VOLUME	RACK	MEDIANAME T	OWNER	VOLUME	RACK	MEDIANAME T
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	A10604	A10604	N								
	A10605	A10605	N								
	A10606	A10606	N								
	A10607	A10607	N								
	A10608	A10608	N								
TOTAL NUMBER OF ENTRIES LISTED = 5											
REMOVABLE MEDIA MANAGER				INVENTORY OF VOLUMES IN LOCATION SHELF				PAGE		1	
5650-ZOS Copyright IBM Corp. 1993,2012				-----				DATE		07/05/2012	
OWNER	VOLUME	RACK	MEDIANAME T	OWNER	VOLUME	RACK	MEDIANAME T	OWNER	VOLUME	RACK	MEDIANAME T
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
	A00150	A00150	3480 0								
	A00151	A00151	3480 0								
	A00152	A00152	3480 0								
	A00153	A00153	3480 0								
	A00154	A00154	3480 0								
TOTAL NUMBER OF ENTRIES LISTED = 5											

Figure 68. INSTOWN Report sample

INSTVOL report

The INSTVOL report, as shown in [Figure 69 on page 72](#), is a report that contains the inventory of volumes by location that is sorted by volume serial number.

REMOVABLE MEDIA MANAGER				INVENTORY OF VOLUMES IN LOCATION ATL10001				PAGE		1				
5650-Z0S Copyright IBM Corp. 1993,2012				-----				DATE		07/05/2012				
VOLUME	RACK	OWNER	MEDIANAME	T	VOLUME	RACK	OWNER	MEDIANAME	T	VOLUME	RACK	OWNER	MEDIANAME	T

RMM102	RMM102			N										
RMM103	RMM103			N										
RMM104	RMM104			N										
RMM105	RMM105	RMMUSER		N										
RMM106	RMM106	RMMUSER		N										
RMM107	RMM107	RMMUSER		N										
TOTAL NUMBER OF ENTRIES LISTED = 6														
REMOVABLE MEDIA MANAGER				INVENTORY OF VOLUMES IN LOCATION MTL13480				PAGE		1				
5650-Z0S Copyright IBM Corp. 1993,2012				-----				DATE		07/05/2012				
VOLUME	RACK	OWNER	MEDIANAME	T	VOLUME	RACK	OWNER	MEDIANAME	T	VOLUME	RACK	OWNER	MEDIANAME	T

A10604	A10604			N										
A10605	A10605			N										
A10606	A10606			N										
A10607	A10607			N										
A10608	A10608			N										
TOTAL NUMBER OF ENTRIES LISTED = 5														
REMOVABLE MEDIA MANAGER				INVENTORY OF VOLUMES IN LOCATION SHELF				PAGE		1				
5650-Z0S Copyright IBM Corp. 1993,2012				-----				DATE		07/05/2012				
VOLUME	RACK	OWNER	MEDIANAME	T	VOLUME	RACK	OWNER	MEDIANAME	T	VOLUME	RACK	OWNER	MEDIANAME	T

A00150	A00150		3480	0										
A00151	A00151		3480	0										
A00152	A00152		3480	0										
A00153	A00153		3480	0										
A00154	A00154		3480	0										
TOTAL NUMBER OF ENTRIES LISTED = 5														

Figure 69. INSTVOL Report sample

Using movement reports

Before you begin: To ensure that the control data set reflects current information, you should ensure that you have confirmed the movement for volumes from previous movement reports. Confirm that you have moved the volumes by using the RMM CHANGEVOLUME subcommand with the CONFIRMMOVE operand or by using the DFSMSrmm ISPF CONFIRM dialog.

DFSMSrmm produces movement reports in the output files named TOSTRCK, TOSTOWN, RDYTOSCR, FMSTBIN, and FMSTOWN. Each output file can contain multiple reports with each report covering a specific pair of locations.

DFSMSrmm excludes volumes that are in a container from movement reports. DFSMSrmm lists the stacked volume instead.

You can use movement reports to identify volumes that need to be moved from one location to another. DFSMSrmm produces reports only if there are volumes to be moved. DFSMSrmm starts a new page and a report for each location and destination pair. Each report is composed of repeated data columns. The data columns are:

BIN

The bin number in which the volume resides. The Bin field contains information only when you specify the EDGRMMxxparmlib member LOCDEF MANAGEMENTTYPE(BINS) command.

VOLUME

The volume serial number

RACK

The rack number and external volume serial number. The Rack field contains the volume serial number when no rack number has been defined for the volume.

OWNER

The owner of the volume

MEDIANAME

The media name or type of media of the volume

T

The in-transit status of the volume. Y indicates that the volume is moving. N indicates that the volume currently resides in a system-managed library and must be ejected before it can be moved.

TOBIN

The target bin number

FMSTBIN report

The FMSTBIN report, as shown in [Figure 70 on page 73](#), is a volume movement report that is sorted by bin number.

REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION BORISOV TO LOCATION MINSK										PAGE DATE	1 07/05/2012
BIN	RACK	VOLUME	TO BIN	MEDIANAME	T	BIN	RACK	VOLUME	TO BIN	MEDIANAME	T	
BOR007	A00770	A00770		3480	Y							
TOTAL NUMBER OF ENTRIES LISTED = 1												
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION BORISOV TO LOCATION SHELF										PAGE DATE	1 07/05/2012
BIN	VOLUME	RACK	OWNER	MEDIANAME	T	BIN	VOLUME	RACK	OWNER	MEDIANAME	T	
BOR008	A00771	A00771	RMMUSER	3480	Y							
TOTAL NUMBER OF ENTRIES LISTED = 1												
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION MINSK TO LOCATION BORISOV										PAGE DATE	1 07/05/2012
BIN	RACK	VOLUME	TO BIN	MEDIANAME	T	BIN	RACK	VOLUME	TO BIN	MEDIANAME	T	
	A00772	A00772	BOR014		Y							
TOTAL NUMBER OF ENTRIES LISTED = 1												

Figure 70. FMSTBIN Report sample

FMSTOWN report

The FMSTOWN report, as shown in [Figure 71 on page 73](#), is a volume movement report that is sorted by owner name.

REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION BORISOV TO LOCATION MINSK										PAGE DATE	1 07/05/2012
OWNER	BIN	TO BIN	RACK	MEDIANAME	T	OWNER	BIN	TO BIN	RACK	MEDIANAME	T	
RMMUSER	BOR007		A00770	3480	Y							
TOTAL NUMBER OF ENTRIES LISTED = 1												
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION BORISOV TO LOCATION SHELF										PAGE DATE	1 07/05/2012
OWNER	VOLUME	RACK	BIN	MEDIANAME	T	OWNER	VOLUME	RACK	BIN	MEDIANAME	T	
RMMUSER	A00201	A00201	BOR003	3480	Y							
RMMUSER	A00202	A00202	BOR004	3480	Y							
RMMUSER	A00203	A00203	BOR005	3480	Y							
RMMUSER	A00204	A00204	BOR006	3480	Y							
RMMUSER	A00771	A00771	BOR008	3480	Y							
TOTAL NUMBER OF ENTRIES LISTED = 5												
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION MINSK TO LOCATION BORISOV										PAGE DATE	1 07/05/2012
OWNER	BIN	TO BIN	RACK	MEDIANAME	T	OWNER	BIN	TO BIN	RACK	MEDIANAME	T	
RMMUSER		BOR014	A00772		Y							
TOTAL NUMBER OF ENTRIES LISTED = 1												

Figure 71. FMSTOWN Report sample

RDYTOSCR report

The RDYTOSCR report, as shown in [Figure 102 on page 104](#), is a report that includes information about volumes to be moved from locations to home locations.

When you request the Ready-to-Scratch volume report along with the movement reports, DFSMSrmm excludes the volumes that are identified with the return-to-scratch status from the movement reports.

REMOVABLE MEDIA MANAGER 5650-Z0S Copyright IBM Corp. 1993,2012	READY TO SCRATCH VOLUMES FROM LOCATION BORISOV	TO LOCATION SHELF	PAGE 1 DATE 07/05/2012
BIN VOLUME RACK OWNER MEDIANAME T	BIN VOLUME RACK OWNER MEDIANAME T	BIN VOLUME RACK OWNER MEDIANAME T	
BOR003 A00201 A00201 RMMUSER 3480 Y			
BOR004 A00202 A00202 RMMUSER 3480 Y			
BOR005 A00203 A00203 RMMUSER 3480 Y			
BOR006 A00204 A00204 RMMUSER 3480 Y			
TOTAL NUMBER OF ENTRIES LISTED = 4			

Figure 72. RDYTOSCR Report sample

TOSTOWN report

The TOSTOWN report, as shown in [Figure 96 on page 95](#), is a volume movement report that is sorted by owner name.

REMOVABLE MEDIA MANAGER 5650-Z0S Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION SHELF	TO LOCATION BORISOV	PAGE 1 DATE 07/05/2012
OWNER VOLUME RACK BIN MEDIANAME T	OWNER VOLUME RACK BIN MEDIANAME T	OWNER VOLUME RACK BIN MEDIANAME T	
A00150 A00150 BOR009 3480 Y			
A00151 A00151 BOR010 3480 Y			
A00152 A00152 BOR011 3480 Y			
A00153 A00153 BOR012 3480 Y			
A00154 A00154 BOR013 3480 Y			
TOTAL NUMBER OF ENTRIES LISTED = 5			
REMOVABLE MEDIA MANAGER 5650-Z0S Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION SHELF	TO LOCATION MINSK	PAGE 1 DATE 07/05/2012
OWNER VOLUME RACK BIN MEDIANAME T	OWNER VOLUME RACK BIN MEDIANAME T	OWNER VOLUME RACK BIN MEDIANAME T	
RMMUSER A00400 RAC400 Y			
RMMUSER A00401 RAC401 Y			
RMMUSER A00402 RAC402 Y			
RMMUSER A00403 RAC403 Y			
RMMUSER A00404 RAC404 Y			
RMMUSER A00773 RAC773 Y			
TOTAL NUMBER OF ENTRIES LISTED = 6			

Figure 73. TOSTOWN Report sample

TOSTRCK report

The TOSTRCK report, as shown in [Figure 74 on page 74](#), is a volume movement report that is sorted by rack number.

REMOVABLE MEDIA MANAGER 5650-Z0S Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION SHELF	TO LOCATION BORISOV	PAGE 1 DATE 07/05/2012
RACK VOLUME BIN OWNER MEDIANAME T	RACK VOLUME BIN OWNER MEDIANAME T	RACK VOLUME BIN OWNER MEDIANAME T	
A00150 A00150 BOR009 3480 Y			
A00151 A00151 BOR010 3480 Y			
A00152 A00152 BOR011 3480 Y			
A00153 A00153 BOR012 3480 Y			
A00154 A00154 BOR013 3480 Y			
TOTAL NUMBER OF ENTRIES LISTED = 5			
REMOVABLE MEDIA MANAGER 5650-Z0S Copyright IBM Corp. 1993,2012	VOLUMES TO BE MOVED FROM LOCATION SHELF	TO LOCATION MINSK	PAGE 1 DATE 07/05/2012
RACK VOLUME BIN OWNER MEDIANAME T	RACK VOLUME BIN OWNER MEDIANAME T	RACK VOLUME BIN OWNER MEDIANAME T	
RAC400 A00400 RMMUSER Y			
RAC401 A00401 RMMUSER Y			
RAC402 A00402 RMMUSER Y			
RAC403 A00403 RMMUSER Y			
RAC404 A00404 RMMUSER Y			
RAC773 A00773 RMMUSER Y			
TOTAL NUMBER OF ENTRIES LISTED = 6			

Figure 74. TOSTRCK Report sample

Using scratch list reports

Before you begin: To ensure that the control data set reflects current information, confirm that you have moved the required volumes before creating the movement reports. Confirm that you have moved the volumes by using the RMM CHANGEVOLUME subcommand with the CONFIRMMOVE operand or by using the DFSMSrmm ISPF dialog.

You can use scratch list reports to identify volumes that can be used to satisfy scratch requests. Each report consists of repeating data columns. The data columns are:

VOLUME

The volume serial number.

RACK

The rack number and external volume serial number.

MEDIANAME

The media name of the volume. Your installation defines the media name. MEDIANAME identifies the shelving characteristics of the media such as size or shape.

SCRATCH DATE+TIME

The date and time when the volume returned to scratch status.

LOCATION

The location where the volume resides.

DATA SET NAME

The data set name of the first file on the volume.

VSEQ

The volume sequence number.

DSEQ

The data set sequence number on the named volume.

MEDIATYPE

The physical media type of the volume.

NEWSCR report

The NEWSCR report, as shown in Figure 75 on page 76, is a report that lists all scratch volumes returned to scratch status since the last scratch list was produced.

REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				NEW SCRATCH VOLUMES SINCE 07/05/2012 01:34:35 POOL NAME				PAGE DATE	1 07/05/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
RMM102	RMM102	CART	07/05/2012 01:41:08	ATL10001		1	0	ECCST	
RMM103	RMM103	CART	07/05/2012 01:41:08	ATL10001		1	0	ECCST	
RMM104	RMM104	CART	07/05/2012 01:41:08	ATL10001		1	0	ECCST	
TOTAL NUMBER OF ENTRIES LISTED = 3									
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				NEW SCRATCH VOLUMES SINCE 07/05/2012 01:34:35 POOL NAME				PAGE DATE	1 07/05/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
A00800	A00800	3480	07/05/2012 01:41:14	MINSK	DS.A00800	1	0	*	
A00801	A00801	3480	07/05/2012 01:41:14	MINSK	DS.A00801	1	0	*	
A00802	A00802	3480	07/05/2012 01:41:14	MINSK	DS.A00802	1	0	*	
A00803	A00803	3480	07/05/2012 01:41:14	MINSK	DS.A00803	1	0	*	
A00804	A00804	3480	07/05/2012 01:41:14	MINSK	DS.A00804	1	0	*	
TOTAL NUMBER OF ENTRIES LISTED = 5									
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				NEW SCRATCH VOLUMES SINCE 07/05/2012 01:34:35 POOL NAME				PAGE DATE	1 07/05/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
A00150	A00150	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00151	A00151	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00152	A00152	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00153	A00153	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00154	A00154	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00600	A00600	3480	07/05/2012 01:41:16	SHELF	DS.A00600	1	0	*	
A00601	A00601	3480	07/05/2012 01:41:16	SHELF	DS.A00601	1	0	*	
A00602	A00602	3480	07/05/2012 01:41:16	SHELF	DS.A00602	1	0	*	
A00603	A00603	3480	07/05/2012 01:41:16	SHELF	DS.A00603	1	0	*	
A00604	A00604	3480	07/05/2012 01:41:16	SHELF	DS.A00604	1	0	*	
TOTAL NUMBER OF ENTRIES LISTED = 10									
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				NEW SCRATCH VOLUMES SINCE 10/03/2012 03:09:28 POOL NAME SGMTL01				PAGE DATE	1 10/03/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
A10604	A10604	3480	10/03/2012 07:57:40	MTL13480	DS.A10604	1	0	CST	
A10605	A10605	3480	10/03/2012 07:57:40	MTL13480	DS.A10605	1	0	CST	
A10606	A10606	3480	10/03/2012 07:57:40	MTL13480	DS.A10606	1	0	CST	
A10607	A10607	3480	10/03/2012 07:57:40	MTL13480	DS.A10607	1	0	CST	
A10608	A10608	3480	10/03/2012 07:57:40	MTL13480	DS.A10608	1	0	CST	
TOTAL NUMBER OF ENTRIES LISTED = 5									

Figure 75. NEWSR Report sample

SCRLIST report

The SCRLIST report, as shown in [Figure 76 on page 77](#), is the output file for the full scratch list report.

REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				SCRATCH VOLUMES BY POOL NAME -----				PAGE DATE	1 07/05/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
RMM102	RMM102	CART	07/05/2012 01:41:08	ATL10001		1	0	ECCST	
RMM103	RMM103	CART	07/05/2012 01:41:08	ATL10001		1	0	ECCST	
RMM104	RMM104	CART	07/05/2012 01:41:08	ATL10001		1	0	ECCST	
TOTAL NUMBER OF ENTRIES LISTED = 3									
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				SCRATCH VOLUMES BY POOL NAME -----				PAGE DATE	1 07/05/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
A00800	A00800	3480	07/05/2012 01:41:14	MINSK	DS.A00800	1	0	*	
A00801	A00801	3480	07/05/2012 01:41:14	MINSK	DS.A00801	1	0	*	
A00802	A00802	3480	07/05/2012 01:41:14	MINSK	DS.A00802	1	0	*	
A00803	A00803	3480	07/05/2012 01:41:14	MINSK	DS.A00803	1	0	*	
A00804	A00804	3480	07/05/2012 01:41:14	MINSK	DS.A00804	1	0	*	
TOTAL NUMBER OF ENTRIES LISTED = 5									
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				SCRATCH VOLUMES BY POOL NAME -----				PAGE DATE	1 07/05/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
A00150	A00150	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00151	A00151	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00152	A00152	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00153	A00153	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00154	A00154	3480	07/05/2012 01:41:07	SHELF		1	0	*	
A00600	A00600	3480	07/05/2012 01:41:16	SHELF	DS.A00600	1	0	*	
A00601	A00601	3480	07/05/2012 01:41:16	SHELF	DS.A00601	1	0	*	
A00602	A00602	3480	07/05/2012 01:41:16	SHELF	DS.A00602	1	0	*	
A00603	A00603	3480	07/05/2012 01:41:16	SHELF	DS.A00603	1	0	*	
A00604	A00604	3480	07/05/2012 01:41:16	SHELF	DS.A00604	1	0	*	
TOTAL NUMBER OF ENTRIES LISTED = 10									
REMOVABLE MEDIA MANAGER 5650-ZOS Copyright IBM Corp. 1993,2012				SCRATCH VOLUMES BY POOL NAME SGMTL01 -----				PAGE DATE	1 10/03/2012
VOLSER	RACK	MEDIANAME	SCRATCH DATE+TIME	LOCATION	DATA SET NAME	VSEQ	DSEQ	MEDIATYPE	
A10604	A10604	3480	10/03/2012 07:57:40	MTL13480	DS.A10604	1	0	CST	
A10605	A10605	3480	10/03/2012 07:57:40	MTL13480	DS.A10605	1	0	CST	
A10606	A10606	3480	10/03/2012 07:57:40	MTL13480	DS.A10606	1	0	CST	
A10607	A10607	3480	10/03/2012 07:57:40	MTL13480	DS.A10607	1	0	CST	
A10608	A10608	3480	10/03/2012 07:57:40	MTL13480	DS.A10608	1	0	CST	
TOTAL NUMBER OF ENTRIES LISTED = 5									

Figure 76. SCRLIST Report sample

Using EDGAUD to create security and audit reports

Use the EDGAUD utility to create security reports and audit reports, using either previously selected and sorted SMF records or raw SMF data. DFSMSrmm produces SMF records when you specify the DFSMSrmm EDGRMMxxparmlib OPTION SMFAUD operand or the SMFSEC operand. See [z/OS DFSMSrmm Implementation and Customization Guide](#) for information about the SMFAUD option and the SMFSEC option. DFSMSrmm uses the default report options and the current SMF record types unless you override them with the EDGAUD EXEC parameters.

The EDGAUD utility reads the SMFIN file and selects records that are based on the processing criteria. The utility uses DFSORT to order the records to produce the reports you request.

You do not need to provide DFSORT parameters or work data sets. EDGAUD specifies the necessary parameters for DFSORT and requests dynamic allocation of work data sets.

For security reports, DFSMSrmm produces one line in the report for each security SMF record found in the input file.

For audit reports, DFSMSrmm can generate multiple report lines for each selected SMF record. For example, DFSMSrmm produces a line in the volume report, the rack number report, and the user ID report with an SMF record for a volume that has been updated.

JCL for EDGAUD

To create a security or audit report, submit a job with JCL, as shown in [Figure 77 on page 78](#).

```
//AUDREPT EXEC PGM=EDGAUD,
// PARM='SMFAUD(nnn),SMFSEC(nnn),SEC("security classification")'
//SYSPRINT DD program messages
//SMFIN DD input data set of SMF records
//AUDREPT DD audit report
//SECREPT DD security report
//SYSOUT DD DFSORT messages
//SYSIN DD select statements for audit report
```

Figure 77. JCL for EDGAUD

EXEC parameters for EDGAUD

Figure 78 on page 78 shows the EXEC parameters for EDGAUD.

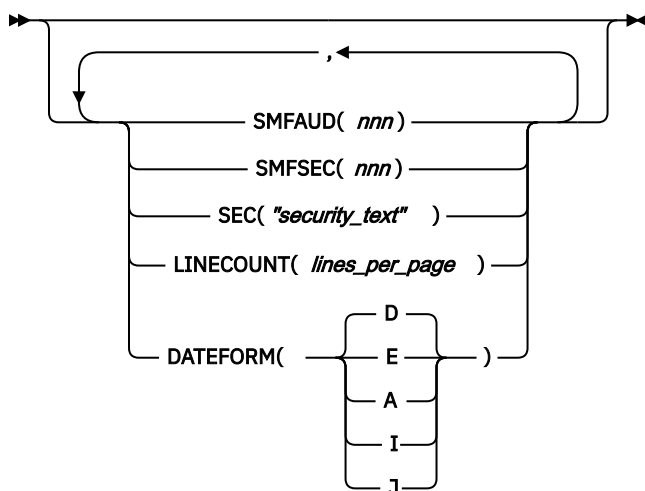


Figure 78. EDGAUD EXEC parameters

The EXEC parameters for EDGAUD are:

DATEFORM (A/E/I/J/D)

Use this parameter to set the date format for reports.

Value	Language	Format	Example
A	American	mm/dd/yyyy	12/15/2012
E	European	dd/mm/yyyy	15/12/2012
I	ISO	yyyy/mm/dd	2012/12/15
J	Julian	yyyy/ddd	2012/350
D	Default	Installation default in EDGRMMxx	Initially set to Julian

LINECOUNT(lines_per_page)

Specifies the page length. The default is 54 lines per page.

SEC("security_text")

Specifies the security heading text for the reports. Specify up to 32 characters and, if the text contains blanks or special characters, enclose it in double quotes.

SMFAUD(nnn)

Specifies a number that represents the SMF record type from the user-written range to be used to select data for reporting. Specify SMFAUD to override the current subsystem startup option value or

to select DFSMSrmm SMF records from the user-written range. EDGAUD always selects SMF records that are from the standard IBM SMF record types supported by DFSMSrmm. This parameter is only required if you are not using the IBM-assigned SMF record types for DFSMSrmm.

EDGAUD always checks the SMFIN file for SMF records of the IBM-assigned SMF record type and subtype, regardless of the setting of SMFAUD in parmlib.

SMFSEC(nnn)

Specifies a number that represents the SMF record type from the user-written range to be used to select data for reporting. Specify SMFSEC to override the current subsystem startup option value or to select DFSMSrmm SMF record from the user-written range. This parameter is only required if you are not using the IBM-assigned SMF record types for DFSMSrmm.

EDGAUD always checks the SMFIN file for SMF records of the IBM-assigned SMF record type and subtype, regardless of the setting of SMFSEC in parmlib.

DD statements for EDGAUD

The DD statements are as follows:

SYSPRINT

SYSPRINT specifies program and information messages. This DD statement is required.

SMFIN

SMFIN specifies the SMF record input data set. This DD statement is required.

AUDREPT

AUDREPT specifies that you want to create an audit report in this data set. DFSMSrmm does not produce a report unless you specify this DD statement. The report data set record length is 132 characters. This DD statement is optional.

SECREPT

SECREPT specifies that you want to create a security report in this data set. DFSMSrmm does not produce a report unless you specify this DD statement. The report data set record length is 132 characters. This DD statement is optional.

SYSOUT

SYSOUT specifies an output file for DFSORT messages. The SYSOUT DD statement is required; the job fails if you do not specify it. If you do not want to see the DFSORT messages, you can use the following code.

```
//SYSOUT DD DUMMY
```

Alternatively, you can use:

```
//DFSPARM DD *  
MSGPRT=NONE  
/*
```

to tell DFSORT not to print any messages or:

```
//DFSPARM DD *  
MSGPRT=CRITICAL,NOLIST  
/*
```

to tell DFSORT to print only error messages, if any.

SYSIN

When you specify the AUDREPT DD statement to request the audit report, you can use the SYSIN file to specify SELECT statements as described in [“SYSIN commands for EDGAUD” on page 79](#) to tailor the contents of the audit report. The SYSIN DD statement is optional.

SYSIN commands for EDGAUD

[Figure 79 on page 80](#) shows the format of the audit report selection options that you can supply for SYSIN.

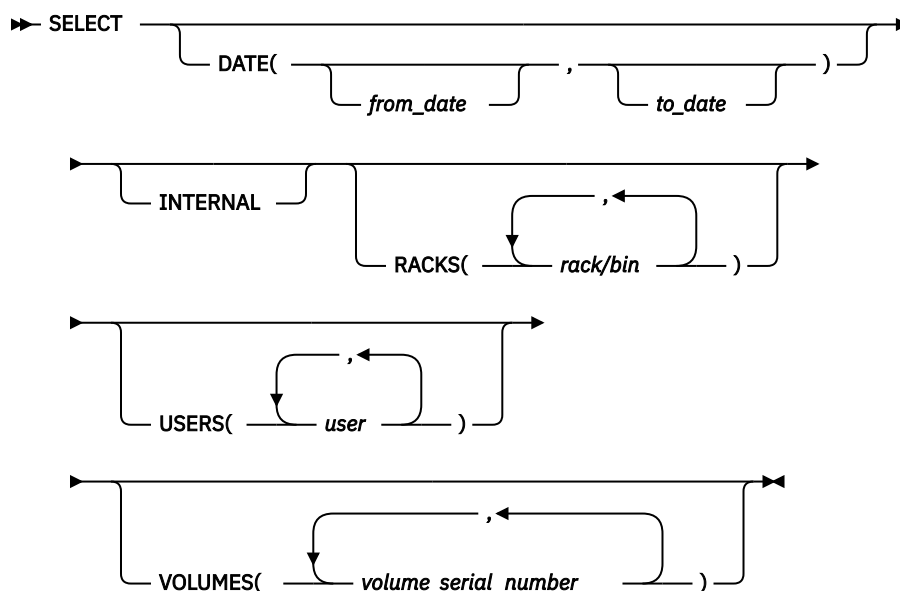


Figure 79. EDGAUD SYSIN commands

All SYSIN commands are optional, and you can specify them in any order, except for SELECT. You must always specify SELECT first if you use any other commands, as shown in [Figure 80 on page 80](#).

```
//S1SMF03 JOB 'SMF/S1SMF03',NOTIFY=LYONS,CLASS=A,USER=LYONS,
//        PASSWORD=LYONS,MSGLEVEL=(1,1),MSGCLASS=H,REGION=4M
//AUDREPT EXEC PGM=EDGAUD,
//        PARM='SMFAUD(248),SMFSEC(249),SEC(IUO),DATEFORM(A) '
//SYSPRINT DD SYSOUT=*
//SMFIN DD DISP=SHR,DSN=RMMTST.S1SMF02.MANXY
//AUDREPT DD DISP=(NEW,CATLG),UNIT=SYSALLDA,
//        DSN=RMMTST.S1SMF03.AUDREPT,
//        SPACE=(4096,(10,1),RLSE)
//SECREPT DD DISP=(NEW,CATLG),UNIT=SYSALLDA,
//        DSN=RMMTST.S1SMF03.SECREPT,
//        SPACE=(4096,(10,1),RLSE)
//SYSOUT DD DUMMY
//SYSIN DD *
SELECT DATE(02/21/2013,02/24/2013) -
VOLUMES(A0423*,A0433*) RACK(A0423*,A0433*) -
USERS(LYONS,RMMU001,SMFU001,SMFU002,SMFU003)
```

Figure 80. Example of JCL for using the SELECT SYSIN

DFSMSrmm always produces three reports in the AUDREPT file; a volumes report, a racks report, and a users report. You can select the records that appear in the reports by using the VOLUMES, USERS, and RACKS operands. If you do not specify the DATE operand, all the input records selected are subject to other selection criteria you have specified.

SELECT

Specify SELECT if you want to tailor the contents of the audit reports.

DATE(from_date,to_date)

Specify the date range of records to be selected for use in audit reports. The format of the date values is specified by the EDGAUD EXEC DATEFORM parameter or (if DATEFORM is not specified) by the DATEFORM parameter value defined by the installation. For example, if your installation set DATEFORM(J), specify:

```
DATE(2013/123,2013/223)
```

INTERNAL

Specify to include changes made by DFSMSrmm housekeeping. By default, record changes made by DFSMSrmm housekeeping functions are not included in the report.

RACKS(rack/bin)

Specify to limit the report to specific rack numbers or bin numbers. A rack number is six alphanumeric, national, or special characters in any combination. A bin number is six alphanumeric or national characters in any combination. You can specify a list of values.

USERS(user)

Specify to include only those changes made by specific users in the report. A user is any valid user ID. You can specify a list of users.

VOLUMES(volume_serial_number)

Specify to limit the report to specific volumes. A volume serial is one to six alphanumeric, national, or special characters. You can specify a list of values.

You can specify generic volume, rack, or user information. For example, you can specify VOLUMES(ABC*) to request all the volumes with volume serial numbers that start with 'ABC'.

Using the security report

Secure volumes are volumes you identify using the SECCLS parmlib command described in *z/OS DFSMSrmm Implementation and Customization Guide*. When you specify SMF(Y) and the option SMFSEC(nnn), DFSMSrmm creates an SMF record each time a data set is created, deleted, or referenced. The security report provides tracking information for the classified tape data you have identified.

You can use the security report to identify classified tape data sets that have been used for input or output. You can use the security report to keep track of accesses to secure volumes in your installation.

The security report, as shown in [Figure 81 on page 82](#), is comprised of these data columns:

DATA SET NAME

Classified data set name

VOLUME

Volume where the data set resides

VSQ

Volume serial number

DSQ

Data set sequence number

MEDIA

The installation-defined media name

ACTION

The action taken on the data set, which can be CREATE, READ, UPDATE, or DELETE

SECURITY

The highest security class of the volume when a data set was written.

GROUP

The current RACF connect group at the time the access was made.

USERID

The RACF user ID for the user who accessed the data set

SYST

The SMF system identifier

DATE

The date when the data set was accessed

TIME

The time when the data set was accessed

[Figure 81 on page 82](#) shows excerpts from a security report.

REMOVABLE MEDIA MANAGER				REPORT OF ACCESSSES TO SECURE VOLUMES						PAGE	1			
5650-Z05 Copyright IBM Corp. 1993,2012										DATE	2012/06/14			
DATA SET NAME				VOLUME	VSQ	DSQ	MEDIA	ACTION	SECURITY	GROUP	USERID	SYST	DATE	TIME
USERJOY.S1ATL026.D65DM1.BACKUP				002030	1	2	3490	CREATE	SECURE	SYS1	DILE	3090	02/23/2012	16:22:28
USERJOY.S1ATL026.D65DM1.BACKUP				002031	2	2	3490	CREATE	SECURE	SYS1	DILE	3090	02/23/2012	16:28:25
USERJOY.S1ATL026.D65DM1.BACKUP				002033	3	2	3490	CREATE	SECURE	SYS1	DILE	3090	02/23/2012	16:35:02
USERJOY.S1ATL026.USRPCCK.BACKUP				002030	1	1	3490	CREATE	SECURE	SYS1	DILE	3090	02/19/2012	14:50:50
USERJOY.S1ATL026.USRPCCK.BACKUP				002030	1	1	3490	CREATE	SECURE	SYS1	MIKE	3090	02/19/2012	15:15:11
USERJOY.S1ATL026.USRPCCK.BACKUP				002030	1	1	3490	CREATE	SECURE	SYS1	DILE	3090	02/23/2012	16:17:37
RMMU001.RAC005.DS1				A00099	1	1	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/19/2012	11:06:46
RMMU001.RAC005.DS1				123456	1	1	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/19/2012	14:19:12
RMMU001.RAC005.DS1				A04101	1	1	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/22/2012	11:08:05
RMMU001.RAC005.DS1				A04101	1	1	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/22/2012	13:14:28
RMMU001.RAC005.DS2				A00099	1	2	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/19/2012	11:06:48
RMMU001.RAC005.DS2				123456	1	2	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/19/2012	14:19:14
RMMU001.RAC005.DS2				A04101	1	2	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/22/2012	11:08:07
RMMU001.RAC005.DS2				A04101	1	2	3480	CREATE	GENERAL	D65RMM	RMMU001	3090	02/22/2012	13:14:29
CAUDILL.S1VVA09.V1F1				A04201	1	1	3480	CREATE	CLASS11	SYS1	LYONS	3090	02/23/2012	16:48:24
CAUDILL.S1VVA09.V1F1				A04201	1	1	3480	CREATE	CLASS11	SYS1	LYONS	3090	02/23/2012	16:56:46
CAUDILL.S1VVA09.V2F1				A04301	1	1	3480	CREATE	CLASS11	SYS1	LYONS	3090	02/23/2012	16:53:47
TOTAL NUMBER OF ENTRIES LISTED =				18										

Figure 81. Report of access to secure volumes

Using the audit report

Use the audit report to track changes to the control data set, identify inadvertent changes, and recover lost volumes. DFSMSrmm creates an audit SMF record whenever information about a volume, a rack number, or bin number changes in the control data set when you specify option SMFAUD(nnn). With EDGAUD, you can create reports that list the changes that have been made in the control data set.

The basic audit report consists of these individual reports: the VOLUME report, the RACK/BIN report, and the USERID report.

- **VOLUME report**

DFSMSrmm adds a report line in the volume report when volume information changes. The volume report is sorted by volume serial number.

- **RACK/BIN report**

DFSMSrmm updates information in this report when volume information and rack or bin number information change. The rack/bin report is sorted by rack or bin number.

- **USERID report**

DFSMSrmm updates information in this report when volume information and rack or bin number information change. The USERID report is sorted by user ID.

Changes to volume information can affect more than the volume report. For example, the EDGAUD utility makes these audit report entries when a volume is added to the library:

- A volume line in the VOLUME report
- A volume line in the RACK/BIN report
- A volume line in the USERID report
- A report line for deletion of an empty rack number in the RACK/BIN report
- A report line for creation of an in-use rack number in the RACK/BIN report

When a volume is in the process of being moved, DFSMSrmm marks the location field in the audit report with the '<' character, as shown in [“Excerpts from an audit trail report”](#) on page 84. This marks the location as the one from which the volume is moving.

The audit report columns include:

VOLUME

Volume serial number.

RACK

Rack number.

BIN

Bin number.

USERID

User ID that initiated the change. A user ID that starts with an asterisk (*) indicates that a DFSMSrmm function initiated the change.

DATE

Date the control data set changed.

TIME

Time the control data set changed.

SYSTEM

The SMF system identifier.

STATUS

One of:

ABEND

A data set on the volume was closed by abend processing.

CLOSED

For a stacked volume, DFSMSrmm lists the stacked volume in the report because the stacked volume was closed by command processing or export processing.

EMPTY

Rack or bin number has no volume assigned. For a stacked volume, the stacked volume contains no volumes.

IN USE

Rack or bin number contains non-scratch volume.

MASTER

Volume is master status.

OPEN

Data set on the volume is open. For a stacked volume, the stacked volume contains at least one volume.

RELEASE

Volume is pending release.

SCRATCH

Volume is scratch or shelf location contains scratch volume.

USER

Volume is a user volume.

VITAL

Volume is retained by a vital record specification. For a stacked volume, the stacked volume contains volumes that are retained by vital record specifications.

LOCATION

Location where the volume is stored. When a volume is in the process of being moved, DFSMSrmm marks the location field in the audit report with the '<' character.

LOAN LOC

Location outside the library where the volume is on loan.

OWNER

Volume owner.

EXP DATE

Volume expiration date.

SECURITY

Highest security classification in effect when the volume was accessed.

ACTIVITY

Can be: CREATE, DELETE, or UPDATE.

“Excerpts from an audit trail report” on page 84 shows excerpts from an audit trail report. The first column heading identifies the type of report information that is contained in the report.

Excerpts from an audit trail report

REMOVABLE MEDIA MANAGER												AUDIT TRAIL REPORT		PAGE	1
5650-Z0S Copyright IBM Corporation 2000,2012												DATE 2013/01/01			
VOLUME	RACK	BIN	USERID	DATE	TIME	SYSTEM	STATUS	LOCATION	LOAN	LOC	OWNER	EXP DATE	SECURITY	ACTIVITY	
111000	111000	000033	DENZEL	06/11/2012	04:00:10	E4E4	MASTER	<REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111041	111041	000042	BJK	06/11/2012	04:00:03	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111054	111054	000043	PALMER	06/11/2012	04:00:14	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111056	111056	000044	WRIGHT	06/11/2012	04:00:10	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111089	111089	000048	GILLPAT	06/11/2012	04:00:08	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111113	111113	000121	WHEELER	06/11/2012	04:00:12	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111122	111122	000122	PENDLTN	06/11/2012	04:00:12	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111124	111124	000123	ZOUNEK	06/11/2012	04:00:15	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111127	111127	000124	TAUBER	06/11/2012	04:00:14	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	
111128	111128	000125	RDRHSME	06/11/2012	04:00:07	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE	

REMOVABLE MEDIA MANAGER												AUDIT TRAIL REPORT		PAGE	2
5650-Z0S Copyright IBM Corporation 2000, 2012												DATE 2013/01/01			
RACK/BIN	VOLUME	USERID	DATE	TIME	SYSTEM	STATUS	LOCATION	LOAN	LOC	OWNER	EXP DATE	SECURITY	ACTIVITY		
000033	111000	WEISSEN	06/11/2012	04:00:10	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000042	111041	WEISSEN	06/11/2012	04:00:03	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000043	111054	GILLES	06/11/2012	04:00:14	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000044	111056	GILLES	06/11/2012	04:00:10	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000122	111122	KIRCHHOF	06/11/2012	04:00:12	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000123	111124	KIRCHHOF	06/11/2012	04:00:15	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000124	111127	SMAX	06/11/2012	04:00:14	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
000125	111128	SMAX	06/11/2012	04:00:07	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		
111041	111041	MOREY	06/11/2012	04:00:03	E4E4	MASTER	REMOTE			RDRHSME	07/11/2012	U	UPDATE		

REMOVABLE MEDIA MANAGER												AUDIT TRAIL REPORT		PAGE	3
5650-Z0S Copyright IBM Corporation 2000, 2012												DATE 2013/01/01			
USERID	VOLUME	RACK	BIN	DATE	TIME	SYSTEM	STATUS	LOCATION	LOAN	LOC	OWNER	EXP DATE	SECURITY	ACTIVITY	
DENZEL	111044	111044		06/11/2012	01:01:05	E4E4	SCRTCH	SHELF					U	UPDATE	
BJK	111044	111044		06/11/2012	01:01:05	E4E4	IN USE	SHELF					U	DELETE	
PALMER	111044	111044		06/11/2012	01:01:05	E4E4	SCRTCH	SHELF					U	CREATE	
WRIGHT	111206	111206		06/11/2012	01:01:07	E4E4	SCRTCH	SHELF					U	UPDATE	
GILLPAT	111627	111627		06/11/2012	01:01:07	E4E4	MASTER	SHELF			KOEPPPEL	28/07/2012	U	UPDATE	
WHEELER	111206	111206		06/11/2012	01:01:07	E4E4	IN USE	SHELF			WALDO	28/07/2012	U	DELETE	
PENDLTN	111206	111206		06/11/2012	01:01:07	E4E4	SCRTCH	SHELF			WALDO	28/07/2012	U	CREATE	
ZOUNEK	111280	111280		06/11/2012	01:01:09	E4E4	SCRTCH	SHELF					U	UPDATE	
TAUBER	111282	111282		06/11/2012	01:01:09	E4E4	MASTER	SHELF			RDROPCA	07/10/2012	U	UPDATE	
RDRHSME	111280	111280		06/11/2012	01:01:09	E4E4	IN USE	SHELF			RDROPCA	07/10/2012	U	DELETE	
STCHSM	111280	111280		06/11/2012	01:01:09	E4E4	SCRTCH	SHELF			RDROPCA	07/10/2012	U	CREATE	
MOREY	111282	111282		06/11/2012	01:01:11	E4E4	SCRTCH	SHELF					U	UPDATE	

Return codes for EDGAUD

EDGAUD issues one of the return codes that are shown in [Table 8 on page 84](#).

Table 8. EDGAUD return codes	
Return Code	Explanation
0	All requested functions completed successfully.
4	DFSMSrmm encountered a minor error during processing. It issues a warning message and continues processing.
12	DFSMSrmm encountered a severe error during processing of one of the requested functions. DFSMSrmm stops the utility.
16	DFSMSrmm encountered a severe error during a required communication with the DFSMSrmm subsystem. DFSMSrmm stops the utility.

Chapter 5. Creating reports using DFSMSrmm-supplied EXECs

DFSMSrmm provides restructured extended executor (REXX) EXECs and JCL that you can use to create the reports that are described in [Table 9 on page 85](#). You can copy these EXECs and use them to create reports that are tailored for your installation, as described in [“Tailoring the DFSMSrmm-supplied EXECs to create your own reports” on page 88](#).

You can use the sample EDGJRPT JCL, which is provided in SAMPLIB, to invoke the EDGRRPTE REXX EXEC to create the reports. See [Appendix C, “List of DFSMSrmm samples,” on page 327](#) for other samples that are provided in SAMPLIB. The input to the reporting EXEC is the extended extract data set. The extract data set contains an extended extract record concatenating volume and data set information. The data set record information starts at byte 800 in the EDGRXEXT mapping macro. For stacked volumes, DFSMSrmm merges the stacked volume location information into the location information for all volumes that are contained in the stacked volume.

You can create reports that include data set size, volume usage, and capacity. Data set size and volume usage are available in both KB and factored values. If you are using existing KB values, these fields have a maximum value of 9 999 999 999 KB, or approximately, 9 TB. For larger tape volume capacities and improvements in compression, use the fields that contain values that are factored. Initially, these are in MB, but they can also be factored to TB as tape capacity increases. If you are reporting on small data sets (where the data sets size or volume capacity used is so small that you need to see the KB values), do not use the fields that contain values that are factored. If a KB byte field is no longer large enough to contain the value, the value is set to ‘-1’. This indicates that the factored fields should be used instead. When reporting from SMF records, data set size and volume use are recorded in 64 bit fields in KB only.

Use the sample EDGJRPT JCL with the EDGRRPTE REXX EXEC to produce the reports that are shown in [Table 9 on page 85](#).

Table 9. DFSMSrmm reports

Report Name	Description
REPORT01	Pull list for scratch tapes by volume serial number
REPORT02	Pull list for scratch tapes sorted by data set name
REPORT03	Inventory list by volume serial number
REPORT04	Inventory list by data set name
REPORT05	Inventory of data sets including number of kilobytes (KB) used
REPORT06	Inventory of volume serial numbers by location
REPORT07	Inventory of data set names by location
REPORT08	Inventory of bin numbers by location
REPORT09	List of data set names at loan locations
REPORT10	List of volume serial numbers at loan locations
REPORT11	List of multivolume data sets
REPORT12	Movement report including the first data set name on the volume
REPORT13	Movement report by storage location bin number
REPORT14	Movement report by volume serial number
REPORT15	Inventory list sorted by volume serial number including volume count

Table 9. DFSMSrmm reports (continued)

Report Name	Description
REPORT16	List of duplicate volume serial numbers
REPORT17	Inventory of stacked volumes by percent active
REPORT18	Inventory of data sets by volume retention method

Creating reports

Create an extended extract data set during DFSMSrmm inventory management. Then use the EDGRRPTE EXEC to create the DFSMSrmm-supplied reports. See [“Tailoring the DFSMSrmm-supplied EXECs to create your own reports”](#) on page 88 for further information.

To create reports, follow this procedure:

1. Make a copy of the sample EDGJRPT JCL that is in SAMPLIB. Use the DFSMSrmm extended extract data set as input to EDGJRPT to create the reports.
2. Create a DFSMSrmm extended extract data set by using the DFSMSrmm EDGHSKP utility with XREPTTEXT DD statement.
3. Make sure that all the messages that the DFSMSrmm subsystem issues during inventory management are copied to your job log. Refer to the step named STEP02 in the sample EDGJRPT JCL.
4. Produce the extended reports. Remove the //REPORTnnDD statements for each report that you do not want to run. Refer to the step named EXTRPDT in the sample EDGJRPT JCL.

Tailoring the EDGJRPT sample JCL

Before you can use the JCL, you must customize the sample EDGJRPT JCL for your environment. Follow this procedure:

1. Modify the PAGEDEF and FORMDEF definitions in the OUTDDQ DD statement in step EXTRPDT.
 - a. Specify a valid font for your printer.
 - b. Define a printer address and a node to print your reports.
2. Change the data set name of the MESSAGE DD statements to your own data set name of the MESSAGE file.
3. Replace RMM.EXTRACT.FILE in the EDGJRPT JCL with the name of your extended extract data set. You must make this change wherever the RMM.EXTRACT.FILE file report name is specified.
4. Change the SPACE and UNIT parameter for the SORTOUT and SYSIN statements. Calculate the DASD space requirements by multiplying the number of data set records by 1800 bytes for each record.
5. Replace the "054" value, if you need to use a value other than 54. The lines per page are defined as a parameter to the EDGRRPTE REXX procedure.
6. Select your reports by using the REPORTnnDD names that are defined in the EDGJRPT JCL. [Figure 82 on page 87](#) shows a part of the sample JCL and how to pass parameters to the EDGRRPTE procedure. The example that is shown in [Figure 82 on page 87](#) selects all reports except REPORT06 and REPORT07, which are commented out.

```

//EXTRPDT EXEC PGM=IKJEFT01,DYNAMNBR=99,REGION=4096K
//SYSTSPRT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SORTIN DD DISP=SHR,DSN=RMM.EXTRACT.FILE
//SORTOUT DD DSN=&TEMP01,DISP=(,PASS,DELETE),
// SPACE=(CYL,(200,20),RLSE),UNIT=SYSALLDA,
// DCB=*.SORTIN
//SYSIN DD DSN=&TEMP02,DISP=(,PASS,DELETE),
// SPACE=(TRK,(1,1),RLSE),UNIT=SYSALLDA,
// DCB=(LRECL=80,BLKSIZE=3120,RECFM=FB)
//SYSOUT DD SYSOUT=*
//REPORT01 DD SYSOUT=*,RECFM=VBA
//REPORT02 DD SYSOUT=*,RECFM=VBA
//REPORT03 DD SYSOUT=*,RECFM=VBA
//REPORT04 DD SYSOUT=*,RECFM=VBA
//REPORT05 DD SYSOUT=*,RECFM=VBA
//*EPORT06 DD SYSOUT=*,RECFM=VBA
//*EPORT07 DD SYSOUT=*,RECFM=VBA
//REPORT08 DD SYSOUT=*,RECFM=VBA
//REPORT09 DD SYSOUT=*,RECFM=VBA
//REPORT10 DD SYSOUT=*,RECFM=VBA
//REPORT11 DD SYSOUT=*,RECFM=VBA
//REPORT12 DD SYSOUT=*,RECFM=VBA
//REPORT13 DD SYSOUT=*,RECFM=VBA
//REPORT14 DD SYSOUT=*,RECFM=VBA
//REPORT15 DD SYSOUT=*,RECFM=VBA
//REPORT16 DD SYSOUT=*,RECFM=VBA
//REPORT17 DD SYSOUT=*,RECFM=VBA
//REPORT18 DD SYSOUT=*,RECFM=VBA
//SYSTSIN DD *
EX 'SYS1.SEDGXE1(EDGRRPTE)' -
'054 INTERNAL USE ONLY'

```

Figure 82. Report selection

- SYSTSPRT specifies the name of the DD to which data is written for a REXX SAY instruction, for REXX error messages, or when tracing is started (in a language processor environment that is not integrated into TSO/E). The system default is SYSTSPRT.
- SYSPRINT contains the messages generated from external called functions and utilities.
- SORTIN specifies the data set name of the DFSMSrmm extract file containing the extended extract records.
- SORTOUT specifies the output data set for the internally called SORT.
- SYSIN specifies the temporary data set used to store the SORT control statements.
- SYSOUT contains the messages generated from external called functions and utilities. The messages contain statistics, information, and error details. Use the messages to determine whether processing has been successful and to follow up on any nonzero return code.
- REPORTnn selects your reports by using the REPORTnn DD names that are defined in the EDGJRPT JCL.

If you would like to create the reports as a data set instead of SYSOUT=* you need to know the DCB information for each report file. You need to consider the line length of the report to be produced, the ASA control character and that the records are variable length. You only need to specify the LRECL if the data set already exists and the existing LRECL is too low a value. For new report files, the default LRECL is set to 251 by the Rexx EXECIO processor: If you really need to specify an LRECL other than 251 we list here the existing maximum record length for each report. These record lengths can change anytime we need to update the report; if you specify too short a value for LRECL the report lines are truncated and a warning message is issued by EXECIO.

For example: Abnormal end in output processing of DDname REPORT11.

Return code 01 was set.

Explanation: Data was truncated during DISKW operation.

```

REPORT01 RECFM=VBA,LRECL=137
REPORT02 RECFM=VBA,LRECL=137
REPORT03 RECFM=VBA,LRECL=139
REPORT04 RECFM=VBA,LRECL=139
REPORT05 RECFM=VBA,LRECL=139
REPORT06 RECFM=VBA,LRECL=137
REPORT07 RECFM=VBA,LRECL=137
REPORT08 RECFM=VBA,LRECL=137
REPORT09 RECFM=VBA,LRECL=137
REPORT10 RECFM=VBA,LRECL=137
REPORT11 RECFM=VBA,LRECL=141
REPORT12 RECFM=VBA,LRECL=137
REPORT13 RECFM=VBA,LRECL=137
REPORT14 RECFM=VBA,LRECL=137
REPORT15 RECFM=VBA,LRECL=137
REPORT16 RECFM=VBA,LRECL=137
REPORT17 RECFM=VBA,LRECL=137
REPORT18 RECFM=VBA,LRECL=137

```

Figure 83. Data control block (DCB) information for each Report file

7. Figure 84 on page 88 shows how to replace the default security heading text. The security heading text can be up to 30 characters. The text can contain blanks or special characters and is written on each page. Use the continuation character "+" to suppress all the leading blanks in the new line.

```

EX 'SYS1.SEDGEXE1(EDGRRPTE)' -
  '054 Internal use only'
  ##### ----- security heading text - up to 30 chars

```

Figure 84. Creating a Report security header

8. Optionally, add the CCARD DD to overwrite the internal SORT statements, the security header, or the lines per page; or to exclude the setting of flags with volume chain errors in REPORT11 for specified data sets. Figure 85 on page 88 shows an example of specifying the CCARD DD statements. Valid parameters that can be specified are:

- REPORTnn (nn= 01 to 18) for the SORT statements
- HEAD for the security header
- LINES for the lines per page
- /* for the end of the records
- XMSG11 to suppress the reporting of volume chain errors in REPORT11 for specified data sets. Specify the first letters of one or more dsnames after XMSG11.

```

//CCARD DD *
SORT06 SORT FIELDS=(156,8,CH,A,9,6,CH,D,915,4,CH,A)
SORT06 INCLUDE COND=(5,1,CH,EQ,C'X',
SORT06 AND,(583,1,CH,EQ,C'S',
SORT06 OR,583,1,CH,EQ,C'U'))
SORT06 OPTION VLSHRT
LINES 20
HEAD INTERNAL USE
XMSG11 PROJ1.
XMSG11 TEST
/*

```

Figure 85. Defining a CCARD DD statement

Tailoring the DFSMSrmm-supplied EXECs to create your own reports

When used as is, the DFSMSrmm-supplied report REPORT01 produces a pull list for scratch volumes that are sorted by volume serial number. Follow these steps to tailor the report REPORT01 to provide information about volumes with temporary write errors instead of a pull list for scratch tapes:

1. Make a copy of the EDGRRPTE REXX EXEC to avoid losing any modifications that you make to the DFSMSrmm-supplied reports, because you will lose your changes when DFSMSrmm replaces them.

The EDGRRPTE EXEC shipped with DFSMSrmm uses the DFSORT VLSHRT option. You might need to modify the EXEC if you do not have DFSORT installed.

2. To change the sort order and criteria, change the SORT FIELDS and INCLUDE statement for the REPORT01 in the EDGRRPTE REXX EXEC. To find the sort statement for the REPORT01, do a search for SORT01. You can find the fields for the SORT FIELD and the INCLUDE statement by looking at the mapping of the extended extract record EDGRXEXT.

Figure 86 on page 89 shows the DFSMSrmm-supplied EDGRRPTE REXX EXEC, where REPORT01 is sorted by volume serial number and volume status.

```
sort01.1 = "  SORT FIELDS=(9,6,CH,A)          "
sort01.1 = left(sort01.1,80)
sort01.2 = "  INCLUDE  COND=(5,1,CH,EQ,C'X',    "
sort01.2 = left(sort01.2,80)
sort01.3 = "          AND,322,8,CH,EQ,C'SCRATCH ', "
sort01.3 = left(sort01.3,80)
sort01.4 = "          AND,1326,5,CH,LT,C'      2') "
sort01.4 = left(sort01.4,80)
sort01.5 = "  OPTION VLSHRT                    "
sort01.5 = left(sort01.5,80)
s01 = 5
```

Figure 86. Sorting by volume serial number and volume status

Figure 87 on page 89 shows 370 in the SORT FIELD. This is the offset in the EDGRXEXT mapping macro for the temporary write errors, plus the value 4 for the record length field.

```
sort01.1 = "  SORT FIELDS=(9,6,CH,A)          "
sort01.1 = left(sort01.1,80)
sort01.2 = "  INCLUDE  COND=(5,1,CH,EQ,C'X',    "
sort01.2 = left(sort01.2,80)
sort01.3 = "          AND,322,8,CH,EQ,C'SCRATCH ', "
sort01.3 = left(sort01.3,80)
sort01.4 = "          AND,1326,5,CH,LT,C'      2') "
sort01.4 = left(sort01.4,80)
sort01.5 = "          AND,375,4,CH,GT,C'      0') "
sort01.5 = left(sort01.5,80)
sort01.6 = "  OPTION VLSHRT                    "
sort01.6 = left(sort01.6,80)
s01 = 6
```

Figure 87. Sorting by volume serial number, volume status, and temporary errors, excluding volumes without errors

3. To change the report header, modify the DFSMSrmm-supplied EDGRRPTE REXX EXEC, as shown in Figure 88 on page 89.

```
t2.1 = center('Scratch Tapes by Volume Serial Number',69)
t0.2 = left('EDGRPT01',8)
```

Figure 88. REPORT01 Report header

Figure 89 on page 89 shows the change to create a new report header named Volumes with Temporary Errors.

```
t2.1 = center('Volumes with Temporary Errors',69)
t0.2 = left('EDGRPT01',8)
```

Figure 89. REPORT01 Report header modified

4. To change the titles on the columns, modify the DFSMSrmm-supplied EDGRRPTE REXX EXEC. *out.cs* = *asa.his* is the title line for the report columns. You can find the definition for the title variables in the sample EDGRRPTE EXEC starting at the *labelconst*. Figure 90 on page 90 shows the report column headings as they are defined in the sample EDGRRPTE REXX EXEC.

```

do h = 1 to 3
  cs      = cs + 1
  out.cs = asa.h tvolser.h tdsname.h tvolseq.h tdsnseq.h,
               tcrdate.h texpdto.h,
               tflag.h tltyp.h,
               tmedty.h tmedrec.h,
               thome.h tstore.h tlloc.h,
               terror.h
end

```

Figure 90. REPORT01 column headings

Figure 91 on page 90 shows the variable `ttwrt.e.1`, which is the column heading for temporary errors.

```

do h = 1 to 3
  cs      = cs + 1
  out.cs = asa.h tvolser.h tdsname.h tcrdate.h ttwrt.e.1,
               texpdto.h,
               tflag.h tltyp.h,
               tmedty.h tmedrec.h,
               thome.h tstore.h tlloc.h,
               terror.h
end

```

Figure 91. REPORT01 column headings modified

5. To obtain the correct output, modify the DFSMSrmm-supplied EDGRRPTE REXX EXEC by specifying the appropriate output variable. You can find the definition for these variables in the sample EDGRRPTE REXX EXEC, starting at the label `clcxmap.out.cs = asa.2` is the output value that is returned in the report. Figure 92 on page 90 shows the JCL from the sample EDGRRPTE REXX EXEC.

```

.out.cs = asa.2 xvvolser xddsname xvvolseq xddsnseq,
               xvcrcode xvexpdto,
               lclflag xvlabel,
               xvmedty xvmedrec,
               xvhloc xvloctyp lcloc lcerror

```

Figure 92. REPORT01 returned values

Figure 93 on page 90 shows the addition of the `xvtwerr` variable to obtain the temporary write error information.

```

out.cs = asa.2 xvvolser xddsname xvcrcode xvtwerr,
               xvexpdto,
               lclflag xvlabel,
               xvmedty xvmedrec,
               xvhloc xvloctyp lcloc,
               lcerror

```

Figure 93. REPORT01 returned values modified

6. Submit the job.

Using DFSMSrmm-supplied reports

This topic provides details about the reports that you can create using the DFSMSrmm-supplied EXECs and JCL.

REPORT01: pull list for SCRATCH tapes sorted by volume serial number

REPORT01, as shown in Figure 94 on page 92, includes volumes in SCRATCH status and only the first file on the volume. REPORT01 is sorted by volume serial number.

The data columns for REPORT01 are:

Volume Serial

The volume serial number.

Data Set Name

The name of the data set.

Vol-Seq.

The sequence number of the volume.

DSN-Seq.

The data set sequence number or the physical file sequence number on tape if the data set sequence number is blank or zero.

Create Date

The date when the data set was first written to tape.

Org. Exp. Date

The original volume expiration date written by O/C/EOV.

VF

The volume flag which can be one of the following:

Blank

Normal.

O

The volume has been opened for a write operation and has not yet been closed. O might indicate that a write operation is still in progress or that a file has been left open by a system error. You can still open the volume for output but the data might be corrupted.

A

The data set was closed by abend processing.

LBL Typ

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Media Type

The physical media type of the volume.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EE2, EE3, or *.

Home Location

The place where a volume is returned.

SS

The location type which can be one of the following:

Blank

The volume is in location SHELF.

A

The volume is in an automatic system-managed library.

M

The volume is in a manual system-managed library.

S

The volume is in a storage location.

Location Name

The storage location, loan location, or blank if the volume resides in its home location.

Sum. Error

The total number of temporary and permanent read errors and write errors for the volume.

DFSMSrmm EDGRPT01		Scratch Tapes by Volume Serial Number										PAGE - 1 DATE - 2012/341 TIME - 22:38:55	
Volume Serial	Data Set Name	Vol- Seq.	DSN- Seq.	Create Date	Org. Exp. Date	V F	LBL Type	Media Type	Rec. Fmt.	Home Location	S Name	Location Sum.	Error
A00031		1		12/05/2012			SL	*	*	SHELF			0
A00032		1		12/05/2012			SL	*	*	SHELF			0
A00033		1		12/05/2012			SL	*	*	SHELF			0
A00034		1		12/05/2012			SL	*	*	SHELF			0
A00035		1		12/05/2012			SL	*	*	SHELF			0
A00036		1		12/05/2012			SL	*	*	SHELF			0
A00037		1		12/05/2012			SL	*	*	SHELF			0
A00038		1		12/05/2012			SL	*	*	SHELF			0
A00039		1		12/05/2012			SL	*	*	SHELF			0
A00040		1		12/05/2012			SL	*	*	SHELF			0
A00101		1		12/05/2012			SL	*	*	SHELF			0
End of Report. 11 Entries listed													

Figure 94. Sample REPORT01 output: pull list for SCRATCH tapes sorted by volume serial number

REPORT02: pull list for SCRATCH tapes sorted by data set name

REPORT02, as shown in Figure 95 on page 93, includes volumes in SCRATCH status and only the first file on the volume. REPORT02 is sorted by data set name and volume serial number.

The data columns for REPORT02 are:

Volume Serial

The volume serial number.

Data Set Name

The name of the data set.

Vol-Seq.

The sequence number of the volume.

DSN-Seq.

The data set sequence number or the physical file sequence number on tape if the data set sequence number is blank or zero.

Create Date

The date when the data set was first written to tape.

Org. Exp. Date

The original volume expiration date written by O/C/EOV.

VF

The volume flag which can be one of the following:

Blank

Normal.

O

The volume has been opened for a write operation and has not yet been closed. O might indicate that a write operation is still in progress or that a file has been left open by a system error. You can still open the volume for output but the data might be corrupted.

A

The data set was closed by abend processing.

LBL Typ

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Media Type

The physical media type of the volume.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEF2, EEF3, or *.

Home Location

The place where a volume is returned.

SS

The location type which can be one of the following:

Blank

The volume is in location SHELF.

A

The volume is in an automatic system-managed library.

M

The volume is in a manual system-managed library.

S

The volume is in a storage location.

Location Name

The storage location, loan location, or blank if the volume resides in its home location.

Sum. Error

The total number of temporary and permanent read errors and write errors for the volume.

DFSMSrmm Internal use only		Scratch Tapes by Data Set Name										PAGE - 1	
EDGRPT02												DATE - 2012/341	
												TIME - 22:38:55	
Volume													
Serial	Data Set Name	Vol-Seq.	DSN-Seq.	Create Date	Org. Date	Exp. Date	V F	LBL Typ	Media Type	Rec. Fmt	Home Location	S Location Name	Sum. Error

A00031		1		12/05/2012				SL *	*	*	SHELF		0
A00032		1		12/05/2012				SL *	*	*	SHELF		0
A00033		1		12/05/2012				SL *	*	*	SHELF		0
A00034		1		12/05/2012				SL *	*	*	SHELF		0
A00035		1		12/05/2012				SL *	*	*	SHELF		0
A00036		1		12/05/2012				SL *	*	*	SHELF		0
A00037		1		12/05/2012				SL *	*	*	SHELF		0
A00038		1		12/05/2012				SL *	*	*	SHELF		0
A00039		1		12/05/2012				SL *	*	*	SHELF		0
A00040		1		12/05/2012				SL *	*	*	SHELF		0
A00101		1		12/05/2012				SL *	*	*	SHELF		0
		End of Report. 11 Entries listed											

Figure 95. Sample REPORT02 output: pull list for SCRATCH tapes sorted by data set name.

REPORT03: inventory list by volume serial number

REPORT03, as shown in [Figure 96 on page 95](#), includes all data sets. REPORT03 is sorted by volume serial number and data set sequence number.

The data columns for REPORT03 are:

Volume Serial

The volume serial number.

Data Set Name

The data set name of the first file on the volume.

Vol-Seq.

The sequence number of the volume.

DSN-Seq.

The data set sequence number or, if the data set sequence number is blank or zero, the relative position of the data set on the volume.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating job field is blank.

Create Date

The date when the data set was created.

Create Time

The time when the data set was first written to tape.

Expiration Date

The date the volume should be considered for release.

Volume Ref. Date

Displays the date when the data set was last accessed for read processing or write processing.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEf2, EEf3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

VR

The vital record status which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

Location Name

The storage location, loan location, or blank if the volume resides in its home location.

```

DFSMSrmm Security heading text
EDGRPT03
Inventory List by Volume Serial Number
PAGE - 1
DATE - 2012/341
TIME - 22:38:55
Rec. V V Location
LBL Fmt S R Name
-----
Volume
Serial Data Set Name
-----
SC0000 HMITG.HMITAPE.DATASET 1 1 2011/209 080425 2011/212 SL * S N
SC0001 SIEGEL.USERTEST.FALSCH 1 1 2011/185 153551 2011/185 SL * S N
SC0002 HBAC.DMP.BUILD.VBSY179.D99086.T271823 1 1 DFHSM11 2011/086 231912 1999/365 2011/086 SL 36TR M N
SC0003 HBAC.DMP.TS0.VJET004.D95208.T475422 3 1 2011/209 062937 2011/209 SL * S N
SC0004 SMPMCS 1 1 STACKER 2011/279 131329 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F1 1 2 STACKER 2011/279 131342 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F2 1 3 STACKER 2011/279 131350 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F3 1 4 STACKER 2011/279 131410 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F4 1 5 STACKER 2011/279 131426 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F5 1 6 STACKER 2011/279 131438 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F6 1 7 STACKER 2011/279 131447 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F7 1 8 STACKER 2011/279 131455 1999/365 2011/279 SL 36TR U N
SC0004 JMY8M10.F8 1 9 STACKER 2011/279 131507 1999/365 2011/279 SL 36TR U N
SC0005 SCHLUM.RMMDemo.FILE2.VOL12 2 1 2011/200 143036 2011/200 SL * S N
SC0005 SCHLUM.RMMDemo.FILE3.VOL2 2 2 2011/200 143046 2011/200 SL * S N
SC0005 SCHLUM.RMMDemo.FILE4.VOL23 2 3 2011/200 143533 2011/200 SL * S N
SC0006 SSCWVS.P9202.ESAS.EPD.DUMP 1 1 EPDRES3 2011/207 101728 2011/016 2011/209 SL 36TR U N
SC0007 HBAC.DMP.TS0.VEPD001.D95208.T195822 4 1 2011/209 062947 2011/209 SL * S N
End of Report. 18 Entries listed

```

Figure 96. Sample REPORT03 output: inventory list by volume serial number

REPORT04: inventory list by data set name

REPORT04, as shown in [Figure 97 on page 96](#), includes data sets and excludes all volumes without any data set information. REPORT04 is sorted by data set name, create date, and create time.

The data columns for REPORT04 are:

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The serial number of the volume where the specified data set resides.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or if the data set sequence number is blank or zero the relative position of the data set on the volume.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The data set expiration date. When the data set expiration date is higher than the volume expiration date, the volume expiration date is used instead of the data set expiration date. In this case, a flag "(*)" is set at the end of the row.

Volume Ref. Date

Displays the date when the data set was last accessed for read or write processing.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EE2, EE3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

VR

The vital record status which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

Location Name

The storage location, loan location, or blank if the volume resides in its home location.

DFSMSrmm Security heading text		Inventory List by Data Set Name										PAGE - 1	
EDGRPT04												DATE - 2012/341	
												TIME - 22:38:55	
Data Set Name	Volume Serial	Vol-Seq	DSN-Seq	Creating Jobname	Create Date	Create Time	Expiration Date	Volume Ref. Date	LBL	Fmt	S	R	Name
ADDONS.CNTL	SC0019	1	3		2012/240	143829		2011/191	SL	*	S	N	
ADDONS.CNTL	SC0464	1	8		2012/240	084232		2011/254	SL	*	S	N	
ADDONS.CNTL	SC0473	1	8		2012/240	104530		2011/257	SL	*	S	N	
ADDONS.EXECB	SC0019	1	4		2012/240	143834		2011/191	SL	*	S	N	
ADDONS.EXECFB	SC0464	1	4		2012/240	084205		2011/254	SL	*	S	N	
ADDONS.INITVARS	SC0019	1	10		2012/240	143906		2011/191	SL	*	S	N	
ADDONS.INITVARS	SC0464	1	6		2012/240	084223		2011/254	SL	*	S	N	
ADDONS.MSGS	SC0019	1	9		2012/240	143902		2011/191	SL	*	S	N	
ADDONS.OBJ	SC0464	1	10		2012/240	084248		2011/254	SL	*	S	N	
ADDONS.OBJ	SC0473	1	10		2012/240	104544		2011/257	SL	*	S	N	
ADDONS.PANELS	SC0019	1	7		2012/240	143851		2011/191	SL	*	S	N	
ADDONS.SKELS	SC0019	1	8		2012/240	143858		2011/191	SL	*	S	N	
HBAC.DMP.BUILD.VBSY153.D95086.T455822	SC0030	1	1	DFHSM11	2012/240	225922	1999/365	2011/086	SL	36TR	M	N	
HBAC.DMP.BUILD.VBSY16A.D95086.T530423	SC0037	1	1	DFHSM11	2012/240	230551	1999/365	2011/086	SL	36TR	M	N	
HBAC.DMP.BUILD.VBSY162.D95086.T150823	SC0033	1	1	DFHSM11	2012/240	230920	1999/365	2011/086	SL	36TR	M	N	
HBAC.DMP.BUILD.VBSY166.D95086.T370823	SC0010	1	1	DFHSM11	2012/240	230921	1999/365	2011/086	SL	36TR	M	N	
HBAC.DMP.BUILD.VBSY172.D95086.T471523	SC0035	1	1	DFHSM11	2012/240	231806	1999/365	2011/086	SL	36TR	M	N	
HBAC.DMP.BUILD.VBSY175.D95086.T461723	SC0036	1	1	DFHSM11	2012/240	231811	1999/365	2011/086	SL	36TR	M	N	
		End of Report. 18 Entries listed											

Figure 97. Sample REPORT04 output: inventory list by data set name

REPORT05: inventory of data sets including used kilobytes

REPORT05, as shown in [Figure 98 on page 98](#), includes data sets and excludes all volumes without any data set information. REPORT05 is sorted by data set name, create date, and create time.

The data columns for REPORT05 are:

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The serial number of the volume where the specified data set resides.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or if the data set sequence number is blank or zero the relative position of the data set on the volume.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The data set expiration date. When the data set expiration date is higher than the volume expiration date, the volume expiration date is used instead of the data set expiration date. In this case, a flag "(*)" is set at the end of the row.

Volume Ref. Date

Displays the date when the data set was last accessed for read processing or write processing.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEf2, EEf3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

Kilobytes used

The number of used kilobytes for the data set calculated by BLOCKSIZE multiplied with BLOCKCOUNT divided by 1024. If the block size in the data set record equals zero, a block-size of 64 KB is assumed. This is valid, because the default block size for DFSMSHsm and DFSMSdss output records written to tape is 65 520 bytes (64 KB).

The calculated value is an approximation of the amount of data written by the application. It does not reflect any system or hardware compression that may reduce the size stored on the volume.

DFSMSrmm Security heading text	Inventory List by Data Set Name incl. used KB										PAGE - 1
EDGRPT05											DATE - 2012/341
											TIME - 22:38:55
Data Set Name	Volume Serial	Vol-Seq.	DSN-Seq.	Creating Jobname	Create Date	Create Time	Expiration Date	Volume Ref. Date	LBL	Rec. V	Kilobytes used
BSYDFP.ABARS.OUTPUT.D.G0001V00	SC0698	1	1	DFHSMABR	2012/163	150444	1999/365	2011/196	SL 18TR M		2047
BSYDFP.ABARS.OUTPUT.D.G0001V00	SC0109	1	1	DFHSMABR	2012/267	124621	1999/365	2011/193	SL 18TR M		5822
BSYDFP.ABARS.OUTPUT.I.G0001V00	SC0628	1	2	DFHSMABR	2012/163	150550	1999/365	2011/194	SL 18TR M		223
BSYDFP.ABARS.OUTPUT.I.G0001V00	SC1027	1	2	DFHSMABR	2012/267	124780	1999/365	2011/195	SL 18TR M		223
BSYDFP.ABARS.OUTPUT.O.G0001V00	SC0698	1	2	DFHSMABR	2012/163	150508	1999/365	2011/196	SL 18TR M		2975
BSYDFP.ABARS.OUTPUT.O.G0001V00	SC0109	1	2	DFHSMABR	2012/267	124629	1999/365	2011/193	SL 18TR M		1119
BSYDFP.ABARS.TEST.C.C01V0001	SC0343	1	1	DFHSMABR	2011/263	140941	1999/365	2011/263	SL 36TR M		1375
BSYDFP.ABARS.TEST.D.C01V0001	SC0346	1	1	DFHSMABR	2011/263	140811	1999/365	2011/263	SL 36TR M		3679
BSYDFP.ABARS.TEST.I.C01V0001	SC0372	1	1	DFHSMABR	2011/263	140846	1999/365	2011/263	SL 36TR M		383
HBAC.DMP.BUILD.VBLD026.D95268.T221922	SC0899	2	1	DFHSMZB	2011/268	223102	1999/365	2011/268	SL 36TR M		151488
HBAC.DMP.BUILD.VBLD026.D95275.T331722	SC1628	1	1	DFHSMZB	2011/275	221984	1999/365	2011/275	SL 36TR M		621376
HBAC.DMP.BUILD.VBLD026.D95275.T331722	SC1636	2	1	DFHSMZB	2011/275	222913	1999/365	2011/275	SL 36TR M		179200
HBAC.DMP.BUILD.VBLD027.D95219.T354422	SC2043	1	1		2011/219	224512		2011/219	SL *	S	620288
HBAC.DMP.BUILD.VBLD027.D95247.T242722	SC2197	1	1		2011/247	222756		2011/247	SL *	S	622400
End of Report.				14 Entries listed							

Figure 98. Sample REPORT05 output: inventory of data sets including used kilobytes

REPORT06: inventory of volume serial numbers by location

REPORT06, as shown in Figure 99 on page 99, includes all volumes residing in one of the three built-in storage locations or installation-defined storage locations. REPORT06 is sorted by storage location and volume serial number and data set sequence number.

The data columns for REPORT06 are:

Volume Serial

The serial number of the volume where the specified data set resides.

Data Set Name

The data set name of the first file on the volume.

BIN number

The assigned specific bin number. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The Data Set sequence number or, if the data set sequence number is blank or zero, the relative position of the data set on the volume.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The date the volume should be considered for release.

Date stored

The date the volume was last moved from or to a new storage location.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEf2, EEf3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

DFSMSrmm Security heading text EDGRPT06		Inventory of Volumes in Storage Location DISTANT							PAGE - 1
									DATE - 2012/341
									TIME - 22:38:55
Volume	BIN	Creating	Vol-	DSN-	Create	Create	Expiration	Date	Rec. V
Serial	Number	Jobname	Seq.	Seq.	Date	Time	Date	stored	LBL Fmt S

SC0502	SSC.VITALREC.BUILD.E5A51.G0053V00	VRESAS1	1	1	2012/240	215435	2011/295	2011/277	SL 36TR M
SC0513	SSC.VITALREC.BUILD.E5A51.G0053V00	VRESAS1	2	1	2012/240	220945	2011/295	2011/277	SL 36TR M
SC0514	SSC.VITALREC.BUILD.E5AS.G0053V00	VRESAS	2	1	2012/240	212810	2011/295	2011/277	SL 36TR M
SC0515	SSC.VITALREC.BUILD.E5AS.G0053V00	VRESAS	1	1	2012/240	211341	2011/295	2011/277	SL 36TR M
SC0517	SSC.VITALREC.BUILD.MVSSMP.G0053V00	VRMVSSMP	2	1	2012/240	230650	2011/295	2011/277	SL 36TR M
SC0518	SSC.VITALREC.BUILD.NET.G0053V00	VRNET	3	1	2012/240	094046	2011/295	2011/277	SL 36TR M
SC0521	SSC.VITALREC.BUILD.E5A51.G0053V00	VRESAS1	3	1	2012/240	222620	2011/295	2011/277	SL 36TR M
SC0522	SSC.VITALREC.BUILD.MVSSMP.G0053V00	VRMVSSMP	1	1	2012/240	224356	2011/295	2011/277	SL 36TR M
SC0523	SSC.VITALREC.BUILD.E5AS.G0053V00	VRESAS	3	1	2012/240	214454	2011/295	2011/277	SL 36TR M
SC0524	SSC.VITALREC.BUILD.NET.G0053V00	VRNET	1	1	2012/240	090405	2011/295	2011/277	SL 36TR M
End of Report. 10 Entries listed									
DFSMSrmm Security heading text EDGRPT06		Inventory of Volumes in Storage Location REMOTE							PAGE - 3
									DATE - 2012/341
									TIME - 22:38:55
Volume	BIN	Creating	Vol-	DSN-	Create	Create	Expiration	Date	Rec. V
Serial	Number	Jobname	Seq.	Seq.	Date	Time	Date	stored	LBL Fmt S

SC1195	SCHLUM.RMMDemo.MMOVE.VOL1	000050 RMTEST1	1	1	2012/265	093450	2011/059	2011/059	SL 18TR M
SC1196	SCHLUM.RMMDemo.MMOVE.VOL4	000055 RMTEST4	1	1	2012/265	093439	2011/059	2011/059	SL 18TR M
68059C	SCHLUM.TMS.DATA	000002	1	1	2011/086	153951	2011/100	2011/142	SL 18TR U
68059C	SCHLUM.TMS.DATA	000002	1	1	2011/086	153951	2011/100	2011/142	SL 18TR U
End of Report. 4 Entries listed									

Figure 99. Sample REPORT06 output: inventory of volume serial numbers by location

REPORT07: inventory of data set names by location

REPORT07, as shown in Figure 100 on page 101, includes all volumes residing in one of the DFSMSrmm built-in storage locations or installation-defined storage locations. REPORT07 is sorted by storage location, data set name, create date, and create time.

The data columns for REPORT07 are:

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The serial number of the volume where the specified data set resides.

BIN number

The assigned specific bin number. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The data set expiration date. When the data set expiration date is higher than the volume expiration date, the volume expiration date is used instead of the data set expiration date. In this case, a flag "(*)" is set at the end of the row.

Date stored

The date the volume was last moved from or to a new storage location.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEf2, EEf3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

DFSMSrmm	Security heading text	Inventory of Data Set Names in Storage Location DISTANT										PAGE -	1
EDGRPT07												DATE -	2012/341
												TIME -	22:38:55
												Date	Rec. V
Data Set Name	Volume BIN	Serial Number	Vol- Seq.	DSN- Seq.	Creating Jobname	Create Date	Create Time	Expiration Date	Date stored	LBL	Fmt	S	
SSC.VITALREC.BUILD.DB.G0055V00	SC2389		1	1 VRDB	2011/279	190825	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.DB.G0055V00	SC2388		2	1 VRDB	2011/279	192928	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.DB.G0055V00	SC2397		3	1 VRDB	2011/279	194622	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.DB.G0055V00	SC2034		4	1 VRDB	2011/158	200505	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.DB.G0055V00	SC2019		5	1 VRDB	2011/158	202356	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.ESA.G0053V00	SC2001		1	1 VRESA	2011/158	203557	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.ESA.G0053V00	SC2000		2	1 VRESA	2011/158	205047	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.ESA.G0053V00	SC2011		3	1 VRESA	2011/158	210806	2011/295	2011/277	SL	36TR	M		
SSC.VITALREC.BUILD.ESAS.G0053V00	SC0515		1	1 VRESAS	2012/240	211341	2011/295	2011/277	SL	36TR	M		
	End of Report. 9 Entries listed												
DFSMSrmm	Security heading text	Inventory of Data Set Names in Storage Location REMOTE										PAGE -	3
EDGRPT07												DATE -	2012/341
												TIME -	22:38:55
												Date	Rec. V
Data Set Name	Volume BIN	Serial Number	Vol- Seq.	DSN- Seq.	Creating Jobname	Create Date	Create Time	Expiration Date	Date stored	LBL	Fmt	S	
SCHLU.RMM.CDS	68059C	000001	1	1	2011/085	183342	2011/099	2011/142	SL	18TR	U		
SCHLU.RMM.CDS	68059D	000002	1	1	2011/086	153951	2011/100	2011/142	SL	18TR	U		
SCHLUM.RMMDemo.MMOVE.VOL1	SC1195	000050	1	1 RMMTEST1	2012/265	093450	2011/059	2011/059	SL	18TR	M		
SCHLUM.RMMDemo.MMOVE.VOL4	SC1196	000055	1	1 RMMTEST4	2012/265	093439	2011/059	2011/059	SL	18TR	M		
	End of Report. 4 Entries listed												

Figure 100. Sample REPORT07 output: inventory of data set names by location

REPORT08: inventory of bin numbers by location

REPORT08, as shown in Figure 101 on page 102, includes all volumes residing in one of the three built-in storage locations or installation-defined storage locations. REPORT08 is sorted by storage location, bin number, date stored, and data set name.

The data columns for REPORT08 are:

BIN number

The assigned specific bin number. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The serial number of the volume where the specified data set resides.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The date the volume should be considered for release.

Date stored

The date the volume was last moved from or to a new storage location.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEF2, EEF3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

DFSMSrmm	Security heading text	Inventory of BIN numbers in Storage Location DISTANT										PAGE -	1
EDGRPT08												DATE -	2012/341
												TIME -	22:38:55
BIN	Data Set Name	Volume	Vol-	DSN-	Creating	Create	Create	Expiration	Date	stored	LBL	Rec.	V
Number		Serial	Seq.	Seq.	Jobname	Date	Time	Date			Fmt	S	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
000005	SSC.VITALREC.SYSTEM.SS1101.G0051V00	SC2378	2	1	DS1100#	2011/279	225244	2011/294	2011/277	SL	36TR	M	
000006	SSC.VITALREC.SYSTEM.SC1101.G0045V00	SC1546	1	1	DSC1101#	2011/011	205040	2011/245	2011/220	SL	36TR	M	
000007	SSC.VITALREC.SYSTEM.SP110A.G0045V00	SC1548	1	1	DSP110A#	2011/011	205307	2011/245	2011/220	SL	36TR	M	
000011	SSC.VITALREC.SYSTEM.SR1102.G0043V00	SC0985	1	1	DSR1101#	2012/240	212232	2011/231	2011/206	SL	36TR	M	
000012	SSC.VITALREC.SYSTEM.SR1101.G0043V00	SC0986	1	1	DSR1101#	2012/240	211023	2011/231	2011/206	SL	36TR	M	
000013	SSC.VITALREC.SYSTEM.SP110C.G0041V00	SC1918	1	1	DSP110A#	2011/097	211026	2011/217	2011/193	SL	36TR	M	
000041	SSC.VITALREC.SYSTEM.SP110B.G0044V00	SC0682	1	1	DSP110A#	2012/240	210040	2011/238	2011/213	SL	36TR	M	
		End of Report. 7 Entries listed											
DFSMSrmm	Security heading text	Inventory of BIN numbers in Storage Location REMOTE										PAGE -	3
EDGRPT08												DATE -	2012/341
												TIME -	22:38:55
BIN	Data Set Name	Volume	Vol-	DSN-	Creating	Create	Create	Expiration	Date	stored	LBL	Rec.	V
Number		Serial	Seq.	Seq.	Jobname	Date	Time	Date			Fmt	S	
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
000002	SCHLUM.TMS.DATA	68059C	1	1		2011/086	153951	2011/100	2011/142	SL	18TR	U	
000002	SCHLUM.TMS.DATA	68059C	1	1		2011/086	153951	2011/100	2011/142	SL	18TR	U	
000050	SCHLUM.RMMDemo.MMOVE.VOL1	SC1195	1	1	RMTEST1	2012/265	093450	2011/059	2011/059	SL	18TR	M	
000055	SCHLUM.RMMDemo.MMOVE.VOL4	SC1196	1	1	RMTEST4	2012/265	093439	2011/059	2011/059	SL	18TR	M	
		End of Report. 4 Entries listed											

Figure 101. Sample REPORT08 output: inventory of bin numbers by location

REPORT09: list all data set names residing in a loan location

REPORT09, as shown in [Figure 102 on page 104](#), includes all volumes residing in a LOAN location. REORT09 is sorted by loan location, data set name, create date, and create time.

The data columns for REPORT09 are:

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The serial number of the volume where the specified data set resides.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The data set expiration date. When the data set expiration date is higher than the volume expiration date, the volume expiration date is used instead of the data set expiration date. In this case, a flag "(*)" is set at the end of the row.

Volume Ref. Date

The date the volume was last read or last written to.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEf2, EEf3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

VR

The vital record status which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

DFSMSrmm Security heading text EDGRPT09	Inventory of Data Set Names in Loan Location KAYSER										PAGE - 1 DATE - 2012/341 TIME - 22:38:55
Data Set Name	Volume Serial	Vol- Seq.	DSN- Seq.	Creating Jobname	Create Date	Create Time	Expiration Date	Volume Ref. Date	LBL	Rec. Fmt	V V S R
SP.\$2MAJ0.\$SMP	SC2035	1	7	CUSTPACK	2011/158	111127	2011/179	2011/165	SL	*	M N
SP.\$2MAJ0.BATCH	SC2035	1	8	CUSTPACK	2011/158	111148	2011/179	2011/165	SL	*	M N
SP.\$2MAJ0.LIST3820	SC2035	1	9	CUSTPACK	2011/158	111206	2011/179	2011/165	SL	*	M N
SP.EFZ#LIBD.CLIST	SC2035	1	2	CUSTPACK	2011/158	111040	2011/179	2011/165	SL	*	M N
SP.EFZ#LIBD.CLIST.FB	SC2035	1	3	CUSTPACK	2011/158	111043	2011/179	2011/165	SL	*	M N
SP.EFZ#LIBD.LOAD	SC2035	1	4	CUSTPACK	2011/158	111048	2011/179	2011/165	SL	*	M N
SP.EFZ#LIBD.MSGS	SC2035	1	6	CUSTPACK	2011/158	111123	2011/179	2011/165	SL	*	M N
SP.EFZ#LIBD.PANELS	SC2035	1	5	CUSTPACK	2011/158	111120	2011/179	2011/165	SL	*	M N
SP.HENKELCS.LIST3820	SC2035	1	11	CUSTPACK	2011/158	111214	2011/179	2011/165	SL	*	M N
SP.HENKELCS.SCRIPT	SC2035	1	10	CUSTPACK	2011/158	111211	2011/179	2011/165	SL	*	M N
End of Report. 10 Entries listed											

Figure 102. Sample REPORT09 output: list all data set names that reside in a loan location

REPORT10: list all volume serial numbers residing in a loan location

REPORT10, as shown in Figure 103 on page 105, includes all volumes residing in a loan location. REPORT10 is sorted by loan location, volume serial number, and data set sequence number.

The data columns for REPORT10 are:

Volume Serial

The serial number of the volume where the specified data set resides.

Data Set Name

The data set name of the first file on the volume.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The date the volume should be considered for release.

Volume Ref. Date

The date the volume was last read or last written to.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EE2, EE3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

VR

The vital record status which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

DFSMSrmm	Security heading text	Inventory of Volumes in Loan Location KAYSER										PAGE -	1
EDGRPT10											DATE -	2012/341	
											TIME -	22:38:55	
Volume	Serial	Data Set Name	Vol-Seq.	DSN-Seq.	Creating Jobname	Create Date	Create Time	Expiration Date	Volume Ref. Date	LBL	Rec. Fmt	V S	V R
SC2035		SSC.HENKEL.CNTL	1	1	CUSTPACK	2011/158	110912	2011/179	2011/165	SL	*	M	N
SC2035		SP.EFZ#LIBD.CLIST	1	2	CUSTPACK	2011/158	111040	2011/179	2011/165	SL	*	M	N
SC2035		SP.EFZ#LIBD.CLIST.FB	1	3	CUSTPACK	2011/158	111043	2011/179	2011/165	SL	*	M	N
SC2035		SP.EFZ#LIBD.LOAD	1	4	CUSTPACK	2011/158	111048	2011/179	2011/165	SL	*	M	N
SC2035		SP.EFZ#LIBD.PANELS	1	5	CUSTPACK	2011/158	111120	2011/179	2011/165	SL	*	M	N
SC2035		SP.EFZ#LIBD.MSGS	1	6	CUSTPACK	2011/158	111123	2011/179	2011/165	SL	*	M	N
SC2035		SP.\$2MAJO.\$SMP	1	7	CUSTPACK	2011/158	111127	2011/179	2011/165	SL	*	M	N
SC2035		SP.\$2MAJO.BATCH	1	8	CUSTPACK	2011/158	111148	2011/179	2011/165	SL	*	M	N
SC2035		SP.\$2MAJO.LIST3820	1	9	CUSTPACK	2011/158	111206	2011/179	2011/165	SL	*	M	N
SC2035		SP.HENKELCS.SCRIPT	1	10	CUSTPACK	2011/158	111211	2011/179	2011/165	SL	*	M	N
SC2035		SP.HENKELCS.LIST3820	1	11	CUSTPACK	2011/158	111214	2011/179	2011/165	SL	*	M	N
SC2035		SP.HENKELST.SCRIPT	1	12	CUSTPACK	2011/158	111220	2011/179	2011/165	SL	*	M	N
SC2035		SP.HENKELST.LIST3820	1	13	CUSTPACK	2011/158	111254	2011/179	2011/165	SL	*	M	N
SC2035		SP.HENKELSP.SCRIPT	1	14	CUSTPACK	2011/158	111258	2011/179	2011/165	SL	*	M	N
SC2035		SP.HENKELSP.LIST3820	1	15	CUSTPACK	2011/158	111303	2011/179	2011/165	SL	*	M	N
End of Report. 15 Entries listed													

Figure 103. Sample REPORT10 output: list all volume serial numbers that reside in a loan location

REPORT11: list multivolume and multifile sets

REPORT11, as shown in [Figure 104 on page 106](#), includes all multifile volumes and multivolume files. REPORT11 is sorted by the first file on the first volume of the multivolume or multifile set, multidata set multivolume token, volume sequence number, and data set sequence number.

The data columns for REPORT11 are:

Volume Serial

The serial number of the volume where the specified data set resides.

Vol-Seq.

The volume sequence number. Flag "<" will be set behind the volume sequence number, when there is a chain error.

Vol-Cnt.

The volume count. Flag "<" will be set behind the volume count when the last volume sequence number in the chain is less than the volume count.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Data Set Name

The data set name of the first file on the volume.

Expiration Date

The data set expiration date. When the data set expiration date is higher than the volume expiration date, the volume expiration date is used instead of the data set expiration date. In this case, a flag "(*)" is set at the end of the row.

First Volser

The volume serial number of the first volume in a multivolume data set. Always use the first volume serial number of a chain and set a flag "?" if the volume with the volume sequence number 1 is no longer available.

Prev. Volser

The volume serial number of the preceding volume in a sequence of volumes in a multivolume data set.

Next. Volser

The volume serial number of the next volume in a sequence of volumes in a multivolume data set.

Create Userid

The ID of the owner of the volume where the data set resides.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

DFSMSrmm EDGRPT11		Security heading text		Multi-Volume/Multi-Data Set Report							PAGE - 1	
											DATE - 2011/341	
											TIME - 22:38:55	
Volume Serial	Vol- Seq.	Vol- Cnt.	DSN- Seq.	Data Set Name	Expiration Date	First Volser	Prev. Volser	Next Volser	Create Userid	Creating Jobname	Create Date	Create Time
A06600	1	5	1	DSN1	2011/328	A06600		A06601	RMMUSER	RMMUSERJ	2011/323	070615
A06601	2	5	1	DSN1	2011/328	A06600	A06600	A06602	RMMUSER	RMMUSERJ	2011/323	070615
Used kilobytes for volume A06601												
...												
A06603	4<	5	1	DSN1	2011/328	A06603?		A06604	RMMUSER	RMMUSERJ	2011/323	070615
A06603	4	5	2	DSN2	2011/328	A06603		A06604	RMMUSER	RMMUSERJ	2011/323	070615
A06603	4	5	3	DSN3	2011/328	A06603		A06604	RMMUSER	RMMUSERJ	2011/323	070615
...												
A06611	1	2	1	RMMTST.FILE01	2011/323	A06611		A06612	RMMUSER	RMMUSERJ	2011/323	070822 (*)
A06611	1	2	2	RMMTST.FILE02	2011/323	A06611		A06612	RMMUSER	RMMUSERJ	2011/323	070822 (*)
A06611	1	2	3	RMMTST.FILE03	2011/323	A06611		A06612	RMMUSER	RMMUSERJ	2011/323	070822 (*)
A06611	1	2	4	RMMTST.FILE04	2011/323	A06611		A06612	RMMUSER	RMMUSERJ	2011/323	070822 (*)
A06611	1	2	5	RMMTST.FILE05	2011/323	A06611		A06612	RMMUSER	RMMUSERJ	2011/323	070822 (*)
Used kilobytes for volume A06611												
A06612	2	2	5	RMMTST.FILE05	2015/330	A06611	A06611		RMMUSER	RMMUSERJ	2011/323	070822
Used kilobytes for volume A06612												
-			3	Broken multi volume chain(s), marked with < on column Vol-Seq.								
-			0	Missing last volume in chain, marked with < on column Vol-Cnt.								
-			1	Missing first volume in chain, marked with ? on column First Volser.								
					End of Report.			39 Entries listed				

Figure 104. Sample REPORT11 output: list all multivolume and multifle sets

REPORT12: movement report by data set name

REPORT12, as shown in Figure 105 on page 108, includes all volumes moving among the three built-in storage locations or installation-defined storage locations. REPORT12 is sorted by destination, storage location, data set name, create date, and create time.

The data columns for REPORT12 are:

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The serial number of the volume where the specified data set resides.

BIN number

The assigned specific bin number. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was created.

Expiration Date

The data set expiration date. When the data set expiration date is higher than the volume expiration date, the volume expiration date is used instead of the data set expiration date. In this case, a flag "(*)" is set at the end of the row.

Date stored

The date the volume was last moved from or to a new storage location.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EE2, EE3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

DFSMSrmm IBM internal use only		Movement report by Data Set Names							PAGE - 1			
EDGRPT12		from location SHELF			to location DISTANT				DATE - 2012/341			
Data Set Name		Volume BIN	Vol-	DSN-	Creating	Create	Create	Expiration	TIME - 22:38:55			
		Serial Number	Seq.	Seq.	Jobname	Date	Time	Date	Date stored			
									Rec. V			
									LBL Fmt S			
SSC.VITALREC.BUILD.DB.G0056V00		SC1235	000071	1	VRDB	2012/328	190728	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0056V00		SC1227	000070	2	VRDB	2012/328	192741	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0056V00		SC1212	000069	3	VRDB	2012/328	194337	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0056V00		SC1211	000068	4	VRDB	2012/328	200213	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0056V00		SC1326	000083	5	VRDB	2012/339	202009	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESA.G0054V00		SC1273	000072	1	VRESA	2012/328	203240	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESA.G0054V00		SC1808	000107	2	VRESA	2011/097	204650	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESA.G0054V00		SC1807	000106	3	VRESA	2011/097	210317	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESAS.G0054V00		SC1278	000073	1	VRESAS	2012/328	210910	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESAS.G0054V00		SC1282	000075	2	VRESAS	2012/328	212311	2011/302	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESAS.G0054V00		SC1280	000074	3	VRESAS	2012/328	213940	2011/302	2011/277	SL	36TR	M
End of Report. 11 Entries listed												
DFSMSrmm IBM internal use only		Movement report by Data Set Names							PAGE - 3			
EDGRPT12		from location DISTANT			to location SHELF				DATE - 2012/341			
Data Set Name		Volume BIN	Vol-	DSN-	Creating	Create	Create	Expiration	TIME - 22:38:55			
		Serial Number	Seq.	Seq.	Jobname	Date	Time	Date	Date stored			
									Rec. V			
									LBL Fmt S			
SSC.VITALREC.BUILD.DB.G0055V00		SC2389	000058*	1	VRDB	2011/279	190825	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0055V00		SC2388	000055*	2	VRDB	2011/279	192928	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0055V00		SC2397	000059*	3	VRDB	2011/279	194622	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0055V00		SC2034	000054*	4	VRDB	2011/158	200505	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.DB.G0055V00		SC2019	000053*	5	VRDB	2011/158	202356	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESA.G0053V00		SC2001	000050*	1	VRESA	2011/158	203557	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESA.G0053V00		SC2000	000049*	2	VRESA	2011/158	205047	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESA.G0053V00		SC2011	000052*	3	VRESA	2011/158	210806	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESAS.G0053V00		SC0515	000004*	1	VRESAS	2012/240	211341	2011/295	2011/277	SL	36TR	M
SSC.VITALREC.BUILD.ESAS.G0053V00		SC0514	000003*	2	VRESAS	2012/240	212810	2011/295	2011/277	SL	36TR	M
End of Report. 10 Entries listed												

Figure 105. Sample REPORT12 output: movement Report including the first data set name

REPORT13: movement report by bin number

REPORT13, as shown in [Figure 106](#) on page 109, includes data set information. REPORT13 is sorted by destination, location, and bin number.

The data columns for REPORT13 are:

BIN Number

The used bin number of this volume in the reported storage location. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

Data Set Name

The data set name of the first file on the volume.

Volume Serial

Volume serial number of the reported volume.

Vol-Seq.

Volume sequence of the reported volume.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

Creation date of the reported data set.

Create Time

Creation time of the reported data set.

Expiration Date

DFSMSrmm expiration date of the reported volume.

Date stored

Date that the move for the volume to the reported storage location is confirmed.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

- AL**
Specifies an ANSI label.
- NL**
Specifies no label.
- SUL**
Specifies an IBM standard label with user labels.
- AUL**
Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEF2, EEF3, or *.

VS

The volume status which can be one of the following:

- S**
SCRATCH
- M**
MASTER
- U**
USER
- I**
INIT
- E**
ENTRY

DFSMSrmm IBM INTERNAL USE ONLY		Movement report by BIN number from location DISTANT to location ATL3494E										PAGE - 1		DATE - 2012/341		TIME - 22:38:55		Rec. V	
BIN	Data Set Name	Volume Serial	Vol-Seq	DSN-Seq	Creating Jobname	Create Date	Create Time	Expiration Date	Date stored	LBL	Fmt	S							
000001*	SSC.VITALREC.BUILD.PP.G0180V00	Q17032	1	1	VRPP	20/02/2012	132015	25/02/2012	03/03/2012	SL	128T	M							
000002*	SSC.VITALREC.BUILD.NET.G0179V00	Q17057	1	1	VRNET	20/02/2012	134031	25/02/2012	03/03/2012	SL	128T	M							
000003*	SSC.VITALREC.BUILD.DB.G0187V00	Q17085	1	1	VRDB	20/02/2012	130340	25/02/2012	03/03/2012	SL	128T	M							
000004*	SSC.VITALREC.MASTER.JCL.G0174V00	Q17136	1	1	VRMASTER	21/02/2012	024340	26/02/2012	03/03/2012	SL	128T	M							
000005*	SSC.VITALREC.BUILD.WWC150.G0056V00	Q17138	1	1	VRWWC150	20/02/2012	141157	25/02/2012	03/03/2012	SL	128T	M							
000007*	SSC.VITALREC.BUILD.WWZ38#.G0055V00	Q17139	1	1	VRWWZ38#	20/02/2012	154308	25/02/2012	03/03/2012	SL	128T	M							
000008*	SSC.VITALREC.BUILD.WWZ038.G0058V00	Q17140	1	1	VRWWZ038	20/02/2012	175618	25/02/2012	03/03/2012	SL	128T	M							
000009*	SSC.VITALREC.BUILD.W3897A.G0031V00	Q17143	1	1	VRW3897A	20/02/2012	203407	25/02/2012	03/03/2012	SL	128T	M							
000012*	SSC.VITALREC.BUILD.W3897A.G0031V00	Q17144	2	1	VRW3897A	20/02/2012	234947	26/02/2012	03/03/2012	SL	128T	M							
000017*	SSC.VITALREC.BUILD.MVSSMP.G0178V00	Q17145	1	1	VRMVSSMP	20/02/2012	140108	25/02/2012	03/03/2012	SL	128T	M							
000019*	SSC.VITALREC.BUILD.WMP004.G0056V00	Q17146	1	1	VRWMP004	20/02/2012	144519	25/02/2012	03/03/2012	SL	128T	M							
000020*	SSC.VITALREC.BUILD.WMP115.G0056V00	Q17147	1	1	VRWMP115	20/02/2012	150147	25/02/2012	03/03/2012	SL	128T	M							
000021*	SSC.VITALREC.BUILD.W3897B.G0006V00	Q17148	1	1	VRW3897B	21/02/2012	002806	26/02/2012	03/03/2012	SL	128T	M							
000022*	SSC.VITALREC.FILTER.SELECT.G0174V00	Q17149	1	1	VRSELECT	21/02/2012	022738	26/02/2012	03/03/2012	SL	128T	M							

End of Report. 14 Entries listed

Figure 106. Sample REPORT13 output: movement Report including the first data set name sorted by bin number

REPORT14: movement report by volume serial number

REPORT14, as shown in Figure 107 on page 111, includes data sets. REPORT14 is sorted by destination, location, and volume serial number.

The data columns for REPORT14 are:

Volume Serial

The volume serial number of the reported volume.

Data Set Name

The data set name of the first file on the volume.

BIN Number

The used bin number of this volume in the reported storage location. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

Vol-Seq.

Volume sequence of the reported volume.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

Creation date of the reported data set.

Create Time

Creation time of the reported data set.

Expiration Date

DFSMSrmm expiration date of the reported volume.

Date stored

Confirm date of the move to the reported storage location.

LBL

The tape label type which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EE2, EE3, or *.

VS

The volume status which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

DFSMSrmm IBM INTERNAL USE ONLY		Movement reportby Volume Serial Number										PAGE -	1
EDGRPT14		from location DISTANT to location ATL3494E										DATE -	2012/341
												TIME -	22:38:55
Volume		BIN	Vol-	DSN-	Creating	Create	Create	Expiration				Date	Rec. V
Serial	Data Set Name	Number	Seq.	Seq.	Jobname	Date	Time	Date	stored	LBL	Fmt	S	
Q17032	SSC.VITALREC.BUILD.PP.G0180V00	000001*	1	1	VRPP	20/02/2012	132015	25/02/2012	03/03/2012	SL	128T	M	
Q17057	SSC.VITALREC.BUILD.NET.G0179V00	000002*	1	1	VRNET	20/02/2012	134031	25/02/2012	03/03/2012	SL	128T	M	
Q17085	SSC.VITALREC.BUILD.DB.G0187V00	000003*	1	1	VRDB	20/02/2012	130340	25/02/2012	03/03/2012	SL	128T	M	
Q17136	SSC.VITALREC.MASTER.JCL.G0174V00	000004*	1	1	VRMASTER	21/02/2012	024340	26/02/2012	03/03/2012	SL	128T	M	
Q17138	SSC.VITALREC.BUILD.WWC150.G0056V00	000005*	1	1	VRWMC150	20/02/2012	141157	25/02/2012	03/03/2012	SL	128T	M	
Q17139	SSC.VITALREC.BUILD.WWC238#.G0055V00	000007*	1	1	VRWMC238#	20/02/2012	154308	25/02/2012	03/03/2012	SL	128T	M	
Q17140	SSC.VITALREC.BUILD.WWC238.G0058V00	000008*	1	1	VRWMC238	20/02/2012	175618	25/02/2012	03/03/2012	SL	128T	M	
Q17143	SSC.VITALREC.BUILD.W3897A.G0031V00	000009*	1	1	VRW3897A	20/02/2012	203407	25/02/2012	03/03/2012	SL	128T	M	
Q17144	SSC.VITALREC.BUILD.W3897A.G0031V00	000012*	2	1	VRW3897A	20/02/2012	234947	26/02/2012	03/03/2012	SL	128T	M	
Q17145	SSC.VITALREC.BUILD.MVSSMP.G0178V00	000017*	1	1	VRMVSSMP	20/02/2012	140108	25/02/2012	03/03/2012	SL	128T	M	
Q17146	SSC.VITALREC.BUILD.WWP004.G0056V00	000019*	1	1	VRWWP004	20/02/2012	144519	25/02/2012	03/03/2012	SL	128T	M	
Q17147	SSC.VITALREC.BUILD.WWP115.G0056V00	000020*	1	1	VRWWP115	20/02/2012	150147	25/02/2012	03/03/2012	SL	128T	M	
Q17148	SSC.VITALREC.BUILD.W3897B.G0006V00	000021*	1	1	VRW3897B	21/02/2012	002806	26/02/2012	03/03/2012	SL	128T	M	
Q17149	SSC.VITALREC.FILTER.SELECT.G0174V00	000022*	1	1	VRSELECT	21/02/2012	022738	26/02/2012	03/03/2012	SL	128T	M	
End of Report. 14 Entries listed													

Figure 107. Sample REPORT14 output: movement Report including the first data set name sorted by volume serial number

REPORT15: inventory list by volume including volume count

REPORT15, as shown in Figure 108 on page 112, provides a count of the maximum number of tapes in a multivolume chain. If a volume is not part of a multivolume chain, the count is set to 1. REPORT15 is sorted by volume serial number and data set sequence number.

The data columns for REPORT15 are:

Volume Serial

The volume serial number.

Data Set Name

The data set name of the first file on the volume.

Vol-Seq.

The sequence number of the volume.

Vol-Cnt.

The volume count.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Create Date

The date when the data set was created.

Create Time

The time when the data set was first written to tape.

Vol Scr

The scratch status of the volume.

YES

The volume is scratch.

NO

The volume is not scratch.

Location Name

The storage location, loan location, or blank if the volume resides in its home location.

BIN number

The assigned specific bin number. An asterisk (*) following the bin number indicates that the bin number is the old bin number. The old bin number is displayed when no current bin number is set for the volume.

DFSMSrmm INTERNAL USE ONLY EDGRPT15				Inventory List by Volume Serial Number incl. Volume count						PAGE - 1	2012/205
										DATE -	06:37:13
										TIME -	
Volume Serial	Data Set Name	Vol- Seq.	Vol- Cnt.	DSN- Seq.	Create Date	Create Time	Vol Scr	Location Name	BIN Number		
A00001	D027182.DSN1	1	10	1	2012/205	063628	NO	MAINZ	*		
A00001	OWRTST.LAGER	1	10	2	2012/205	063628	NO	MAINZ	*		
A00002	OWRTST.LAGER	2	10	1	2012/205	063628	NO	MAINZ	*		
A00003	OWRTST.LAGER	3	10	1	2012/205	063629	NO	MAINZ	*		
A00004	RMMTST.EXTRACT.FILE	4	10	1	2012/205	063629	NO	MAINZ	*		
A00004	RMMTST.REPORT.FILE	4	10	2	2012/205	063629	NO	MAINZ	*		
A00004	RMMTST.ACTIVITI.FILE	4	10	3	2012/205	063629	NO	MAINZ	*		
A00005	RMMTST.JOURNAL.BACKUP	5	10	1	2012/205	063629	NO	MAINZ	*		
A00006	SYS1.PARMLIB	6	10	1	2012/205	063629	NO	MAINZ	*		
A00007	SYS1.PARMLIB	7	10	1	2012/205	063630	NO	MAINZ	*		
A00007	SYS1.PROCLIB	7	10	2	2012/205	063630	NO	MAINZ	*		
A00008	SYS1.MASTER.JCL	8	10	1	2012/205	063630	NO	MAINZ	*		
A00009	SYS1.MASTER.JCL	9	10	1	2012/205	063630	NO	MAINZ	*		
A00010	SYS1.DFSMS.JCL	10	10	1	2012/205	063630	NO	MAINZ	*		
P00001	D027182.PRIVAT.TESTDSN	1	1	1	2012/205	063631	NO		*		
P00002	D027182.PRIVAT.TESTJCL	1	1	1	2012/205	063631	NO		*		
P00003	D027182.PRIVAT.EXEC	1	1	1	2012/205	063631	NO		*		
End of Report.				17	Entries listed						

Figure 108. Sample REPORT15 output: inventory list of volumes including the volume count

REPORT16: list all duplicate volume serial numbers

REPORT16, as shown in [Figure 109 on page 113](#), includes all duplicate volume serial numbers. The report is sorted by the VOL1 number and then by volume serial number.

The data columns for REPORT16 are:

Volume VOL1

The VOL1 label. These are volumes that are defined to DFSMSrmm with a unique external volume serial number and a VOL1 label that might duplicate another volume but that does not match its own external volume serial number.

Volume Serial

The serial number of the volume where the specified data set resides.

Data Set Name

The data set name of the first file on the volume.

Vol-Seq.

The volume sequence number.

DSN-Seq.

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was written to tape.

Expiration Date

The date that the volume should be considered available for release.

Volume Ref. Date

The date that information on the volume was last read or last written.

LBL

The tape label type, which can be one of the following:

SL

Specifies an IBM standard label.

AL

Specifies an ANSI label.

NL

Specifies no label.

SUL

Specifies an IBM standard label with user labels.

AUL

Specifies an ANSI label with user labels.

Rec. Fmt

The volume recording format which can be one of the following: 18TR, 36TR, 128T, 256T, 384T, EFM1, EFM2, EEF2, EEF3, or *.

VS

The volume status, which can be one of the following:

S

SCRATCH

M

MASTER

U

USER

I

INIT

E

ENTRY

VR

The vital record status, which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

DFSMSrmm INTERNAL USE ONLY				Inventory of Duplicate Volumes				PAGE - 1			
EDGRPT16								DATE - 13/05/2012			
								TIME - 03:51:09			
Volume	Volume			Vol-	DSN-	Creating	Create	Create	Expiration	Volume	Rec. V
VOL1	Serial	Data	Set Name	Seq.	Seq.	Jobname	Date	Time	Date	Ref. Date	LBL Fmt S R
A06412	D06412	RMMUSER.TAPE12		1	1	RMMUSERJ	13/05/2012	032354	18/05/2012	13/05/2012	SL 18TR U N
A06477	D06414	RMMUSER.TAPE77		1	1	RMMUSERJ	13/05/2012	034523	18/05/2012	13/05/2012	SL 18TR U N
A06488	D06410	RMMUSER.TAPE88		1	1	RMMUSERJ	13/05/2012	034902	18/05/2012	13/05/2012	SL 18TR U N
				End of Report. 3 Entries listed							

Figure 109. Sample REPORT16 output: list all duplicate volume serial numbers

REPORT17: inventory of stacked volumes by percent active

REPORT17, as shown in [Figure 110 on page 114](#), includes an inventory of stacked volumes by percent active. The report presents the stacked volumes in order of increasing percentage of active number of volumes and percentage used. The least used stacked volumes are listed first.

The data columns for REPORT17 are:

Volume Serial

The volume serial number of the stacked volume.

% Act

Percentage of the contained logical volumes that are active.

Active

The number of active logical volumes. Active logical volumes are all those that are neither scratch nor pending release.

Logical

The number of contained logical volumes.

% Use

The approximate percentage of active data.

Capacity

The size of the stacked volume in MB.

Media Type

The physical media type of the volume.

Retention Date

When VRS retained this volume is the VRS calculated retention date. Otherwise, it is the latest expiration date of all contained active volumes.

VR

The vital record status, which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

Location Name

The storage location, loan location, or blank if the volume resides in its home location.

Store Date

The date when the volume was stored.

Export Date

The date when the stacked volume was exported from a VTS.

Export Time

The time when the stacked volumes was exported from a VTS.

Home Location

The volume's home location.

DFSMSrmm INTERNAL USE ONLY						Inventory of Stacked Volumes by Percent Active						PAGE -	1
EDGRPT17												DATE -	2012/341
												TIME -	03:51:09
Volume	%	#	#	%		Media	Retention	V	Location	Store	Export	Export	Home
Serial	Act	Active	Logical	Use	Capacity	Type	Date	R	Name	Date	Date	Time	Location

SC0502	50		543	99993	35	2000 CART	2012/240	Y	VAULT	2011/295	2011/277	123441	VTS1
End of Report.						1 Entries listed							

Figure 110. Sample REPORT17 output: inventory of stacked volumes by percent active

REPORT18: inventory of data sets by volume retention method

REPORT18, as shown in Figure 111 on page 115, includes data sets and volumes other than those that are scratch. REPORT18 is split by retention method and sorted by data set name, create date, and create time.

The data columns for REPORT18 are:

Data Set Name

The data set name of the first file on the volume.

Volume Serial

The volume serial number of the volume.

Vol-Seq

The volume sequence number.

DSN-Seq

The data set sequence number or the relative position of the data set on the volume if the data set sequence number is blank or zero.

Creating Jobname

The name of the job that created the data set or that created the first data set on the volume if the creating jobname field is blank.

Create Date

The date when the data set was first written to tape.

Create Time

The time of day when the data set was written to tape.

Volume Exp. Date

Volume EXPDT. The date the volume should be considered for release.

DSN Exp. Date

Data set EXPDT. This may be different than the volume EXPDT.

VX

Excluded from VRSEL which can be one of the following:

Y

The data set record is excluded from VRSEL processing.

N

The data set record is included in VRSEL processing.

EXPDT Set by

This field identifies the event that caused the expiration date to be set or changed.

Volume Ret. Date

Volume retention date. When VRS retained this is the highest VRS calculated retention date of all data sets on the volume, otherwise it is the date the volume was removed from VRS control.

DSN Ret. Date

Data set retention date.

DEST

The destination, the target storage location of the volume.

VR

The vital record status, which can be one of the following:

Y

The volume is retained as a vital record.

N

The volume is not retained as a vital record.

DFSMSrmm INTERNAL USE ONLY									
EDGRPT18									
Inventory of Data Set Names by Volume Retention Method EXPDT									
PAGE - 1									
DATE - 2012/129									
TIME - 08:11:53									
V EXPDT									
X Set by									

Data Set Name	Volume Serial	Vol- Seq.	DSN- Seq.	Creating Jobname	Create Date	Create Time	Volume Exp. Date	DSN Exp. Date	
RMMUSER.D16002	A16002	1	1		2012/123	081146	2012/133	2012/128	Y CMD_DEF
RMMUSER.D16003	A16003	2	1		2012/129	081147	2012/135	2012/135	Y CMD
RMMUSER.D16004.DS1	A16004	3	1	BERNDS	2012/129	081147	2012/134	2012/099	Y CMD
RMMUSER.D16004.DS2	A16004	3	2	BERNDS	2012/129	081147	2012/134	2012/111	Y CMD
End of Report. 4 Entries listed									
DFSMSrmm INTERNAL USE ONLY									
EDGRPT18									
Inventory of Data Set Names by Volume Retention Method VRSEL									
PAGE - 2									
DATE - 2012/129									
TIME - 08:11:53									
V V									
X R									

BERNDS.DATASET	A16007	1	1		2012/123	081146	2012/240	2012/240	N Y
BERNDS.DATASET	A16006	1	1		2012/129	081147	2012/250		Y Y
BERNDS.DATASET	A16006	1	2		2012/129	081150	2012/250	2012/240	N Y
RMMUSER.D16001.A	A16001	1	1	TEST	2012/123	081146	PERMANENT	PERMANENT	N Y
RMMUSER.D16001.B	A16001	1	2	TEST	2012/123	081146	PERMANENT		Y Y
RMMUSER.D16001.C	A16001	1	3	TEST	2012/123	081146	PERMANENT	PERMANENT	N Y
RMMUSER.D16005	A16005	1	1		2012/129	081147	PERMANENT		N N
End of Report. 7 Entries listed									

Figure 111. Sample REPORT18 output: inventory of data sets by volume retention method

Chapter 6. Using DFSMSrmm with DFSORT

You can use DFSORT's multipurpose ICETOOL utility to create reports from the data in DFSMSrmm extract data set, activity report, and System Management Facility (SMF) records.

DFSMSrmm provides sample jobs that use DFSORT, often using ICETOOL, to produce sample reports.

If you are not familiar with DFSORT and ICETOOL, or just want to learn more about them, visit the [DFSORT Home Page \(www.ibm.com/storage/dfsor\)](http://www.ibm.com/storage/dfsor).

The DFSORT home page has papers and examples you can browse, links to the online DFSORT documents, tips, and more. You can browse or download an ICETOOL mini-user guide, learn about the major features of DFSORT, see answers to frequently asked questions, and so on.

Related reading: For a tutorial on using DFSORT and ICETOOL, see *z/OS DFSORT: Getting Started*. For complete details about DFSORT and DFSORT's ICETOOL, see *z/OS DFSORT Application Programming Guide*. You can access both of these documents online from the DFSORT home page.

Using DFSORT's ICETOOL

You can use the DFSMSrmm-supplied samples without modification or use them as examples to produce specific customized reports from DFSMSrmm information. You can change the DFSORT or ICETOOL control statements and job steps to create reports for your installation. Consider these things that you can do to the samples for use in your installation.

JOB card

You might submit jobs from Time Sharing Option (TSO) and have your system automatically generate a job card for you. If a job card is not automatically generated, provide a job card by replacing the commented job card with one that is acceptable on your system.

Work Space

DFSORT and ICETOOL can generally automatically allocate any resources they need, such as work space, storage, Hiperspace, dataspace, and so on. The resources allocated are based on system information, data set information, and the DFSORT installation defaults that are specified by your site. However, if necessary, you can change the resources used by DFSORT and ICETOOL in a variety of ways including:

- Specifying run-time options for the type and maximum number of dynamically allocated work data sets, the maximum amount of storage, Hiperspace or dataspace, and so on. For example, you can specify:

```
//DFSPARM DD *  
OPTION DYNALLOC=(3390,8)  
/*
```

to tell DFSORT or ICETOOL to allocate a maximum of eight work data sets on 3390 devices (instead of the IBM-supplied default of three work data sets on SYSDA devices).

- Specifying JCL work data sets. For example, you can specify:

```
//SORTWK01 DD UNIT=SYSDA,SPACE=(CYL,(50,50))  
//SORTWK02 DD UNIT=SYSDA,SPACE=(CYL,(50,50))
```

to tell DFSORT or ICETOOL to use the two JCL work data sets specified, instead of dynamically allocating the work data sets.

DSN keyword

You do not need to change the DSN keyword where temporary data set names are specified. When a specific data set name is used, you should change the name to one that can be used in your installation.

SPACE keyword

You can change the SPACE keyword values. Examine your installation's tape activities and perform trial runs to arrive at suitable values for primary and secondary space.

UNIT keyword

You can change the UNIT name used as required. Specify a value that will allocate to a DASD device type.

Creating DFSMSrmm SMF audit record reports

Figure 112 on page 119 shows the sample JCL for processing SMF records. The sample uses this information, taken from the volume details within the SMF record:

- Volume serial number
- Volume creation date
- Date that the volume information last changed
- User ID that last changed the volume information by command
- Date that the volume information was last changed by an RMM TSO subcommand request

The report also includes this information which is taken from the SMF record header:

- Time
- Date
- System identification
- RACF user ID
- Activity type

The ICETOOL JCL example in Figure 112 on page 119 performs these functions:

1. Uses a COPY operator to create a data set with just the SMF audit (X'FC') volume records (V) for use by the subsequent DISPLAY operator.
2. Uses a DISPLAY operator to create an SMF audit record for the V records.

You must add 1 to an SMF field offset to get its position for DFSORT and ICETOOL statements.

Alternatively, you can use DFSORT symbols, which map the DFSMSrmm fields you need, freeing you from having to know their positions, lengths, and formats. See [“Using symbols with DFSORT's ICETOOL and DFSORT”](#) on page 121 for more information about using symbols.

```

//STEP1 EXEC PGM=ICETOOL
//TOOLMSG DD SYSOUT=* ICETOOL MESSAGES
//DFSMSG DD SYSOUT=* DFSORT MESSAGES
//RAWSMF DD DSN=ACCT.SJFEMVSA.D921102.T230004,DISP=SHR
//RMMV DD DSN=&&TEMPV,REFDD=*.RAWSMF
//VREPT DD SYSOUT=*
//TOOLIN DD *
* FIND THE RMM SMF AUDIT 'VOLUME' RECORDS
COPY FROM(RAWSMF) TO(RMMV) USING(SMFV)
* DISPLAY VARIOUS FIELDS FROM THE SMF HEADER AND VOLUME SECTION
DISPLAY FROM(RMMV) LIST(VREPT) -
  TITLE('DFSMSrmm - SMF Audit Records') DATE TIME PAGE -
  BLANK -
* SMF HEADER FIELDS
  HEADER('TIME') ON(8,3,HEX) -
  HEADER('DATE') ON(11,4,PD) -
  HEADER('SYS') ON(15,4,CH) -
  HEADER('USER') ON(35,8,CH) -
  HEADER('ACT') ON(43,1,CH) -
* VOLUME SECTION FIELDS
  HEADER('VOLUME') ON(46,6,CH) -
  HEADER('CREATE') ON(104,4,PD) -
  HEADER('LASTCH') ON(128,4,PD) -
  HEADER('LASTUSER') ON(136,8,CH) -
  HEADER('LASTSYS') ON(144,8,CH) -
  HEADER('LASTUSCH') ON(152,4,PD)
//SMFVCNTL DD *
* The X'FC' is the SMF record number specified to RMM SMFAUD
* The X'FC' is record number 252 - Change it to your record number
INCLUDE COND=(6,1,BI,EQ,X'FC',AND,
  44,1,CH,EQ,C'V')
OPTION VLSHRT
/*

```

Figure 112. Sample ICETOOL JCL for processing SMF records

See Figure 118 on page 125 for the equivalent sample JCL using DFSORT symbols.

Figure 113 on page 119 shows sample report output for the SMF audit report.

RMM SMF AUDIT RECORDS			11/05/97	07:40:13	- 1 -				
TIME LASTUSCH	DATE	SYS	USER	ACT	VOLUME	CREATE	LASTCH	LASTUSER	LASTSYS
----- -----	-----	----	-----	---	-----	-----	-----	-----	-----
63202A 1997058	97307	MVSA	HOLLYYAM	C	ND0335	1997058	1997307	TAPELIB	MVSA
6321B6 1997058	97307	MVSA	YAEGGER	C	ND0336	1997058	1997307	TAPELIB	MVSA
6321B8 1997058	97307	MVSA	WILLITS	C	ND0339	1997058	1997307	TAPELIB	MVSA
.									
.									
.									
853C1A 1997035	97307	MVSA	YAEGGER	C	ND0338	1997035	1997307	TAPELIB	MVSA
863C24 1996271	97307	MVSA	JMB01	C	NB1876	1996271	1997307	TAPELIB	MVSA

Figure 113. Sample DISPLAY Report (VREPT DD)

Producing commands and reports from the extract data set

This example shows two tasks that you can perform with ICETOOL. The examples use the DFSMSrmm extract data set as input. In this case, the volume extract records, as described in [Appendix B](#), “DFSMSrmm mapping macros,” on page 227, are used to perform these functions:

- Create RMM CHANGEVOLUME subcommands to set a release action of REPLACE for all tapes with temporary input/output (I/O) errors higher than a specific number. For this example, an arbitrary value of 100 is used for the temporary I/O error limit.
- Create a report showing the number of tapes with each security level classification.

The ICETOOL JCL example in [Figure 114 on page 120](#) performs these functions:

1. Uses a COPY operator to create a data set with just the extract volume (V) records for use by subsequent operators.
2. Uses a COPY operator to create CHANGEVOLUME commands for those V records with temporary I/O counts greater than 100.
3. Uses an OCCUR operator to create a security level distribution report for the V records.

You must add 5 to an extract field offset shown in [Appendix B, “DFSMSrmm mapping macros,” on page 227](#) to get its position for DFSORT and ICETOOL statements. Alternatively, you can use DFSORT symbols, which map the DFSMSrmm fields you need, freeing you from having to know their positions, lengths, and formats. See [“Using symbols with DFSORT’s ICETOOL and DFSORT” on page 121](#) for more information about using symbols.

```
//STEP1 EXEC PGM=ICETOOL
//TOOLMSG DD SYSOUT=*
//DFSMSG DD SYSOUT=*
//IN1 DD DSN=RMM.MASTER.EXTRACT,DISP=SHR
//VRCDS DD DSN=&&IN2,UNIT=SYSDA,SPACE=(1,(1000,1000),RLSE),
// DISP=(,DELETE),DSORG=PS,RECFM=VB,AVGREC=K
//COMMANDS DD DSN=RMM.RLSE.CLIST,DISP=(,CATLG),
// LRECL=255,RECFM=VB,DSORG=PS,AVGREC=K,SPACE=(255,(1,1),RLSE)
//OCCRPT DD SYSOUT=*
//TOOLIN DD *
* GET JUST THE 'V' RECORDS
COPY FROM(IN1) TO(VRCDS) USING(CTL2)
* SET UP THE CHANGEVOLUME COMMANDS FOR TAPES WHICH EXCEED
* THE TEMPORARY I/O ERROR LIMIT OF 100
COPY FROM(VRCDS) TO(COMMANDS) USING(CMDT)
* PRINT REPORT SHOWING SECURITY LEVEL DISTRIBUTION
OCCUR FROM(VRCDS) LIST(OCCRPT) BLANK -
DATE TITLE('Security Level Distribution Report') -
HEADER('Security Level') ON(280,4,CH) -
HEADER('Number in Level') ON(VALCNT)
//CTL2CNTL DD *
* INCLUDE ONLY 'V' RECORDS
INCLUDE COND=(5,1,CH,EQ,C'V')
//CMDTCNTL DD *
* INCLUDE ONLY RECORDS WITH TEMPORARY I/O ERROR COUNTS
* GREATER THAN 100
INCLUDE COND=((371,4,CH,GT,C' 100'),OR,(375,4,CH,GT,C' 100'))
* BUILD CHANGEVOLUME COMMANDS
OUTREC FIELDS=(1,4,C'RMM CV ',9,6,
C' RLSE(REPLACE)')
```

Figure 114. Sample ICETOOL JCL for processing extract records

[Figure 115 on page 120](#) shows sample CHANGEVOLUME command output.

```
RMM CV AB1863 RLSE(REPLACE)
RMM CV CD0001 RLSE(REPLACE)
RMM CV 119063 RLSE(REPLACE)
RMM CV CD0004 RLSE(REPLACE)
RMM CV CD0007 RLSE(REPLACE)
RMM CV CD0008 RLSE(REPLACE)
RMM CV CD0009 RLSE(REPLACE)
RMM CV CD0011 RLSE(REPLACE)
RMM CV CD0015 RLSE(REPLACE)
```

Figure 115. Sample RMM TSO subcommands (COMMANDS DD)

Figure 116 on page 121 shows sample report output.

11/05/07 Security Level Distribution Report	
Security Level	Number in Level
-----	-----
	108
IC	9094
ICR	310
IUO	4006
NONE	9
UNC	192

Figure 116. Sample OCCUR Report (OCCRPT DD)

Using symbols with DFSORT's ICETOOL and DFSORT

You can use DFSORT symbols in ICETOOL and DFSORT jobs to create reports for DFSMSrmm-managed resources. DFSORT symbols provide the positions, lengths, and formats of the fields and the values of the constants associated with DFSMSrmm data you are processing with ICETOOL and DFSORT.

IBM's development teams for DFSMS and DFSORT have already created DFSORT symbols, and sample jobs that use them, for data that are associated with DFSMSrmm. You can obtain these IBM-created materials as described in Appendix A, "DFSORT symbols for use with DFSMSrmm," on page 161. Then you can substitute the symbols for the DFSMSrmm fields you need into ICETOOL and DFSORT jobs.

This topic provides an overview of how DFSORT symbols work in general, as well as a specific example of their use for DFSMSrmm reporting.

Related reading: For additional information on DFSORT symbols, see [z/OS DFSORT Application Programming Guide](#) and [z/OS DFSORT: Getting Started](#).

How symbols help

Symbols can help standardize your DFSORT applications and increase your productivity. You can use a symbol anywhere you can use a field or constant in any DFSORT control statement or ICETOOL operator. DFSORT symbols can be up to 50 characters, are case-sensitive and can include underscore characters. Thus, you can create meaningful, descriptive names for your symbols, such as Price_of_Item, making them easy to remember, read, and understand.

A field symbol defines a field in terms of its position, length, and format. A constant symbol defines a constant in terms of its literal, numeric or bit value. Once you make a symbol available, you free yourself from the sometimes tedious process of figuring out its position, length, format or value. No more confusion over offsets versus positions and whether to add 4 for the record descriptor word (RDW). No more recoding positions in statements for multiple DFSORT and ICETOOL jobs when you add, delete, or rearrange fields in your data sets.

Using symbols

To use symbols with DFSORT and ICETOOL jobs, follow these steps:

1. Create or obtain DFSORT symbol data sets that describe the data you want to process. Symbol data sets contain symbols that map the fields in your records, and constants used for comparisons, titles, headings, and so on. The symbols are specified in DFSORT's simple but flexible SYMNAMES statement format, which is described in ["SYMNAMES statements"](#) on page 123. You can easily add, delete, or modify symbols using an editor, such as ISPF EDIT.
2. Include a SYMNAMES DD statement specifying the symbol data sets that you want to use. You can use SYMNAMES to specify one symbol data set or many concatenated symbol data sets.

3. Use the symbols from SYMNames in DFSORT control statements and ICETOOL operators. You can mix symbols (for example, Last_Name) with regular fields (for example, 20,5,CH) and constants (for example, C'Yaeger').

DFSORT reads SYMNames and uses the symbols it contains to transform your "statements with symbols" into "statements without symbols" by performing symbol substitution. DFSORT will then use the transformed statements (that is, the statements without symbols) as if you had specified them directly.

Typically, you would set up a symbol data set to map the record layout (that is, the fields and constants) of each data set you process frequently with DFSORT or ICETOOL. For example, [Figure 117 on page 122](#) shows a sample symbol data set named ACCOUNTS.SYMBOLS, which contains symbols for a variable-length (VB) data set named ACCOUNTS. You would use the symbols from ACCOUNTS.SYMBOLS in DFSORT and ICETOOL statements that process ACCOUNTS. Then, any time you changed the record layout of ACCOUNTS (for example, by rearranging fields), you would make a corresponding change to ACCOUNTS.SYMBOLS. That way, you wouldn't have to change your jobs that use ACCOUNTS when you changed its record layout. DFSORT would use your symbols to automatically give you the correct new positions. This would save you time and help you avoid errors.

```
* Symbols for the fields and constants of ACCOUNTS
RDW,1,4
  Record_Length,=,2,bi
  SKIP,2
Account_Number,*,8,ch
Balance,*,9,zd
  Gift_Level#1,250000    2500.00
  Gift_Level#2,500000    5000.00

* Branch_Location and Branches are the same field with
* different formats.
Branch_Location,*,2,ch
  California,'01'
  Oregon,'95'
  Washington,'18'
  Arizona,'22'
  Florida,'16'
  Alabama,'25'
  North_Carolina,'92'
Branches,=,2,SS
  West,'01,95,18,22'
  South,'16,25,92'

* First_Name and Last_Name are subfields of Full_Name
Full_Name,*,40,ch
  Last_Name,=,20,ch
  First_Name,*,20,ch
SKIP,2    Not used
Type,*,2,ch
  Checking,'CH'
  Money_Market,'MM'
  Certificate,'CD'
Transactions,*,2,pd
  High_Activity,200
ERR_FLAG,*,1,bi
  Invalid,x'FF'
  Bad_Check,x'80'
  Bad_Credit,x'40'
  No_Funds,x'20'
* Alternate forms for No_Funds
  No_Funds_A,b'..1....'
  No_Funds_B,B'00100000'
Other_Accounts,*    Variable information
```

Figure 117. Symbol data set (ACCOUNTS.SYMBOL)

SYMNames and SYMNOUT DD statements

To use symbol processing in your DFSORT or ICETOOL jobs, include a SYMNames DD statement pointing to one or more symbol data sets you want to use (concatenation is allowed). A symbol data set must have LRECL=80 and RECFM=F or RECFM=FB. It can be a sequential data set, a partitioned member, or a DD * data set.

To print your original SYMNAMES statements and the symbol table DFSORT builds from them, include a SYMNOUT DD statement. RECFM=FBA and LRECL=121 will be used for the SYMNOUT data set, which would typically be SYSOUT=*. It's a good idea to include a SYMNOUT data set until your SYMNAMES statements are debugged.

SYMNAMES statements

A SYMNAMES statement can be a symbol statement, keyword statement, comment statement (starts with * in position 1) or blank statement (blanks in positions 1 through 80). ACCOUNTS.SYMBOLS contains all four types of SYMNAMES statements.

Symbol statements

Each symbol in SYMNAMES must be described using a symbol statement. A symbol statement looks like this:

```
symbol,value <optional remark>
```

Leading blanks are allowed before the symbol, so use indentation to aid readability. In ACCOUNTS.SYMBOLS, Last_Name and First_Name are indented to show they are subfields of Full_Name, and each constant symbol is indented to show the field symbol it's associated with.

A symbol can be 1 - 50 characters consisting of uppercase and lowercase letters (A - Z, a - z), underscore (_), dollar sign (\$), at sign (@), and number sign (#). Numbers (0-9) can be used for the second and subsequent characters. Symbols are treated as case-sensitive: Frank, FRANK, and frank are three different symbols.

Symbol statements for constants

A symbol statement for a constant looks like this:

```
symbol,constant <optional remark>
```

You can use any character string, hexadecimal string, bit string or decimal number recognized in DFSORT or ICETOOL statements as the constant. The constant in a symbol statement can be specified as:

- A character string in the form 'string', C'string' or c'string'. You can use the three forms interchangeably. In ACCOUNTS.SYMBOLS, West is a character string.
- A hexadecimal string in the form X'string' or x'string'. You can use the two forms interchangeably. In ACCOUNTS.SYMBOLS, Invalid is a hexadecimal string.
- A bit string in the form B'string' or b'string'. You can use the two forms interchangeably. In ACCOUNTS.SYMBOLS, No_Funds_A and No_Funds_B are two different types of bit strings.
- A decimal number in the form n, +n or -n. You can use n and +n interchangeably. In ACCOUNTS.SYMBOLS, Gift_Level#1 is a decimal number.

Symbol statements for fields

A symbol statement for a field looks like this:

```
symbol,field <optional remark>
```

The field in a symbol statement can be specified as p,m,f (position, length, and format), p,m (position and length) or p (position only).

```
p can be a number, an asterisk (*) or an equal sign (=).
```

An * assigns the next position to p. It allows you to map consecutive fields in your records without having to compute their actual positions or recompute their positions when you add, remove, or rearrange fields. In ACCOUNTS.SYMBOLS, Balance has an * to show it starts immediately after Account_Number. An * can also be used to create mappings of contiguous fields using concatenated symbol data sets.

An = assigns the previous position to p. It allows you to map subfields without specifying their actual positions. In ACCOUNTS.SYMBOLS, Last_Name has an = to show it starts at the same position as Full_Name.

An m can be a number or an equal sign (=). An f can be any format recognized in DFSORT or ICETOOL statements or an equal sign (=). An = assigns the previous length or format to m or f, respectively.

You can specify p,m,f for your field symbols and then use them in DFSORT statements where p,m is required. DFSORT will cleverly substitute p,m rather than p,m,f when appropriate. For example, if you use these DFSORT statements with symbols from ACCOUNTS.SYMBOLS:

```
SORT FIELDS=(Type,A)
SUM FIELDS=(Balance)
OUTREC FIELDS=(RDW,Type,15:Balance)
```

DFSORT will transform them to:

```
SORT FIELDS=(66,2,CH,A)
SUM FIELDS=(13,9,ZD)
OUTREC FIELDS=(1,4,66,2,15:13,9)
```

DFSORT automatically substituted p,m,f for the SORT and SUM fields and p,m for the OUTREC fields, as required by its syntax rules.

Keyword statements

Keyword statements can help you map the fields in your records by letting you set a starting position, skip unused bytes, and align fields on specific boundaries. The available keyword statements are:

- POSITION,q - sets the next position and previous position to q for use with * and = in a subsequent field symbol. For example:

```
POSITION,8
Syma,*,2,FI
```

assigns position 8 to Syma.

- POSITION,symbol - sets the next position and previous position to the position of the specified field symbol for use with * and = in a subsequent field symbol. POSITION,symbol can be used like the Assembler ORG instruction. For example:

```
Sym1,20,10,BI
Sym2,*,18,CH
Sym3,*
POSITION,Sym1
Sym4,*,6,ZD
Sym5,*,4,ZD
```

assigns position 20 to Sym4 (that is, Sym4 and Sym5 overlay Sym1).

- SKIP,n- skips n bytes for use with * in a subsequent field symbol.
- ALIGN,x- aligns the next position on a specific boundary for use with * in a subsequent field symbol. x can be H for halfword alignment, F for fullword alignment or D for doubleword alignment.

Symbols in DFSORT statements

You can use symbols in these DFSORT control statements wherever you can use constants ('string', C'string', X'string', B'string', n, +n, or -n) and fields (p,m,f or p,m or p): INCLUDE, INREC, MERGE, OMIT, OUTFIL, OUTREC, SORT and SUM. Control statements in DFSPARM, SYSIN, SORTCNTL and the parameter list passed from a calling program can all use symbols.

When SYMNames is present, DFSORT transforms control statements with symbols to control statements without symbols, and uses the transformed statements as if you had specified them directly. DFSORT lists both the original statements and the transformed statements.

Symbols in ICETOOL statements

You can use symbols in these ICETOOL operators wherever you can use constants ('string', n, +n or -n) and fields (p,m,f or p,m): DISPLAY, OCCUR, RANGE, SELECT, STATS, UNIQUE, and VERIFY. Operators in TOOLIN and in the parameter list passed from a calling program and DFSORT control statements in xxxxCNTL and DFSPARM, can all use symbols.

When SYMNames is present, ICETOOL transforms ICETOOL and DFSORT statements with symbols to statements without symbols, and uses the transformed statements as if you had specified them directly. ICETOOL lists both the original statements and the transformed statements.

SMF audit report using DFSORT symbols

Figure 118 on page 125 shows a version of the same sample job that was shown in Figure 112 on page 119. However, this example uses the DFSORT symbols found in the EDGSMFSY symbol mapping that is described in Appendix A, “DFSORT symbols for use with DFSMSrmm,” on page 161.

```
//STEP1 EXEC PGM=ICETOOL
//SYMNAMES DD DISP=SHR,DSN=SYS1.MACLIB(EDGSMFSY) SYMBOLS
//TOOLMSG DD SYSOUT=* ICETOOL MESSAGES
//DFSMSG DD SYSOUT=* DFSORT MESSAGES
//RAWSMF DD DSN=ACCT.SJFEMVSA.D921102.T230004,DISP=SHR
//RMMV DD DSN=&&TEMPV,REFDD=*.RAWSMF,SPACE=(TRK,(75,30))
//VREPT DD SYSOUT=*
//TOOLIN DD * CONTROL STATEMENTS
* FIND THE RMM SMF AUDIT 'VOLUME' RECORDS
COPY FROM(RAWSMF) TO(RMMV) USING(SMFV)
* DISPLAY VARIOUS FIELDS FROM THE SMF HEADER AND VOLUME SECTION
DISPLAY FROM(RMMV) LIST(VREPT) -
    TITLE('DFSMSrmm - SMF Audit Records') DATE TIME PAGE -
    BLANK -
* SMF HEADER FIELDS
HEADER('TIME') ON(SMFADTME,HEX) -
HEADER('DATE') ON(SMFADDTE) -
HEADER('SYS') ON(SMFADSID) -
HEADER('USER') ON(SMFADUID) -
HEADER('ACT') ON(SMFADACT) -
* VOLUME SECTION FIELDS
HEADER('VOLUME') ON(MVVSER) -
HEADER('CREATE') ON(MVCRDATE) -
HEADER('LASTCH') ON(MVLCDATE) -
HEADER('LASTUSER') ON(MVLCUID) -
HEADER('LASTSYS') ON(MVLCSID) -
HEADER('LASTUSCH') ON(MVUCDATE)
//SMFVCNTL DD *
* The X'FC' is the SMF record number specified to RMM SMFAUD
* The X'FC' is record number 252 - Change it to your record number
INCLUDE COND=(SMFADRTY,EQ,X'FC',
              AND,MVTYPE,EQ,MVTYPEID)
OPTION VLSHRT
/*
```

Figure 118. Sample ICETOOL JCL for processing SMF records using symbols

Chapter 7. Using DFSMSrmm-supplied sample reports

DFSMSrmm provides sample jobs that you can use to create reports by using DFSORT and DFSORT's ICETOOL. DFSMSrmm ships these jobs in SYS1.SAMPLIB. Some of these reports use DFSORT symbols. See Chapter 6, “Using DFSMSrmm with DFSORT,” on page 117 for information about using DFSORT and DFSORT's ICETOOL.

You use the DFSMSrmm extract data set as input to many of the sample reports. See the *z/OS DFSMSrmm Implementation and Customization Guide* for information about creating the extract data set as part of DFSMSrmm inventory management processing. See “Using the extract data set” on page 50 for information about using the extract data set.

Table 10 on page 127 shows the DFSMSrmm-supplied reports you can use. DFSMSrmm ships the sample JCL to produce the reports in SYS1.SAMPLIB.

Table 10. DFSMSrmm-Supplied reports

Report	Description
EDGJAUDM	Use EDGJAUDM to create a monthly archive from weekly audit reports.
EDGJAUDW	Use EDGJAUDW to create a weekly archive from daily audit reports.
EDGJBCAV	Use EDGJBCAV to create RMM ADDVOLUME subcommands from a list of barcode scanned volumes,
EDGJCEXP	Use EDGJCEXP to list data sets and volumes that are copy exported.
EDGJCOMB	Use EDGJCOMB to perform an audit of the tape library using a list of barcode scanned volumes.
EDGJCVB	Use EDGJCVB to create RMM CHANGEVOLUME subcommands for volumes in storage locations that can be used as input to other jobs.
EDGJDSN	Use EDGJDSN to create a report of data sets sorted by data set name.
EDGJNSCR	Use EDGJNSCR to create a report of volumes that have returned to scratch status.
EDGJRACK	Use EDGJRACK to create a report of rack prefixes.
EDGJRECL	Use EDGJRECL to create a report of lost volumes that can be used as input to the EDGJRECV job.
EDGJRECV	Use EDGJRECV to recover lost volumes.
EDGJROWN	Use EDGJROWN to Create a report of owners sorted by name and by department number.
EDGJRVOL	Use EDGJRVOL to create a report of volumes sorted by volume serial number, by rack number, by security level, by owner, and by expiration date.
EDGJSMF	Use EDGJSMF to create a summary of volumes contained in DFSMSrmm SMFAUD SMF records.
EDGJSMFP	Use EDGJSMFP to create a list of SMF records.
EDGJVLT	Use EDGJVLT to create a report of volumes currently in storage locations sorted by volume serial number.
EDGJVLTM	Use EDGJVLTM to create a report of volumes moving to storage locations.

Table 10. DFSMSrmm-Supplied reports (continued)

Report	Description
EDGJVOL	Use EDGJVOL to create a report of volumes sorted by volume serial number.

See [“Using DFSORT’s ICETOOL” on page 117](#) for information about customizing the sample jobs.

Creating monthly archives from weekly audit reports

EDGJAUDM produces audit data that is sorted by volume and then by date so that you can trace actions against a volume from tape creation until tape deletion.

Remember to create the 12 GDGs for the monthly consolidation report. EDGJAUDW archives daily reports into a weekly archive. See [“Creating weekly archives from daily audit reports” on page 129](#) for information about the EDGJAUDW sample report. Audit data is not saved more than one year.

The sample produces an archive rather than a report which means that the report contains data but does not include header information.

Run EDGJAUDM once a month.

EDGJAUDM input and output

EDGJAUDM input and output is as follows:

Input:

The input for EDGJAUDM is SORTIN DD CARD, which contains weekly audit reports.

Output:

The output for EDGJAUDM is:

- SORTOUT DD CARD, which contains monthly audit reports that are sorted by volumes.
- SORTOUT DD CARD, which contains monthly audit reports that are sorted by rack number.
- SORTOUT DD CARD, which contains monthly audit reports that are sorted by user ID.

EDGJAUDM customization

Use the following information to customize the EDGJAUDM sample job:

VSORT SORTIN

Change the data set names specified on the DSN keywords to those that are used on your system. The sample JCL assumes that you are using the files created by the sample job EDGJAUDW. EDGJAUDW creates a new generation of a GDG each week. Change the data sets to use the same names as used in EDGJAUDW.

VSORT SORTOUT

This file identifies the file where you want to store volume information for a single month of data. You can change the data set name as required by your installation. To keep data for one year, define a GDG with LIMIT(12) and specify the data set name in the JCL.

VSORT SYSIN

No customization should be necessary. Customize the SORT statement to sort the records by other than volume, date, and time.

The INCLUDE statement is specifically set to process the reports as produced by the sample EDGJAUDW job. If you changed the format or headings on the reports, change the INCLUDE statement here as well.

RSORT

The same customization can be performed as described for the VSORT step. In this step, the sample processes rack records.

USORT

The same customization can be performed as described for the VSORT step. In this step, the sample processes user IDs.

EDGJAUDM examples

You can use EDGJAUDM to produce audit reports, as shown in [Figure 119 on page 129](#), [Figure 120 on page 129](#), and [Figure 121 on page 129](#).

[Figure 119 on page 129](#) is an audit report that is sorted by volume. The column layout is the same as the layout of the corresponding weekly report, as shown in [“Creating weekly archives from daily audit reports” on page 129](#).

111001	111001	RDRHSME	UPDATE	BJK	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE
111002	111002	RDRHSME	UPDATE	DENZEL	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE
111004	111004	RDROPCA	UPDATE	GILLPAT	26/11/2012	01:00:32	E4E4	18/11/2012	U	VITAL	SHELF
111008	111008	RDRHSME	UPDATE	PALMER	26/11/2012	01:00:33	E4E4	06/12/2012	U	VITAL	SHELF
111009	111009	RDRHSME	UPDATE	PENDLTN	26/11/2012	01:00:33	E4E4	19/11/2012	U	VITAL	REMOTE
111015	111015	RDROPCA	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	21/05/2012	U	VITAL	SHELF
111016	111016	RDRHSME	UPDATE	STCHSM	26/11/2012	01:00:33	E4E4	29/08/2012	U	VITAL	SHELF
111017	111017	RDRHSME	UPDATE	STCHSM	26/11/2012	01:00:33	E4E4	30/11/2012	U	VITAL	SHELF
111018	111018	RDRHSME	UPDATE	TAUBER	26/11/2012	01:00:34	E4E4	22/10/2012	U	VITAL	SHELF
111019	111019	RDROPCA	UPDATE	WHEELER	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE
111020	111020	RDRHSME	UPDATE	WRIGHT	26/11/2012	01:00:34	E4E4	14/03/2012	U	VITAL	SHELF
111021	111021	RDROPCA	UPDATE	ZOUNEK	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE

Figure 119. EDGJAUDM: Sample list of a monthly audit Report sorted by volume

[Figure 120 on page 129](#) is an audit report that is sorted by rack number. The column layout is the same as the layout of the corresponding weekly report as shown in [“Creating weekly archives from daily audit reports” on page 129](#).

000001	111001	RDRHSME	UPDATE	BJK	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE
000002	111019	RDROPCA	UPDATE	ZOUNEK	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE
000003	111137	RDRHSME	UPDATE	DENZEL	26/11/2012	01:00:44	E4E4	26/11/2012	U	VITAL	REMOTE
000004	111021	RDROPCA	UPDATE	PALMER	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE
000005	111023	RDROPCA	UPDATE	TAUBER	26/11/2012	01:00:35	E4E4	25/06/2012	U	VITAL	REMOTE
000006	111036	RDROPCA	UPDATE	WRIGHT	26/11/2012	01:00:35	E4E4	25/06/2012	U	VITAL	REMOTE
000007	111044	RDROPCA	UPDATE	RDRHSME	26/11/2012	01:00:35	E4E4	25/06/2012	U	VITAL	REMOTE
000008	111050	RDROPCA	UPDATE	WHEELER	26/11/2012	01:00:36	E4E4	25/06/2012	U	VITAL	REMOTE
000009	111051	RDROPCA	UPDATE	PENDLTN	26/11/2012	01:00:36	E4E4	25/06/2012	U	VITAL	REMOTE
000010	111066	RDROPCA	UPDATE	GILLPAT	26/11/2012	01:00:37	E4E4	25/06/2012	U	VITAL	REMOTE
000011	111139	RDRHSME	UPDATE	STCHSM	26/11/2012	01:00:44	E4E4	26/11/2012	U	VITAL	REMOTE
000012	111140	RDRHSME	UPDATE	STCHSM	26/11/2012	01:00:44	E4E4	26/11/2012	U	VITAL	REMOTE

Figure 120. EDGJAUDM: Sample list of a monthly audit Report sorted by rack number

[Figure 121 on page 129](#) is an audit report that is sorted by user ID. The column layout is the same as the layout of the corresponding weekly report as shown in [“Creating weekly archives from daily audit reports” on page 129](#).

BJK	111001	111001	UPDATE	RDRHSME	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE
DENZEL	111002	111002	UPDATE	RDRHSME	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE
GILLPAT	111004	111004	UPDATE	RDROPCA	26/11/2012	01:00:32	E4E4	18/11/2012	U	VITAL	SHELF
PALMER	111008	111008	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	06/12/2012	U	VITAL	SHELF
PENDLTN	111009	111009	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	19/11/2012	U	VITAL	REMOTE
RDRHSME	111015	111015	UPDATE	RDROPCA	26/11/2012	01:00:33	E4E4	21/05/2012	U	VITAL	SHELF
STCHSM	111016	111016	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	29/08/2012	U	VITAL	SHELF
STCHSM	111017	111017	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	30/11/2012	U	VITAL	SHELF
TAUBER	111018	111018	UPDATE	RDRHSME	26/11/2012	01:00:34	E4E4	22/10/2012	U	VITAL	SHELF
WHEELER	111019	111019	UPDATE	RDROPCA	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE
WRIGHT	111020	111020	UPDATE	RDRHSME	26/11/2012	01:00:34	E4E4	14/03/2012	U	VITAL	SHELF
ZOUNEK	111021	111021	UPDATE	RDROPCA	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE

Figure 121. EDGJAUDM: Sample list of a monthly audit Report sorted by user ID

Creating weekly archives from daily audit reports

EDGJAUDW produces daily audit reports that use the DFSMSrmm EDGAUD report utility with the AUDREPT DD statement to process the SMFAUD SMF records for the day. See [“Using EDGAUD to create security and audit reports” on page 77](#) for information about the DFSMSrmm EDGAUD report utility. Audit data is sorted by volume and then by date so that actions against a volume can be traced from tape creation until tape deletion. Remember to create the three GDGs for the weekly consolidation report. EDGJAUDM archives weekly reports into a monthly archive. Weekly archive data is kept for one month.

Run EDGJAUDW once a week.

EDGJAUDW input and output

EDGJAUDW input and output is as follows:

Input:

The input for EDGJAUDW is COLLECT DD CARD, which contains daily audit reports.

Output:

The output for EDGJAUDW is:

- VREPT DD CARD, which contains weekly audit records that are sorted by volumes.
- RREPT DD CARD, which contains weekly audit records that are sorted by rack number.
- UREPT DD CARD, which contains weekly audit records that are sorted by user ID.

EDGJAUDW customization

Use the following information to customize the EDGJAUDW sample job:

TOOLIN

You should not need to customize the statements in the TOOLIN file. To use a different format for the weekly archived reports, you can modify the DISPLAY statement keywords and values to produce a different format. If you change the report format, you must also modify the statements in the EDGJAUDM job as they are dependent on report column positions as defined in the EDGJAUDW sample job.

COLLECT

This file identifies the data sets that contain the EDGAUD AUDREPT report produced during the week. Run EDGAUD each day and create a generation of this data set. Create the GDG with LIMIT(7) if you run EDGAUD every day. You can change the data set name as required by your installation.

VREPT

This file identifies the data set for volume information for a single week of data. You can change the data set name as required by your installation. To keep data for 4 weeks, define a GDG with LIMIT(4) and specify the data set name in the JCL. You must also use the data set name in the EDGJAUDM job if you are using EDGJAUDM.

RREPT

This file identifies the data set for rack and bin information for a single week of data. You can change the data set name as required by your installation. To keep data for 4 weeks, define a GDG with LIMIT(4) and specify the data set name in the JCL. You must also use the data set name in the EDGJAUDM job if you are using EDGJAUDM.

UREPT

This file identifies the data set for user information for a single week of data. You can change the data set name as required by your installation. To keep data for 4 weeks, define a GDG with LIMIT(4) and specify the data set name in the JCL. You must also use the data set name in the EDGJAUDM job if you are using EDGJAUDM.

EDGJAUDW examples

See the reports that you can produce using the EDGJAUDW sample JCL in [Figure 122 on page 130](#), [Figure 123 on page 131](#), and [Figure 124 on page 132](#).

Figure 122 on page 130 is sorted by volume serial number and date. The sample report includes all SMF audit records for the week.

DFSMSrmm - Volume Audit Report Consolidation					11/27/12	17:56:44	- 1 -					
VOLUME	RACK-#	OWNER	ACTIVITY	USERID	DATE	TIME	SYS	EXP-DATE	SEC	STATUS	LOCATION	LOAN-LOC
111001	111001	RDRHSM	UPDATE	BJK	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE	
111002	111002	RDRHSM	UPDATE	DENZEL	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE	
111004	111004	RDRPCA	UPDATE	GILLPAT	26/11/2012	01:00:32	E4E4	18/11/2012	U	VITAL	SHELF	
111008	111008	RDRHSM	UPDATE	MOREY	26/11/2012	01:00:33	E4E4	06/12/2012	U	VITAL	SHELF	
111009	111009	RDRHSM	UPDATE	PALMER	26/11/2012	01:00:33	E4E4	19/11/2012	U	VITAL	REMOTE	
111015	111015	RDRPCA	UPDATE	PENDLTN	26/11/2012	01:00:33	E4E4	21/05/2012	U	VITAL	SHELF	
111016	111016	RDRHSM	UPDATE	RDRHSM	26/11/2012	01:00:33	E4E4	29/08/2012	U	VITAL	SHELF	
111017	111017	RDRHSM	UPDATE	STCHSM	26/11/2012	01:00:33	E4E4	30/11/2012	U	VITAL	SHELF	
111018	111018	RDRHSM	UPDATE	TAUBER	26/11/2012	01:00:34	E4E4	22/10/2012	U	VITAL	SHELF	
111019	111019	RDRPCA	UPDATE	WHEELER	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE	
111020	111020	RDRHSM	UPDATE	WRIGHT	26/11/2012	01:00:34	E4E4	14/03/2012	U	VITAL	SHELF	
111021	111021	RDRPCA	UPDATE	ZOUNEK	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE	

Figure 122. EDGJAUDW: Sample Report of a weekly audit Report sorted by volume

The data columns are:

VOLUME

The Volume serial number (VOLSER).

Rack-#

The rack number, which is the identifier that corresponds to a specific volume's shelf location.

OWNER

The user ID of the volume owner.

ACTIVITY

The action that was the cause for this record. ACTIVITY can be: CREATE, DELETE, or UPDATE.

USERID

User ID of the person who caused the last change.

DATE

The last change date.

TIME

The last change time.

SYS

The system ID of the system where the last change occurred.

EXP-DATE

The date that the volume should be considered for release.

SEC

The security classification level.

STATUS

The status of the volume, which can be one of the following:

- VITAL
- SCRATCH
- LOAN
- OPEN
- MASTER
- USER

LOCATION

The name of the volume's location.

LOAN.LOC

The loan location, which is the location of the volume if it is on loan.

Figure 123 on page 131 is sorted by rack number and date. The report includes all the SMF audit records for the week.

DFSMSrmm - Rack Audit Report Consolidation					11/27/12		17:56:52		- 1 -			
RACK/BIN	VOLUME	OWNER	ACTIVITY	USERID	DATE	TIME	SYS	EXP-DATE	SEC	STATUS	LOCATION	LOAN-L
000001	111001	RDRHSM	UPDATE	BJK	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE	
000002	111019	RDRPCA	UPDATE	DENZEL	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE	
000003	111137	RDRHSM	UPDATE	GILLPAT	26/11/2012	01:00:44	E4E4	26/11/2012	U	VITAL	REMOTE	
000004	111021	RDRPCA	UPDATE	MOREY	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE	
000005	111023	RDRPCA	UPDATE	PALMER	26/11/2012	01:00:35	E4E4	25/06/2012	U	VITAL	REMOTE	
000006	111036	RDRPCA	UPDATE	PENDLTN	26/11/2012	01:00:35	E4E4	25/06/2012	U	VITAL	REMOTE	
000007	111044	RDRPCA	UPDATE	RDRHSM	26/11/2012	01:00:35	E4E4	25/06/2012	U	VITAL	REMOTE	
000008	111050	RDRPCA	UPDATE	STCHSM	26/11/2012	01:00:36	E4E4	25/06/2012	U	VITAL	REMOTE	
000009	111051	RDRPCA	UPDATE	TAUBER	26/11/2012	01:00:36	E4E4	25/06/2012	U	VITAL	REMOTE	
000010	111066	RDRPCA	UPDATE	WHEELER	26/11/2012	01:00:37	E4E4	25/06/2012	U	VITAL	REMOTE	
000011	111139	RDRHSM	UPDATE	WRIGHT	26/11/2012	01:00:44	E4E4	26/11/2012	U	VITAL	REMOTE	
000012	111140	RDRHSM	UPDATE	ZOUNEK	26/11/2012	01:00:44	E4E4	26/11/2012	U	VITAL	REMOTE	

Figure 123. EDGJAUDW: Sample Report of a weekly audit Report sorted by rack number

In addition to the data columns that are described in Figure 122 on page 130, this sample report includes an additional data column:

RACK or BIN

The rack number, which is the identifier that corresponds to a specific volume's shelf location.

Figure 124 on page 132 is sorted by user ID and date and time. The report includes all the SMF audit records for the day. See Figure 122 on page 130 for the description of the data columns that are used in this report.

DFSMSrmm - User Audit Report Consolidation												
				11/27/12	17:56:57			- 1 -				
USERID	VOLUME	RACK-#	ACTIVITY	OWNER	DATE	TIME	SYS	EXP-DATE	SEC	STATUS	LOCATION	LOAN-LOC
BJK	111001	111001	UPDATE	RDRHSME	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE	
DENZEL	111002	111002	UPDATE	RDRHSME	26/11/2012	01:00:32	E4E4	19/11/2012	U	VITAL	REMOTE	
GILLPAT	111004	111004	UPDATE	RDRHSME	26/11/2012	01:00:32	E4E4	18/11/2012	U	VITAL	SHELF	
MOREY	111008	111008	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	06/12/2012	U	VITAL	SHELF	
PALMER	111009	111009	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	19/11/2012	U	VITAL	REMOTE	
PENDLTN	111015	111015	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	21/05/2012	U	VITAL	SHELF	
RDRHSME	111016	111016	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	29/08/2012	U	VITAL	SHELF	
STCHSM	111017	111017	UPDATE	RDRHSME	26/11/2012	01:00:33	E4E4	30/11/2012	U	VITAL	SHELF	
TAUBER	111018	111018	UPDATE	RDRHSME	26/11/2012	01:00:34	E4E4	22/10/2012	U	VITAL	SHELF	
WHEELER	111019	111019	UPDATE	RDRHSME	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE	
WRIGHT	111020	111020	UPDATE	RDRHSME	26/11/2012	01:00:34	E4E4	14/03/2012	U	VITAL	SHELF	
ZOUNEK	111021	111021	UPDATE	RDRHSME	26/11/2012	01:00:34	E4E4	25/06/2012	U	VITAL	REMOTE	

Figure 124. EDGJAUDW: Sample Report of a weekly audit Report sorted by userid

Creating RMM subcommands of barcode scanned volumes

EDGJBCAV creates RMM ADDVOLUME subcommands from a list of barcode scanned volumes. Update the TEMPCNTL DD CARD with the format of the barcode scanner and any information that is needed in the RMM ADDVOLUME subcommand. Refer to *z/OS DFSMSrmm Managing and Using Removable Media* for the description of the RMM ADDVOLUME subcommand.

EDGJBCAV input and output

EDGJBCAV input and output is as follows:

Input:

The input for EDGJBCAV is BARCODE DD CARD, which is a list of barcode scanned volumes.

Output:

The output for EDGJBCAV is RMMCMD DD CARD, which contains RMM ADDVOLUME subcommands.

EDGJBCAV customization

Use the following information to customize the EDGJBCAV sample job:

BARCODE

This file identifies the data set that contains the list of volume serial numbers scanned using a barcode reader. The format of the file can vary depending on the barcode software you use. The sample job assumes that the records are RECFM=V or RECFM=VB, and that the first three characters in each record are IBM. The volume serial number starts in column 5. If the files created from the barcode reader are a different format when sent to the host system, you must customize the TEMPCNTL file statements. See Figure 125 on page 133 for a sample of the input for the job.

Set the data set name to the correct data set name.

RMMCMD

This is the commands file created by ICETOOL processing. Update the data set name to meet your requirements. If you change the name, remember to also change the data set name on the CLEAN step SYSIN file.

TEMPCNTL

This file contains statements that control ICETOOL processing.

The INCLUDE statement ensures that the input records from the barcode reader are the correct format. Use the OUTREC statement to build the RMM subcommands. This sample is building RMM ADDVOLUME subcommands to add volumes to DFSMSrmm in USER status. You can customize this statement to build any other subcommands you want.

EDGJBCAV examples

Figure 125 on page 133 shows a sample of the input for EDGJBCAV.


```
IBM 111000
IBM 111100
IBM 111010
IBM 111001
```

Figure 125. EDGJBCAV: Sample input of barcode-scanned volumes

Figure 126 on page 133 shows a sample of the output for EDGJBCAV. Refer to *z/OS DFSMSrmm Managing and Using Removable Media* for the description of the RMM ADDVOLUME subcommand.

```
RMM ADDVOLUME 111000 STATUS(USER) RETPD(30)
RMM ADDVOLUME 111100 STATUS(USER) RETPD(30)
RMM ADDVOLUME 111010 STATUS(USER) RETPD(30)
RMM ADDVOLUME 111001 STATUS(USER) RETPD(30)
```

Figure 126. EDGJBCAV: Sample output of RMM ADDVOLUME subcommands from barcode scanned volumes

Auditing the tape library audit using a barcode scanner

EDGJCOMB compares barcode scanned inventory with the DFSMSrmm extract data set and lists volumes in both the library and the extract data set, volumes in the library only, and volumes in the extract data set only.

EDGJCOMB input and output

EDGJCOMB input and output is as follows:

Input:

The input for EDGJCOMB is:

- EXTRACT DD CARD, which is the DFSMSrmm extract data set.
- BARCODE DD CARD, which contains scanned barcodes.

Output:

The output for EDGJCOMB is:

- MATCHED DD CARD, which contains volumes that are in the library and the extract data set.
- LIBONLY DD CARD, which contains volumes that are in the library only.
- RMMONLY DD CARD, which contains volumes that are in the extract data set only.

EDGJCOMB customization

Use the following information to customize the EDGJCOMB sample job:

BARCODE

This file identifies the data set that contains the list of volume serial numbers scanned using a barcode reader. The format of the file can vary depending on the barcode software you use. The sample job assumes that the records are RECFM=V or RECFM=VB, and that the first three characters in each record are IBM. The volume serial number starts in column 5. If the files created from the barcode reader are a different format when sent to the host system, you must customize the BARCNTL file statements. See [Figure 125 on page 133](#) for a sample of the input for the job.

Set the data set name to the correct data set name.

EXTRACT

This is the DFSMSrmm extract data set. Set the data set name to the extract data set that is used on your system.

BARCNTL

This file contains statements that control ICETOOL processing.

The INCLUDE statement ensures that the input records from the barcode reader are the correct format. The OUTREC statement builds a record that contains the volume serial number in column 1. Customize the statements to support the record format produced from your barcode reader.

EXTRCNTL

This file contains statements that control ICETOOL processing.

The INCLUDE statement ensures that only volume records from the extract data set are selected. The OUTREC statement builds a record that contains the rack number in column 1. You should not need to customize this information.

EDGJCOMB examples

Figure 127 on page 134 shows a sample report of volumes that are found only in the extract data set.

```
EM0000  
EM0001  
EM0002
```

Figure 127. EDGJCOMB: Sample list of volumes found in the extract data set only

Figure 128 on page 134 shows a sample report of volumes that are found only in the library.

```
WOODY5
```

Figure 128. EDGJCOMB: Sample list of volumes in the location library only

Figure 129 on page 134 shows a sample report of volumes that are found in both the library and the extract data set.

```
111000  
111001  
111002  
111003  
111010
```

Figure 129. EDGJCOMB: Sample list of volumes in the library and the extract data set

Creating RMM CHANGEVOLUME subcommands for volumes in storage locations

EDGJCVB reads the DFSMSrmm extract data set and builds a file that contains RMM CHANGEVOLUME subcommands for LOCAL REMOTE, and DISTANT storage locations and a report of the number of volumes by location.

For the description of the RMM CHANGEVOLUME subcommand, refer to the [z/OS DFSMSrmm Implementation and Customization Guide](#).

EDGJCVB input and output

EDGJCVB input and output is as follows:

Input:

The input for EDGJCVB is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The output for EDGJCVB is:

- RMMCVB DD CARD, which contains RMM CHANGEVOLUME subcommands.
- RMMCVBS DD CARD, which contains the number of volume by location.

To select the location names to use, you can edit the SORT INCLUDE statement for field name RVSTORID.

EDGJCVB customization

Use the following information to customize the EDGJCVB sample job:

VOLSCNTL

The sample job selects all volumes in the built-in storage locations, LOCAL, REMOTE, or DISTANT. To select volumes in other locations, you must update the INCLUDE statement to specify the location names to be selected. If you want to select volumes based on criteria other than the location, you can tailor the INCLUDE statement.

VOLFCNTL

VOLFCNTL contains two sort statements. The SORT statement ensures that the records are produced in the desired sequence and that the OUTREC statement is used to build the RMM subcommands. You can customize the sort statements if you want to use the job to provide a different subcommand.

EDGJCVB examples

Figure 130 on page 135 shows a sample report that lists the volume in all storage locations.

```
RMM CHANGEVOLUME A00007 LOCATION(DISTANT ) BIN(000001)
RMM CHANGEVOLUME A00008 LOCATION(DISTANT ) BIN(000002)
RMM CHANGEVOLUME A00009 LOCATION(DISTANT ) BIN(000003)
RMM CHANGEVOLUME A00004 LOCATION(LOCAL ) BIN(000001)
RMM CHANGEVOLUME A00005 LOCATION(LOCAL ) BIN(000002)
RMM CHANGEVOLUME A00006 LOCATION(LOCAL ) BIN(000003)
RMM CHANGEVOLUME A00010 LOCATION(REMOTE ) BIN(000001)
RMM CHANGEVOLUME A00011 LOCATION(REMOTE ) BIN(000002)
RMM CHANGEVOLUME A00012 LOCATION(REMOTE ) BIN(000003)
```

Figure 130. EDGJCVB: Sample output of RMM CHANGEVOLUME subcommands for volumes in storage locations

Figure 131 on page 135 shows a sample report of volumes by location and the number of each volume in each location.

```
DFSMSrmm - Volume Counts by Location      11/13/12      07:39:17      - 1 -
LOCATION          COUNT
-----
DISTANT          3
LOCAL            3
REMOTE           3
```

Figure 131. EDGJCVB: Sample Report of volume counts by location

The data columns are:

LOCATION

The storage location names.

COUNT

The number of volumes by location.

Creating a data set report sorted by data set name

EDGJDSN creates a report of data sets that are sorted by dataset name and the number of datasets per status (SCRATCH or PRIVAT).

EDGJDSN input and output

EDGJDSN input and output is as follows:

Input:

The input for EDGJDSN is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The output for EDGJDSN is:

- RMMDSN DD CARD, which contains data sets sorted by name.
- RMMDSNS DD CARD, which contains the number of data sets by status.

EDGJDSN customization

Use the following information to customize the EDGJDSN sample job:

TOOLIN

You can customize the report produced by modifying the DISPLAY statement to change column headers and the field symbolic names to be used.

EDGJDSN examples

Figure 132 on page 136 shows a sample report of data sets that are sorted by data set name. The sample report includes all data sets.

DFSMSrmm - Data Sets Sorted by Name							
		11/08/12	02:21:20		- 1 -		
DSNAME	VOLSER	DSEQ	VSEQ	CRDATE	MCLASS	VRSVAL	STATUS
DISTANT.REPORT.DS007	A00007	1	1	2011/10/09			PRIVATE
DISTANT.REPORT.DS0081	A00008	1	1	2011/10/09			PRIVATE
DISTANT.REPORT.DS0082	A00008	2	1	2011/10/09			PRIVATE
DISTANT.REPORT.DS0091	A00009	1	1	2011/10/09			PRIVATE
DISTANT.REPORT.DS0092	A00009	2	1	2011/10/09			PRIVATE
DISTANT.REPORT.DS0093	A00009	3	1	2011/10/09			PRIVATE
ICETOOL.NSCR.TEST01	A01001	1	1	2011/10/11			SCRATCH
ICETOOL.NSCR.TEST01	A01001	1	1	2011/10/11			SCRATCH
ICETOOL.NSCR.TEST01	V00001	1	1	2011/10/11			SCRATCH
ICETOOL.NSCR.TEST01	A01001	1	1	2011/10/11			PRIVATE
ICETOOL.NSCR.TEST01	A01001	1	1	2011/10/11			PRIVATE
ICETOOL.NSCR.TEST01	V00001	1	1	2011/10/11			PRIVATE
ICETOOL.NSCR.TEST02	A01002	1	1	2011/10/11			SCRATCH
ICETOOL.NSCR.TEST02	A01002	1	1	2011/10/11			SCRATCH
ICETOOL.NSCR.TEST02	V00002	1	1	2011/10/11			SCRATCH
MV.MD.DS0192	A00020	1	2	2011/10/09			PRIVATE
MV.MD.DS0201	A00020	2	2	2011/10/09			PRIVATE

Figure 132. EDGJDSN: Sample Report of data sets sorted by name

The data columns are:

DSNAME

The name of the data set.

VOLSER

The volume serial number.

DSEQ

The data set sequence number on the volume.

VSEQ

The volume sequence number for this dataset.

CRDATE

The creation date of the data set.

MCLASS

The SMS management class.

VRSVAL

The vital record specification management value.

STATUS

Status of the data set, which can be one of the following:

- PRIVATE
- SCRATCH

Figure 133 on page 136 shows a sample report of data sets by status.

DFSMSrmm - Data Set Counts by Status		11/08/12	02:21:20	- 1 -
STATUS	COUNT			
-----	-----			
PRIVATE	11			
SCRATCH	6			

Figure 133. EDGJDSN: Sample Report of data set counts by status

The data columns are:

STATUS

The status of the data sets, which can be one of the following:

- PRIVATE
- SCRATCH

COUNT

The number of data sets by status

Creating a report of volumes returned to scratch

EDGJNSCR compares the current DFSMSrmm extract data set with an old DFSMSrmm extract data set and creates a report of new scratch volumes and the number of scratch volumes per media name.

EDGJNSCR input and output

EDGJNSCR input and output is as follows:

Input:

The input for EDGJNSCR is:

- EXTRACT DD CARD, which is the current DFSMSrmm extract data set.
- EXTROLD DD CARD, which is the old DFSMSrmm extract data set.

Output:

The output for EDGJNSCR is:

- RMMSCR DD CARD, which contains volumes sorted by volume serial number.
- RMMSCRS DD CARD, which contains volume count by media name.

EDGJNSCR customization

Use the following information to customize the EDGJNSCR sample job:

TOOLIN

You can change column headers and the record offsets by modifying the DISPLAY statement. The sample includes some commented statements for fields that you might want to include in your reports. You can include these fields as long as you remove others to stay within the ICETOOL record limit of 121 characters per report line.

VOLFCNTL

In some cases, to modify the report you must also modify the OUTREC statement in this file to include other fields within volume record in the DFSMSrmm extract data set. There is no limit to the size of the records built by the OUTREC statement, other than system limits.

EDGJNSCR examples

Figure 134 on page 137 is sorted by volume serial number and lists only new scratch volumes.

DFSMSrmm - New Scratch Volumes		12/11/12	15:08:16	- 1 -				
VOLSER	DSNAME	SCR DATE	VSEQ	JCL EXPDT	STATUS	LOCATION	MEDIAM	
111977	CSSM.BACKUP.ALLSDSPS.G0299V00	11/12/2012	1	16/12/2012	SCRATCH	SHELF	TAPE	
112052	CSSM.BACKUP.ALLSDSPS.G0297V00	07/12/2012	1	12/12/2012	SCRATCH	SHELF	3480	
112094	DBDC.DUMP.V8SCI00.G0289V00	07/12/2012	1	22/12/2012	SCRATCH	SHELF	TAPE	
112096	RHSM.BACKTAPE.DATASET	07/12/2012	1		SCRATCH	SHELF	TAPE	
112195	DBDC.DUMP.V8SCI00.G0289V00	07/12/2012	2	22/12/2012	SCRATCH	SHELF	TAPE	
112198	CSSM.BACKUP.ALLSDSPS.G0298V00	09/12/2012	1	14/12/2012	SCRATCH	SHELF	3490	
112251	DBDC.DUMP.V8SIM01.G0298V00	07/12/2012	1	22/12/2012	SCRATCH	SHELF	TAPE	
112255	DBDC.DUMP.V8SIM01.G0298V00	07/12/2012	2	22/12/2012	SCRATCH	SHELF	TAPE	
112270	RHSM.HMIGTAPE.DATASET	07/12/2012	1		SCRATCH	SHELF	3480	
112271	DBDC.DUMP.V8BASE3.G0043V00	07/12/2012	1	22/12/2012	SCRATCH	SHELF	3490	
112291	DBDC.DUMP.V8BASE3.G0043V00	07/12/2012	2	22/12/2012	SCRATCH	SHELF	3490	

Figure 134. EDGJNSCR: Sample Report of new scratch volumes

The data columns are:

VOLSER

The volume serial number.

DSNAME

The first file data set name.

SCR DATE

The scratch date, which is the date the volume was assigned to scratch status.

VSEQ

The volume sequence number.

JCL EXPDT

The original expiration date.

STATUS

The status of the volume.

LOCATION

The volume's current location.

MEDIANM

The media name, which is the value that describes the shape of the media.

Figure 135 on page 138 shows a sample report of scratch volumes by media name.

DFSMSrmm - Number of New Scratch Volumes by Media		11/13/12	08:53:56	- 1 -
MEDIANAME	COUNT			
VTAPE	6			
3480	2			
3490	3			

Figure 135. EDGJNSCR: Sample Report of the number of new scratch media by media

The data columns are:

MEDIANAME

The media name, which is the value that describes the shape of the media.

COUNT

The number of volumes by media name.

Creating a report of rack prefixes

EDGJRACK reads the DFSMSrmm extract data set and creates a report of rack prefixes.

EDGJRACK input and output

EDGJRACK input and output is as follows:

Input:

The input for EDGJRACK is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The output for EDGJRACK is RMMRACKP DD CARD, which contains rack number prefixes.

EDGJRACK customization

Use the following information to customize the EDGJRACK sample job.

TOOLIN

The OCCUR statement creates a report of prefixes used for rack numbers. It assumes a three character prefix. If you want to report using a different prefix length, you can change the statement. For example, the following partial statement uses a two character prefix.

```
HEADER('RACK PREFIX')      ON(365,2,CH) -
```

EXTRCNTL

To customize the fields used for reporting, you can change the INCLUDE and SORT statements. You also have to update the OCCUR statement in TOOLIN to match the field offset that you want to report on. The sample JCL shows additional commented-out fields that you might want to include in your reports. Use these fields to obtain reports on security classification, ownership, or volume prefix.

EDGJRACK examples

Figure 136 on page 139 shows a sample report of rack prefixes and the number of each rack prefix.

1DFSMSrmm - Rack Prefixes with Counts / Prefix		12/01/12	06:54:33	- 1 -
RACK PREFIX	NUMBER OF RACKS			
-----	-----			
A00	35			
A01	10			
V00	10			
1	TOTAL TAPES ALL PREFIXES			
--	-----			
	55			

Figure 136. EDGJRACK: Sample Report of rack prefixes with volume count

The data columns are:

RACK PREFIX

The first three digits of the rack number

NUMBER OF RACKS

The number of volumes that are assigned to racks starting with the prefix

Obtaining information about lost volumes

EDGJRECL lists DFSMSrmm volume information for identified volumes for a recovery. EDGJRECL uses an old extract data set which contains all information on volumes no longer in the DFSMSrmm control data set.

Use the DFSMSrmm recovery jobs to recover small sets of volumes that are accidentally deleted where too much new data would be lost by recovering the entire control data set.

EDGJRECL input and output

EDGJRECL input and output is as follows:

Input:

The input for EDGJRECL is:

- IN1 DD CARD, which is a list of tape volumes to be recovered. IN1 contains a list of volume numbers with the volume Number starting in column 2.
- IN2 DD CARD, which is the old DFSMSrmm extract data set that contains information about volumes before they were deleted.

Output:

The output for EDGJRECL is FINAL DD CARD, which contains a list of DFSMSrmm volume information.

EDGJRECL customization

Use the following information to customize the EDGJRECL sample job. This job builds a file containing most of the extract data set volume records. You can use the information to build RMM subcommands to add back the volumes.

EDGJRECL examples

Figure 137 on page 140 shows a sample report of lost volumes.

A00023	2011/10/10004452D65MVS6	2011/10/15*	N	2	0	0
A00024	2011/10/10004452D65MVS6	2011/10/15*	N	2	0	0

Figure 137. EDGJRECL: Sample Report of a list of lost volumes

The output starts with the volume serial number. The sequence of the columns corresponds to the extract data set volume record EDGRVEXT described in [“Extract data set volume record: EDGRVEXT”](#) on page 254.

Recovering lost volumes

EDGJRECV creates RMM ADDVOLUME subcommands to recover identified deleted volumes. EDGJRECV uses an old extract data set that contains all information on deleted volumes.

The DFSMSrmm recovery jobs are used to recover small sets of volumes that are accidentally deleted when too much new data would be lost by recovering the entire control data set.

If you have an extract data set created with a date format other than American date format, change the JCL for the format you use.

EDGJRECV input and output

EDGJRECV input and output is as follows:

Input:

The input for EDGJRECV is:

- IN1 DD CARD, which is the lost volume file. IN1 contains a list of the rack numbers for the volumes to be recovered. It must be a VB data set (CLIST). Rack numbers start in column 2.
- IN2 DD CARD, which is the old DFSMSrmm extract data set. IN2 contains information about volumes before they were lost. The extract data set uses American date format.

Output:

The output for EDGJRECV is COMMANDS DD CARD, which is a CLIST of RMM ADDVOLUME subcommands.

EDGJRECV customization

Use the following information to customize the EDGJRECV sample job:

ASMAM35 SYSIN

This file is the sample E35FILL exit source code. It is used to perform special processing on some fields of the subcommands that are built. You can avoid using the E35FILL exit source code by removing the MODS statement in the CMDTCNTL file at the end of the sample job.

If you change the subcommand built by the STEP1 job step, you must also consider changing the E35FILL exit source code.

IN1

The file contains the rack numbers of the volumes to be recovered. The file must be variable length record format.

COMMANDS

After execution, the COMMANDS file contains the DFSMSrmm subcommands you can use to add the volumes back into the DFSMSrmm control data set. Review the subcommands that are built and edit them to specify any additional operands or values you want.

CMDTCNTL

This field contains a sort OUTREC statement that is used to build the RMM ADDVOLUME subcommands. It includes comments that describe the fields that are used and the processing that is performed on them. The sample assumes that the input records in the DFSMSrmm extract data set in file IN2 are generated using DATEFORM(A), which is American date format. If your extract data set uses a different date format you must customize the OUTREC statements. Use the commented

EDGJROWN customization

Use the following information to customize the EDGJROWN sample job:

TOOLIN

The sample job produced several reports: one report that lists all owners sorted by last name and one report that lists all owners sorted by department name.

You can customize your own owner reports by changing the layout of the report defined in the sort DISPLAY statement. Select the fields you want to include in the report and place them in the correct order. To produce reports with records in a different sequence you have to customize the SORT statement included in the OWNNCNTL and OWNDCNTL files.

EDGJROWN examples

Figure 139 on page 142 is sorted by last name and includes all volume owners.

DFSMSrmm - Owners Listed by Last Name							
12/13/12				00:05:52		- 1 -	
LAST NAME	FIRST NAME	OWNER-ID	NODE	USERID	TIELINE	DEPT	# OF TAPES
Chin	Benny	BKCHIN	STLVM4	BKCHIN		W98	0
Dile	Mike	DILE	MVSNET	DILE	294-0897	W98	15
DFHSM	Storage Ad	HSW250	MVSNET	DILE	294-0897	W93	0
Etz	Arnd	D041044	MAZVM01	ETZ	2966	4193 - SM	0
Gary	Coleman	S3SVM28	GCOLEMAN		12345	W95	0
Gohr	Beznd	D044412	MAZVM02	GOHR	3147	4193	5
Kuehn	Werner	D094746	MAZVM01	WKUEHN	2116	4193	29
Streu	Ullfried	D090667	MAZVM02	USTREU	6418	4193	0
TOTAL TAPES							49

Figure 139. EDGJROWN: Sample Report of owners listed by last name

The data columns are:

LAST NAME

The last name of the owner.

FIRST NAME

The first name of the owner.

OWNER-ID

The user ID of the owner.

NODE

The node name of the owner's electronic mail address.

USERID

The user ID of the owner's electronic mail address.

TIELINE

The internal phone number of the owner.

DEPT

The department ID of the owner.

OF TAPES

The number of tapes that are owned by the person who is identified by the owner ID.

Figure 140 on page 142 shows a sample report of tape volume owners.

The data columns for these reports are the same as the Owners Listed by Last Name report, as shown in Figure 141 on page 143.

1DFSMSrmm - Owners Listed by Department							
12/13/12				00:06:12		- 1 -	
LAST NAME	FIRST NAME	OWNER-ID	NODE	USERID	TIELINE	DEPT	# OF TAPES
DFHSM	Storage Ad	HSW250	MVSNET	DILE	294-0897	W93	0
Gary	Coleman	S3SVM28	GCOLEMAN		12345	W95	0
Chin	Benny	BKCHIN	STLVM4	BKCHIN		W98	0
Dile	Mike	DILE	MVSNET	DILE	294-0897	W98	15
Gohr	Beznd	D044412	MAZVM02	GOHR	3147	4193	5
Streu	Ullfried	D090667	MAZVM02	USTREU	6418	4193	0
Kuehn	Werner	D094746	MAZVM01	WKUEHN	2116	4193	29
Etz	Arnd	D041044	MAZVM01	ETZ	2966	4193 - SM	0
TOTAL TAPES							49

Figure 140. EDGJROWN: Sample Report of owners listed by department

Creating volume reports

EDGJRVOL reads the DFSMSrmm extract data set and creates reports of volumes, which are sorted by several criteria.

EDGJRVOL input and output

EDGJRVOL input and output is as follows:

Input:

The input for EDGJRVOL is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The output for EDGJRVOL is:

- VOLNAME DD CARD, which contains volumes sorted by volume serial.
- VOLRACK DD CARD, which contains volumes sorted by rack number.
- VOLCLAS DD CARD, which contains volumes sorted by security level.
- VOLOWN DD CARD, which contains volumes sorted by owner.
- VOLEXP DD CARD, which contains volumes sorted by expiration date.

EDGJRVOL customization

Use the following information to customize the EDGJRVOL sample job:

TOOLIN

The sample job produces multiple reports about volumes. Each report is sorted into a different sequence based on the field used as the primary report purpose.

You can customize your own owner reports by changing the layout of the report defined in the sort DISPLAY statement. Select the fields you want to include in the report and place them in the correct order. To produce reports with records in a different sequence you have to customize the SORT statement included in the corresponding VOLxCNTL files.

VOLECNTL

The sample JCL requires the American date format for the expiration date. If the expiration date has another format, change the corresponding SORT FIELDS statement. The sample job contains suitable SORT statements for other date formats as comments.

EDGJRVOL examples

Figure 141 on page 143 is sorted by volume name and includes all volumes.

DFSMSrmm - Volumes Sorted by Volume Serial						11/14/12	03:11:40	- 1 -	
VOLUME	RACK-#	OWNER-ID	EXPIRATION	SEC	UNIT	STATUS	DESCRIPTION	ACCOUNT-DATA	
A00001	A00001	D041044	10/14/2012	VTAP	3480	MASTER			
A00002	A00002	D041044	10/14/2012	VTAP	3480	MASTER			
A00003	A00003	D041044	10/14/2012	VTAP	3480	MASTER			
A00004	A00004	D041044	10/14/2012	VTAP	3480	MASTER			
A00005	A00005	D041044	10/14/2012	VTAP	3480	MASTER			
..									
A01001	A01001			VTAP	3490	SCRATCH			
A01002	A01002			VTAP	3490	SCRATCH			
A01003	A01003			VTAP	3490	SCRATCH			
A01004	A01004			VTAP	3490	SCRATCH			

Figure 141. EDGJRVOL: Sample Report of volumes sorted by volume serial number

The data columns are:

VOLUME

The volume serial number.

RACK-#

The rack number, which is the identifier that corresponds to a specific volume's shelf location.

OWNER-ID

The user ID of the owner.

EXPIRATION

The expiration date.

SEC

The security class level.

UNIT

The media name, which is the value that describes the shape of the media.

STATUS

The status of the volume, which can be one of the following:

- MASTER
- SCRATCH
- USER
- INIT
- ENTRY

DESCRIPTION

A free input field for additional information.

ACCOUNT-DATA

Accounting data from JCL.

Figure 142 on page 144 shows a sample report of volumes that are sorted by rack number. The data columns for this report are the same as the Volumes Sorted by Volume Serial report, as shown in Figure 141 on page 143.

DFSMSrmm - Volumes Sorted by Rack number				11/14/11	03:11:41	- 1 -		
VOLUME	RACK-#	OWNER-ID	EXPIRATION	SEC	UNIT	STATUS	DESCRIPTION	ACCOUNT-DATA
A00001	A00001	D041044	12/14/2012	TIMS	3480	MASTER		
A00002	A00002	D041044	12/14/2012	TIMS	3480	MASTER		
A00003	A00003	D041044	12/30/2012	TIMS	3480	MASTER		
A00004	A00004	D041044	12/30/2012	VTAP	3480	MASTER		
A00005	A00005	D041044	04/30/2012	VTAP	3480	MASTER		
A00006	A00006	D041044	04/30/2012	VTAP	3480	MASTER		

Figure 142. EDGJRVOL: Sample Report of volumes sorted by rack number

Figure 143 on page 144 shows a sample report of volumes that are sorted by security level.

The data columns for this report are the same as the Volumes Sorted by Volume Serial report, as shown in Figure 141 on page 143.

DFSMSrmm - Volumes Sorted by Security Level				11/14/12	03:11:43	- 1 -		
VOLUME	RACK-#	OWNER-ID	EXPIRATION	SEC	UNIT	STATUS	DESCRIPTION	ACCOUNT-DATA
A00106	A00106	D041044	03/30/2012		3480	MASTER		
A00107	A00107	D041044	03/30/2012	TIMS	3480	MASTER		
A00108	A00108	D041044	08/30/2012	TIMS	3480	MASTER		
A00109	A00109	D041044	02/15/2012	VTAP	3480	MASTER		
A00110	A00110	D041044	02/15/2012	VTAP	3480	MASTER		
A01006	A01006	D041044	05/30/2012	VTAP	3490	MASTER		

Figure 143. EDGJRVOL: Sample Report of volumes sorted by security level

Figure 144 on page 144 shows a sample report of volumes that are sorted by owner.

The data columns for this report are the same as the Volumes Sorted by Volume Serial report, as shown in Figure 141 on page 143.

DFSMSrmm - Volumes Sorted by Owner				11/14/12	03:11:45	- 1 -		
VOLUME	RACK-#	OWNER-ID	EXPIRATION	SEC	UNIT	STATUS	DESCRIPTION	ACCOUNT-DATA
A00301	A00301	D041044	10/14/2012	VTAP	3480	MASTER		
A00302	A00302	D041044	10/14/2012	VTAP	3480	MASTER		
A00303	A00303	D041044	06/30/2012	VTAP	3480	MASTER		
A00304	A00304	D043024	06/30/2012	VTAP	3480	MASTER		
A00305	A00305	D043024	04/30/2012	VTAP	3480	MASTER		
A00306	A00306	D043024	04/30/2012	VTAP	3480	MASTER		
A00307	A00307	D043024	05/30/2012	VTAP	3480	MASTER		
A00308	A00308	D051133	05/30/2012	VTAP	3480	MASTER		
A00309	A00309	D051133	10/14/2012	VTAP	3480	MASTER		

Figure 144. EDGJRVOL: Sample Report of volumes sorted by owner

Figure 145 on page 145 shows a sample report of volumes that are sorted by expiration date.

The data columns for this report are the same as the Volumes Sorted by Volume Serial report, as shown in Figure 141 on page 143.

DFSMSrmm - Volumes Sorted by Expiration Date						11/14/12	03:11:47	- 1 -	
VOLUME	RACK-#	OWNER-ID	EXPIRATION	SEC	UNIT	STATUS	DESCRIPTION	ACCOUNT-DATA	
A00401	A00401	D041044	10/14/2012	VTAP	3480	MASTER			
A00402	A00402	D041044	10/14/2012	VTAP	3480	MASTER			
A00403	A00403	D041044	06/30/2012	VTAP	3480	MASTER			
A00404	A00404	D041044	06/30/2012	VTAP	3480	MASTER			
A00405	A00405	D041044	04/30/2012	VTAP	3480	MASTER			
A00406	A00406	D041044	04/30/2012	VTAP	3480	MASTER			
A00407	A00407	D041044	05/30/2012	VTAP	3480	MASTER			

Figure 145. EDGJRVOL: Sample Report of volumes sorted by expiration date

Creating a list of DFSMSrmm SMF volume records

EDGJSMF lists DFSMSrmm SMF volume records in a readable format.

EDGJSMF input and output

EDGJSMF input and output is as follows:

Input:

The input for EDGJSMF is RAWSMF DD CARD, which contains SMF records.

Output:

The output for EDGJSMF is VREPT DD CARD, which contains a summary of SMF records.

EDGJSMF customization

Use the following information to customize the EDGJSMF sample job:

TOOLIN

This file contains the ICETOOL control statements. The DISPLAY statement defines the format of a report and the fields from the input records to include in that report. You can customize the fields and the column header information to display any information from the SMF record or the volume information included in the record. The macro EDGSMFSY provides DFSORT symbolic names for the fields in the SMF records. The macro EDGSMFAR, as described in [“SMF audit record header information: EDGSMFAR”](#) on page 292, maps the SMF record. The EDGSVREC macro, as described in [“SMF volume information: EDGSVREC”](#) on page 305, maps the contents of the volume information.

RAWSMF

This is the file that identifies the data sets that contain dumped SMF records. They are produced using either the IFASMFDP or IFASMF DL utility. Set the data set names to those used on your system to contain archived SMF records.

SMFVCNTL

This file contains control statements that control the selection of SMF records. You can customize the SMF record number to match that used in your installation. If the RAWSMF file contains only DFSMSrmm SMFAUD records you can remove the check for the SMF record number. The SMF record number must be specified in hexadecimal. If you do not know what the record numbers are, you can use the sample job EDGJSMFP which summarizes the SMF record numbers by type and provides decimal and hexadecimal record numbers. See [“Creating a summary of SMF records”](#) on page 146 for more about the EDGJSMFP sample job.

SYSUT2

This file creates the output file of selected SMF records and sets the record format to RECFM=VB. Set the data set name as required in your installation. Remember to update the data set name in the CLEAN step SYSIN file.

EDGJSMF examples

Figure 146 on page 146 shows a sample report that is sorted by log date and log time and includes all DFSMSrmm SMF volume records.

DFSMSrmm - SMF Audit Records										
				11/27/11	15:23:29	- 1 -				
TIME	DATE	SYS	USER	ACT	VOLUME	CREATE	LASTCH	LASTUSER	LASTSYS	LASTUSCH
7104C7	11330	E4E4	RDRHSME	C	111673	2011266	2011330	*OCE	E4E4	2011320
7104E5	11330	E4E4	RDRHSME	C	111673	2011266	2011330	*OCE	E4E4	2011320
7106E8	11330	E4E4	RDRHSME	C	111720	2011267	2011330	*OCE	E4E4	2011278
710717	11330	E4E4	RDRHSME	C	111720	2011267	2011330	*OCE	E4E4	2011278
766363	11330	E4E4	RDRHSME	C	111673	2011266	2011330	*OCE	E4E4	2011320
766371	11330	E4E4	RDRHSME	C	111673	2011266	2011330	*OCE	E4E4	2011320
7663C2	11330	E4E4	RDRHSME	C	111673	2011266	2011330	*OCE	E4E4	2011320
768708	11330	E4E4	RDRHSME	C	111720	2011267	2011330	*OCE	E4E4	2011278
768712	11330	E4E4	RDRHSME	C	111720	2011267	2011330	*OCE	E4E4	2011278
78657E	11330	E4E4	RDRHSME	C	111674	2011239	2011330	*OCE	E4E4	2011201
78659D	11330	E4E4	RDRHSME	C	111674	2011239	2011330	*OCE	E4E4	2011201
79347F	11330	E4E4	RDRHSME	C	111674	2011239	2011330	*OCE	E4E4	2011201

Figure 146. EDGJSMF: Sample Report of a list of all DFSMSrmm SMF volume records

The data columns are:

TIME

The log time of the record.

DATE

The log date of the record.

SYS

The SMF ID of the system that created the SMF record.

USER

The user ID of the user requesting the function that caused the creation of the SMF record.

ACT

Activity type

A

The record was added.

C

The record was changed.

D

The record was deleted.

VOLUME

The serial number of the volume.

CREATE

The creation date of the volume.

LASTCH

The last change date of the volume.

LASTUSER

The last change user ID.

LASTSYS

The CPU system ID of the last change.

LASTUSCH

The last user change date. This is the date the volume was last changed by command.

Creating a summary of SMF records

EDGJSMFP produces a report that provides the number of each SMF record type found in SMF data.

EDGJSMFP input and output

EDGJSMFP input and output is as follows:

Input:

The input for EDGJSMFP is RAWSMF DD CARD, which contains SMF records.

Output:

The output for EDGJSMFP is VREPT DD CARD, which contains SMF record numbers and counts.

EDGJSMFP customization

Use the following information to customize the EDGJSMFP sample job:

TOOLIN

This file contains the ICETOOL control statements. The OCCUR statement defines the contents of a summary report and the fields from the input records to include in that report. You can customize the fields and the column header information to display any information from the SMF record or the volume information included in the record. The header part of SMF records is a common format.

RAWSMF

This is the file that identifies the data sets that contain dumped SMF records. They are produced using either the IFASMFDP or IFASMF DL utility. Set the data set name to that used on your system to contain archived SMF records.

EDGJSMFP examples

Figure 147 on page 147 shows a sample report of SMF audit records and the number of each record.

DFSMSrmm - SMF Audit Records			11/27/12	15:53:48	- 1
SMF RECORD NUMBER	COUNT OF RECORDS	HEX EQUIVALENT			
2	1	02			
3	1	03			
248	817	F8			

Figure 147. EDGJSMFP: Sample Report of SMF audit record counts by record number

The data columns are:

SMF RECORD NUMBER

The record number that identifies the type of the SMF record.

COUNT OF RECORDS

The number of SMF records, which are sorted by the SMF record number.

HEX EQUIVALENT

The SMF record number in hex that matches the first data column, which is the SMF record number in decimal.

Creating a report about volumes in storage locations

EDGJVLT reads the DFSMSrmm extract data set and creates a report of volumes currently in storage locations.

You must confirm any outstanding volume moves before running this report to obtain accurate results.

EDGJVLT input and output

EDGJVLT input and output is as follows:

Input:

The input for EDGJVLT is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The output for EDGJVLT is:

- RMMVLT DD CARD, which contains volumes in storage locations sorted by volume serial number.
- RMMVLT S DD CARD, which contains the number of volumes by location.

EDGJVLT customization

Use the following information to customize the EDGJVLT sample job:

TOOLIN

The sample job produces a report about volumes by storage location. The volumes are sorted by location name and bin number. The sample report also produces a summary of the number of volumes by storage location.

You can customize your own owner reports by changing the layout of the report defined in the sort DISPLAY statement. Select the fields you want to include in the report and place them in the correct order. To produce reports with records in a different sequence, you have to customize the SORT statement included in the VLTSCNTL files.

EDGJVLT examples

Figure 148 on page 148 is sorted by storage location and bin number and includes all volumes currently in storage locations.

DFSMSrmm - Volumes in Stores Sorted by VOLSER							
		12/12/12	13:52:05	- 1 -			
VOLSER	DSNAME	JOBNAME	ASDATE	STORE	STORE DATE	BIN #	MEDIANM
111056	RTSGM.DUMPMPLY.SSCPPT.G0056V00	MASTMTLY	05/12/2012	DISTANT	08/12/2012	000001	TAPE
111019	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	DISTANT	23/06/2012	000002	TAPE
111021	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	DISTANT	23/06/2012	000004	TAPE
111023	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	DISTANT	23/06/2012	000005	TAPE
111036	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	LOCAL	23/06/2012	000006	TAPE
111044	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	LOCAL	23/06/2012	000007	TAPE
111050	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	LOCAL	23/06/2012	000008	TAPE
111051	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	REMOTE	23/06/2012	000009	TAPE
111066	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	REMOTE	23/06/2012	000010	TAPE
111005	RHSM.DMP.VRDUMP.VBEAU06.D95332.T454304	HSME4	28/11/2012	REMOTE	01/12/2012	000013	TAPE
111069	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	REMOTE	23/06/2012	000014	TAPE
111906	RHSM.DMP.VRDUMP.VE4DA05.D95094.T290804	HSME4	04/04/2012	REMOTE	07/04/2012	000016	TAPE
111070	RTSGM.DUMPMPLY.SYSPPT.G0029V00	MASTMTLY	20/06/2012	REMOTE	23/06/2012	000017	TAPE

Figure 148. EDGJVLT: Sample Report of volumes in storage location

The data columns are:

VOLSER

The serial number of the volume.

DSNAME

The first file data set name.

JOBNAME

The name of the job that created the data set.

ASDATE

The date that the volume was assigned to the current owner.

STORE

The name of the storage location.

STORE DATE

The date that the volume move into the storage location was confirmed.

BIN

The bin number, which identifies the shelf location in a storage location. A shelf location is a single space on a shelf where you store removable media.

MEDIANM

The media name, which is the value that describes the shape of the media

Figure 149 on page 148 shows a sample report of volumes that are sorted by storage location.

DFSMSrmm - Volume Counts by Location		
		11/14/12
		05:49:51
		- 1 -
STORE	COUNT	
DISTANT	4	
LOCAL	3	
REMOTE	6	

Figure 149. EDGJVLT: Sample Report of volume counts by location

The data columns are:

STORE

The storage location

COUNT

The number of volumes, which are sorted by storage location

Creating a report about volumes moving to storage locations

EDGJVLTM reads the DFSMSrmm extract data set and creates a report of volumes moving to storage locations.

EDGJVLTM input and output

EDGJVLTM input and output is as follows:

Input:

The input for EDGJVLTM is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The output for EDGJVLTM is:

- RMMVLTM DD CARD, which contains volumes moving to a storage location.
- RMMVLTM DD CARD, which contains the number of volumes by destination.

EDGJVLTM customization

Use the following information to customize the EDGJVLTM sample job:

TOOLIN

The sample job produces a report for all volumes moving to a storage location. The sample report also produces a summary of the volumes by destination location.

You can customize the reports by changing the sort DISPLAY statement.

To produce reports with records in a different sequence, you have to customize the SORT statement included in the VLTSCNTL file.

EDGJVLTM examples

Figure 150 on page 149 is sorted by destination and volume serial number and includes only volumes that are ready to move to storage locations.

DFSMSrmm - Volumes Moving to Storage Location							
		12/12/12	15:01:49	- 1 -			
VOLSER	DSNAME	JOBNAME	ASDATE	DEST	STORE DATE	BIN #	MEDIANN
111000	RHSM.HMIGTAPE.DATASET	HSME4	28/11/2012	VLTX	10/11/2012		TAPE
111001	RHSM.DMP.VRDUMP.VE4DA08.D95318.T442904			VLTX	01/12/2012		TAPE
111002	RHSM.DMP.VRDUMP.VE4DA06.D95318.T301404			VLTX	01/12/2012		TAPE
111003	SYSMF.E4.WEEKLY.DATASET.G0185V00	PSMFE4W2	13/11/2012	VLTX	29/09/2012		TAPE
111004	RTSGM.VRDUMP.V8E7U01.G0277V00			VLTX	29/09/2012		TAPE
111006	RTSGM.VRDUMP.V8E1MV3.G0272V00			VLTX	04/11/2012		TAPE
111007	RTSGM.VRDUMP.V8E1MV3.G0272V00			VLTX	04/11/2012		TAPE
111008	RHSM.HMIGTAPE.DATASET	HSME4	01/12/2012	VLTX	24/10/2012		TAPE
111009	RHSM.DMP.VRDUMP.VE4DA06.D95318.T301404			VLTX	01/12/2012		TAPE
111013	RTSGM.DUMPMKLY.MSMP02.G0031V00			VLTX	29/09/2012		TAPE
111014	RTSGM.DUMPMKLY.MSMP02.G0031V00			VLTX	03/10/2012		TAPE
111015	RTSGM.DUMPMKLY.V8ESA13.G0027V00	ESAMSTRM	16/05/2012	VLTX	14/05/2012		TAPE
111016	RHSM.BACKTAPE.DATASET	HSME4	24/08/2012	VLTX	11/08/2012		TAPE
111017	RHSM.BACKTAPE.DATASET	HSME4	25/11/2012	VLTX	24/10/2012		TAPE

Figure 150. EDGJVLTM: Sample Report of volumes moving to storage locations

The data columns are:

VOLSER

The serial number of the volume.

DSNAME

The name of the first dataset on the volume.

JOBNAME

The name of the job that created the data set.

ASDATE

The date that the volume was assigned to the current owner.

DEST

The destination, the target storage location of the volume.

STORE DATE

The date that the volume destination was set or the date that the volume was ejected, whichever is more recent.

BIN #

The bin number, which identifies the shelf location in a storage location. A shelf location is a single space on a shelf where you store removable media.

MEDIANM

The media name, which is the value that describes the shape of the media

Figure 151 on page 150 shows a sample report of the number of volumes in each identified storage location.

```
DFSMSrmm - Volume Counts by Destination      12/12/12      15:01:50      - 1 -
STORE          COUNT
-----
VLTX          14
```

Figure 151. EDGJVLTM: Sample Report of volume counts by location

The data columns are:

STORE

The destination storage location.

COUNT

The number of volumes, which are sorted by storage location.

Creating reports about data sets and volumes that are copy exported

EDGJCEXP provides a report on copies of logical volumes that have been exported from TS7700 Virtualization Engine. The report consolidates point in time information from the copy export status file, the library and DFSMSrmm to help you identify tape data that has been copy exported.

EDGJCEXP input and output

You can create the reports either from the export list file of up to three copy exports, or from the VOLUME MAP, VOLUME MAP BACKUP (starting with Release 3.0 of the TS7700 Virtualization Engine), and PHYSICAL VOLUME STATUS POOL information created from the IBM Virtualization Engine TS7700 Series Bulk Volume Information Retrieval Function (BVIR). The information about stacked volumes, and logical volume copies is retrieved from this input and merged with the information that the DFSMSrmm extract file X records has for the stacked volumes and the logical volumes.

For information on how to create the BVIR volume map, volume map backup, or physical volume status pool map, see *IBM Virtualization Engine TS7700 Series Bulk Volume Information Retrieval Function User's Guide Version 1.5* at [IBM Techdocs: White Papers \(www.ibm.com/support/techdocs/atsmastr.nsf/Web/WhitePapers\)](http://www.ibm.com/support/techdocs/atsmastr.nsf/Web/WhitePapers).

A current report extract containing extended records (type X) is required. You can use any date format and time zone when you create the extract file.

Customize the EDGJCEXP sample JCL SET symbols to name the data sets to be used for input and output, and to select whether a copy export status file or BVIR output is used as input. The sample JCL contains a RMM Report Extract step at its beginning.

EDGJCEXP input and output is as follows:

Input:

The input SET symbols are:

CEXP

Set to 0 to use BVIR input, or to 1 to use copy export status file input

BVIR

Set to 1 to use BVIR input, or to 0 to use copy export status file input

EXTRACT

Set to the data set name to be used for the DFSMSrmm extract file. This data set must already exist.

MESSAGE

Set to the data set name to be used for the EDGHSKP MESSAGE DD. This data set must already exist.

BVOLMAP

If you set BVIR symbol to '1', set this symbol to the data set name of the BVIR Volume Map or Volume Map Backup. If specified, this data set must already exist.

BVOLSTA

If you set BVIR symbol to '1', set this symbol to the data set name of the BVIR Volume Status. If specified, this data set must already exist.

COPEXP1

If you set CEXP symbol to '1', set to the data set name of the first Copy Export Status file. If specified, this data set must already exist.

COPEXP2

If you set CEXP symbol to '1', set to the data set name of the second Copy Export Status file or set to NULLFILE. If specified, this data set must already exist.

COPEXP3

If you set CEXP symbol to '1', set to the data set name of the third Copy Export Status file or set to NULLFILE. If specified, this data set must already exist.

Output:

The output SET symbols are:

REPDSN

Set to the data set name to be used for the data set name report

REPLVOL

Set to the data set name to be used for the logical volume report

REPSVOL

Set to the data set name to be used for the stacked volume report

EDGJCEXP examples

[Figure 152 on page 152](#) shows examples of the three types of copy export reports.

The data columns in the copy export reports are presented in groups:

DATA SET INFO
LOGICAL VOLUME INFO
STACKED VOLUME INFO
COPY EXPORT INFO

which are presented in a sequence depending on the sort order.

VOLSEQ

The volume sequence number of the copy exported logical volume.

REQUIRED LOCATION

The location to which retention policies or commands direct the volume.

EXPIRATION DATE

The logical volume expiration date.

STACKED VOLUME INFO group**VOLSER**

The volume serial number of the stacked volume on which the logical volume copies are exported.

CURRENT LOCATION

The current location of the stacked volume. If the volume is in transit this is the location from which it is moving.

DESTINATION

The location to which the stacked volume should move.

INTRANSIT

Indicates if the stacked volume is moving. One of:

Y

The volume is ejected and is moving to its destination.

N

The volume is not moving.

RETENTION DATE

The stacked volume retention date as calculated by VRSEL processing.

V R

The stacked volume vital record status.

COPY EXPORT INFO group**EXPORT DATE**

The date the copy export was performed. This value is taken from the DFSMSrmm volume information, volume assigned date which is set when the host system is notified of export completion.

EXPORT TIME

The time the copy export was performed. This value is taken from the DFSMSrmm volume information, volume assigned time which is set when the host system is notified of export completion.

Creating volume reports sorted by volume serial number

EDGJVOL reads the DFSMSrmm extract data set and creates reports that are sorted by volume serial number.

EDGJVOL input and output

EDGJVOL input and output is as follows:

Input:

The input for EDGJVOL is EXTRACT DD CARD, which is the DFSMSrmm extract data set.

Output:

The input for EDGJVOL is:

- RMMVOL DD CARD, which contains volumes sorted by serial number.
- RMMVOLS DD CARD, which contains the number of volumes by status.
- RMMVOLP DD CARD, which contains the number of volumes by pending release.

EDGJVOL customization

Use the following information to customize the EDGJVOL sample job:

TOOLIN

The sample job produces a report about all data sets on all volumes. The data sets are sorted by volume. The sample report also produces a summary of the volumes in pending release status and a summary of volumes by volume status.

Before customizing the reports by changing the layout of the report defined in the sort DISPLAY statement, consider that the report is based on the records built by the VOLRCNTL and DSNRCNTL file OUTREC statements. The records are built using the DFSMSrmm extract data set records for volumes and data sets.

To change the fields included in the report, you might have to update the OUTREC statements to add the additional fields into the output records.

To produce reports with records in a different sequence, customize the SORT statement included in the VOLFCNTL file.

EDGJVOL examples

Figure 153 on page 154 is sorted by volume serial number, file sequence on the volume, and data set name. The sample report lists all the volumes.

DFSMSrmm - Volumes Sorted by Serial Number									
		12/12/12	13:58:32	- 1 -					
VOLSER	DSNAME	JOBNAME	VSEQ	AS/CR DATE	EXPDT	JCL EXPDT	ST	R	
CIP4B4	BMC.CIP.INSTALL		1	13/03/2012	12/03/2012		US	N	
	BMC.ISIUNLD.BTCHUNLD		1	13/03/2012					
	BMC.ISIUNLD.CNTL		1	13/03/2012					
	BMC.ISIUNLD.LOAD		1	13/03/2012					
	BMC.ISIUNLD.DATA		1	13/03/2012					
CLB201			1	21/07/2012	20/07/2012		MA	N	
CLB203			1	21/07/2012	20/07/2012		MA	N	
CLB204			1	21/07/2012	20/07/2012		MA	N	
CN1698	COMPAREX.OBJECT		1	21/03/2012	20/03/2012		US	N	
CN4545	CW.FA.FILE1		1	24/03/2012	22/03/2012		US	N	
	CW.FA.FILE2		1	27/03/2012					
CN5072	CW.FA.FILE1		1	03/04/2012	02/04/2012		US	N	
	CW.FA.FILE2		1	03/04/2012					
CRP120	SMPMCS		1	02/08/2012	31/07/2012		MA	N	
	HCRP120.F1		1	14/08/2012					
	HCRP120.F2		1	14/08/2012					
CRWPMT	RW.VIR3M0.JCLMT		1				SC	N	
	RW.VIR3M0.COBQMT		1	07/12/2012					
	RW.VIR3M0.COBAMT		1	07/12/2012					
	RW.VIR3M0.RUNMT		1	07/12/2012					
DK3062			1	03/03/2012	00/00/2012		US	N	
DLS311			1	06/12/2012	30/11/2012		MA	N	
DL0692	CANDLE.MAINT.PTFINFO		1	03/03/2012	00/00/2012		US	N	
DL1202			1	21/07/2012	20/07/2012		MA	N	
INF61	INFOREM.ALLOCPTF.INSTRUCT		1	12/05/2012	11/05/2012		MA	N	
INF61	INFOREM.BASEPTF.INSTRUCT		1	12/05/2012	11/05/2012		MA	N	
....									

Figure 153. EDGJVOL: Sample reports of volumes sorted by volume serial number

The data columns are:

VOLSER

The volume serial number. The volume serial number is blank for all files other than the first file.

DSNAME

The name of the data set on the volume.

JOBNAME

The creating jobname which is the name of the job that created the data set.

VSEQ

The volume sequence number for the dataset.

AS/CR DATE

The date that the volume was assigned to the current owner for volumes and first file. The date that any data set other than the first file was created.

EXPDT

The expiration date.

JCL EXPDT

The original expiration date.

ST

The status of the volume, which can be one of the following:

- MA - Master
- US - User
- SC - Scratch
- IN - Init
- EN - Entry

R

Volume pending release, which can be one of the following:

- N, which means that no release is pending for the volume.
- Y, which means that release is pending for the volume.

Figure 154 on page 155 shows a sample report of volumes in either master or scratch status.

DFSMSrmm - Volume Counts by Status		11/10/12	02:47:28	- 1 -
STATUS	COUNT			
-----	-----			
MASTER	38			
SCRATCH	17			

Figure 154. EDGJVOL: Sample Report of volume counts by status

The data columns are:

STATUS

The status of the volume, which can be one of the following:

- MASTER
- SCRATCH
- USER
- INIT
- ENTRY

COUNT

The number of volumes which are sorted by volume status.

Figure 155 on page 155 shows a sample report of the number of volumes that are either pending release or not pending release.

DFSMSrmm - Volume Counts by Pending Release		11/10/12	02:47:30	- 1 -
PENDING RLSE	COUNT			
-----	-----			
N	55			

Figure 155. EDGJVOL: Sample Report of volume counts by pending release status

The data columns are:

PENDING RLSE

Volume pending release, which can be one of the following:

- N, which means that no release is pending for the volume.
- Y, which means that release is pending.

COUNT

The number of volumes which are sorted by pending release type.

Chapter 8. Creating REXX EXECs

This topic contains information that you can use to create your own REXX EXECs or procedures to use with DFSMSrmm.

To get the TSO subcommands to return information as REXX variables, you must set the REXX variable SYSAUTH.EDGDATE to a valid abbreviation of a DATEFORM value.

All commands set the DFSMSrmm reason code into variable EDG@RC, if the return code in the REXX variable RC is 4, 12, or 20.

Some stem variables use the stem value of 0 to indicate the number of items returned by the command for that variable.

In some cases, such as EDG@VOL (for SEARCHVOLUME), the .0 stem variable indicates that multiple resources meet the search criteria. For example, if you issue the RMM SEARCHVOLUME subcommand, EDG@VOL.0 might contain 2, indicating that two volumes met the search criteria. EDG@VOL.1 contains the first volume serial number, and EDG@VOL.2 contains the second volume serial number.

In other cases, such as EDG@VOL (for LISTPRODUCT), the .0 stem variable indicates how many of some repeatable value exist for a single resource. For example, if you issue the RMM LISTPRODUCT subcommand, EDG@VOL.0 might contain 5, indicating that five volume serial numbers are associated with the listed product. EDG@VOL.1 contains the first volume serial number, and EDG@VOL.2 contains the second volume serial number, and so on.

Some variables, such as EDG@LDMN, return information in a double stem variable. For example, if you issue the RMM LISTCONTROL LOCDEF subcommand, EDG@LDMN.1.0 variable contains the number of media names that are used for the first location. EDG@LDMN.1.1 contains the first media name, EDG@LDMN.1.2 the second media name. EDG@LDMN.2.0 variable contains the number of media names used for the second location, EDG@LDMN.2.1 contains the first media name, EDG@LDMN.2.2 the second media name.

Using sample REXX EXECs

These examples are supplied as members EDGXMP1 and EDGXMP2 in the DFSMSrmm SAMPLIB data set. You can modify the samples to obtain information about your volumes and data sets.

EDGXMP1 VOLCHAIN EXEC

Use EDGXMP1 to list all the volumes in a multivolume set of volumes, as shown in this example:.

```
/*REXX*****  
/*  
/* VOLCHAIN EXEC - Given any volume serial number it lists all the      */  
/*          volumes in the multivolume set                               */  
/*  
/* Variables used from LISTVOLUME command:                             */  
/*      edg@vol - Volume serial number                                  */  
/*      edg@pvl - Volume serial number of previous volume in            */  
/*          multivolume chain.                                          */  
/*      edg@nvl - Volume serial number of next volume in                */  
/*          multivolume chain.                                          */  
/*  
/******  
arg volser                                /* Use parameter supplied as the */  
                                          /* volume serial.                 */  
  
Do while volser = ''                      /* No volume serial so ask for one*/  
    Say "Enter Volume Serial:"           /* Issue prompt to TSO user      */  
    Pull volser                           /* Get volume serial from TSO user*/  
end  
  
Call LISTVOL volser                      /* Set variable information for   */  
                                          /* requested volume.              */
```

```

If result = 0 then                                /* Are variables OK?          */
do
    nextvol = edg@nvl                            /* Save the next volume pointer */
    push edg@vol                                /* Put this volume serial on the */
                                                /* stack.                      */

                                                /* Chain through the previous   */
                                                /* volumes, listing each and    */
                                                /* putting each volume serial on */
                                                /* the stack.                  */
Do while (result = 0) & (strip(edg@pvl) ^= '')
    Call LISTVOL edg@pvl                        /* Set variable information for */
                                                /* previous volume.            */
    If result = 0 then                          /* If previous volume exists then */
        Push edg@vol                            /* Put its serial number on the */
                                                /* stack.                      */
    End                                          /* of chaining prevvol pointers */

    edg@nvl = nextvol                          /* Start the chain at the next */
                                                /* volume of the volume which was */
                                                /* listed first.                */

                                                /* Chain through the next volumes */
                                                /* listing each and putting each */
                                                /* volume serial on the stack.   */
Do while (result = 0) & (strip(edg@nvl) ^= '')
    Call LISTVOL edg@nvl                      /* Set variable information for */
                                                /* previous volume.            */
    If result = 0 then                          /* If previous volume exists then */
        Queue edg@vol                          /* put its serial number on the */
                                                /* stack.                      */
    End                                          /* of chaining nextvol pointers */

    Do queued()                                /* For each volume in the multi- */
        pull volser                            /* volume chain, pull the serial */
        say volser                            /* off the stack and write it to */
    End /* of volume list */                  /* the TS0 user.              */
end /* of successful list */

exit(0)                                           /* return to caller          */

LISTVOL:                                         /* LISTVOLUME Procedure:      */
                                                /* Input parameter: volume serial */
                                                /* Output:                    */
                                                /* Result=0: Complete set of    */
                                                /* listvolume variables        */
                                                /* Result=4: Error message     */
                                                /* issued to TS0 user         */

arg volser
sysauth.edgdate = "EUROPEAN"                  /* Tell RMM TS0 command to return */
                                                /* output as REXX variables and */
                                                /* dates in EUROPEAN (DD/MM/YYYY) */
                                                /* format.                    */
save_prompt = prompt("OFF")                    /* Turn PROMPTing off.        */

                                                /* Get volume information from */
                                                /* DFSMSrmm.                  */
address "TS0" "RMM LISTVOLUME "volser" ALL"
If rc = 0 then
    lvresult = 0                                /* Indicate Successful LISTVOLUME */
else
do
    drop sysauth.edgdate                      /* An error has occurred. Tell */
                                                /* the RMM TS0 command to return */
                                                /* output via messages.        */
                                                /* Get error information from */
                                                /* DFSMSrmm.                  */

    say "LISTVOLUME "volser
    address "TS0" "RMM LISTVOLUME "volser
    lvresult = 4                                /* Indicate Unsuccessful */
                                                /* LISTVOLUME.                */
end

junk = prompt(save_prompt)                      /* Restore PROMPT status.      */
return lvresult                                /* Return to caller.          */

```

EDGXMP2 DSNLIST EXEC

Use EDGXMP2 to display volume information, as shown in this example:

```
/*REXX*****  
/*  
/* DSNLIST EXEC - Given any volume serial number it displays all the */  
/* information held by DFSMSrmm about the data sets on */  
/* the volume. */  
/*  
/* Variables used from SEARCHDATASET command: */  
/* edg@dsn.0 - number of data sets on the volume. */  
/* edg@dsn.x - data set name of each of the data sets on */  
/* volume (x=1 to edg@dsn.0). */  
/* edg@vol.x - volume serial number (x=1 to edg@dsn.0) */  
/* edg@seq.x - data set sequence number (x=1 to edg@dsn.0) */  
/*  
/******  
arg volser /* Use parameter supplied as the */  
/* volume serial. */  
  
Do while volser = '' /* No volume serial so ask for one */  
 Say "Enter Volume Serial:" /* Issue prompt to TSO user */  
 Pull volser /* Get volume serial from TSO user */  
end  
  
sysauth.edgdate = "EUROPEAN" /* Tell RMM TSO command to return */  
/* output as REXX variables and */  
/* dates in EUROPEAN (DD/MM/YYYY) */  
/* format. */  
save_prompt = prompt("OFF") /* Turn PROMPTing off. */  
save_msg = msg("OFF") /* Turn messages off. */  
/* Get information for data sets */  
/* on the volume */  
address "TSO" "RMM SEARCHDATASET DSNNAME(*) VOLUME("volser") LIMIT(*)"  
junk = msg(save_msg) /* Restore previous message status */  
  
If rc = 0 then  
 do  
 drop sysauth.edgdate /* Tell the RMM TSO command to */  
 /* return output via messages. */  
 /* Display data set listed by the */  
 /* Search command until all are */  
 /* displayed or non-zero return */  
 /* code received. */  
 Do dataset = 1 to edg@dsn.0 while (rc = 0)  
 address "TSO" "RMM LISTDATASET "edg@dsn.dataset" "  
 VOLUME("edg@vol.dataset") SEQ("edg@seq.dataset") "  
 say "" /* Write a couple of extra blank */  
 say "" /* lines */  
 end  
 /* complete with a summary */  
 say edg@dsn.0 "Data sets on volume "volser" displayed."  
 end  
 else  
 do  
 drop sysauth.edgdate /* An error has occurred. Tell */  
 /* the RMM TSO command to return */  
 /* output via messages. */  
 /* Get error information from */  
 /* DFSMSrmm. */  
 say "SEARCHDATASET DSNNAME(*) VOLUME("volser") LIMIT(*)"  
 address "TSO" "RMM SEARCHDATASET DSNNAME(*) VOLUME("volser") LIMIT(*)"  
 end  
 junk = prompt(save_prompt) /* Restore PROMPT status. */  
 exit(0) /* return to caller */
```

EDGMKVRS EXEC to make backup of VRS policies

The EDGMKVRS sample creates a list of RMM ADDVRS commands that reproduce all the VRS policies from an extract data set created from the CDS.

Input for the EDGMKVRS sample is an extract data set created from the CDS produced by the EDGHSKP utility during inventory management.

Output of the EDGMKVRS sample is a list of RMM ADDVRS commands generated from the extract data set.

Inputs

SORTIN DD provides the extract data set, DFSPARM DD is used to write the sort cards used to select needed information from the extract data set.

Outputs

VRSCMDS DD will contain the generated RMM ADDVRS commands. It can be used to add VRS policies to the CDS

SYSTSPRT DD will contain a logging of the exec with statistics

A JCL EDGJMVRS sample is used to submit the EDGMKVRS sample.

```
/*-----  
/* EDGMKVRS call  
/*-----  
//EDGMKVRS EXEC PGM=IKJEFT01,PARM='%EDGMKVRS',DYNAMNBR=20  
//SYSPROC DD DISP=SHR,DSN=SYS1.SAMPLIB  
//SYSTSPRT DD SYSOUT=*  
//SYSOUT DD SYSOUT=*  
//SYSTSIN DD DUMMY  
//VRSCMDS DD DISP=SHR,DSN=RMMUSER1.VRSCMDS  
//DFSPARM DD DISP=NEW,DSN=&&DFSPARM,UNIT=SYSALLDA,SPACE=(TRK,(1,1)),  
// LRECL=80,RECFM=FB //SORTIN DD DISP=SHR,DSN=RMMUSER2.APAR.REPTXT  
/*
```

Both samples EDGMKVRS and EDGJMVRS reside on SYS1.SAMPLIB.

The EDGMKVRS sample selects from an extract data set all the VRS records (RKTYPEID,'K' TYPE 'K' -VRS RECORD), and generates ADDVRS commands of three types (RMM AS DSNAME..., RMM AS NAME..., RMM AS VOLUME...) depending on contents of the VRS records on the extract data set.

Practically all generated parameters are equal to the parameters from original commands ADDVRS except a parameter PRIORITY. This parameter is always generated as PRIORITY(0). The extract data set does not contain such a parameter.

A parameter DELETEDATE corresponds to the original value if the extract data set was created with parameter DATEFORM(J), otherwise DELETEDATE(1999/365) is generated.

For more information about REXX variables you can specify, see [z/OS DFSMSrmm Managing and Using Removable Media](#).

Appendix A. DFSORT symbols for use with DFSMSrmm

DFSMSrmm provides you with symbols that you can use in DFSORT and ICETOOL jobs to create reports for DFSMSrmm-managed resources. These symbol mappings are available in SYS1.MACLIB after SMP/E APPLY processing, as members EDGACTSY, EDGACXSY, EDGEXTSY, EDGSMFSY, EDGS42SY, and EDGSRCSY. You can access these symbols in your DFSORT and ICETOOL jobs by pointing the SYMNAMES DD statement directly to any of these members. Alternatively, you can copy these members somewhere else, modify them if appropriate (for example, you could add your own constant symbols), and point the SYMNAMES DD to the modified member or data set.

This topic describes the available symbol mappings, which are:

- “EDGACTSY : Activity file symbols ” on page 161.
- “EDGACXSY : Combined activity/extended extract record symbol mapping” on page 166.
- “EDGEXTSY: Extract data set symbols ” on page 168.
- “EDGSMFSY: SMF record symbols” on page 187.
- “EDGS42SY: SMF audit record type 42 subtype 22” on page 189
- “EDGSRCSY: SMF record” on page 190

EDGACTSY : Activity file symbols

EDGACTSY provides the DFSORT symbol mapping for the DFSMSrmm inventory management activity file as follows:

```
***** 00050000
*      * 00100000
* RMM Inventory Management Activity File Record * 00150000
* DFSORT Symbol mapping * 00200000
*      * 00250000
***** 00300000
*      * 00333300
* z/OS DFSMSrmm V2R4 * 00366600
*      * 00400000
* PROPRIETARY V3 STATEMENT * 00450000
* LICENSED MATERIALS - PROPERTY OF IBM * 00500000
* "RESTRICTED MATERIALS OF IBM" * 00550000
* 5650-ZOS * 00600000
* COPYRIGHT IBM CORP. 1993,2019 * 00650000
* STATUS = HDZ2240 * 00700000
* END PROPRIETARY V3 STATEMENT * 00750000
*      * 00800000
***** 00850000
* SEE "z/OS DFSMSrmm Reporting" FOR FIELD DETAILS ON RMM RECORDS @03C* 00900000
* SEE "DFSORT APG" FOR DETAILS OF USING SYMBOLS. @03C* 00950000
***** 01050000
*      * 01062500
* $MAC(EDGACTSY) COMP(DF186) PROD(RMM) : Activity File DFSORT Symbols * 01075000
*      * 01087500
*      * 01100000
* CHANGE ACTIVITY: * 01137500
* $LG=RMM210 ,210,990901,CHK: DFSORT Symbols @LGA * 01175000
* $01=OW44589,210,000522,BG: Correct DFSMSrmm reference comment @01A * 01187500
* $02=OW45053,210,000616,MWW Cleanup EDGJACTP symbols @02A * 01191600
* $LL=RMMV1R3,1R3,010216,BDG: >9999 tape files @LLA * 01195700
* $03=RMMV1R5,1R5,021016,CHK: Correct DFSMSrmm reference comment @03A * 01197800
* $MF=RMMV1R8,1R8,050712,AH : Tape Data Set Authorization @MFA * 01198900
* $MV=V1R10 ,1RA,070613,BRB: Support limits for Release/Scratch @MVA * 01199400
* $K1=K1A2205,1RA,080211,BRB: correct placement of new fields @K1A * 01199700
* $N3=RMMGDG ,1RB,080404,GW : VRSEL GDG Options @N3A * 01199800
* $NK=RMMAS1 ,1RC,090220,AP : 5.1 Cleanup VRSEL(OLD) @NKA * 01212300
* $NN=RMMARC ,1RC,090402,MB : 8.1 Reporting for XPDTDROP @NNA * 01224800
* $NT=RMMARC ,1RC,090531,AP : 8.2 Reporting for VRSRETAIN @NTA * 01231000
* $00=RMMAS1 ,1RC,090925,WS : Volume HOLD attribute @00A * 01234100
* $K2=K1C1140,1RC,091214,AP : Sym. ACTRC_HDR_OPT_VRSEL_OLD miss. @K2A * 01235700
* $0H=RMMRM4 ,1RD,100726,GW : 5.2.5.4 Retention Method 4 @OHA
```

```

* $0X=RMMRRE ,2R1,111006,BRB: 75.1.5.3 Report Retention Enh. @QXA * 01236500
* $M7=214978 ,2R4,181023,VD : RGE: Ensure American & European @M7A * 01236540
* : date format for ACTIVITY data set @M7A * 01236560
* $M7=261985 ,2R4,180716,KG : Add EDM to inventory manag. reps. @M7A * 01870100
***** 01237300
ACTRC,1,470 @NNA 01250000
***** 01300000
* ACTRC: RMM ACTIVITY file records * 01350000
***** 01400000
ACTRC_RDW,1,4,BI record descriptor word 01450000
ACTRC_RDW_LEN,=,2,BI record descriptor - length 01500000
ACTRC_RDW_SEG,*,2,BI record descriptor - segment 01550000
***** 01600000
* Common record prefix * 01650000
***** 01700000
ACTRC_PREFIX,*,4,CH common prefix 01750000
ACTRC_PRE_TYPE,=,1,CH activity file record type 01800000
ACTRC_PRE_TYPE_HDR,'H' header record 01850000
ACTRC_PRE_TYPE_DSN,'D' data set details record 01900000
ACTRC_PRE_TYPE_VOL,'V' volume details record 01950000
ACTRC_PRE_RETENTION_GROUP,*,1,CH One of: R, D, X @NNA 01966600
ACTRC_PRE_RETENTION_GROUP_VRSRETAIN,'R' @NNA 01983200
ACTRC_PRE_RETENTION_GROUP_VRSDROP,'D' @NNA 01999800
ACTRC_PRE_RETENTION_GROUP_EXPDTDROP,'X' @NNA 02016400
SKIP,2 reserved @NNC 02033000
***** 02050000
* Start overlay area * 02100000
***** 02150000
ACTRC_DATA,* start overlay for details 02200000
***** 02250000
* Header Record * 02300000
***** 02350000
POSITION,ACTRC_DATA start at ACTRC_DATA 02400000
ACTRC_HDR_DATA,= overlay for header data 02450000
ACTRC_HDR_RUN_DATE,=,10,CH inventory management date 02500000
ACTRC_HDR_RUN_TIME,*,6,CH inventory management time 02550000
ACTRC_HDR_VERIFY_DATE,*,10,CH inventory mgmt. VERIFY date 02600000
ACTRC_HDR_EXEC_PARMs,*,16 execution parameters 02650000
ACTRC_HDR_BACKUP,=,1,CH BACKUP 02700000
ACTRC_YES,'Y' yes 02750000
ACTRC_NO,'N' no 02800000
ACTRC_HDR_DSTORE,*,1,CH DSTORE 02850000
ACTRC_YES,'Y' yes 02900000
ACTRC_NO,'N' no 02950000
ACTRC_HDR_EXPROC,*,1,CH EXPROC 03000000
ACTRC_YES,'Y' yes 03050000
ACTRC_NO,'N' no 03100000
ACTRC_HDR_RPTTEXT,*,1,CH RPTTEXT 03150000
ACTRC_YES,'Y' yes 03200000
ACTRC_NO,'N' no 03250000
ACTRC_HDR_VRSEL,*,1,CH VRSEL 03300000
ACTRC_YES,'Y' yes 03350000
ACTRC_NO,'N' no 03400000
ACTRC_HDR_VERIFY,*,1,CH VERIFY 03450000
ACTRC_YES,'Y' yes 03500000
ACTRC_NO,'N' no 03550000
ACTRC_HDR_DATE,*,1,CH DATE for VERIFY run 03600000
ACTRC_YES,'Y' yes 03650000
ACTRC_NO,'N' no 03700000
ACTRC_HDR_DATEFORM,*,1,CH DATEFORM 03750000
ACTRC_HDR_DATEFORM_AMERICAN,'A' American 03800000
ACTRC_HDR_DATEFORM_EUROPEAN,'E' European 03850000
ACTRC_HDR_DATEFORM_ISO,'I' ISO 03900000
ACTRC_HDR_DATEFORM_JULIAN,'J' Julian 03950000
ACTRC_HDR_CATSYNCH,*,1,CH CATSYNCH 03970000
ACTRC_YES,'Y' yes 03990000
ACTRC_NO,'N' no 04010000
SKIP,7 reserved 04030000
ACTRC_HDR_OPTIONS,*,31 parmlib options 04065000
ACTRC_HDR_VRSJOBNAME,=,1,CH VRSJOBNAME priority 04100000
ACTRC_HDR_VRSJOBNAME_FIRST,'1' jobname first 04150000
ACTRC_HDR_VRSJOBNAME_SECOND,'2' jobname second 04200000
ACTRC_HDR_VRSCHANGE,*,1,CH VRSCHANGE 04250000
ACTRC_HDR_VRSCHANGE_VERIFY,'V' verify 04300000
ACTRC_HDR_VRSCHANGE_INFO,'I' information 04350000
ACTRC_HDR_CATRETPD,*,4,CH CATRETPD hours 04400000
ACTRC_HDR_VRSMIN_COUNT,*,10,CH VRSMIN min. number of VRSS 04450000
ACTRC_HDR_VRSMIN_ACTION,*,1,CH VRSMIN action 04500000
ACTRC_HDR_VRSMIN_ACTION_FAIL,'F' fail 04550000
ACTRC_HDR_VRSMIN_ACTION_WARN,'W' warning 04600000
ACTRC_HDR_VRSMIN_ACTION_INFO,'I' information 04650000
ACTRC_HDR_VRSMIN_ACTION_OFF,'O' OFF @MVA 04652100

```

ACTRC_HDR_OPT_VRSEL,*,1,CH	VRSEL	04700000
ACTRC_HDR_OPT_VRSEL_NEW,'N'	new	04750000
ACTRC_HDR_OPT_VRSEL_OLD,'O'	old	@K2A 04800000
ACTRC_HDR_OPT_VRSEL_BLANK,' '	blank -> new	@NKC 04850000
ACTRC_HDR_UNCATALOG,*,1,CH	UNCATALOG	04900000
ACTRC_HDR_UNCATALOG_NO,'N'	no	04950000
ACTRC_HDR_UNCATALOG_YES,'Y'	yes	05000000
ACTRC_HDR_UNCATALOG_SCRATCH,'S'	scratch volume only	05050000
ACTRC_HDR_TPRACF,*,1,CH	TPRACF	05100000
ACTRC_HDR_TPRACF_NONE,'N'	none	05150000
ACTRC_HDR_TPRACF_PREDEFINED,'P'	predefined profiles	05200000
ACTRC_HDR_TPRACF_AUTOMATIC,'A'	automatic profiles	05250000
ACTRC_HDR_TPRACF_CLEANUP,'C'	cleanup	@MFA 05275000
ACTRC_HDR_SYSID,*,8,CH	SYSID	05300000
ACTRC_HDR_CATSYSID,*,1,CH	CATSYSID	05310000
ACTRC_HDR_CATSYSID_NOT_SET,'N'	not set	05320000
ACTRC_HDR_CATSYSID_SET,'Y'	set to 1-16 sysid's	05330000
ACTRC_HDR_CATSYSID_SHARED,'*'	set to fully shared	05340000
ACTRC_HDR_OPT_RETAINBY,*,1,CH	RETAINBY V/S	05341400
ACTRC_HDR_OPT_RETAINBY_VOLUME,'V'	volume	05342800
ACTRC_HDR_OPT_RETAINBY_SET,'S'	set	05344200
ACTRC_HDR_OPT_MOVEBY,*,1,CH	MOVEBY V/S	05345600
ACTRC_HDR_OPT_MOVEBY_VOLUME,'V'	volume	05347000
ACTRC_HDR_OPT_MOVEBY_SET,'S'	set	05348400
ACTRC_HDR_VRSDROP_COUNT,*,10,CH	VRS max num vols drop.	@K1M 05350600
ACTRC_HDR_VRSDROP_PERCENT,*,3,CH	VRS max % vols dropped	@K1M 05352800
ACTRC_HDR_VRSDROP_ACTION,*,1,CH	VRSDROP action	@K1M 05355000
ACTRC_HDR_VRSDROP_ACTION_FAIL,'F'	fail	@K1M 05357200
ACTRC_HDR_VRSDROP_ACTION_WARN,'W'	warning	@K1M 05359400
ACTRC_HDR_VRSDROP_ACTION_INFO,'I'	information	@K1M 05361600
ACTRC_HDR_VRSDROP_ACTION_OFF,'O'	OFF	@K1M 05363800
ACTRC_HDR_VRSRETAIN_COUNT,*,10,CH	VRS min num vols retai.	@K1M 05366000
ACTRC_HDR_VRSRETAIN_PERCENT,*,3,CH	VRS min % vols retained	@K1M 05368200
ACTRC_HDR_VRSRETAIN_ACTION,*,1,CH	VRSRETAIN action	@K1M 05370400
ACTRC_HDR_VRSRETAIN_ACTION_FAIL,'F'	fail	@K1M 05372600
ACTRC_HDR_VRSRETAIN_ACTION_WARN,'W'	warning	@K1M 05374800
ACTRC_HDR_VRSRETAIN_ACTION_INFO,'I'	information	@K1M 05377000
ACTRC_HDR_VRSRETAIN_ACTION_OFF,'O'	OFF	@K1M 05379200
ACTRC_HDR_EXPDTDROP_COUNT,*,10,CH	EXP max num vols drop.	@K1M 05381400
ACTRC_HDR_EXPDTDROP_PERCENT,*,3,CH	EXP max % vols dropped	@K1M 05383600
ACTRC_HDR_EXPDTDROP_ACTION,*,1,CH	EXPDTDROP action	@K1M 05385800
ACTRC_HDR_EXPDTDROP_ACTION_FAIL,'F'	fail	@K1M 05388000
ACTRC_HDR_EXPDTDROP_ACTION_WARN,'W'	warning	@K1M 05390200
ACTRC_HDR_EXPDTDROP_ACTION_INFO,'I'	information	@K1M 05392400
ACTRC_HDR_EXPDTDROP_ACTION_OFF,'O'	OFF	@K1M 05394600
ACTRC_HDR_GDGCYCLEBY,*,1,CH	GDG CYCLEBY	@N3A 05394800
ACTRC_HDR_GDGC_GENERATION,'G'	in generation seq.	@N3A 05395000
ACTRC_HDR_GDGC_CRDATE,'C'	in creation seq.	@N3A 05395200
ACTRC_HDR_GDGDuplicate,*,1,CH	GDG DUPLICATE	@N3A 05395400
ACTRC_HDR_GDGD_BUMP,'B'	bump from subchain	@N3A 05395600
ACTRC_HDR_GDGD_DROP,'D'	drop from retention	@N3A 05395800
ACTRC_HDR_GDGD_KEEP,'K'	keep cycle number	@N3A 05396000
ACTRC_HDR_GDGD_COUNT,'C'	count cycle number	@N3A 05396200
SKIP,32	reserved	@NNA 05396300
ACTRC_HDR_VRS_LAST_RUNDATE,*,10,CH	Date of last VRSEL run	@NNA 05396400
ACTRC_HDR_VRS_LAST_RUNTIME,*,6,CH	Time of last VRSEL run	@NNA 05396500
ACTRC_HDR_END,*	End of header record	05396800
*****		05400000
* Data Set Record		* 05450000
*****		05500000
POSITION,ACTRC_DATA	start at ACTRC_DATA	05550000
ACTRC_DSN_DATA,=,451,CH	overlay for dsset data	@00C 05600000
ACTRC_DSN_DSNAME,=,44,CH	data set name	05650000
ACTRC_DSN_JOBNAME,*,8,CH	creating job name	05700000
ACTRC_DSN_VOL,*,6,CH	volume serial number	05750000
SKIP,8	reserved was dseq/fseq	@LLC 05800000
*	number	05900000
ACTRC_DSN_CRDATE,*,10,CH	data set creation date	05950000
ACTRC_DSN_CRTIME,*,6,CH	data set creation time	06000000
ACTRC_DSN_LOC,*,8,CH	volume location	06050000
ACTRC_DSN_DEST,*,8,CH	volume destination	06100000
ACTRC_DSN_SMS_MC,*,8,CH	SMS management class name	06150000
ACTRC_DSN_VRS_MV,*,8,CH	VRS management value name	06200000
ACTRC_DSN_CATLG,*,1,CH	data set catalog status	06250000
ACTRC_DSN_CATLG_YES,'Y'	cataloged	06300000
ACTRC_DSN_CATLG_NO,'N'	not cataloged	06350000
ACTRC_DSN_CATLG_FAILED,'F'	locate failed	06400000
ACTRC_DSN_CATLG_UNKNOWN,'U'	no locate issued	06450000
ACTRC_DSN_CYCLE,*,10,CH	primary vrs data set	06500000
*	cycle number	06550000
ACTRC_DSN_2CYCLE,*,10,CH	secondary vrs data set	06600000
*	cycle number	06650000

EDGACTSY : Activity file symbols

ACTRC_DSN_SUBCHAIN_DROP,*,1,CH	primary subchain drop	06700000
* ACTRC_DSN_2SUBCHAIN_DROP,*,1,CH	reason	06750000
* SKIP,27	secondary subchain drop	06800000
	reason	06850000
	reserved	06866000
		06883200
ACTRC_DSN_VOL_DSNNO,*,5,CH	no of data sets on volu@NTA	06899800
* ACTRC_DSN_VOL_INSET,*,1,CH	volume in a set: Y/N @NTA	06916400
		06933000
ACTRC_DSN_CHANGE,*,8	changes to data set details	06950000
ACTRC_DSN_CHNG_VRS,=,1,CH	vital rec status	07000000
* ACTRC_YES,'Y'	yes	07050000
* ACTRC_NO,'N'	no	07100000
ACTRC_DSN_CHNG_RETDATE,*,1,CH	retention date	07150000
* ACTRC_YES,'Y'	yes	07200000
* ACTRC_NO,'N'	no	07250000
ACTRC_DSN_CHNG_MATCH,*,1,CH	matching VRS	07300000
* ACTRC_YES,'Y'	yes	07350000
* ACTRC_NO,'N'	no	07400000
ACTRC_DSN_CHNG_SUBCHAIN,*,1,CH	retaining Subchain	07450000
* ACTRC_YES,'Y'	yes	07500000
* ACTRC_NO,'N'	no	07550000
SKIP,4	reserved	07600000
ACTRC_DSN_VITAL,*,2,CH	vital record status	07614200
ACTRC_DSN_VITAL_NY,'NY'	newly retained NY	07628400
ACTRC_DSN_VITAL_YN,'YN'	dropped YN	07642600
ACTRC_DSN_VITAL_RETAIN,'RETAINED'	newly retained NY	07656800
ACTRC_DSN_VITAL_DROPPED,'DROPPED'	dropped YN	07671000
ACTRC_DSN_OLD_VITAL,=,1,CH	old vital record status	07685200
* ACTRC_YES,'Y'	yes	07700000
* ACTRC_NO,'N'	no	07750000
ACTRC_DSN_NEW_VITAL,*,1,CH	new vital record status	07800000
* ACTRC_YES,'Y'	yes	07850000
* ACTRC_NO,'N'	no	07900000
ACTRC_DSN_DROP,*,1,CH	reason for non-retention	07950000
ACTRC_DSN_DROP_WHILECATALOG,'W'	WHILECATALOG	08000000
ACTRC_DSN_DROP_UNTILEXPIRED,'U'	UNTILEXPIRED	08050000
ACTRC_DSN_DROP_CYCLES,'C'	cycles exceeded	08100000
ACTRC_DSN_DROP_DAYS,'D'	days since creation exceeded	08150000
ACTRC_DSN_DROP_LASTREF,'L'	days since last reference	08200000
* ACTRC_DSN_DROP_EXTRADAYS,'X'	exceeded	08250000
	days since subchain start	08300000
* ACTRC_DSN_DROP_BYDAYSCYCLE,'B'	exceeded	08350000
ACTRC_DSN_DROP_NO_MATCH,'N'	by-days-cycles exceeded	08400000
ACTRC_DSN_DROP_DUP_GDG,'G'	No VRS match	08450000
ACTRC_DSN_DROP_VOL_RELEASED,'V'	GDG cycle; duplicate GDG	08500000
ACTRC_DSN_DROP_BLANK,' '	Volume released / scratch	08550000
ACTRC_DSN_NEW_LOC,*,8,CH		08600000
ACTRC_DSN_OLD_RETDATE,*,10,CH	new required data set locati	08650000
	old data set retention date	08700000
	Format: see DATEFORM parm	08750000
	Special date formats:	08800000
	WHILECATLG	08850000
	CYCL/nnnnn	08900000
	CATRETPD	08950000
ACTRC_DSN_NEW_RETDATE,*,10,CH	new data set retention date	09000000
	Format: see DATEFORM parm	09050000
	Special date formats:	09100000
	WHILECATLG	09150000
	CYCL/nnnnn	09200000
	CATRETPD	09250000
ACTRC_DSN_NEW_RETDATE_DAY_E,=,3,CH	DD/ European format @M7A	09251000
ACTRC_DSN_NEW_RETDATE_MON_A,=,3,CH	MM/ American format @M7A	09252000
ACTRC_DSN_NEW_RETDATE_MON_E,*,2,CH	MM European format @M7A	09253000
ACTRC_DSN_NEW_RETDATE_DAY_A,=,2,CH	DD American format @M7A	09254000
ACTRC_DSN_NEW_RETDATE_YEAR_AE,*,5,CH	/Year (Europ & Amer) @M7A	09255000
ACTRC_DSN_OLD_MATCH,*,113	old matching VRS	09300000
ACTRC_DSN_OLD_MTYPE,=,1,CH	old primary VRS type	09350000
ACTRC_DSN_OLD_MTYPE_DSN,'D'	data set name	09400000
ACTRC_DSN_OLD_MTYPE_SMS,'S'	SMS management class	09450000
ACTRC_DSN_OLD_MTYPE_VRS,'V'	VRS management value	09500000
ACTRC_DSN_OLD_MTYPE_MIX,'M'	DSN and VRS mgmt value	09550000
ACTRC_DSN_OLD_MTYPE_DSNSMS,'C'	DSN and SMS mgmt class	09600000
ACTRC_DSN_OLD_MMASK,*,44,CH	old primary VRS mask	09650000
ACTRC_DSN_OLD_MJOB,*,8,CH	old primary VRS job name	09700000
ACTRC_DSN_OLD_M2MASK,*,8,CH	old second. VRS mask	09750000
ACTRC_DSN_OLD_M2JOB,*,8,CH	old second. VRS job name	09800000
ACTRC_DSN_OLD_CHAINS,*,36,CH	old VRS subchains	09833300
ACTRC_DSN_OLD_MNAME,=,8,CH	old primary VRS subchain	09866600
	name	09900000
* ACTRC_DSN_OLD_MDATE,*,10,CH	old primary VRS subchain	09950000
	start date	10000000

ACTRC_DSN_OLD_M2NAME,*,8,CH	old second. VRS subchain	10050000
* ACTRC_DSN_OLD_M2DATE,*,10,CH	old second. VRS subchain	10100000
SKIP,8	reserved	10150000
ACTRC_DSN_NEW_MATCH,*,113	start date	10200000
ACTRC_DSN_NEW_VRSS,=,69,CH	new matching VRS	10250000
ACTRC_DSN_NEW_MTYPE,=,1,CH	new matching VRS	10300000
ACTRC_DSN_NEW_MTYPE_DSN,'D'	new primary VRS type	10333300
ACTRC_DSN_NEW_MTYPE_SMS,'S'	data set name	10366600
ACTRC_DSN_NEW_MTYPE_VRS,'V'	SMS management class	10400000
ACTRC_DSN_NEW_MTYPE_MIX,'M'	VRS management value	10450000
ACTRC_DSN_NEW_MTYPE_DSNSMS,'C'	DSN and VRS mgmt value	10500000
ACTRC_DSN_NEW_MMASK,*,44,CH	DSN and SMS mgmt class	10550000
ACTRC_DSN_NEW_MJOB,*,8,CH	new primary VRS mask	10575000
ACTRC_DSN_NEW_M2MATCH,*,16,CH	new primary VRS job name	10600000
ACTRC_DSN_NEW_M2MASK,=,8,CH	new primary VRS job name	10650000
ACTRC_DSN_NEW_M2JOB,*,8,CH	new second. VRS matched	10683300
ACTRC_DSN_NEW_CHAINS,*,36,CH	new second. VRS mask	10716600
ACTRC_DSN_NEW_MNAME,=,8,CH	new second. VRS job name	10749900
* ACTRC_DSN_NEW_MDATE,*,10,CH	new subchain info	10783200
* ACTRC_DSN_NEW_MDATE_DAY_E,=,3,CH	new primary VRS subchain	10816500
ACTRC_DSN_NEW_MDATE_MON_A,=,3,CH	name	10850000
ACTRC_DSN_NEW_MDATE_MON_E,*,2,CH	new primary VRS subchain	10900000
ACTRC_DSN_NEW_MDATE_DAY_A,=,2,CH	start date	10950000
ACTRC_DSN_NEW_MDATE_YEAR,*,5,CH	DD/ European format @M7A	10951000
ACTRC_DSN_NEW_M2NAME,*,8,CH	MM/ American format @M7A	10952000
ACTRC_DSN_NEW_M2DATE,*,10,CH	MM European format @M7A	10953000
ACTRC_DSN_NEW_M2DATE_DAY_E,=,3,CH	DD American format @M7A	10954000
ACTRC_DSN_NEW_M2DATE_MON_A,=,3,CH	Year (Europ. & Amer.) @M7A	10955000
ACTRC_DSN_NEW_M2DATE_MON_E,*,2,CH	new second. VRS subchain	11000000
ACTRC_DSN_NEW_M2DATE_DAY_A,=,2,CH	name	11050000
ACTRC_DSN_NEW_M2DATE_YEAR,*,5,CH	new second. VRS subchain	11100000
SKIP,8	start date	11150000
ACTRC_DSN_DSEQ,*,5,CH	DD/ European format @M7A	11151000
ACTRC_DSN_FILESEQ,*,5,CH	MM/ American format @M7A	11152000
ACTRC_DSN_VRSEL_EXCLUDE,*,1,CH	MM European format @M7A	11153000
ACTRC_DSN_END,*	DD American format @M7A	11154000
POSITION,ACTRC_DSN_END	Year (Europ. & Amer.) @M7A	11155000
*****@NNA	reserved	11200000
* Volume Record	data set sequence numbe@LLA	11216600
*****@NNA	physical file sequence @LLA	11233200
POSITION,ACTRC_DATA	excl. from VRSEL Y/N @OHA	11241600
ACTRC_VOL_DATA,=	End of data set record	11250000
ACTRC_VOL_DSNAME,=,44,CH		11257100
ACTRC_VOL_JOBNAME,*,8,CH	start at ACTRC_DATA	11257200
ACTRC_VOL_VOL,*,6,CH	overlay of volume data @NNA	11257300
SKIP,8	data set name	11257400
ACTRC_VOL_ASDATE,*,10,CH	creating job name	11257500
ACTRC_VOL_ASTIME,*,6,CH	vol-serial number	11257600
ACTRC_VOL_LOC,*,8,CH	reserved	11257700
ACTRC_VOL_DEST,*,8,CH	volume ass. date	11257800
ACTRC_VOL_RETMET,*,1,CH	volume ass. time	11257900
ACTRC_VOL_RETMET_VRSEL,'V'	volume location	11258000
ACTRC_VOL_RETMET_EXPDT,'E'	volume destin.	11258100
ACTRC_VOL_RETAINBY,*,1,CH	retention method	11258200
ACTRC_VOL_RETAINBY_VOL,'V'	VRSEL	11258300
ACTRC_VOL_RETAINBY_SET,'S'	EXPDT	11258400
ACTRC_VOL_RETAINBY_FIRST,'F'	RETAINBY	11258500
SKIP,33	VOLUME	11258600
ACTRC_VOL_DSNO,*,5,CH	SET	11258700
ACTRC_VOL_INSET,*,1,CH	FIRSTFILE	11258800
ACTRC_VOL_CHANGE,*,8,CH	reserved	11258900
ACTRC_VOL_CHNG_VRS,=,1,CH	no of data sets on volu@NTA	11259000
ACTRC_VOL_CHNG_RETDATE,*,1,CH	volume in a set: Y/N	11259100
SKIP,1	changes to volume	11259200
ACTRC_VOL_CHNG_STATUS,*,1,CH	vital status: Y/N	11259300
SKIP,1	retent. date: Y/N	11259400
SKIP,1	reserved for rel. opt.	11259500
SKIP,2	released: Y/N	11259600
ACTRC_VOL_ACTIONS_PENDING,*,6,CH	reserved for loc. rel.	11259700
ACTRC_VOL_ACTPEND_RTS,=,1,CH	reserved for act. upd.	11259800
ACTRC_VOL_ACTPEND_REPL,*,1,CH	reserved	11259900
ACTRC_VOL_ACTPEND_RTO,*,1,CH	pending actions	11260000
ACTRC_VOL_ACTPEND_INIT,*,1,CH	return to scratch	11260100
ACTRC_VOL_ACTPEND_ERASE,*,1,CH	replace	11260200
ACTRC_VOL_ACTPEND_NOTIFY,*,1,CH	return to owner	11260300
ACTRC_VOL_ACTIONS_RELEASE,*,6,CH	init	11260400
	erase	11260500
	notify	11260600
	release actions	11260700
		11260800
		11260900
		11261000

ACTRC_VOL_ACTRLSE_RTS,=,1,CH	return to scratch	@NNA 11261100
ACTRC_VOL_ACTRLSE_REPL,*,1,CH	replace	@NNA 11261200
ACTRC_VOL_ACTRLSE_RTO,*,1,CH	return to owner	@NNA 11261300
ACTRC_VOL_ACTRLSE_INIT,*,1,CH	init	@NNA 11261400
ACTRC_VOL_ACTRLSE_ERASE,*,1,CH	erase	@NNA 11261500
ACTRC_VOL_ACTRLSE_NOTIFY,*,1,CH	notify	@NNA 11261600
ACTRC_VOL_ACTIONS_CONST_RTS,'S'	return to scratch	@NNA 11261700
ACTRC_VOL_ACTIONS_CONST_REPL,'R'	replace	@NNA 11261800
ACTRC_VOL_ACTIONS_CONST_RTO,'O'	return to owner	@NNA 11261900
ACTRC_VOL_ACTIONS_CONST_INIT,'I'	init	@NNA 11262000
ACTRC_VOL_ACTIONS_CONST_ERASE,'E'	erase	@NNA 11262100
ACTRC_VOL_ACTIONS_CONST_NOTIFY,'N'	notify	@NNA 11262200
ACTRC_VOL_RETAIN_BY_SET,*,1,CH	Retain by set: Y/N	@NNA 11262300
ACTRC_VOL_OLD_VITAL,*,1,CH	old vit. stat: Y/N	@NNA 11262400
ACTRC_VOL_NEW_VITAL,*,1,CH	new vit. stat: Y/N	@NNA 11262500
ACTRC_VOL_DROP,*,1,CH	non-retent. reason	@NNA 11262600
ACTRC_VOL_DROP_EXPDT_EXPIRED,'X'	volume eXpired	@NNA 11262700
ACTRC_VOL_DROP_EXPDT_IGNORED,'I'	EXPDT Ignored	@NNA 11262800
ACTRC_VOL_NEW_LOC,*,8,CH	new requ'd locat.	@NNA 11262900
ACTRC_VOL_HOME_LOC,*,8,CH	home location	@NNA 11263000
ACTRC_VOL_EXPDT,*,10,CH	volume exp. date	@NNA 11263100
ACTRC_VOL_OLD_RETDATE,*,10,CH	old retent. date	@NNA 11263200
ACTRC_VOL_NEW_RETDATE,*,10,CH	new retent. date	@NNA 11263300
*	date format:DATEFORM()	@NNA 11263400
*	Spec. date forms:	@NNA 11263500
*	- WHILECATLG	@NNA 11263600
*	- CYCL/nnnnn	@NNA 11263700
*	- CATRETPD	@NNA 11263800
SKIP,113	reserved	@NNA 11263900
ACTRC_VOL_NEW_MTYPE,*,1,CH	new matching VRS type	@NTA 11264000
ACTRC_VOL_NEW_MTYPE_VOL,'V'	-Volume VRS	@NTA 11264300
ACTRC_VOL_NEW_MMASK,*,6,CH	new volume VRS mask	@NTA 11264600
SKIP,106	reserved	@NTC 11264900
SKIP,1	reserved for future use	@NNA 11265300
ACTRC_VOL_VSEQ,*,4,CH	volume sequence	@NNA 11266100
ACTRC_VOL_LABNO1,*,5,CH	1st file data set sequ	@NNA 11266900
ACTRC_VOL_HOLD,*,1,CH	volume HOLD Y/N	@00A 11267100
ACTRC_VOL_HOLD_NO,'N'	no	@00A 11267200
ACTRC_VOL_HOLD_YES,'Y'	yes	@00A 11267300
ACTRC_VOL_EDM,*,1,CH	volume EDM Y/N	@M7A 11267320
ACTRC_VOL_EDM_NO,'N'	no	@M7A 11267350
ACTRC_VOL_EDM_YES,'Y'	yes	@M7A 11267370
ACTRC_VOL_RSV2,*,4,CH	reserved @00A	@M7C 11267400
ACTRC_VOL_END,*	end of volume record	@NNA 11267700
POSITION,ACTRC_VOL_END	Position to end of VOL	@NNA 11268500
*		11269300
ACTRC_OUTFIL,=	Start of fields added by	11270100
*	OUTFIL processing	11271300
ACTRC_OUTFIL_VITALANDDROP,=,22,CH		11278400
ACTRC_OUTFIL_VITAL,=,9,=	reformatted VR status	11285500
ACTRC_OUTFIL_DROP,*,13,=	reformatted drop reason	11292600
*****		11300000
* End of ACTRC		* 11350000
*****		11400000

EDGACXSY : Combined activity/extended extract record symbol mapping

EDGACXSY provides the DFSORT symbol mapping for the DFSMSrmm combined activity/extended record.

*****	00050000
*	* 00100000
* RMM Inventory Management combined activity/extended extract record	* 00150000
* DFSORT Symbol mapping	* 00200000
*	* 00250000
*****	00300000
* z/OS DFSMSrmm V2R4	* 00350000
*	* 00400000
* PROPRIETARY V3 STATEMENT	* 00450000
* LICENSED MATERIALS - PROPERTY OF IBM	* 00500000
* "RESTRICTED MATERIALS OF IBM"	* 00550000
* 5650-ZOS	* 00600000
* COPYRIGHT IBM CORP. 1993,2019	* 00650000
* STATUS = HDZ2210	* 00700000
* END PROPRIETARY V3 STATEMENT	* 00750000
*	* 00800000
*****	00850000

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* SEE "z/OS DFSMSrmm Reporting" FOR FIELD DETAILS ON RMM RECORDS * 00900000
* SEE "DFSORT APG" FOR DETAILS OF USING SYMBOLS. * 00950000
***** 01000000
* 01050000
* $MAC(EDGACXSY) COMP(DF186) PROD(RMM) : Combined Activity/Extended * 01100000
* extract record symbol mapping* 01150000
* CHANGE ACTIVITY: * 01200000
* $NN=RMMARC ,1RC,090401,BG : 8.1 Reporting for EXPDTRDOP Symbols * 01250000
* $NT=RMMARC ,1RC,090401,BG : 8.2 Reporting for VRSRETAIN Symbols * 01275000
* $00=RMMAS1 ,1RC,090925,WS : Volume HOLD attribute @00A */ 01287500
* $0I=RMMRM5 ,1RD,100728,BRB: 5.2.5.5 Ret.Method, VRSEL exclude @0IA */ 01293700
* $0X=RMMRE ,2R1,111006,BRB: 75.1.5.3 Report Retention Enh. @0XA */ 01296800
* $00=0A45424,2R1,141002,ZB : Restore ACXSYC_EXPDTRDOP_SR @00A */ 01297800
* $M7=261985, 2R4,180716,KG : Add EDM to report extract data set@M7A */ 01297850
***** 01300000
ACXSYC,* 01350000
***** 01400000
* ACXSY: RMM EXPDTRDOP Report IceTool symbol mapping * 01450000
***** 01500000
ACXSYC_RDW,1,4,BI record descriptor word 01550000
ACXSYC_RDW_LEN,=,2,BI record descriptor - length 01600000
ACXSYC_RDW_SEG,*,2,BI record descriptor - segment 01650000
***** 01700000
* Common record prefix * 01750000
***** 01800000
ACXSYC_PREFIX,*,11,CH common prefix 01850000
* 01900000
ACXSYC_PRE_TYPE,=,11,CH activity file record type 01950000
ACXSYC_PRE_TYPE_RELEASED,'RELEASED' RELEASED details record 02000000
ACXSYC_PRE_TYPE_NOCHANGE,'NOCHANGE' NOCHANGE details record 02050000
ACXSYC_PRE_TYPE_RETAINED,'RETAINED' RETAINED details record 02083300
ACXSYC_PRE_TYPE_NOTRETND,'NOTRETAINED' NOTRETAINED details record 02116600
***** 02150000
ACXSYC_DATA,* start overlay for details 02200000
***** 02700000
* Record layout for Status=RELEASED/NOCHANGE * 02750000
***** 02800000
POSITION,ACXSYC_DATA start at ACXSYC_DATA 02850000
ACXSYC_EXPDTRDOP_VOL,*,6,CH volume serial number 02900000
SKIP,1 reserved for future use 02950000
ACXSYC_EXPDTRDOP_VOLSEQ,*,4,CH volume sequence number 03000000
ACXSYC_EXPDTRDOP_DSNAME,*,44,CH 1st data set name on volume 03050000
ACXSYC_EXPDTRDOP_JOBNAME,*,8,CH creating job name 03100000
* 03125000
ACXSYC_EXPDTRDOP_EXPRSN,*,1,CH reason for not retained: 03150000
ACXSYC_EXPDTRDOP_EXPRSN_IGNORE,'I' expdt Ignore reason 03187500
ACXSYC_EXPDTRDOP_EXPRSN_EXPIRED,'X' expdt expired reason 03225000
* 03262500
ACXSYC_EXPDTRDOP_ASSIGNED,*,10,CH volume assigned date 03300000
ACXSYC_EXPDTRDOP_EXPDT,*,10,CH volume expiration date 03350000
ACXSYC_EXPDTRDOP_RM,*,1,CH volume retentionmethod @0IA 03375000
ACXSYC_EXPDTRDOP_RETAINBY,*,1,CH volume RETAINBY V,S,F @0XC 03412500
ACXSYC_EXPDTRDOP_SR,=,1,CH volume retained by set Y/N 03422500
ACXSYC_EXPDTRDOP_RETDATE,*,10,CH volume retention date 03450000
* 03475000
ACXSYC_EXPDTRDOP_ACTIONS,*,6,CH volume pending actions: 03500000
ACXSYC_EXPDTRDOP_ACTIONS_RTS,'S' return to scratch 03550000
ACXSYC_EXPDTRDOP_ACTIONS_REPL,'R' replace 03600000
ACXSYC_EXPDTRDOP_ACTIONS_RTO,'O' return to owner 03650000
ACXSYC_EXPDTRDOP_ACTIONS_INIT,'I' init 03700000
ACXSYC_EXPDTRDOP_ACTIONS_ERASE,'E' erase 03750000
ACXSYC_EXPDTRDOP_ACTIONS_NOTIFY,'N' notify 03800000
* 03825000
ACXSYC_EXPDTRDOP_LOCATION,*,8,CH volume current location 03850000
ACXSYC_EXPDTRDOP_HOME,*,8,CH volume home location 03900000
ACXSYC_EXPDTRDOP_DEST,*,8,CH volume destination 03950000
* 03975000
ACXSYC_EXPDTRDOP_RLS_ACT,*,6,CH volume release actions: 04000000
ACXSYC_EXPDTRDOP_RLS_ACT_RTS,'S' return to scratch 04050000
ACXSYC_EXPDTRDOP_RLS_ACT_REPL,'R' replace 04100000
ACXSYC_EXPDTRDOP_RLS_ACT_RTO,'O' return to owner 04150000
ACXSYC_EXPDTRDOP_RLS_ACT_INIT,'I' init 04200000
ACXSYC_EXPDTRDOP_RLS_ACT_ERASE,'E' erase 04250000
ACXSYC_EXPDTRDOP_RLS_ACT_NOTIFY,'N' notify 04300000
* 04350000
ACXSYC_EXPDTRDOP_HOLD,*,1,CH volume HOLD Y/N @00A 04400000
ACXSYC_EXPDTRDOP_EDM,*,1,CH volume EDM Y/N @M7A 04430000
SKIP,1 reserved for future use @00C @M7C 04450000
ACXSYC_EXPDTRDOP_END,* End of RELEASE record 04700000
***** 04701400
* Record layout for Status = RETAINED / NOTRETAINED * 04702800
***** 04704200

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POSITION,ACXSYC_DATA	start at ACXSYC_DATA	04705600
ACXSYC_VRSRETAIN_REC_TYPE1,*,1,CH	(Int. use) record type V/D	04707000
ACXSYC_VRSRETAIN_REC_TYPE2,*,1,CH	(Int. use) record type A/X	04708400
*		04709800
ACXSYC_VRSRETAIN_DSGRP,*,64,CH	dataset group @OIC	04711200
ACXSYC_VRSRETAIN_VSKEY,=,11,CH	combined volser/seq	04712600
ACXSYC_VRSRETAIN_VOL,=,6,CH	volume serial number	04714000
ACXSYC_VRSRETAIN_FSEQ,*,5,CH	volume sequence number	04715400
ACXSYC_VRSRETAIN_DSNAME,*,44,CH	1st data set name on volume	04716800
ACXSYC_VRSRETAIN_JOBNAME,*,8,CH	creating job name	04718200
ACXSYC_VRSRETAIN_VRSEL_EXCLUDE,*,1,CH	excluded from VRSEL @OIA	04718900
*		04719600
ACXSYC_VRSRETAIN_DSVRSGRP,*,56,CH	dataset vrs group	04721000
ACXSYC_VRSRETAIN_NEW_VITAL,=,1,CH	matching VRS Retained	04722400
ACXSYC_VRSRETAIN_SUBCHAIN_DROP,*,1,CH	primary drop reason	04723800
ACXSYC_VRSRETAIN_2SUBCHAIN_DROP,*,1,CH	secondary drop reason	04725200
ACXSYC_VRSRETAIN_NEW_MMASK,*,44,CH	primary VRS	04726600
ACXSYC_VRSRETAIN_NEW_MJOB,*,8,CH	job mask	04728000
ACXSYC_VRSRETAIN_NEW_MTYPE,*,1,CH	VRS type	04729400
*		04730800
ACXSYC_VRSRETAIN_VOLGRP,*,20,CH	Volume group	04732200
ACXSYC_VRSRETAIN_VOLVRS,=,6,CH	Vol VRS	04733600
ACXSYC_VRSRETAIN_NEW_REASON,*,8,CH	retain reason	04735000
ACXSYC_VRSRETAIN_DSNNO,*,5,CH	volume/dsn sequence	04736400
ACXSYC_VRSRETAIN_NEW_INSET,*,1,CH	volume belongs to a set Y/N	04737800
*		04739200
ACXSYC_VRSRETAIN_VOLRETGRP,*,2,CH	volume retention group	04740600
ACXSYC_VRSRETAIN_VOL_RET,=,1,CH	volume retained Y/N	04742000
ACXSYC_VRSRETAIN_VOL_ROBS,*,1,CH	vol retained by set only	04743400
*		04744800
ACXSYC_VRSRETAIN_END,*	End of RETAIN record	04746200
*****		04750000
* End of ACXSYC data layout		* 04800000
*****		04850000

EDGEXTSY: Extract data set symbols

EDGEXTSY provides the DFSORT symbol mapping for the DFSMSrmm extract data set that is produced during inventory management as follows:

*****	00050000
*	* 00100000
* RMM Inventory Management Extract File Record	* 00150000
* DFSORT Symbol mapping	* 00200000
*	* 00250000
*****	00300000
* z/OS DFSMSrmm V2R4	* 00350000
*	* 00400000
* PROPRIETARY V3 STATEMENT	* 00450000
* LICENSED MATERIALS - PROPERTY OF IBM	* 00500000
* "RESTRICTED MATERIALS OF IBM"	* 00550000
* 5650-ZOS	* 00600000
* COPYRIGHT IBM CORP. 1993,2019	* 00650000
* STATUS = HDZ2240	* 00700000
* END PROPRIETARY V3 STATEMENT	* 00750000
*	* 00800000
*****	00850000
* SEE "z/OS DFSMSrmm Reporting" FOR FIELD DETAILS ON RMM RECORDS @LSC	* 00900000
* SEE "DFSORT APG" FOR DETAILS OF USING SYMBOLS. *	@LSC * 00950000
*****	01050000
*	* 01062500
* \$MAC(EDGEXTSY) COMP(DF186) PROD(RMM) : DFSORT sym for extract file	* 01075000
*	* 01087500
* CHANGE ACTIVITY:	* 01100000
* \$LG=RMM210 ,210,990901,CHK: DFSORT Symbols	@LGA * 01133300
* \$K1=K160481,210,991007,MWW: New Extract Header Record	@K1A * 01166600
* \$01=K161019,210,000118,CHK: Creating Program name symbols	@01A * 01183300
* \$02=OW44589,210,000522,BG : Correct DFSMSrmm reference comment	@02A * 01189500
* \$03=OW45430,210,000726,GB : RVSTACKED_VOLCOUNT printable format	@03A * 01195800
* \$LL=RMM213 ,213,010216,BDG: >9999 tape files	@LLA * 01197900
* \$04=OW47651,210,010418,CHK: Add extended report structure	@04A * 01198900
* \$05=OW48921,150,010608,ZB : First file creation system id field	@05A * 01199400
* \$SC=OW49863,210,010502,AP : Minimal Bin Assignment	@SCA * 01199700
* \$K2=KBA0028,1R3,010828,AP : XREPORT displays wrong values	@K2A * 01200400
* \$LS=RMMV1R3,1R3,011113,CHK: Duplicate Volser	@LSA * 01201100
* \$06=OW52327,210,011203,CHK: Add RHEXTENDED BIN in RHEXT	@06A * 01202400
* \$SE=RMMV1R3,1R3,020307,BDG: 3590 MODEL H SUPPORT	@SEA * 01202700
* \$08=OA02095,1R3,020911,BDG: Support data set expiry dates	@08A * 01203000

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* $07=0A02094,210,030115,WS : Report generator enhancements @07A * 01203300
* $SF=0A02206,1R3,030516,BDG: 3592 Model J support @SFA * 01203500
* $SG=0A07100,1R5,040130,WS : D/T3592 support new media types @SGA * 01203600
* $MD=RMMV1R8,1R8,050718,AH : Universal Time, Coordinated @MDA * 01203800
* $ME=RMMV1R8,1R8,050510,BRB: V1R8 Enterprise Level Interface @MEA * 01204100
* $MC=RMMV1R8,1R8,050502,GW : VRS Policy Management Simplification @MCA * 01204300
* $K3=KFI0394,1R8,051206,MB : GT 9999 read / write error value @K3A * 01204400
* $SH=0A13102,1R6,050531,WS : 3592 GEN 2 Support @SHA * 01204500
* $SJ=0A17574,1R8,060728,WS : Tape Encryption Support @SJA * 01204700
* $09=0A13370,1R6,050122,WS : Media Information Support @09A * 01204800
* $10=0A20224,1R8,070306,SD : Duplicated line RVRBYSET @10A * 01204900
* $MS=V1R10, 1RA,070328,WS : Report extract tailoring @MSA * 01206200
* $MX=V1R10, 1RA,070412,SST: V1R10 Disposition DELETE @MXA * 01206500
* $K4=K1A0516,1RA,070503,WS : Spelling error correction @K4A * 01206800
* $11=0A23266,1R7,071214,WS : IRMM support @11A * 01207100
* $12=0A24896,1R8,080604,LM : GT 9999 volume use count value @12A * 01207300
* $SK=0A22132,1R7,070831,WS : 3592-G3 Support @SKA * 01207400
* $NN=RMMACR ,1RC,090402,BG : 8.1 Reporting for XPDTDROP @NNA * 01207800
* $SL=0A24025,1R8,080208,KHO: CA BTE API support @SLA * 01208000
* $13=0A28930,1R8,090513,ZH : Enlarge block count fields @13A * 01208100
* $K5=K1C0555,1RC,090922,KD : Correct blocksize comments @K5A * 01208300
* $14=0A30472,1R9,090921,LM : Add catalog status 'UNKNOWN' to DS @14A * 01208400
* $00=RMMAS1 ,1RC,090925,WS : Volume HOLD attribute @00A * 01208500
* $08=RMMESB ,1RD,100505,AP: 5.2.2.2 Expiry date set by @08A * 01208800
* $0B=RMMLCD ,1RD,100510,BRB: 30 Last change details @0BA * 01209100
* $15=0A33070,1R9,100521,GB : 6-byte RVCONTNR_STV @15A * 01209200
* $0F=RMMVEX ,1RD,100616,BRB: 5.2.4 CD VRSELEXCLUDE @0FA * 01209300
* $0G=RMMRM3 ,1RD,100726,WS : 5.2.5.3 RETENTIONMETHOD @0GA * 01209400
* $0Q=RMMLRD ,2R1,110731,WS : 75.1.1 LASTREF extra days @0QA * 01209500
* $0S=RMMMAO ,2R1,110731,WS : 75.1.2 EXPDT_RETAINBY @0SA * 01209600
* $S0=0A33958,1RC,101109,ZB : 3592-G4 Support @SOA * 01209700
* $0V=RMMEME ,2R1,110831,WS : 75.2.1 Management class expiration @OVA * 01209800
* $K6=K211127,2R1,120229,BRB: allow blanks in RXVEXRB @K6A * 01209900
* $M2=FP0882 ,2R2,141106,VT : New RM(EX) values support(SM03105) @M2A * 01209910
* $M5=FP1391 ,2R3,150610,VT : New Managmnt Class attr support @M5A * 01209920
* $M3=151046 ,2R3,161223,AVK: deftable setby constants @M3A *
* $M7=214978 ,2R4,180313,VD : RGE: Ensure type numeric for fields @M7A * 01209940
* $K7=258448 ,2R4,180705,VD : RGE: Ensure type numeric for fields @K7A * 01209950
* : fixing FVT finding @K7A * 01209960
* $M7=261985, 2R4,180716,KG : Add EDM to report extract data set @M7A * 01209980

***** 01210000
EXTRACT_RDW,1,4,BI record descriptor word 01210100
RDRDW,=,4,BI 01210200
RHRDW,=,4,BI @K1A 01212700
RKRDW,=,4,BI 01215300
RORDW,=,4,BI 01220400
RPRDW,=,4,BI 01225500
RRRDW,=,4,BI 01230600
RSRDW,=,4,BI 01235700
RVRDW,=,4,BI 01240800
RXRDW,=,4,BI @04A 01243300
EXTRACT_RDW_LEN,=,2,BI record descriptor - length 01245900
RDRDW_LEN,=,2,BI 01251000
RHRDW_LEN,=,2,BI @K1A 01253500
RKRDW_LEN,=,2,BI 01256100
RORDW_LEN,=,2,BI 01261200
RPRDW_LEN,=,2,BI 01266300
RRRDW_LEN,=,2,BI 01271400
RSRDW_LEN,=,2,BI 01276500
RVRDW_LEN,=,2,BI 01281600
RXRDW_LEN,=,2,BI @04A 01284100
EXTRACT_RDW_SEG,*,2,BI record descriptor - segment 01286700
RDRDW_SEG,=,2,BI 01291800
RHRDW_SEG,=,2,BI @K1A 01294300
RKRDW_SEG,=,2,BI 01296900
RORDW_SEG,=,2,BI 01302000
RPRDW_SEG,=,2,BI 01307100
RRRDW_SEG,=,2,BI 01312200
RSRDW_SEG,=,2,BI 01317300
RVRDW_SEG,=,2,BI 01322400
RXRDW_SEG,=,2,BI @04A 01324900
***** 01327500
* RMM Extract File records * 01332600
***** 01337700
EXTRACT,*,1286 @04C 01343800
***** 01350000
* Common record prefix * 01400000
***** 01450000
EXTRACT_PREFIX,=,4 01500000
EXTRACT_TYPID,=,1,CH 01500000
RDTYPE,=,1,CH 01556200

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RHTYPE,=,1,CH                                @K1A 01559300
RKTYPE,=,1,CH                                01562400
ROTYPE,=,1,CH                                01568600
RPTYPE,=,1,CH                                01574800
RRTYPE,=,1,CH                                01581000
RSTYPE,=,1,CH                                01587200
RVTYPE,=,1,CH                                01593400
RXTYPE,=,1,CH                                @04A 01596700
  RDTYPEID,'D'      TYPE 'D' - DATA SET RECORD          01600000
  RHTYPEID,'H'      TYPE 'H' - HEADER RECORD             @K1A 01625000
  RKTYPEID,'K'      TYPE 'K' - VRS RECORD                01650000
  ROTYPEID,'O'      TYPE 'O' - OWNER RECORD              01700000
  RPTYPEID,'P'      TYPE 'P' - PRODUCT RECORD            01750000
  RRTYPEID,'R'      TYPE 'R' - RACK RECORD                01800000
  RSTYPEID,'S'      TYPE 'S' - BIN RECORD                01850000
  RVTYPEID,'V'      TYPE 'V' - VOLUME RECORD             01900000
  RXTYPEID,'X'      TYPE 'X' - EXTENDED EXTRACT RECORD    @04A 01925000
***** 01950000
* Start overlay area * 02000000
***** 02050000
EXTRACT_DATA,* 02100000
***** 02150000
* RDEXT: This file maps the information produced for data set * 02200000
* records in the RMM report extract file. * 02250000
* In this record the date format depends on the DATEFORM * 02300000
* selected by EDGHSKP execution parameter or the parmlib * 02350000
* specified value. * 02400000
***** 02450000
POSITION,EXTRACT_DATA start at EXTRACT_DATA 02500000
  SKIP,3 RESERVED 02550000
  RDDSNNAME,*,44,CH DATA SET NAME 02600000
***** 02650000
* Start of common fields: * 02700000
* The common fields are in the same place in each record type * 02750000
* in the report extract file. This allows common processing of * 02800000
* these field across multiple record types. * 02850000
***** 02900000
  RDCRDATE,*,10,CH CREATE DATE of data set record 02950000
  RDCRTIME,*,6,CH CREATE TIME (HHMMSS) of data set 03000000
  RDCRSID,*,8,CH CREATE SYSTEM ID of data set record 03050000
  RDLCDATE,*,10,CH LAST CHANGE DATE of data set record 03100000
  RDLCTIME,*,6,CH LAST CHANGE TIME (HHMMSS) of data set record 03150000
  RDLGUID,*,8,CH LAST CHANGE USER ID of data set record 03200000
  RDLCSID,*,8,CH LAST CHANGE SYSTEM ID of data set record 03250000
***** 03300000
* End of common fields * 03350000
***** 03400000
  RDVOLSER,*,6,CH VOLUME SERIAL NUMBER 03450000
  SKIP,4 RESERVED WAS DATA SET SEQUENCE NUMBER @LLC 03500000
  RDUNITAD,*,4,CH CREATING DRIVE ADDRESS 03550000
  RDRECFM,*,4,CH RECORD FORMAT 03600000
  RDVOLSEQ,*,4,ZD VOLUME SEQUENCE NUMBER @M7C 03650000
  RDLRECL,*,6,CH LOGICAL RECORD LENGTH 03700000
  RDBLKSZ,*,6,CH PHYSICAL BLOCK SIZE 03750000
  RDBLKCNT_OLD,*,8,CH BLOCK COUNT IF <=99999999 @13C 03800000
  RDOWNSDN,*,8,CH DATA SET OWNER 03850000
  RDSECLEV,*,8,CH SECURITY LEVEL - SHORT 03900000
  RDSECLNG,*,30,CH SECURITY LEVEL - LONG 03950000
  RDCOMP,*,1,CH COMPACTION USED 04000000
  RDYES,'Y' YES 04050000
  RDNO,'N' NO 04100000
  RDLRDDAT,*,10,CH DATE DATA SET LAST READ 04150000
  RDLWTDAT,*,10,CH DATE DATA SET LAST WRITTEN 04200000
  RDMCNAME,*,8,CH SMS MANAGEMENT CLASS 04250000
  RDVRSVAL,*,8,CH VRS MANAGEMENT VALUE 04300000
  RDSGNAME,*,8,CH SMS STORAGE GROUP NAME 04350000
  RDSCNAME,*,8,CH SMS STORAGE CLASS NAME 04400000
  RDDCNAME,*,8,CH SMS DATA CLASS NAME 04450000
  RDCRTJBN,*,8,CH CREATING JOB NAME 04500000
  RDVRSTYP,*,1,CH MATCHING VRS TYPE FLAG 04550000
  RDVD,'D' DATASET 04600000
  RDVS,'S' SMSMC 04650000
  RDVV,'V' VRSMV 04700000
  RDVM,'M' DATASET AND VRSMV 04750000
  RDVC,'C' DATASET AND SMSMC 04800000
  RDVRSNAM,*,44,CH MATCHING VRS NAME 04850000
  RDVRSJBN,*,8,CH MATCHING VRS JOB NAME MASK 04900000
  RDRETDAT,*,10,CH RETENTION DATE 04950000
  RDSTEPNM,*,8,CH CREATING STEP NAME 05000000
  RDDDNAME,*,8,CH CREATING DD NAME 05050000
***** 05100000
* RDMDMVID: Is a unique token assigned to every volume and every * 05150000

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*          data set in a multi-volume set.          * 05200000
*****
RDMDMVID,*,8,CH      MULTI-DSET MULTI-VOL ID      * 05250000
*****
* Data set size: This is calculated by multiplying the blocksizes * 05300000
*          by the number of blocks divided by 1024.      @K5C 05350000
*****
RDDSSIZE,*,10,FS      APPROX. SIZE OF FILE KBYTES      @SKC 05400000
RDABEND,*,1,CH      DSET CLOSED BY ABEND      * 05450000
* RDYES, 'Y'          YES      * 05500000
* RDNO, 'N'          NO      * 05550000
*****
* RDCAT:Set to 'Y' either when opened after allocation determines*@14C 05600000
*          VOLSER by reference to the catalog or when data set is *@14C 05731800
*          cataloged after the data set is recorded in DFSMSrmm. *@14C 05763600
*          * 05795400
*          Set to 'N' when it was cataloged and now is not. *@14A 05827200
*          Set to 'U'/Unknown when it was never cataloged or *@14A 05859000
*          uncataloged. *@14A 05890800
*****
RDCAT,*,1,CH      CATALOGED Y/N/U      @14C 05922600
* RDYES, 'Y'          YES      * 05954400
* RDNO, 'N'          NO      * 05986200
* RDUNKNOWN, 'U'      UNKNOWN      @14A 06018000
RDVRSR,*,1,CH      RETAINED BY VRS      * 06050000
* RDYES, 'Y'          YES      * 06100000
* RDNO, 'N'          NO      * 06125000
RDDELETED,*,1,CH      Deleted by Disposition      @MXA 06150000
* RDYES, 'Y'          Yes      @MXA 06200000
* RDNO, 'N'          No      @MXA 06250000
SKIP,2      Reserved      @MXC 06275000
SKIP,4      RESERVED WAS LABEL NUMBER LABEL=(XX,NN) @LLC 06300000
*****
* Primary VRS subchain name: * 06325000
*          This is the retaining VRS in the matching * 06350000
*          primary VRS chain. It is set only if retained * 06400000
*          by a NAME VRS subchain in the primary VRS. * 06450000
*****
RDVRSCH,*,8,CH      Primary VRS subchain NAME      * 06500000
RDVRSXDS,*,10,CH      Primary VRS subchain start date * 06550000
*****
* Retaining Secondary VRS name: * 06600000
*          Matching vrs name and job name are included * 06650000
*          where a secondary VRS also matches. * 06700000
*          The retaining VRS subchain NAME in this * 06750000
*          matching VRS is set if it is used to retain * 06800000
*          the data set. * 06850000
*****
RD2VNME,*,8,CH      Secondary VRS name mask      * 06900000
RD2VJBN,*,8,CH      Secondary VRS jobname mask      * 06950000
RD2VSCH,*,8,CH      Secondary VRS subchain NAME      * 07000000
RD2VXDS,*,10,CH      Secondary VRS subchain startdate * 07050000
RDTOTAL_BLKCNT_OLD,*,10,CH Total blkcnt across all ds volumes @13C 07100000
RDPERCENT,*,3,ZD      Percentage of volume used by data set @M7C 07150000
RDCPGM,*,8,CH      Creating program name      @01A 07200000
RDLPGM,*,8,CH      Last used program name      @01A 07250000
RDLJOB,*,8,CH      Last used job name      @01A 07300000
RDLSTEP,*,8,CH      Last used step name      @01A 07350000
RDLDDNM,*,8,CH      Last used DD name      @01A 07383000
RDLDEVN,*,4,CH      Last used device name      @01A 07394000
RDDSNSEQ,*,5,ZD      Data set sequence number New      @M7C 07396000
RDLABNO,*,5,ZD      Label number Label=(xx,11) New      @K7C 07398000
RDEXPDT,*,10,CH      Data set expiration date      @08A 07398500
RDEXPDTO,*,10,CH      Original d/s expiration date      @08A 07399000
RDDEFRET,*,1,CH      Default RETPD used      @08A 07399500
RDFACTOR,*,2,CH      Space/size factor      @SKA 07406700
RDFACTOR_MB, 'MB'      @SKA 07413900
RDFACTOR_GB, 'GB'      @SKA 07421100
RDFACTOR_TB, 'TB'      @SKA 07428300
RDSIZE,*,10,ZD      Data set size, factored, MB, GB or TB @SKA 07435500
RDBESKEY,*,10,ZD      BES key index      @M7C 07439100
RDBLCNT,*,20,ZD      Block count      @13A 07440300
RDTOTAL_BLKCNT,*,20,ZD Total block count across all volumes @13A 07441500
RDESB,*,10,CH      Expdt set by      @08A 07441900
RDESB_UNKNOWN, ' '      @08A 07442300
RDESB_CMD, 'CMD'      @08A 07442700
RDESB_CMD_DEF, 'CMD_DEF' @08A 07443100
RDESB_CMD_VOLCAT, 'CMD_VOLCAT' @08A 07443500
RDESB_OCE_JFCB, 'OCE_JFCB' @08A 07443900
RDESB_OCE_EXIT, 'OCE_EXIT' @08A 07444300
RDESB_OCE_DEF, 'OCE_DEF' @08A 07444700
RDESB_OCE_MAX, 'OCE_MAX' @08A 07445100

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RDESB_OCE_VOLCAT,'OCE_VOLCAT' @08A 07445500
RDESB_LCS,'LCS' @08A 07445900
RDESB_LCS_DEF,'LCS_DEF' @08A 07446300
RDESB_TVEXTPURGE,'TVEXTPURGE' @08A 07446700
RDESB_CNVLT,'CNVT' @08A 07447100
RDESB_EXPORT,'EXPORT' @08A 07447500
RDESB_LASTREF,'LASTREF' @0QA 07447700
RDESB_OCE_MC,'OCE_MC' @OVA 07447800
RDESB_CATRETPD,'CATRETPD' @M2A 07447810
RDESB_CATLG_DAYS,'CATLG_DAYS' @M2A 07447820
RDESB_DEFTABLE,'DEFTABLE' @M3A

RDUCDATE,*,10,CH Last "user" change date @0BA 07447900
RDUCTIME,*,6,CH Last "user" change time @0BA 07448300
RDVEX,*,1,CH VRSEL Exclude Y/N @0FA 07448500
RDCOMP_RAT,*,6,CH Compression ratio for dataset @SOA 07448700
RDPHYS_SIZE,*,10,CH Physical size of dataset (factored) @SOA 07448900
RDLRED,*,5,ZD LASTREF extra days @K7C 07449300
***** 07449500
* END OF REPORT EXTRACT DATA SET NAME RECORD * 07450000
***** 07500000
RDRCEMEND,* END OF RDEXT 07550000
* 07551300
***** 07552600
* RHEXT: This macro maps the information in the extract file * 07553900
* header records. * 07555200
* In this record the date format depends on the DATEFORM * 07556500
* selected by EDGHSKP execution parameter or the parmllib * 07557800
* specified value. * 07559100
***** 07560400
POSITION,EXTRACT_DATA start at EXTRACT_DATA @K1A 07561700
SKIP,47 RESERVED @K1A 07563000
***** 07564300
* Start of common fields: * 07565600
* The common fields are in the same place in each record type * 07566900
* in the report extract file. This allows common processing of * 07568200
* these field across multiple record types. * 07569500
***** 07570800
RHCRCRDATE,*,10,CH CREATE DATE of header record @K1A 07572100
RHCRCRTIME,*,6,CH CREATE TIME HHMMSS of header record @K1A 07573400
RHCRCRSID,*,8,CH CREATE SYSTEM ID of header record @K1A 07574700
SKIP,10 RESERVED @K1A 07576000
SKIP,6 RESERVED @K1A 07577300
SKIP,8 RESERVED @K1A 07578600
SKIP,8 RESERVED @K1A 07579900
***** 07581200
* End of common fields * 07582500
***** 07583800
RHDATEFORM,*,1,CH Format of all dates in the extract file @K1A 07585100
RHDATEFORM_NOTSET,' ' @K1A 07586400
RHDATEFORM_EUROPEAN,'E' @K1A 07587700
RHDATEFORM_AMERICAN,'A' @K1A 07589000
RHDATEFORM_ISO,'I' @K1A 07590300
RHDATEFORM_JULIAN,'J' @K1A 07591600
RHEXTENDED BIN,*,1,CH Extendedbin Enabled @06A 07592400
RHTZ,*,9,CH Time zone Offset @MSC 07592800
RHTZ_NAME,*,4,CH Time zone Name or blank @MSA 07593200
SKIP,86 RESERVED @MSC 07593600
***** 07594200
* END OF REPORT EXTRACT HEADER RECORD * 07595500
***** 07596800
RHCRCMEND,* END OF RHEXT @K1A 07598100
* 07600000
***** 07650000
* RKEXT: This file maps the information produced for VRS * 07700000
* records in the RMM report extract file. * 07750000
* In this record the date format depends on the DATEFORM * 07800000
* selected by EDGHSKP execution parameter or the parmllib * 07850000
* specified value. * 07900000
***** 07950000
POSITION,EXTRACT_DATA start at EXTRACT_DATA 08000000
RKTYPE2,*,1,CH VRS TYPE 08050000
RKTYPVOL,'V' VOLUME VRS 08100000
RKTYPDSN,'D' DATA SET VRS 08150000
RKTYPNAM,'N' NAME VRS 08200000
SKIP,1 RESERVED 08250000
RKDSNAME,*,44,CH DATA SET NAME MASK 08300000
RKNAME,*,8,CH VRS NAME 08350000
RKVOLSER,*,6,CH VOLUME SERIAL MASK 08400000
SKIP,38 RESERVED 08450000
RKGENKEY,*,1,CH DATA SET/VOLUME MASK 08500000
RKYES,'Y' YES 08550000

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RKNO, 'N' NO 08600000
***** 08650000
* Start of common fields: * 08700000
* The common fields are in the same place in each record type * 08750000
* in the report extract file. This allows common processing of * 08800000
* these field across multiple record types. * 08850000
***** 08900000
RKCRDATE,*,10,CH CREATE DATE of VRS record 08950000
RKCRTIME,*,6,CH CREATE TIME (HHMMSS) of VRS record 09000000
RKCRSID,*,8,CH CREATE SYSTEM ID of VRS record 09050000
RKLCDATE,*,10,CH LAST CHANGE DATE of VRS record 09100000
RKLCTIME,*,6,CH LAST CHANGE TIME (HHMMSS) of VRS record 09150000
RKLCLUID,*,8,CH LAST CHANGE USER ID of VRS record 09200000
RKLCSID,*,8,CH LAST CHANGE SYSTEM ID of VRS record 09250000
***** 09300000
* End of common fields * 09350000
***** 09400000
RKCR TJBN,*,8,CH JOBNAME MASK 09450000
RKRETN C,*,1,CH RETAIN BASED ON NUMBER OF CYCLES 09500000
* RKYES, 'Y' YES 09550000
* RKNO, 'N' NO 09600000
RKRETN D,*,1,CH RETAIN BASED ON NUMBER OF ELAPSED DAYS 09650000
* RKYES, 'Y' YES 09700000
* RKNO, 'N' NO 09750000
RKRETN R,*,1,CH RETAIN BASED ON NUMBER OF DAYS UNREFERENCED 09800000
* RKYES, 'Y' YES 09850000
* RKNO, 'N' NO 09900000
RKRETN W,*,1,CH RETAIN ONLY WHILE DATA SET IS CATALOGED 09950000
* RKYES, 'Y' YES 10000000
* RKNO, 'N' NO 10050000
RKRETN X,*,1,CH RETAIN UNTIL EXPIRED 10100000
* RKYES, 'Y' YES 10150000
* RKNO, 'N' NO 10200000
RKRETN XD,*,1,CH RETAIN BASED ON EXTRA DAYS SINCE VRS MATCHED 10250000
* RKYES, 'Y' YES 10300000
* RKNO, 'N' NO 10350000
RKRETN CD,*,1,CH RETAIN BASED ON BYDAYSCYCLE (ALL COPIES ON 10400000
* 1 DAY ARE TREATED AS A CYCLE) 10450000
* RKYES, 'Y' YES 10500000
* RKNO, 'N' NO 10550000
RKRETN AD,*,1,CH RETENTION MUST BE ANDED WITH THE NEXT VRS IN 10600000
* THE CHAIN 10650000
* RKYES, 'Y' YES 10700000
* RKNO, 'N' NO 10750000
SKIP,5 RESERVED 10800000
RKDSNG,*,1,CH DATA SET NAME MASK IS FOR A GDG 10850000
* RKG, 'Y' GDG 10900000
* RKP, 'P' PSEUDO-GDG 10950000
* RKN, 'N' NOGDG 11000000
RKLOCTYP,*,1,CH LOCATION TYPE 11050000
* RKAUT, 'A' AUTO 11100000
* RKMAN, 'M' MANUAL 11150000
* RKSTR, 'S' STORE 11200000
* RKBK, ' ' BLANK 11250000
RKLOC,*,8,CH NAME OF LOCATION TO BE STORED 11300000
RKNEXT,*,8,CH NAME OF NEXT VRS IN THE CHAIN 11350000
RKCOUNT,*,5,ZD VITAL RECORD COUNT (NUMBER OF CYCLES OR @M7C 11400000
* ELAPSED DAYS OR VOLUMES TO BE KEPT IN TOTAL) 11450000
RKSTNUM,*,5,ZD STORE KEEP NUMBER (NUMBER OF CYCLES OR DAYS OR 11500000
* VOLUMES TO BE KEPT IN STORE) @M7C 11550000
RKDELAY,*,5,ZD NUMBER OF ELAPSED DAYS DELAY BEFORE BEING @M7C 11600000
* SELECTED FOR THE FIRST LOCATION 11650000
RKOWNER,*,8,CH VITAL RECORD OWNER 11700000
RKDELDT,*,10,CH DATE THE VRS IS TO BE DELETED BY RMM 11750000
RKDESC,*,30,CH DESCRIPTION 11800000
RKRELOPT,*,8,CH VRS RELEASE OPTIONS 11850000
RKRELIXD,*,1,CH IGNORE EXPDT 11900000
* RKYES, 'Y' YES 11950000
* RKNO, 'N' NO 12000000
RKRELSI,*,1,CH SCRATCH IMMEDIATE 12050000
* RKYES, 'Y' YES 12100000
* RKNO, 'N' NO 12150000
SKIP,6 RESERVED 12200000
RKL RDATE,*,10,CH Last Reference Date @MCA 12216600
RKL RTIME,*,6,CH Last Reference Time @MCA 12233200
RKUCDATE,*,10,CH Last "user" change date @OBA 12238800
RKUCTIME,*,6,CH Last "user" change time @OBA 12244400
***** 12250000
* END OF REPORT EXTRACT VRS RECORD * 12300000
***** 12350000
RKRCEND,* END OF RKEXT 12400000
* 12450000

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***** 12500000
* ROEXT: This file maps the information produced for owner * 12550000
* records in the RMM report extract file. * 12600000
* In this record the date format depends on the DATEFORM * 12650000
* selected by EDGHSKP execution parameter or the parm lib * 12700000
* specified value. * 12750000
***** 12800000
POSITION,EXTRACT_DATA start at EXTRACT_DATA 12850000
SKIP,3 RESERVED 12900000
ROOWNER,*,8,CH OWNER ID 12950000
SKIP,36 RESERVED 13000000
***** 13050000
* Start of common fields: * 13100000
* The common fields are in the same place in each record type * 13150000
* in the report extract file. This allows common processing of * 13200000
* these field across multiple record types. * 13250000
***** 13300000
ROCRDATE,*,10,CH CREATE DATE of owner record 13350000
ROCRTIME,*,6,CH CREATE TIME (HHMMSS) of owner record 13400000
ROCRSID,*,8,CH CREATE SYSTEM ID of owner record 13450000
ROLCDATE,*,10,CH LAST CHANGE DATE of owner record 13500000
ROLCTIME,*,6,CH LAST CHANGE TIME (HHMMSS) of owner record 13550000
ROLCUID,*,8,CH LAST CHANGE USER ID of owner record 13600000
ROLCSID,*,8,CH LAST CHANGE SYSTEM ID of owner record 13650000
***** 13700000
* End of common fields * 13750000
***** 13800000
ROOWNSUR,*,20,CH OWNER LAST NAME 13850000
ROOWNFST,*,20,CH OWNER FIRST NAME 13900000
ROOWNDEP,*,40,CH OWNER DEPARTMENT 13950000
ROOWNAD1,*,40,CH OWNER ADDRESS LINE 1 14000000
ROOWNAD2,*,40,CH OWNER ADDRESS LINE 2 14050000
ROOWNAD3,*,40,CH OWNER ADDRESS LINE 3 14100000
ROOWNTIN,*,8,CH OWNER INTERNAL TELEPHONE NUMBER 14150000
ROOWNTEX,*,20,CH OWNER EXTERNAL TELEPHONE NUMBER 14200000
ROOWNUID,*,8,CH OWNER ELECTRONIC USERID 14250000
ROOWNMOD,*,8,CH OWNER ELECTRONIC NODE NAME 14300000
ROOWNVOL,*,6,ZD TOTAL NUMBER OF OWNED VOLUMES @M7C 14350000
ROOWNEML,*,63,CH OWNER EMAIL ADDRESS @MEA 14375000
ROUCDATE,*,10,CH Last "user" change date @OBA 14383300
ROUCTIME,*,6,CH Last "user" change time @OBA 14391600
***** 14400000
* END OF REPORT EXTRACT OWNER RECORD * 14450000
***** 14500000
RORCEND,* END OF ROEXT * 14550000
* 14600000
***** 14650000
* RPEXT: This file maps the information produced for product * 14700000
* records in the RMM report extract file. * 14750000
* In this record the date format depends on the DATEFORM * 14800000
* selected by EDGHSKP execution parameter or the parm lib * 14850000
* specified value. * 14900000
***** 14950000
POSITION,EXTRACT_DATA start at EXTRACT_DATA 15000000
SKIP,3 RESERVED 15050000
RPPPNUM,*,8,CH PRODUCT NUMBER (NNNN-CCC) 15100000
RPVER,*,6,CH VERSION/RELEASE/MOD NUMBER 15150000
* (vvrrmm) where vv - version, rr - release, 15200000
* mm - modification level 15250000
SKIP,30 RESERVED 15300000
***** 15350000
* Start of common fields: * 15400000
* The common fields are in the same place in each record type * 15450000
* in the report extract file. This allows common processing of * 15500000
* these field across multiple record types. * 15550000
***** 15600000
RPCRDATE,*,10,CH CREATE DATE of product record 15650000
RPCRTIME,*,6,CH CREATE TIME (HHMMSS) of product record 15700000
RPCRSID,*,8,CH CREATE SYSTEM ID of product record 15750000
RPLCDATE,*,10,CH LAST CHANGE DATE of product record 15800000
RPLCTIME,*,6,CH LAST CHANGE TIME (HHMMSS) of product record 15850000
RPLCUID,*,8,CH LAST CHANGE USER ID of product record 15900000
RPLCSID,*,8,CH LAST CHANGE SYSTEM ID of product record 15950000
***** 16000000
* End of common fields * 16050000
***** 16100000
RPPPOWN,*,8,CH PRODUCT OWNER ID 16150000
RPPPPNAME,*,30,CH PRODUCT NAME 16200000
RPPPPDESC,*,30,CH PRODUCT DESCRIPTION 16250000
RPVOLNO,*,4,CH NUMBER OF PRODUCT VOLUMES 16300000
RPUCDATE,*,10,CH Last "user" change date @OBA 16316600
RPUCTIME,*,6,CH Last "user" change time @OBA 16333200

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***** 16350000
* END OF REPORT EXTRACT PRODUCT RECORD * 16400000
***** 16450000
RPRCEND,*          END OF RPEXT          16500000
* 16550000
***** 16600000
* RREXT: This file maps the information produced for rack number * 16650000
* records in the RMM report extract file. * 16700000
* In this record the date format depends on the DATEFORM * 16750000
* selected by EDGHSKP execution parameter or the parmli b * 16800000
* specified value. * 16850000
***** 16900000
POSITION,EXTRACT_DATA start at EXTRACT_DATA 16950000
  RRTYPE2,*1,CH RACK RECORD ID 17000000
  RRTYPEE,'E' EMPTY RACK 17050000
  RRTYPEF,'F' FREE/SCRATCH RACK 17100000
  RRTYPEU,'U' IN USE RACK 17150000
  SKIP,2 RESERVED 17200000
  RRRACK,*6,CH RACK NUMBER 17250000
  RRNAME,*8,CH MEDIA NAME 17300000
  RRUNIT,=,8,CH Old name for RRNAME field 17350000
  SKIP,30 RESERVED 17400000
***** 17450000
* Start of common fields: * 17500000
* The common fields are in the same place in each record type * 17550000
* in the report extract file. This allows common processing of * 17600000
* these field across multiple record types. * 17650000
***** 17700000
  RRCRDATE,*10,CH CREATE DATE of rack record 17750000
  RRCRTIME,*6,CH CREATE TIME (HHMMSS) of rack record 17800000
  RRCRSID,*8,CH CREATE SYSTEM ID of rack record 17850000
  RRLCDATE,*10,CH LAST CHANGE DATE of rack record 17900000
  RRLCTIME,*6,CH LAST CHANGE TIME (HHMMSS) of rack record 17950000
  RRLCUID,*8,CH LAST CHANGE USER ID of rack record 18000000
  RRLCSID,*8,CH LAST CHANGE SYSTEM ID of rack record 18050000
***** 18100000
* End of common fields * 18150000
***** 18200000
  RRVOLSER,*6,CH ASSIGNED VOLUME SERIAL NUMBER 18250000
  RRUCDATE,*10,CH Last "user" change date @OBA 18266600
  RRUCTIME,*6,CH Last "user" change time @OBA 18283200
***** 18300000
* END OF REPORT EXTRACT RACK NUMBER RECORD * 18350000
***** 18400000
RRCRCEND,*          END OF RREXT          18450000
* 18500000
***** 18550000
* RSEXT: This file maps the information produced for bin number * 18600000
* records in the RMM report extract file. * 18650000
* In this record the date format depends on the DATEFORM * 18700000
* selected by EDGHSKP execution parameter or the parmli b * 18750000
* specified value. * 18800000
***** 18850000
POSITION,EXTRACT_DATA start at EXTRACT_DATA 18900000
  RSTYPE2,*1,CH BIN RECORD ID 18950000
  RSTYPER,'E' EMPTY BIN 19000000
  RSTYPES,'U' ASSIGNED BIN 19050000
  RSRMSTID,*8,CH STORAGE LOCATION NAME 19100000
  SKIP,1 RESERVED 19150000
  RSBINNO,*6,CH BIN NUMBER 19200000
  RSBMEDN,*8,CH BIN MEDIA NAME 19250000
  SKIP,23 RESERVED 19300000
***** 19350000
* Start of common fields: * 19400000
* The common fields are in the same place in each record type * 19450000
* in the report extract file. This allows common processing of * 19500000
* these field across multiple record types. * 19550000
***** 19600000
  RSCRDATE,*10,CH CREATE DATE of bin record 19650000
  RSCRTIME,*6,CH CREATE TIME (HHMMSS) of bin record 19700000
  RSCRSID,*8,CH CREATE SYSTEM ID of bin record 19750000
  RSLCDATE,*10,CH LAST CHANGE DATE of bin record 19800000
  RSLCTIME,*6,CH LAST CHANGE TIME (HHMMSS) of bin record 19850000
  RSLCUID,*8,CH LAST CHANGE USER ID of bin record 19900000
  RSLCSID,*8,CH LAST CHANGE SYSTEM ID of bin record 19950000
***** 20000000
* End of common fields * 20050000
***** 20100000
  RSVOLSER,*6,CH ASSIGNED VOLUME SERIAL NUMBER 20150000
  RSMOVINGINVOL,*6,CH Moving-In Volume @SCA 20162500
  RSMOVINGOUTVOL,*6,CH Moving-Out Volume @SCA 20175000
  RSOLDVOLUME,*6,CH Old Volume @SCA 20187500

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RSUCDATE,*,10,CH      Last "user" change date      @OBA 20191600
RSUETIME,*,6,CH       Last "user" change time      @OBA 20195700
*****
* END OF REPORT EXTRACT STORAGE LOCATION BIN RECORD 20250000
*****
RSRCEND,*             END OF RSEXT                  20300000
*                   20350000
*                   20400000
*****
* RVEXT: This file maps the information produced for volume * 20450000
* records in the RMM report extract file. * 20500000
* In this record the date format depends on the DATEFORM * 20550000
* selected by EDGHSKP execution parameter or the parmllib * 20600000
* specified value. * 20650000
*****
POSITION,EXTRACT_DATA start at EXTRACT_DATA 20700000
SKIP,3 RESERVED 20750000
RVVOLSER,*,6,CH VOLUME SERIAL NUMBER 20800000
RVPVOL,*,6,CH PREVIOUS VOLUME IN SEQUENCE 20850000
RVNVOL,*,6,CH NEXT VOLUME IN SEQUENCE 20900000
SKIP,6 RESERVED 20950000
*****
* RVMDMVID: Is a unique token assigned to every volume and every * 21000000
* data set in a multi-volume set. * 21050000
*****
RVMDMVID,*,8,CH MULTI-DSET MULT-VOL ID 21100000
SKIP,12 RESERVED 21150000
*****
* Start of common fields: * 21200000
* The common fields are in the same place in each record type * 21250000
* in the report extract file. This allows common processing of * 21300000
* these field across multiple record types. * 21350000
*****
RVCRDATE,*,10,CH CREATE DATE of volume record 21400000
RVCRTIME,*,6,CH CREATE TIME HHMMSS of volume record 21450000
RVCRSID,*,8,CH CREATE SYSTEM ID of volume record 21500000
RVLCDATE,*,10,CH LAST CHANGE DATE of volume record 21550000
RVLC TIME,*,6,CH LAST CHANGE TIME HHMMSS of volume record 21600000
RVLCUID,*,8,CH LAST CHANGE USER ID of volume record 21650000
RVLC SID,*,8,CH LAST CHANGE SYSTEM ID of volume record 21700000
*****
* End of common fields * 21750000
*****
RVEXPDT0,*,10,CH EXPIRATION DATE - original 21800000
RVEXPDT,*,10,CH EXPIRATION DATE - current 21850000
RVDEN,*,4,CH RECORDING DENSITY 21900000
RVCOMP,*,1,CH COMPACTION USED 21950000
RVYES, 'Y' YES 22000000
RVNO, 'N' NO 22050000
SKIP,4 RESERVED WAS NO DSN ON VOLUME @LLC 22100000
RVTUSE,*,10,FS TAPE USAGE IN KBYTES @SKC 22150000
RVUSE_OLD,*,4,CH VOLUME USE COUNT <=9999 @12C 22200000
SKIP,4 RESERVED WAS LABNO @LLC 22250000
RVSTORID,*,8,CH CURRENT LOCATION NAME 22300000
RVSHL, 'SHELF' SHELF 22350000
RVLOC, 'LOCAL' LOCAL 22400000
RVREM, 'REMOTE' REMOTE 22450000
** CAN ALSO BE: 22500000
** DISTANT INSTALLATION DEFINED STORE 22550000
** SMS-DEFINED LIBRARY NAME 22600000
RVDEST,*,8,CH DESTINATION NAME 22650000
* RVLOC, 'LOCAL' LOCAL 22700000
* RVREM, 'REMOTE' REMOTE 22750000
** CAN ALSO BE: 22800000
** DISTANT INSTALLATION DEFINED STORE 22850000
** SMS-DEFINED LIBRARY NAME 22900000
*****
* Bin Numbers: If a volume is not moving (RVTRANS=N), and is in a * 22950000
* storage location, RVSTBIN contains the current bin * 23000000
* number and RVOBIN the bin number in the previous * 23050000
* location. * 23100000
* If a volume is moving (RVTRANS=Y), and moving to a * 23150000
* storage location, RVSTBIN contains the target bin * 23200000
* number and RVOBIN the bin number in the source * 23250000
* location. * 23300000
*****
RVSTBIN,*,6,CH BIN NUMBER 23350000
RVOBIN,*,6,CH PREVIOUS BIN NUMBER 23400000
RVSTDATE,*,10,CH MOVEMENT TRACKING DATE 23450000
RVRETDAT,*,10,CH RETENTION DATE CALCULATED BY VRS PROCESSING 23500000
RVLONLOC,*,8,CH LOAN LOCATION 23550000
RVOLNLOC,*,8,CH PREVIOUS LOAN LOCATION 23600000
RVLRDDAT,*,10,CH DATE VOLUME LAST READ 23650000

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RVLWTDAT,*,10,CH      DATE VOLUME LAST WRITTEN      24200000
*****                24250000
* Assigned date and time:                               *
*   These fields are set each time a volume changes either from *
*   or to scratch status.                               *
*****                24450000
RVASDATE,*,10,CH      ASSIGNED DATE                  24500000
RVASTIME,*,6,CH       ASSIGNED TIME HHMMSS           24550000
RVOWNID,*,8,CH        VOLUME OWNER USERID            24600000
RVCRUID,*,8,CH        CREATING USERID                24650000
RVCRJOB,*,8,CH        CREATING JOBNAME                24700000
RVSECLEV,*,8,CH       SECURITY LEVEL - SHORT          24750000
RVSECLNG,*,30,CH      SECURITY LEVEL - LONG           24800000
RVVOLSEQ,*,4,CH       VOLUME SEQUENCE NUMBER          24850000
RVSTATUS,*,8,CH       VOLUME STATUS                   24900000
  RVMST,'MASTER'      MASTER                         24950000
  RVUSR,'USER'         USER                           25000000
  RVSCR,'SCRATCH'      SCRATCH                         25050000
  RVINI,'INIT'         INIT                            25100000
  RVENT,'ENTRY'        ENTRY                           25150000
RVPENDRS,*,1,CH      VOLUME PENDING RELEASE           25200000
*   RVYES,'Y'          YES                             25250000
*   RVNO,'N'          NO                               25300000
RVVRS,*,1,CH         VOLUME RETAINED BY VRS           25350000
*   RVYES,'Y'          YES                             25400000
*   RVNO,'N'          NO                               25450000
RVLOAN,*,1,CH        VOLUME ON LOAN                  25500000
*   RVYES,'Y'          YES                             25550000
*   RVNO,'N'          NO                               25600000
RVOPEN,*,1,CH        VOLUME IS OPENED                 25650000
*   RVYES,'Y'          YES                             25700000
*   RVNO,'N'          NO                               25750000
RVOCER,*,1,CH        VOLUME RECORDED BY O/C/EOV       25800000
*   RVYES,'Y'          YES                             25850000
*   RVNO,'N'          NO                               25900000
RVDEFRET,*,1,CH      PARMLIB DEFAULT RETENTION USED TO GENERATE
*                        THE VOLUME EXPDT              25950000
*   RVYES,'Y'          YES                             26000000
*   RVNO,'N'          NO                               26050000
RVPPTAPE,*,1,CH      PROGRAM PRODUCT TAPE             26100000
*   RVYES,'Y'          YES                             26150000
*   RVNO,'N'          NO                               26200000
*****                26250000
*****                26300000
* Labels: The RVLABEL field provides information about what label *
*          types may be written on the volume.  If BLP output has *
*          been used, the volume may no longer match this *
*          information.  Any BLP output beyond file 1 on a volume *
*          is not recorded by RMM.                       *
*****                26550000
*****                26600000
RVLABEL,*,3,CH       LABEL TYPE                       26650000
RVSL,'SL'            SL                               26700000
RVAL,'AL'            AL                               26750000
RVNL,'NL'            NL                               26800000
RVSUL,'SUL'          SUL                              26850000
RVAUL,'AUL'          AUL                              26900000
RVBLP,*,1,CH        VOLUME LAST WRITTEN BLP           26950000
*   RVYES,'Y'          YES                             27000000
*   RVNO,'N'          NO                               27050000
*****                27100000
* Release Actions: The following 5 fields list the actions to be *
*                  set for the volume when it is released.  These are *
*                  not the current actions.  See RVACTION for the *
*                  pending actions.                          *
*****                27300000
*****                27350000
RVRETS,*,8,CH        RETURN ACTION                    27400000
  RVOWN,'OWNER'       OWNER                           27450000
*   RVSCR,'SCRATCH'   SCRATCH                         27500000
RVREPL,*,1,CH        REPLACE ON RELEASE               27550000
*   RVYES,'Y'          YES                             27600000
*   RVNO,'N'          NO                               27650000
RVINIT,*,1,CH        REINITIALISE                     27700000
*   RVYES,'Y'          YES                             27750000
*   RVNO,'N'          NO                               27800000
RVERASE,*,1,CH       SECURITY ERASE                    27850000
*   RVYES,'Y'          YES                             27900000
*   RVNO,'N'          NO                               27950000
RVNTFY,*,1,CH        NOTIFY OWNER                     28000000
*   RVYES,'Y'          YES                             28050000
*   RVNO,'N'          NO                               28100000
RVOWNAC,*,1,CH       OWNER ACCESS                     28150000
  RVRD,'R'           READ                             28200000
  RVUPD,'U'          UPDATE                           28250000

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RVADD, 'A'	ADD		28300000
RVUSERAC, *, 1, CH	USER ACCESS		28350000
* RVRD, 'R'	READ		28400000
* RVUPD, 'U'	UPDATE		28450000
RVVMUSE, *, 1, CH	VM USE		28500000
* RVYES, 'Y'	YES		28550000
* RVNO, 'N'	NO		28600000
RVMVSUSE, *, 1, CH	MVS USE		28650000
* RVYES, 'Y'	YES		28700000
* RVNO, 'N'	NO		28750000
RVNAME, *, 8, CH	MEDIA NAME		28800000
RVUNIT, =, 8, CH	Old name for RVNAME field		28850000
RVRACK, *, 6, CH	RACK NUMBER		28900000
RVTRERR_OLD, *, 4, ZD	Temporary read errors <=9999	@K3C	28950000
RVTWERR_OLD, *, 4, ZD	Temporary write errors <=9999	@K3C	29000000
RVPRERR_OLD, *, 4, ZD	Permanent read errors <=9999	@K3C	29050000
RVPWERR_OLD, *, 4, ZD	Permanent write errors <=9999	@K3C	29100000
*****			29150000
* Product Information: Includes number, release and feature code *			29200000
*****			29250000
RVPPNUM, *, 8, CH	PROGRAM PRODUCT NUMBER		29300000
RVVER, *, 6, CH	VERSION/RELEASE/MOD NUMBER		29350000
RVFEAT, *, 4, CH	FEATURE CODE		29400000
RVACCINF, *, 40, CH	ACCOUNTING INFORMATION		29450000
RVUSEFLD, *, 30, CH	USER DESCRIPTION		29500000
RVACCLST, *, 3, ZD	NUMBER OF ACCESS LIST ENTRIES	@K7C	29550000
RVAUTIDS, *, 96, CH	AUTHORIZED USER IDS AREA		29600000
RVHLOC, *, 8, CH	HOME LOCATION NAME		29650000
RVTRANS, *, 1, CH	VOLUME IN TRANSIT		29700000
* RVYES, 'Y'	YES		29750000
* RVNO, 'N'	NO		29800000
RVLOCTYP, *, 1, CH	LOCATION TYPE		29850000
RVAUT, 'A'	AUTO		29900000
RVMAN, 'M'	MANUAL		29950000
RVSTR, 'S'	STORE		30000000
RVBLK, ' '	BLANK		30050000
RVDESTYP, *, 1, CH	DESTINATION TYPE		30100000
* RVAUT, 'A'	AUTO		30150000
* RVMAN, 'M'	MANUAL		30200000
* RVSTR, 'S'	STORE		30250000
* RVBLK, ' '	BLANK		30300000
RVOLOC, *, 8, CH	THE PREVIOUS LOCATION NAME		30350000
RVSGNAME, *, 8, CH	STORAGE GROUP NAME		30400000
RVMEDREC, *, 8, CH	VOLUME RECORDING FORMAT		30450000
RV18, '18TRACK'	18 TRACK		30500000
RV36, '36TRACK'	36 TRACK		30550000
RV128, '128TRACK'	128 TRACK		30600000
RV256, '256TRACK'	256 TRACK		30650000
RV384, '384TRACK'	384 TRACK	@SEA	30675000
RVEFMT1, 'EFMT1'	EFMT1 format	@SFA	30687500
RVEFMT2, 'EFMT2'	EFMT2 format	@SHA	30693700
RVEEFMT2, 'EEFMT2'	EEFMT2 format (encrypted)	@SOA	30694700
RVEFMT3, 'EFMT3'	EFMT3 format	@SOA	30695700
RVEEFMT3, 'EEFMT3'	EEFMT3 format (encrypted)	@SOA	30696700
RVEFMT4, 'EFMT4'	EFMT4 format	@SOA	30697700
RVEEFMT4, 'EEFMT4'	EEFMT4 format (encrypted)	@SOA	30698700
RVMEDTY, *, 8, CH	VOLUME MEDIA TYPE		30700000
RVAST, '*'	*		30750000
RVCST, 'CST'	CST		30800000
RVEC, 'ECCST'	ECCST		30850000
RVHP, 'HPCT'	HPCT		30900000
RVEH, 'EHPCT'	EHPCT		30950000
RVMED5, 'ETC'	ETC (MEDIA5)	@SGC	30991600
RVETC, 'ETC'	ETC (MEDIA5)	@SGA	31033200
RVEWTC, 'EWTC'	EWTC (MEDIA6 - WORM)	@SGA	31074800
RVEETC, 'EETC'	EETC (MEDIA7 - ECONOMY)	@SGA	31116400
RVEEWT, 'EEWT'	EEWT (MEDIA8 - ECONOMY WORM)	@SGA	31158000
RVEXTC, 'EXTC'	EXTC (MEDIA9 - EXTENDED)	@SHA	31172000
RVEXWTC, 'EXWTC'	EXWTC (MEDIA10 - EXTENDED WORM)	@SHA	31186000
RVEATC, 'EATC'	EATC (MEDIA11 - ADVANCED)	@SOA	31189500
RVEAWTC, 'EAWTC'	EAWTC (MEDIA12 - ADVANCED WORM)	@SOA	31193000
RVEAETC, 'EAETC'	EAETC (MEDIA13 - ADVANCED ECONOMY)	@SOA	31196500
RVMEDCMP, *, 8, CH	COMPACTION TECHNIQUE		31200000
* RVAST, '*'	*		31250000
RVNON, 'NONE'	NONE		31300000
* RVYES, 'Y'	YES		31350000
RVMEDATR, *, 8, CH	SPECIAL ATTRIBUTES		31400000
* RVNON, 'NONE'	NONE		31450000
RVRDC, 'RDCOMPAT'	RDCOMPAT		31500000
RVDSNAM1, *, 44, CH	FIRST FILE DATA SET NAME		31550000
RVMMODE, *, 1, CH	MOVE MODE		31600000
* RVAUT, 'A'	AUTO		31650000

* RVMAN, 'M'	MANUAL	31700000
RVDSNREC, *, 1, CH	DS RECORDING	31750000
* RVMYES, 'Y'	YES	31800000
* RVNO, 'N'	NO	31850000
RVALVERS, *, 2, CH	ANSI LABEL VERSION	@LLC 31900000
RVALCUR, =, 1, CH	CURRENT LABEL VERSION	31950000
RVALREQ, *, 1, CH	REQUIRED LABEL VERSION	32000000
RVBMEDN, *, 8, CH	BIN MEDIA NAME	32050000
RVOBMEDN, *, 8, CH	PREVIOUS BIN MEDIA NAME	32100000
RVNLOC, *, 8, CH	REQUIRED LOCATION NAME - AS DETERMINED BY	32150000
* VRS OR COMMAND		32200000
RVLUDEV, *, 4, CH	LAST USED DRIVE	32250000
*****		32300000
* Pending Actions: The following fields list the actions required		* 32350000
* for the volume. See RVRETS for the actions set		* 32400000
* when the volume is released.		* 32450000
*****		32500000
RVACTION, *, 8, CH	PENDING ACTIONS	32550000
RVACTSCR, =, 1, CH	RETURN TO SCRATCH	32600000
* RVMYES, 'Y'	YES	32650000
* RVNO, 'N'	NO	32700000
RVACTREP, *, 1, CH	REPLACE VOLUME	32750000
* RVMYES, 'Y'	YES	32800000
* RVNO, 'N'	NO	32850000
RVACTRET, *, 1, CH	RETURN TO OWNER	32900000
* RVMYES, 'Y'	YES	32950000
* RVNO, 'N'	NO	33000000
RVACTINI, *, 1, CH	INITIALIZE	33050000
* RVMYES, 'Y'	YES	33100000
* RVNO, 'N'	NO	33150000
RVACTERA, *, 1, CH	ERASE	33200000
* RVMYES, 'Y'	YES	33250000
* RVNO, 'N'	NO	33300000
RVACTNOT, *, 1, CH	NOTIFY	33350000
* RVMYES, 'Y'	YES	33400000
* RVNO, 'N'	NO	33450000
SKIP, 2	RESERVED	33500000
RVABEND, *, 1, CH	DATA SET CLOSED BY ABEND	33550000
* RVMYES, 'Y'	YES	33600000
* RVNO, 'N'	NO	33650000
RVHOMTYP, *, 1, CH	HOME LOCATION TYPE	33700000
* RVAUT, 'A'	AUTO	33750000
* RVMAN, 'M'	MANUAL	33800000
* RVBLK, ' '	BLANK	33850000
RVNEXTYP, *, 1, CH	NEXT LOCATION TYPE	33900000
* RVAUT, 'A'	AUTO	33950000
* RVMAN, 'M'	MANUAL	34000000
* RVSTR, 'S'	STORE	34050000
* RVBLK, ' '	BLANK	34100000
RVVOLTYPE, *, 1, CH	VOLUME TYPE	34150000
RVVOLTYPE_PHYSICAL, 'P'	VOLUME TYPE PHYSICAL	@NNC 34200000
RVVOLTYPE_LOGICAL, 'L'	VOLUME TYPE LOGICAL	@NNC 34250000
RVVOLTYPE_STACKED, 'S'	VOLUME TYPE STACKED	@NNC 34300000
RVVRSREL, *, 8, CH	VRS RELEASE OPTIONS	34350000
RVRELIXD, =, 1, CH	IGNORE EXPDT	34400000
* RVMYES, 'Y'	YES	34450000
* RVNO, 'N'	NO	34500000
RVRELSI, *, 1, CH	SCRATCH IMMEDIATE	34550000
* RVMYES, 'Y'	YES	34600000
* RVNO, 'N'	NO	34650000
SKIP, 6	RESERVED	34700000
RVCONTNR, *, 16, CH	IN CONTAINER NAME	34750000
RVCONTNR_STV, =, 6, CH	STACKED VOLUME CONTAINER	@15A 34766600
SKIP, 10	RESERVED	@15A 34783200
RVRQPTY, *, 4, CH	MOVEMENT PRIORITY	34800000
RVCAPACITY, *, 10, ZD	Volume capacity, factored: MB, GB or TB	@SKC 34826500
* RVRBYSET, *, 1, CH	VOLUME RETAINED BY SET	@10D 34853100
RVRBYSET, *, 1, CH	VOLUME RETAINED BY SET	34881200
RVSTACKVOL_ENABLED, *, 1, CH	STACKED VOLUME RECORD ENABLED	34900000
* AND SYNCHRONIZED		34950000
RVEXPTOKEN, *, 8, CH	UNIQUE VALUE CREATED AT START OF	35000000
* EXPORT TO A NEW STACKED VOLUME		35050000
* SKIP, 2	RESERVED	@LLD 35100000
RVSTACKED_VOLCOUNT, *, 10, CH	COUNT OF VOLUMES STACKED ON A	@03C 35150000
* VOLUME		35158300
RVPERCENT, *, 3, ZD	VOLUME PERCENTAGE FULL	@K7C 35162400
RVDSNNO, *, 5, CH	NUMBER OF DATASETS ON VOLUME NEW	@LLA 35166600
RVLABNO1, *, 5, CH	LABEL NO OF FIRST FILE NEW	@LLA 35183200
RVDCRSID, *, 8, CH	First file creation system ID	@05A 35222100
RVREST, *, 1, CH	RESERVED FOR FUTURE USE	@05A 35261000
* 35270700		
RVDESTBIN, *, 6, CH	Destination Bin Number	@SCA 35280400

RVDESTBINMEDIA,*8,CH	Destination Bin Media Name	@SCA 35290100
RVVOL1,*6,CH	VOL1 label volser	@LSA 35295000
RVVENDOR,*8,CH	Vendor information	@SGA 35296200
RVWWID,*24,CH	Unique World wide Identifier	@SGA 35297400
RVVWMC,*5,ZD	Write mount count	@SGA 35298600
RVTRERR,*5,ZD	Temporary read errors	@K3A 35298800
RVTWERR,*5,ZD	Temporary write errors	@K3A 35299000
RVPRERR,*5,ZD	Permanent read errors	@K3A 35299200
RVPWERR,*5,ZD	Permanent write errors	@K3A 35299400
RVKEYLABEL1,*64,CH	Encryption key label 1	@SJA 35299500
RVKEYENCOD1,*5,CH	Key encoding mechanism 1, LABEL or HASH	@SJA 35299600
RVKEYLABEL2,*64,CH	Encryption key label 2	@SJA 35299700
RVKEYENCOD2,*5,CH	Key encoding mechanism 2, LABEL or HASH	@SJA 35299800
RVMEDINF,*8,CH	Media information	@09A 35299900
RVIRMMUSE,*1,CH	IRMM USE - Y/N	@11A 35312400
RVWORM,*1,CH	WORM - Y/N	@11A 35324900
RVFACTOR,*2,CH	Space/size factor, MB, GB or TB	@SKA 35326200
RVFACTOR_MB,'MB'		@SKA 35327500
RVFACTOR_GB,'GB'		@SKA 35328800
RVFACTOR_TB,'TB'		@SKA 35330100
RVAPPUSE,*10,ZD	Tape usage, factored: MB, GB or TB	@SKA 35331400
RVUSE,*5,CH	Volume use count	@12A 35333100
RVHOLD,*1,CH	HOLD - Y/N	@00A 35335200
RVESB,*10,CH	Expdt set by	@08A 35335300
RVESB_UNKNOWN,' '		@08A 35335400
RVESB_CMD,'CMD'		@08A 35335500
RVESB_CMD_DEF,'CMD_DEF'		@08A 35335600
RVESB_CMD_VOLCAT,'CMD_VOLCAT'		@08A 35335700
RVESB_OCE_JFCB,'OCE_JFCB'		@08A 35335800
RVESB_OCE_EXIT,'OCE_EXIT'		@08A 35335900
RVESB_OCE_DEF,'OCE_DEF'		@08A 35336000
RVESB_OCE_MAX,'OCE_MAX'		@08A 35336100
RVESB_OCE_VOLCAT,'OCE_VOLCAT'		@08A 35336200
RVESB_LCS,'LCS'		@08A 35336300
RVESB_LCS_DEF,'LCS_DEF'		@08A 35336400
RVESB_TVEXTPURGE,'TVEXTPURGE'		@08A 35336500
RVESB_CNVT,'CNVT'		@08A 35336600
RVESB_EXPORT,'EXPORT'		@08A 35336700
RVESB_LASTREF,'LASTREF'		@0QA 35336900
RVESB_OCE_MC,'OCE_MC'		@0VA 35337000
RVESB_CATRETPD,'CATRETPD'		@M2A 35337010
RVESB_CATLG_DAYS,'CATLG_DAYS'		@M2A 35337020
RVESB_DEFTABLE,'DEFTABLE'		@M3A
RVUCDATE,*10,CH	Last "user" change date	@0BA 35337100
RVUETIME,*6,CH	Last "user" change time	@0BA 35337300
RVRETMET,*5,CH	Retention Method	@0GA 35337700
RVRETMET_VRSEL,'VRSEL'		@0GA 35338500
RVRETMET_EXPDT,'EXPDT'		@0GA 35339300
RVRMSB,*10,CH	Retention Method Set By	@0GA 35340100
RVRMSB_UNDEFINED,'UNDEFINED'		@0GA 35340900
RVRMSB_CMD,'CMD'		@0GA 35341700
RVRMSB_CMD_DEF,'CMD_DEF'		@0GA 35342500
RVRMSB_OCE_DEF,'OCE_DEF'		@0GA 35343300
RVRMSB_OCE_EXIT,'OCE_EXIT'		@0GA 35344100
RVRMSB_LCS_DEF,'LCS_DEF'		@0GA 35344900
RVRMSB_CNVT,'CNVT'		@0GA 35345700
RVRMSB_EXPORT_DEF,'EXPORT_DEF'		@0GA 35346500
RVRMSB_INERS_DEF,'INERS_DEF'		@0GA 35347300
RVRMSB_MC_ATTR,'MC_ATTR'		@M5A
RVRMSB_DEFTABLE,'DEFTABLE'		@M3A
RVCOMP_RAT,*6,CH	Compression ratio for volume	@SOA 35347400
RVPHYS_USED,*10,CH	Physical space used (factored)	@SOA 35347500
RVEXRB,*9,CH	EXPDT Retain By	@0SA 35347600
RVEXRB_BLANK,' '		@K6A 35347700
RVEXRB_VOLUME,'VOLUME'		@0SA 35347800
RVEXRB_FIRSTFILE,'FIRSTFILE'		@0SA 35347900
RVEXRB_SET,'SET'		@0SA 35348000
RVEDM,*1,CH	EDM - Y/N	@M7A 35348050
*****		35348100
* END OF REPORT EXTRACT VOLUME RECORD		* 35350000
*****		35400000
RVRCEND,*	END OF RVEXT	35450000
*****		35500000
* RXEXT:	This file maps the information produced for volume	* 35516600
*	records in the RMM report extract file.	* 35533200
*	In this record the date format depends on the DATEFORM	* 35549800
*	selected by EDGHSKP execution parameter or the parm lib	* 35566400
*	specified value.	* 35583000
*****		35600000
POSITION,EXTRACT_DATA	start at EXTRACT_DATA	@04A 35650000
SKIP,3	Reserved	@04A 35700000


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RXVOLSER,*,6,CH      Volume serial number          @04A 35750000
RXADJVOL,*,12,CH     Adjacent Volser(s) in Set      @00A 35787500
RXVPVOL,*,6,CH       Previous volume in sequence    @00C 35825000
RXVNVOL,*,6,CH       Next volume in sequence        @00C 35862500
SKIP,6               Reserved                      @04A 35900000
*****@04A 35950000
* RXMDMVID: Is a unique token assigned to every volume and every *@04A 36000000
*   data set in a multi-volume set.                  *@04A 36050000
*****@04A 36100000
RXVMDMVID,*,8,CH     Multi-data set multi volume id *@04A 36150000
SKIP,12              Reserved                      *@04A 36200000
*****@04A 36250000
* Start of common fields:                            *@04A 36300000
* The common fields are in the same place in each record type *@04A 36350000
* in the report extract file. This allows common processing of *@04A 36400000
* these field across multiple record types.          *@04A 36450000
*****@04A 36500000
RXVCRDATE,*,10,CH    Create date of volume record   @04A 36550000
RXVCRTIME,*,6,CH     Create time HHMMSS of volume record @04A 36600000
RXVCRSID,*,8,CH      Create system id of volume record @04A 36650000
RXVLCDATE,*,10,CH    Last change date of volume record @04A 36700000
RXVLCIME,*,6,CH      Last change time HHMMSS of volume record @04A 36750000
RXVLCUID,*,8,CH      Last change user id of volume record @04A 36800000
RXVLCSID,*,8,CH      Last change system id of volume record @04A 36850000
*****@04A 36900000
* End of common fields                               *@04A 36950000
*****@04A 37000000
RXVEXPDTO,*,10,CH    Expiration date - original      @04A 37050000
RXVEXPDT,*,10,CH     Expiration date - current       @04A 37100000
RXVDEN,*,4,CH        Recording density                @04A 37150000
RXVCOMP,*,1,CH       Compaction used                 @04A 37200000
RXVYES, 'Y'          Yes                             @04A 37250000
RXVNO, 'N'           No                              @04A 37300000
SKIP,4              Reserved                          @K2C 37350000
RXVTUSE,*,10,FS      Tape usage in kbytes             @SKC 37400000
RXVUSE_OLD,*,4,CH    VOLUME USE COUNT <=9999         @12C 37450000
SKIP,4              Reserved                          @K2C 37500000
RXVSTORID,*,8,CH     Current location name            @04A 37550000
RXVSHL, 'SHELF'      Shelf                           @04A 37600000
RXVLOC, 'LOCAL'      Local                           @04A 37650000
RXVREM, 'REMOTE'     Remote                          @04A 37700000
** Can also be:                                       @04A 37750000
** Distant installation defined store                 @04A 37800000
** SMS-defined library name                          @04A 37850000
RXVDEST,*,8,CH       Destination name                 @04A 37900000
* RXVLOC, 'LOCAL'    Local                            @04A 37950000
* RXVREM, 'REMOTE'   Remote                          @04A 38000000
** Can also be:                                       @04A 38050000
** Distant installation defined store                 @04A 38100000
** SMS-defined library name                          @04A 38150000
*****@04A 38200000
* Bin Numbers: If a volume is not moving (RXTRANS=N), and is in *@04A 38250000
*   a storage location, RXSTBIN contains the current *@04A 38300000
*   bin number and RXOBIN the bin number in the *@04A 38350000
*   previous location.                               *@04A 38400000
*   If a volume is moving (RXTRANS=Y), and moving to *@04A 38450000
*   a storage location, RXSTBIN contains the target *@04A 38500000
*   bin number and RXOBIN the bin number in the *@04A 38550000
*   source location.                                *@04A 38600000
*****@04A 38650000
RXVSTBIN,*,6,CH      Bin number                      @04A 38700000
RXVOBIN,*,6,CH       Previous bin number              @04A 38750000
RXVSTDATE,*,10,CH    Movement tracking date           @04A 38800000
RXVRETDAT,*,10,CH    Retention date calculated by VRS process. @04A 38850000
RXVLONLOC,*,8,CH     Loan location                   @04A 38900000
RXVOLNLOC,*,8,CH     Previous loan location           @04A 38950000
RXVLRDDAT,*,10,CH    Date volume last read           @04A 39000000
RXVLWTDAT,*,10,CH    Date volume last written        @04A 39050000
*****@04A 39100000
* Assigned date and time:                            *@04A 39150000
* These fields are set each time a volume changes either from *@04A 39200000
* or to scratch status.                              *@04A 39250000
*****@04A 39300000
RXVASDATE,*,10,CH    Assigned date                   @04A 39350000
RXVASTIME,*,6,CH     Assigned time HHMMSS            @04A 39400000
RXVOWNID,*,8,CH      Volume owner userid             @04A 39450000
RXVCRUID,*,8,CH      Creating userid                 @04A 39500000
RXVCRJOB,*,8,CH      Creating jobname                 @04A 39550000
RXVSECLEV,*,8,CH     Security level - short           @04A 39600000
RXVSECLNG,*,30,CH    Security level - long           @04A 39650000
RXVVOLSEQ,*,4,CH     Volume sequence number          @04A 39700000
RXVSTATUS,*,8,CH     Volume status                   @04A 39750000

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RXVMST,'MASTER'	Master	@04A	39800000
RXVUSR,'USER'	User	@04A	39850000
RXVSCR,'SCRATCH'	Scratch	@04A	39900000
RXVINI,'INIT'	Init	@04A	39950000
RXVENT,'ENTRY'	Entry	@04A	40000000
RXVPENDRS,*1,CH	Volume pending release	@04A	40050000
* RXVYES,'Y'	Yes	@04A	40100000
* RXVNO,'N'	No	@04A	40150000
RXVVRS,*1,CH	Volume retained by VRS	@04A	40200000
* RXVYES,'Y'	Yes	@04A	40250000
* RXVNO,'N'	No	@04A	40300000
RXVLOAN,*1,CH	Volume on loan	@04A	40350000
* RXVYES,'Y'	Yes	@04A	40400000
* RXVNO,'N'	No	@04A	40450000
RXVOPEN,*1,CH	Volume is opened	@04A	40500000
* RXVYES,'Y'	Yes	@04A	40550000
* RXVNO,'N'	No	@04A	40600000
RXVOCER,*1,CH	Volume recorded by O/C/E0V	@04A	40650000
* RXVYES,'Y'	Yes	@04A	40700000
* RXVNO,'N'	No	@04A	40750000
RXVDEFRET,*1,CH	Parmlib default retention used to	@04A	40800000
	generate the volume EXPDT	@04A	40850000
* RXVYES,'Y'	Yes	@04A	40900000
* RXVNO,'N'	No	@04A	40950000
RXVPPTAPE,*1,CH	Program product tape	@04A	41000000
* RXVYES,'Y'	Yes	@04A	41050000
* RXVNO,'N'	No	@04A	41100000
*****		@04A	41150000
* Labels: The RXLABEL field provides information about what label		@04A	41200000
* types may be written on the volume. If BLP output has		@04A	41250000
* been used, the volume may no longer match this		@04A	41300000
* information. Any BLP output beyond file 1 on a volume		@04A	41350000
* is not recorded by RMM.		@04A	41400000
*****		@04A	41450000
RXVLABEL,*3,CH	Label type	@04A	41500000
RXVSL,'SL'	SL	@04A	41550000
RXVAL,'AL'	AL	@04A	41600000
RXVNL,'NL'	NL	@04A	41650000
RXVSUL,'SUL'	SUL	@04A	41700000
RXVAUL,'AUL'	AUL	@04A	41750000
RXVBLP,*1,CH	Volume last written BLP	@04A	41800000
* RXVYES,'Y'	Yes	@04A	41850000
* RXVNO,'N'	No	@04A	41900000
*****		@04A	41950000
* Release Actions: The following 5 fields list the actions to		@04A	42000000
* be set for the volume when it is released. These		@04A	42050000
* are not the current actions. See RXACTION for		@04A	42100000
* the pending actions.		@04A	42150000
*****		@04A	42200000
RXVRETS,*8,CH	Return action	@04A	42250000
RXVOWN,'OWNER'	Owner	@04A	42300000
* RXVSCR,'SCRATCH'	Scratch	@04A	42350000
RXVREPL,*1,CH	Replace on release	@04A	42400000
* RXVYES,'Y'	Yes	@04A	42450000
* RXVNO,'N'	No	@04A	42500000
RXVINIT,*1,CH	Reinitialise	@04A	42550000
* RXVYES,'Y'	Yes	@04A	42600000
* RXVNO,'N'	No	@04A	42650000
RXVERASE,*1,CH	Security erase	@04A	42700000
* RXVYES,'Y'	Yes	@04A	42750000
* RXVNO,'N'	No	@04A	42800000
RXVNTFY,*1,CH	Notify owner	@04A	42850000
* RXVYES,'Y'	Yes	@04A	42900000
* RXVNO,'N'	No	@04A	42950000
RXVOWNAC,*1,CH	Owner access	@04A	43000000
RXVRD,'R'	Read	@04A	43050000
RXVUPD,'U'	Update	@04A	43100000
RXVADD,'A'	Add	@04A	43150000
RXVUSERAC,*1,CH	User access	@04A	43200000
* RXVRD,'R'	Read	@04A	43250000
* RXVUPD,'U'	Update	@04A	43300000
RXVMUSE,*1,CH	VM use	@04A	43350000
* RXVYES,'Y'	Yes	@04A	43400000
* RXVNO,'N'	No	@04A	43450000
RXVMVSUSE,*1,CH	MVS use	@04A	43500000
* RXVYES,'Y'	Yes	@04A	43550000
* RXVNO,'N'	No	@04A	43600000
RXVNAME,*8,CH	Media name	@04A	43650000
RXVUNIT,*8,CH	Old name for RXVNAME field	@04A	43700000
RXVRACK,*6,CH	Rack number	@04A	43750000
RXVTRERR_OLD,*4,ZD	Temporary read errors <=9999	@K3C	43800000
RXVTWERR_OLD,*4,ZD	Temporary write errors <=9999	@K3C	43850000

RXVPRERR_OLD,*4,ZD	Permanent read errors	<=9999	@K3C	43900000
RXVPWERR_OLD,*4,ZD	Permanent write errors	<=9999	@K3C	43950000
*****@04A				44000000
* Product Information: Includes number, release and feature code *				@04A 44050000
*****@04A				44100000
RXVPPNUM,*8,CH	Program product number		@04A	44150000
RXVER,*6,CH	Version/Release/Mod number		@04A	44200000
RXVFEAT,*4,CH	Feature code		@04A	44250000
RXVACCINF,*40,CH	Accounting information		@04A	44300000
RXVUSEFLD,*30,CH	User description		@04A	44350000
RXVACCLST,*3,CH	Number of access list entries		@04A	44400000
RXVAUTIDS,*96,CH	Authorized user ids area		@04A	44450000
RXVHLOC,*8,CH	Home location name		@04A	44500000
RXVTRANS,*1,CH	Volume in transit		@04A	44550000
* RXVYES,'Y'	Yes		@04A	44600000
* RXVNO,'N'	No		@04A	44650000
RXVLOCTYP,*1,CH	Location type		@04A	44700000
RXVAUT,'A'	Auto		@04A	44750000
RXVMAN,'M'	Manual		@04A	44800000
RXVSTR,'S'	Store		@04A	44850000
RXVBLK,' '	Blank		@04A	44900000
RXVDESTYP,*1,CH	Destination type		@04A	44950000
* RXVAUT,'A'	Auto		@04A	45000000
* RXVMAN,'M'	Manual		@04A	45050000
* RXVSTR,'S'	Store		@04A	45100000
* RXVBLK,' '	Blank		@04A	45150000
RXVOLOC,*8,CH	The previous location name		@04A	45200000
RXVSGNAME,*8,CH	Storage group name		@04A	45250000
RXVMEDREC,*8,CH	Volume recording format		@04A	45300000
RXV18,'18TRACK'	18 Track		@04A	45350000
RXV36,'36TRACK'	36 Track		@04A	45400000
RXV128,'128TRACK'	128 Track		@04A	45450000
RXV256,'256TRACK'	256 Track		@04A	45500000
RXV384,'384TRACK'	384 Track		@SEA	45525000
RXVEFMT1,'EFMT1'	EFMT1 format		@SHA	45533300
RXVEFMT2,'EFMT2'	EFMT2 format		@SHA	45541600
RXVEEFMT2,'EEFMT2'	EEFMT2 format (encrypted)		@SOA	45543000
RXVEFMT3,'EFMT3'	EFMT3 format		@SOA	45544400
RXVEEFMT3,'EEFMT3'	EEFMT3 format (encrypted)		@SOA	45545800
RXVEFMT4,'EFMT4'	EFMT4 format		@SOA	45547200
RXVEEFMT4,'EEFMT4'	EEFMT4 format (encrypted)		@SOA	45548600
RXVMEDTY,*8,CH	Volume media type		@04A	45550000
RXVAST,'*'	*		@04A	45600000
RXVCST,'CST'	CST		@04A	45650000
RXVEC,'ECCST'	ECCST		@04A	45700000
RXVHP,'HPCT'	HPCT		@04A	45750000
RXVEH,'EHPCT'	EHPCT		@04A	45800000
RXVETC,'ETC'	ETC (MEDIA5)		@SGA	45850000
RXVEWTC,'EWTC'	EWTC (MEDIA6 - WORM)		@SGA	45900000
RXVEETC,'EETC'	EETC (MEDIA7 - ECONOMY)		@SGA	45950000
RXVEEWTC,'EEWTC'	EEWTC (MEDIA8 - ECONOMY WORM)		@SGA	46000000
RXVEXTC,'EXTC'	EXTC (MEDIA9 - EXTENDED)		@SHA	46016600
RXVEXWTC,'EXWTC'	EXWTC (MEDIA10 - EXTENDED WORM)		@SHA	46033200
RXVEATC,'EATC'	EATC (MEDIA11 - ADVANCED)		@SOA	46037400
RXVEAWTC,'EAWTC'	EAWTC (MEDIA12 - ADVANCED WORM)		@SOA	46041600
RXVEAETC,'EAETC'	EAETC (MEDIA13 - ADVANCED ECONOMY)		@SOA	46045800
RXVMEDCMP,*8,CH	Compaction technique		@04A	46050000
* RXVAST,'*'	*		@04A	46100000
RXVNON,'NONE'	None		@04A	46150000
* RXVYES,'Y'	Yes		@04A	46200000
RXVMEDATR,*8,CH	Special attributes		@04A	46250000
* RXVNON,'NONE'	None		@04A	46300000
RXVRDC,'RDCOMPAT'	RDCOMPAT		@04A	46350000
RXVDSNAM1,*44,CH	First file data set name		@04A	46400000
RXVMVMODE,*1,CH	Move mode		@04A	46450000
* RXVAUT,'A'	Auto		@04A	46500000
* RXVMAN,'M'	Manual		@04A	46550000
RXVDSNREC,*1,CH	Data set recording		@04A	46600000
* RXVYES,'Y'	Yes		@04A	46650000
* RXVNO,'N'	No		@04A	46700000
RXVALVERS,*2,CH	Ansi label version		@04A	46750000
RXVALCUR,*1,CH	Current label version		@04A	46800000
RXVALREQ,*1,CH	Required label version		@04A	46850000
RXVBMEDN,*8,CH	Bin media name		@04A	46900000
RXVOBMEDN,*8,CH	Previous bin media name		@04A	46950000
RXVNLOC,*8,CH	Required location name - as determined by		@04A	47000000
* VRS or command			@04A	47050000
RXVLudev,*4,CH	Last used drive		@04A	47100000
*****@04A				47150000
* Pending Actions: The following fields list the actions required*				@04A 47200000
* for the volume. See RXRETS for the actions set				*@04A 47250000
* when the volume is released.				*@04A 47300000

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*****@04A 47350000
RXVACTION,*8,CH Pending actions @04A 47400000
RXVACTSCR,=,1,CH Return to scratch @04A 47450000
* RXVYES,'Y' Yes @04A 47500000
* RXVNO,'N' No @04A 47550000
RXVACTREP,*1,CH Replace volume @04A 47600000
* RXVYES,'Y' Yes @04A 47650000
* RXVNO,'N' No @04A 47700000
RXVACTRET,*1,CH Return to owner @04A 47750000
* RXVYES,'Y' Yes @04A 47800000
* RXVNO,'N' No @04A 47850000
RXVACTINI,*1,CH Initialize @04A 47900000
* RXVYES,'Y' Yes @04A 47950000
* RXVNO,'N' No @04A 48000000
RXVACTER,*1,CH Erase @04A 48050000
* RXVYES,'Y' Yes @04A 48100000
* RXVNO,'N' No @04A 48150000
RXVACTNOT,*1,CH Notify @04A 48200000
* RXVYES,'Y' Yes @04A 48250000
* RXVNO,'N' No @04A 48300000
SKIP,2 Reserved @04A 48350000
RXVABEND,*1,CH Data set closed by abend @04A 48400000
* RXVYES,'Y' Yes @04A 48450000
* RXVNO,'N' No @04A 48500000
RXVHOMTYP,*1,CH Home location type @04A 48550000
* RXVAUT,'A' Auto @04A 48600000
* RXVMAN,'M' Manual @04A 48650000
* RXVBLK,' ' Blank @04A 48700000
RXVNEXTYP,*1,CH Next location type @04A 48750000
* RXVAUT,'A' Auto @04A 48800000
* RXVMAN,'M' Manual @04A 48850000
* RXVSTR,'S' Store @04A 48900000
* RXVBLK,' ' Blank @04A 48950000
RXVOLTYPE,*1,CH Volume type @04A 49000000
RXVOLTYPE_PHYSICAL,'P' Volume type physical @NNC 49050000
RXVOLTYPE_LOGICAL,'L' Volume type logical @NNC 49100000
RXVOLTYPE_STACKED,'S' Volume type stacked @NNC 49150000
RXVRSREL,*8,CH VRS release options @04A 49200000
RXVRELIXD,=,1,CH Ignore EXPDT @04A 49250000
* RXVYES,'Y' Yes @04A 49300000
* RXVNO,'N' No @04A 49350000
RXVRELSI,*1,CH Scratch immediate @04A 49400000
* RXVYES,'Y' Yes @04A 49450000
* RXVNO,'N' No @04A 49500000
SKIP,6 Reserved @04A 49550000
RXVCONTNR,*16,CH In container name @04A 49600000
RXVCONTNR_STV,=,6,CH Stacked volume container @15A 49616600
SKIP,10 Reserved @15A 49633200
RXVRQPTY,*4,CH Movement priority @04A 49650000
RXVCAPACITY,*10,ZD Volume capacity, factored: MB, GB or TB @SKC 49700000
RXVRBYSET,*1,CH Volume retained by set @04A 49750000
RXVSTACKVOL_ENABLED,*1,CH Stacked volume record enabled @04A 49800000
* and synchronized @04A 49850000
RXVEXPTOKEN,*8,CH Unique value created at start of @04A 49900000
* Export to a new stacked volume @04A 49950000
RXVSTACKED_VOLCOUNT,*10,CH Count of volumes stacked on a volume @04A 50000000
RXVPERCENT,*3,CH Volume percentage full @04A 50050000
RXVDSNNO,*5,CH NUMBER OF DATASETS ON VOLUME @SCC 50094400
RXVLABN01,*5,CH LABEL NO OF FIRST FILE ON VOL @SCC 50138800
RXVDCSRID,*8,CH First file creation system ID @05A 50183300
SKIP,1 Reserved @05C 50216600
RXVOLCNT,*4,CH Multi volume count @04A 50250000
SKIP,4 Reserved @04A 50300000
RXDSNAME,*44,CH Data set name @04A 50350000
*****@04A 50400000
* Start of common fields: *@04A 50450000
* The common fields are in the same place in each record type *@04A 50500000
* in the report extract file. This allows common processing of *@04A 50550000
* these field across multiple record types. *@04A 50600000
*****@04A 50650000
RXDCRDATE,*10,CH Create date of data set record @04A 50700000
RXDCRTIME,*6,CH Create time (HHMMSS) of data set @04A 50750000
RXDCRSID,*8,CH Create system id of data set record @04A 50800000
RXDLCDATE,*10,CH Last change date of data set record @04A 50850000
RXDLCTIME,*6,CH Last change time (HHMMSS) of data set reco @04A 50900000
RXDLUID,*8,CH Last change user id of data set record @04A 50950000
RXDLCSID,*8,CH Last change system id of data set record @04A 51000000
RXDVOLSER,*6,CH Volume serial number @04A 51050000
SKIP,4 Reserved @K2C 51100000
RXDUNITAD,*4,CH Creating drive address @04A 51150000
RXDRECFM,*4,CH Record format @04A 51200000
RXDVOLSEQ,*4,ZD Volume sequence number @M7C 51250000

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RXDRECL,*,6,CH	Logical record length	@04A	51300000
RXDBLKSZ,*,6,CH	Physical block size	@04A	51350000
RXDBLKCNT_OLD,*,8,CH	Block count if <=99999999	@13C	51400000
RXDOWNSN,*,8,CH	Data set owner	@04A	51450000
RXDSECLEV,*,8,CH	Security level - SHORT	@04A	51500000
RXDSECLNG,*,30,CH	Security level - LONG	@04A	51550000
RXDCOMP,*,1,CH	Compaction used	@04A	51600000
RXDYES, 'Y'	Yes	@04A	51650000
RXDNO, 'N'	No	@04A	51700000
RXDLRDDAT,*,10,CH	Date data set last read	@04A	51750000
RXDLWTDAT,*,10,CH	Date data set last written	@04A	51800000
RXDMCNAME,*,8,CH	SMS management class	@04A	51850000
RXDVRVAL,*,8,CH	VRS management value	@04A	51900000
RXDSGNAME,*,8,CH	SMS storage group name	@04A	51950000
RXDSCNAME,*,8,CH	SMS storage class name	@04A	52000000
RXDDCNAME,*,8,CH	SMS data class name	@04A	52050000
RXDVRTJBN,*,8,CH	Creating job name	@04A	52100000
RXDVRTYP,*,1,CH	Matching VRS type flag	@04A	52150000
RXDVD, 'D'	DATASET	@04A	52200000
RXDVS, 'S'	SMSMC	@04A	52250000
RXDVV, 'V'	VRSMV	@04A	52300000
RXDVM, 'M'	Dataset and VRSMV	@04A	52350000
RXDVC, 'C'	Dataset and SMSMC	@04A	52400000
RXDVRNAM,*,44,CH	Matching VRS name	@04A	52450000
RXDVRJBN,*,8,CH	Matching VRS job name mask	@04A	52500000
RXDRETDAT,*,10,CH	Retention date	@04A	52550000
RXDSTEPNM,*,8,CH	Creating step name	@04A	52600000
RXDDNAME,*,8,CH	Creating DD name	@04A	52650000
*****@04A			52700000
* RXDMDMVID: Is a unique token assigned to every volume and		*@04A	52750000
* every data set in a multi-volume set.		*@04A	52800000
*****@04A			52850000
RXDMDMVID,*,8,CH	Multi-data set multi-volume id	@04A	52900000
*****@04A			52950000
* Data set size: This is calculated by multiplying the blocksize		*@04A	53000000
* by the number of blocks divided by 1024.		*@K5C	53050000
*****@04A			53100000
RXDDSSIZE,*,10,FS	Approx. size of file kbytes	@SKC	53150000
RXDABEND,*,1,CH	Data set closed by abend	@04A	53200000
* RXDYES, 'Y'	Yes	@04A	53250000
* RXDNO, 'N'	No	@04A	53300000
*****@04A			53350000
* RXDCAT: Set to 'Y' either when opened after allocation		*@14C	53372200
* determines VOLSER by reference to the catalog or when		*@14C	53394400
* data set is cataloged after the data set is recorded		*@14C	53416600
* in DFSMSrmm.		*@14C	53438800
*		*	53461000
* Set to 'N' when it was cataloged and now is not.		*@14A	53483200
* Set to 'U'/Unknown when it was never cataloged or		*@14A	53505400
* uncataloged.		*@14A	53527600
*****@04A			53550000
RXDCAT,*,1,CH	CATALOGED Y/N/U	@14C	53600000
* RXDYES, 'Y'	Yes	@04A	53650000
* RXDNO, 'N'	No	@04A	53700000
* RXDUNKNOWN, 'U'	UNKNOWN	@14A	53725000
RXDVRSR,*,1,CH	Retained by VRS	@04A	53750000
* RXDYES, 'Y'	Yes	@04A	53800000
* RXDNO, 'N'	No	@04A	53850000
RXDDELETED,*,1,CH	Deleted by Disposition	@MXA	53870000
* RXDYES, 'Y'	Yes	@MXA	53890000
* RXDNO, 'N'	No	@MXA	53910000
SKIP,2	Reserved	@MXC	53930000
SKIP,4	Reserved	@04A	53950000
*****@04A			54000000
* Primary VRS subchain name:		*@04A	54050000
* This is the retaining VRS in the matching		*@04A	54100000
* primary VRS chain. It is set only if retained		*@04A	54150000
* by a NAME VRS subchain in the primary VRS.		*@04A	54200000
*****@04A			54250000
RXDVRSSCH,*,8,CH	Primary VRS subchain name	@04A	54300000
RXDVRXDS,*,10,CH	Primary VRS subchain start date	@04A	54350000
*****@04A			54400000
* Retaining Secondary VRS name:		@04A	54450000
* Matching vrs name and job name are included		*@04A	54500000
* where a secondary VRS also matches.		*@04A	54550000
* The retaining VRS subchain NAME in this		*@04A	54600000
* matching VRS is set if it is used to retain		*@04A	54650000
* the data set.		*@04A	54700000
*****@04A			54750000
RXD2VNAME,*,8,CH	Secondary VRS name mask	@04A	54800000
RXD2VJBN,*,8,CH	Secondary VRS jobname mask	@04A	54850000
RXD2VSCH,*,8,CH	Secondary VRS subchain NAME	@04A	54900000

RXD2VXDS,*10,CH	Secondary VRS subchain startdate	@04A	54950000
RXDTOTAL_BLKCNT_OLD,*10,CH	Total blkcnt across all ds volumes	@13C	55000000
RXDPERCENT,*3,ZD	Percentage of volume used by data set	@M7C	55050000
RXDPCGM,*8,CH	Creating program name	@04A	55100000
RXDLPGM,*8,CH	Last used program name	@04A	55150000
RXDLJOB,*8,CH	Last used job name	@04A	55200000
RXDLSTEP,*8,CH	Last used step name	@04A	55250000
RXDLDNM,*8,CH	Last used DD name	@04A	55300000
RXDLDEVN,*4,CH	Last used device name	@04A	55350000
RXVMVDSNAM1,*44,CH	First dataset of a volume set	@K2C	55400000
RXDDSSEQ,*5,CH	Data set sequence number	@04A	55438800
RXDLABNO,*5,CH	Label number Label=(xx,ll)	@04A	55477600
RXVDESTBIN,*6,CH	Destination Bin Number	@SCA	55516600
RXVDESTBINMEDIA,*8,CH	Destination Bin Media Name	@SCA	55533200
RXVOL1,*6,CH	VOL1 label volser	@LSA	55541600
RXDEXPDT,*10,CH	Data set expiration date	@08A	55543700
RXDEXPDT0,*10,CH	Original d/s expiration date	@08A	55545800
RXDDEFRET,*1,CH	Default RETPD used	@08A	55547900
RXVVENDOR,*8,CH	Vendor information	@SGA	55548400
RXVWUID,*24,CH	Unique World wide Identifier	@SGA	55548900
RXVVMC,*5,ZD	Write mount count	@SGA	55549400
RXVTREERR,*5,ZD	Temporary read errors	@K3A	55549500
RXVTWERR,*5,ZD	Temporary write errors	@K3A	55549600
RXVPRERR,*5,ZD	Permanent read errors	@K3A	55549700
RXVPWERR,*5,ZD	Permanent write errors	@K3A	55549800
RXVKEYLABEL1,*64,CH	Encryption key label 1	@SJA	55558100
RXVKEYENCOD1,*5,CH	Key encoding mechanism 1, LABEL or HASH	@SJA	55566400
RXVKEYLABEL2,*64,CH	Encryption key label 2	@SJA	55574700
RXVKEYENCOD2,*5,CH	Key encoding mechanism 2, LABEL or HASH	@SJA	55583000
RXVMEDINF,*8,CH	Media information	@09A	55587100
RXVIRMMUSE,*1,CH	IRMM USE - Y/N	@11A	55588500
RXVWORM,*1,CH	WORM - Y/N	@11A	55589900
RXVFACTOR,*2,CH	Space/size factor, MB, GB or TB	@SKA	55590000
* RXVFACTOR_MB,'MB'	applies to RXVCAPACITY,RXVAPPUSE,RXDSize	@SKA	55590100
RXVFACTOR_GB,'GB'		@SKA	55590300
RXVFACTOR_TB,'TB'		@SKA	55590400
RXVAPPUSE,*10,ZD	Tape usage, factored: MB, GB or TB	@SKA	55590500
RXVUSE,*5,CH	Volume use count	@12A	55590700
RXDSize,*10,ZD	Data set size, factored: MB, GB or TB	@SKA	55591000
RXDBESKEY,*10,CH	BES key index	@SLA	55591100
RXDBLCNT,*20,ZD	Block count	@13A	55593300
RXDTOTAL_BLKCNT,*20,ZD	Total block count across all volumes	@13A	55595500
RXVHOLD,*1,CH	HOLD - Y/N	@00A	55596600
RXVESB,*10,CH	Expdt set by - of the volume	@08A	55598000
RXVESB_UNKNOWN,' '		@08A	55599400
RXVESB_CMD,'CMD'		@08A	55600800
RXVESB_CMD_DEF,'CMD_DEF'		@08A	55602200
RXVESB_CMD_VOLCAT,'CMD_VOLCAT'		@08A	55603600
RXVESB_OCE_JFCB,'OCE_JFCB'		@08A	55605000
RXVESB_OCE_EXIT,'OCE_EXIT'		@08A	55606400
RXVESB_OCE_DEF,'OCE_DEF'		@08A	55607800
RXVESB_OCE_MAX,'OCE_MAX'		@08A	55609200
RXVESB_OCE_VOLCAT,'OCE_VOLCAT'		@08A	55610600
RXVESB_LCS,'LCS'		@08A	55612000
RXVESB_LCS_DEF,'LCS_DEF'		@08A	55613400
RXVESB_TVEXTPURGE,'TVEXTPURGE'		@08A	55614800
RXVESB_CNVT,'CNVT'		@08A	55616200
RXVESB_EXPORT,'EXPORT'		@08A	55617600
RXVESB_LASTREF,'LASTREF'		@0QA	55618300
RXVESB_OCE_MC,'OCE_MC'		@0VA	55618600
RXVESB_CATRETPD,'CATRETPD'		@M2A	55618610
RXVESB_CATLG_DAYS,'CATLG_DAYS'		@M2A	55618620
RXVESB_DEFTABLE,'DEFTABLE'		@M3A	
RXDESB,*10,CH	Expdt set by - of the data set	@08A	55619000
RXDESB_UNKNOWN,' '		@08A	55620400
RXDESB_CMD,'CMD'		@08A	55621800
RXDESB_CMD_DEF,'CMD_DEF'		@08A	55623200
RXDESB_CMD_VOLCAT,'CMD_VOLCAT'		@08A	55624600
RXDESB_OCE_JFCB,'OCE_JFCB'		@08A	55626000
RXDESB_OCE_EXIT,'OCE_EXIT'		@08A	55627400
RXDESB_OCE_DEF,'OCE_DEF'		@08A	55628800
RXDESB_OCE_MAX,'OCE_MAX'		@08A	55630200
RXDESB_OCE_VOLCAT,'OCE_VOLCAT'		@08A	55631600
RXDESB_LCS,'LCS'		@08A	55633000
RXDESB_LCS_DEF,'LCS_DEF'		@08A	55634400
RXDESB_TVEXTPURGE,'TVEXTPURGE'		@08A	55635800
RXDESB_CNVT,'CNVT'		@08A	55637200
RXDESB_EXPORT,'EXPORT'		@08A	55638600
RXDESB_LASTREF,'LASTREF'		@0QA	55639300
RXDESB_OCE_MC,'OCE_MC'		@0VA	55639600

```

RXDESB_CATRETPD,'CATRETPD' @M2A 55639610
RXDESB_CATLG_DAYS,'CATLG_DAYS' @M2A 55639620
RXDESB_DEFTABLE,'DEFTABLE' @M3A
RXVUCDATE,*,10,CH Volume last "user" change date @OBA 55640000
RXVUCTIONE,*,6,CH Volume last "user" change time @OBA 55641400
RXDUCCDATE,*,10,CH Dataset last "user" change date @OBA 55642800
RXDUCTIONE,*,6,CH Dataset last "user" change time @OBA 55644200
RXDVEX,*,1,CH VRSEL Exclude Y/N @OFA 55644900
RXVRETMET,*,5,CH Retention Method @OGA 55645000
RXVRETMET_VRSEL,'VRSEL' @OGA 55645100
RXVRETMET_EXPDT,'EXPDT' @OGA 55645200
RXVRMSB,*,10,CH Retention Method Set By @OGA 55645300
RXVRMSB_UNDEFINED,'UNDEFINED' @OGA 55645400
RXVRMSB_CMD,'CMD' @OGA 55645500
RXVRMSB_CMD_DEF,'CMD_DEF' @OGA 55645600
RXVRMSB_OCE_DEF,'OCE_DEF' @OGA 55645700
RXVRMSB_OCE_EXIT,'OCE_EXIT' @OGA 55645800
RXVRMSB_LCS_DEF,'LCS_DEF' @OGA 55645900
RXVRMSB_CNV'T,'CNVT' @OGA 55646000
RXVRMSB_EXPORT_DEF,'EXPORT_DEF' @OGA 55646100
RXVRMSB_INERS_DEF,'INERS_DEF' @OGA 55646200
RXVRMSB_MC_ATTR,'MC_ATTR' @M5A 55646250
RXVRMSB_DEFTABLE,'DEFTABLE' @M3A
RXVCOMP_RAT,*,6,CH Compression ratio for volume @SOA 55646400
RXVPHYS_USED,*,10,CH Physical space used (factored) @SOA 55646600
RXDCOMP_RAT,*,6,CH Compression ratio for dataset @SOA 55646800
RXDPHYS_SIZE,*,10,CH Physical size of dataset (factored) @SOA 55647000
RXDLRED,*,5,CH LASTREF extra days @OQA 55647200
RXVEXRB,*,9,CH EXPDT retain by @OSA 55647400
RXVEXRB_BLANK,' ' @K6A 55647500
RXVEXRB_VOLUME,'VOLUME' @OSA 55647600
RXVEXRB_FIRSTFILE,'FIRSTFILE' @OSA 55647800
RXVEXRB_SET,'SET' @OSA 55648000
RXVEDM,*,1,CH EDM - Y/N @M7A 55596650
***** 55648700
* End of report extended extract record * 55649100
***** 55650000
RXRCEND,* End of RVEXT 55700000
***** 55750000
* End of report extract record * 55800000
***** 55850000

```

EDGSMFSY: SMF record symbols

EDGSMFSY provides the DFSORT symbol mapping for the DFSMSrmm SMF records. For SMF audit records that use a user-written record type 128 to 255, concatenate the EDGSMFSY and EDGSRCSY macros, as shown in this example:

```
//SYMNAMES DD DISP=SHR,DSN=SYS1.MACLIB(EDGSMFSY)
// DD DISP=SHR,DSN=SYS1.MACLIB(EDGSRCSY)
```

Here are the contents of EDGSMFSY:

```

***** 00050000
* 00100000
* RMM Inventory Management SMF Audit Record type 42 subtype 22 * 00150000
* DFSORT Symbol mapping * 00200000
* 00250000
***** 00300000
* z/OS DFSMSrmm V1R10 * 00350000
* 00400000
*PROPRIETARY V3 STATEMENT * 00450000
*LICENSED MATERIALS - PROPERTY OF IBM * 00500000
*"RESTRICTED MATERIALS OF IBM" * 00550000
*5694-A01 * 00600000
*COPYRIGHT 1993 2008 IBM CORP. * 00650000
*STATUS = HDZ1A10 * 00700000
*END PROPRIETARY V3 STATEMENT * 00750000
* 00800000
***** 00850000
* SEE "z/OS DFSMSrmm Reporting" FOR FIELD DETAILS ON RMM RECORDS * 00900000
* SEE "DFSORT APG" FOR DETAILS OF USING SYMBOLS. * 00950000
***** 01000000
* CHANGE ACTIVITY: * 01050000
* $MZ=V1R10 ,1RA,070608,MB : SMF Forward Recovery @MZA * 01100000
* $K0=K1A1214,1RA,070809,WS : hex representation of subtype @K0A * 01125000
***** 01150000

```

```

* 01200000
***** 01250000
* Header for SMF record type 42 * 01300000
***** 01350000
SMF42,1,8463 01400000
SMF42RCL,*,2,BI Record Length 01450000
SMF42SGD,*,2,BI Segment Descriptor (RDW) 01500000
SMF42FLG,*,1,BI System indicator flags 01550000
SMF42FSI,X'80' When set=subsystem id follows system id 01600000
SMF42FSU,X'40' When set = subtypes are used 01650000
SMF42FXA,X'04' When set = MVS/XA (SMF enters) 01700000
SMF42FS2,X'02' When set = VS2 (SMF enters) 01750000
SMF42FS1,X'01' When set = VS1 (SMF enters) 01800000
SMF42RTY,*,1,BI Record type: 42 (X'2A') 01850000
SMF42TME,*,4,BI Record written time (in hundredths of second) 01900000
SMF42DTE,*,4,PD Record written date ('0CYYDDDF') 01950000
SMF42SID,*,4,CH System identification 02000000
SMF42SSI,*,4,CH Subsystem Id 02050000
SMF42STY,*,2,BI Record subtype: 22 (X'0016') @K0C 02100000
SMF42NT,*,2,BI Number of triplets 02150000
SKIP,2 Reserved 02200000
***** 02300000
* Product section triplet * 02350000
***** 02400000
SMF42OPS,*,4,BI Offset to product section 02450000
SMF42LPS,*,2,BI Length of product section 02500000
SMF42NPS,*,2,BI Number of product sections 02550000
***** 02650000
* SMF42 subtype 22 header section * 02700000
* (DFSMSrmm Audit Information) * 02750000
***** 02800000
SMF4222AUD,*,4,BI Offset to audit section 02850000
SMF4222LAD,*,2,BI Length of audit section 02900000
SMF4222NAD,*,2,BI Number of audit sections 02950000
SMF4222REC,*,4,BI Offset to record section 03000000
SMF4222LRC,*,2,BI Length of record section 03050000
SMF4222NRC,*,2,BI Number of record sections 03100000
***** 03200000
* Product Section * 03250000
***** 03300000
SMF42PDL,*,8,CH Product Level 03350000
SMF42PDN,*,10,CH Product Name 03400000
SMF42PSV,*,1,BI Subtype version number 03450000
SKIP,1 Reserved 03500000
SMF42PTS,*,8,CH Interval Start or Open TOD 03550000
SMF42PTE,*,8,CH Interval End or Close TOD 03600000
SKIP,4 Reserved 03650000
***** 03750000
* DFSMSrmm Audit Information (SMF 42 subtype 22) * 03800000
***** 03850000
SMF42MJBN,*,8,CH Job name 03900000
SMF42MRST,*,4,CH Reader start time 03950000
SMF42MRSD,*,4,CH Reader start date 04000000
SMF42MUID,*,8,CH RACF user id 04050000
SMF42MACT,*,1,CH Activity type 04100000
SMF42ADD,'A' Record added 04150000
SMF42CHG,'C' Record changed 04200000
SMF42DEL,'D' Record deleted 04250000
SMF42MFG1,*,1,BI Flag 1 04300000
SMF42MLIS,X'80' Last in set 04350000
SMF42MJRN,X'40' Journal record available 04400000
SMF42MCVTSFLG,*,1,BI Virtual tape server flag 04450000
SMF42MCENABLE,*,1,BI Control record enable flag 04500000
SMF42MLDTP,*,8,PD Local time/date offset 04600000
SMF42MCJNRECN,*,4,BI Journal record number 04650000
SMF42MJNRECNUM,*,4,BI Number of next jn rec written 04700000
SMF42MCUPDVSI,*,4,BI VSI when MCUPDACT set on 04750000
SMF42MCVSICNT,*,4,BI VSI control count 04800000
SMF42MCVRLCTK,*,8,BI VRSEL last change token 04850000
SMF42MCVRSCNT,*,4,BI Current VRS change counter 04900000
SMF42MCVRSRUN,*,4,BI Last HSKP VRS change counter 04950000
SMF42MCSYNCDT,*,4,BI Catsynch date 05000000
SMF42MCSYNCTM,*,4,BI Catsynch time 05050000
***** 05150000
* START OF OVERLAY AREA * 05200000
***** 05250000
SMFADREC,* START OF INFORMATION 05300000
* 05350000

```


EDGS42SY: SMF audit record type 42 subtype 22

EDGS42SY provides the DFSORT symbol mapping for the DFSMSrmm SMF audit record type 42 subtype 22 records. For SMF audit records that use SMF type 42 subtype 22, concatenate EDGS42SY and EDGSRCSY, as shown in this example:

```
//SYMNAMES DD DISP=SHR,DSN=SYS1.MACLIB(EDGS42SY)
// DD DISP=SHR,DSN=SYS1.MACLIB(EDGSRCSY)
```

Here are the contents of EDGS42SY:

```
***** 00050000
*      * 00100000
* RMM Inventory Management SMF Audit Record type 42 subtype 22 * 00150000
*      DFSORT Symbol mapping * 00200000
*      * 00250000
***** 00300000
* z/OS DFSMSrmm V1R10 * 00350000
*      * 00400000
*PROPRIETARY V3 STATEMENT * 00450000
*LICENSED MATERIALS - PROPERTY OF IBM * 00500000
*"RESTRICTED MATERIALS OF IBM" * 00550000
*5694-A01 * 00600000
*COPYRIGHT 1993 2008 IBM CORP. * 00650000
*STATUS = HDZ1A10 * 00700000
*END PROPRIETARY V3 STATEMENT * 00750000
*      * 00800000
***** 00850000
* SEE "z/OS DFSMSrmm Reporting" FOR FIELD DETAILS ON RMM RECORDS * 00900000
* SEE "DFSORT APG" FOR DETAILS OF USING SYMBOLS. * 00950000
***** 01000000
* CHANGE ACTIVITY: * 01050000
* $MZ=V1R10 ,1RA,070608,MB : SMF Forward Recovery @MZA * 01100000
* $K0=K1A1214,1RA,070809,WS : hex representation of subtype @K0A * 01125000
***** 01150000
*      * 01200000
***** 01250000
* Header for SMF record type 42 * 01300000
***** 01350000
SMF42,1,8463 * 01400000
SMF42RCL,=,2,BI Record Length * 01450000
SMF42SGD,*,2,BI Segment Descriptor (RDW) * 01500000
SMF42FLG,*,1,BI System indicator flags * 01550000
SMF42FSI,X'80' When set=subsystem id follows system id * 01600000
SMF42FSU,X'40' When set = subtypes are used * 01650000
SMF42FXA,X'04' When set = MVS/XA (SMF enters) * 01700000
SMF42FS2,X'02' When set = VS2 (SMF enters) * 01750000
SMF42FS1,X'01' When set = VS1 (SMF enters) * 01800000
SMF42RTY,*,1,BI Record type: 42 (X'2A') * 01850000
SMF42TME,*,4,BI Record written time (in hundredths of second) * 01900000
SMF42DTE,*,4,PD Record written date ('0CYYDDDF') * 01950000
SMF42SID,*,4,CH System identification * 02000000
SMF42SSI,*,4,CH Subsystem Id * 02050000
SMF42STY,*,2,BI Record subtype: 22 (X'0016') @K0C * 02100000
SMF42NT,*,2,BI Number of triplets * 02150000
SKIP,2 Reserved * 02200000
***** 02300000
* Product section triplet * 02350000
***** 02400000
SMF420PS,*,4,BI Offset to product section * 02450000
SMF42LPS,*,2,BI Length of product section * 02500000
SMF42NPS,*,2,BI Number of product sections * 02550000
***** 02650000
* SMF42 subtype 22 header section * 02700000
* (DFSMSrmm Audit Information) * 02750000
***** 02800000
SMF422AUD,*,4,BI Offset to audit section * 02850000
SMF422LAD,*,2,BI Length of audit section * 02900000
SMF422NAD,*,2,BI Number of audit sections * 02950000
SMF422REC,*,4,BI Offset to record section * 03000000
SMF422LRC,*,2,BI Length of record section * 03050000
SMF422NRC,*,2,BI Number of record sections * 03100000
***** 03200000
* Product Section * 03250000
***** 03300000
SMF42PDL,*,8,CH Product Level * 03350000
SMF42PDN,*,10,CH Product Name * 03400000
SMF42PSV,*,1,BI Subtype version number * 03450000
```

```

SKIP,1          Reserved          03500000
SMF42PTS,*,8,CH Interval Start or Open TOD 03550000
SMF42PTE,*,8,CH Interval End or Close TOD 03600000
SKIP,4          Reserved          03650000
*****
* DFSMSrmm Audit Information (SMF 42 subtype 22) *
*****
SMF42MJB,*,8,CH Job name          03900000
SMF42MRST,*,4,CH Reader start time 03950000
SMF42MRSD,*,4,CH Reader start date 04000000
SMF42MUID,*,8,CH RACF user id      04050000
SMF42MACT,*,1,CH Activity type      04100000
SMF42ADD, 'A'    Record added       04150000
SMF42CHG, 'C'    Record changed      04200000
SMF42DEL, 'D'    Record deleted      04250000
SMF42MFG1,*,1,BI Flag 1             04300000
SMF42MLIS,X'80'  Last in set         04350000
SMF42MJRN,X'40'  Journal record available 04400000
SMF42MCVTSFLG,*,1,BI Virtual tape server flag 04450000
SMF42MCENABLE,*,1,BI Control record enable flag 04500000
SMF42MLD,*,8,PD  Local time/date offset 04600000
SMF42MCJNREC,*,4,BI Journal record number 04650000
SMF42MJNRECN,*,4,BI Number of next jn rec written 04700000
SMF42MCUPD,*,4,BI VSI when MCUPDACT set on 04750000
SMF42MCVSICNT,*,4,BI VSI control count 04800000
SMF42MCVRLCT,*,8,BI VRSEL last change token 04850000
SMF42MCVRSCNT,*,4,BI Current VRS change counter 04900000
SMF42MCVRSR,*,4,BI Last HSKP VRS change counter 04950000
SMF42MCSYNCDT,*,4,BI Catsynch date 05000000
SMF42MCSYNCTM,*,4,BI Catsynch time 05050000
*****
* START OF OVERLAY AREA *
*****
SMFADREC,*,*    START OF INFORMATION
*

```

EDGSRCSY: SMF record

EDGSRCSY provides the DFSORT symbol mapping for the DFSMSrmm SMF records. It is used with EDGSMFSY (for SMF audit records that use a user-written record type 128 to 255) and EDGS42SY (for SMF audit record type 42 subtype 22).

Here are the contents of EDGSRCSY:

```

***** 00035600
*      * 00071200
* RMM Inventory Management SMF Record * 00106800
* DFSORT Symbol mapping * 00142400
*      * 00178000
***** 00213600
* z/OS DFSMSrmm V2R4 * 00249200
*      * 00284800
* PROPRIETARY V3 STATEMENT * 00320400
* LICENSED MATERIALS - PROPERTY OF IBM * 00356000
* "RESTRICTED MATERIALS OF IBM" * 00391600
* 5650-ZOS * 00427200
* COPYRIGHT IBM CORP. 1993,2019 * 00462800
* STATUS = HDZ2230 * 00498400
* END PROPRIETARY V3 STATEMENT * 00534000
*      * 00569600
***** 00605200
* SEE "z/OS DFSMSrmm Reporting" FOR FIELD DETAILS ON RMM RECORDS * 00640800
* SEE "DFSORT APG" FOR DETAILS OF USING SYMBOLS. * 00676400
***** 00712000
*      * 00720900
* $MAC(EDGSRCSY) COMP(DF186) PROD(RMM) : DFSORT symbols for SMF record * 00729800
*      * 00738700
*      * 00747600
* CHANGE ACTIVITY: *
* $MZ=V1R10 ,1RA,070608,MB : SMF Forward Recovery @MZA * 00783200
* $K1=K1A1055,1RA,070719,AH : Spelling errors @K1A * 00801000
* $N1=V1R10 ,1RA,070809,WS : eRMM support @N1A * 00809900
* $06=OA22706,1R7,071016,WS : Toleration for OA22132 @06A * 00814300
* $07=K1A2345,1RA,080313,BRB: changes for APAR OA23266 @07A * 00816500
* $SK=OA22132,1R7,070831,WS : 3592-G3 Support @SKA * 00817600
* $SL=OA24025,1R8,080208,KHO: CA BTE API support @SLA * 00818200
* $00=RMMAS1 ,1RC,090925,WS : Volume HOLD attribute @00A * 00818500
* $08=RMMESB ,1RD,100525,SST: 5.2.2.2 Expiry date set by @08A * 00818600
* $08=OA33070,1R9,100521,GB : Correct MVCONTAINER_STV length @08A * 00818700

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* $OF=RMMVEX ,1RD,100616,BRB: 5.2.4 CD VRSELEXCLUDE @OFA * 00830600
* $OG=RMMRM3 ,1RD,100726,WS : 5.2.5.3 RETENTIONMETHOD @OGA * 00836500
* $OQ=RMMLRD ,2R1,110731,WS : 75.1.1 LASTREF extra days @OQA * 00838500
* $OS=RMMMAO ,2R1,110731,WS : 75.1.2 EXPDT_RETAINBY @OSA * 00840500
* $SO=OA33958,1RA,110114,ZB : 3592-G4 Support @SOA * 00841500
* $OV=RMMEME ,2R1,110831,WS : 75.2.1 Management class expiration @OVA * 00842000
* $M2=FP0882 ,2R2,140606,AVK: WHILECATALOG support @M2A * 00842100
* $M2=FP0882 ,2R2,141106,VT : New RM(EX) values support (SM03105) @M2A * 00842200
* $K2=SM03220,2R2,141201,ZB : Fix some discrepancies @K2A * 00842250
* $M5=FP1391 ,2R3,150610,VT : New Managmnt Class attr support @M5A * 00842260
* $M3=151046 ,2R3,161223,AVK: deftable setby constants @M3A *
* $M7=261985, 2R4,180716,KG : Add EDM to report extract data set @M7A *
00842300***** 00842500
* 00854400
***** 00890000
* ACTION RECORD * 00925600
***** 00961200
* 00996800
POSITION,SMFADREC START AFTER EDGS42SY OR EDGSMFSY 01032400
***** 01068000
* KEY FIELD * 01103600
***** 01139200
MAKEY,=,56 KEY FIELD 01174800
MATYPE,=,1,CH RECORD TYPE 01210400
MATYPEID,'C' ACTION RECORD ID SYMBOL 01246000
MATYPE1,*,1,CH SUB-TYPE 01281600
MATYPE1_ACTION,'A' ACTION 01317200
MATYPE1_MOVE,'M' MOVE 01352800
MAACTION,*,8,CH ACTION TYPE 01388400
MAMVE,'MOVE' MOVE 01424000
MASCR,'SCRATCH' SCRATCH 01459600
MARET,'RETURN' RETURN 01495200
MAREP,'REPLACE' REPLACE 01530800
MAINI,'INIT' INIT 01566400
MAERS,'ERASE' ERASE 01602000
MANTF,'NOTIFY' NOTIFY 01637600
SKIP,8 RESERVED 01673200
MALOC,*,8,CH SOURCE LOCATION FOR MOVE 01708800
MADEST,*,8,CH TARGET LOCATION FOR MOVE 01744400
SKIP,22 RESERVED 01780000
***** 01815600
* CONTROL INFORMATION * 01851200
***** 01886800
MARECLN,*,2,FI RECORD LENGTH 01922400
SKIP,2 RESERVED 01958000
MACRDATE,*,4,PD ACTION CREATE DATE - YYYYDDD 01993600
MACRTIME,*,4,PD ACTION CREATE TIME - HHMMSS 02029200
MACRSID,*,8,CH CREATE SYSTEM ID 02064800
MARCCDS,*,8,CH RECORD CREATE CDS ID 02100400
MALCDATE,*,4,PD LAST CHANGE DATE - YYYYDDD 02136000
MALCTIME,*,4,PD LAST CHANGE TIME - HHMMSS 02171600
MALCUID,*,8,CH LAST CHANGE USER ID 02207200
MALCSID,*,8,CH LAST CHANGE SYSTEM ID 02242800
MAUCDATE,*,4,PD LAST "USER" CHANGE DATE 02278400
MAUCTIME,*,4,PD LAST "USER" CHANGE TIME 02314000
MACFLG,*,1,BI CONTROL FLAGS 1 02349600
MADELFLG,X'80' RECORD DELETED 02385200
MASELFGL,X'10' SELECT - PROC BY SATELLITE UPDT 02420800
MARECLEV,*,1,BI RECORD LEVEL NUMBER 02456400
SKIP,6 RESERVED 02492000
***** 02527600
* ACTION RECORD SPECIFIC INFORMATION * 02563200
***** 02598800
MACOUNT,*,4,FI COUNT OF VOLS REQ THIS ACTION 02634400
MASFLAG,*,1,BI STATUS OF MOVES AND ACTIONS 02670000
MASCOMP,X'80' COMPLETED 02705600
MASPEND,X'40' PENDING 02741200
MASCONF,X'20' CONFIRMED 02776800
MASUNK,X'10' UNKNOWN 02812400
SKIP,7 RESERVED 02848000
***** 02883600
* END OF ACTION RECORD SPECIFICATION FILE RECORD * 02919200
***** 02954800
MARCEND,* END OF MAREC 02990400
***** 03026000
* END OF RMM MAREC * 03061600
***** 03097200
* 03132800
POSITION,SMFADREC START AFTER EDGSMFAR/IGWSMF 03168400
***** 03204000
* KEY FIELD * 03239600
***** 03275200

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MDKEY,=,56	KEY FIELD	03310800
MDTYPE,=,1,CH	RECORD TYPE	03346400
MDTYPEID,'D'	DSN INFO ID SYMBOL	03382000
MDDSNNAME,*,44,CH	DATASET NAME	03417600
MDVOLSER,*,6,CH	VOLUME SERIAL NUMBER	03453200
SKIP,1	RESERVED	03488800
MDDSNSEQ,*,2,BI	DATASET SEQUENCE NUMBER	@LLC 03524400
MDPAD1,*,2,CH	RESERVED - BINARY ZEROS	@K2C 03560000
*****		03595600
* CONTROL INFORMATION		* 03631200
*****		03666800
MDRECLN,*,2,FI	RECORD LENGTH	03702400
SKIP,2	RESERVED	03738000
MDCRDATE,*,4,PD	DSN CREATE DATE - YYYYDDD	03773600
MDCRTIME,*,4,PD	DSN CREATE TIME - HHMMSS	03809200
MDCRSID,*,8,CH	CREATE SYSTEM ID	03844800
MDRCCDS,*,8,CH	RECORD CREATE CDS ID	03880400
MDLCDATE,*,4,PD	LAST CHANGE DATE - YYYYDDD	03916000
MDLCTIME,*,4,PD	LAST CHANGE TIME - HHMMSS	03951600
MDLCUID,*,8,CH	LAST CHANGE USER ID	03987200
MDLCSID,*,8,CH	LAST CHANGE SYSTEM ID	04022800
MDUCDATE,*,4,PD	LAST "USER" CHANGE DATE	04058400
MDUCTIME,*,4,PD	LAST "USER" CHANGE TIME	04094000
MDCFLG,*,1,BI	CONTROL FLAGS 1	04129600
MDDELFLG,X'80'	RECORD DELETED	04165200
MDPDLFLG,X'40'	RECORD PREVIOUSLY DELETED	04200800
MDUPDFLG,X'20'	DIRECT IO UPDATE	@K2A 04200850
MDSELFLG,X'10'	SELECT - PROC BY SATELLITE UPDT	04236400
MDDUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	04272000
MDRECLEV,*,1,BI	RECORD LEVEL NUMBER	04307600
SKIP,6	RESERVED	04343200
*****		04378800
* DSNAME INFORMATION		* 04414400
*****		04450000
MDTOTAL_BLKs,*,4,FI	TOTAL BLOCK COUNT	04485600
MDSTART_POSN,*,1,BI	FILE START MEDIA POSITION	@01A 04521200
MDEND_POSN,*,1,BI	FILE END MEDIA POSITION	@01A 04556800
MDVOLSEQ,*,2,FI	VOLUME SEQUENCE NUMBER	04592400
MDUNITAD,*,4,CH	UNIT ADDRESS	04628000
MDRECFM,*,4,CH	RECORD FORMAT	04663600
MDLRECL,*,4,FI	LOGICAL RECORD LENGTH	04699200
MDBLKsZ,*,4,FI	PHYSICAL BLOCK SIZE	04734800
MDBLKCNT,*,4,FI	BLOCK COUNT	04770400
MDOWNDSN,*,8,CH	DATASET OWNER	04806000
MDSECLEV,*,1,BI	SECURITY LEVEL	04841600
MDTRTCH,*,1,BI	FROM JFCTRTCH - IDRC SUPPORT	04877200
MDTCOMP,X'08'	DSN USED 3480 IDRC	04912800
MDTNCOMP,X'04'	NO COMPACTION	04948400
MDFILSEQ,*,2,BI	LOGICAL FILE SEQUENCE NO	04984000
MDTOKEN,*,8,CH	RESERVED FOR RMM INTERNAL USE	05019600
MDDSSIZE,*,4,FI	DATASET SIZE IN KBYTES	05055200
MDLRDATE,*,4,PD	DATE LAST READ - YYYYDDD	05090800
MDLWDATE,*,4,PD	DATE LAST WRITTEN - YYYYDDD	05126400
MDFLAG,*,1,BI	FLAG BYTE	05162000
MDFCAT,B'1.....'	DATA SET IS CATALOGED	05197600
MDFVRSR,B'1.....'	DATA SET IS RETAINED BY VRS	05233200
MDFNOTCAT,B'..1.....'	INDICATES DS WAS FOUND NOT TO BE CATALOGED DURING VRS	05268800
*		05304400
MDFDELETED,B'..1....'	DELETED by disposition	@MXA 05340000
MDFABEND,B'....1....'	ABEND IN PROGRESS WHEN DATA SET CLOSED	05375600
MDFOCEAB,B'.....1....'	ABEND PROBABLY IN O/C/EOV	05411200
MDFORCE,B'.....1....'	FORCE SUPPLIED	05446800
MDDEFRET,B'.....1....'	DEFAULT RETPD USED	@03A 05482400
MDESBEXPDTSETBY,*,1,FI		@08A 05495000
MDESB_UNKNOWN,0		@08A 05507600
MDESB_CMD,1		@08A 05509100
MDESB_CMD_DEF,2		@08A 05510600
MDESB_CMD_VOLCAT,3		@08A 05512100
MDESB_OCE_JFCB,4		@08A 05513600
MDESB_OCE_EXIT,5		@08A 05515100
MDESB_OCE_DEF,6		@08A 05516600
MDESB_OCE_MAX,7		@08A 05518100
MDESB_OCE_VOLCAT,8		@08A 05519600
MDESB_LCS,9		@08A 05521100
MDESB_LCS_DEF,10		@08A 05522600
MDESB_TVEXTPURGE,11		@08A 05524100
MDESB_CNVT,12		@08A 05525600
MDESB_EXPORT,13		@08A 05527100
MDESB_LASTREF,14		@0QA 05528400
MDESB_OCE_MC,15		@0VA 05529100
MDESB_CATRETPD,16		@M2A 05529110
MDESB_CATLG_DAYS,17		@M2A 05529120

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MDESB_DEFTABLE,18                                     @M3A

MDSAVEXPDTSETBY,*,1,FI      SAVED SETBY IF ESB_CATRETPD      @M2C 05529200
MDVRSTYP,*,1,CH             MATCHING VRS TYPE                05553600
MDVTD, 'D'                  DATASET                          05589200
MDVTS, 'S'                  SMSMC                             05624800
MDVTV, 'V'                  VRSMV                             05660400
MDVTM, 'M'                  DSN/MV                             05696000
MDACSMC,*,8,CH              SMS MANAGEMENT CLASS NAME        05731600
MDFACSMC,*,8,CH             OLD SMS MANAGEMENT CLASS NAME    05767200
MDVRSVAL,*,8,CH             VRS MANAGEMENT VALUE             05802800
MDACSSG,*,8,CH              SMS STORAGE GROUP NAME           05838400
MDACSSC,*,8,CH              SMS STORAGE CLASS NAME           05874000
MDACSDC,*,8,CH              SMS DATA CLASS NAME              05909600
MDCRTJBN,*,8,CH             CREATING JOB NAME                05945200
MDVRSJBN,*,8,CH             MATCHING VRS JOB NAME MASK       05980800
MDRETDAT,*,4,CH             RETENTION DATE                  06016400
MDSTEPNM,*,8,CH             CREATING STEP NAME            06052000
MDDDDNAME,*,8,CH            CREATING DDNAME          06087600
MDPVSCH,*,8,CH              PRIMARY VRS SUBSEQUENT SUBCHAIN NAME 06123200
MDPVSDTE,*,4,PD             PRIMARY VRS SUBSEQUENT SUBCHAIN START DATE 06158800
MDEXPDT,*,4,PD              EXPIRATION DATE              06194400
MDEXPDTO,*,4,PD             ORIGINAL EXPIRATION DATE      06230000
SKIP,8                       RESERVED                          06265600
MDBLKIDS,*,4,FI             FILE START BLOCKID        @01A 06301200
MDBLKIDE,*,4,FI             FILE END BLOCKID          @01A 06336800
MDCPGM,*,8,CH               CREATING PROGRAM NAME     @01A 06372400
MDLPGM,*,8,CH               LAST USE PROGRAM NAME     @01A 06408000
MDLJOB,*,8,CH               LAST USE JOB NAME         @01A 06443600
MDLSTEP,*,8,CH              LAST USE STEP NAME        @01A 06479200
MDLDDNM,*,8,CH              LAST USE DD NAME          @01A 06514800
MDLDEVN,*,4,CH              LAST USE DEVICE NUMBER    @01A 06550400
SKIP,4                       RESERVED                          @01A 06586000
*****06621600
* FIXED LENGTH SECTION 3      @SJA 06657200
*****06692800
MDBESKEY,*,4,BI             BES KEY INDEX              @SLA 06704600
MDDSSIZE64,*,8,FI           SIZE IN KB                 @SKA 06716400
MDBLKCNT64,*,8,FI           BLOCK COUNT                @SKA 06728200
MDTOTAL_BLK64,*,8,FI        TOTAL BLOCK COUNT          @SKA 06740000
MDFLAG1,*,1,BI              FLAG BYTE ONE              @0FA 06746000
MDFG1_VRSELEXCLUDE,B'1.....' FILE EXCLUDED FROM VRSEL @0FA 06752000
MDFG1_COPYFROM,B'..1.....' RECORD COPIED FROM OTHER DS @0KA 06752100
Mdfg1_WHILECAT_ON,B'..1....' WHILECATALOG(ON) SET @M2A 06752200
Mdfg1_WHILECAT_UX,B'...1....' WHILECATALOG(UNTILEXPIRED) @M2A 06752300
SKIP,3                       RESERVED                          @0QA 06755000
MDLRED,*,4,FI               LASTREF EXTRA DAYS         @0QA 06758000
MDPHYS_SIZE,*,8,FI          DATASET PHYSICAL SIZE IN KB @SOA 06762400
MDSAVEXPDT,*,4,PD           SAVED EXPDT IF ESB_CATRETPD @M2A 06762500
MDSAVEXPMT,*,4,PD           SAVED EXPTM IF ESB_CATRETPD @M2A 06762600
SKIP,12                      RESERVED                          @M2C 06763100
*****06764000
* VARIABLE LENGTH SECTION    * 06799600
*****06835200
MDPDSNL,*,1,BI              LENGTH OF PREVIOUS DSNNAME 06870800
MDNDSNL,*,1,BI              LENGTH OF NEXT DSNNAME     06906400
MDVRSNML,*,1,BI             LENGTH OF MATCHING VRS NAME 06942000
MD2VMTCL,*,1,BI             LENGTH OF SECOND. VRS FIELDS 06977600
SKIP,8                       RESERVED FOR MORE LENGTH FIELDS @SJA 07013200
MDPDSN,*,44,CH              PREVIOUS DSNNAME OR NULL   07048800
MDNDSN,*,44,CH              NEXT DSNNAME OR NULL       07084400
MDVRSNAM,*,44,CH            MATCHING VRS NAME          07120000
MD2VNAME,*,8,CH             SECONDARY VRS MASK          07155600
MD2VJBNM,*,8,CH             SECONDARY VRS JOB NAME MASK 07191200
MD2VSCH,*,8,CH              SECONDARY VRS SUBSEQUENT SUBCHAIN NAME 07226800
MD2VSDTE,*,4,PD            SECONDARY VRS SUBSEQUENT SUBCHAIN 07262400
* START DATE                  07298000
*****07333600
* END OF DATA SET INFORMATION * 07369200
*****07404800
MDRCEND,*                    END OF MDREC              07440400
*****07476000
* END OF RMM MDREC          * 07511600
*****07547200
* 07582800
POSITION,SMFADREC            START AFTER EDGSMFAR/IGWSMF 07618400
*****07654000
* KEY                         * 07689600
*****07725200
MKKEY,=,56                   KEY OF VRS RECORD          07760800
MKTYPE,=,1,CH                RECORD TYPE                07796400
MKTYPEID, 'K'                VRS RECORD ID              07832000

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MKTYPE2,*1,CH	VRS TYPE	07867600
MKTPVOL,'V'	VOLUME VRS	07903200
MKTPNAM,'N'	NAME VRS	07938800
MKTPDSN,'D'	DATA SET VRS	07974400
MKVOLSER,*6,CH	VOLUME SERIAL MASK	08010000
MKNAME,=,8,CH	NAME OF VRS	08045600
MKDSNAME,=,44,CH	DATA SET NAME MASK	08081200
MKGKEY,*1,CH	GENERIC/SPECIFIC INDICATOR	08116800
MKGKSPEC,'0'	SPECIFIC	08152400
MKGKGEN,'1'	GENERIC	08188000
MKCRTJBN,*8,CH	JOB NAME	08223600
SKIP,1	RESERVED	08259200
*****		08294800
* CONTROL INFORMATION		*08330400
*****		08366000
MKRECLN,*2,FI	RECORD LENGTH	08401600
SKIP,2	RESERVED	08437200
MKCRDATE,*4,PD	VRS CREATE DATE - YYYYDDD	08472800
MKCRTIME,*4,PD	VRS CREATE TIME - HHMMSS	08508400
MKCRSID,*8,CH	CREATE SYSTEM ID	08544000
MKRCCDS,*8,CH	RECORD CREATE CDS ID	08579600
MKLCDATE,*4,PD	LAST CHANGE DATE - YYYYDDD	08615200
MKLCTIME,*4,PD	LAST CHANGE TIME - HHMMSS	08650800
MKLCUID,*8,CH	LAST CHANGE USER ID	08686400
MKLCSID,*8,CH	LAST CHANGE SYSTEM ID	08722000
MKUCDATE,*4,PD	LAST "USER" CHANGE DATE	08757600
MKUCTIME,*4,PD	LAST "USER" CHANGE TIME	08793200
MKCFLG,*1,BI	CONTROL FLAGS 1	08828800
MKDELFLG,X'80'	RECORD DELETED	08864400
MKSELFLG,X'10'	SELECT - PROC BY SATELLITE UPDT	08900000
MKRECLEV,*1,BI	RECORD LEVEL NUMBER	08935600
SKIP,6	RESERVED	08971200
*****		09006800
* RETENTION TYPE		*09042400
*****		09078000
MKRETN,*1,BI	TYPE OF RETENTION	09113600
MKRETNB,B'1.....'	CYCLES	09149200
MKRETNB,B'.1.....'	DAYS	09184800
MKRETNB,B'..1.....'	LASTREFERENCEDAYS	09220400
MKRETNB,B'...1.....'	WHILECATALOGED	09256000
MKRETNB,B'....1.....'	UNTILEXPIRED	09291600
MKRETNB,B'.....1.....'	EXTRADAYS	09327200
MKRETNB,B'.....1.....'	BYDAYSCYCLE	09362800
*****		09398400
* DATA SET NAME MASK TYPE		*09434000
*****		09469600
MKDSNTYP,*1,BI	DATA SET NAME MASK TYPE	09505200
MKDSNG,X'80'	GENERATION DATA GROUP	09540800
MKDSNP,X'40'	PSEUDO GDG	09576400
MKDSND,X'20'	STANDARD DATA SET NAME	09612000
* MKOPEN,X'02'	MASK IS FOR OPEN FILES	@MCD 09647600
* MKABEND,X'01'	MASK IS FOR ABENDED FILES	@MCD 09683200
*****		09718800
* STORE INFORMATION		*09754400
*****		09790000
MKSTORE,*1,CH	STORE REQUIREMENT	09825600
MKSTOREV,'V'	VITAL RECORD ONLY	09861200
MKSTORER,'R'	REMOTE STORE	09896800
MKSTOREL,'L'	LOCAL STORE	09932400
MKSTORED,'D'	DISTANT STORE	09968000
MKSTOREB,'B'	BOTH: LOCAL THEN DISTANT	10003600
MKLOCFLG,*1,BI	LIBRARY SUPPORT FLAG	10039200
MKLOC,*8,CH	LOCATION NAME	10074800
MKLHOM,'HOME'	HOME	10110400
MKLLCL,'LOCAL'	LOCAL	10146000
MKLREM,'REMOTE'	REMOTE	10181600
MKLDIS,'DISTANT'	DISTANT	10217200
MKLCUR,'CURRENT'	CURRENT	10252800
** CAN ALSO BE DEFINED LIBRARY NAME		10288400
*****		10324000
* VRS CONTROL INFORMATION		*10359600
*****		10395200
MKNEXT,*8,CH	NAME OF NEXTVRS OR ANDVRS	10430800
MKCOUNT,*4,FI	NBR OF CYCLES, DAYS, VOLUMES	10466400
MKLPRTY,*2,FI	LOCATION PRIORITY OVERRIDE	10502000
* MKSTART,*2,FI	STORE START NUMBER	@MCD 10537600
SKIP,2	RESERVED	@MCA 10573200
MKSTORE1,*4,FI	STORE KEEP NUMBER	10608800
* MKSTORE2,*4,FI	DISTANT STORE KEEP NUMBER	@MCD 10644400
MKRLTIME,*4,PD	LAST REFERENCE TIME	@MCA 10680000
MKFLAGA,*1,BI	FLAG-A	10715600
MKFGAAND,X'80'	MKNEXT IS ANDVRS() OPERAND	10751200

MKFGANXT,X'40'	MKNEXT IS NEXTVRS() OPERAND	10786800
MKRLSOPT,*,1,BI	RELEASE OPTIONS	10822400
MKRLSXDI,B'1.....'	EXPIRY DATE IGNORE	10858000
MKRLSSCI,B'1.....'	SCRATCH IMMEDIATE	10893600
MKDELAY,*,2,FI	NUMBER OF DAYS BEFORE MOVE	10929200
MKOWNER,*,8,CH	VRS OWNER	10964800
MKDELDAT,*,4,PD	VRS DELETE DATE (YYYYDDD)	11000400
MKDESC,*,30,CH	DESCRIPTION	11036000
SKIP,2	RESERVED @MCC	11071600
MKRLDATE,*,4,PD	LAST REFERENCE DATE @MCA	11107200
*****		11142800
MKRCEND,*	END OF MKREC	11178400
*****		11214000
* END OF RMM MKREC		* 11249600
*****		11285200
*		11320800
POSITION,SMFADREC	START AFTER EDGSMFAR/IGWSMF	11356400
*****		11392000
* KEY FIELD		* 11427600
*****		11463200
MOKEY,=,56	KEY FIELD	11498800
MOTYPE,=,1,CH	RECORD TYPE	11534400
MOTYPEID,'O'	OWNER RECORD ID SYMBOL	11570000
MOOWNER,*,8,CH	OWNER ID	11605600
MORTYPE,*,6,CH	OWNER INFO	11641200
MORDET,'000000'	OWNER DETAILS	11676800
MORVLO,'VOLSER'	VOLUME/OWNER INFORMTN	11712400
MOREND,'111111'	END OF VOLUME/OWNER	11748000
SKIP,41	RESERVED - BINARY ZEROS	11783600
*****		11819200
* CONTROL INFORMATION		* 11854800
*****		11890400
MORECLN,*,2,FI	RECORD LENGTH	11926000
SKIP,2	RESERVED	11961600
MOCRDATE,*,4,PD	OWNR CREATE DATE - YYYYDDD	11997200
MOCRTIME,*,4,PD	OWNR CREATE TIME - HHMMSS	12032800
MOCRSID,*,8,CH	CREATE SYSTEM ID	12068400
MORCCDS,*,8,CH	RECORD CREATE CDS ID	12104000
MOLCDATE,*,4,PD	LAST CHANGE DATE - YYYYDDD	12139600
MOLCTIME,*,4,PD	LAST CHANGE TIME - HHMMSS	12175200
MOLCUID,*,8,CH	LAST CHANGE USER ID	12210800
MOLCSID,*,8,CH	LAST CHANGE SYSTEM ID	12246400
MOUCDATE,*,4,PD	LAST "USER" CHANGE DATE	12282000
MOUCTIME,*,4,PD	LAST "USER" CHANGE TIME	12317600
MOCFLG,*,1,BI	CONTROL FLAGS 1	12353200
MODELFLG,X'80'	RECORD DELETED	12388800
MOSELFGL,X'10'	SELECT - PROC BY SATELLITE UPDT	12424400
MODUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	12460000
SKIP,7	RESERVED	12495600
*****		12531200
* OWNER DETAILS		* 12566800
*****		12602400
ALIGN,F	ENSURE AREA F-WORD ALIGNED	12638000
MOOWNDET,*,311	OWNER DETAILS @MEC	12673600
MOOWNSUR,=,20,CH	OWNER SURNAME	12709200
MOOWNFST,*,20,CH	OWNER FIRST NAME	12744800
MOOWNDEP,*,40,CH	OWNER DEPARTMENT	12780400
MOOWNAD1,*,40,CH	OWNER ADDRESS LINE 1	12816000
MOOWNAD2,*,40,CH	OWNER ADDRESS LINE 2	12851600
MOOWNAD3,*,40,CH	OWNER ADDRESS LINE 3	12887200
MOOWNNTIN,*,8,CH	OWNER INTERNAL TELEPHONE NO	12922800
MOOWNTEX,*,20,CH	OWNER EXTERNAL TELEPHONE NO	12958400
MOOWNUID,*,8,CH	OWNER USERID	12994000
MOOWNNOD,*,8,CH	OWNER NODENAME	13029600
MOOWNVOL,*,4,CH	TOTAL NUMBER OF OWNED VOLUMES	13065200
MOOWNEML,*,63,CH	OWNER EMAIL ADDRESS @MEA	13100800
MOODETND,*	END OF OWNER DETAILS	13136400
*****		13172000
* OWNED VOLUME DETAILS		* 13207600
*****		13243200
POSITION,MOOWNDET	OVERLAY OWNER DETAILS	13278800
MOVOLDDET,*,4	VOLUME DETAILS	13314400
MOVOLNO,=,2,FI	OWNED VOLS THIS INFORMATION	13350000
SKIP,2	RESERVED	13385600
*****		13421200
* OWNED VOLUME ENTRIES - 001-100		* 13456800
* THE ACTUAL NUMBER OF ENTRIES IS INDICATED BY MOVOLNO.		* 13492400
*****		13528000
MOVOLNT_ARRAY,*,1600	ARRAY OF VOLUME ENTRIES	13563600
MOVOLNT_001,=,16	VOLUME ENTRY - 001	13599200
MOVOLSER_001,=,6,CH	VOLUME SERIAL - 001	13634800
SKIP,2	RESERVED	13670400

MOUNIT_001,*,8,CH	UNIT TYPE - 001	13706000
MOVOLSER_002,*,16	VOLUME ENTRY - 002	13741600
MOVOLSER_002,=,6,CH	VOLUME SERIAL - 002	13777200
SKIP,2	RESERVED	13812800
MOUNIT_002,*,8,CH	UNIT TYPE - 002	13848400
MOVOLSER_003,*,16	VOLUME ENTRY - 003	13884000
MOVOLSER_003,=,6,CH	VOLUME SERIAL - 003	13919600
SKIP,2	RESERVED	13955200
MOUNIT_003,*,8,CH	UNIT TYPE - 003	13990800
MOVOLSER_004,*,16	VOLUME ENTRY - 004	14026400
MOVOLSER_004,=,6,CH	VOLUME SERIAL - 004	14062000
SKIP,2	RESERVED	14097600
MOUNIT_004,*,8,CH	UNIT TYPE - 004	14133200
MOVOLSER_005,*,16	VOLUME ENTRY - 005	14168800
MOVOLSER_005,=,6,CH	VOLUME SERIAL - 005	14204400
SKIP,2	RESERVED	14240000
MOUNIT_005,*,8,CH	UNIT TYPE - 005	14275600
MOVOLSER_006,*,16	VOLUME ENTRY - 006	14311200
MOVOLSER_006,=,6,CH	VOLUME SERIAL - 006	14346800
SKIP,2	RESERVED	14382400
MOUNIT_006,*,8,CH	UNIT TYPE - 006	14418000
MOVOLSER_007,*,16	VOLUME ENTRY - 007	14453600
MOVOLSER_007,=,6,CH	VOLUME SERIAL - 007	14489200
SKIP,2	RESERVED	14524800
MOUNIT_007,*,8,CH	UNIT TYPE - 007	14560400
MOVOLSER_008,*,16	VOLUME ENTRY - 008	14596000
MOVOLSER_008,=,6,CH	VOLUME SERIAL - 008	14631600
SKIP,2	RESERVED	14667200
MOUNIT_008,*,8,CH	UNIT TYPE - 008	14702800
MOVOLSER_009,*,16	VOLUME ENTRY - 009	14738400
MOVOLSER_009,=,6,CH	VOLUME SERIAL - 009	14774000
SKIP,2	RESERVED	14809600
MOUNIT_009,*,8,CH	UNIT TYPE - 009	14845200
MOVOLSER_010,*,16	VOLUME ENTRY - 010	14880800
MOVOLSER_010,=,6,CH	VOLUME SERIAL - 010	14916400
SKIP,2	RESERVED	14952000
MOUNIT_010,*,8,CH	UNIT TYPE - 010	14987600
MOVOLSER_011,*,16	VOLUME ENTRY - 011	15023200
MOVOLSER_011,=,6,CH	VOLUME SERIAL - 011	15058800
SKIP,2	RESERVED	15094400
MOUNIT_011,*,8,CH	UNIT TYPE - 011	15130000
MOVOLSER_012,*,16	VOLUME ENTRY - 012	15165600
MOVOLSER_012,=,6,CH	VOLUME SERIAL - 012	15201200
SKIP,2	RESERVED	15236800
MOUNIT_012,*,8,CH	UNIT TYPE - 012	15272400
MOVOLSER_013,*,16	VOLUME ENTRY - 013	15308000
MOVOLSER_013,=,6,CH	VOLUME SERIAL - 013	15343600
SKIP,2	RESERVED	15379200
MOUNIT_013,*,8,CH	UNIT TYPE - 013	15414800
MOVOLSER_014,*,16	VOLUME ENTRY - 014	15450400
MOVOLSER_014,=,6,CH	VOLUME SERIAL - 014	15486000
SKIP,2	RESERVED	15521600
MOUNIT_014,*,8,CH	UNIT TYPE - 014	15557200
MOVOLSER_015,*,16	VOLUME ENTRY - 015	15592800
MOVOLSER_015,=,6,CH	VOLUME SERIAL - 015	15628400
SKIP,2	RESERVED	15664000
MOUNIT_015,*,8,CH	UNIT TYPE - 015	15699600
MOVOLSER_016,*,16	VOLUME ENTRY - 016	15735200
MOVOLSER_016,=,6,CH	VOLUME SERIAL - 016	15770800
SKIP,2	RESERVED	15806400
MOUNIT_016,*,8,CH	UNIT TYPE - 016	15842000
MOVOLSER_017,*,16	VOLUME ENTRY - 017	15877600
MOVOLSER_017,=,6,CH	VOLUME SERIAL - 017	15913200
SKIP,2	RESERVED	15948800
MOUNIT_017,*,8,CH	UNIT TYPE - 017	15984400
MOVOLSER_018,*,16	VOLUME ENTRY - 018	16020000
MOVOLSER_018,=,6,CH	VOLUME SERIAL - 018	16055600
SKIP,2	RESERVED	16091200
MOUNIT_018,*,8,CH	UNIT TYPE - 018	16126800
MOVOLSER_019,*,16	VOLUME ENTRY - 019	16162400
MOVOLSER_019,=,6,CH	VOLUME SERIAL - 019	16198000
SKIP,2	RESERVED	16233600
MOUNIT_019,*,8,CH	UNIT TYPE - 019	16269200
MOVOLSER_020,*,16	VOLUME ENTRY - 020	16304800
MOVOLSER_020,=,6,CH	VOLUME SERIAL - 020	16340400
SKIP,2	RESERVED	16376000
MOUNIT_020,*,8,CH	UNIT TYPE - 020	16411600
MOVOLSER_021,*,16	VOLUME ENTRY - 021	16447200
MOVOLSER_021,=,6,CH	VOLUME SERIAL - 021	16482800
SKIP,2	RESERVED	16518400
MOUNIT_021,*,8,CH	UNIT TYPE - 021	16554000
MOVOLSER_022,*,16	VOLUME ENTRY - 022	16589600

MOVOLSER_022,=,6,CH	VOLUME SERIAL - 022	16625200
SKIP,2	RESERVED	16660800
MOUNIT_022,*,8,CH	UNIT TYPE - 022	16696400
MOVOLSER_023,*,16	VOLUME ENTRY - 023	16732000
MOVOLSER_023,=,6,CH	VOLUME SERIAL - 023	16767600
SKIP,2	RESERVED	16803200
MOUNIT_023,*,8,CH	UNIT TYPE - 023	16838800
MOVOLSER_024,*,16	VOLUME ENTRY - 024	16874400
MOVOLSER_024,=,6,CH	VOLUME SERIAL - 024	16910000
SKIP,2	RESERVED	16945600
MOUNIT_024,*,8,CH	UNIT TYPE - 024	16981200
MOVOLSER_025,*,16	VOLUME ENTRY - 025	17016800
MOVOLSER_025,=,6,CH	VOLUME SERIAL - 025	17052400
SKIP,2	RESERVED	17088000
MOUNIT_025,*,8,CH	UNIT TYPE - 025	17123600
MOVOLSER_026,*,16	VOLUME ENTRY - 026	17159200
MOVOLSER_026,=,6,CH	VOLUME SERIAL - 026	17194800
SKIP,2	RESERVED	17230400
MOUNIT_026,*,8,CH	UNIT TYPE - 026	17266000
MOVOLSER_027,*,16	VOLUME ENTRY - 027	17301600
MOVOLSER_027,=,6,CH	VOLUME SERIAL - 027	17337200
SKIP,2	RESERVED	17372800
MOUNIT_027,*,8,CH	UNIT TYPE - 027	17408400
MOVOLSER_028,*,16	VOLUME ENTRY - 028	17444000
MOVOLSER_028,=,6,CH	VOLUME SERIAL - 028	17479600
SKIP,2	RESERVED	17515200
MOUNIT_028,*,8,CH	UNIT TYPE - 028	17550800
MOVOLSER_029,*,16	VOLUME ENTRY - 029	17586400
MOVOLSER_029,=,6,CH	VOLUME SERIAL - 029	17622000
SKIP,2	RESERVED	17657600
MOUNIT_029,*,8,CH	UNIT TYPE - 029	17693200
MOVOLSER_030,*,16	VOLUME ENTRY - 030	17728800
MOVOLSER_030,=,6,CH	VOLUME SERIAL - 030	17764400
SKIP,2	RESERVED	17800000
MOUNIT_030,*,8,CH	UNIT TYPE - 030	17835600
MOVOLSER_031,*,16	VOLUME ENTRY - 031	17871200
MOVOLSER_031,=,6,CH	VOLUME SERIAL - 031	17906800
SKIP,2	RESERVED	17942400
MOUNIT_031,*,8,CH	UNIT TYPE - 031	17978000
MOVOLSER_032,*,16	VOLUME ENTRY - 032	18013600
MOVOLSER_032,=,6,CH	VOLUME SERIAL - 032	18049200
SKIP,2	RESERVED	18084800
MOUNIT_032,*,8,CH	UNIT TYPE - 032	18120400
MOVOLSER_033,*,16	VOLUME ENTRY - 033	18156000
MOVOLSER_033,=,6,CH	VOLUME SERIAL - 033	18191600
SKIP,2	RESERVED	18227200
MOUNIT_033,*,8,CH	UNIT TYPE - 033	18262800
MOVOLSER_034,*,16	VOLUME ENTRY - 034	18298400
MOVOLSER_034,=,6,CH	VOLUME SERIAL - 034	18334000
SKIP,2	RESERVED	18369600
MOUNIT_034,*,8,CH	UNIT TYPE - 034	18405200
MOVOLSER_035,*,16	VOLUME ENTRY - 035	18440800
MOVOLSER_035,=,6,CH	VOLUME SERIAL - 035	18476400
SKIP,2	RESERVED	18512000
MOUNIT_035,*,8,CH	UNIT TYPE - 035	18547600
MOVOLSER_036,*,16	VOLUME ENTRY - 036	18583200
MOVOLSER_036,=,6,CH	VOLUME SERIAL - 036	18618800
SKIP,2	RESERVED	18654400
MOUNIT_036,*,8,CH	UNIT TYPE - 036	18690000
MOVOLSER_037,*,16	VOLUME ENTRY - 037	18725600
MOVOLSER_037,=,6,CH	VOLUME SERIAL - 037	18761200
SKIP,2	RESERVED	18796800
MOUNIT_037,*,8,CH	UNIT TYPE - 037	18832400
MOVOLSER_038,*,16	VOLUME ENTRY - 038	18868000
MOVOLSER_038,=,6,CH	VOLUME SERIAL - 038	18903600
SKIP,2	RESERVED	18939200
MOUNIT_038,*,8,CH	UNIT TYPE - 038	18974800
MOVOLSER_039,*,16	VOLUME ENTRY - 039	19010400
MOVOLSER_039,=,6,CH	VOLUME SERIAL - 039	19046000
SKIP,2	RESERVED	19081600
MOUNIT_039,*,8,CH	UNIT TYPE - 039	19117200
MOVOLSER_040,*,16	VOLUME ENTRY - 040	19152800
MOVOLSER_040,=,6,CH	VOLUME SERIAL - 040	19188400
SKIP,2	RESERVED	19224000
MOUNIT_040,*,8,CH	UNIT TYPE - 040	19259600
MOVOLSER_041,*,16	VOLUME ENTRY - 041	19295200
MOVOLSER_041,=,6,CH	VOLUME SERIAL - 041	19330800
SKIP,2	RESERVED	19366400
MOUNIT_041,*,8,CH	UNIT TYPE - 041	19402000
MOVOLSER_042,*,16	VOLUME ENTRY - 042	19437600
MOVOLSER_042,=,6,CH	VOLUME SERIAL - 042	19473200
SKIP,2	RESERVED	19508800

MOUNIT_042,* ,8,CH	UNIT TYPE - 042	19544400
MOVOLSER_043,* ,16	VOLUME ENTRY - 043	19580000
MOVOLSER_043,=,6,CH	VOLUME SERIAL - 043	19615600
SKIP,2	RESERVED	19651200
MOUNIT_043,* ,8,CH	UNIT TYPE - 043	19686800
MOVOLSER_044,* ,16	VOLUME ENTRY - 044	19722400
MOVOLSER_044,=,6,CH	VOLUME SERIAL - 044	19758000
SKIP,2	RESERVED	19793600
MOUNIT_044,* ,8,CH	UNIT TYPE - 044	19829200
MOVOLSER_045,* ,16	VOLUME ENTRY - 045	19864800
MOVOLSER_045,=,6,CH	VOLUME SERIAL - 045	19900400
SKIP,2	RESERVED	19936000
MOUNIT_045,* ,8,CH	UNIT TYPE - 045	19971600
MOVOLSER_046,* ,16	VOLUME ENTRY - 046	20007200
MOVOLSER_046,=,6,CH	VOLUME SERIAL - 046	20042800
SKIP,2	RESERVED	20078400
MOUNIT_046,* ,8,CH	UNIT TYPE - 046	20114000
MOVOLSER_047,* ,16	VOLUME ENTRY - 047	20149600
MOVOLSER_047,=,6,CH	VOLUME SERIAL - 047	20185200
SKIP,2	RESERVED	20220800
MOUNIT_047,* ,8,CH	UNIT TYPE - 047	20256400
MOVOLSER_048,* ,16	VOLUME ENTRY - 048	20292000
MOVOLSER_048,=,6,CH	VOLUME SERIAL - 048	20327600
SKIP,2	RESERVED	20363200
MOUNIT_048,* ,8,CH	UNIT TYPE - 048	20398800
MOVOLSER_049,* ,16	VOLUME ENTRY - 049	20434400
MOVOLSER_049,=,6,CH	VOLUME SERIAL - 049	20470000
SKIP,2	RESERVED	20505600
MOUNIT_049,* ,8,CH	UNIT TYPE - 049	20541200
MOVOLSER_050,* ,16	VOLUME ENTRY - 050	20576800
MOVOLSER_050,=,6,CH	VOLUME SERIAL - 050	20612400
SKIP,2	RESERVED	20648000
MOUNIT_050,* ,8,CH	UNIT TYPE - 050	20683600
MOVOLSER_051,* ,16	VOLUME ENTRY - 051	20719200
MOVOLSER_051,=,6,CH	VOLUME SERIAL - 051	20754800
SKIP,2	RESERVED	20790400
MOUNIT_051,* ,8,CH	UNIT TYPE - 051	20826000
MOVOLSER_052,* ,16	VOLUME ENTRY - 052	20861600
MOVOLSER_052,=,6,CH	VOLUME SERIAL - 052	20897200
SKIP,2	RESERVED	20932800
MOUNIT_052,* ,8,CH	UNIT TYPE - 052	20968400
MOVOLSER_053,* ,16	VOLUME ENTRY - 053	21004000
MOVOLSER_053,=,6,CH	VOLUME SERIAL - 053	21039600
SKIP,2	RESERVED	21075200
MOUNIT_053,* ,8,CH	UNIT TYPE - 053	21110800
MOVOLSER_054,* ,16	VOLUME ENTRY - 054	21146400
MOVOLSER_054,=,6,CH	VOLUME SERIAL - 054	21182000
SKIP,2	RESERVED	21217600
MOUNIT_054,* ,8,CH	UNIT TYPE - 054	21253200
MOVOLSER_055,* ,16	VOLUME ENTRY - 055	21288800
MOVOLSER_055,=,6,CH	VOLUME SERIAL - 055	21324400
SKIP,2	RESERVED	21360000
MOUNIT_055,* ,8,CH	UNIT TYPE - 055	21395600
MOVOLSER_056,* ,16	VOLUME ENTRY - 056	21431200
MOVOLSER_056,=,6,CH	VOLUME SERIAL - 056	21466800
SKIP,2	RESERVED	21502400
MOUNIT_056,* ,8,CH	UNIT TYPE - 056	21538000
MOVOLSER_057,* ,16	VOLUME ENTRY - 057	21573600
MOVOLSER_057,=,6,CH	VOLUME SERIAL - 057	21609200
SKIP,2	RESERVED	21644800
MOUNIT_057,* ,8,CH	UNIT TYPE - 057	21680400
MOVOLSER_058,* ,16	VOLUME ENTRY - 058	21716000
MOVOLSER_058,=,6,CH	VOLUME SERIAL - 058	21751600
SKIP,2	RESERVED	21787200
MOUNIT_058,* ,8,CH	UNIT TYPE - 058	21822800
MOVOLSER_059,* ,16	VOLUME ENTRY - 059	21858400
MOVOLSER_059,=,6,CH	VOLUME SERIAL - 059	21894000
SKIP,2	RESERVED	21929600
MOUNIT_059,* ,8,CH	UNIT TYPE - 059	21965200
MOVOLSER_060,* ,16	VOLUME ENTRY - 060	22000800
MOVOLSER_060,=,6,CH	VOLUME SERIAL - 060	22036400
SKIP,2	RESERVED	22072000
MOUNIT_060,* ,8,CH	UNIT TYPE - 060	22107600
MOVOLSER_061,* ,16	VOLUME ENTRY - 061	22143200
MOVOLSER_061,=,6,CH	VOLUME SERIAL - 061	22178800
SKIP,2	RESERVED	22214400
MOUNIT_061,* ,8,CH	UNIT TYPE - 061	22250000
MOVOLSER_062,* ,16	VOLUME ENTRY - 062	22285600
MOVOLSER_062,=,6,CH	VOLUME SERIAL - 062	22321200
SKIP,2	RESERVED	22356800
MOUNIT_062,* ,8,CH	UNIT TYPE - 062	22392400
MOVOLSER_063,* ,16	VOLUME ENTRY - 063	22428000

MOVOLSER_063,=,6,CH	VOLUME SERIAL - 063	22463600
SKIP,2	RESERVED	22499200
MOUNIT_063,*,8,CH	UNIT TYPE - 063	22534800
MOVOLSER_064,*,16	VOLUME ENTRY - 064	22570400
MOVOLSER_064,=,6,CH	VOLUME SERIAL - 064	22606000
SKIP,2	RESERVED	22641600
MOUNIT_064,*,8,CH	UNIT TYPE - 064	22677200
MOVOLSER_065,*,16	VOLUME ENTRY - 065	22712800
MOVOLSER_065,=,6,CH	VOLUME SERIAL - 065	22748400
SKIP,2	RESERVED	22784000
MOUNIT_065,*,8,CH	UNIT TYPE - 065	22819600
MOVOLSER_066,*,16	VOLUME ENTRY - 066	22855200
MOVOLSER_066,=,6,CH	VOLUME SERIAL - 066	22890800
SKIP,2	RESERVED	22926400
MOUNIT_066,*,8,CH	UNIT TYPE - 066	22962000
MOVOLSER_067,*,16	VOLUME ENTRY - 067	22997600
MOVOLSER_067,=,6,CH	VOLUME SERIAL - 067	23033200
SKIP,2	RESERVED	23068800
MOUNIT_067,*,8,CH	UNIT TYPE - 067	23104400
MOVOLSER_068,*,16	VOLUME ENTRY - 068	23140000
MOVOLSER_068,=,6,CH	VOLUME SERIAL - 068	23175600
SKIP,2	RESERVED	23211200
MOUNIT_068,*,8,CH	UNIT TYPE - 068	23246800
MOVOLSER_069,*,16	VOLUME ENTRY - 069	23282400
MOVOLSER_069,=,6,CH	VOLUME SERIAL - 069	23318000
SKIP,2	RESERVED	23353600
MOUNIT_069,*,8,CH	UNIT TYPE - 069	23389200
MOVOLSER_070,*,16	VOLUME ENTRY - 070	23424800
MOVOLSER_070,=,6,CH	VOLUME SERIAL - 070	23460400
SKIP,2	RESERVED	23496000
MOUNIT_070,*,8,CH	UNIT TYPE - 070	23531600
MOVOLSER_071,*,16	VOLUME ENTRY - 071	23567200
MOVOLSER_071,=,6,CH	VOLUME SERIAL - 071	23602800
SKIP,2	RESERVED	23638400
MOUNIT_071,*,8,CH	UNIT TYPE - 071	23674000
MOVOLSER_072,*,16	VOLUME ENTRY - 072	23709600
MOVOLSER_072,=,6,CH	VOLUME SERIAL - 072	23745200
SKIP,2	RESERVED	23780800
MOUNIT_072,*,8,CH	UNIT TYPE - 072	23816400
MOVOLSER_073,*,16	VOLUME ENTRY - 073	23852000
MOVOLSER_073,=,6,CH	VOLUME SERIAL - 073	23887600
SKIP,2	RESERVED	23923200
MOUNIT_073,*,8,CH	UNIT TYPE - 073	23958800
MOVOLSER_074,*,16	VOLUME ENTRY - 074	23994400
MOVOLSER_074,=,6,CH	VOLUME SERIAL - 074	24030000
SKIP,2	RESERVED	24065600
MOUNIT_074,*,8,CH	UNIT TYPE - 074	24101200
MOVOLSER_075,*,16	VOLUME ENTRY - 075	24136800
MOVOLSER_075,=,6,CH	VOLUME SERIAL - 075	24172400
SKIP,2	RESERVED	24208000
MOUNIT_075,*,8,CH	UNIT TYPE - 075	24243600
MOVOLSER_076,*,16	VOLUME ENTRY - 076	24279200
MOVOLSER_076,=,6,CH	VOLUME SERIAL - 076	24314800
SKIP,2	RESERVED	24350400
MOUNIT_076,*,8,CH	UNIT TYPE - 076	24386000
MOVOLSER_077,*,16	VOLUME ENTRY - 077	24421600
MOVOLSER_077,=,6,CH	VOLUME SERIAL - 077	24457200
SKIP,2	RESERVED	24492800
MOUNIT_077,*,8,CH	UNIT TYPE - 077	24528400
MOVOLSER_078,*,16	VOLUME ENTRY - 078	24564000
MOVOLSER_078,=,6,CH	VOLUME SERIAL - 078	24599600
SKIP,2	RESERVED	24635200
MOUNIT_078,*,8,CH	UNIT TYPE - 078	24670800
MOVOLSER_079,*,16	VOLUME ENTRY - 079	24706400
MOVOLSER_079,=,6,CH	VOLUME SERIAL - 079	24742000
SKIP,2	RESERVED	24777600
MOUNIT_079,*,8,CH	UNIT TYPE - 079	24813200
MOVOLSER_080,*,16	VOLUME ENTRY - 080	24848800
MOVOLSER_080,=,6,CH	VOLUME SERIAL - 080	24884400
SKIP,2	RESERVED	24920000
MOUNIT_080,*,8,CH	UNIT TYPE - 080	24955600
MOVOLSER_081,*,16	VOLUME ENTRY - 081	24991200
MOVOLSER_081,=,6,CH	VOLUME SERIAL - 081	25026800
SKIP,2	RESERVED	25062400
MOUNIT_081,*,8,CH	UNIT TYPE - 081	25098000
MOVOLSER_082,*,16	VOLUME ENTRY - 082	25133600
MOVOLSER_082,=,6,CH	VOLUME SERIAL - 082	25169200
SKIP,2	RESERVED	25204800
MOUNIT_082,*,8,CH	UNIT TYPE - 082	25240400
MOVOLSER_083,*,16	VOLUME ENTRY - 083	25276000
MOVOLSER_083,=,6,CH	VOLUME SERIAL - 083	25311600
SKIP,2	RESERVED	25347200

MOUNIT_083,* ,8,CH	UNIT TYPE - 083	25382800
MOVOLSER_084,* ,16	VOLUME ENTRY - 084	25418400
MOVOLSER_084,=,6,CH	VOLUME SERIAL - 084	25454000
SKIP,2	RESERVED	25489600
MOUNIT_084,* ,8,CH	UNIT TYPE - 084	25525200
MOVOLSER_085,* ,16	VOLUME ENTRY - 085	25560800
MOVOLSER_085,=,6,CH	VOLUME SERIAL - 085	25596400
SKIP,2	RESERVED	25632000
MOUNIT_085,* ,8,CH	UNIT TYPE - 085	25667600
MOVOLSER_086,* ,16	VOLUME ENTRY - 086	25703200
MOVOLSER_086,=,6,CH	VOLUME SERIAL - 086	25738800
SKIP,2	RESERVED	25774400
MOUNIT_086,* ,8,CH	UNIT TYPE - 086	25810000
MOVOLSER_087,* ,16	VOLUME ENTRY - 087	25845600
MOVOLSER_087,=,6,CH	VOLUME SERIAL - 087	25881200
SKIP,2	RESERVED	25916800
MOUNIT_087,* ,8,CH	UNIT TYPE - 087	25952400
MOVOLSER_088,* ,16	VOLUME ENTRY - 088	25988000
MOVOLSER_088,=,6,CH	VOLUME SERIAL - 088	26023600
SKIP,2	RESERVED	26059200
MOUNIT_088,* ,8,CH	UNIT TYPE - 088	26094800
MOVOLSER_089,* ,16	VOLUME ENTRY - 089	26130400
MOVOLSER_089,=,6,CH	VOLUME SERIAL - 089	26166000
SKIP,2	RESERVED	26201600
MOUNIT_089,* ,8,CH	UNIT TYPE - 089	26237200
MOVOLSER_090,* ,16	VOLUME ENTRY - 090	26272800
MOVOLSER_090,=,6,CH	VOLUME SERIAL - 090	26308400
SKIP,2	RESERVED	26344000
MOUNIT_090,* ,8,CH	UNIT TYPE - 090	26379600
MOVOLSER_091,* ,16	VOLUME ENTRY - 091	26415200
MOVOLSER_091,=,6,CH	VOLUME SERIAL - 091	26450800
SKIP,2	RESERVED	26486400
MOUNIT_091,* ,8,CH	UNIT TYPE - 091	26522000
MOVOLSER_092,* ,16	VOLUME ENTRY - 092	26557600
MOVOLSER_092,=,6,CH	VOLUME SERIAL - 092	26593200
SKIP,2	RESERVED	26628800
MOUNIT_092,* ,8,CH	UNIT TYPE - 092	26664400
MOVOLSER_093,* ,16	VOLUME ENTRY - 093	26700000
MOVOLSER_093,=,6,CH	VOLUME SERIAL - 093	26735600
SKIP,2	RESERVED	26771200
MOUNIT_093,* ,8,CH	UNIT TYPE - 093	26806800
MOVOLSER_094,* ,16	VOLUME ENTRY - 094	26842400
MOVOLSER_094,=,6,CH	VOLUME SERIAL - 094	26878000
SKIP,2	RESERVED	26913600
MOUNIT_094,* ,8,CH	UNIT TYPE - 094	26949200
MOVOLSER_095,* ,16	VOLUME ENTRY - 095	26984800
MOVOLSER_095,=,6,CH	VOLUME SERIAL - 095	27020400
SKIP,2	RESERVED	27056000
MOUNIT_095,* ,8,CH	UNIT TYPE - 095	27091600
MOVOLSER_096,* ,16	VOLUME ENTRY - 096	27127200
MOVOLSER_096,=,6,CH	VOLUME SERIAL - 096	27162800
SKIP,2	RESERVED	27198400
MOUNIT_096,* ,8,CH	UNIT TYPE - 096	27234000
MOVOLSER_097,* ,16	VOLUME ENTRY - 097	27269600
MOVOLSER_097,=,6,CH	VOLUME SERIAL - 097	27305200
SKIP,2	RESERVED	27340800
MOUNIT_097,* ,8,CH	UNIT TYPE - 097	27376400
MOVOLSER_098,* ,16	VOLUME ENTRY - 098	27412000
MOVOLSER_098,=,6,CH	VOLUME SERIAL - 098	27447600
SKIP,2	RESERVED	27483200
MOUNIT_098,* ,8,CH	UNIT TYPE - 098	27518800
MOVOLSER_099,* ,16	VOLUME ENTRY - 099	27554400
MOVOLSER_099,=,6,CH	VOLUME SERIAL - 099	27590000
SKIP,2	RESERVED	27625600
MOUNIT_099,* ,8,CH	UNIT TYPE - 099	27661200
MOVOLSER_100,* ,16	VOLUME ENTRY - 100	27696800
MOVOLSER_100,=,6,CH	VOLUME SERIAL - 100	27732400
SKIP,2	RESERVED	27768000
MOUNIT_100,* ,8,CH	UNIT TYPE - 100	27803600
*****		27839200
* END OF OWNER INFORMATION	*	27874800
*****		27910400
MORCEND,*	END OF MOREC	27946000
*****		27981600
* END OF RMM MOREC	*	28017200
*****		28052800
*		28088400
POSITION,SMFADREC	START AFTER EDGSMFAR/IGWSMF	28124000
*****		28159600
* KEY FIELD	*	28195200
*****		28230800
MPKEY,=,56	KEY FIELD	28266400

MPTYPE,=,1,CH	RECORD TYPE	28302000
MPTYPEID,'P'	PP RECORD ID SYMBOL	28337600
*****	*****	28373200
* START OF RMM MPREC	*	28408800
*****	*****	28444400
MPPPNUM,*,8,CH	PP NUMBER (NNNN-CCC)	28480000
MPVER,*,6,CH	VERSION/RELEASE/MOD NUMBER	28515600
SKIP,41	RESERVED	28551200
*****	*****	28586800
* CONTROL INFORMATION	*	28622400
*****	*****	28658000
MPRECLN,*,2,FI	RECORD LENGTH	28693600
SKIP,2	RESERVED	28729200
MPCRDAT,*,4,PD	PP CREATE DATE - YYYYDDD	28764800
MPCRTIME,*,4,PD	PP CREATE TIME - HHMMSS	28800400
MPCRSID,*,8,CH	CREATE SYSTEM ID	28836000
MPRCCDS,*,8,CH	RECORD CREATE CDS ID	28871600
MPLCDAT,*,4,PD	LAST CHANGE DATE - YYYYDDD	28907200
MPLCTIME,*,4,PD	LAST CHANGE TIME - HHMMSS	28942800
MPLCUID,*,8,CH	LAST CHANGE USER ID	28978400
MPLCSID,*,8,CH	LAST CHANGE SYSTEM ID	29014000
MPUCDAT,*,4,PD	LAST "USER" CHANGE DATE	29049600
MPUCTIME,*,4,PD	LAST "USER" CHANGE TIME	29085200
MPCFLG,*,1,BI	CONTROL FLAGS 1	29120800
MPDELFLG,X'80'	RECORD DELETED	29156400
MPSELFLG,X'10'	SELECT - PROC BY SATELLITE UPDT	29192000
MPDUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	29227600
SKIP,7	RESERVED	29263200
*****	*****	29298800
* PROGRAM PRODUCT DETAILS	*	29334400
*****	*****	29370000
MPPPNOW,*,8,CH	PROGRAM PRODUCT OWNER ID	29405600
MPPPNAM,*,30,CH	PROGRAM PRODUCT NAME	29441200
MPPPDSC,*,30,CH	PROGRAM PRODUCT DESCRIPTION	29476800
SKIP,64	RESERVED	29512400
*****	*****	29548000
* PROGRAM PRODUCT VOLUME DETAILS	*	29583600
*****	*****	29619200
MPVOLDET,*,4	VOLUME DETAILS	29654800
MPVOLNO,=,2,FI	NO OF PP VOLS	29690400
SKIP,2	RESERVED	29726000
*****	*****	29761600
* PROGRAM PRODUCT VOLUME ENTRY - 001-255	*	29797200
* THE ACTUAL NUMBER OF ENTRIES IS INDICATED BY MPVOLNO.	*	29832800
*****	*****	29868400
MPVOLNT_ARRAY,*,8160	ARRAY OF VOLUME ENTRIES	29904000
MPVOLNT_001,=,32	VOLUME ENTRY - 001	29939600
MPVOLSER_001,=,6,CH	VOLUME SERIAL - 001	29975200
MPRACK_001,*,6,CH	RACK NUMBER - 001	30010800
MPFEAT_001,*,4,CH	FEATURE CODE - 001	30046400
MPUNIT_001,*,8,CH	UNIT TYPE - 001	30082000
SKIP,8	RESERVED	30117600
MPVOLNT_002,*,32	VOLUME ENTRY - 002	30153200
MPVOLSER_002,=,6,CH	VOLUME SERIAL - 002	30188800
MPRACK_002,*,6,CH	RACK NUMBER - 002	30224400
MPFEAT_002,*,4,CH	FEATURE CODE - 002	30260000
MPUNIT_002,*,8,CH	UNIT TYPE - 002	30295600
SKIP,8	RESERVED	30331200
MPVOLNT_003,*,32	VOLUME ENTRY - 003	30366800
MPVOLSER_003,=,6,CH	VOLUME SERIAL - 003	30402400
MPRACK_003,*,6,CH	RACK NUMBER - 003	30438000
MPFEAT_003,*,4,CH	FEATURE CODE - 003	30473600
MPUNIT_003,*,8,CH	UNIT TYPE - 003	30509200
SKIP,8	RESERVED	30544800
MPVOLNT_004,*,32	VOLUME ENTRY - 004	30580400
MPVOLSER_004,=,6,CH	VOLUME SERIAL - 004	30616000
MPRACK_004,*,6,CH	RACK NUMBER - 004	30651600
MPFEAT_004,*,4,CH	FEATURE CODE - 004	30687200
MPUNIT_004,*,8,CH	UNIT TYPE - 004	30722800
SKIP,8	RESERVED	30758400
MPVOLNT_005,*,32	VOLUME ENTRY - 005	30794000
MPVOLSER_005,=,6,CH	VOLUME SERIAL - 005	30829600
MPRACK_005,*,6,CH	RACK NUMBER - 005	30865200
MPFEAT_005,*,4,CH	FEATURE CODE - 005	30900800
MPUNIT_005,*,8,CH	UNIT TYPE - 005	30936400
SKIP,8	RESERVED	30972000
MPVOLNT_006,*,32	VOLUME ENTRY - 006	31007600
MPVOLSER_006,=,6,CH	VOLUME SERIAL - 006	31043200
MPRACK_006,*,6,CH	RACK NUMBER - 006	31078800
MPFEAT_006,*,4,CH	FEATURE CODE - 006	31114400
MPUNIT_006,*,8,CH	UNIT TYPE - 006	31150000
SKIP,8	RESERVED	31185600

MPVOLENT_007,*,32	VOLUME ENTRY - 007	31221200
MPVOLSER_007,=,6,CH	VOLUME SERIAL - 007	31256800
MPRACK_007,*,6,CH	RACK NUMBER - 007	31292400
MPFEAT_007,*,4,CH	FEATURE CODE - 007	31328000
MPUNIT_007,*,8,CH	UNIT TYPE - 007	31363600
SKIP,8	RESERVED	31399200
MPVOLENT_008,*,32	VOLUME ENTRY - 008	31434800
MPVOLSER_008,=,6,CH	VOLUME SERIAL - 008	31470400
MPRACK_008,*,6,CH	RACK NUMBER - 008	31506000
MPFEAT_008,*,4,CH	FEATURE CODE - 008	31541600
MPUNIT_008,*,8,CH	UNIT TYPE - 008	31577200
SKIP,8	RESERVED	31612800
MPVOLENT_009,*,32	VOLUME ENTRY - 009	31648400
MPVOLSER_009,=,6,CH	VOLUME SERIAL - 009	31684000
MPRACK_009,*,6,CH	RACK NUMBER - 009	31719600
MPFEAT_009,*,4,CH	FEATURE CODE - 009	31755200
MPUNIT_009,*,8,CH	UNIT TYPE - 009	31790800
SKIP,8	RESERVED	31826400
MPVOLENT_010,*,32	VOLUME ENTRY - 010	31862000
MPVOLSER_010,=,6,CH	VOLUME SERIAL - 010	31897600
MPRACK_010,*,6,CH	RACK NUMBER - 010	31933200
MPFEAT_010,*,4,CH	FEATURE CODE - 010	31968800
MPUNIT_010,*,8,CH	UNIT TYPE - 010	32004400
SKIP,8	RESERVED	32040000
MPVOLENT_011,*,32	VOLUME ENTRY - 011	32075600
MPVOLSER_011,=,6,CH	VOLUME SERIAL - 011	32111200
MPRACK_011,*,6,CH	RACK NUMBER - 011	32146800
MPFEAT_011,*,4,CH	FEATURE CODE - 011	32182400
MPUNIT_011,*,8,CH	UNIT TYPE - 011	32218000
SKIP,8	RESERVED	32253600
MPVOLENT_012,*,32	VOLUME ENTRY - 012	32289200
MPVOLSER_012,=,6,CH	VOLUME SERIAL - 012	32324800
MPRACK_012,*,6,CH	RACK NUMBER - 012	32360400
MPFEAT_012,*,4,CH	FEATURE CODE - 012	32396000
MPUNIT_012,*,8,CH	UNIT TYPE - 012	32431600
SKIP,8	RESERVED	32467200
MPVOLENT_013,*,32	VOLUME ENTRY - 013	32502800
MPVOLSER_013,=,6,CH	VOLUME SERIAL - 013	32538400
MPRACK_013,*,6,CH	RACK NUMBER - 013	32574000
MPFEAT_013,*,4,CH	FEATURE CODE - 013	32609600
MPUNIT_013,*,8,CH	UNIT TYPE - 013	32645200
SKIP,8	RESERVED	32680800
MPVOLENT_014,*,32	VOLUME ENTRY - 014	32716400
MPVOLSER_014,=,6,CH	VOLUME SERIAL - 014	32752000
MPRACK_014,*,6,CH	RACK NUMBER - 014	32787600
MPFEAT_014,*,4,CH	FEATURE CODE - 014	32823200
MPUNIT_014,*,8,CH	UNIT TYPE - 014	32858800
SKIP,8	RESERVED	32894400
MPVOLENT_015,*,32	VOLUME ENTRY - 015	32930000
MPVOLSER_015,=,6,CH	VOLUME SERIAL - 015	32965600
MPRACK_015,*,6,CH	RACK NUMBER - 015	33001200
MPFEAT_015,*,4,CH	FEATURE CODE - 015	33036800
MPUNIT_015,*,8,CH	UNIT TYPE - 015	33072400
SKIP,8	RESERVED	33108000
MPVOLENT_016,*,32	VOLUME ENTRY - 016	33143600
MPVOLSER_016,=,6,CH	VOLUME SERIAL - 016	33179200
MPRACK_016,*,6,CH	RACK NUMBER - 016	33214800
MPFEAT_016,*,4,CH	FEATURE CODE - 016	33250400
MPUNIT_016,*,8,CH	UNIT TYPE - 016	33286000
SKIP,8	RESERVED	33321600
MPVOLENT_017,*,32	VOLUME ENTRY - 017	33357200
MPVOLSER_017,=,6,CH	VOLUME SERIAL - 017	33392800
MPRACK_017,*,6,CH	RACK NUMBER - 017	33428400
MPFEAT_017,*,4,CH	FEATURE CODE - 017	33464000
MPUNIT_017,*,8,CH	UNIT TYPE - 017	33499600
SKIP,8	RESERVED	33535200
MPVOLENT_018,*,32	VOLUME ENTRY - 018	33570800
MPVOLSER_018,=,6,CH	VOLUME SERIAL - 018	33606400
MPRACK_018,*,6,CH	RACK NUMBER - 018	33642000
MPFEAT_018,*,4,CH	FEATURE CODE - 018	33677600
MPUNIT_018,*,8,CH	UNIT TYPE - 018	33713200
SKIP,8	RESERVED	33748800
MPVOLENT_019,*,32	VOLUME ENTRY - 019	33784400
MPVOLSER_019,=,6,CH	VOLUME SERIAL - 019	33820000
MPRACK_019,*,6,CH	RACK NUMBER - 019	33855600
MPFEAT_019,*,4,CH	FEATURE CODE - 019	33891200
MPUNIT_019,*,8,CH	UNIT TYPE - 019	33926800
SKIP,8	RESERVED	33962400
MPVOLENT_020,*,32	VOLUME ENTRY - 020	33998000
MPVOLSER_020,=,6,CH	VOLUME SERIAL - 020	34033600
MPRACK_020,*,6,CH	RACK NUMBER - 020	34069200
MPFEAT_020,*,4,CH	FEATURE CODE - 020	34104800

MPUNIT_020,*,8,CH	UNIT TYPE - 020	34140400
SKIP,8	RESERVED	34176000
MPVOLENT_021,*,32	VOLUME ENTRY - 021	34211600
MPVOLSER_021,=,6,CH	VOLUME SERIAL - 021	34247200
MPRACK_021,*,6,CH	RACK NUMBER - 021	34282800
MPFEAT_021,*,4,CH	FEATURE CODE - 021	34318400
MPUNIT_021,*,8,CH	UNIT TYPE - 021	34354000
SKIP,8	RESERVED	34389600
MPVOLENT_022,*,32	VOLUME ENTRY - 022	34425200
MPVOLSER_022,=,6,CH	VOLUME SERIAL - 022	34460800
MPRACK_022,*,6,CH	RACK NUMBER - 022	34496400
MPFEAT_022,*,4,CH	FEATURE CODE - 022	34532000
MPUNIT_022,*,8,CH	UNIT TYPE - 022	34567600
SKIP,8	RESERVED	34603200
MPVOLENT_023,*,32	VOLUME ENTRY - 023	34638800
MPVOLSER_023,=,6,CH	VOLUME SERIAL - 023	34674400
MPRACK_023,*,6,CH	RACK NUMBER - 023	34710000
MPFEAT_023,*,4,CH	FEATURE CODE - 023	34745600
MPUNIT_023,*,8,CH	UNIT TYPE - 023	34781200
SKIP,8	RESERVED	34816800
MPVOLENT_024,*,32	VOLUME ENTRY - 024	34852400
MPVOLSER_024,=,6,CH	VOLUME SERIAL - 024	34888000
MPRACK_024,*,6,CH	RACK NUMBER - 024	34923600
MPFEAT_024,*,4,CH	FEATURE CODE - 024	34959200
MPUNIT_024,*,8,CH	UNIT TYPE - 024	34994800
SKIP,8	RESERVED	35030400
MPVOLENT_025,*,32	VOLUME ENTRY - 025	35066000
MPVOLSER_025,=,6,CH	VOLUME SERIAL - 025	35101600
MPRACK_025,*,6,CH	RACK NUMBER - 025	35137200
MPFEAT_025,*,4,CH	FEATURE CODE - 025	35172800
MPUNIT_025,*,8,CH	UNIT TYPE - 025	35208400
SKIP,8	RESERVED	35244000
MPVOLENT_026,*,32	VOLUME ENTRY - 026	35279600
MPVOLSER_026,=,6,CH	VOLUME SERIAL - 026	35315200
MPRACK_026,*,6,CH	RACK NUMBER - 026	35350800
MPFEAT_026,*,4,CH	FEATURE CODE - 026	35386400
MPUNIT_026,*,8,CH	UNIT TYPE - 026	35422000
SKIP,8	RESERVED	35457600
MPVOLENT_027,*,32	VOLUME ENTRY - 027	35493200
MPVOLSER_027,=,6,CH	VOLUME SERIAL - 027	35528800
MPRACK_027,*,6,CH	RACK NUMBER - 027	35564400
MPFEAT_027,*,4,CH	FEATURE CODE - 027	35600000
MPUNIT_027,*,8,CH	UNIT TYPE - 027	35635600
SKIP,8	RESERVED	35671200
MPVOLENT_028,*,32	VOLUME ENTRY - 028	35706800
MPVOLSER_028,=,6,CH	VOLUME SERIAL - 028	35742400
MPRACK_028,*,6,CH	RACK NUMBER - 028	35778000
MPFEAT_028,*,4,CH	FEATURE CODE - 028	35813600
MPUNIT_028,*,8,CH	UNIT TYPE - 028	35849200
SKIP,8	RESERVED	35884800
MPVOLENT_029,*,32	VOLUME ENTRY - 029	35920400
MPVOLSER_029,=,6,CH	VOLUME SERIAL - 029	35956000
MPRACK_029,*,6,CH	RACK NUMBER - 029	35991600
MPFEAT_029,*,4,CH	FEATURE CODE - 029	36027200
MPUNIT_029,*,8,CH	UNIT TYPE - 029	36062800
SKIP,8	RESERVED	36098400
MPVOLENT_030,*,32	VOLUME ENTRY - 030	36134000
MPVOLSER_030,=,6,CH	VOLUME SERIAL - 030	36169600
MPRACK_030,*,6,CH	RACK NUMBER - 030	36205200
MPFEAT_030,*,4,CH	FEATURE CODE - 030	36240800
MPUNIT_030,*,8,CH	UNIT TYPE - 030	36276400
SKIP,8	RESERVED	36312000
MPVOLENT_031,*,32	VOLUME ENTRY - 031	36347600
MPVOLSER_031,=,6,CH	VOLUME SERIAL - 031	36383200
MPRACK_031,*,6,CH	RACK NUMBER - 031	36418800
MPFEAT_031,*,4,CH	FEATURE CODE - 031	36454400
MPUNIT_031,*,8,CH	UNIT TYPE - 031	36490000
SKIP,8	RESERVED	36525600
MPVOLENT_032,*,32	VOLUME ENTRY - 032	36561200
MPVOLSER_032,=,6,CH	VOLUME SERIAL - 032	36596800
MPRACK_032,*,6,CH	RACK NUMBER - 032	36632400
MPFEAT_032,*,4,CH	FEATURE CODE - 032	36668000
MPUNIT_032,*,8,CH	UNIT TYPE - 032	36703600
SKIP,8	RESERVED	36739200
MPVOLENT_033,*,32	VOLUME ENTRY - 033	36774800
MPVOLSER_033,=,6,CH	VOLUME SERIAL - 033	36810400
MPRACK_033,*,6,CH	RACK NUMBER - 033	36846000
MPFEAT_033,*,4,CH	FEATURE CODE - 033	36881600
MPUNIT_033,*,8,CH	UNIT TYPE - 033	36917200
SKIP,8	RESERVED	36952800
MPVOLENT_034,*,32	VOLUME ENTRY - 034	36988400
MPVOLSER_034,=,6,CH	VOLUME SERIAL - 034	37024000

MPRACK_034,* ,6,CH	RACK NUMBER - 034	37059600
MPFEAT_034,* ,4,CH	FEATURE CODE - 034	37095200
MPUNIT_034,* ,8,CH	UNIT TYPE - 034	37130800
SKIP,8	RESERVED	37166400
MPVOLENT_035,* ,32	VOLUME ENTRY - 035	37202000
MPVOLSER_035,=,6,CH	VOLUME SERIAL - 035	37237600
MPRACK_035,* ,6,CH	RACK NUMBER - 035	37273200
MPFEAT_035,* ,4,CH	FEATURE CODE - 035	37308800
MPUNIT_035,* ,8,CH	UNIT TYPE - 035	37344400
SKIP,8	RESERVED	37380000
MPVOLENT_036,* ,32	VOLUME ENTRY - 036	37415600
MPVOLSER_036,=,6,CH	VOLUME SERIAL - 036	37451200
MPRACK_036,* ,6,CH	RACK NUMBER - 036	37486800
MPFEAT_036,* ,4,CH	FEATURE CODE - 036	37522400
MPUNIT_036,* ,8,CH	UNIT TYPE - 036	37558000
SKIP,8	RESERVED	37593600
MPVOLENT_037,* ,32	VOLUME ENTRY - 037	37629200
MPVOLSER_037,=,6,CH	VOLUME SERIAL - 037	37664800
MPRACK_037,* ,6,CH	RACK NUMBER - 037	37700400
MPFEAT_037,* ,4,CH	FEATURE CODE - 037	37736000
MPUNIT_037,* ,8,CH	UNIT TYPE - 037	37771600
SKIP,8	RESERVED	37807200
MPVOLENT_038,* ,32	VOLUME ENTRY - 038	37842800
MPVOLSER_038,=,6,CH	VOLUME SERIAL - 038	37878400
MPRACK_038,* ,6,CH	RACK NUMBER - 038	37914000
MPFEAT_038,* ,4,CH	FEATURE CODE - 038	37949600
MPUNIT_038,* ,8,CH	UNIT TYPE - 038	37985200
SKIP,8	RESERVED	38020800
MPVOLENT_039,* ,32	VOLUME ENTRY - 039	38056400
MPVOLSER_039,=,6,CH	VOLUME SERIAL - 039	38092000
MPRACK_039,* ,6,CH	RACK NUMBER - 039	38127600
MPFEAT_039,* ,4,CH	FEATURE CODE - 039	38163200
MPUNIT_039,* ,8,CH	UNIT TYPE - 039	38198800
SKIP,8	RESERVED	38234400
MPVOLENT_040,* ,32	VOLUME ENTRY - 040	38270000
MPVOLSER_040,=,6,CH	VOLUME SERIAL - 040	38305600
MPRACK_040,* ,6,CH	RACK NUMBER - 040	38341200
MPFEAT_040,* ,4,CH	FEATURE CODE - 040	38376800
MPUNIT_040,* ,8,CH	UNIT TYPE - 040	38412400
SKIP,8	RESERVED	38448000
MPVOLENT_041,* ,32	VOLUME ENTRY - 041	38483600
MPVOLSER_041,=,6,CH	VOLUME SERIAL - 041	38519200
MPRACK_041,* ,6,CH	RACK NUMBER - 041	38554800
MPFEAT_041,* ,4,CH	FEATURE CODE - 041	38590400
MPUNIT_041,* ,8,CH	UNIT TYPE - 041	38626000
SKIP,8	RESERVED	38661600
MPVOLENT_042,* ,32	VOLUME ENTRY - 042	38697200
MPVOLSER_042,=,6,CH	VOLUME SERIAL - 042	38732800
MPRACK_042,* ,6,CH	RACK NUMBER - 042	38768400
MPFEAT_042,* ,4,CH	FEATURE CODE - 042	38804000
MPUNIT_042,* ,8,CH	UNIT TYPE - 042	38839600
SKIP,8	RESERVED	38875200
MPVOLENT_043,* ,32	VOLUME ENTRY - 043	38910800
MPVOLSER_043,=,6,CH	VOLUME SERIAL - 043	38946400
MPRACK_043,* ,6,CH	RACK NUMBER - 043	38982000
MPFEAT_043,* ,4,CH	FEATURE CODE - 043	39017600
MPUNIT_043,* ,8,CH	UNIT TYPE - 043	39053200
SKIP,8	RESERVED	39088800
MPVOLENT_044,* ,32	VOLUME ENTRY - 044	39124400
MPVOLSER_044,=,6,CH	VOLUME SERIAL - 044	39160000
MPRACK_044,* ,6,CH	RACK NUMBER - 044	39195600
MPFEAT_044,* ,4,CH	FEATURE CODE - 044	39231200
MPUNIT_044,* ,8,CH	UNIT TYPE - 044	39266800
SKIP,8	RESERVED	39302400
MPVOLENT_045,* ,32	VOLUME ENTRY - 045	39338000
MPVOLSER_045,=,6,CH	VOLUME SERIAL - 045	39373600
MPRACK_045,* ,6,CH	RACK NUMBER - 045	39409200
MPFEAT_045,* ,4,CH	FEATURE CODE - 045	39444800
MPUNIT_045,* ,8,CH	UNIT TYPE - 045	39480400
SKIP,8	RESERVED	39516000
MPVOLENT_046,* ,32	VOLUME ENTRY - 046	39551600
MPVOLSER_046,=,6,CH	VOLUME SERIAL - 046	39587200
MPRACK_046,* ,6,CH	RACK NUMBER - 046	39622800
MPFEAT_046,* ,4,CH	FEATURE CODE - 046	39658400
MPUNIT_046,* ,8,CH	UNIT TYPE - 046	39694000
SKIP,8	RESERVED	39729600
MPVOLENT_047,* ,32	VOLUME ENTRY - 047	39765200
MPVOLSER_047,=,6,CH	VOLUME SERIAL - 047	39800800
MPRACK_047,* ,6,CH	RACK NUMBER - 047	39836400
MPFEAT_047,* ,4,CH	FEATURE CODE - 047	39872000
MPUNIT_047,* ,8,CH	UNIT TYPE - 047	39907600
SKIP,8	RESERVED	39943200

MPVOLENT_048,*,32	VOLUME ENTRY - 048	39978800
MPVOLSER_048,=,6,CH	VOLUME SERIAL - 048	40014400
MPRACK_048,*,6,CH	RACK NUMBER - 048	40050000
MPFEAT_048,*,4,CH	FEATURE CODE - 048	40085600
MPUNIT_048,*,8,CH	UNIT TYPE - 048	40121200
SKIP,8	RESERVED	40156800
MPVOLENT_049,*,32	VOLUME ENTRY - 049	40192400
MPVOLSER_049,=,6,CH	VOLUME SERIAL - 049	40228000
MPRACK_049,*,6,CH	RACK NUMBER - 049	40263600
MPFEAT_049,*,4,CH	FEATURE CODE - 049	40299200
MPUNIT_049,*,8,CH	UNIT TYPE - 049	40334800
SKIP,8	RESERVED	40370400
MPVOLENT_050,*,32	VOLUME ENTRY - 050	40406000
MPVOLSER_050,=,6,CH	VOLUME SERIAL - 050	40441600
MPRACK_050,*,6,CH	RACK NUMBER - 050	40477200
MPFEAT_050,*,4,CH	FEATURE CODE - 050	40512800
MPUNIT_050,*,8,CH	UNIT TYPE - 050	40548400
SKIP,8	RESERVED	40584000
MPVOLENT_051,*,32	VOLUME ENTRY - 051	40619600
MPVOLSER_051,=,6,CH	VOLUME SERIAL - 051	40655200
MPRACK_051,*,6,CH	RACK NUMBER - 051	40690800
MPFEAT_051,*,4,CH	FEATURE CODE - 051	40726400
MPUNIT_051,*,8,CH	UNIT TYPE - 051	40762000
SKIP,8	RESERVED	40797600
MPVOLENT_052,*,32	VOLUME ENTRY - 052	40833200
MPVOLSER_052,=,6,CH	VOLUME SERIAL - 052	40868800
MPRACK_052,*,6,CH	RACK NUMBER - 052	40904400
MPFEAT_052,*,4,CH	FEATURE CODE - 052	40940000
MPUNIT_052,*,8,CH	UNIT TYPE - 052	40975600
SKIP,8	RESERVED	41011200
MPVOLENT_053,*,32	VOLUME ENTRY - 053	41046800
MPVOLSER_053,=,6,CH	VOLUME SERIAL - 053	41082400
MPRACK_053,*,6,CH	RACK NUMBER - 053	41118000
MPFEAT_053,*,4,CH	FEATURE CODE - 053	41153600
MPUNIT_053,*,8,CH	UNIT TYPE - 053	41189200
SKIP,8	RESERVED	41224800
MPVOLENT_054,*,32	VOLUME ENTRY - 054	41260400
MPVOLSER_054,=,6,CH	VOLUME SERIAL - 054	41296000
MPRACK_054,*,6,CH	RACK NUMBER - 054	41331600
MPFEAT_054,*,4,CH	FEATURE CODE - 054	41367200
MPUNIT_054,*,8,CH	UNIT TYPE - 054	41402800
SKIP,8	RESERVED	41438400
MPVOLENT_055,*,32	VOLUME ENTRY - 055	41474000
MPVOLSER_055,=,6,CH	VOLUME SERIAL - 055	41509600
MPRACK_055,*,6,CH	RACK NUMBER - 055	41545200
MPFEAT_055,*,4,CH	FEATURE CODE - 055	41580800
MPUNIT_055,*,8,CH	UNIT TYPE - 055	41616400
SKIP,8	RESERVED	41652000
MPVOLENT_056,*,32	VOLUME ENTRY - 056	41687600
MPVOLSER_056,=,6,CH	VOLUME SERIAL - 056	41723200
MPRACK_056,*,6,CH	RACK NUMBER - 056	41758800
MPFEAT_056,*,4,CH	FEATURE CODE - 056	41794400
MPUNIT_056,*,8,CH	UNIT TYPE - 056	41830000
SKIP,8	RESERVED	41865600
MPVOLENT_057,*,32	VOLUME ENTRY - 057	41901200
MPVOLSER_057,=,6,CH	VOLUME SERIAL - 057	41936800
MPRACK_057,*,6,CH	RACK NUMBER - 057	41972400
MPFEAT_057,*,4,CH	FEATURE CODE - 057	42008000
MPUNIT_057,*,8,CH	UNIT TYPE - 057	42043600
SKIP,8	RESERVED	42079200
MPVOLENT_058,*,32	VOLUME ENTRY - 058	42114800
MPVOLSER_058,=,6,CH	VOLUME SERIAL - 058	42150400
MPRACK_058,*,6,CH	RACK NUMBER - 058	42186000
MPFEAT_058,*,4,CH	FEATURE CODE - 058	42221600
MPUNIT_058,*,8,CH	UNIT TYPE - 058	42257200
SKIP,8	RESERVED	42292800
MPVOLENT_059,*,32	VOLUME ENTRY - 059	42328400
MPVOLSER_059,=,6,CH	VOLUME SERIAL - 059	42364000
MPRACK_059,*,6,CH	RACK NUMBER - 059	42399600
MPFEAT_059,*,4,CH	FEATURE CODE - 059	42435200
MPUNIT_059,*,8,CH	UNIT TYPE - 059	42470800
SKIP,8	RESERVED	42506400
MPVOLENT_060,*,32	VOLUME ENTRY - 060	42542000
MPVOLSER_060,=,6,CH	VOLUME SERIAL - 060	42577600
MPRACK_060,*,6,CH	RACK NUMBER - 060	42613200
MPFEAT_060,*,4,CH	FEATURE CODE - 060	42648800
MPUNIT_060,*,8,CH	UNIT TYPE - 060	42684400
SKIP,8	RESERVED	42720000
MPVOLENT_061,*,32	VOLUME ENTRY - 061	42755600
MPVOLSER_061,=,6,CH	VOLUME SERIAL - 061	42791200
MPRACK_061,*,6,CH	RACK NUMBER - 061	42826800
MPFEAT_061,*,4,CH	FEATURE CODE - 061	42862400

MPUNIT_061,*,8,CH	UNIT TYPE - 061	42898000
SKIP,8	RESERVED	42933600
MPVOLNT_062,*,32	VOLUME ENTRY - 062	42969200
MPVOLSER_062,=,6,CH	VOLUME SERIAL - 062	43004800
MPRACK_062,*,6,CH	RACK NUMBER - 062	43040400
MPFEAT_062,*,4,CH	FEATURE CODE - 062	43076000
MPUNIT_062,*,8,CH	UNIT TYPE - 062	43111600
SKIP,8	RESERVED	43147200
MPVOLNT_063,*,32	VOLUME ENTRY - 063	43182800
MPVOLSER_063,=,6,CH	VOLUME SERIAL - 063	43218400
MPRACK_063,*,6,CH	RACK NUMBER - 063	43254000
MPFEAT_063,*,4,CH	FEATURE CODE - 063	43289600
MPUNIT_063,*,8,CH	UNIT TYPE - 063	43325200
SKIP,8	RESERVED	43360800
MPVOLNT_064,*,32	VOLUME ENTRY - 064	43396400
MPVOLSER_064,=,6,CH	VOLUME SERIAL - 064	43432000
MPRACK_064,*,6,CH	RACK NUMBER - 064	43467600
MPFEAT_064,*,4,CH	FEATURE CODE - 064	43503200
MPUNIT_064,*,8,CH	UNIT TYPE - 064	43538800
SKIP,8	RESERVED	43574400
MPVOLNT_065,*,32	VOLUME ENTRY - 065	43610000
MPVOLSER_065,=,6,CH	VOLUME SERIAL - 065	43645600
MPRACK_065,*,6,CH	RACK NUMBER - 065	43681200
MPFEAT_065,*,4,CH	FEATURE CODE - 065	43716800
MPUNIT_065,*,8,CH	UNIT TYPE - 065	43752400
SKIP,8	RESERVED	43788000
MPVOLNT_066,*,32	VOLUME ENTRY - 066	43823600
MPVOLSER_066,=,6,CH	VOLUME SERIAL - 066	43859200
MPRACK_066,*,6,CH	RACK NUMBER - 066	43894800
MPFEAT_066,*,4,CH	FEATURE CODE - 066	43930400
MPUNIT_066,*,8,CH	UNIT TYPE - 066	43966000
SKIP,8	RESERVED	44001600
MPVOLNT_067,*,32	VOLUME ENTRY - 067	44037200
MPVOLSER_067,=,6,CH	VOLUME SERIAL - 067	44072800
MPRACK_067,*,6,CH	RACK NUMBER - 067	44108400
MPFEAT_067,*,4,CH	FEATURE CODE - 067	44144000
MPUNIT_067,*,8,CH	UNIT TYPE - 067	44179600
SKIP,8	RESERVED	44215200
MPVOLNT_068,*,32	VOLUME ENTRY - 068	44250800
MPVOLSER_068,=,6,CH	VOLUME SERIAL - 068	44286400
MPRACK_068,*,6,CH	RACK NUMBER - 068	44322000
MPFEAT_068,*,4,CH	FEATURE CODE - 068	44357600
MPUNIT_068,*,8,CH	UNIT TYPE - 068	44393200
SKIP,8	RESERVED	44428800
MPVOLNT_069,*,32	VOLUME ENTRY - 069	44464400
MPVOLSER_069,=,6,CH	VOLUME SERIAL - 069	44500000
MPRACK_069,*,6,CH	RACK NUMBER - 069	44535600
MPFEAT_069,*,4,CH	FEATURE CODE - 069	44571200
MPUNIT_069,*,8,CH	UNIT TYPE - 069	44606800
SKIP,8	RESERVED	44642400
MPVOLNT_070,*,32	VOLUME ENTRY - 070	44678000
MPVOLSER_070,=,6,CH	VOLUME SERIAL - 070	44713600
MPRACK_070,*,6,CH	RACK NUMBER - 070	44749200
MPFEAT_070,*,4,CH	FEATURE CODE - 070	44784800
MPUNIT_070,*,8,CH	UNIT TYPE - 070	44820400
SKIP,8	RESERVED	44856000
MPVOLNT_071,*,32	VOLUME ENTRY - 071	44891600
MPVOLSER_071,=,6,CH	VOLUME SERIAL - 071	44927200
MPRACK_071,*,6,CH	RACK NUMBER - 071	44962800
MPFEAT_071,*,4,CH	FEATURE CODE - 071	44998400
MPUNIT_071,*,8,CH	UNIT TYPE - 071	45034000
SKIP,8	RESERVED	45069600
MPVOLNT_072,*,32	VOLUME ENTRY - 072	45105200
MPVOLSER_072,=,6,CH	VOLUME SERIAL - 072	45140800
MPRACK_072,*,6,CH	RACK NUMBER - 072	45176400
MPFEAT_072,*,4,CH	FEATURE CODE - 072	45212000
MPUNIT_072,*,8,CH	UNIT TYPE - 072	45247600
SKIP,8	RESERVED	45283200
MPVOLNT_073,*,32	VOLUME ENTRY - 073	45318800
MPVOLSER_073,=,6,CH	VOLUME SERIAL - 073	45354400
MPRACK_073,*,6,CH	RACK NUMBER - 073	45390000
MPFEAT_073,*,4,CH	FEATURE CODE - 073	45425600
MPUNIT_073,*,8,CH	UNIT TYPE - 073	45461200
SKIP,8	RESERVED	45496800
MPVOLNT_074,*,32	VOLUME ENTRY - 074	45532400
MPVOLSER_074,=,6,CH	VOLUME SERIAL - 074	45568000
MPRACK_074,*,6,CH	RACK NUMBER - 074	45603600
MPFEAT_074,*,4,CH	FEATURE CODE - 074	45639200
MPUNIT_074,*,8,CH	UNIT TYPE - 074	45674800
SKIP,8	RESERVED	45710400
MPVOLNT_075,*,32	VOLUME ENTRY - 075	45746000
MPVOLSER_075,=,6,CH	VOLUME SERIAL - 075	45781600

MPRACK_075,* ,6,CH	RACK NUMBER - 075	45817200
MPFEAT_075,* ,4,CH	FEATURE CODE - 075	45852800
MPUNIT_075,* ,8,CH	UNIT TYPE - 075	45888400
SKIP,8	RESERVED	45924000
MPVOLUME_076,* ,32	VOLUME ENTRY - 076	45959600
MPVOLSER_076,=,6,CH	VOLUME SERIAL - 076	45995200
MPRACK_076,* ,6,CH	RACK NUMBER - 076	46030800
MPFEAT_076,* ,4,CH	FEATURE CODE - 076	46066400
MPUNIT_076,* ,8,CH	UNIT TYPE - 076	46102000
SKIP,8	RESERVED	46137600
MPVOLUME_077,* ,32	VOLUME ENTRY - 077	46173200
MPVOLSER_077,=,6,CH	VOLUME SERIAL - 077	46208800
MPRACK_077,* ,6,CH	RACK NUMBER - 077	46244400
MPFEAT_077,* ,4,CH	FEATURE CODE - 077	46280000
MPUNIT_077,* ,8,CH	UNIT TYPE - 077	46315600
SKIP,8	RESERVED	46351200
MPVOLUME_078,* ,32	VOLUME ENTRY - 078	46386800
MPVOLSER_078,=,6,CH	VOLUME SERIAL - 078	46422400
MPRACK_078,* ,6,CH	RACK NUMBER - 078	46458000
MPFEAT_078,* ,4,CH	FEATURE CODE - 078	46493600
MPUNIT_078,* ,8,CH	UNIT TYPE - 078	46529200
SKIP,8	RESERVED	46564800
MPVOLUME_079,* ,32	VOLUME ENTRY - 079	46600400
MPVOLSER_079,=,6,CH	VOLUME SERIAL - 079	46636000
MPRACK_079,* ,6,CH	RACK NUMBER - 079	46671600
MPFEAT_079,* ,4,CH	FEATURE CODE - 079	46707200
MPUNIT_079,* ,8,CH	UNIT TYPE - 079	46742800
SKIP,8	RESERVED	46778400
MPVOLUME_080,* ,32	VOLUME ENTRY - 080	46814000
MPVOLSER_080,=,6,CH	VOLUME SERIAL - 080	46849600
MPRACK_080,* ,6,CH	RACK NUMBER - 080	46885200
MPFEAT_080,* ,4,CH	FEATURE CODE - 080	46920800
MPUNIT_080,* ,8,CH	UNIT TYPE - 080	46956400
SKIP,8	RESERVED	46992000
MPVOLUME_081,* ,32	VOLUME ENTRY - 081	47027600
MPVOLSER_081,=,6,CH	VOLUME SERIAL - 081	47063200
MPRACK_081,* ,6,CH	RACK NUMBER - 081	47098800
MPFEAT_081,* ,4,CH	FEATURE CODE - 081	47134400
MPUNIT_081,* ,8,CH	UNIT TYPE - 081	47170000
SKIP,8	RESERVED	47205600
MPVOLUME_082,* ,32	VOLUME ENTRY - 082	47241200
MPVOLSER_082,=,6,CH	VOLUME SERIAL - 082	47276800
MPRACK_082,* ,6,CH	RACK NUMBER - 082	47312400
MPFEAT_082,* ,4,CH	FEATURE CODE - 082	47348000
MPUNIT_082,* ,8,CH	UNIT TYPE - 082	47383600
SKIP,8	RESERVED	47419200
MPVOLUME_083,* ,32	VOLUME ENTRY - 083	47454800
MPVOLSER_083,=,6,CH	VOLUME SERIAL - 083	47490400
MPRACK_083,* ,6,CH	RACK NUMBER - 083	47526000
MPFEAT_083,* ,4,CH	FEATURE CODE - 083	47561600
MPUNIT_083,* ,8,CH	UNIT TYPE - 083	47597200
SKIP,8	RESERVED	47632800
MPVOLUME_084,* ,32	VOLUME ENTRY - 084	47668400
MPVOLSER_084,=,6,CH	VOLUME SERIAL - 084	47704000
MPRACK_084,* ,6,CH	RACK NUMBER - 084	47739600
MPFEAT_084,* ,4,CH	FEATURE CODE - 084	47775200
MPUNIT_084,* ,8,CH	UNIT TYPE - 084	47810800
SKIP,8	RESERVED	47846400
MPVOLUME_085,* ,32	VOLUME ENTRY - 085	47882000
MPVOLSER_085,=,6,CH	VOLUME SERIAL - 085	47917600
MPRACK_085,* ,6,CH	RACK NUMBER - 085	47953200
MPFEAT_085,* ,4,CH	FEATURE CODE - 085	47988800
MPUNIT_085,* ,8,CH	UNIT TYPE - 085	48024400
SKIP,8	RESERVED	48060000
MPVOLUME_086,* ,32	VOLUME ENTRY - 086	48095600
MPVOLSER_086,=,6,CH	VOLUME SERIAL - 086	48131200
MPRACK_086,* ,6,CH	RACK NUMBER - 086	48166800
MPFEAT_086,* ,4,CH	FEATURE CODE - 086	48202400
MPUNIT_086,* ,8,CH	UNIT TYPE - 086	48238000
SKIP,8	RESERVED	48273600
MPVOLUME_087,* ,32	VOLUME ENTRY - 087	48309200
MPVOLSER_087,=,6,CH	VOLUME SERIAL - 087	48344800
MPRACK_087,* ,6,CH	RACK NUMBER - 087	48380400
MPFEAT_087,* ,4,CH	FEATURE CODE - 087	48416000
MPUNIT_087,* ,8,CH	UNIT TYPE - 087	48451600
SKIP,8	RESERVED	48487200
MPVOLUME_088,* ,32	VOLUME ENTRY - 088	48522800
MPVOLSER_088,=,6,CH	VOLUME SERIAL - 088	48558400
MPRACK_088,* ,6,CH	RACK NUMBER - 088	48594000
MPFEAT_088,* ,4,CH	FEATURE CODE - 088	48629600
MPUNIT_088,* ,8,CH	UNIT TYPE - 088	48665200
SKIP,8	RESERVED	48700800

MPVOLENT_089,*,32	VOLUME ENTRY - 089	48736400
MPVOLSER_089,=,6,CH	VOLUME SERIAL - 089	48772000
MPRACK_089,*,6,CH	RACK NUMBER - 089	48807600
MPFEAT_089,*,4,CH	FEATURE CODE - 089	48843200
MPUNIT_089,*,8,CH	UNIT TYPE - 089	48878800
SKIP,8	RESERVED	48914400
MPVOLENT_090,*,32	VOLUME ENTRY - 090	48950000
MPVOLSER_090,=,6,CH	VOLUME SERIAL - 090	48985600
MPRACK_090,*,6,CH	RACK NUMBER - 090	49021200
MPFEAT_090,*,4,CH	FEATURE CODE - 090	49056800
MPUNIT_090,*,8,CH	UNIT TYPE - 090	49092400
SKIP,8	RESERVED	49128000
MPVOLENT_091,*,32	VOLUME ENTRY - 091	49163600
MPVOLSER_091,=,6,CH	VOLUME SERIAL - 091	49199200
MPRACK_091,*,6,CH	RACK NUMBER - 091	49234800
MPFEAT_091,*,4,CH	FEATURE CODE - 091	49270400
MPUNIT_091,*,8,CH	UNIT TYPE - 091	49306000
SKIP,8	RESERVED	49341600
MPVOLENT_092,*,32	VOLUME ENTRY - 092	49377200
MPVOLSER_092,=,6,CH	VOLUME SERIAL - 092	49412800
MPRACK_092,*,6,CH	RACK NUMBER - 092	49448400
MPFEAT_092,*,4,CH	FEATURE CODE - 092	49484000
MPUNIT_092,*,8,CH	UNIT TYPE - 092	49519600
SKIP,8	RESERVED	49555200
MPVOLENT_093,*,32	VOLUME ENTRY - 093	49590800
MPVOLSER_093,=,6,CH	VOLUME SERIAL - 093	49626400
MPRACK_093,*,6,CH	RACK NUMBER - 093	49662000
MPFEAT_093,*,4,CH	FEATURE CODE - 093	49697600
MPUNIT_093,*,8,CH	UNIT TYPE - 093	49733200
SKIP,8	RESERVED	49768800
MPVOLENT_094,*,32	VOLUME ENTRY - 094	49804400
MPVOLSER_094,=,6,CH	VOLUME SERIAL - 094	49840000
MPRACK_094,*,6,CH	RACK NUMBER - 094	49875600
MPFEAT_094,*,4,CH	FEATURE CODE - 094	49911200
MPUNIT_094,*,8,CH	UNIT TYPE - 094	49946800
SKIP,8	RESERVED	49982400
MPVOLENT_095,*,32	VOLUME ENTRY - 095	50018000
MPVOLSER_095,=,6,CH	VOLUME SERIAL - 095	50053600
MPRACK_095,*,6,CH	RACK NUMBER - 095	50089200
MPFEAT_095,*,4,CH	FEATURE CODE - 095	50124800
MPUNIT_095,*,8,CH	UNIT TYPE - 095	50160400
SKIP,8	RESERVED	50196000
MPVOLENT_096,*,32	VOLUME ENTRY - 096	50231600
MPVOLSER_096,=,6,CH	VOLUME SERIAL - 096	50267200
MPRACK_096,*,6,CH	RACK NUMBER - 096	50302800
MPFEAT_096,*,4,CH	FEATURE CODE - 096	50338400
MPUNIT_096,*,8,CH	UNIT TYPE - 096	50374000
SKIP,8	RESERVED	50409600
MPVOLENT_097,*,32	VOLUME ENTRY - 097	50445200
MPVOLSER_097,=,6,CH	VOLUME SERIAL - 097	50480800
MPRACK_097,*,6,CH	RACK NUMBER - 097	50516400
MPFEAT_097,*,4,CH	FEATURE CODE - 097	50552000
MPUNIT_097,*,8,CH	UNIT TYPE - 097	50587600
SKIP,8	RESERVED	50623200
MPVOLENT_098,*,32	VOLUME ENTRY - 098	50658800
MPVOLSER_098,=,6,CH	VOLUME SERIAL - 098	50694400
MPRACK_098,*,6,CH	RACK NUMBER - 098	50730000
MPFEAT_098,*,4,CH	FEATURE CODE - 098	50765600
MPUNIT_098,*,8,CH	UNIT TYPE - 098	50801200
SKIP,8	RESERVED	50836800
MPVOLENT_099,*,32	VOLUME ENTRY - 099	50872400
MPVOLSER_099,=,6,CH	VOLUME SERIAL - 099	50908000
MPRACK_099,*,6,CH	RACK NUMBER - 099	50943600
MPFEAT_099,*,4,CH	FEATURE CODE - 099	50979200
MPUNIT_099,*,8,CH	UNIT TYPE - 099	51014800
SKIP,8	RESERVED	51050400
MPVOLENT_100,*,32	VOLUME ENTRY - 100	51086000
MPVOLSER_100,=,6,CH	VOLUME SERIAL - 100	51121600
MPRACK_100,*,6,CH	RACK NUMBER - 100	51157200
MPFEAT_100,*,4,CH	FEATURE CODE - 100	51192800
MPUNIT_100,*,8,CH	UNIT TYPE - 100	51228400
SKIP,8	RESERVED	51264000
MPVOLENT_101,*,32	VOLUME ENTRY - 101	51299600
MPVOLSER_101,=,6,CH	VOLUME SERIAL - 101	51335200
MPRACK_101,*,6,CH	RACK NUMBER - 101	51370800
MPFEAT_101,*,4,CH	FEATURE CODE - 101	51406400
MPUNIT_101,*,8,CH	UNIT TYPE - 101	51442000
SKIP,8	RESERVED	51477600
MPVOLENT_102,*,32	VOLUME ENTRY - 102	51513200
MPVOLSER_102,=,6,CH	VOLUME SERIAL - 102	51548800
MPRACK_102,*,6,CH	RACK NUMBER - 102	51584400
MPFEAT_102,*,4,CH	FEATURE CODE - 102	51620000

MPUNIT_102,*,8,CH	UNIT TYPE - 102	51655600
SKIP,8	RESERVED	51691200
MPVOLENT_103,*,32	VOLUME ENTRY - 103	51726800
MPVOLSER_103,=,6,CH	VOLUME SERIAL - 103	51762400
MPRACK_103,*,6,CH	RACK NUMBER - 103	51798000
MPFEAT_103,*,4,CH	FEATURE CODE - 103	51833600
MPUNIT_103,*,8,CH	UNIT TYPE - 103	51869200
SKIP,8	RESERVED	51904800
MPVOLENT_104,*,32	VOLUME ENTRY - 104	51940400
MPVOLSER_104,=,6,CH	VOLUME SERIAL - 104	51976000
MPRACK_104,*,6,CH	RACK NUMBER - 104	52011600
MPFEAT_104,*,4,CH	FEATURE CODE - 104	52047200
MPUNIT_104,*,8,CH	UNIT TYPE - 104	52082800
SKIP,8	RESERVED	52118400
MPVOLENT_105,*,32	VOLUME ENTRY - 105	52154000
MPVOLSER_105,=,6,CH	VOLUME SERIAL - 105	52189600
MPRACK_105,*,6,CH	RACK NUMBER - 105	52225200
MPFEAT_105,*,4,CH	FEATURE CODE - 105	52260800
MPUNIT_105,*,8,CH	UNIT TYPE - 105	52296400
SKIP,8	RESERVED	52332000
MPVOLENT_106,*,32	VOLUME ENTRY - 106	52367600
MPVOLSER_106,=,6,CH	VOLUME SERIAL - 106	52403200
MPRACK_106,*,6,CH	RACK NUMBER - 106	52438800
MPFEAT_106,*,4,CH	FEATURE CODE - 106	52474400
MPUNIT_106,*,8,CH	UNIT TYPE - 106	52510000
SKIP,8	RESERVED	52545600
MPVOLENT_107,*,32	VOLUME ENTRY - 107	52581200
MPVOLSER_107,=,6,CH	VOLUME SERIAL - 107	52616800
MPRACK_107,*,6,CH	RACK NUMBER - 107	52652400
MPFEAT_107,*,4,CH	FEATURE CODE - 107	52688000
MPUNIT_107,*,8,CH	UNIT TYPE - 107	52723600
SKIP,8	RESERVED	52759200
MPVOLENT_108,*,32	VOLUME ENTRY - 108	52794800
MPVOLSER_108,=,6,CH	VOLUME SERIAL - 108	52830400
MPRACK_108,*,6,CH	RACK NUMBER - 108	52866000
MPFEAT_108,*,4,CH	FEATURE CODE - 108	52901600
MPUNIT_108,*,8,CH	UNIT TYPE - 108	52937200
SKIP,8	RESERVED	52972800
MPVOLENT_109,*,32	VOLUME ENTRY - 109	53008400
MPVOLSER_109,=,6,CH	VOLUME SERIAL - 109	53044000
MPRACK_109,*,6,CH	RACK NUMBER - 109	53079600
MPFEAT_109,*,4,CH	FEATURE CODE - 109	53115200
MPUNIT_109,*,8,CH	UNIT TYPE - 109	53150800
SKIP,8	RESERVED	53186400
MPVOLENT_110,*,32	VOLUME ENTRY - 110	53222000
MPVOLSER_110,=,6,CH	VOLUME SERIAL - 110	53257600
MPRACK_110,*,6,CH	RACK NUMBER - 110	53293200
MPFEAT_110,*,4,CH	FEATURE CODE - 110	53328800
MPUNIT_110,*,8,CH	UNIT TYPE - 110	53364400
SKIP,8	RESERVED	53400000
MPVOLENT_111,*,32	VOLUME ENTRY - 111	53435600
MPVOLSER_111,=,6,CH	VOLUME SERIAL - 111	53471200
MPRACK_111,*,6,CH	RACK NUMBER - 111	53506800
MPFEAT_111,*,4,CH	FEATURE CODE - 111	53542400
MPUNIT_111,*,8,CH	UNIT TYPE - 111	53578000
SKIP,8	RESERVED	53613600
MPVOLENT_112,*,32	VOLUME ENTRY - 112	53649200
MPVOLSER_112,=,6,CH	VOLUME SERIAL - 112	53684800
MPRACK_112,*,6,CH	RACK NUMBER - 112	53720400
MPFEAT_112,*,4,CH	FEATURE CODE - 112	53756000
MPUNIT_112,*,8,CH	UNIT TYPE - 112	53791600
SKIP,8	RESERVED	53827200
MPVOLENT_113,*,32	VOLUME ENTRY - 113	53862800
MPVOLSER_113,=,6,CH	VOLUME SERIAL - 113	53898400
MPRACK_113,*,6,CH	RACK NUMBER - 113	53934000
MPFEAT_113,*,4,CH	FEATURE CODE - 113	53969600
MPUNIT_113,*,8,CH	UNIT TYPE - 113	54005200
SKIP,8	RESERVED	54040800
MPVOLENT_114,*,32	VOLUME ENTRY - 114	54076400
MPVOLSER_114,=,6,CH	VOLUME SERIAL - 114	54112000
MPRACK_114,*,6,CH	RACK NUMBER - 114	54147600
MPFEAT_114,*,4,CH	FEATURE CODE - 114	54183200
MPUNIT_114,*,8,CH	UNIT TYPE - 114	54218800
SKIP,8	RESERVED	54254400
MPVOLENT_115,*,32	VOLUME ENTRY - 115	54290000
MPVOLSER_115,=,6,CH	VOLUME SERIAL - 115	54325600
MPRACK_115,*,6,CH	RACK NUMBER - 115	54361200
MPFEAT_115,*,4,CH	FEATURE CODE - 115	54396800
MPUNIT_115,*,8,CH	UNIT TYPE - 115	54432400
SKIP,8	RESERVED	54468000
MPVOLENT_116,*,32	VOLUME ENTRY - 116	54503600
MPVOLSER_116,=,6,CH	VOLUME SERIAL - 116	54539200

MPRACK_116,*,6,CH	RACK NUMBER - 116	54574800
MPFEAT_116,*,4,CH	FEATURE CODE - 116	54610400
MPUNIT_116,*,8,CH	UNIT TYPE - 116	54646000
SKIP,8	RESERVED	54681600
MPVOLENT_117,*,32	VOLUME ENTRY - 117	54717200
MPVOLSER_117,=,6,CH	VOLUME SERIAL - 117	54752800
MPRACK_117,*,6,CH	RACK NUMBER - 117	54788400
MPFEAT_117,*,4,CH	FEATURE CODE - 117	54824000
MPUNIT_117,*,8,CH	UNIT TYPE - 117	54859600
SKIP,8	RESERVED	54895200
MPVOLENT_118,*,32	VOLUME ENTRY - 118	54930800
MPVOLSER_118,=,6,CH	VOLUME SERIAL - 118	54966400
MPRACK_118,*,6,CH	RACK NUMBER - 118	55002000
MPFEAT_118,*,4,CH	FEATURE CODE - 118	55037600
MPUNIT_118,*,8,CH	UNIT TYPE - 118	55073200
SKIP,8	RESERVED	55108800
MPVOLENT_119,*,32	VOLUME ENTRY - 119	55144400
MPVOLSER_119,=,6,CH	VOLUME SERIAL - 119	55180000
MPRACK_119,*,6,CH	RACK NUMBER - 119	55215600
MPFEAT_119,*,4,CH	FEATURE CODE - 119	55251200
MPUNIT_119,*,8,CH	UNIT TYPE - 119	55286800
SKIP,8	RESERVED	55322400
MPVOLENT_120,*,32	VOLUME ENTRY - 120	55358000
MPVOLSER_120,=,6,CH	VOLUME SERIAL - 120	55393600
MPRACK_120,*,6,CH	RACK NUMBER - 120	55429200
MPFEAT_120,*,4,CH	FEATURE CODE - 120	55464800
MPUNIT_120,*,8,CH	UNIT TYPE - 120	55500400
SKIP,8	RESERVED	55536000
MPVOLENT_121,*,32	VOLUME ENTRY - 121	55571600
MPVOLSER_121,=,6,CH	VOLUME SERIAL - 121	55607200
MPRACK_121,*,6,CH	RACK NUMBER - 121	55642800
MPFEAT_121,*,4,CH	FEATURE CODE - 121	55678400
MPUNIT_121,*,8,CH	UNIT TYPE - 121	55714000
SKIP,8	RESERVED	55749600
MPVOLENT_122,*,32	VOLUME ENTRY - 122	55785200
MPVOLSER_122,=,6,CH	VOLUME SERIAL - 122	55820800
MPRACK_122,*,6,CH	RACK NUMBER - 122	55856400
MPFEAT_122,*,4,CH	FEATURE CODE - 122	55892000
MPUNIT_122,*,8,CH	UNIT TYPE - 122	55927600
SKIP,8	RESERVED	55963200
MPVOLENT_123,*,32	VOLUME ENTRY - 123	55998800
MPVOLSER_123,=,6,CH	VOLUME SERIAL - 123	56034400
MPRACK_123,*,6,CH	RACK NUMBER - 123	56070000
MPFEAT_123,*,4,CH	FEATURE CODE - 123	56105600
MPUNIT_123,*,8,CH	UNIT TYPE - 123	56141200
SKIP,8	RESERVED	56176800
MPVOLENT_124,*,32	VOLUME ENTRY - 124	56212400
MPVOLSER_124,=,6,CH	VOLUME SERIAL - 124	56248000
MPRACK_124,*,6,CH	RACK NUMBER - 124	56283600
MPFEAT_124,*,4,CH	FEATURE CODE - 124	56319200
MPUNIT_124,*,8,CH	UNIT TYPE - 124	56354800
SKIP,8	RESERVED	56390400
MPVOLENT_125,*,32	VOLUME ENTRY - 125	56426000
MPVOLSER_125,=,6,CH	VOLUME SERIAL - 125	56461600
MPRACK_125,*,6,CH	RACK NUMBER - 125	56497200
MPFEAT_125,*,4,CH	FEATURE CODE - 125	56532800
MPUNIT_125,*,8,CH	UNIT TYPE - 125	56568400
SKIP,8	RESERVED	56604000
MPVOLENT_126,*,32	VOLUME ENTRY - 126	56639600
MPVOLSER_126,=,6,CH	VOLUME SERIAL - 126	56675200
MPRACK_126,*,6,CH	RACK NUMBER - 126	56710800
MPFEAT_126,*,4,CH	FEATURE CODE - 126	56746400
MPUNIT_126,*,8,CH	UNIT TYPE - 126	56782000
SKIP,8	RESERVED	56817600
MPVOLENT_127,*,32	VOLUME ENTRY - 127	56853200
MPVOLSER_127,=,6,CH	VOLUME SERIAL - 127	56888800
MPRACK_127,*,6,CH	RACK NUMBER - 127	56924400
MPFEAT_127,*,4,CH	FEATURE CODE - 127	56960000
MPUNIT_127,*,8,CH	UNIT TYPE - 127	56995600
SKIP,8	RESERVED	57031200
MPVOLENT_128,*,32	VOLUME ENTRY - 128	57066800
MPVOLSER_128,=,6,CH	VOLUME SERIAL - 128	57102400
MPRACK_128,*,6,CH	RACK NUMBER - 128	57138000
MPFEAT_128,*,4,CH	FEATURE CODE - 128	57173600
MPUNIT_128,*,8,CH	UNIT TYPE - 128	57209200
SKIP,8	RESERVED	57244800
MPVOLENT_129,*,32	VOLUME ENTRY - 129	57280400
MPVOLSER_129,=,6,CH	VOLUME SERIAL - 129	57316000
MPRACK_129,*,6,CH	RACK NUMBER - 129	57351600
MPFEAT_129,*,4,CH	FEATURE CODE - 129	57387200
MPUNIT_129,*,8,CH	UNIT TYPE - 129	57422800
SKIP,8	RESERVED	57458400

MPVOLENT_130,*,32	VOLUME ENTRY - 130	57494000
MPVOLSER_130,=,6,CH	VOLUME SERIAL - 130	57529600
MPRACK_130,*,6,CH	RACK NUMBER - 130	57565200
MPFEAT_130,*,4,CH	FEATURE CODE - 130	57600800
MPUNIT_130,*,8,CH	UNIT TYPE - 130	57636400
SKIP,8	RESERVED	57672000
MPVOLENT_131,*,32	VOLUME ENTRY - 131	57707600
MPVOLSER_131,=,6,CH	VOLUME SERIAL - 131	57743200
MPRACK_131,*,6,CH	RACK NUMBER - 131	57778800
MPFEAT_131,*,4,CH	FEATURE CODE - 131	57814400
MPUNIT_131,*,8,CH	UNIT TYPE - 131	57850000
SKIP,8	RESERVED	57885600
MPVOLENT_132,*,32	VOLUME ENTRY - 132	57921200
MPVOLSER_132,=,6,CH	VOLUME SERIAL - 132	57956800
MPRACK_132,*,6,CH	RACK NUMBER - 132	57992400
MPFEAT_132,*,4,CH	FEATURE CODE - 132	58028000
MPUNIT_132,*,8,CH	UNIT TYPE - 132	58063600
SKIP,8	RESERVED	58099200
MPVOLENT_133,*,32	VOLUME ENTRY - 133	58134800
MPVOLSER_133,=,6,CH	VOLUME SERIAL - 133	58170400
MPRACK_133,*,6,CH	RACK NUMBER - 133	58206000
MPFEAT_133,*,4,CH	FEATURE CODE - 133	58241600
MPUNIT_133,*,8,CH	UNIT TYPE - 133	58277200
SKIP,8	RESERVED	58312800
MPVOLENT_134,*,32	VOLUME ENTRY - 134	58348400
MPVOLSER_134,=,6,CH	VOLUME SERIAL - 134	58384000
MPRACK_134,*,6,CH	RACK NUMBER - 134	58419600
MPFEAT_134,*,4,CH	FEATURE CODE - 134	58455200
MPUNIT_134,*,8,CH	UNIT TYPE - 134	58490800
SKIP,8	RESERVED	58526400
MPVOLENT_135,*,32	VOLUME ENTRY - 135	58562000
MPVOLSER_135,=,6,CH	VOLUME SERIAL - 135	58597600
MPRACK_135,*,6,CH	RACK NUMBER - 135	58633200
MPFEAT_135,*,4,CH	FEATURE CODE - 135	58668800
MPUNIT_135,*,8,CH	UNIT TYPE - 135	58704400
SKIP,8	RESERVED	58740000
MPVOLENT_136,*,32	VOLUME ENTRY - 136	58775600
MPVOLSER_136,=,6,CH	VOLUME SERIAL - 136	58811200
MPRACK_136,*,6,CH	RACK NUMBER - 136	58846800
MPFEAT_136,*,4,CH	FEATURE CODE - 136	58882400
MPUNIT_136,*,8,CH	UNIT TYPE - 136	58918000
SKIP,8	RESERVED	58953600
MPVOLENT_137,*,32	VOLUME ENTRY - 137	58989200
MPVOLSER_137,=,6,CH	VOLUME SERIAL - 137	59024800
MPRACK_137,*,6,CH	RACK NUMBER - 137	59060400
MPFEAT_137,*,4,CH	FEATURE CODE - 137	59096000
MPUNIT_137,*,8,CH	UNIT TYPE - 137	59131600
SKIP,8	RESERVED	59167200
MPVOLENT_138,*,32	VOLUME ENTRY - 138	59202800
MPVOLSER_138,=,6,CH	VOLUME SERIAL - 138	59238400
MPRACK_138,*,6,CH	RACK NUMBER - 138	59274000
MPFEAT_138,*,4,CH	FEATURE CODE - 138	59309600
MPUNIT_138,*,8,CH	UNIT TYPE - 138	59345200
SKIP,8	RESERVED	59380800
MPVOLENT_139,*,32	VOLUME ENTRY - 139	59416400
MPVOLSER_139,=,6,CH	VOLUME SERIAL - 139	59452000
MPRACK_139,*,6,CH	RACK NUMBER - 139	59487600
MPFEAT_139,*,4,CH	FEATURE CODE - 139	59523200
MPUNIT_139,*,8,CH	UNIT TYPE - 139	59558800
SKIP,8	RESERVED	59594400
MPVOLENT_140,*,32	VOLUME ENTRY - 140	59630000
MPVOLSER_140,=,6,CH	VOLUME SERIAL - 140	59665600
MPRACK_140,*,6,CH	RACK NUMBER - 140	59701200
MPFEAT_140,*,4,CH	FEATURE CODE - 140	59736800
MPUNIT_140,*,8,CH	UNIT TYPE - 140	59772400
SKIP,8	RESERVED	59808000
MPVOLENT_141,*,32	VOLUME ENTRY - 141	59843600
MPVOLSER_141,=,6,CH	VOLUME SERIAL - 141	59879200
MPRACK_141,*,6,CH	RACK NUMBER - 141	59914800
MPFEAT_141,*,4,CH	FEATURE CODE - 141	59950400
MPUNIT_141,*,8,CH	UNIT TYPE - 141	59986000
SKIP,8	RESERVED	60021600
MPVOLENT_142,*,32	VOLUME ENTRY - 142	60057200
MPVOLSER_142,=,6,CH	VOLUME SERIAL - 142	60092800
MPRACK_142,*,6,CH	RACK NUMBER - 142	60128400
MPFEAT_142,*,4,CH	FEATURE CODE - 142	60164000
MPUNIT_142,*,8,CH	UNIT TYPE - 142	60199600
SKIP,8	RESERVED	60235200
MPVOLENT_143,*,32	VOLUME ENTRY - 143	60270800
MPVOLSER_143,=,6,CH	VOLUME SERIAL - 143	60306400
MPRACK_143,*,6,CH	RACK NUMBER - 143	60342000
MPFEAT_143,*,4,CH	FEATURE CODE - 143	60377600

MPUNIT_143,* ,8,CH	UNIT TYPE - 143	60413200
SKIP,8	RESERVED	60448800
MPVOLENT_144,* ,32	VOLUME ENTRY - 144	60484400
MPVOLSER_144,=,6,CH	VOLUME SERIAL - 144	60520000
MPRACK_144,* ,6,CH	RACK NUMBER - 144	60555600
MPFEAT_144,* ,4,CH	FEATURE CODE - 144	60591200
MPUNIT_144,* ,8,CH	UNIT TYPE - 144	60626800
SKIP,8	RESERVED	60662400
MPVOLENT_145,* ,32	VOLUME ENTRY - 145	60698000
MPVOLSER_145,=,6,CH	VOLUME SERIAL - 145	60733600
MPRACK_145,* ,6,CH	RACK NUMBER - 145	60769200
MPFEAT_145,* ,4,CH	FEATURE CODE - 145	60804800
MPUNIT_145,* ,8,CH	UNIT TYPE - 145	60840400
SKIP,8	RESERVED	60876000
MPVOLENT_146,* ,32	VOLUME ENTRY - 146	60911600
MPVOLSER_146,=,6,CH	VOLUME SERIAL - 146	60947200
MPRACK_146,* ,6,CH	RACK NUMBER - 146	60982800
MPFEAT_146,* ,4,CH	FEATURE CODE - 146	61018400
MPUNIT_146,* ,8,CH	UNIT TYPE - 146	61054000
SKIP,8	RESERVED	61089600
MPVOLENT_147,* ,32	VOLUME ENTRY - 147	61125200
MPVOLSER_147,=,6,CH	VOLUME SERIAL - 147	61160800
MPRACK_147,* ,6,CH	RACK NUMBER - 147	61196400
MPFEAT_147,* ,4,CH	FEATURE CODE - 147	61232000
MPUNIT_147,* ,8,CH	UNIT TYPE - 147	61267600
SKIP,8	RESERVED	61303200
MPVOLENT_148,* ,32	VOLUME ENTRY - 148	61338800
MPVOLSER_148,=,6,CH	VOLUME SERIAL - 148	61374400
MPRACK_148,* ,6,CH	RACK NUMBER - 148	61410000
MPFEAT_148,* ,4,CH	FEATURE CODE - 148	61445600
MPUNIT_148,* ,8,CH	UNIT TYPE - 148	61481200
SKIP,8	RESERVED	61516800
MPVOLENT_149,* ,32	VOLUME ENTRY - 149	61552400
MPVOLSER_149,=,6,CH	VOLUME SERIAL - 149	61588000
MPRACK_149,* ,6,CH	RACK NUMBER - 149	61623600
MPFEAT_149,* ,4,CH	FEATURE CODE - 149	61659200
MPUNIT_149,* ,8,CH	UNIT TYPE - 149	61694800
SKIP,8	RESERVED	61730400
MPVOLENT_150,* ,32	VOLUME ENTRY - 150	61766000
MPVOLSER_150,=,6,CH	VOLUME SERIAL - 150	61801600
MPRACK_150,* ,6,CH	RACK NUMBER - 150	61837200
MPFEAT_150,* ,4,CH	FEATURE CODE - 150	61872800
MPUNIT_150,* ,8,CH	UNIT TYPE - 150	61908400
SKIP,8	RESERVED	61944000
MPVOLENT_151,* ,32	VOLUME ENTRY - 151	61979600
MPVOLSER_151,=,6,CH	VOLUME SERIAL - 151	62015200
MPRACK_151,* ,6,CH	RACK NUMBER - 151	62050800
MPFEAT_151,* ,4,CH	FEATURE CODE - 151	62086400
MPUNIT_151,* ,8,CH	UNIT TYPE - 151	62122000
SKIP,8	RESERVED	62157600
MPVOLENT_152,* ,32	VOLUME ENTRY - 152	62193200
MPVOLSER_152,=,6,CH	VOLUME SERIAL - 152	62228800
MPRACK_152,* ,6,CH	RACK NUMBER - 152	62264400
MPFEAT_152,* ,4,CH	FEATURE CODE - 152	62300000
MPUNIT_152,* ,8,CH	UNIT TYPE - 152	62335600
SKIP,8	RESERVED	62371200
MPVOLENT_153,* ,32	VOLUME ENTRY - 153	62406800
MPVOLSER_153,=,6,CH	VOLUME SERIAL - 153	62442400
MPRACK_153,* ,6,CH	RACK NUMBER - 153	62478000
MPFEAT_153,* ,4,CH	FEATURE CODE - 153	62513600
MPUNIT_153,* ,8,CH	UNIT TYPE - 153	62549200
SKIP,8	RESERVED	62584800
MPVOLENT_154,* ,32	VOLUME ENTRY - 154	62620400
MPVOLSER_154,=,6,CH	VOLUME SERIAL - 154	62656000
MPRACK_154,* ,6,CH	RACK NUMBER - 154	62691600
MPFEAT_154,* ,4,CH	FEATURE CODE - 154	62727200
MPUNIT_154,* ,8,CH	UNIT TYPE - 154	62762800
SKIP,8	RESERVED	62798400
MPVOLENT_155,* ,32	VOLUME ENTRY - 155	62834000
MPVOLSER_155,=,6,CH	VOLUME SERIAL - 155	62869600
MPRACK_155,* ,6,CH	RACK NUMBER - 155	62905200
MPFEAT_155,* ,4,CH	FEATURE CODE - 155	62940800
MPUNIT_155,* ,8,CH	UNIT TYPE - 155	62976400
SKIP,8	RESERVED	63012000
MPVOLENT_156,* ,32	VOLUME ENTRY - 156	63047600
MPVOLSER_156,=,6,CH	VOLUME SERIAL - 156	63083200
MPRACK_156,* ,6,CH	RACK NUMBER - 156	63118800
MPFEAT_156,* ,4,CH	FEATURE CODE - 156	63154400
MPUNIT_156,* ,8,CH	UNIT TYPE - 156	63190000
SKIP,8	RESERVED	63225600
MPVOLENT_157,* ,32	VOLUME ENTRY - 157	63261200
MPVOLSER_157,=,6,CH	VOLUME SERIAL - 157	63296800

MPRACK_157,* ,6,CH	RACK NUMBER - 157	63332400
MPFEAT_157,* ,4,CH	FEATURE CODE - 157	63368000
MPUNIT_157,* ,8,CH	UNIT TYPE - 157	63403600
SKIP,8	RESERVED	63439200
MPVOLENT_158,* ,32	VOLUME ENTRY - 158	63474800
MPVOLSER_158,=,6,CH	VOLUME SERIAL - 158	63510400
MPRACK_158,* ,6,CH	RACK NUMBER - 158	63546000
MPFEAT_158,* ,4,CH	FEATURE CODE - 158	63581600
MPUNIT_158,* ,8,CH	UNIT TYPE - 158	63617200
SKIP,8	RESERVED	63652800
MPVOLENT_159,* ,32	VOLUME ENTRY - 159	63688400
MPVOLSER_159,=,6,CH	VOLUME SERIAL - 159	63724000
MPRACK_159,* ,6,CH	RACK NUMBER - 159	63759600
MPFEAT_159,* ,4,CH	FEATURE CODE - 159	63795200
MPUNIT_159,* ,8,CH	UNIT TYPE - 159	63830800
SKIP,8	RESERVED	63866400
MPVOLENT_160,* ,32	VOLUME ENTRY - 160	63902000
MPVOLSER_160,=,6,CH	VOLUME SERIAL - 160	63937600
MPRACK_160,* ,6,CH	RACK NUMBER - 160	63973200
MPFEAT_160,* ,4,CH	FEATURE CODE - 160	64008800
MPUNIT_160,* ,8,CH	UNIT TYPE - 160	64044400
SKIP,8	RESERVED	64080000
MPVOLENT_161,* ,32	VOLUME ENTRY - 161	64115600
MPVOLSER_161,=,6,CH	VOLUME SERIAL - 161	64151200
MPRACK_161,* ,6,CH	RACK NUMBER - 161	64186800
MPFEAT_161,* ,4,CH	FEATURE CODE - 161	64222400
MPUNIT_161,* ,8,CH	UNIT TYPE - 161	64258000
SKIP,8	RESERVED	64293600
MPVOLENT_162,* ,32	VOLUME ENTRY - 162	64329200
MPVOLSER_162,=,6,CH	VOLUME SERIAL - 162	64364800
MPRACK_162,* ,6,CH	RACK NUMBER - 162	64400400
MPFEAT_162,* ,4,CH	FEATURE CODE - 162	64436000
MPUNIT_162,* ,8,CH	UNIT TYPE - 162	64471600
SKIP,8	RESERVED	64507200
MPVOLENT_163,* ,32	VOLUME ENTRY - 163	64542800
MPVOLSER_163,=,6,CH	VOLUME SERIAL - 163	64578400
MPRACK_163,* ,6,CH	RACK NUMBER - 163	64614000
MPFEAT_163,* ,4,CH	FEATURE CODE - 163	64649600
MPUNIT_163,* ,8,CH	UNIT TYPE - 163	64685200
SKIP,8	RESERVED	64720800
MPVOLENT_164,* ,32	VOLUME ENTRY - 164	64756400
MPVOLSER_164,=,6,CH	VOLUME SERIAL - 164	64792000
MPRACK_164,* ,6,CH	RACK NUMBER - 164	64827600
MPFEAT_164,* ,4,CH	FEATURE CODE - 164	64863200
MPUNIT_164,* ,8,CH	UNIT TYPE - 164	64898800
SKIP,8	RESERVED	64934400
MPVOLENT_165,* ,32	VOLUME ENTRY - 165	64970000
MPVOLSER_165,=,6,CH	VOLUME SERIAL - 165	65005600
MPRACK_165,* ,6,CH	RACK NUMBER - 165	65041200
MPFEAT_165,* ,4,CH	FEATURE CODE - 165	65076800
MPUNIT_165,* ,8,CH	UNIT TYPE - 165	65112400
SKIP,8	RESERVED	65148000
MPVOLENT_166,* ,32	VOLUME ENTRY - 166	65183600
MPVOLSER_166,=,6,CH	VOLUME SERIAL - 166	65219200
MPRACK_166,* ,6,CH	RACK NUMBER - 166	65254800
MPFEAT_166,* ,4,CH	FEATURE CODE - 166	65290400
MPUNIT_166,* ,8,CH	UNIT TYPE - 166	65326000
SKIP,8	RESERVED	65361600
MPVOLENT_167,* ,32	VOLUME ENTRY - 167	65397200
MPVOLSER_167,=,6,CH	VOLUME SERIAL - 167	65432800
MPRACK_167,* ,6,CH	RACK NUMBER - 167	65468400
MPFEAT_167,* ,4,CH	FEATURE CODE - 167	65504000
MPUNIT_167,* ,8,CH	UNIT TYPE - 167	65539600
SKIP,8	RESERVED	65575200
MPVOLENT_168,* ,32	VOLUME ENTRY - 168	65610800
MPVOLSER_168,=,6,CH	VOLUME SERIAL - 168	65646400
MPRACK_168,* ,6,CH	RACK NUMBER - 168	65682000
MPFEAT_168,* ,4,CH	FEATURE CODE - 168	65717600
MPUNIT_168,* ,8,CH	UNIT TYPE - 168	65753200
SKIP,8	RESERVED	65788800
MPVOLENT_169,* ,32	VOLUME ENTRY - 169	65824400
MPVOLSER_169,=,6,CH	VOLUME SERIAL - 169	65860000
MPRACK_169,* ,6,CH	RACK NUMBER - 169	65895600
MPFEAT_169,* ,4,CH	FEATURE CODE - 169	65931200
MPUNIT_169,* ,8,CH	UNIT TYPE - 169	65966800
SKIP,8	RESERVED	66002400
MPVOLENT_170,* ,32	VOLUME ENTRY - 170	66038000
MPVOLSER_170,=,6,CH	VOLUME SERIAL - 170	66073600
MPRACK_170,* ,6,CH	RACK NUMBER - 170	66109200
MPFEAT_170,* ,4,CH	FEATURE CODE - 170	66144800
MPUNIT_170,* ,8,CH	UNIT TYPE - 170	66180400
SKIP,8	RESERVED	66216000

MPVOLENT_171,*,32	VOLUME ENTRY - 171	66251600
MPVOLSER_171,=,6,CH	VOLUME SERIAL - 171	66287200
MPRACK_171,*,6,CH	RACK NUMBER - 171	66322800
MPFEAT_171,*,4,CH	FEATURE CODE - 171	66358400
MPUNIT_171,*,8,CH	UNIT TYPE - 171	66394000
SKIP,8	RESERVED	66429600
MPVOLENT_172,*,32	VOLUME ENTRY - 172	66465200
MPVOLSER_172,=,6,CH	VOLUME SERIAL - 172	66500800
MPRACK_172,*,6,CH	RACK NUMBER - 172	66536400
MPFEAT_172,*,4,CH	FEATURE CODE - 172	66572000
MPUNIT_172,*,8,CH	UNIT TYPE - 172	66607600
SKIP,8	RESERVED	66643200
MPVOLENT_173,*,32	VOLUME ENTRY - 173	66678800
MPVOLSER_173,=,6,CH	VOLUME SERIAL - 173	66714400
MPRACK_173,*,6,CH	RACK NUMBER - 173	66750000
MPFEAT_173,*,4,CH	FEATURE CODE - 173	66785600
MPUNIT_173,*,8,CH	UNIT TYPE - 173	66821200
SKIP,8	RESERVED	66856800
MPVOLENT_174,*,32	VOLUME ENTRY - 174	66892400
MPVOLSER_174,=,6,CH	VOLUME SERIAL - 174	66928000
MPRACK_174,*,6,CH	RACK NUMBER - 174	66963600
MPFEAT_174,*,4,CH	FEATURE CODE - 174	66999200
MPUNIT_174,*,8,CH	UNIT TYPE - 174	67034800
SKIP,8	RESERVED	67070400
MPVOLENT_175,*,32	VOLUME ENTRY - 175	67106000
MPVOLSER_175,=,6,CH	VOLUME SERIAL - 175	67141600
MPRACK_175,*,6,CH	RACK NUMBER - 175	67177200
MPFEAT_175,*,4,CH	FEATURE CODE - 175	67212800
MPUNIT_175,*,8,CH	UNIT TYPE - 175	67248400
SKIP,8	RESERVED	67284000
MPVOLENT_176,*,32	VOLUME ENTRY - 176	67319600
MPVOLSER_176,=,6,CH	VOLUME SERIAL - 176	67355200
MPRACK_176,*,6,CH	RACK NUMBER - 176	67390800
MPFEAT_176,*,4,CH	FEATURE CODE - 176	67426400
MPUNIT_176,*,8,CH	UNIT TYPE - 176	67462000
SKIP,8	RESERVED	67497600
MPVOLENT_177,*,32	VOLUME ENTRY - 177	67533200
MPVOLSER_177,=,6,CH	VOLUME SERIAL - 177	67568800
MPRACK_177,*,6,CH	RACK NUMBER - 177	67604400
MPFEAT_177,*,4,CH	FEATURE CODE - 177	67640000
MPUNIT_177,*,8,CH	UNIT TYPE - 177	67675600
SKIP,8	RESERVED	67711200
MPVOLENT_178,*,32	VOLUME ENTRY - 178	67746800
MPVOLSER_178,=,6,CH	VOLUME SERIAL - 178	67782400
MPRACK_178,*,6,CH	RACK NUMBER - 178	67818000
MPFEAT_178,*,4,CH	FEATURE CODE - 178	67853600
MPUNIT_178,*,8,CH	UNIT TYPE - 178	67889200
SKIP,8	RESERVED	67924800
MPVOLENT_179,*,32	VOLUME ENTRY - 179	67960400
MPVOLSER_179,=,6,CH	VOLUME SERIAL - 179	67996000
MPRACK_179,*,6,CH	RACK NUMBER - 179	68031600
MPFEAT_179,*,4,CH	FEATURE CODE - 179	68067200
MPUNIT_179,*,8,CH	UNIT TYPE - 179	68102800
SKIP,8	RESERVED	68138400
MPVOLENT_180,*,32	VOLUME ENTRY - 180	68174000
MPVOLSER_180,=,6,CH	VOLUME SERIAL - 180	68209600
MPRACK_180,*,6,CH	RACK NUMBER - 180	68245200
MPFEAT_180,*,4,CH	FEATURE CODE - 180	68280800
MPUNIT_180,*,8,CH	UNIT TYPE - 180	68316400
SKIP,8	RESERVED	68352000
MPVOLENT_181,*,32	VOLUME ENTRY - 181	68387600
MPVOLSER_181,=,6,CH	VOLUME SERIAL - 181	68423200
MPRACK_181,*,6,CH	RACK NUMBER - 181	68458800
MPFEAT_181,*,4,CH	FEATURE CODE - 181	68494400
MPUNIT_181,*,8,CH	UNIT TYPE - 181	68530000
SKIP,8	RESERVED	68565600
MPVOLENT_182,*,32	VOLUME ENTRY - 182	68601200
MPVOLSER_182,=,6,CH	VOLUME SERIAL - 182	68636800
MPRACK_182,*,6,CH	RACK NUMBER - 182	68672400
MPFEAT_182,*,4,CH	FEATURE CODE - 182	68708000
MPUNIT_182,*,8,CH	UNIT TYPE - 182	68743600
SKIP,8	RESERVED	68779200
MPVOLENT_183,*,32	VOLUME ENTRY - 183	68814800
MPVOLSER_183,=,6,CH	VOLUME SERIAL - 183	68850400
MPRACK_183,*,6,CH	RACK NUMBER - 183	68886000
MPFEAT_183,*,4,CH	FEATURE CODE - 183	68921600
MPUNIT_183,*,8,CH	UNIT TYPE - 183	68957200
SKIP,8	RESERVED	68992800
MPVOLENT_184,*,32	VOLUME ENTRY - 184	69028400
MPVOLSER_184,=,6,CH	VOLUME SERIAL - 184	69064000
MPRACK_184,*,6,CH	RACK NUMBER - 184	69099600
MPFEAT_184,*,4,CH	FEATURE CODE - 184	69135200

MPUNIT_184,* ,8,CH	UNIT TYPE - 184	69170800
SKIP,8	RESERVED	69206400
MPVOLENT_185,* ,32	VOLUME ENTRY - 185	69242000
MPVOLSER_185,=,6,CH	VOLUME SERIAL - 185	69277600
MPRACK_185,* ,6,CH	RACK NUMBER - 185	69313200
MPFEAT_185,* ,4,CH	FEATURE CODE - 185	69348800
MPUNIT_185,* ,8,CH	UNIT TYPE - 185	69384400
SKIP,8	RESERVED	69420000
MPVOLENT_186,* ,32	VOLUME ENTRY - 186	69455600
MPVOLSER_186,=,6,CH	VOLUME SERIAL - 186	69491200
MPRACK_186,* ,6,CH	RACK NUMBER - 186	69526800
MPFEAT_186,* ,4,CH	FEATURE CODE - 186	69562400
MPUNIT_186,* ,8,CH	UNIT TYPE - 186	69598000
SKIP,8	RESERVED	69633600
MPVOLENT_187,* ,32	VOLUME ENTRY - 187	69669200
MPVOLSER_187,=,6,CH	VOLUME SERIAL - 187	69704800
MPRACK_187,* ,6,CH	RACK NUMBER - 187	69740400
MPFEAT_187,* ,4,CH	FEATURE CODE - 187	69776000
MPUNIT_187,* ,8,CH	UNIT TYPE - 187	69811600
SKIP,8	RESERVED	69847200
MPVOLENT_188,* ,32	VOLUME ENTRY - 188	69882800
MPVOLSER_188,=,6,CH	VOLUME SERIAL - 188	69918400
MPRACK_188,* ,6,CH	RACK NUMBER - 188	69954000
MPFEAT_188,* ,4,CH	FEATURE CODE - 188	69989600
MPUNIT_188,* ,8,CH	UNIT TYPE - 188	70025200
SKIP,8	RESERVED	70060800
MPVOLENT_189,* ,32	VOLUME ENTRY - 189	70096400
MPVOLSER_189,=,6,CH	VOLUME SERIAL - 189	70132000
MPRACK_189,* ,6,CH	RACK NUMBER - 189	70167600
MPFEAT_189,* ,4,CH	FEATURE CODE - 189	70203200
MPUNIT_189,* ,8,CH	UNIT TYPE - 189	70238800
SKIP,8	RESERVED	70274400
MPVOLENT_190,* ,32	VOLUME ENTRY - 190	70310000
MPVOLSER_190,=,6,CH	VOLUME SERIAL - 190	70345600
MPRACK_190,* ,6,CH	RACK NUMBER - 190	70381200
MPFEAT_190,* ,4,CH	FEATURE CODE - 190	70416800
MPUNIT_190,* ,8,CH	UNIT TYPE - 190	70452400
SKIP,8	RESERVED	70488000
MPVOLENT_191,* ,32	VOLUME ENTRY - 191	70523600
MPVOLSER_191,=,6,CH	VOLUME SERIAL - 191	70559200
MPRACK_191,* ,6,CH	RACK NUMBER - 191	70594800
MPFEAT_191,* ,4,CH	FEATURE CODE - 191	70630400
MPUNIT_191,* ,8,CH	UNIT TYPE - 191	70666000
SKIP,8	RESERVED	70701600
MPVOLENT_192,* ,32	VOLUME ENTRY - 192	70737200
MPVOLSER_192,=,6,CH	VOLUME SERIAL - 192	70772800
MPRACK_192,* ,6,CH	RACK NUMBER - 192	70808400
MPFEAT_192,* ,4,CH	FEATURE CODE - 192	70844000
MPUNIT_192,* ,8,CH	UNIT TYPE - 192	70879600
SKIP,8	RESERVED	70915200
MPVOLENT_193,* ,32	VOLUME ENTRY - 193	70950800
MPVOLSER_193,=,6,CH	VOLUME SERIAL - 193	70986400
MPRACK_193,* ,6,CH	RACK NUMBER - 193	71022000
MPFEAT_193,* ,4,CH	FEATURE CODE - 193	71057600
MPUNIT_193,* ,8,CH	UNIT TYPE - 193	71093200
SKIP,8	RESERVED	71128800
MPVOLENT_194,* ,32	VOLUME ENTRY - 194	71164400
MPVOLSER_194,=,6,CH	VOLUME SERIAL - 194	71200000
MPRACK_194,* ,6,CH	RACK NUMBER - 194	71235600
MPFEAT_194,* ,4,CH	FEATURE CODE - 194	71271200
MPUNIT_194,* ,8,CH	UNIT TYPE - 194	71306800
SKIP,8	RESERVED	71342400
MPVOLENT_195,* ,32	VOLUME ENTRY - 195	71378000
MPVOLSER_195,=,6,CH	VOLUME SERIAL - 195	71413600
MPRACK_195,* ,6,CH	RACK NUMBER - 195	71449200
MPFEAT_195,* ,4,CH	FEATURE CODE - 195	71484800
MPUNIT_195,* ,8,CH	UNIT TYPE - 195	71520400
SKIP,8	RESERVED	71556000
MPVOLENT_196,* ,32	VOLUME ENTRY - 196	71591600
MPVOLSER_196,=,6,CH	VOLUME SERIAL - 196	71627200
MPRACK_196,* ,6,CH	RACK NUMBER - 196	71662800
MPFEAT_196,* ,4,CH	FEATURE CODE - 196	71698400
MPUNIT_196,* ,8,CH	UNIT TYPE - 196	71734000
SKIP,8	RESERVED	71769600
MPVOLENT_197,* ,32	VOLUME ENTRY - 197	71805200
MPVOLSER_197,=,6,CH	VOLUME SERIAL - 197	71840800
MPRACK_197,* ,6,CH	RACK NUMBER - 197	71876400
MPFEAT_197,* ,4,CH	FEATURE CODE - 197	71912000
MPUNIT_197,* ,8,CH	UNIT TYPE - 197	71947600
SKIP,8	RESERVED	71983200
MPVOLENT_198,* ,32	VOLUME ENTRY - 198	72018800
MPVOLSER_198,=,6,CH	VOLUME SERIAL - 198	72054400

MPRACK_198,*,6,CH	RACK NUMBER - 198	72090000
MPFEAT_198,*,4,CH	FEATURE CODE - 198	72125600
MPUNIT_198,*,8,CH	UNIT TYPE - 198	72161200
SKIP,8	RESERVED	72196800
MPVOLENT_199,*,32	VOLUME ENTRY - 199	72232400
MPVOLSER_199,=,6,CH	VOLUME SERIAL - 199	72268000
MPRACK_199,*,6,CH	RACK NUMBER - 199	72303600
MPFEAT_199,*,4,CH	FEATURE CODE - 199	72339200
MPUNIT_199,*,8,CH	UNIT TYPE - 199	72374800
SKIP,8	RESERVED	72410400
MPVOLENT_200,*,32	VOLUME ENTRY - 200	72446000
MPVOLSER_200,=,6,CH	VOLUME SERIAL - 200	72481600
MPRACK_200,*,6,CH	RACK NUMBER - 200	72517200
MPFEAT_200,*,4,CH	FEATURE CODE - 200	72552800
MPUNIT_200,*,8,CH	UNIT TYPE - 200	72588400
SKIP,8	RESERVED	72624000
MPVOLENT_201,*,32	VOLUME ENTRY - 201	72659600
MPVOLSER_201,=,6,CH	VOLUME SERIAL - 201	72695200
MPRACK_201,*,6,CH	RACK NUMBER - 201	72730800
MPFEAT_201,*,4,CH	FEATURE CODE - 201	72766400
MPUNIT_201,*,8,CH	UNIT TYPE - 201	72802000
SKIP,8	RESERVED	72837600
MPVOLENT_202,*,32	VOLUME ENTRY - 202	72873200
MPVOLSER_202,=,6,CH	VOLUME SERIAL - 202	72908800
MPRACK_202,*,6,CH	RACK NUMBER - 202	72944400
MPFEAT_202,*,4,CH	FEATURE CODE - 202	72980000
MPUNIT_202,*,8,CH	UNIT TYPE - 202	73015600
SKIP,8	RESERVED	73051200
MPVOLENT_203,*,32	VOLUME ENTRY - 203	73086800
MPVOLSER_203,=,6,CH	VOLUME SERIAL - 203	73122400
MPRACK_203,*,6,CH	RACK NUMBER - 203	73158000
MPFEAT_203,*,4,CH	FEATURE CODE - 203	73193600
MPUNIT_203,*,8,CH	UNIT TYPE - 203	73229200
SKIP,8	RESERVED	73264800
MPVOLENT_204,*,32	VOLUME ENTRY - 204	73300400
MPVOLSER_204,=,6,CH	VOLUME SERIAL - 204	73336000
MPRACK_204,*,6,CH	RACK NUMBER - 204	73371600
MPFEAT_204,*,4,CH	FEATURE CODE - 204	73407200
MPUNIT_204,*,8,CH	UNIT TYPE - 204	73442800
SKIP,8	RESERVED	73478400
MPVOLENT_205,*,32	VOLUME ENTRY - 205	73514000
MPVOLSER_205,=,6,CH	VOLUME SERIAL - 205	73549600
MPRACK_205,*,6,CH	RACK NUMBER - 205	73585200
MPFEAT_205,*,4,CH	FEATURE CODE - 205	73620800
MPUNIT_205,*,8,CH	UNIT TYPE - 205	73656400
SKIP,8	RESERVED	73692000
MPVOLENT_206,*,32	VOLUME ENTRY - 206	73727600
MPVOLSER_206,=,6,CH	VOLUME SERIAL - 206	73763200
MPRACK_206,*,6,CH	RACK NUMBER - 206	73798800
MPFEAT_206,*,4,CH	FEATURE CODE - 206	73834400
MPUNIT_206,*,8,CH	UNIT TYPE - 206	73870000
SKIP,8	RESERVED	73905600
MPVOLENT_207,*,32	VOLUME ENTRY - 207	73941200
MPVOLSER_207,=,6,CH	VOLUME SERIAL - 207	73976800
MPRACK_207,*,6,CH	RACK NUMBER - 207	74012400
MPFEAT_207,*,4,CH	FEATURE CODE - 207	74048000
MPUNIT_207,*,8,CH	UNIT TYPE - 207	74083600
SKIP,8	RESERVED	74119200
MPVOLENT_208,*,32	VOLUME ENTRY - 208	74154800
MPVOLSER_208,=,6,CH	VOLUME SERIAL - 208	74190400
MPRACK_208,*,6,CH	RACK NUMBER - 208	74226000
MPFEAT_208,*,4,CH	FEATURE CODE - 208	74261600
MPUNIT_208,*,8,CH	UNIT TYPE - 208	74297200
SKIP,8	RESERVED	74332800
MPVOLENT_209,*,32	VOLUME ENTRY - 209	74368400
MPVOLSER_209,=,6,CH	VOLUME SERIAL - 209	74404000
MPRACK_209,*,6,CH	RACK NUMBER - 209	74439600
MPFEAT_209,*,4,CH	FEATURE CODE - 209	74475200
MPUNIT_209,*,8,CH	UNIT TYPE - 209	74510800
SKIP,8	RESERVED	74546400
MPVOLENT_210,*,32	VOLUME ENTRY - 210	74582000
MPVOLSER_210,=,6,CH	VOLUME SERIAL - 210	74617600
MPRACK_210,*,6,CH	RACK NUMBER - 210	74653200
MPFEAT_210,*,4,CH	FEATURE CODE - 210	74688800
MPUNIT_210,*,8,CH	UNIT TYPE - 210	74724400
SKIP,8	RESERVED	74760000
MPVOLENT_211,*,32	VOLUME ENTRY - 211	74795600
MPVOLSER_211,=,6,CH	VOLUME SERIAL - 211	74831200
MPRACK_211,*,6,CH	RACK NUMBER - 211	74866800
MPFEAT_211,*,4,CH	FEATURE CODE - 211	74902400
MPUNIT_211,*,8,CH	UNIT TYPE - 211	74938000
SKIP,8	RESERVED	74973600

MPVOLENT_212,*,32	VOLUME ENTRY - 212	75009200
MPVOLSER_212,=,6,CH	VOLUME SERIAL - 212	75044800
MPRACK_212,*,6,CH	RACK NUMBER - 212	75080400
MPFEAT_212,*,4,CH	FEATURE CODE - 212	75116000
MPUNIT_212,*,8,CH	UNIT TYPE - 212	75151600
SKIP,8	RESERVED	75187200
MPVOLENT_213,*,32	VOLUME ENTRY - 213	75222800
MPVOLSER_213,=,6,CH	VOLUME SERIAL - 213	75258400
MPRACK_213,*,6,CH	RACK NUMBER - 213	75294000
MPFEAT_213,*,4,CH	FEATURE CODE - 213	75329600
MPUNIT_213,*,8,CH	UNIT TYPE - 213	75365200
SKIP,8	RESERVED	75400800
MPVOLENT_214,*,32	VOLUME ENTRY - 214	75436400
MPVOLSER_214,=,6,CH	VOLUME SERIAL - 214	75472000
MPRACK_214,*,6,CH	RACK NUMBER - 214	75507600
MPFEAT_214,*,4,CH	FEATURE CODE - 214	75543200
MPUNIT_214,*,8,CH	UNIT TYPE - 214	75578800
SKIP,8	RESERVED	75614400
MPVOLENT_215,*,32	VOLUME ENTRY - 215	75650000
MPVOLSER_215,=,6,CH	VOLUME SERIAL - 215	75685600
MPRACK_215,*,6,CH	RACK NUMBER - 215	75721200
MPFEAT_215,*,4,CH	FEATURE CODE - 215	75756800
MPUNIT_215,*,8,CH	UNIT TYPE - 215	75792400
SKIP,8	RESERVED	75828000
MPVOLENT_216,*,32	VOLUME ENTRY - 216	75863600
MPVOLSER_216,=,6,CH	VOLUME SERIAL - 216	75899200
MPRACK_216,*,6,CH	RACK NUMBER - 216	75934800
MPFEAT_216,*,4,CH	FEATURE CODE - 216	75970400
MPUNIT_216,*,8,CH	UNIT TYPE - 216	76006000
SKIP,8	RESERVED	76041600
MPVOLENT_217,*,32	VOLUME ENTRY - 217	76077200
MPVOLSER_217,=,6,CH	VOLUME SERIAL - 217	76112800
MPRACK_217,*,6,CH	RACK NUMBER - 217	76148400
MPFEAT_217,*,4,CH	FEATURE CODE - 217	76184000
MPUNIT_217,*,8,CH	UNIT TYPE - 217	76219600
SKIP,8	RESERVED	76255200
MPVOLENT_218,*,32	VOLUME ENTRY - 218	76290800
MPVOLSER_218,=,6,CH	VOLUME SERIAL - 218	76326400
MPRACK_218,*,6,CH	RACK NUMBER - 218	76362000
MPFEAT_218,*,4,CH	FEATURE CODE - 218	76397600
MPUNIT_218,*,8,CH	UNIT TYPE - 218	76433200
SKIP,8	RESERVED	76468800
MPVOLENT_219,*,32	VOLUME ENTRY - 219	76504400
MPVOLSER_219,=,6,CH	VOLUME SERIAL - 219	76540000
MPRACK_219,*,6,CH	RACK NUMBER - 219	76575600
MPFEAT_219,*,4,CH	FEATURE CODE - 219	76611200
MPUNIT_219,*,8,CH	UNIT TYPE - 219	76646800
SKIP,8	RESERVED	76682400
MPVOLENT_220,*,32	VOLUME ENTRY - 220	76718000
MPVOLSER_220,=,6,CH	VOLUME SERIAL - 220	76753600
MPRACK_220,*,6,CH	RACK NUMBER - 220	76789200
MPFEAT_220,*,4,CH	FEATURE CODE - 220	76824800
MPUNIT_220,*,8,CH	UNIT TYPE - 220	76860400
SKIP,8	RESERVED	76896000
MPVOLENT_221,*,32	VOLUME ENTRY - 221	76931600
MPVOLSER_221,=,6,CH	VOLUME SERIAL - 221	76967200
MPRACK_221,*,6,CH	RACK NUMBER - 221	77002800
MPFEAT_221,*,4,CH	FEATURE CODE - 221	77038400
MPUNIT_221,*,8,CH	UNIT TYPE - 221	77074000
SKIP,8	RESERVED	77109600
MPVOLENT_222,*,32	VOLUME ENTRY - 222	77145200
MPVOLSER_222,=,6,CH	VOLUME SERIAL - 222	77180800
MPRACK_222,*,6,CH	RACK NUMBER - 222	77216400
MPFEAT_222,*,4,CH	FEATURE CODE - 222	77252000
MPUNIT_222,*,8,CH	UNIT TYPE - 222	77287600
SKIP,8	RESERVED	77323200
MPVOLENT_223,*,32	VOLUME ENTRY - 223	77358800
MPVOLSER_223,=,6,CH	VOLUME SERIAL - 223	77394400
MPRACK_223,*,6,CH	RACK NUMBER - 223	77430000
MPFEAT_223,*,4,CH	FEATURE CODE - 223	77465600
MPUNIT_223,*,8,CH	UNIT TYPE - 223	77501200
SKIP,8	RESERVED	77536800
MPVOLENT_224,*,32	VOLUME ENTRY - 224	77572400
MPVOLSER_224,=,6,CH	VOLUME SERIAL - 224	77608000
MPRACK_224,*,6,CH	RACK NUMBER - 224	77643600
MPFEAT_224,*,4,CH	FEATURE CODE - 224	77679200
MPUNIT_224,*,8,CH	UNIT TYPE - 224	77714800
SKIP,8	RESERVED	77750400
MPVOLENT_225,*,32	VOLUME ENTRY - 225	77786000
MPVOLSER_225,=,6,CH	VOLUME SERIAL - 225	77821600
MPRACK_225,*,6,CH	RACK NUMBER - 225	77857200
MPFEAT_225,*,4,CH	FEATURE CODE - 225	77892800

MPUNIT_225,* ,8,CH	UNIT TYPE - 225	77928400
SKIP,8	RESERVED	77964000
MPVOLENT_226,* ,32	VOLUME ENTRY - 226	77999600
MPVOLSER_226,=,6,CH	VOLUME SERIAL - 226	78035200
MPRACK_226,* ,6,CH	RACK NUMBER - 226	78070800
MPFEAT_226,* ,4,CH	FEATURE CODE - 226	78106400
MPUNIT_226,* ,8,CH	UNIT TYPE - 226	78142000
SKIP,8	RESERVED	78177600
MPVOLENT_227,* ,32	VOLUME ENTRY - 227	78213200
MPVOLSER_227,=,6,CH	VOLUME SERIAL - 227	78248800
MPRACK_227,* ,6,CH	RACK NUMBER - 227	78284400
MPFEAT_227,* ,4,CH	FEATURE CODE - 227	78320000
MPUNIT_227,* ,8,CH	UNIT TYPE - 227	78355600
SKIP,8	RESERVED	78391200
MPVOLENT_228,* ,32	VOLUME ENTRY - 228	78426800
MPVOLSER_228,=,6,CH	VOLUME SERIAL - 228	78462400
MPRACK_228,* ,6,CH	RACK NUMBER - 228	78498000
MPFEAT_228,* ,4,CH	FEATURE CODE - 228	78533600
MPUNIT_228,* ,8,CH	UNIT TYPE - 228	78569200
SKIP,8	RESERVED	78604800
MPVOLENT_229,* ,32	VOLUME ENTRY - 229	78640400
MPVOLSER_229,=,6,CH	VOLUME SERIAL - 229	78676000
MPRACK_229,* ,6,CH	RACK NUMBER - 229	78711600
MPFEAT_229,* ,4,CH	FEATURE CODE - 229	78747200
MPUNIT_229,* ,8,CH	UNIT TYPE - 229	78782800
SKIP,8	RESERVED	78818400
MPVOLENT_230,* ,32	VOLUME ENTRY - 230	78854000
MPVOLSER_230,=,6,CH	VOLUME SERIAL - 230	78889600
MPRACK_230,* ,6,CH	RACK NUMBER - 230	78925200
MPFEAT_230,* ,4,CH	FEATURE CODE - 230	78960800
MPUNIT_230,* ,8,CH	UNIT TYPE - 230	78996400
SKIP,8	RESERVED	79032000
MPVOLENT_231,* ,32	VOLUME ENTRY - 231	79067600
MPVOLSER_231,=,6,CH	VOLUME SERIAL - 231	79103200
MPRACK_231,* ,6,CH	RACK NUMBER - 231	79138800
MPFEAT_231,* ,4,CH	FEATURE CODE - 231	79174400
MPUNIT_231,* ,8,CH	UNIT TYPE - 231	79210000
SKIP,8	RESERVED	79245600
MPVOLENT_232,* ,32	VOLUME ENTRY - 232	79281200
MPVOLSER_232,=,6,CH	VOLUME SERIAL - 232	79316800
MPRACK_232,* ,6,CH	RACK NUMBER - 232	79352400
MPFEAT_232,* ,4,CH	FEATURE CODE - 232	79388000
MPUNIT_232,* ,8,CH	UNIT TYPE - 232	79423600
SKIP,8	RESERVED	79459200
MPVOLENT_233,* ,32	VOLUME ENTRY - 233	79494800
MPVOLSER_233,=,6,CH	VOLUME SERIAL - 233	79530400
MPRACK_233,* ,6,CH	RACK NUMBER - 233	79566000
MPFEAT_233,* ,4,CH	FEATURE CODE - 233	79601600
MPUNIT_233,* ,8,CH	UNIT TYPE - 233	79637200
SKIP,8	RESERVED	79672800
MPVOLENT_234,* ,32	VOLUME ENTRY - 234	79708400
MPVOLSER_234,=,6,CH	VOLUME SERIAL - 234	79744000
MPRACK_234,* ,6,CH	RACK NUMBER - 234	79779600
MPFEAT_234,* ,4,CH	FEATURE CODE - 234	79815200
MPUNIT_234,* ,8,CH	UNIT TYPE - 234	79850800
SKIP,8	RESERVED	79886400
MPVOLENT_235,* ,32	VOLUME ENTRY - 235	79922000
MPVOLSER_235,=,6,CH	VOLUME SERIAL - 235	79957600
MPRACK_235,* ,6,CH	RACK NUMBER - 235	79993200
MPFEAT_235,* ,4,CH	FEATURE CODE - 235	80028800
MPUNIT_235,* ,8,CH	UNIT TYPE - 235	80064400
SKIP,8	RESERVED	80100000
MPVOLENT_236,* ,32	VOLUME ENTRY - 236	80135600
MPVOLSER_236,=,6,CH	VOLUME SERIAL - 236	80171200
MPRACK_236,* ,6,CH	RACK NUMBER - 236	80206800
MPFEAT_236,* ,4,CH	FEATURE CODE - 236	80242400
MPUNIT_236,* ,8,CH	UNIT TYPE - 236	80278000
SKIP,8	RESERVED	80313600
MPVOLENT_237,* ,32	VOLUME ENTRY - 237	80349200
MPVOLSER_237,=,6,CH	VOLUME SERIAL - 237	80384800
MPRACK_237,* ,6,CH	RACK NUMBER - 237	80420400
MPFEAT_237,* ,4,CH	FEATURE CODE - 237	80456000
MPUNIT_237,* ,8,CH	UNIT TYPE - 237	80491600
SKIP,8	RESERVED	80527200
MPVOLENT_238,* ,32	VOLUME ENTRY - 238	80562800
MPVOLSER_238,=,6,CH	VOLUME SERIAL - 238	80598400
MPRACK_238,* ,6,CH	RACK NUMBER - 238	80634000
MPFEAT_238,* ,4,CH	FEATURE CODE - 238	80669600
MPUNIT_238,* ,8,CH	UNIT TYPE - 238	80705200
SKIP,8	RESERVED	80740800
MPVOLENT_239,* ,32	VOLUME ENTRY - 239	80776400
MPVOLSER_239,=,6,CH	VOLUME SERIAL - 239	80812000

MPRACK_239,* ,6,CH	RACK NUMBER - 239	80847600
MPFEAT_239,* ,4,CH	FEATURE CODE - 239	80883200
MPUNIT_239,* ,8,CH	UNIT TYPE - 239	80918800
SKIP,8	RESERVED	80954400
MPVOLENT_240,* ,32	VOLUME ENTRY - 240	80990000
MPVOLSER_240,=,6,CH	VOLUME SERIAL - 240	81025600
MPRACK_240,* ,6,CH	RACK NUMBER - 240	81061200
MPFEAT_240,* ,4,CH	FEATURE CODE - 240	81096800
MPUNIT_240,* ,8,CH	UNIT TYPE - 240	81132400
SKIP,8	RESERVED	81168000
MPVOLENT_241,* ,32	VOLUME ENTRY - 241	81203600
MPVOLSER_241,=,6,CH	VOLUME SERIAL - 241	81239200
MPRACK_241,* ,6,CH	RACK NUMBER - 241	81274800
MPFEAT_241,* ,4,CH	FEATURE CODE - 241	81310400
MPUNIT_241,* ,8,CH	UNIT TYPE - 241	81346000
SKIP,8	RESERVED	81381600
MPVOLENT_242,* ,32	VOLUME ENTRY - 242	81417200
MPVOLSER_242,=,6,CH	VOLUME SERIAL - 242	81452800
MPRACK_242,* ,6,CH	RACK NUMBER - 242	81488400
MPFEAT_242,* ,4,CH	FEATURE CODE - 242	81524000
MPUNIT_242,* ,8,CH	UNIT TYPE - 242	81559600
SKIP,8	RESERVED	81595200
MPVOLENT_243,* ,32	VOLUME ENTRY - 243	81630800
MPVOLSER_243,=,6,CH	VOLUME SERIAL - 243	81666400
MPRACK_243,* ,6,CH	RACK NUMBER - 243	81702000
MPFEAT_243,* ,4,CH	FEATURE CODE - 243	81737600
MPUNIT_243,* ,8,CH	UNIT TYPE - 243	81773200
SKIP,8	RESERVED	81808800
MPVOLENT_244,* ,32	VOLUME ENTRY - 244	81844400
MPVOLSER_244,=,6,CH	VOLUME SERIAL - 244	81880000
MPRACK_244,* ,6,CH	RACK NUMBER - 244	81915600
MPFEAT_244,* ,4,CH	FEATURE CODE - 244	81951200
MPUNIT_244,* ,8,CH	UNIT TYPE - 244	81986800
SKIP,8	RESERVED	82022400
MPVOLENT_245,* ,32	VOLUME ENTRY - 245	82058000
MPVOLSER_245,=,6,CH	VOLUME SERIAL - 245	82093600
MPRACK_245,* ,6,CH	RACK NUMBER - 245	82129200
MPFEAT_245,* ,4,CH	FEATURE CODE - 245	82164800
MPUNIT_245,* ,8,CH	UNIT TYPE - 245	82200400
SKIP,8	RESERVED	82236000
MPVOLENT_246,* ,32	VOLUME ENTRY - 246	82271600
MPVOLSER_246,=,6,CH	VOLUME SERIAL - 246	82307200
MPRACK_246,* ,6,CH	RACK NUMBER - 246	82342800
MPFEAT_246,* ,4,CH	FEATURE CODE - 246	82378400
MPUNIT_246,* ,8,CH	UNIT TYPE - 246	82414000
SKIP,8	RESERVED	82449600
MPVOLENT_247,* ,32	VOLUME ENTRY - 247	82485200
MPVOLSER_247,=,6,CH	VOLUME SERIAL - 247	82520800
MPRACK_247,* ,6,CH	RACK NUMBER - 247	82556400
MPFEAT_247,* ,4,CH	FEATURE CODE - 247	82592000
MPUNIT_247,* ,8,CH	UNIT TYPE - 247	82627600
SKIP,8	RESERVED	82663200
MPVOLENT_248,* ,32	VOLUME ENTRY - 248	82698800
MPVOLSER_248,=,6,CH	VOLUME SERIAL - 248	82734400
MPRACK_248,* ,6,CH	RACK NUMBER - 248	82770000
MPFEAT_248,* ,4,CH	FEATURE CODE - 248	82805600
MPUNIT_248,* ,8,CH	UNIT TYPE - 248	82841200
SKIP,8	RESERVED	82876800
MPVOLENT_249,* ,32	VOLUME ENTRY - 249	82912400
MPVOLSER_249,=,6,CH	VOLUME SERIAL - 249	82948000
MPRACK_249,* ,6,CH	RACK NUMBER - 249	82983600
MPFEAT_249,* ,4,CH	FEATURE CODE - 249	83019200
MPUNIT_249,* ,8,CH	UNIT TYPE - 249	83054800
SKIP,8	RESERVED	83090400
MPVOLENT_250,* ,32	VOLUME ENTRY - 250	83126000
MPVOLSER_250,=,6,CH	VOLUME SERIAL - 250	83161600
MPRACK_250,* ,6,CH	RACK NUMBER - 250	83197200
MPFEAT_250,* ,4,CH	FEATURE CODE - 250	83232800
MPUNIT_250,* ,8,CH	UNIT TYPE - 250	83268400
SKIP,8	RESERVED	83304000
MPVOLENT_251,* ,32	VOLUME ENTRY - 251	83339600
MPVOLSER_251,=,6,CH	VOLUME SERIAL - 251	83375200
MPRACK_251,* ,6,CH	RACK NUMBER - 251	83410800
MPFEAT_251,* ,4,CH	FEATURE CODE - 251	83446400
MPUNIT_251,* ,8,CH	UNIT TYPE - 251	83482000
SKIP,8	RESERVED	83517600
MPVOLENT_252,* ,32	VOLUME ENTRY - 252	83553200
MPVOLSER_252,=,6,CH	VOLUME SERIAL - 252	83588800
MPRACK_252,* ,6,CH	RACK NUMBER - 252	83624400
MPFEAT_252,* ,4,CH	FEATURE CODE - 252	83660000
MPUNIT_252,* ,8,CH	UNIT TYPE - 252	83695600
SKIP,8	RESERVED	83731200

MPVOLTENT_253,*,32	VOLUME ENTRY - 253	83766800
MPVOLSER_253,=,6,CH	VOLUME SERIAL - 253	83802400
MPRACK_253,*,6,CH	RACK NUMBER - 253	83838000
MPFEAT_253,*,4,CH	FEATURE CODE - 253	83873600
MPUNIT_253,*,8,CH	UNIT TYPE - 253	83909200
SKIP,8	RESERVED	83944800
MPVOLTENT_254,*,32	VOLUME ENTRY - 254	83980400
MPVOLSER_254,=,6,CH	VOLUME SERIAL - 254	84016000
MPRACK_254,*,6,CH	RACK NUMBER - 254	84051600
MPFEAT_254,*,4,CH	FEATURE CODE - 254	84087200
MPUNIT_254,*,8,CH	UNIT TYPE - 254	84122800
SKIP,8	RESERVED	84158400
MPVOLTENT_255,*,32	VOLUME ENTRY - 255	84194000
MPVOLSER_255,=,6,CH	VOLUME SERIAL - 255	84229600
MPRACK_255,*,6,CH	RACK NUMBER - 255	84265200
MPFEAT_255,*,4,CH	FEATURE CODE - 255	84300800
MPUNIT_255,*,8,CH	UNIT TYPE - 255	84336400
SKIP,8	RESERVED	84372000
*****		84407600
* END OF PROGRAM PRODUCT INFORMATION		* 84443200
*****		84478800
MPRCEND, *	END OF MPREC	84514400
*		84550000
POSITION,SMFADREC	START AFTER EDGSMFAR/IGWSMF	84585600
*****		84621200
* KEY FIELD		* 84656800
*****		84692400
MRKEY,=,56	KEY FIELD	84728000
MRTYPE,=,1,CH	RECORD TYPE	84763600
MRTYPEE,'E'	EMPTY RACK	84799200
MRTYPEF,'F'	FREE/SCRATCH RACK	84834800
MRTYPEU,'U'	IN USE RACK	84870400
SKIP,1	RESERVED	84906000
MRMEDIA,*,8,CH	MEDIA NAME	84941600
MRUNIT,=,8,CH	UNIT TYPE	84977200
MRRACK,*,6,CH	RACK NUMBER	85012800
SKIP,40	RESERVED	85048400
*****		85084000
* CONTROL INFORMATION		* 85119600
*****		85155200
MRRECLN,*,2,FI	RECORD LENGTH	85190800
SKIP,2	RESERVED	85226400
MRCRDATE,*,4,PD	RACK CREATE DATE - YYYYDDDD	85262000
MRCRTIME,*,4,PD	RACK CREATE TIME - HHMMSSST	85297600
MRCRSID,*,8,CH	CREATE SYSTEM ID	85333200
MRRCCDS,*,8,CH	RECORD CREATE CDS ID	85368800
MRLCDATE,*,4,PD	LAST CHANGE DATE - YYYYDDDD	85404400
MRLCTIME,*,4,PD	LAST CHANGE TIME - HHMMSSST	85440000
MRLCUID,*,8,CH	LAST CHANGE USER ID	85475600
MRLCSID,*,8,CH	LAST CHANGE SYSTEM ID	85511200
MRUCDATE,*,4,PD	LAST "USER" CHANGE DATE	85546800
MRUCTIME,*,4,PD	LAST "USER" CHANGE TIME	85582400
MRCFLG,*,1,BI	CONTROL FLAGS 1	85618000
MRDELFLG,X'80'	RECORD DELETED	85653600
MRSELFGL,X'10'	SELECT - PROC BY SATELLITE UPDT	85689200
MRDUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	85724800
SKIP,7	RESERVED	85760400
*****		85796000
* RACK INFORMATION		* 85831600
*****		85867200
MRVOLSER,*,6,CH	ASSIGNED VOLSER OR ZEROS	85902800
SKIP,10	RESERVED	85938400
*****		85974000
* END OF RACK INFORMATION		* 86009600
*****		86045200
MRRRCEND, *	END OF MRRRC	86080800
*****		86116400
* END OF RMM MRREC		* 86152000
*****		86187600
*		86223200
POSITION,SMFADREC	START AFTER EDGSMFAR/IGWSMF	86258800
*****		86294400
* KEY FIELD		* 86330000
*****		86365600
MSKEY,=,56	KEY FIELD	86401200
MSTYPE,=,1,CH	RECORD TYPE	86436800
MSTYPER,'R'	EMPTY BIN	86472400
MSTYPES,'S'	ASSIGNED BIN	86508000
MSRMSTID,*,1,CH	REMOTE STORE ID	86543600
MSSTIDD,'D'	DISTANT STORE	86579200
MSSTIDL,'L'	LOCAL STORE	86614800
MSSTIDR,'R'	REMOTE STORE	86650400

MSSTIDU,'U'	USER DEFINED STORE	86686000
SKIP,8	RESERVED	86721600
MSBINNO,*,6,CH	BIN NUMBER	86757200
SKIP,40	RESERVED	86792800
MSUSTNAM,*,8,CH	INSTALLATION DEFINED STORE NAME	86828400
MSUMEDNM,*,8,CH	INSTALLATION DEFINED STORE BIN MEDIA NAME	86864000
MSUBINNO,*,6,CH	INSTALLATION DEFINED STORE BIN NUMBER	86899600

* CONTROL INFORMATION	*	86935200

MSRECLN,*,2,FI	RECORD LENGTH	86970800
SKIP,2	RESERVED	87006400
MSCRDATE,*,4,PD	CREATE DATE - YYYYDDDD	87042000
MSCRTIME,*,4,PD	CREATE TIME - HHMMSS	87077600
MSCRSID,*,8,CH	CREATE SYSTEM ID	87113200
MSRCCDS,*,8,CH	RECORD CREATE CDS ID	87148800
MSLCDATE,*,4,PD	LAST CHANGE DATE - YYYYDDDD	87184400
MSLCTIME,*,4,PD	LAST CHANGE TIME - HHMMSS	87220000
MSLCUID,*,8,CH	LAST CHANGE USER ID	87255600
MSLCSID,*,8,CH	LAST CHANGE SYSTEM ID	87291200
MSUCDATE,*,4,PD	LAST "USER" CHANGE DATE	87326800
MSUCTIME,*,4,PD	LAST "USER" CHANGE TIME	87362400
MSCFLG,*,1,BI	CONTROL FLAGS 1	87398000
MSDELFLG,X'80'	RECORD DELETED	87433600
MSSELFLG,X'10'	SELECT - PROC BY SATELLITE UPDT	87469200
MSDUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	87504800
SKIP,7	RESERVED	87540400

* STORE INFORMATION	*	87576000

MSVOLSER,*,6,CH	ASSIGNED VOLSER OR ZEROS	87611600
SKIP,10	RESERVED	87647200
MSMOVINGINVOL,*,6,CH	MOVING-IN VOLUME	87682800
MSMOVINGOUTVOL,*,6,CH	MOVING-OUT VOLUME	87718400
MSOLDVOL,*,6,CH	OLD VOLUME	87754000
SKIP,6	RESERVED	87789600

* END OF DISASTER STORE BIN INFORMATION	*	87825200

MSRCEND,*	END OF MSRC	87860800

* END OF RMM MSREC	*	87896400

POSITION,SMFADREC	START AFTER EDGSMFAR/IGWSMF	87932000

* KEY FIELD	*	87967600

MVKEY,=,56	KEY FIELD	88003200
MVTYPE,=,1,CH	RECORD TYPE	88038800
MVTYPEID,'V'	VOLUME INFO ID SYMBOL	88074400
SKIP,1	RESERVED	88110000
MVVOLSER,*,6,CH	VOLUME SERIAL NUMBER	88145600
MVPAD1,*,48,CH	Reserved - binary zeros	88181200

* CONTROL INFORMATION	*	88216800

MVRECLN,*,2,FI	RECORD LENGTH	88252400
SKIP,2	RESERVED	88288000
MVCRDATE,*,4,PD	VOL CREATE DATE - YYYYDDDD	88323600
MVCRTIME,*,4,PD	VOL CREATE TIME - HHMMSS	88359200
MVCRSID,*,8,CH	CREATE SYSTEM ID	88394800
MVRCCDS,*,8,CH	RECORD CREATE CDS ID	88430400
MVLCDATE,*,4,PD	LAST CHANGE DATE - YYYYDDDD	88466000
MVLCIME,*,4,PD	LAST CHANGE TIME - HHMMSS	88501600
MVLCUID,*,8,CH	LAST CHANGE USER ID	88537200
MVLCID,*,8,CH	LAST CHANGE SYSTEM ID	88572800
MVUCDATE,*,4,PD	LAST "USER" CHANGE DATE	88608400
MVUCTIME,*,4,PD	LAST "USER" CHANGE TIME	88644000
MVCFLG,*,1,BI	CONTROL FLAGS 1	88679600
MVDELFLG,X'80'	RECORD DELETED	88715200
MVPDLFLG,X'40'	RECORD PREVIOUSLY DELETED	88750800
MVUPDFLG,X'20'	DIRECT IO UPDATE	88786400
MVSELFLG,X'10'	SELECT - PROC BY SATELLITE UPDT	88822000
MVDUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	88857600
MVSETDUMMY,X'04'	DUMMY FLAG SHOULD BE SET	88893200
MVGMT1,X'02'	RECORD CONVERTED TO GMT ONCE	88928800
MVGMT2,X'01'	TIMESTAMPS IN GMT FORMAT	88964400
MVRECLEV,*,1,BI	RECORD LEVEL NUMBER	89000000
SKIP,6	RESERVED	89035600

* VOLUME INFORMATION	*	89071200

MSVOLSER,*,6,CH	ASSIGNED VOLSER OR ZEROS	89106800
SKIP,10	RESERVED	89142400
MSMOVINGINVOL,*,6,CH	MOVING-IN VOLUME	89178000
MSMOVINGOUTVOL,*,6,CH	MOVING-OUT VOLUME	89213600
MSOLDVOL,*,6,CH	OLD VOLUME	89213700
SKIP,6	RESERVED	89249200

* END OF DISASTER STORE BIN INFORMATION	*	89284800

MSRCEND,*	END OF MSRC	89284850

* END OF RMM MSREC	*	89284900

POSITION,SMFADREC	START AFTER EDGSMFAR/IGWSMF	89284950

* KEY FIELD	*	89320400

MVKEY,=,56	KEY FIELD	89356000
MVTYPE,=,1,CH	RECORD TYPE	89391600
MVTYPEID,'V'	VOLUME INFO ID SYMBOL	89427200
SKIP,1	RESERVED	
MVVOLSER,*,6,CH	VOLUME SERIAL NUMBER	
MVPAD1,*,48,CH	Reserved - binary zeros	

* CONTROL INFORMATION	*	

MVRECLN,*,2,FI	RECORD LENGTH	
SKIP,2	RESERVED	
MVCRDATE,*,4,PD	VOL CREATE DATE - YYYYDDDD	
MVCRTIME,*,4,PD	VOL CREATE TIME - HHMMSS	
MVCRSID,*,8,CH	CREATE SYSTEM ID	
MVRCCDS,*,8,CH	RECORD CREATE CDS ID	
MVLCDATE,*,4,PD	LAST CHANGE DATE - YYYYDDDD	
MVLCIME,*,4,PD	LAST CHANGE TIME - HHMMSS	
MVLCUID,*,8,CH	LAST CHANGE USER ID	
MVLCID,*,8,CH	LAST CHANGE SYSTEM ID	
MVUCDATE,*,4,PD	LAST "USER" CHANGE DATE	
MVUCTIME,*,4,PD	LAST "USER" CHANGE TIME	
MVCFLG,*,1,BI	CONTROL FLAGS 1	
MVDELFLG,X'80'	RECORD DELETED	
MVPDLFLG,X'40'	RECORD PREVIOUSLY DELETED	
MVUPDFLG,X'20'	DIRECT IO UPDATE	
MVSELFLG,X'10'	SELECT - PROC BY SATELLITE UPDT	
MVDUMMY,X'08'	DUMMY RECORD - ALLOW TSO ADD	
MVSETDUMMY,X'04'	DUMMY FLAG SHOULD BE SET	
MVGMT1,X'02'	RECORD CONVERTED TO GMT ONCE	
MVGMT2,X'01'	TIMESTAMPS IN GMT FORMAT	
MVRECLEV,*,1,BI	RECORD LEVEL NUMBER	
SKIP,6	RESERVED	

* VOLUME INFORMATION	*	

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MVEXPDT0,*,4,PD      EXPIRATION DATE - ORIGINAL      89462800
MVEXPDT,*,4,PD       EXPIRATION DATE - YYYYDDD      89498400
MVRDEN,*,1,BI        COPY OF JFCBDEN                89534000
MVDEN,*,1,CH         RECORDING DENSITY              89569600
MVDEN3,'3'           1600BPI                        89605200
MVDEN4,'4'           6250BPI                        89640800
MVDEN9,'9'           3480                           89676400
MVDENC,'C'           3480 COMPACTED (IDRC)           89712000
MVDENU,'*'           UNDEFINED                      89747600
MVDSNNO,*,2,BI       NUMBER OF DATASETS ON VOLUME   @LLC 89783200
MVTUSE,*,4,FI        TAPE USAGE IN KBYTES           89818800
MVUSE,*,2,FI         VOLUME USE COUNT               89854400
MVSTSTAT,*,1,BI      STORE STATUS                   89890000
MVSTS001,X'01'       TAPE LIB TO REMOTE STORE       89925600
MVSTS002,X'02'       REMOTE STORE TO TAPE LIB       89961200
MVSTS003,X'03'       TAPE LIB TO LOCAL STORE        89996800
MVSTS004,X'04'       LOCAL STORE TO TAPE LIB        90032400
MVSTS005,X'05'       LOCAL STORE TO DISTANT         90068000
MVSTS006,X'06'       TAPE LIB TO DISTANT STORE      90103600
MVSTS007,X'07'       DISTANT STORE TO TAPE LIB      90139200
MVSTS009,X'09'       STORE LOCATION VALID           90174800
MVVRREL,*,1,BI       VRS RELEASE OPTIONS            90210400
MVVRFXDI,B'1.....' EXPIRY DATE IGNORE             90246000
MVVRFSCI,B'1.....' SCRATCH IMMEDIATE              90281600
* FLAG BITS IN MVVRREL SHOULD MATCH MKRLSOPT BIT SETTINGS. 90317200
MVLABN01,*,2,BI      LABEL NUMBER OF 1ST FILE      @LLC 90352800
MVTDSI,*,4           TAPE MEDIA TYPE INFORMATION   90388400
MVMEDREC,*,1,BI      VOL RECORDING FORMAT          90424000
MVMRCU,X'00'         NON CARTRIDGE                 90459600
MVMRC18,X'01'        18TRACK                       90495200
MVMRC36,X'02'        36TRACK                       90530800
MVMRC128,X'03'       128TRACK                      90566400
MVMRC256,X'04'       256TRACK                      90602000
MVMRC384,X'05'       384TRACK                      90637600
MVMEFMT1,X'06'       EFMT1                         90673200
MVMEFMT2,X'07'       EFMT2                         90708800
MVMEEFMT2,X'08'      EEFT2                         @SHA 90744400
MVMEFMT3,X'09'       EFMT3                         @SJA 90780000
MVMEEFMT3,X'0A'      EEFT3                         @SKA 90791800
MVMEFMT4,X'0B'       EFMT4                         @SKA 90803600
MVMEEFMT4,X'0C'      EEFT4                         @SOA 90807600
MVMEDTY,*,1,BI       TAPE MEDIA TYPE               @SOA 90811600
MVMTYU,X'00'         UNKNOWN                       90815600
MVMTYCS,X'01'        CST                           90851200
MVMTYEC,X'02'        ECCST                          90886800
MVMTYHP,X'03'        HPCT                          90922400
MVMTYEH,X'04'        EHPCT                         90958000
MVMMED5,X'05'        ETC ENTERPRISE TAPE CARTRIDGE @SGC 90993600
MVMMED6,X'06'        EWTC ENTERPRISE WORM TAP CARTRIDGE @SGA 91029200
MVMMED7,X'07'        EETC ENTERPR ECONOMY TAP CARTRIDGE @SGA 91064800
MVMMED8,X'08'        EEWTC ENTERPR ECONOMY WORM TAP CART @SHC 91100400
MVMMED9,X'09'        EXTC ENTERPR EXTENDED TAP CARTRIDG @SHC 91136000
MVMMED10,X'0A'       EXWTC ENTERPR EXTENDED WORM TAP CAR @SHA 91171600
MVMMED11,X'0B'       EATC ENTERPR ADVANCED TAP CARTRIDG @SHA 91207200
MVMMED12,X'0C'       EAWTC ENTERPR ADVANCED WORM TAP CAR @SOA 91216100
MVMMED13,X'0D'       EAETC ENTERPR ADVANCED ECONOMY TAP C@SOA 91225000
MVMEDCMP,*,1,BI      TAPE COMPACTION               91233900
MVMCMU,X'00'         UNKNOWN                       91242800
MVMCMNC,X'01'        NOT COMPACTED                  91278400
MVMCMC,X'02'        COMPACTED                       91314000
MVMEATR,*,1,BI       TAPE SPECIAL ATTRIBUTES       91349600
MVMATN,X'00'         NONE                          91385200
MVMAT18,X'01'        18 TRACK READ ONLY             91420800
MVSTORID,*,1,CH      STORE LOCATION ID             91456400
MVSTIDD,'D'          DISTANT STORE                  91492000
MVSTIDL,'L'          LOCAL STORE                    91527600
MVSTIDR,'R'          REMOTE STORE                   91563200
MVSTIDT,'T'          TAPE LIBRARY                   91598800
MVNSTRID,*,1,CH      NEW STORE LOCATION             91634400
MVNLLOC,*,8,CH       DESIRED LOCATION NAME          91670000
MVSTBIN,*,4,FI       STORE BIN NUMBER               91705600
MVOBIN,*,4,FI        OLD BIN NUMBER                 91741200
MVSTDATE,*,4,PD      DATE STORED (YYYYDDD)          91776800
MVLUDEV,*,4,CH       LAST USED DEVICE               91812400
MVLONLOC,*,8,CH      LOAN LOCATION                  91848000
MVOLNLOC,*,8,CH      OLD LOAN LOCATION              91883600
MVLRRDAT,*,4,PD      DATE VOLUME LAST READ (YYYYDDD) 91919200
MVLWTDAT,*,4,PD      DATE VOLUME LAST WRITTEN       91954800
MVASDATM,*,8         ASSIGNED DATE AND TIME         91990400
MVASDATE,*,4,PD      ASSIGNED DATE (YYYYDDD)        92026000
MVASTIME,*,4,PD      ASSIGNED TIME (HHMMSS)         92061600

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MVOWNID,*,8,CH	VOLUME OWNER USERID	92132800
MVCRUID,*,8,CH	CREATING USERID	92168400
MVCRJOB,*,8,CH	CREATING JOBNAME	92204000
MVSECLEV,*,1,BI	SECURITY CLASSIFICATION LEVEL	92239600
MVFLGAX,*,1,BI	FLAGS 'A' - STATUS EXTENSION	92275200
MVGVCFLG,B'1.....'	SCRATCH VOL CLAIMED VIA GETVOL	92310800
MVXINFLG,B'1.....'	SCRATCH VOLUME HAS NEVER BEEN INITIALISED	92346400
MVINIFLG,B'1.....'	SCRATCH VOLUME WITH INIT ACTION PENDING	92382000
MVENTFLG,B'1.....'	SCRATCH VOLUME WAITING TO ENTER ATL	92417600
MVFAEND,B'1.....'	ABEND IN PROCESS WHEN A DATA SET CLOSED	92453200
MVFOCEAB,B'1.....'	ABEND PROBABLY IN O/C/EOV	92488800
MVATIFLG,B'1.....'	INIT REQUESTED FOR ATL VOL	92524400
MVFORCE,B'1.....'	FORCE SUPPLIED	92560000
MVVOLSEQ,*,2,FI	VOLUME SEQUENCE NUMBER	92595600
*****		92631200
* VOLUME FLAGS		92666800
*****		92702400
MVFLGA,*,1,BI	FLAGS 'A' - STATUS	92738000
MVMSTFLG,B'1.....'	VOLUME IS MASTER	92773600
MVRLSFLG,B'1.....'	VOLUME PENDING RELEASE	92809200
MVVRFLG,B'1.....'	VITAL RECORD - DO NOT RELEASE	92844800
MVASSFLG,B'1.....'	USER TAPE (ASSIGNED BY LIB)	92880400
MVLONFLG,B'1.....'	TAPE IS ON LOAN	92916000
MVOPNFLG,B'1.....'	TAPE OPENED AND NOT YET CLOSED	92951600
MVSCRFLG,B'1.....'	VOLUME IS SCRATCH	92987200
MVOCEFLG,B'1.....'	VOLUME RECORDED BY O/C/EOV	93022800
MVEXRFLG,B'1.....'	STV RECORDED BY EXPORT	93058400
MVFLGB,*,1,BI	FLAGS 'B'	@K2C 93094000
MVDEFRET,B'1.....'	DEFAULT RETENTION PERIOD USED	93129600
MVPPTAPE,B'1.....'	PROGRAM PRODUCT TAPE	93165200
MVNLTAPE,B'1.....'	LABEL TYPE IS NL	93200800
MVALTAPE,B'1.....'	LABEL TYPE IS AL	93236400
MVSLTAPE,B'1.....'	LABEL TYPE IS SL	93272000
MVBLTAPE,B'1.....'	TAPE LAST WRITTEN USING BLP	93307600
MVULTAPE,B'1.....'	SL OR AL TAPE HAS USER LABELS	93343200
MVFLGC,*,1,BI	FLAGS 'C' - RELEASE ACTIONS	93378800
MVRETSCR,B'1.....'	RETURN TO SCRATCH POOL - DEFAULT	93414400
MVRELACT,B'1111111'	RELEASE ACTIONS	93450000
MVREPREL,B'1.....'	REPLACE TAPE ON RELEASE	93485600
MVREINIT,B'1.....'	REINITIALIZE	93521200
MVDEGAUS,B'1.....'	DEGAUS/SECURITY ERASE	93556800
MVROWNER,B'1.....'	RETURN TO OWNER	93592400
MVNOWNER,B'1.....'	NOTIFY OWNER	93628000
MVFLGD,*,1,BI	FLAGS 'D' - ACCESS	93663600
MVOREAD,B'1.....'	OWNER MAY READ VOLUME	93699200
MVOUPD,B'1.....'	OWNER MAY UPDATE VOLUME	93734800
MVOALT,B'1.....'	OWNER MAY ALTER VOLUME	93770400
MVPROTR,B'1.....'	READ-ONLY PROTECTION	93806000
MVPROTU,B'1.....'	UPDATE PROTECTION	93841600
MVMVSUSE,B'1.....'	MAY BE USED ON MVS SYSTEMS	93877200
MVMVUSE,B'1.....'	MAY BE USED ON VM SYSTEMS	93912800
MVNODSNR,B'1.....'	ONLY 1ST TAPE DS RECORDED	93948400
MVFLGE,*,1,BI	FLAGS 'E' - ACTIONS PENDING	93984000
* MVRETSCR,B'1.....'	RETURN TO SCRATCH POOL - DEFAULT	94019600
* MVRELACT,B'1111111'	RELEASE ACTIONS	94055200
* MVREPREL,B'1.....'	REPLACE TAPE ON RELEASE	94090800
* MVREINIT,B'1.....'	REINITIALIZE	94126400
* MVDEGAUS,B'1.....'	DEGAUS/SECURITY ERASE	94162000
* MVROWNER,B'1.....'	RETURN TO OWNER	94197600
* MVNOWNER,B'1.....'	NOTIFY OWNER	94233200
MVLTYT,*,1,BI	COPY OF JFCBLTYP	94268800
MVALVERS,*,2,CH	ANSI LABEL VERSION	94304400
MVALCUR,*,1,FI	CURRENT LABEL VERSION	94340000
MVALREQ,*,1,FI	REQUIRED LABEL VERSION	94375600
MVALNOV,0	No version specified	@K2A 94375700
MVALVE1,1	Label version 1 specified	@K2A 94375800
MVALVE3,3	Label version 3 specified	@K2A 94375900
MVALVE4,4	Label version 4 specified	@K2A 94376000
MVMEDIA,*,8,CH	INSTALLATIONS MEDIA NAME	94411200
MVUNIT,*,8,CH	UNIT TYPE	94446800
MVRACK,*,6,CH	RACK NUMBER	94482400
MVPVOL,*,6,CH	PREVIOUS VOLSER IF MULTI-VOL	94518000
MNVVOL,*,6,CH	NEXT VOLSER IF MULTI-VOL	94553600
MVUCBTYP,*,4,BI	COPY OF UCBTYP FIELD FROM UCB	94589200
MVERRCNT,*,8	ERROR COUNTS	94624800
MVTRERR,*,2,FI	TEMPORARY READ ERRORS	94660400
MVTWERR,*,2,FI	TEMPORARY WRITE ERRORS	94696000
MVPRERR,*,2,FI	PERMANENT READ ERRORS	94731600
MVPWERR,*,2,FI	PERMANENT WRITE ERRORS	94767200
MVBLKID,*,4,CH	BLOCKID RETURNED BY OCE EXIT	@K2C 94802800
MVPPDATA,*,18	PROGRAM PRODUCT DATA	94838400
MVPPNUM,*,8,CH	PROGRAM PRODUCT NUMBER	94874000

MVVER,*6,CH	VERSION/RELEASE/MOD NUMBER	94909600
MVFEAT,*4,CH	FEATURE CODE	94945200
MVTRTCH,*1,BI	FROM JFCRTCH - IDRC SUPPORT	94980800
MVTCOMP,X'08'	DSN USED 3480 IDRC	95016400
MVTNCOMP,X'04'	NO COMPACTION	95052000
MVOPVOL,*6,CH	OLD PREVIOUS VOLUME	95087600
MVTOKEN,*8,CH	RESERVED FOR O/C/EOV	95123200
MVLOCFLG,*1,BI	FLAG BYTE FOR LIBRARY SUPPORT	95158800
MVTRNFLG,B'1.....'	INDICATES VOLUME IN TRANSIT	95194400
* MVMVMODE,B'.1.....'	WHEN NOT SET, VOLUME IS IN LOCATION	95230000
	INDICATES MANUALMOVE	95265600
*	WHEN NOT SET, INDICATES AUTOMOVE	95301200
MVEXTBINAPPLIED,B'...1.....'	EXTENDED BIN APPLIED	@SCA 95336800
MVCOPEXP,B'...1.....'	VOLUME WAS SUBJECT TO	@K2A 95336900
	COPY EXPORT PROCESSING	@K2A 95337000
* MVLTSHL,B'....0000'	SHELF LOCATION	95372400
MVLSTG,B'....0001'	STORAGE LOCATION	95408000
MVLTMAN,B'....0010'	MANUAL LIBRARY	95443600
MVLTAUT,B'....0011'	AUTOMATIC LIBRARY	95479200
MVLSTB,B'....0100'	STORE WITH BINS	95514800
MVLTSNB,B'....0101'	STORE WITHOUT BINS	95550400
MVTYPFLG,*1,BI	FLAGS FOR LOCATION TYPE INFORMATION	95586000
MVNTSHL,B'0000....'	SHELF LOCATION	95621600
MVNTSTG,B'0001....'	STORAGE LOCATION	95657200
MVNTMAN,B'0010....'	MANUAL LIBRARY	95692800
MVNTAUT,B'0011....'	AUTOMATIC LIBRARY	95728400
MVNTSTB,B'0100....'	STORE WITH BINS	95764000
MVNTSNB,B'0101....'	STORE WITHOUT BINS	95799600
MVDTSHL,B'....0000'	SHELF LOCATION	95835200
MVDTSTG,B'....0001'	STORAGE LOCATION	95870800
MVDTMAN,B'....0010'	MANUAL LIBRARY	95906400
MVDTAUT,B'....0011'	AUTOMATIC LIBRARY	95942000
MVDTSTB,B'....0100'	STORE WITH BINS	95977600
MVDTSNB,B'....0101'	STORE WITHOUT BINS	96013200
MVTYP2FLG,*1,BI	MORE FLAGS FOR TYPES	96048800
MVHTSHL,B'0000....'	SHELF LOCATION	96084400
MVHTSTG,B'0001....'	STORAGE LOCATION	96120000
MVHTMAN,B'0010....'	MANUAL LIBRARY	96155600
MVHTAUT,B'0011....'	AUTOMATIC LIBRARY	96191200
MVHTSTB,B'0100....'	STORE WITH BINS	96226800
MVHTSNB,B'0101....'	STORE WITHOUT BINS	96262400
MVOTSHL,B'....0000'	SHELF LOCATION	@SCA 96298000
MVOTSTG,B'....0001'	STORAGE LOCATION	@SCA 96333600
MVOTMAN,B'....0010'	MANUAL LIBRARY	@SCA 96369200
MVOTAUT,B'....0011'	AUTOMATIC LIBRARY	@SCA 96404800
MVOTSTB,B'....0100'	STORE WITH BINS	@SCA 96440400
MVOTSNB,B'....0101'	STORE WITHOUT BINS	@SCA 96476000
MVRQPTY,*2,FI	REQ.LOCATION PRIORITY	96511600
MVCAPACITY,*4,FI	VOLUME CAPACITY IN MBYTES	96547200
MVHLOC,*8,CH	HOME LOCATION NAME	96582800
MVSGNAME,*8,CH	STORAGE GROUP NAME	96618400
MVLOC,*8,CH	LOCATION NAME	96654000
MVDEST,*8,CH	DESTINATION NAME	96689600
MVOLOC,*8,CH	PREVIOUS LOCATION NAME	96725200
MVUSBIN,*6,CH	SHELF MANAGED STORE BIN NO.	96760800
MVUBMDN,*8,CH	BIN MEDIA NAME	96796400
MVUSOBIN,*6,CH	SHELF MANAGED STORE OLD BIN	96832000
MVUOBMDN,*8,CH	OLD BIN MEDIA NAME	96867600
MVRETDAT,*4,PD	RETENTION DATE	96903200
MVOLDVOLSER,*6,CH	OLD VOLSER IF RENAMING VOLSER	@LSC 96938800
MVOLDRACK,*6,CH	OLD RACK IF RENAMING VOLSER	@LSC 96974400
MVLCTOKN,*8,CH	VOLUME LAST CHANGE TOKEN	97010000
MVVOLTYPE,*1,FI	VOLUME TYPE	97045600
MVVOLTYPE_PHYSICAL,0	VOLUME TYPE PHYSICAL	97081200
MVVOLTYPE_LOGICAL,1	VOLUME TYPE LOGICAL	97116800
MVVOLTYPE_STACKED,2	VOLUME TYPE STACKED	97152400
MVFLGF,*1,BI	FLAGS 'F'	97188000
MVRBYSET,B'1.....'	RETAINED BY SET	@07C 97214700
MVWORM,B'.1.....'	WORM TAPE	@07C 97241400
MVHOLD,B'.1.....'	WILL NOT BE SET PENDING RELEASE	@00A 97254700
MVF_KBTRV,B'...1....'	MSNS KBTRV USED FOR PHYS_SIZE	@SOA 97261400
MVWHILECATUX,B'....1...'	Volume has EXPDT of DSN with	@M2A 97261450
	WhileCat=UX and Catalog=yes	@M2A 97261500
* MVEDM,B'....1..'	EDM-managed volume	@M7A 97261550
MVIRMMUSE,B'.....1'	MAY BE USED ON IRMM SYSTEMS	@07A 97268100
*****		97294800
* LEVEL 1 FIXED LENGTH SECTION (62 BYTES)		* 97330400
*****		97366000
* MVLEV1SC,*62	LEVEL 1 SECTION	@SKD 97401600
MVDCRSID,*8,CH	1ST DATA SET CREATE SYSID	97437200
MVCONTAINER,*16,CH	CONTAINER	97472800
MVCONTAINER_STV,=6,CH	STACKED VOLUME CONTAINER	@08A 97496500

SKIP,10	RESERVED	@08C	97520200
MVOLD_CONTAINER,*,16,CH	OLD CONTAINER		97544000
MVEXPTOKEN,*,8,CH	EXPORT TOKEN		97579600
MVDSKeptByCat,*,2,FI	Datasets Kept by Catalog	@M2A	97579700
SKIP,7	RESERVED	@M2C	97615200
MVLAST_POSN,*,1,FI	LAST FILE END MEDIA POSITION		97650800
MV_STV_VOLCOUNT,*,4,FI	STACKED VOLUME COUNT		97686400

* LEVEL 2 FIXED LENGTH SECTION (64 BYTES)	*		97722000

MVDESTBIN,*,6,CH	DESTINATION BIN NUMBER	@SCA	97757600
MVDESTBINMEDIA,*,8,CH	DESTINATION BIN MEDIANAME	@SCA	97793200
MVVOL1,*,6,CH	CURRENT VOL1 LABEL VOLSER	@LSA	97828800
MVVENDOR,*,8,CH	VENDOR INFORMATION	@SGA	97864400
MVWUID,*,12,CH	UNIQUE WORLD WIDE IDENTIFIER	@SGA	97900000
MVVWMC,*,2,FI	WRITE MOUNT COUNT	@SGA	97935600
MVMEDINF,*,8,CH	Media information	@04A	97971200
MVEXPTM,*,4,PD	Expiration time	@08A	98006800
MVLRDTIM,*,4,PD	Last read time	@08A	98042400
MVLWTTIM,*,4,PD	Last write time	@08A	98054200
MVESBEXPDTSETBY,*,1,FI	EXPIRY DATE SET BY	@08A	98066000
MVESB_UNKNOWN,0		@08A	98077800
MVESB_CMD,1		@08A	98084000
MVESB_CMD_DEF,2		@08A	98090300
MVESB_CMD_VOLCAT,3		@08A	98091000
MVESB_OCE_JFCB,4		@08A	98091700
MVESB_OCE_EXIT,5		@08A	98092400
MVESB_OCE_DEF,6		@08A	98093100
MVESB_OCE_MAX,7		@08A	98093800
MVESB_OCE_VOLCAT,8		@08A	98094500
MVESB_LCS,9		@08A	98095200
MVESB_LCS_DEF,10		@08A	98095900
MVESB_TVEXTPURGE,11		@08A	98096600
MVESB_CNVT,12		@08A	98097300
MVESB_EXPORT,13		@08A	98098000
MVESB_LASTREF,14		@0QA	98098700
MVESB_OCE_MC,15		@OVA	98099400
MVESB_CATRETPD,16		@M2A	98101100
MVESB_CATLG_DAYS,17		@M2A	98102000
MVESB_DEFTABLE,18		@M3A	98102010

MVRETENTIONMETHOD,*,1,FI	RETENTION METHOD	@0GA	98102900
MVRM_VRSEL,0	Retention Method VRS	@0GA	98106400
MVRM_EXPDT,1	Retention Method Expiration date	@0GA	98109900

* LEVEL 3 FIXED LENGTH SECTION (64 BYTES)	@SJA		98113600

MVRETMETSETBY,*,1,FI	RETENTION METHOD SET BY	@0GA	98149200
MVRMSB_UNDEFINED,0		@0GA	98184800
MVRMSB_CMD,1		@0GA	98187700
MVRMSB_CMD_DEF,2		@0GA	98190600
MVRMSB_OCE_DEF,3		@0GA	98193500
MVRMSB_OCE_EXIT,4		@0GA	98196400
MVRMSB_LCS_DEF,5		@0GA	98199300
MVRMSB_CNVT,6		@0GA	98202200
MVRMSB_EXPORT_DEF,7		@0GA	98205100
MVRMSB_INERS_DEF,8		@0GA	98208000
MVRMSB_MC_ATTR,9		@M5A	98210900
MVRMSB_DEFTABLE,10		@M3A	98213800
MVEXPDT_RETAINBY,*,1,FI		@OSA	98213820
MVEXPDT_VOLUME,0		@OSA	98214900
MVEXPDT_FIRSTFILE,1		@OSA	98216000
MVEXPDT_SET,2		@OSA	98217100
SKIP,2	RESERVED	@OSC	98218200
MVTUSE64,*,8,FI	SIZE IN KB	@SKA	98219300
MVPHYS_USED,*,8,FI	VOLUME PHYSICAL SPACE USED IN KB	@SOA	98220400
SKIP,44	RESERVED	@SOC	98232200

* VARIABLE LENGTH SECTION	*		98244000

MVVARSEC,*,400	VARIABLE LENGTH SECTION	@K2C	98256000
MVDSN1L,*,1,BI	LENGTH OF FIRST DSNAME ON TAPE		98291600
MVDSNLL,*,1,BI	LENGTH OF LAST DSNAME ON TAPE		98327200
MVACCLLEN,*,1,BI	LENGTH OF A/C FIELD (OR ZERO)		98362800
MVUSELEN,*,1,BI	LENGTH OF USER DATA (OR ZERO)		98398400
MVACCLST,*,1,BI	NUMBER OF ACCESS LIST ENTRIES		98434000
MVENCKEY1L,*,1,BI	LENGTH OF ENCRYPTION KEY 1 (OR ZERO)	@SJA	98469600
MVENCKEY2L,*,1,BI	LENGTH OF ENCRYPTION KEY 2 (OR ZERO)	@SJA	98505200
SKIP,5	RESERVED	@SJC	98540800
MVDSN1,*,44,CH	DSNAME OF FIRST FILE ON TAPE		98576400
MVDSNL,*,44,CH	DSNAME OF LAST FILE ON TAPE		98612000
MVACCINF,*,40,CH	ACCOUNTING INFORMATION		98647600

MVDESC,*,30,CH	USER DESCRIPTION		98790000
MVUSEFLD,=,30,CH	USER DESCRIPTION		98825600
SKIP,2	RESERVED		98861200
MVAUTIDS,*,96,CH	AUTHORIZED USER IDS AREA		98896800
* MVAUTIDS IS 12 8-BYTE SLOTS, CONTAINING UP TO 12 USER IDS			98932400
MVAUTIDS_01,=,8,CH	USER ID - 01		98968000
MVAUTIDS_02,*,8,CH	USER ID - 02		99003600
MVAUTIDS_03,*,8,CH	USER ID - 03		99039200
MVAUTIDS_04,*,8,CH	USER ID - 04		99074800
MVAUTIDS_05,*,8,CH	USER ID - 05		99110400
MVAUTIDS_06,*,8,CH	USER ID - 06		99146000
MVAUTIDS_07,*,8,CH	USER ID - 07		99181600
MVAUTIDS_08,*,8,CH	USER ID - 08		99217200
MVAUTIDS_09,*,8,CH	USER ID - 09		99252800
MVAUTIDS_10,*,8,CH	USER ID - 10		99288400
MVAUTIDS_11,*,8,CH	USER ID - 11		99324000
MVAUTIDS_12,*,8,CH	USER ID - 12		99359600
MVKEYENCOD1,*,1,CH	ENCRYPTION KEY ENCODING MECHANISM 1	@SJA	99395200
MVKEYLABEL1,*,64,CH	ENCRYPTION KEY LABEL 1	@SJA	99430800
MVKEYENCOD2,*,1,CH	ENCRYPTION KEY ENCODING MECHANISM 2	@SJA	99466400
MVKEYLABEL2,*,64,CH	ENCRYPTION KEY LABEL 2	@SJA	99502000
MVALLEND,*	ALL FIELDS END MARKER	@K2A	99502500
SKIP,2	RESERVED	@K2A	99503000
*****			99537600
* END OF VOLUME INFORMATION		*	99573200
*****			99608800
MVRCEND,*	END OF MVRC		99644400
*****			99680000
* END OF RMM MVREC		*	99715600
*****			99751200

Appendix B. DFSMSrmm mapping macros

Rule: Do not use any DFSMSrmm macros, other than those identified in this document as programming interfaces.

DFSMSrmm provides the macros that are identified in this topic as programming interfaces for customers.

- **ACTIVITY File Mapping Macro in SYS1.MACLIB.** See [“ACTIVITY file record: EDGACTRC” on page 227.](#)
- **Report Extract Data Set Mapping Macros in SYS1.MACLIB.**

You use the extract data set as input to the DFSMSrmm utility EDGRPTD to create reports.

The extract data set contains information extracted from the DFSMSrmm control data set. The extract data set records contain all major key fields so you can select fields and sort them for reports. Variable length fields are expanded to maximum length and redundant control information is removed to allow for simple reporting.

The DATEFORM parameter you use in the EDGHSKP parameter list, or the default set by DATEFORM in EDGRMMxx determines the format of all data fields.

[“Extract data set data set record: EDGRDEXT” on page 237](#)

[“Extract data set header record: EDGRHEXT” on page 243](#)

[“Extract data set vital record specification record: EDGRKEXT” on page 244](#)

[“Extract data set owner record: EDGROEXT” on page 247](#)

[“Extract data set software product record: EDGRPEXT” on page 249](#)

[“Extract data set rack record: EDGRREXT” on page 251](#)

[“Extract data set storage location bin record: EDGRSEXT” on page 253](#)

[“Extract data set volume record: EDGRVEXT” on page 254](#)

[“Extract data set extended data set record: EDGRXEXT” on page 265](#)

- **SMF Records Mapping Macros in SYS1.MODGEN or SYS1.MACLIB.**

Note: With the exception of IGWSMF, which is in SYS1.MACLIB, all the SMF records mapping macros are in SYS1.MODGEN.

DFSMSrmm requires two record types to support audit and security needs. You specify the exact SMF record types in EDGRMMxx, using SMFAUD for auditing and SMFSEC for security records.

You can map the SMF audit record using a combination of mapping macros. EDGSMFAR maps header information in the SMF record; EDGSxREC macros map the data in the body of the records. EDGSMFSR maps the security record information.

[“SMF action record information: EDGSAREC” on page 279](#)

[“SMF data set information: EDGSDREC” on page 281](#)

[“SMF vital record specification information: EDGSKREC” on page 288](#)

[“SMF audit record header information: EDGSMFAR” on page 292](#)

[“SMF security record information: EDGSMFSR” on page 293](#)

[“SMF owner information: EDGSOREC” on page 295](#)

[“SMF software product information: EDGSPREC” on page 298](#)

[“SMF library shelf location information: EDGSRREC” on page 300](#)

[“SMF storage location bin information: EDGSSREC” on page 302](#)

[“SMF volume information: EDGSVREC” on page 305](#)

[“SMF type 42 subtypes information: IGWSMF” on page 319 \(in SYS1.MACLIB\)](#)

ACTIVITY file record: EDGACTRC

EDGACTRC maps the DFSMSrmm ACTIVITY file. See [“Using the inventory management ACTIVITY file” on page 51](#) for information about using the ACTIVITY file.

Common name: RMM Inventory Management Activity File
Record

Macro ID: EDGACTRC
DSECT name: ACTRC
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: None
Storage attributes: Subpool: N/A
Key: N/A
Residency: N/A

Size: See STRUCTURE length
Created by: EDGHSKP
Pointed to by: Assembler - USING on ACTRC
PL/X - %INCLUDE EDGACTRC

Serialization: None
Function: Maps the ACTRC structure to identify
Header details, Data set details and
Volume details within the RMM activity
file records.

Table 11. Structure ACTRC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	459	ACTRC	Activity record
0	(0)	CHARACTER	4	ACTRC_RDW	Record descriptor word
0	(0)	SIGNED	2	ACTRC_RDW_LEN	Record descriptor - length
2	(2)	BIT(16)	2	ACTRC_RDW_SEG	Record descriptor - segment
Common record prefix					
4	(4)	CHARACTER	4	ACTRC_PREFIX	Common prefix
4	(4)	CHARACTER	1	ACTRC_PRE_TYPE	Activity file record type
5	(5)	CHARACTER	1	ACTRC_PRE_RETENTION_GROUP	One of: R, D, X
8	(8)	CHARACTER	451	ACTRC_DATA	Overlay for details areas
Header Record					
8	(8)	CHARACTER	165	ACTRC_HDR_DATA	Header data
8	(8)	CHARACTER	10	ACTRC_HDR_RUN_DATE	Inventory management date
18	(12)	CHARACTER	6	ACTRC_HDR_RUN_TIME	Inventory management time
24	(18)	CHARACTER	10	ACTRC_HDR_VERIFY_DATE	Inventory management verify date
34	(22)	CHARACTER	16	ACTRC_HDR_EXEC	Execution parameters:
34	(22)	CHARACTER	1	ACTRC_HDR_BACKUP	BACKUP: Y, N
35	(23)	CHARACTER	1	ACTRC_HDR_DSTORE	DSTORE: Y, N
36	(24)	CHARACTER	1	ACTRC_HDR_EXPROC	EXPROC: Y, N
37	(25)	CHARACTER	1	ACTRC_HDR_RPTTEXT	RPTTEXT: Y, N
38	(26)	CHARACTER	1	ACTRC_HDR_VRSEL	VRSEL: Y, N
39	(27)	CHARACTER	1	ACTRC_HDR_VERIFY	VERIFY: Y, N
40	(28)	CHARACTER	1	ACTRC_HDR_DATE	VERIFY DATE: Y, N
41	(29)	CHARACTER	1	ACTRC_HDR_DATEFORM	DATEFORM: A, E, I, J
42	(2A)	CHARACTER	1	ACTRC_HDR_CATSYNCH	CATSYNCH: Y, N
50	(32)	CHARACTER	107	ACTRC_HDR_OPTIONS	
50	(32)	CHARACTER	1	ACTRC_HDR_VRSJOBNAME	VRSJOBNAME priority: 1,
51	(33)	CHARACTER	1	ACTRC_HDR_VRSCHANGE	VRSCHANGE: V, I
52	(34)	CHARACTER	4	ACTRC_HDR_CATRETPD	CATRETPD hours

Table 11. Structure ACTRC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
56	(38)	CHARACTER	10	ACTRC_HDR_VRSMIN_COUNT	VRSMIN count
66	(42)	CHARACTER	1	ACTRC_HDR_VRSMIN_ACTION	VRSMIN action: F, W, I, O
67	(43)	CHARACTER	1	ACTRC_HDR_OPT_VRSEL	VRSEL: N(ew)
68	(44)	CHARACTER	1	ACTRC_HDR_UNCATALOG	UNCATALOG: Y, N, S
69	(45)	CHARACTER	1	ACTRC_HDR_TPRACF	TPRACF: N, P, A, C
70	(46)	CHARACTER	8	ACTRC_HDR_SYSID	SYSID
78	(4E)	CHARACTER	1	ACTRC_HDR_CATSYSID	CATSYSID: N, Y, *
79	(4F)	CHARACTER	1	ACTRC_HDR_OPT_RETAINBY	RETAINBY: V, S
80	(50)	CHARACTER	1	ACTRC_HDR_OPT_MOVEBY	MOVEBY: V, S
81	(51)	CHARACTER	10	ACTRC_HDR_VRSDROP_COUNT	VRSDROP count
91	(5B)	CHARACTER	3	ACTRC_HDR_VRSDROP_PERCENT	VRSDROP percentage
94	(5E)	CHARACTER	1	ACTRC_HDR_VRSDROP_ACTION	VRSDROP action
95	(5F)	CHARACTER	10	ACTRC_HDR_VRSRETAIN_COUNT	VRSRETAIN count
105	(69)	CHARACTER	3	ACTRC_HDR_VRSRETAIN_PERCENT	VRSRETAIN percentage
108	(6C)	CHARACTER	1	ACTRC_HDR_VRSRETAIN_ACTION	VRSRETAIN action
109	(6D)	CHARACTER	10	ACTRC_HDR_EXPDTDROP_COUNT	EXPDTDROP count
119	(77)	CHARACTER	3	ACTRC_HDR_EXPDTDROP_PERCENT	EXPDTDROP percentage
122	(7A)	CHARACTER	1	ACTRC_HDR_EXPDTDROP_ACTION	EXPDTDROP action
123	(7B)	CHARACTER	1	ACTRC_HDR_GDGCYCLEBY	GDGCYCLEBY: G, C
124	(7C)	CHARACTER	1	ACTRC_HDR_GDGDuplicate	GDGDuplicate: B, D, K, C
157	(9D)	CHARACTER	10	ACTRC_HDR_VRS_LAST_RUNDATE	VRSEL last run date
167	(A7)	CHARACTER	6	ACTRC_HDR_VRS_LAST_RUNTIME	VRSEL last run time
Data Set Record					
8	(8)	CHARACTER	446	ACTRC_DSN_DATA	Overlay for data set data
8	(8)	CHARACTER	44	ACTRC_DSN_DSNAME	Data set name
52	(34)	CHARACTER	8	ACTRC_DSN_JOBNAME	Creating job name
60	(3C)	CHARACTER	6	ACTRC_DSN_VOL	Volume serial number
74	(4A)	CHARACTER	10	ACTRC_DSN_CRDATE	Data set creation date
84	(54)	CHARACTER	6	ACTRC_DSN_CRTIME	Data set creation time
90	(5A)	CHARACTER	8	ACTRC_DSN_LOC	Volume location
98	(62)	CHARACTER	8	ACTRC_DSN_DEST	Volume destination
106	(6A)	CHARACTER	8	ACTRC_DSN_SMS_MC	SMS management class name
114	(72)	CHARACTER	8	ACTRC_DSN_VRS_MV	VRS management value name
122	(7A)	CHARACTER	1	ACTRC_DSN_CATLG	Data set catalog status
123	(7B)	CHARACTER	10	ACTRC_DSN_CYCLE	Primary VRS data set cycle number
133	(85)	CHARACTER	10	ACTRC_DSN_2CYCLE	Secondary VRS data set cycle number
143	(8F)	CHARACTER	1	ACTRC_DSN_SUBCHAIN_DROP	Primary VRS subchain drop reason
144	(90)	CHARACTER	1	ACTRC_DSN_2SUBCHAIN_DROP	Secondary VRS subchain drop reason
145	(91)	CHARACTER	1	ACTRC_DSN_OLD_CATLG	Old catalog status
146	(92)	CHARACTER	1	ACTRC_DSN_NEW_CATLG	New catalog status
172	(AC)	CHARACTER	5	ACTRC_DSN_VOL_DSNNO	Number of data sets on volume

Table 11. Structure ACTRC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
177	(B1)	CHARACTER	1	ACTRC_DSN_VOL_INSET	Volume in a set: Y, N
178	(B2)	CHARACTER	8	ACTRC_DSN_CHANGE	Changes to data set details:
178	(B2)	CHARACTER	1	ACTRC_DSN_CHNG_VRS	Vital record status: Y, N
179	(B3)	CHARACTER	1	ACTRC_DSN_CHNG_RETDATE	Retention date: Y, N
180	(B4)	CHARACTER	1	ACTRC_DSN_CHNG_MATCH	Matching VRS: Y, N
181	(B5)	CHARACTER	1	ACTRC_DSN_CHNG_SUBCHAIN	Retaining subchain: Y, N
182	(B6)	CHARACTER	1	ACTRC_DSN_CHNG_CATALOG	Catalog status: Y, N
186	(BA)	CHARACTER	1	ACTRC_DSN_OLD_VITAL	Old vital record status: Y, N
187	(BB)	CHARACTER	1	ACTRC_DSN_NEW_VITAL	New vital record status: Y, N
188	(BC)	CHARACTER	1	ACTRC_DSN_DROP	Non-retention reason: W, U, C, D, L, X, B, N, G, V
189	(BD)	CHARACTER	8	ACTRC_DSN_NEW_LOC	New required data set location
197	(C5)	CHARACTER	10	ACTRC_DSN_OLD_RETDATE	Old data set retention date
207	(CF)	CHARACTER	10	ACTRC_DSN_NEW_RETDATE	New data set retention date. Format as per DATEFORM parameter. Special date formats: WHILECATLG, CYCL/nnnnn, CATRETPD
217	(D9)	CHARACTER	113	ACTRC_DSN_OLD_MATCH	Old matching VRS
217	(D9)	CHARACTER	1	ACTRC_DSN_OLD_MTYPE	Old primary VRS type: D, S, V, M, C
218	(DA)	CHARACTER	44	ACTRC_DSN_OLD_MMASK	Old primary VRS mask
262	(106)	CHARACTER	8	ACTRC_DSN_OLD_MJOB	Old primary VRS job name mask
270	(10E)	CHARACTER	8	ACTRC_DSN_OLD_M2MASK	Old secondary VRS mask
278	(116)	CHARACTER	8	ACTRC_DSN_OLD_M2JOB	Old secondary VRS job name mask
286	(11E)	CHARACTER	8	ACTRC_DSN_OLD_MNAME	Old primary VRS subchain name
294	(126)	CHARACTER	10	ACTRC_DSN_OLD_MDATE	Old primary VRS subchain start date
304	(130)	CHARACTER	8	ACTRC_DSN_OLD_M2NAME	Old secondary VRS subchain name
312	(138)	CHARACTER	10	ACTRC_DSN_OLD_M2DATE	Old secondary VRS subchain start date
330	(14A)	CHARACTER	113	ACTRC_DSN_NEW_MATCH	New matching VRS
330	(14A)	CHARACTER	1	ACTRC_DSN_NEW_MTYPE	New primary VRS type: D, S, V, M, C
331	(14B)	CHARACTER	44	ACTRC_DSN_NEW_MMASK	New primary VRS mask
375	(177)	CHARACTER	8	ACTRC_DSN_NEW_MJOB	New primary VRS job name mask
383	(17F)	CHARACTER	8	ACTRC_DSN_NEW_M2MASK	New secondary VRS mask
391	(187)	CHARACTER	8	ACTRC_DSN_NEW_M2JOB	New secondary VRS job name mask
399	(18F)	CHARACTER	8	ACTRC_DSN_NEW_MNAME	New primary VRS subchain name
407	(197)	CHARACTER	10	ACTRC_DSN_NEW_MDATE	New primary VRS subchain start date
417	(1A1)	CHARACTER	8	ACTRC_DSN_NEW_M2NAME	New secondary VRS subchain name
425	(1A9)	CHARACTER	10	ACTRC_DSN_NEW_M2DATE	New secondary VRS subchain start date
443	(1BB)	CHARACTER	5	ACTRC_DSN_DSEQ	Data set sequence number
448	(1C0)	CHARACTER	5	ACTRC_DSN_FILESEQ	Physical file sequence number
453	(1C5)	CHARACTER	1	ACTRC_DSN_VRSEL_EXCLUDE	VRSEL excluded Y/N
Volume Record					
8	(8)	CHARACTER	451	ACTRC_VOL_DATA	Overlay for volume data
8	(8)	CHARACTER	44	ACTRC_VOL_DSNAME	Data set name

Table 11. Structure ACTRC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
52	(34)	CHARACTER	8	ACTRC_VOL_JOBNAME	Creating job name
60	(3C)	CHARACTER	6	ACTRC_VOL_VOL	Volume serial number
74	(4A)	CHARACTER	10	ACTRC_VOL_ASDATE	Volume assigned date
84	(54)	CHARACTER	6	ACTRC_VOL_ETIME	Volume assigned time
90	(5A)	CHARACTER	8	ACTRC_VOL_LOC	Volume location
98	(62)	CHARACTER	8	ACTRC_VOL_DEST	Volume destination
106	(6A)	CHARACTER	1	ACTRC_VOL_RETRET	Retention Method
107	(6B)	CHARACTER	1	ACTRC_VOL_RETAINBY	RETAINBY
141	(8D)	CHARACTER	5	ACTRC_VOL_DSNNO	Number of data sets on volume
146	(92)	CHARACTER	1	ACTRC_VOL_INSET	Volume in set: Y, N
147	(93)	CHARACTER	8	ACTRC_VOL_CHANGE	Changes to volume details:
147	(93)	CHARACTER	1	ACTRC_VOL_CHNG_VRS	Vital record status: Y, N
148	(94)	CHARACTER	1	ACTRC_VOL_CHNG_RETDATE	Retention date: Y, N
150	(96)	CHARACTER	1	ACTRC_VOL_CHNG_STATUS	Released: Y, N
155	(9B)	CHARACTER	6	ACTRC_VOL_ACTIONS_PENDING	Pending actions
155	(9B)	CHARACTER	1	ACTRC_VOL_ACTPEND_RTS	Return to scratch
156	(9C)	CHARACTER	1	ACTRC_VOL_ACTPEND_REPL	Replace
157	(9D)	CHARACTER	1	ACTRC_VOL_ACTPEND_RTO	Return to owner
158	(9E)	CHARACTER	1	ACTRC_VOL_ACTPEND_INIT	Init
159	(9F)	CHARACTER	1	ACTRC_VOL_ACTPEND_ERASE	Erase
160	(A0)	CHARACTER	1	ACTRC_VOL_ACTPEND_NOTIFY	Notify
161	(A1)	CHARACTER	6	ACTRC_VOL_ACTIONS_RELEASE	Release actions
161	(A1)	CHARACTER	1	ACTRC_VOL_ACTRLSE_RTS	Return to scratch
162	(A2)	CHARACTER	1	ACTRC_VOL_ACTRLSE_REPL	Replace
163	(A3)	CHARACTER	1	ACTRC_VOL_ACTRLSE_RTO	Return to owner
164	(A4)	CHARACTER	1	ACTRC_VOL_ACTRLSE_INIT	Init
165	(A5)	CHARACTER	1	ACTRC_VOL_ACTRLSE_ERASE	Erase
166	(A6)	CHARACTER	1	ACTRC_VOL_ACTRLSE_NOTIFY	Notify
167	(A7)	CHARACTER	1	ACTRC_VOL_RETAIN_BY_SET	Retain by set: Y, N
168	(A8)	CHARACTER	1	ACTRC_VOL_OLD_VITAL	Old vital record status: Y, N
169	(A9)	CHARACTER	1	ACTRC_VOL_NEW_VITAL	New vital record status: Y, N
170	(AA)	CHARACTER	1	ACTRC_VOL_DROP	Non-retention reason: X, I
171	(AB)	CHARACTER	8	ACTRC_VOL_NEW_LOC	New required location
179	(B3)	CHARACTER	8	ACTRC_VOL_HOME_LOC	Home location
187	(BB)	CHARACTER	10	ACTRC_VOL_EXPDT	Expiration date
197	(C5)	CHARACTER	10	ACTRC_VOL_OLD_RETDATE	Old retention date
207	(CF)	CHARACTER	10	ACTRC_VOL_NEW_RETDATE	New retention date. Format as per DATEFORM parameter. Special date formats: WHILECATLG, CYCL/nnnnn, CATRETPD
217	(D9)	CHARACTER	113	ACTRC_VOL_YYYY	
330	(14A)	CHARACTER	113	ACTRC_VOL_NEW_MATCH	If retaining:
330	(14A)	CHARACTER	1	ACTRC_VOL_NEW_MTYPE	VRS type
331	(14B)	CHARACTER	6	ACTRC_VOL_NEW_MMASK	Volume VRS mask

Table 11. Structure ACTRC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
443	(18B)	CHARACTER	5	*	Volume sequence
444	(18C)	CHARACTER	4	ACTRC_VOL_VSEQ	Volume sequence part
448	(1C0)	CHARACTER	5	ACTRC_VOL_LABN01	First file data set sequence
453	(1C5)	CHARACTER	1	ACTRC_VOL_HOLD	Volume hold: Y, N
454	(1C6)	CHARACTER	1	ACTRC_VOL_EDM	Volume EDM: Y, N
455	(1C7)	CHARACTER	4	ACTRC_VOL_RSV2	Reserved

Table 12. Constants for ACTRC

Len	Type	Value	Name	Description
Constants				
1	CHARACTER	H	ACTRC_PRE_TYPE_HDR	
1	CHARACTER	D	ACTRC_PRE_TYPE_DSN	
1	CHARACTER	V	ACTRC_PRE_TYPE_VOL	
1	CHARACTER	R	ACTRC_PRE_RETENTION_GROUP_VRSRETAIN	
1	CHARACTER	D	ACTRC_PRE_RETENTION_GROUP_VRSDROP	
1	CHARACTER	X	ACTRC_PRE_RETENTION_GROUP_EXPDTDROP	
1	CHARACTER	1	ACTRC_HDR_VRSJOBNAME_FIRST	
1	CHARACTER	2	ACTRC_HDR_VRSJOBNAME_SECOND	
1	CHARACTER	F	ACTRC_HDR_VRSMIN_ACTION_FAIL	
1	CHARACTER	W	ACTRC_HDR_VRSMIN_ACTION_WARN	
1	CHARACTER	I	ACTRC_HDR_VRSMIN_ACTION_INFO	
1	CHARACTER	O	ACTRC_HDR_VRSMIN_ACTION_OFF	
1	CHARACTER	F	ACTRC_HDR_VRSDROP_ACTION_FAIL	
1	CHARACTER	W	ACTRC_HDR_VRSDROP_ACTION_WARN	
1	CHARACTER	I	ACTRC_HDR_VRSDROP_ACTION_INFO	
1	CHARACTER	O	ACTRC_HDR_VRSDROP_ACTION_OFF	
1	CHARACTER	F	ACTRC_HDR_VRSRETAIN_ACTION_FAIL	
1	CHARACTER	W	ACTRC_HDR_VRSRETAIN_ACTION_WARN	
1	CHARACTER	I	ACTRC_HDR_VRSRETAIN_ACTION_INFO	
1	CHARACTER	O	ACTRC_HDR_VRSRETAIN_ACTION_OFF	
1	CHARACTER	F	ACTRC_HDR_EXPDTDROP_ACTION_FAIL	
1	CHARACTER	W	ACTRC_HDR_EXPDTDROP_ACTION_WARN	
1	CHARACTER	I	ACTRC_HDR_EXPDTDROP_ACTION_INFO	
1	CHARACTER	O	ACTRC_HDR_EXPDTDROP_ACTION_OFF	
1	CHARACTER	N	ACTRC_HDR_OPT_VRSEL_NEW	
1	CHARACTER	N	ACTRC_HDR_UNCATALOG_NO	
1	CHARACTER	Y	ACTRC_HDR_UNCATALOG_YES	
1	CHARACTER	S	ACTRC_HDR_UNCATALOG_SCRATCH	
1	CHARACTER	N	ACTRC_HDR_TPRACF_NONE	
1	CHARACTER	P	ACTRC_HDR_TPRACF_PREDEFINED	
1	CHARACTER	A	ACTRC_HDR_TPRACF_AUTOMATIC	
1	CHARACTER	C	ACTRC_HDR_TPRACF_CLEANUP	

Table 12. Constants for ACTRC (continued)

Len	Type	Value	Name	Description
1	CHARACTER	N	ACTRC_HDR_CATSYSID_NOT_SET	
1	CHARACTER	Y	ACTRC_HDR_CATSYSID_SET	
1	CHARACTER	*	ACTRC_HDR_CATSYSID_SHARED	
1	CHARACTER	V	ACTRC_HDR_OPT_RETAINBY_VOLUME	
1	CHARACTER	S	ACTRC_HDR_OPT_RETAINBY_SET	
1	CHARACTER	V	ACTRC_HDR_OPT_MOVEBY_VOLUME	
1	CHARACTER	S	ACTRC_HDR_OPT_MOVEBY_SET	
1	CHARACTER	G	ACTRC_HDR_GDGC_GENERATION	
1	CHARACTER	C	ACTRC_HDR_GDGC_CRDATE	
1	CHARACTER	B	ACTRC_HDR_GDGD_BUMP	
1	CHARACTER	D	ACTRC_HDR_GDGD_DROP	
1	CHARACTER	K	ACTRC_HDR_GDGD_KEEP	
1	CHARACTER	C	ACTRC_HDR_GDGD_COUNT	
1	CHARACTER	Y	ACTRC_DSN_CATLG_YES	
1	CHARACTER	N	ACTRC_DSN_CATLG_NO	
1	CHARACTER	F	ACTRC_DSN_CATLG_FAILED	
1	CHARACTER	U	ACTRC_DSN_CATLG_UNKNOWN	
1	CHARACTER	D	ACTRC_DSN_OLD_MTYPE_DSN	
1	CHARACTER	S	ACTRC_DSN_OLD_MTYPE_SMS	
1	CHARACTER	V	ACTRC_DSN_OLD_MTYPE_VRS	
1	CHARACTER	M	ACTRC_DSN_OLD_MTYPE_MIX	
1	CHARACTER	C	ACTRC_DSN_OLD_MTYPE_DSNSMS	
1	CHARACTER	D	ACTRC_DSN_NEW_MTYPE_DSN	
1	CHARACTER	S	ACTRC_DSN_NEW_MTYPE_SMS	
1	CHARACTER	V	ACTRC_DSN_NEW_MTYPE_VRS	
1	CHARACTER	M	ACTRC_DSN_NEW_MTYPE_MIX	
1	CHARACTER	C	ACTRC_DSN_NEW_MTYPE_DSNSMS	
1	CHARACTER	W	ACTRC_DSN_DROP_WHILECATALOG	
1	CHARACTER	U	ACTRC_DSN_DROP_UNTILEXPIRED	
1	CHARACTER	C	ACTRC_DSN_DROP_CYCLES	
1	CHARACTER	D	ACTRC_DSN_DROP_DAYS	
1	CHARACTER	L	ACTRC_DSN_DROP_LASTREF	
1	CHARACTER	X	ACTRC_DSN_DROP_EXTRADAYS	
1	CHARACTER	B	ACTRC_DSN_DROP_BYDAYSCYCLE	
1	CHARACTER	N	ACTRC_DSN_DROP_NO_MATCH	
1	CHARACTER	G	ACTRC_DSN_DROP_DUP_GDG	
1	CHARACTER	V	ACTRC_DSN_DROP_VOL_RELEASED	
1	CHARACTER	S	ACTRC_VOL_ACTIONS_CONST_RTS	
1	CHARACTER	R	ACTRC_VOL_ACTIONS_CONST_REPL	
1	CHARACTER	O	ACTRC_VOL_ACTIONS_CONST_RTO	
1	CHARACTER	I	ACTRC_VOL_ACTIONS_CONST_INIT	
1	CHARACTER	E	ACTRC_VOL_ACTIONS_CONST_ERASE	
1	CHARACTER	N	ACTRC_VOL_ACTIONS_CONST_NOTIFY	

Table 12. Constants for ACTRC (continued)

Len	Type	Value	Name	Description
1	CHARACTER	X	ACTRC_VOL_DROP_EXPDT_EXPIRED	
1	CHARACTER	I	ACTRC_VOL_DROP_EXPDT_IGNORED	
1	CHARACTER	V	ACTRC_VOL_NEW_MTYPE_VOL	
1	CHARACTER	N	ACTRC_VOL_HOLD_NO	
1	CHARACTER	Y	ACTRC_VOL_HOLD_YES	
1	CHARACTER	N	ACTRC_VOL_EDM_NO	
1	CHARACTER	Y	ACTRC_VOL_EDM_YES	
1	CHARACTER	V	ACTRC_VOL_RETMET_VRSEL	
1	CHARACTER	E	ACTRC_VOL_RETMET_EXPDT	
1	CHARACTER	V	ACTRC_VOL_RETAINBY_VOL	
1	CHARACTER	S	ACTRC_VOL_RETAINBY_SET	
1	CHARACTER	F	ACTRC_VOL_RETAINBY_FIRST	

Table 13. Cross Reference for ACTRC

Name	Offset	Hex Tag	Level
ACTRC	0		1
ACTRC_DATA	8		2
ACTRC_DSN_CATLG	7A		4
ACTRC_DSN_CHANGE	B2		4
ACTRC_DSN_CHNG_CATALOG	B6		5
ACTRC_DSN_CHNG_MATCH	B4		5
ACTRC_DSN_CHNG_RETDATE	B3		5
ACTRC_DSN_CHNG_SUBCHAIN	B5		5
ACTRC_DSN_CHNG_VRS	B2		5
ACTRC_DSN_CRDATE	4A		4
ACTRC_DSN_CRTIME	54		4
ACTRC_DSN_CYCLE	7B		4
ACTRC_DSN_DATA	8		3
ACTRC_DSN_DEST	62		4
ACTRC_DSN_DROP	BC		4
ACTRC_DSN_DSEQ	1BB		4
ACTRC_DSN_DSNAME	8		4
ACTRC_DSN_FILESEQ	1C0		4
ACTRC_DSN_JOBNAME	34		4
ACTRC_DSN_LOC	5A		4
ACTRC_DSN_NEW_CATLG	92		4
ACTRC_DSN_NEW_LOC	BD		4
ACTRC_DSN_NEW_MATCH	14A		4
ACTRC_DSN_NEW_MDATE	197		5
ACTRC_DSN_NEW_MJOB	177		5
ACTRC_DSN_NEW_MMASK	14B		5
ACTRC_DSN_NEW_MNAME	18F		5
ACTRC_DSN_NEW_MTYPE	14A		5

Table 13. Cross Reference for ACTRC (continued)			
Name	Offset	Hex Tag	Level
ACTRC_DSN_NEW_M2DATE	1A9		5
ACTRC_DSN_NEW_M2JOB	187		5
ACTRC_DSN_NEW_M2MASK	17F		5
ACTRC_DSN_NEW_M2NAME	1A1		5
ACTRC_DSN_NEW_RETDATE	CF		4
ACTRC_DSN_NEW_VITAL	BB		4
ACTRC_DSN_OLD_CATLG	91		4
ACTRC_DSN_OLD_MATCH	D9		4
ACTRC_DSN_OLD_MDATE	126		5
ACTRC_DSN_OLD_MJOB	106		5
ACTRC_DSN_OLD_MMASK	DA		5
ACTRC_DSN_OLD_MNAME	11E		5
ACTRC_DSN_OLD_MTYPE	D9		5
ACTRC_DSN_OLD_M2DATE	138		5
ACTRC_DSN_OLD_M2JOB	116		5
ACTRC_DSN_OLD_M2MASK	10E		5
ACTRC_DSN_OLD_M2NAME	130		5
ACTRC_DSN_OLD_RETDATE	C5		4
ACTRC_DSN_OLD_VITAL	BA		4
ACTRC_DSN_SMS_MC	6A		4
ACTRC_DSN_SUBCHAIN_DROP	8F		4
ACTRC_DSN_VOL	3C		4
ACTRC_DSN_VOL_DSNO	AC		4
ACTRC_DSN_VOL_INSET	B1		4
ACTRC_DSN_VRS_MV	72		4
ACTRC_DSN_VRSEL_EXCLUDE	1C5		4
ACTRC_DSN_2CYCLE	85		4
ACTRC_DSN_2SUBCHAIN_DROP	90		4
ACTRC_HDR_BACKUP	22		5
ACTRC_HDR_CATRETPD	34		5
ACTRC_HDR_CATSYNCH	2A		5
ACTRC_HDR_CATSYSID	4E		5
ACTRC_HDR_DATA	8		3
ACTRC_HDR_DATE	28		5
ACTRC_HDR_DATEFORM	29		5
ACTRC_HDR_DSTORE	23		5
ACTRC_HDR_EXEC	22		4
ACTRC_HDR_EXPDTDROP_ACTION	7A		5
ACTRC_HDR_EXPDTDROP_COUNT	6D		5
ACTRC_HDR_EXPDTDROP_PERCENT	77		5
ACTRC_HDR_EXPROC	24		5
ACTRC_HDR_GDGCYCLEBY	7B		5
ACTRC_HDR_GDGDuplicate	7C		5

Table 13. Cross Reference for ACTRC (continued)			
Name	Offset	Hex Tag	Level
ACTRC_HDR_OPT_MOVEBY	50		5
ACTRC_HDR_OPT_RETAINBY	4F		5
ACTRC_HDR_OPT_VRSEL	43		5
ACTRC_HDR_OPTIONS	32		4
ACTRC_HDR_RPTTEXT	25		5
ACTRC_HDR_RUN_DATE	8		4
ACTRC_HDR_RUN_TIME	12		4
ACTRC_HDR_SYSID	46		5
ACTRC_HDR_TPRACF	45		5
ACTRC_HDR_UNCATALOG	44		5
ACTRC_HDR_VERIFY	27		5
ACTRC_HDR_VERIFY_DATE	18		4
ACTRC_HDR_VRS_LAST_RUNDATE	9D		4
ACTRC_HDR_VRS_LAST_RUNTIME	A7		4
ACTRC_HDR_VRSCHANGE	33		5
ACTRC_HDR_VRSDROP_ACTION	5E		5
ACTRC_HDR_VRSDROP_COUNT	51		5
ACTRC_HDR_VRSDROP_PERCENT	5B		5
ACTRC_HDR_VRSEL	26		5
ACTRC_HDR_VRSJOBNAME	32		5
ACTRC_HDR_VRSMIN_ACTION	42		5
ACTRC_HDR_VRSMIN_COUNT	38		5
ACTRC_HDR_VRSRETAIN_ACTION	6C		5
ACTRC_HDR_VRSRETAIN_COUNT	5F		5
ACTRC_HDR_VRSRETAIN_PERCENT	69		5
ACTRC_PRE_RETENTION_GROUP	5		3
ACTRC_PRE_TYPE	4		3
ACTRC_PREFIX	4		2
ACTRC_RDW	0		2
ACTRC_RDW_LEN	0		3
ACTRC_RDW_SEG	2		3
ACTRC_VOL_ACTIONS_PENDING	9B		4
ACTRC_VOL_ACTIONS_RELEASE	A1		4
ACTRC_VOL_ACTPEND_ERASE	9F		5
ACTRC_VOL_ACTPEND_INIT	9E		5
ACTRC_VOL_ACTPEND_NOTIFY	A0		5
ACTRC_VOL_ACTPEND_REPL	9C		5
ACTRC_VOL_ACTPEND_RTO	9D		5
ACTRC_VOL_ACTPEND_RTS	9B		5
ACTRC_VOL_ACTRLSE_ERASE	A5		5
ACTRC_VOL_ACTRLSE_INIT	A4		5
ACTRC_VOL_ACTRLSE_NOTIFY	A6		5
ACTRC_VOL_ACTRLSE_REPL	A2		5

Table 13. Cross Reference for ACTRC (continued)			
Name	Offset	Hex Tag	Level
ACTRC_VOL_ACTRLSE_RT0	A3		5
ACTRC_VOL_ACTRLSE_RTS	A1		5
ACTRC_VOL_ASDATE	4A		4
ACTRC_VOL_ETIME	54		4
ACTRC_VOL_CHANGE	93		4
ACTRC_VOL_CHNG_RETDATE	94		5
ACTRC_VOL_CHNG_STATUS	96		5
ACTRC_VOL_CHNG_VRS	93		5
ACTRC_VOL_DATA	8		3
ACTRC_VOL_DEST	62		4
ACTRC_VOL_DROP	AA		4
ACTRC_VOL_DSNAME	8		4
ACTRC_VOL_DSNN0	8D		4
ACTRC_VOL_EDM	1C6		4
ACTRC_VOL_EXPDT	BB		4
ACTRC_VOL_HOLD	1C5		4
ACTRC_VOL_HOME_LOC	B3		4
ACTRC_VOL_INSET	92		4
ACTRC_VOL_JOBNAME	34		4
ACTRC_VOL_LABN01	1C0		4
ACTRC_VOL_LOC	5A		4
ACTRC_VOL_NEW_LOC	AB		4
ACTRC_VOL_NEW_MATCH	14A		4
ACTRC_VOL_NEW_MMASK	14B		5
ACTRC_VOL_NEW_MTYPE	14A		5
ACTRC_VOL_NEW_RETDATE	CF		4
ACTRC_VOL_NEW_VITAL	A9		4
ACTRC_VOL_OLD_RETDATE	C5		4
ACTRC_VOL_OLD_VITAL	A8		4
ACTRC_VOL_RETAIN_BY_SET	A7		4
ACTRC_VOL_RETAINBY	6B		4
ACTRC_VOL_RETMET	6A		4
ACTRC_VOL_RSV2	1C7		4
ACTRC_VOL_VOL	3C		4
ACTRC_VOL_VSEQ	1BC		5
ACTRC_VOL_YYYY	D9		4

Extract data set data set record: EDGRDEXT

EDGRDEXT maps the data set record in the DFSMSrmm extract data set. See [“Using the extract data set”](#) on page 50 for more information about the DFSMSrmm extract data set.

Common name: RMM Extract File Data Set Record
 Macro ID: EDGRDEXT
 DSECT name: RDEXT
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: D
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
 Size: See STRUCTURE length
 Created by: EDGHSKP
 Pointed to by: Assembler - USING on RDEXT
 PL/X - %INCLUDE EDGRDEXT
 Serialization: None
 Function: Maps the RDEXT structure to identify
 the details within the RMM extract file
 data set record.
 In this record the date format depends on the DATEFORM selected
 by EDGHSKP execution parameter or the parmlib specified value.
 -
 Section RDEXT1 contains the data elements which are copied to
 section XDEXT1 of the extended (X) record as
 one block.
 Section RDEXT2 contains the data elements which are copied to
 section XXMERGED of the extended (X) record on
 field level.

Table 14. Structure RDEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	620	RDEXT	
0	(0)	CHARACTER	477	RDEXT1	First data section
0	(0)	CHARACTER	1	RDTYPE	Record type: C'D'
4	(4)	CHARACTER	44	RDDSNAME	Data set name
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these field across multiple record types.					
48	(30)	CHARACTER	10	RDCRDATE	Create date of data set record
58	(3A)	CHARACTER	6	RDCRTIME	Create time (HHMMSS) of data set record
64	(40)	CHARACTER	8	RDCRSID	Create system ID of data set record
72	(48)	CHARACTER	10	RDLCDATE	Last change date of data set record
82	(52)	CHARACTER	6	RDLCTIME	Last change time (HHMMSS) of data set record
88	(58)	CHARACTER	8	RDLGUID	Last change user ID of data set record
96	(60)	CHARACTER	8	RDLCSID	Last change system ID of data set record
End of common fields					
104	(68)	CHARACTER	6	RDVOLSER	Volume serial number
110	(6E)	CHARACTER	4	RDDSNSEQ_OLD	Data set sequence number if <=9999
114	(72)	CHARACTER	4	RDUNITAD	Creating drive address
118	(76)	CHARACTER	4	RDRECFM	Record format
122	(7A)	CHARACTER	4	RDVOLSEQ	Volume sequence number
126	(7E)	CHARACTER	6	RDLRECL	Logical record length
132	(84)	CHARACTER	6	RDBLKSZ	Physical block size
138	(8A)	CHARACTER	8	RDBLKCNT_OLD	Block count if <=99999999

Table 14. Structure RDEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
146	(92)	CHARACTER	8	RDOWNDSN	Data set owner
154	(9A)	CHARACTER	8	RDSECLEV	Security level - short
162	(A2)	CHARACTER	30	RDSECLNG	Security level - long
192	(C0)	CHARACTER	1	RDCOMP	Compaction used: Y, N
193	(C1)	CHARACTER	10	RDLRDDAT	Date data set last read
203	(CB)	CHARACTER	10	RDLWTDAT	Date data set last written
213	(D5)	CHARACTER	8	RDMCNAME	SMS management class
221	(DD)	CHARACTER	8	RDVRSVAL	VRS management value
229	(E5)	CHARACTER	8	RDSGNAME	SMS storage group name
237	(ED)	CHARACTER	8	RDSCNAME	SMS storage class name
245	(F5)	CHARACTER	8	RDDCNAME	SMS data class name
253	(FD)	CHARACTER	8	RDCRTJBN	Creating job name
261	(105)	CHARACTER	1	RDVRSTYP	Matching VRS type, one of: D(data set), S(SMSC), V(VRSMV), M(data set and VRSMV), C(data set and SMSMC)
262	(106)	CHARACTER	44	RDVRSNAM	Matching VRS name
306	(132)	CHARACTER	8	RDVRSJBN	Matching VRS job name mask
314	(13A)	CHARACTER	10	RDRETDAT	Retention date
324	(144)	CHARACTER	8	RDSTEPNM	Creating step name
332	(14C)	CHARACTER	8	RDDDDNAME	Creating DD name
RDMDMVID: Is a unique token assigned to every volume and every data set in a multi-volume set.					
340	(154)	CHARACTER	8	RDMDMVID	Multi data set multi volume ID
Data set size: This is calculated by multiplying the blocksize by the number of blocks divided by 1024.					
348	(15C)	CHARACTER	10	RDDSSIZE	Approximate size of file in kilobytes
358	(166)	CHARACTER	1	RDABEND	Data set closed by ABEND: Y, N
RDCAT: Set to 'Y' either when opened after allocation determines VOLSER by reference to the catalog or when data set is cataloged after the data set is recorded in DFSMSrmm. Set to 'N' when it was cataloged and now is not. Set to 'U' (unknown) when it was never cataloged or uncataloged.					
359	(167)	CHARACTER	1	RDCAT	Cataloged: Y, N, U
360	(168)	CHARACTER	1	RDVRSR	Retained by VRS: Y, N
361	(169)	CHARACTER	1	RDDELETED	Deleted by disposition: Y, N
362	(16A)	CHARACTER	2	RDRSVMW1	Reserved
364	(16C)	CHARACTER	4	RDLABNO_OLD	Label number LABEL=(xx,11) <=9999
Primary VRS subchain name: This is the retaining VRS in the matching primary VRS chain. It is set only if retained by a NAME VRS subchain in the primary VRS.					
368	(170)	CHARACTER	8	RDVRSSCH	Primary VRS subchain name
376	(178)	CHARACTER	10	RDVRSXDS	Primary VRS subchain start date

Table 14. Structure RDEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Retaining secondary VRS name: Matching VRS name and job name are included where a secondary VRS also matches. The retaining VRS subchain name in this matching VRS is set if it is used to retain the data set.					
386	(182)	CHARACTER	8	RD2VNME	Secondary VRS name mask
394	(18A)	CHARACTER	8	RD2VJBN	Secondary VRS job name mask
402	(192)	CHARACTER	8	RD2VSCH	Secondary VRS subchain name
410	(19A)	CHARACTER	10	RD2VXDS	Secondary VRS subchain start date
420	(1A4)	CHARACTER	10	RDTOTAL_BLKCNT_OLD	Total block count across this and previous volumes
430	(1AE)	CHARACTER	3	RDPERCENT	Percentage of volume used by data set
433	(1B1)	CHARACTER	8	RDCPGM	Creating program name
441	(1B9)	CHARACTER	8	RDLPGM	Last used program name
449	(1C1)	CHARACTER	8	RDLJOB	Last use job name
457	(1C9)	CHARACTER	8	RDLSTEP	Last use step name
465	(1D1)	CHARACTER	8	RDLDDNM	Last use DD name
473	(1D9)	CHARACTER	4	RDLDEVN	Last use device number
477	(1DD)	CHARACTER	143	RDEXT2	Second data section
477	(1DD)	CHARACTER	5	RDDSNSEQ	Data set sequence number
482	(1E2)	CHARACTER	5	RDLABNO	Label number LABEL=(xx,11)
487	(1E7)	CHARACTER	10	RDEXPDT	Data set expiration date
497	(1F1)	CHARACTER	10	RDEXPDTO	Original data set expiration date
507	(1FB)	CHARACTER	1	RDDEFRET	Default retention period used
508	(1FC)	CHARACTER	2	RDFACTOR	Space/size factor: MB, GB, TB
510	(1FE)	CHARACTER	10	RDSIZE	Size of file RDSIZE is factored
520	(208)	CHARACTER	10	RDBESKEY	BES key index
530	(212)	CHARACTER	20	RDBLCNT	Block count
550	(226)	CHARACTER	20	RDTOTAL_BLKCNT	Total block count across all volumes
570	(23A)	CHARACTER	10	RDESB	Expdt set by
580	(244)	CHARACTER	10	RDUCDATE	Last "user" change date of data set record
590	(24E)	CHARACTER	6	RDUCTIME	Last "user" change time (HHMMSS) of data set record
596	(254)	CHARACTER	1	RDVEX	VRSEL Exclude Y, N
597	(255)	CHARACTER	6	RDCOMP_RAT	Compression ratio for the file in hundredths. Always showing 2 decimal places
603	(25B)	CHARACTER	10	RDPHYS_SIZE	Actual amount of data on tape after compression (factored)
613	(265)	CHARACTER	5	RDLRED	LASTREF extra days
618	(26A)	CHARACTER	1	RDWHILECATON	WHILECATALOG=ON Y,N
619	(26B)	CHARACTER	1	RDWHILECATUX	WHILECATALOG=UntilExpired Y,N@18A
620	(26C)	CHARACTER	0	RDRCEEND	End of RDEXT

Table 15. Constants for RDEXT

Len	Type	Value	Name	Description
2	CHARACTER	MB	RDFACTOR_MB	
2	CHARACTER	GB	RDFACTOR_GB	
2	CHARACTER	TB	RDFACTOR_TB	
10	CHARACTER		RDESB_UNDEFINED	
10	CHARACTER	CMD	RDESB_CMD	
10	CHARACTER	CMD_DEF	RDESB_CMD_DEF	
10	CHARACTER	CMD_VOLCAT	RDESB_CMD_VOLCAT	
10	CHARACTER	OCE_JFCB	RDESB_OCE_JFCB	
10	CHARACTER	OCE_EXIT	RDESB_OCE_EXIT	
10	CHARACTER	OCE_DEF	RDESB_OCE_DEF	
10	CHARACTER	OCE_MAX	RDESB_OCE_MAX	
10	CHARACTER	OCE_VOLCAT	RDESB_OCE_VOLCAT	
10	CHARACTER	LCS	RDESB_LCS	
10	CHARACTER	LCS_DEF	RDESB_LCS_DEF	
10	CHARACTER	TVEXTPURGE	RDESB_TVEXTPURGE	
10	CHARACTER	CNVT	RDESB_CNVT	
10	CHARACTER	EXPORT	RDESB_EXPORT	
10	CHARACTER	LASTREF	RDESB_LASTREF	
10	CHARACTER	OCE_MC	RDESB_OCE_MC	
10	CHARACTER	CATRETPD	RDESB_CATRETPD	
10	CHARACTER	CATLG_DAYS	RDESB_CATLG_DAYS	
10	CHARACTER	DEFTABLE	RDESB_DEFTABLE	

Table 16. Cross Reference for RDEXT

Name	Offset	Hex Tag	Level
RDABEND	166		3
RDBESKEY	208		3
RDBLKCNT	212		3
RDBLKCNT_OLD	8A		3
RDBLKSZ	84		3
RDCAT	167		3
RDCOMP	C0		3
RDCOMP_RAT	255		3
RDCPGM	1B1		3
RDCRDATE	30		3
RDCRSID	40		3
RDCRTIME	3A		3
RDCRTJBN	FD		3
RDDCNAME	F5		3
RDDDDNAME	14C		3
RDDEFRET	1FB		3
RDDELETED	169		3
RDDSDNAME	4		3

Table 16. Cross Reference for RDEXT (continued)			
Name	Offset	Hex Tag	Level
RDDSNSSEQ	1DD		3
RDDSNSSEQ_OLD	6E		3
RDDSSIZE	15C		3
RDESB	23A		3
RDEXPDT	1E7		3
RDEXPDT0	1F1		3
RDEXT	0		1
RDEXT1	0		2
RDEXT2	1DD		2
RDFACTOR	1FC		3
RDLABNO	1E2		3
RDLABNO_OLD	16C		3
RDLCDATE	48		3
RDLCSID	60		3
RDLCTIME	52		3
RDLGUID	58		3
RDLDDNM	1D1		3
RDLDEVN	1D9		3
RDLJOB	1C1		3
RDLPGM	1B9		3
RDLRDDAT	C1		3
RDLRECL	7E		3
RDLRED	265		3
RDLSTEP	1C9		3
RDLWTDAT	CB		3
RDMCNAME	D5		3
RDMDMVID	154		3
RDOWNDSN	92		3
RDPERCENT	1AE		3
RDPHYS_SIZE	25B		3
RDRCEMD	26C		2
RDRCEFM	76		3
RDRETDAT	13A		3
RDRSVMW1	16A		3
RDRSCNAME	ED		3
RDRSECLV	9A		3
RDRSECLNG	A2		3
RDRSGNAME	E5		3
RDRSIZE	1FE		3
RDRSTEPNM	144		3
RDRTOTAL_BLKCNT	226		3
RDRTOTAL_BLKCNT_OLD	1A4		3
RDRTYPE	0		3

Table 16. Cross Reference for RDEXT (continued)

Name	Offset	Hex Tag	Level
RDUCDATE	244		3
RDUCTIME	24E		3
RDUNITAD	72		3
RDVEX	254		3
RDVOLSEQ	7A		3
RDVOLSER	68		3
RDVRSJBN	132		3
RDVRSNAM	106		3
RDVRSR	168		3
RDVRSSCH	170		3
RDVRSTYP	105		3
RDVRSVAL	DD		3
RDVRSXDS	178		3
RDWHILECATON	26A		3
RDWHILECATUX	26B		3
RD2VJBN	18A		3
RD2VNME	182		3
RD2VSCH	192		3
RD2VXDS	19A		3

Extract data set header record: EDGRHEXT

EDGRHEXT maps the header record in the DFSMSrmm extract data set. See [“Using the extract data set”](#) on page 50 for more information about the DFSMSrmm extract data set.

Common name: RMM Extract File Header Record
Macro ID: EDGRHEXT
DSECT name: RHEXT
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: H
Storage attributes: Subpool: N/A
Key: N/A
Residency: N/A
Size: See STRUCTURE length
Created by: EDGHSKP
Pointed to by: Assembler - USING on RHEXT
PL/X - %INCLUDE EDGRHEXT
Serialization: None
Function: Maps the RHEXT structure to identify the details within the RMM extract file header record.
In this record the date format depends on the DATEFORM selected by EDGHSKP execution parameter or the parmlib specified value.

Table 17. Structure RHEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	205	RHEXT	
0	(0)	CHARACTER	1	RHTYPE	Record type: C'H'

Table 17. Structure RHEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these field across multiple record types.					
48	(30)	CHARACTER	10	RHCRDATE	Create date of header record
58	(3A)	CHARACTER	6	RHCRTIME	Create time (HHMMSS) of header record
64	(40)	CHARACTER	8	RHCRSID	Create system ID of header record
End of common fields					
104	(68)	CHARACTER	1	RHDATEFORM	Format of all dates in the extract file
105	(69)	CHARACTER	1	RHEXTENDED BIN	Extended bin enabled: Y, N
106	(6A)	CHARACTER	9	RHTZ	Time zone offset +-HH:MM:SS
115	(73)	CHARACTER	4	RHTZ_NAME	Time zone name or blank
205	(CD)	CHARACTER	0	RHRCEND	End of RHEXT

Table 18. Constants for RHEXT

Len	Type	Value	Name	Description
Constants				
1	CHARACTER	H	RHTYPEID	
1	CHARACTER		RHDATEFORM_NOTSET	
1	CHARACTER	E	RHDATEFORM_EUROPEAN	
1	CHARACTER	A	RHDATEFORM_AMERICAN	
1	CHARACTER	I	RHDATEFORM_ISO	
1	CHARACTER	J	RHDATEFORM_JULIAN	

Table 19. Cross Reference for RHEXT

Name	Offset	Hex Tag	Level
RHCRDATE	30		2
RHCRSID	40		2
RHCRTIME	3A		2
RHDATEFORM	68		2
RHEXT	0		1
RHEXTENDED BIN	69		2
RHRCEND	CD		2
RHTYPE	0		2
RHTZ	6A		2
RHTZ_NAME	73		2

Extract data set vital record specification record: EDGRKEXT

EDGRKEXT maps the vital record specification record in the DFSMSrmm extract data set. See [“Using the extract data set”](#) on page 50 for more information about the DFSMSrmm extract data set.

Common name: RMM Report Extract File VRS Record
 Macro ID: EDGRKEXT
 DSECT name: RKEXT
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: K
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A

 Size: RKRCNLG
 Created by: EDGHSKP
 Pointed to by: Assembler - USING on RKEXT
 PL/X - %INCLUDE EDGRKEXT

 Serialization: None
 Function: Maps the RMM report extract file VRS
 record.
 In this record the date format depends on the DATEFORM selected
 by EDGHSKP execution parameter or the parmlib specified value.

Table 20. Structure RKEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	246	RKEXT	Start of structure
0	(0)	CHARACTER	1	RKTYPE	Record type C'K'
1	(1)	CHARACTER	1	RKTYPE2	VRS type: one of V - volume, D - data set, N - name
3	(3)	CHARACTER	44	RKDSNAME	Data set name mask
3	(3)	CHARACTER	8	RKNAME	VRS name
3	(3)	CHARACTER	6	RKVOLSER	Volume serial mask
47	(2F)	CHARACTER	1	RKGENKEY	Data set/volume mask contains generic characters Y=yes, N=no
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these fields across multiple record types.					
48	(30)	CHARACTER	10	RKCRDATE	Create date of VRS record
58	(3A)	CHARACTER	6	RKCRTIME	Create time of VRS record
64	(40)	CHARACTER	8	RKCRSID	Create system ID of VRS record
72	(48)	CHARACTER	10	RKLCDATE	Last change date of VRS record
82	(52)	CHARACTER	6	RKLCTIME	Last change time (HHMMSS) of VRS record
88	(58)	CHARACTER	8	RKLCLUID	Last change user ID of VRS record
96	(60)	CHARACTER	8	RKLCSID	Last change system ID of VRS rec
End of common fields					
104	(68)	CHARACTER	8	RKCR TJBN	Job name mask
112	(70)	CHARACTER	1	RKRETN C	Retain based on number of cycles: Y, N
113	(71)	CHARACTER	1	RKRETN D	Retain based on number of days: Y, N
114	(72)	CHARACTER	1	RKRETN R	Retain based on number of days unreferenced: Y, N
115	(73)	CHARACTER	1	RKRETN W	Retain while data set is cataloged: Y, N
116	(74)	CHARACTER	1	RKRETN X	Retain until expired: Y, N
117	(75)	CHARACTER	1	RKRETN XD	Retain based on extra days Since VRS matched: Y, N

Table 20. Structure RKEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
118	(76)	CHARACTER	1	RKRETNCD	Retain based on BYDAYSCYCLE all copies on one day are treated as one cycle: Y, N
119	(77)	CHARACTER	1	RKRETAND	Retention must be ANDed with the next VRS in the chain: Y, N
125	(7D)	CHARACTER	1	RKDSNG	Data set name mask is for a GDG: Y=GDG, P=PSEUDO-GDG ,N=NOGDG
126	(7E)	CHARACTER	1	RKLOCTYP	Location type: one of A - Auto, M - Manual, S - Store or Blank
127	(7F)	CHARACTER	8	RKLOC	Name of location to be stored: one of HOME, storage location, or SMS-defined library name
135	(87)	CHARACTER	8	RKNEXT	Name of next VRS in the chain
143	(8F)	CHARACTER	5	RKCOUNT	Vital record count (number of cycles or elapsed days or volumes to be kept in total)
148	(94)	CHARACTER	5	RKSTNUM	Store keep number (number of cycles or days or volumes to be kept in store)
153	(99)	CHARACTER	5	RKDELAY	Number of elapsed days delay before being selected for the first location
158	(9E)	CHARACTER	8	RKOWNER	Vital record owner
166	(A6)	CHARACTER	10	RKDELDAT	Date the VRS is to be deleted
176	(B0)	CHARACTER	30	RKDESC	Description
206	(CE)	CHARACTER	8	RKRELOPT	VRS release options
206	(CE)	CHARACTER	1	RKRELIXD	Ignore expiration date: Y, N
207	(CF)	CHARACTER	1	RKRELSI	Scratch immediate: Y, N
214	(D6)	CHARACTER	10	RKLRDATE	Last reference date
224	(E0)	CHARACTER	6	RKLRTIME	Last reference time
230	(E6)	CHARACTER	10	RKUCDATE	Last "user" change date
240	(F0)	CHARACTER	6	RKUCTIME	Last "user" change time (HHMMSS)
246	(F6)	CHARACTER	0	RKRCEND	End of RKEXT

Table 21. Constants for RKEXT

Len	Type	Value	Name	Description
1	CHARACTER	V	RKTYPVOL	Volume VRS
1	CHARACTER	D	RKTYPDSN	Data set VRS
1	CHARACTER	N	RKTYPNAM	Name VRS
2	DECIMAL	246	RKRCCLNG	Control block length

Table 22. Cross Reference for RKEXT

Name	Offset	Hex Tag	Level
RKCOUNT	8F		2
RKCRDATE	30		2
RKCRSID	40		2
RKCRTIME	3A		2
RKCR TJBN	68		2
RKDELAY	99		2

Table 22. Cross Reference for RKEXT (continued)			
Name	Offset	Hex Tag	Level
RKDELDAT	A6		2
RKDESC	B0		2
RKDSNAME	3		2
RKDSNG	7D		2
RKEXT	0		1
RKGENKEY	2F		2
RKLCDATE	48		2
RKLCSID	60		2
RKLCTIME	52		2
RKLUID	58		2
RKLOC	7F		2
RKLOCTYP	7E		2
RKLDATE	D6		2
RKLRTIME	E0		2
RKNAME	3		3
RKNEXT	87		2
RKOWNER	9E		2
RKRCEND	F6		2
RKRELIXD	CE		3
RKRELOPT	CE		2
RKRELSI	CF		3
RKRETAND	77		2
RKRETNC	70		2
RKRETNCD	76		2
RKRETND	71		2
RKRETNR	72		2
RKRETNW	73		2
RKRETNX	74		2
RKRETNXD	75		2
RKSTNUM	94		2
RKTYPE	0		2
RKTYPE2	1		2
RKUDDATE	E6		2
RKUDDTIME	F0		2
RKVOLSER	3		4

Extract data set owner record: EDGROEXT

EDGROEXT maps the owner record in the DFSMSrmm extract data set. See [“Using the security report” on page 81](#) for more information about the DFSMSrmm extract data set.

Common name: RMM Extract File Owner Record
 Macro ID: EDGROEXT
 DSECT name: ROEXT
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: 0
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
 Size: See STRUCTURE length
 Created by: EDGHSKP
 Pointed to by: Assembler - USING on ROEXT
 PL/X - %INCLUDE EDGROEXT
 Serialization: None
 Function: Maps the ROEXT structure to identify
 the details within the RMM extract file
 owner record.
 In this record the date format depends on the DATEFORM selected
 by EDGHSKP execution parameter or the parmlib specified value.

Table 23. Structure ROEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	433	ROEXT	
0	(0)	CHARACTER	1	ROTYPE	Record type: C'0'
4	(4)	CHARACTER	8	ROOWNER	Owner ID
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these fields across multiple record types.					
48	(30)	CHARACTER	10	ROCRDATE	Create date of owner record
58	(3A)	CHARACTER	6	ROCRTIME	Create time (HHMMSS) of owner record
64	(40)	CHARACTER	8	ROCRSID	Create system ID of owner record
72	(48)	CHARACTER	10	ROLCDATE	Last change date of owner record
82	(52)	CHARACTER	6	ROLCTIME	Last change time (HHMMSS) of owner record
88	(58)	CHARACTER	8	ROLCUID	Last change user ID of owner record
96	(60)	CHARACTER	8	ROLCSID	Last change system ID of owner record
End of common fields					
104	(68)	CHARACTER	20	ROOWNSUR	Owner last name
124	(7C)	CHARACTER	20	ROOWNFST	Owner first name
144	(90)	CHARACTER	40	ROOWNDEP	Owner department
184	(B8)	CHARACTER	40	ROOWNAD1	Owner address line 1
224	(E0)	CHARACTER	40	ROOWNAD2	Owner address line 2
264	(108)	CHARACTER	40	ROOWNAD3	Owner address line 3
304	(130)	CHARACTER	8	ROOWNTIN	Owner internal telephone number
312	(138)	CHARACTER	20	ROOWNTEX	Owner external telephone number
332	(14C)	CHARACTER	8	ROOWNUID	Owner electronic user ID
340	(154)	CHARACTER	8	ROOWNNOD	Owner electronic node name
348	(15C)	CHARACTER	6	ROOWNVOL	Total number of owned volumes
354	(162)	CHARACTER	63	ROOWNEML	Owner email address
417	(1A1)	CHARACTER	10	ROUCDATE	Last "user" change date
427	(1AB)	CHARACTER	6	ROUCTIME	Last "user" change time (HHMMSS)

Table 23. Structure ROEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
433	(1B1)	CHARACTER	0	RORCEND	End of ROEXT

Table 24. Cross Reference for ROEXT			
Name	Offset	Hex Tag	Level
ROCRDATE	30		2
ROCRSID	40		2
ROCRTIME	3A		2
ROEXT	0		1
ROLCDATE	48		2
ROLCSID	60		2
ROLCTIME	52		2
ROLCUID	58		2
ROOWNAD1	B8		2
ROOWNAD2	E0		2
ROOWNAD3	108		2
ROOWNDEP	90		2
ROOWNEML	162		2
ROOWNER	4		2
ROOWNFST	7C		2
ROOWNNOD	154		2
ROOWNSUR	68		2
ROOWNTEX	138		2
ROOWNTIN	130		2
ROOWNUID	14C		2
ROOWNVOL	15C		2
RORCEND	1B1		2
ROTYPE	0		2
ROUCDATE	1A1		2
ROUCTIME	1AB		2

Extract data set software product record: EDGRPEXT

EDGRPEXT maps the software product record in the DFSMSrmm extract data set. See [“Using the security report” on page 81](#) for more information about the DFSMSrmm extract data set.

Common name: RMM Report Extract File Product Record
 Macro ID: EDGRPEXT
 DSECT name: RPEXT
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: P
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
 Size: See STRUCTURE length
 Created by: EDGHSKP
 Pointed to by: Assembler - USING on RPEXT
 PL/X - %INCLUDE EDGRPEXT
 Serialization: None
 Function: Maps the RMM report extract file product record.
 In this record the date format depends on the DATEFORM selected by EDGHSKP execution parameter or the parmlib specified value.

Table 25. Structure RPEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	192	RPEXT	
0	(0)	CHARACTER	1	RPTYPE	Record type - C'P'
4	(4)	CHARACTER	8	RPPNUM	Product number (NNNN-CCC)
12	(C)	CHARACTER	6	RPVER	Version, release, modification number (vvrrmm): vv - version, rr - release, mm - modification level
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these fields across multiple record types.					
48	(30)	CHARACTER	10	RPCRDATE	Create date of product record
58	(3A)	CHARACTER	6	RPCRTIME	Create time (HHMMSS) of product record
64	(40)	CHARACTER	8	RPCRSID	Create system ID of product record
72	(48)	CHARACTER	10	RPLCDATE	Last change date of product record
82	(52)	CHARACTER	6	RPLCTIME	Last change time (HHMMSS) of product record
88	(58)	CHARACTER	8	RPLCUID	Last change user ID of product record
96	(60)	CHARACTER	8	RPLCSID	Last change system ID of product record
End of common fields					
104	(68)	CHARACTER	8	RPPPOWN	Product owner ID
112	(70)	CHARACTER	30	RPPNAME	Product name
142	(8E)	CHARACTER	30	RPPDESC	Product description
172	(AC)	CHARACTER	4	RPVOLNO	Number of product volumes
176	(B0)	CHARACTER	10	RPUCDATE	Last "user" change date
186	(BA)	CHARACTER	6	RPUCTIME	Last "user" change time (HHMMSS)
192	(C0)	CHARACTER	0	RPCREND	End of RPEXT

Table 26. Cross Reference for RPEXT

Name	Offset	Hex Tag	Level
RPCRDATE	30		2
RPCRSID	40		2

Table 26. Cross Reference for RPEXT (continued)			
Name	Offset	Hex Tag	Level
RPCRTIME	3A		2
RPEXT	0		1
RPLCDATE	48		2
RPLCSID	60		2
RPLCTIME	52		2
RPLCUID	58		2
RPPPDESC	8E		2
RPPPNAME	70		2
RPPPNUM	4		2
RPPPOWN	68		2
RPRCEND	C0		2
RPTYPE	0		2
RPUCDATE	B0		2
RPUCTIME	BA		2
RPVER	C		2
RPVOLNO	AC		2

Extract data set rack record: EDGRREXT

EDGRREXT maps the rack record in the DFSMSrmm extract data set. See [“Using the security report”](#) on page 81 for more information about the DFSMSrmm extract data set.

Common name: RMM Report Extract File Rack Number Record
Macro ID: EDGRREXT
DSECT name: RREXT
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: R
Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
Size: See STRUCTURE length
Created by: EDGHSKP
Pointed to by: Assembler - USING on RREXT
 PL/X - %INCLUDE EDGRREXT
Serialization: None
Function: Maps the RMM report extract file rack
 number record.
In this record the date format depends on the DATEFORM selected
by EDGHSKP execution parameter or the parmlib specified value.

Table 27. Structure RREXT					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	126	RREXT	
0	(0)	CHARACTER	1	RRTYPE	Record type - C'R'
1	(1)	CHARACTER	1	RRTYPE2	Rack record ID: one of E - empty rack, F - free/scratch rack, U - in use rack
4	(4)	CHARACTER	6	RRRACK	Rack number
10	(A)	CHARACTER	8	RRNAME	Media name
10	(A)	CHARACTER	8	RRUNIT	Old name for RRNAME field

Table 27. Structure RREXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these fields across multiple record types.					
48	(30)	CHARACTER	10	RRCRDATE	Create date of rack record
58	(3A)	CHARACTER	6	RRCRTIME	Create time (HHMMSS) of rack record
64	(40)	CHARACTER	8	RRCRSID	Create system ID of rack record
72	(48)	CHARACTER	10	RRLCDATE	Last change date of rack record
82	(52)	CHARACTER	6	RRLCTIME	Last change time (HHMMSS) of rack record
88	(58)	CHARACTER	8	RRLCUID	Last change user ID of rack record
96	(60)	CHARACTER	8	RRLCSID	Last change system ID of rack record
End of common fields					
104	(68)	CHARACTER	6	RRVOLSER	Assigned volume serial number
110	(6E)	CHARACTER	10	RRUCDATE	Last "user" change date
120	(78)	CHARACTER	6	RRUCTIME	Last "user" change time (HHMMSS)
126	(7E)	CHARACTER	0	RRRCEND	End of RREXT

Table 28. Constants for RREXT

Len	Type	Value	Name	Description
1	CHARACTER	E	RRTYPEE	E - empty rack
1	CHARACTER	F	RRTYPEF	F - free/scratch rack
1	CHARACTER	U	RRTYPEU	U - in use rack

Table 29. Cross Reference for RREXT

Name	Offset	Hex Tag	Level
RRCRDATE	30		2
RRCRSID	40		2
RRCRTIME	3A		2
RREXT	0		1
RRLCDATE	48		2
RRLCSID	60		2
RRLCTIME	52		2
RRLCUID	58		2
RRNAME	A		2
RRRACK	4		2
RRRCEND	7E		2
RRTYPE	0		2
RRTYPE2	1		2
RRUCDATE	6E		2
RRUCTIME	78		2
RRUNIT	A		3
RRVOLSER	68		2

Extract data set storage location bin record: EDGRSEXT

EDGRSEXT maps the storage location bin record in the DFSMSrmm extract data set. See [“Using the security report”](#) on page 81 for more information about the DFSMSrmm extract data set.

Common name: RMM Report Extract File Storage Location
Bin Record

Macro ID: EDGRSEXT
DSECT name: RSEXT
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: S
Storage attributes: Subpool: N/A
Key: N/A
Residency: N/A

Size: See STRUCTURE length
Created by: EDGHSKP
Pointed to by: Assembler - USING on RSEXT
PL/X - %INCLUDE EDGRSEXT

Serialization: None
Function: Maps the RMM report extract file storage location bin record.

In this record the date format depends on the DATEFORM selected by EDGHSKP execution parameter or the parmlib specified value.

Table 30. Structure RSEXT

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	144	RSEXT	
0	(0)	CHARACTER	1	RSTYPE	Record type C'S'
1	(1)	CHARACTER	1	RSTYPE2	Bin record ID: one of E - empty bin, U - assigned bin
2	(2)	CHARACTER	8	RSRMSTID	Storage location name
11	(B)	CHARACTER	6	RSBINNO	Bin number
17	(11)	CHARACTER	8	RSBMEDN	Bin media name
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these fields across multiple record types.					
48	(30)	CHARACTER	10	RSCRDATE	Create date of bin record
58	(3A)	CHARACTER	6	RSCRTIME	Create time (HHMMSS) of bin record
64	(40)	CHARACTER	8	RSCRSID	Create system ID of bin record
72	(48)	CHARACTER	10	RSLCDATE	Last change date of bin record
82	(52)	CHARACTER	6	RSLCTIME	Last change time (HHMMSS) of bin record
88	(58)	CHARACTER	8	RSLCUID	Last change user ID of bin record
96	(60)	CHARACTER	8	RSLCSID	Last change system ID of bin record
End of common fields					
104	(68)	CHARACTER	6	RSVOLSER	Current volume
110	(6E)	CHARACTER	6	RSMOVINGINVOL	Moving-in volume
116	(74)	CHARACTER	6	RSMOVINGOUTVOL	Moving-out volume
122	(7A)	CHARACTER	6	RSOLDVOL	Old volume
128	(80)	CHARACTER	10	RSUCDATE	Last "user" change date
138	(8A)	CHARACTER	6	RSUCTIME	Last "user" change time (HHMMSS)
144	(90)	CHARACTER	0	RSRCEND	End of RSEXT

Table 31. Constants for RSEXT				
Len	Type	Value	Name	Description
1	CHARACTER	E	RSTYPER	E - empty bin
1	CHARACTER	U	RSTYPES	U - assigned bin

Table 32. Cross Reference for RSEXT			
Name	Offset	Hex Tag	Level
RSBINNO	B		2
RSBMEDN	11		2
RSCDATE	30		2
RSCRSID	40		2
RSCRTIME	3A		2
RSEXT	0		1
RSLCDATE	48		2
RSLCSID	60		2
RSLCTIME	52		2
RSLCUID	58		2
RSMOVINGINVOL	6E		2
RSMOVINGOUTVOL	74		2
RSOLDVOL	7A		2
RSRCEND	90		2
RSRMSTID	2		2
RSTYPE	0		2
RSTYPE2	1		2
RSUCDATE	80		2
RSUCTIME	8A		2
RSVOLSER	68		2

Extract data set volume record: EDGRVEXT

EDGRVEXT maps the volume record in the DFSMSrmm extract data set. See [“Using the security report”](#) on page 81 for more information about the DFSMSrmm extract data set.

Common name: RMM Extract File Volume Record
 Macro ID: EDGRVEXT
 DSECT name: RVEXT
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: V
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
 Size: See STRUCTURE length
 Created by: EDGHSKP
 Pointed to by: Assembler - USING on RVEXT
 PL/X - %INCLUDE EDGRVEXT
 Serialization: None
 Function: Maps the RVEXT structure to identify
 the details within the RMM extract file
 volume record.
 In this record the date format depends on the DATEFORM selected
 by EDGHSKP execution parameter or the parmlib specified value.
 -
 Section RVEXT1 contains the data elements which are copied to
 section XVEXT1 of the extended (X) record as
 one block.
 Section RVEXT2 contains the data elements which are copied to
 section XXMERGED of the extended (X) record on
 field level.

Table 33. Structure RVEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	1106	RVEXT	
0	(0)	CHARACTER	796	RVEXT1	First data section
0	(0)	CHARACTER	1	RVTYPE	Record type: C'V'
4	(4)	CHARACTER	6	RVVOLSER	Volume serial number
10	(A)	CHARACTER	6	RVPVOL	Previous volume in sequence
16	(10)	CHARACTER	6	RVNVOL	Next volume in sequence
22	(16)	CHARACTER	6	RVSTVOL	Stacked volume serial number
RVMDMVID: Is a unique token assigned to every volume and every data set in a multi volume set.					
28	(1C)	CHARACTER	8	RVMDMVID	Multi data set multi volume ID
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these fields across multiple record types.					
48	(30)	CHARACTER	10	RVCRCRDATE	Create date of volume record
58	(3A)	CHARACTER	6	RVCRCRTIME	Create time (HHMMSS) of volume record
64	(40)	CHARACTER	8	RVCRCRSID	Create system ID of volume record
72	(48)	CHARACTER	10	RVLCDATE	Last change date of volume record
82	(52)	CHARACTER	6	RVLCTIME	Last change time (HHMMSS) of volume record
88	(58)	CHARACTER	8	RVLCLUID	Last change user ID of volume record
96	(60)	CHARACTER	8	RVLCSID	Last change system ID of volume record
104	(68)	CHARACTER	10	RVEXPDT0	Expiration date - original
114	(72)	CHARACTER	10	RVEXPDT	Expiration date - current
124	(7C)	CHARACTER	4	RVDEN	Recording density
128	(80)	CHARACTER	1	RVCOMP	Compaction used: Y, N
129	(81)	CHARACTER	4	RVDSNNO_OLD	Number of data sets on volume <=9999

Table 33. Structure RVEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
133	(85)	CHARACTER	10	RVTUSE	Tape usage in kilobytes
143	(8F)	CHARACTER	4	RVUSE_OLD	Volume use count <=9999, a -1 value indicates to use RVAPPUSE
147	(93)	CHARACTER	4	RVLABN01_OLD	Label number of first file <=9999
151	(97)	CHARACTER	8	RVSTORID	Current location name, one of: SHELF, LOCAL, REMOTE, DISTANT, installation-defined store, SMS-defined library name
159	(9F)	CHARACTER	8	RVDEST	Destination name, one of: SHELF, LOCAL, REMOTE, DISTANT, installation-defined store, SMS-defined library name
<p>Bin Numbers: If a volume is not moving (RVTRANS=N), and is in a storage location, RVSTBIN contains the current bin number and RVOBIN the bin number in the previous location. If a volume is moving (RVTRANS=Y), and moving to a storage location, RVSTBIN contains the target bin number and RVOBIN the bin number in the source location.</p>					
167	(A7)	CHARACTER	6	RVSTBIN	Store bin number
173	(AD)	CHARACTER	6	RVOBIN	Old bin number
179	(B3)	CHARACTER	10	RVSTDATE	Date stored
189	(BD)	CHARACTER	10	RVRETDAT	Retention date calculated by VRS processing
199	(C7)	CHARACTER	8	RVLONLOC	Loan location
207	(CF)	CHARACTER	8	RVOLNLOC	Previous loan location
215	(D7)	CHARACTER	10	RVLRDDAT	Date volume last read
225	(E1)	CHARACTER	10	RVLWTDAT	Date volume last written
<p>Assigned date and time: These fields are set each time a volume changes either from or to scratch status.</p>					
235	(EB)	CHARACTER	10	RVASDATE	Assigned date
245	(F5)	CHARACTER	6	RVASTIME	Assigned time (HHMMSS)
251	(FB)	CHARACTER	8	RVOWNID	Volume owner user ID
259	(103)	CHARACTER	8	RVCRUID	Creating user ID
267	(10B)	CHARACTER	8	RVCRJOB	Creating job name
275	(113)	CHARACTER	8	RVSECLEV	Security level - short
283	(11B)	CHARACTER	30	RVSECLNG	Security level - long
313	(139)	CHARACTER	4	RVVOLSEQ	Volume sequence number
317	(13D)	CHARACTER	8	RVSTATUS	Volume status, one of: MASTER, USER, SCRATCH, INIT, ENTRY
325	(145)	CHARACTER	1	RVPENDRS	Volume pending release: Y, N
326	(146)	CHARACTER	1	RVVRS	Volume retained by VRS: Y, N
327	(147)	CHARACTER	1	RVLOAN	Volume on load: Y, N
328	(148)	CHARACTER	1	RVOPEN	Volume is opened: Y, N
329	(149)	CHARACTER	1	RVOCER	Volume recorded by O/C/E0V: Y,
330	(14A)	CHARACTER	1	RVDEFRET	Parmlib default retention used to generate the volume expiration date: Y, N

Table 33. Structure RVEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
331	(14B)	CHARACTER	1	RVPTAPE	Program product tape: Y, N
Labels: The RVLABEL field provides information about what label types may be written on the volume. If BLP output has been used, the volume may no longer match this information. Any BLP output beyond the first file on a volume is not recorded by RMM.					
332	(14C)	CHARACTER	3	RVLABEL	Label type: SL, AL, NL, SUL, AUL
335	(14F)	CHARACTER	1	RVBLP	Volume last written BLP: Y, N
Release Actions: The following 5 fields list the actions to be set for the volume when it is released. These are not the current actions. See RVACTION for the pending actions.					
336	(150)	CHARACTER	8	RVRETS	Return action: OWNER, SCRATCH
344	(158)	CHARACTER	1	RVREPL	Replace on release: Y, N
345	(159)	CHARACTER	1	RVINIT	Reinitialize: Y, N
346	(15A)	CHARACTER	1	RVERASE	Security erase: Y, N
347	(15B)	CHARACTER	1	RVNTFY	Notify owner: Y, N
348	(15C)	CHARACTER	1	RVOWNAC	Owner access: R, U, A
349	(15D)	CHARACTER	1	RVUSERAC	User access: R, U
350	(15E)	CHARACTER	1	RVVMUSE	VM use: Y, N
351	(15F)	CHARACTER	1	RVMVSUSE	MVS use: Y, N
352	(160)	CHARACTER	8	RVNAME	Media name
352	(160)	CHARACTER	8	RVUNIT	Old name for RVNAME field
360	(168)	CHARACTER	6	RVRACK	Rack number
366	(16E)	CHARACTER	4	RVTRERR_OLD	Temporary read errors <=9999
370	(172)	CHARACTER	4	RVTWERR_OLD	Temporary write errors <=9999
374	(176)	CHARACTER	4	RVPRERR_OLD	Permanent read errors <=9999
378	(17A)	CHARACTER	4	RVPWERR_OLD	Permanent write errors <=9999
Product Information: Includes number, release and feature code					
382	(17E)	CHARACTER	8	RVPPNUM	Program product number
390	(186)	CHARACTER	6	RVVER	Version / release / modification level
396	(18C)	CHARACTER	4	RVFEAT	Feature code
400	(190)	CHARACTER	40	RVACCINF	Accounting information
440	(1B8)	CHARACTER	30	RVUSEFLD	User description
470	(1D6)	CHARACTER	3	RVACCLST	Number of access list entries
473	(1D9)	CHARACTER	96	RVAUTIDS	Authorized user IDs area
569	(239)	CHARACTER	8	RVHLOC	Home location name
577	(241)	CHARACTER	1	RVTRANS	Volume in transit: Y, N
578	(242)	CHARACTER	1	RVLOCTYP	Location type, one of: A-auto, M-manual, S-store, blank
579	(243)	CHARACTER	1	RVDESTYP	Destination type, one of: A-auto, M-manual, S-store, blank
580	(244)	CHARACTER	8	RVOLOC	Previous location name
588	(24C)	CHARACTER	8	RVSGNAME	Storage group name

Table 33. Structure RVEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
596	(254)	CHARACTER	8	RVMEDREC	Volume recording format, one of: *, 18TRACK, 36TRACK, 128TRACK, 256TRACK, 384TRACK, EFMT1, EFMT2, EEFMT2, EFMT3, EEFMT3, EFMT4, OR EEFMT4
604	(25C)	CHARACTER	8	RVMEDTY	Volume media type, one of: *, CST, ECCST, HPCT, EHPCT, MEDIA5 - ETC, MEDIA6 - EWTC, MEDIA7 - EETC, MEDIA8 - EEWTC, MEDIA9 - EXTC, MEDIA10 - EXWTC MEDIA13 - EAETC
612	(264)	CHARACTER	8	RVMEDCMP	Compaction technique, one of: *, NONE, YES
620	(26C)	CHARACTER	8	RVMEDATR	Special attributes: NONE, RDCOMPAT
628	(274)	CHARACTER	44	RVDSNAM1	First file data set name
672	(2A0)	CHARACTER	1	RVMVMODE	Move mode: A-automove, M-manualmove
673	(2A1)	CHARACTER	1	RVDSNREC	Data set recording: Y, N
674	(2A2)	CHARACTER	2	RVALVERS	ANSI label versions
674	(2A2)	CHARACTER	1	RVALCUR	Current label version
675	(2A3)	CHARACTER	1	RVALREQ	Required label version
676	(2A4)	CHARACTER	8	RVBMEDN	Bin media name
684	(2AC)	CHARACTER	8	RVOBMEDN	Old bin media name
692	(2B4)	CHARACTER	8	RVNLOC	Next location name
700	(2BC)	CHARACTER	4	RVLUDEV	Last used drive
Pending Actions: The following fields list the actions required for the volume. See RVRETS for the actions set when the volume is released.					
704	(2C0)	CHARACTER	8	RVACTION	Pending actions:
704	(2C0)	CHARACTER	1	RVACTSCR	Return to scratch: Y, N
705	(2C1)	CHARACTER	1	RVACTREP	Replace volume: Y, N
706	(2C2)	CHARACTER	1	RVACTRET	Return to owner: Y, N
707	(2C3)	CHARACTER	1	RVACTINI	Initialize: Y, N
708	(2C4)	CHARACTER	1	RVACTERA	Erase: Y, N
709	(2C5)	CHARACTER	1	RVACTNOT	Notify: Y, N
710	(2C6)	CHARACTER	2	RVACTRSV	Reserved
712	(2C8)	CHARACTER	1	RVABEND	Data set closed by ABEND: Y, N
713	(2C9)	CHARACTER	1	RVHOMTYP	Home location type, one of: A-AUTO, M-MANUAL, blank
714	(2CA)	CHARACTER	1	RVNEXTYP	Next location type, one of: A-AUTO, M-MANUAL, S-STORE, blank
715	(2CB)	CHARACTER	1	RVVOLTYPE	Volume type
716	(2CC)	CHARACTER	8	RVVRSREL	VRS release options:
716	(2CC)	CHARACTER	1	RVRELI XD	Ignore expiration date: Y, N
717	(2CD)	CHARACTER	1	RVRELSI	Scratch immediate Y, N
718	(2CE)	CHARACTER	6	RVRELRSV	Reserved
724	(2D4)	CHARACTER	16	RVCONTNR	In container name
724	(2D4)	CHARACTER	6	RVCONTNR_STV	Stacked volume container
740	(2E4)	CHARACTER	4	RVRQPRTY	Movement priority

Table 33. Structure RVEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
744	(2E8)	CHARACTER	10	RVCAPACITY	Volume capacity in megabytes RVCAPACITY is factored
754	(2F2)	CHARACTER	1	RVRBYSET	Volume is retained by set: Y, N
755	(2F3)	CHARACTER	1	RVSTACKVOL_ENABLED	Stacked volume records enabled and synchronized
756	(2F4)	CHARACTER	8	RVEXPTOKEN	Export token, unique value created at start of export to a new stacked volume
764	(2FC)	CHARACTER	10	RVSTACKED_VOLCOUNT	Count of volumes stacked on a volume
774	(306)	CHARACTER	3	RVPERCENT	Volume percentage full
777	(309)	CHARACTER	5	RVDSNNO	Number of data sets on volume
782	(30E)	CHARACTER	5	RVLABN01	Label number of first file
787	(313)	CHARACTER	8	RVDCRSID	First file creation system ID
796	(31C)	CHARACTER	310	RVEXT2	Second data section
796	(31C)	CHARACTER	6	RVDESTBIN	Destination bin number
802	(322)	CHARACTER	8	RVDESTBINMEDIA	Destination bin media number
810	(32A)	CHARACTER	6	RVVOL1	VOL1 label volser
816	(330)	CHARACTER	8	RVVENDOR	Vendor information
824	(338)	CHARACTER	24	RVWWID	Unique world wide ID
848	(350)	CHARACTER	5	RVVWMC	Write mount count
853	(355)	CHARACTER	5	RVTRERR	Temporary read errors
858	(35A)	CHARACTER	5	RVTWERR	Temporary write errors
863	(35F)	CHARACTER	5	RVPRERR	Permanent read errors
868	(364)	CHARACTER	5	RVPWERR	Permanent write errors
RvKeyLabel1/RvKeyLabel2: These fields may contain unprintable characters.					
873	(369)	CHARACTER	64	RVKEYLABEL1	Encryption key label 1
937	(3A9)	CHARACTER	5	RVKEYENCOD1	Encryption encoding method 1
942	(3AE)	CHARACTER	64	RVKEYLABEL2	Encryption key label 2
1006	(3EE)	CHARACTER	5	RVKEYENCOD2	Encryption encoding method 2
1011	(3F3)	CHARACTER	8	RVMEDINF	Media information
1019	(3FB)	CHARACTER	1	RVIRMMUSE	IRMM use: Y, N
1020	(3FC)	CHARACTER	1	RVWORM	WORM: Y, N
1021	(3FD)	CHARACTER	2	RVFACTOR	Space/size factor, applies to RVCAPACITY, RVAPPUSE, RVPhys_Used
1023	(3FF)	CHARACTER	10	RVAPPUSE	Data written, RVAPPUSE is factored
1033	(409)	CHARACTER	5	RVUSE	Volume use count
1038	(40E)	CHARACTER	1	RVHOLD	Volume hold: Y, N
1039	(40F)	CHARACTER	10	RVESB	Expdt set by
1049	(419)	CHARACTER	10	RVUCDATE	Last "user" change date
1059	(423)	CHARACTER	6	RVUCTIME	Last "user" change time (HHMMSS)
1065	(429)	CHARACTER	5	RVRETMET	Retention Method
1070	(42E)	CHARACTER	10	RVRMSB	Retention Method Set By

Table 33. Structure RVEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1080	(438)	CHARACTER	6	RVCOMP_RAT	Compression ratio for the volume in hundredths. Always showing 2 decimal places.
1086	(43E)	CHARACTER	10	RVPHYS_USED	Actual space used by all files after compaction (FACTORED)
1096	(448)	CHARACTER	9	RVEXRB	EXPDT RetainBy
1105	(451)	CHARACTER	1	RVEDM	Volume EDM: Y, N
1106	(452)	CHARACTER	0	RVCEND	End of RVEXT

Table 34. Constants for RVEXT

Len	Type	Value	Name	Description
Constants				
1	CHARACTER	L	RVVOLTYPE_LOGICAL	
1	CHARACTER	P	RVVOLTYPE_PHYSICAL	
1	CHARACTER	S	RVVOLTYPE_STACKED	
2	CHARACTER	MB	RVFACTOR_MB	
2	CHARACTER	GB	RVFACTOR_GB	
2	CHARACTER	TB	RVFACTOR_TB	
10	CHARACTER		RVESB_UNDEFINED	
10	CHARACTER	CMD	RVESB_CMD	
10	CHARACTER	CMD_DEF	RVESB_CMD_DEF	
10	CHARACTER	CMD_VOLCAT	RVESB_CMD_VOLCAT	
10	CHARACTER	OCE_JFCB	RVESB_OCE_JFCB	
10	CHARACTER	OCE_EXIT	RVESB_OCE_EXIT	
10	CHARACTER	OCE_DEF	RVESB_OCE_DEF	
10	CHARACTER	OCE_MAX	RVESB_OCE_MAX	
10	CHARACTER	OCE_VOLCAT	RVESB_OCE_VOLCAT	
10	CHARACTER	LCS	RVESB_LCS	
10	CHARACTER	LCS_DEF	RVESB_LCS_DEF	
10	CHARACTER	TVEXTPURGE	RVESB_TVEXTPURGE	
10	CHARACTER	CNVT	RVESB_CNVT	
10	CHARACTER	EXPORT	RVESB_EXPORT	
10	CHARACTER	LASTREF	RVESB_LASTREF	
10	CHARACTER	OCE_MC	RVESB_OCE_MC	
10	CHARACTER	CATRETPD	RVESB_CATRETPD	
10	CHARACTER	CATLG_DAYS	RVESB_CATLG_DAYS	
10	CHARACTER	DEFTABLE	RVESB_DEFTABLE	
5	CHARACTER	VRSEL	RVRETMET_VRSEL	
5	CHARACTER	EXPDT	RVRETMET_EXPDT	
10	CHARACTER	UNDEFINED	RVRMSB_UNDEFINED	
10	CHARACTER	CMD	RVRMSB_CMD	
10	CHARACTER	CMD_DEF	RVRMSB_CMD_DEF	
10	CHARACTER	OCE_DEF	RVRMSB_OCE_DEF	

Table 34. Constants for RVEXT (continued)

Len	Type	Value	Name	Description
10	CHARACTER	OCE_EXIT	RVRMSB_OCE_EXIT	
10	CHARACTER	LCS_DEF	RVRMSB_LCS_DEF	
10	CHARACTER	CNVT	RVRMSB_CNVT	
10	CHARACTER	EXPORT_DEF	RVRMSB_EXPORT_DEF	
10	CHARACTER	INERS_DEF	RVRMSB_INERS_DEF	
10	CHARACTER	MC_ATTR	RVRMSB_MC_ATTR	
10	CHARACTER	DEFTABLE	RVRMSB_DEFTABLE	
9	CHARACTER	VOLUME	RVEXRB_VOLUME	
9	CHARACTER	FIRSTFILE	RVEXRB_FIRSTFILE	
9	CHARACTER	SET	RVEXRB_SET	

Table 35. Cross Reference for RVEXT

Name	Offset	Hex Tag	Level
RVABEND	2C8		3
RVACCINF	190		3
RVACCLST	1D6		3
RVACTERA	2C4		4
RVACTINI	2C3		4
RVACTION	2C0		3
RVACTNOT	2C5		4
RVACTREP	2C1		4
RVACTRET	2C2		4
RVACTRSV	2C6		4
RVACTSCR	2C0		4
RVALCUR	2A2		4
RVALREQ	2A3		4
RVALVERS	2A2		3
RVAPPUSE	3FF		3
RVASDATE	EB		3
RVASTIME	F5		3
RVAUTIDS	1D9		3
RVBLP	14F		3
RVBMEDN	2A4		3
RVCAPACITY	2E8		3
RVCOMP	80		3
RVCOMP_RAT	438		3
RVCONTNR	2D4		3
RVCONTNR_STV	2D4		4
RVCRDATE	30		3
RVCRJOB	10B		3
RVCRSID	40		3
RVCRTIME	3A		3
RVCRUID	103		3

Table 35. Cross Reference for RVEXT (continued)

Name	Offset	Hex Tag	Level
RVDCRSID	313		3
RVDEFRET	14A		3
RVDEN	7C		3
RVDEST	9F		3
RVDESTBIN	31C		3
RVDESTBINMEDIA	322		3
RVDESTYP	243		3
RVDSNAM1	274		3
RVDSNNO	309		3
RVDSNNO_OLD	81		3
RVDSNREC	2A1		3
RVEDM	451		3
RVERASE	15A		3
RVESB	40F		3
RVEXPDT	72		3
RVEXPDT0	68		3
RVEXPTOKEN	2F4		3
RVEXRB	448		3
RVEXT	0		1
RVEXT1	0		2
RVEXT2	31C		2
RVFACTOR	3FD		3
RVFEAT	18C		3
RVHLOC	239		3
RVHOLD	40E		3
RVHOMTYP	2C9		3
RVINIT	159		3
RVIRMMUSE	3FB		3
RVKEYENCOD1	3A9		3
RVKEYENCOD2	3EE		3
RVKEYLABEL1	369		3
RVKEYLABEL2	3AE		3
RVLABEL	14C		3
RVLABNO1	30E		3
RVLABNO1_OLD	93		3
RVLCDATE	48		3
RVLCSID	60		3
RVLCTIME	52		3
RVLCUID	58		3
RVLOAN	147		3
RVLOCTYP	242		3
RVLONLOC	C7		3

Table 35. Cross Reference for RVEXT (continued)			
Name	Offset	Hex Tag	Level
RVLRDDAT	D7		3
RVLUDEV	2BC		3
RVLWTDAT	E1		3
RVMDMVID	1C		3
RVMEDATR	26C		3
RVMEDCMP	264		3
RVMEDINF	3F3		3
RVMEDREC	254		3
RVMEDTY	25C		3
RVMMODE	2A0		3
RVMSUSE	15F		3
RVNAME	160		3
RVNEXTYP	2CA		3
RVNLOC	2B4		3
RVNTFY	15B		3
RVNVOL	10		3
RVOBIN	AD		3
RVOBMEDN	2AC		3
RVOCER	149		3
RVOLNLOC	CF		3
RVOLOC	244		3
RVOPEN	148		3
RVOWNAC	15C		3
RVOWNID	FB		3
RVPENDRS	145		3
RVPERCENT	306		3
RVPHYS_USED	43E		3
RVPPNUM	17E		3
RVPTAPE	14B		3
RVPRERR	35F		3
RVPRERR_OLD	176		3
RVPVOL	A		3
RVPWERR	364		3
RVPWERR_OLD	17A		3
RVRACK	168		3
RVRBYSET	2F2		3
RVRCEND	452		2
RVRELIXD	2CC		4
RVRELSV	2CE		4
RVRELSI	2CD		4
RVREPL	158		3
RVRETDAT	BD		3

Table 35. Cross Reference for RVEXT (continued)

Name	Offset	Hex Tag	Level
RVRETMET	429		3
RVRETS	150		3
RVRMSB	42E		3
RVRQPRTY	2E4		3
RVSECLEV	113		3
RVSECLNG	11B		3
RVSGNAME	24C		3
RVSTACKED_VOLCOUNT	2FC		3
RVSTACKVOL_ENABLED	2F3		3
RVSTATUS	13D		3
RVSTBIN	A7		3
RVSTDATE	B3		3
RVSTORID	97		3
RVSTVOL	16		3
RVTRANS	241		3
RVTRERR	355		3
RVTRERR_OLD	16E		3
RVTUSE	85		3
RVTWERR	35A		3
RVTWERR_OLD	172		3
RVTYPE	0		3
RVUCDATE	419		3
RVUETIME	423		3
RVUNIT	160		4
RVUSE	409		3
RVUSE_OLD	8F		3
RVUSEFLD	1B8		3
RVUSERAC	15D		3
RVVENDOR	330		3
RVVER	186		3
RVVMUSE	15E		3
RVVOLSEQ	139		3
RVVOLSER	4		3
RVVOLTYPE	2CB		3
RVVOL1	32A		3
RVVRS	146		3
RVVRSREL	2CC		3
RVVWMC	350		3
RVWORM	3FC		3
RVWWID	338		3

Extract data set extended data set record: EDGRXEXT

EDGRXEXT maps the extended data set record in the DFSMSrmm extract data set. See [“Using the extract data set”](#) on page 50 for more information about the DFSMSrmm extract data set.

Common name: RMM Extract File Extended Data Set Record
 Macro ID: EDGRXEXT
 DSECT name: RXEXT
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: X
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
 Size: See STRUCTURE length
 Created by: EDGHSKP
 Pointed to by: Assembler - USING on RXEXT
 PL/X - %INCLUDE EDGRXEXT
 Serialization: None
 Function: Maps the RXEXT structure to identify
 data set details plus its volume details
 within the RMM extract file extended
 record.
 In this record the date format depends on the DATEFORM selected
 by EDGHSKP execution parameter or the parmlib specified value.
 -
 The extended extract record is a combination of the data set
 record and the belonging volume record with two additional data
 elements:
 XVMVDSNAM1 - first data set name of the volume set
 XVVOLCNT - last volume sequence number of the volume set
 -
 The PL/X structure is divided into 5 parts on structure level 2:
 XVEXT1 - volume section 1: same as RVEXT1 in RVEXT, 796 bytes
 XVVOLCNT - generated data element for X record
 XDEXT1 - data set section 1: same as RDEXT1 in RDEXT, 477 bytes
 XVMVDSNAM1 - generated data element for X record
 XXMERGED - mixed data area for data elements from the sections
 RVEXT2 and RDEXT2

Table 36. Structure RXEXT

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	1772	RXEXT	
0	(0)	CHARACTER	796	XVEXT1	Section 1 of volume record
0	(0)	CHARACTER	1	RXTYPE	Record type - C'X'
4	(4)	CHARACTER	6	XVVOLSER	Volume serial number
10	(A)	CHARACTER	6	XVPVOL	Previous volume in sequence
16	(10)	CHARACTER	6	XNVVOL	Next volume in sequence
22	(16)	CHARACTER	6	XVSTVOL	Stacked volume serial number
XVMDMVID: Is a unique token assigned to every volume and every data set in a multi volume set.					
28	(1C)	CHARACTER	8	XVMDMVID	Multi data set multi volume ID
Start of common fields: The common fields are in the same place in each record type in the report extract file. This allows common processing of these field across multiple record types.					
48	(30)	CHARACTER	10	XVCRDATE	Create date of volume record
58	(3A)	CHARACTER	6	XVCRTIME	Create time of volume record (HHMMSS)
64	(40)	CHARACTER	8	XVCRSID	Create system ID of volume record
72	(48)	CHARACTER	10	XVLCDATE	Last change date of volume record

Table 36. Structure RXEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
82	(52)	CHARACTER	6	XVLCTIME	Last change time of volume record (HHMMSS)
88	(58)	CHARACTER	8	XVLCUID	Last change user ID of volume record
96	(60)	CHARACTER	8	XVLCSID	Last change system ID of volume record
104	(68)	CHARACTER	10	XVEXPDTO	Expiration date - original
114	(72)	CHARACTER	10	XVEXPDT	Expiration date - current
124	(7C)	CHARACTER	4	XVDEN	Recording density
128	(80)	CHARACTER	1	XVCOMP	Compaction used: Y, N
133	(85)	CHARACTER	10	XVTUSE	Tape usage in kilobytes, a -1 value indicates to use XVAPPUSE
143	(8F)	CHARACTER	4	XVUSE_OLD	Volume use count <=9999
151	(97)	CHARACTER	8	XVSTORID	Current location name, one of: SHELF, LOCAL, REMOTE, DISTANT, installation-defined store, SMS-defined library name
159	(9F)	CHARACTER	8	XVDEST	Destination name, one of: SHELF, LOCAL, REMOTE, DISTANT, installation-defined store, SMS-defined library name
<p>Bin Numbers: If a volume is not moving (XVTRANS=N), and is in a storage location, XVSTBIN contains the current bin number and XVOBIN the bin number in the previous location. If a volume is moving (XVTRANS=Y), and moving to a storage location, XVSTBIN contains the target bin number and XVOBIN the bin number in the source location.</p>					
167	(A7)	CHARACTER	6	XVSTBIN	Store bin number
173	(AD)	CHARACTER	6	XVOBIN	Old bin number
179	(B3)	CHARACTER	10	XVSTDATE	Date stored
189	(BD)	CHARACTER	10	XVRETDAT	Retention date calculated by VRS
199	(C7)	CHARACTER	8	XVLONLOC	Loan location
207	(CF)	CHARACTER	8	XVOLNLOC	Previous loan location
215	(D7)	CHARACTER	10	XVLRDDAT	Date volume last read
225	(E1)	CHARACTER	10	XVLWTDAT	Date volume last written
<p>Assigned date and time: These fields are set each time a volume changes either from or to scratch status.</p>					
235	(EB)	CHARACTER	10	XVASDATE	Assigned date
245	(F5)	CHARACTER	6	XVASTIME	Assigned time (HHMMSS)
251	(FB)	CHARACTER	8	XVOWNID	Volume owner user ID
259	(103)	CHARACTER	8	XVCRUID	Creating user ID
267	(10B)	CHARACTER	8	XVCRJOB	Creating job name
275	(113)	CHARACTER	8	XVSECLEV	Security level - short
283	(11B)	CHARACTER	30	XVSECLNG	Security level - long
313	(139)	CHARACTER	4	XVVOLSEQ	Volume sequence number
317	(13D)	CHARACTER	8	XVSTATUS	Volume status, one of: MASTER, USER, SCRATCH, INIT, ENTRY
325	(145)	CHARACTER	1	XVPENDRS	Volume pending release: Y, N

Table 36. Structure RXEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
326	(146)	CHARACTER	1	XVVRS	Volume retained by VRS: Y, N
327	(147)	CHARACTER	1	XVLOAN	Volume on loan: Y, N
328	(148)	CHARACTER	1	XVOPEN	Volume is opened: Y, N
329	(149)	CHARACTER	1	XVOCER	Volume recorded by O/C/EOV: Y,
330	(14A)	CHARACTER	1	XVDEFRET	Parmlib default retention used to generate the volume expiration date: Y, N
331	(14B)	CHARACTER	1	XVPPTAPE	Program product tape: Y, N
Labels: The XVLABEL field provides information about what label types may be written on the volume. If BLP output has been used, the volume may no longer match this information. Any BLP output beyond file 1 on a volume is not recorded by RMM.					
332	(14C)	CHARACTER	3	XVLABEL	Label type: SL, AL, NL, SUL, AUL
335	(14F)	CHARACTER	1	XVBPL	Volume last written BLP: Y, N
Release Actions: The following 5 fields list the actions to be set for the volume when it is released. These are not the current actions. See XVACTION for the pending actions.					
336	(150)	CHARACTER	8	XVRETS	Return action: OWNER, SCRATCH
344	(158)	CHARACTER	1	XVREPL	Replace on release: Y, N
345	(159)	CHARACTER	1	XVINIT	Reinitialize: Y, N
346	(15A)	CHARACTER	1	XVERASE	Security erase: Y, N
347	(15B)	CHARACTER	1	XVNTFY	Notify owner: Y, N
348	(15C)	CHARACTER	1	XVOWNAC	Owner access: R, U, A
349	(15D)	CHARACTER	1	XVUSERAC	User access: R, U
350	(15E)	CHARACTER	1	XVVMUSE	VM use: Y, N
351	(15F)	CHARACTER	1	XVMVSUSE	MVS use: Y, N
352	(160)	CHARACTER	8	XVNAME	Media name
352	(160)	CHARACTER	8	XVUNIT	Media name
360	(168)	CHARACTER	6	XVRACK	Rack number
366	(16E)	CHARACTER	4	XVTRERR_OLD	Temporary read errors <=9999
370	(172)	CHARACTER	4	XVTWERR_OLD	Temporary write errors <=9999
374	(176)	CHARACTER	4	XVPRERR_OLD	Permanent read errors <=9999
378	(17A)	CHARACTER	4	XVPWERR_OLD	Permanent write errors <=9999
Product Information: Includes number, release and feature code					
382	(17E)	CHARACTER	8	XVPPNUM	Program product number
390	(186)	CHARACTER	6	XVVER	Version / release / modification level
396	(18C)	CHARACTER	4	XVFEAT	Feature code
400	(190)	CHARACTER	40	XVACCINF	Accounting information
440	(1B8)	CHARACTER	30	XVUSEFLD	User description
470	(1D6)	CHARACTER	3	XVACCLST	Number of access list entries
473	(1D9)	CHARACTER	96	XVAUTIDS	Authorized user IDs area
569	(239)	CHARACTER	8	XVHLOC	Home location name

Table 36. Structure RXEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
577	(241)	CHARACTER	1	XVTRANS	Volume in transit: Y, N
578	(242)	CHARACTER	1	XVLOCTYP	Location type, one of: A-Auto, M-Manual, S-Store, blank
579	(243)	CHARACTER	1	XVDESTYP	Destination type, one of: A-Auto, M-Manual, S-Store, blank
580	(244)	CHARACTER	8	XVOLOC	Previous location name
588	(24C)	CHARACTER	8	XVSGNAME	Storage group name
596	(254)	CHARACTER	8	XVMEDREC	Volume recording format, one of: *, 18TRACK, 36TRACK, 128TRACK, 256TRACK, 384TRACK, EFMT1, EFMT2, EEFMT2, EFMT3, EEFMT3, EFMT4, EEFMT4
604	(25C)	CHARACTER	8	XVMEDTY	Volume media type, one of: *, CST, ECCST, HPCT, EHPCT, MEDIA5 - ETC, MEDIA6 - EWTC, MEDIA7 - EETC, MEDIA8 - EEWTC, MEDIA9 - EXTC, MEDIA10 - EXWTC, MEDIA11 - EATC, MEDIA12 - EAWTC, MEDIA13 - EAETC
612	(264)	CHARACTER	8	XVMEDCMP	Compaction technique, one of: *, NONE, YES
620	(26C)	CHARACTER	8	XVMEDATR	Special attributes: NONE, RDCOMPAT
628	(274)	CHARACTER	44	XVDSNAM1	First file data set name
672	(2A0)	CHARACTER	1	XVMVMODE	Move mode: A-Automove, M-Manualmove
673	(2A1)	CHARACTER	1	XVDSNREC	Data set recording: Y, N
674	(2A2)	CHARACTER	2	XVALVERS	ANSI label versions
674	(2A2)	CHARACTER	1	XVALCUR	Current label version
675	(2A3)	CHARACTER	1	XVALREQ	Required label version
676	(2A4)	CHARACTER	8	XVBMEDN	Bin media name
684	(2AC)	CHARACTER	8	XVOBMEDN	Old bin media name
692	(2B4)	CHARACTER	8	XVNLOC	Next location name
700	(2BC)	CHARACTER	4	XVLUDEV	Last used drive
Pending Actions: The following fields list the actions required for the volume. See XVRETS for the actions set when the volume is released.					
704	(2C0)	CHARACTER	8	XVACTION	Pending actions
704	(2C0)	CHARACTER	1	XVACTSCR	Return to scratch: Y, N
705	(2C1)	CHARACTER	1	XVACTREP	Replace volume: Y, N
706	(2C2)	CHARACTER	1	XVACTRET	Return to owner: Y, N
707	(2C3)	CHARACTER	1	XVACTINI	Initialize: Y, N
708	(2C4)	CHARACTER	1	XVACTERA	Erase: Y, N
709	(2C5)	CHARACTER	1	XVACTNOT	Notify: Y, N
710	(2C6)	CHARACTER	2	XVACTRSV	Reserved
712	(2C8)	CHARACTER	1	XVABEND	Data set closed by ABEND: Y, N
713	(2C9)	CHARACTER	1	XVHOMTYP	Home location type, one of: A-Auto, M-Manual, blank
714	(2CA)	CHARACTER	1	XVNEXTYP	Next location type, one of: A-Auto, M-Manual, S-Store, blank
715	(2CB)	CHARACTER	1	XVVOLTYPE	Volume type
716	(2CC)	CHARACTER	8	XVRSREL	VRS release options

Table 36. Structure RXEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
716	(2CC)	CHARACTER	1	XVREIXD	Ignore expiration data: Y, N
717	(2CD)	CHARACTER	1	XVRELSI	Scratch immediate: Y, N
718	(2CE)	CHARACTER	6	XVRELRV	Reserved
724	(2D4)	CHARACTER	16	XVCONTNR	In container name
724	(2D4)	CHARACTER	6	XVCONTNR_STV	Stacked volume container
740	(2E4)	CHARACTER	4	XVRQPRTY	Movement priority
744	(2E8)	CHARACTER	10	XVCAPACITY	Volume capacity in megabytes XVCAPACITY is factored
754	(2F2)	CHARACTER	1	XVRBYSET	Volume is retained by set: Y, N
755	(2F3)	CHARACTER	1	XVSTACKVOL_ENABLED	Stacked volume records enabled and synchronized
756	(2F4)	CHARACTER	8	XVEXPTOKEN	Export token, unique value created at start of export to a new stacked volume
764	(2FC)	CHARACTER	10	XVSTACKED_VOLCOUNT	Count of volumes stacked on a volume
774	(306)	CHARACTER	3	XVPERCENT	Volume percentage full
777	(309)	CHARACTER	5	XVDSNNO	Number of data sets on volume
782	(30E)	CHARACTER	5	XVLBN01	Label number of first file
787	(313)	CHARACTER	8	XVDCRSID	First file creation system ID
End of volume part section 1					
796	(31C)	CHARACTER	4	XVVOLCNT	Last volume sequence number of a volume set
Start of data set part section 1					
800	(320)	CHARACTER	477	XDEXT1	Data set section 1
804	(324)	CHARACTER	44	XDDSNAME	Data set name
848	(350)	CHARACTER	10	XDCRDATE	Create date of data set record
858	(35A)	CHARACTER	6	XDCRTIME	Create time (HHMMSS) of data set record
864	(360)	CHARACTER	8	XDCRSID	Create system ID of data set record
872	(368)	CHARACTER	10	XDLCDATE	Last change date of data set record
882	(372)	CHARACTER	6	XDLCTIME	Last change time (HHMMSS) of data set record
888	(378)	CHARACTER	8	XDLGUID	Last change user ID of data set record
896	(380)	CHARACTER	8	XDLCSID	Last change system ID of data set record
End of common fields					
914	(392)	CHARACTER	4	XDUNITAD	Creating drive address
918	(396)	CHARACTER	4	XDRECFM	Record format
922	(39A)	CHARACTER	4	XDVOLSEQ	Volume sequence number
926	(39E)	CHARACTER	6	XDLRECL	Logical record length
932	(3A4)	CHARACTER	6	XDBLKSZ	Physical block size
938	(3AA)	CHARACTER	8	XDBLKCNT_OLD	Block count if <=99999999
946	(3B2)	CHARACTER	8	XDOWNDSN	Data set owner

Table 36. Structure RXEXT (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
954	(3BA)	CHARACTER	8	XDSECLEV	Security level - short
962	(3C2)	CHARACTER	30	XDSECLNG	Security level - long
992	(3E0)	CHARACTER	1	XDCOMP	Compaction used: Y, N
993	(3E1)	CHARACTER	10	XDLRDDAT	Date data set last read
1003	(3EB)	CHARACTER	10	XDLWTDAT	Date data set last written
1013	(3F5)	CHARACTER	8	XDMCNAME	SMS management class
1021	(3FD)	CHARACTER	8	XDVRSVAL	VRS management value
1029	(405)	CHARACTER	8	XDSGNAME	SMS storage group name
1037	(40D)	CHARACTER	8	XDSCNAME	SMS storage class name
1045	(415)	CHARACTER	8	XDDCNAME	SMS data class name
1053	(41D)	CHARACTER	8	XDCRTJBN	Creating job name
1061	(425)	CHARACTER	1	XDVIRSTYP	Matching VRS type, one of: D(Data set), S(SMSMC), V(VRSMV), M(Data set and VRSMV), C(Data set and SMSMC)
1062	(426)	CHARACTER	44	XDVRSNAM	Matching VRS name
1106	(452)	CHARACTER	8	XDVRSJBN	Matching VRS job name mask
1114	(45A)	CHARACTER	10	XDRETDAT	Retention date
1124	(464)	CHARACTER	8	XDSTEPNM	Creating step name
1132	(46C)	CHARACTER	8	XDDDDNAME	Creating DD name
Data set size: This is calculated by multiplying the blocksize with the number of blocks divided by 1024.					
1148	(47C)	CHARACTER	10	XDDSSIZE	Approximate size of file in kilobytes
1158	(486)	CHARACTER	1	XDABEND	Data set closed by ABEND: Y, N
XDCAT: Set to 'Y' either when opened after allocation determines VOLSER by reference to the catalog or when data set is cataloged after the data set is recorded in DFSMSrmm. Set to 'N' when it was cataloged and now is not. Set to 'U' (unknown) when it was never cataloged or uncataloged.					
1159	(487)	CHARACTER	1	XDCAT	Cataloged: Y, N, U
1160	(488)	CHARACTER	1	XDVRSR	Retained by VRS: Y, N
1161	(489)	CHARACTER	1	XDDELETED	Deleted by disposition: Y, N
1162	(48A)	CHARACTER	2	XDRSVMW1	Reserved
Primary VRS subchain name: This is the retaining VRS in the matching primary VRS chain. It is set only if retained by a NAME VRS subchain in the primary VRS.					
1168	(490)	CHARACTER	8	XDVRS SCH	Primary VRS subchain name
1176	(498)	CHARACTER	10	XDVRSXDS	Primary VRS subchain start date
Retaining secondary VRS name: Matching VRS name and job name are included where a secondary VRS also matches. The retaining VRS subchain name in this matching VRS is set if it is used to retain the data set.					
1186	(4A2)	CHARACTER	8	XD2VNME	Secondary VRS name mask
1194	(4AA)	CHARACTER	8	XD2VJBN	Secondary VRS job name mask

Table 36. Structure RXEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1202	(4B2)	CHARACTER	8	XD2VSCH	Secondary VRS subchain name
1210	(4BA)	CHARACTER	10	XD2VXDS	Secondary VRS subchain start date
1220	(4C4)	CHARACTER	10	XDTOTAL_BLKCNT_OLD	Total block count across this and previous volumes
1230	(4CE)	CHARACTER	3	XDPERCENT	Percentage of volume used by data set
1233	(4D1)	CHARACTER	8	XDCPGM	Creating program name
1241	(4D9)	CHARACTER	8	XDLPGM	Last use program name
1249	(4E1)	CHARACTER	8	XDLJOB	Last use job name
1257	(4E9)	CHARACTER	8	XDLSTEP	Last use step name
1265	(4F1)	CHARACTER	8	XDLDDNM	Last use DD name
1273	(4F9)	CHARACTER	4	XDLDEVN	Last use device number
End of data set part section 1					
1277	(4FD)	CHARACTER	44	XVMVDSNAM1	First data set name of a volume set
Start of mixed data area from volume record section 2 and from data set record section 2					
1321	(529)	CHARACTER	451	XXMERGED	Mixed area
1321	(529)	CHARACTER	5	XDDSNSEQ	Data set sequence number
1326	(52E)	CHARACTER	5	XDLABNO	Label number LABEL=(xx,11)
1331	(533)	CHARACTER	6	XVDESTBIN	Destination bin number
1337	(539)	CHARACTER	8	XVDESTBINMEDIA	Destination bin media name
1345	(541)	CHARACTER	6	XVVOL1	VOL1 label volume serial number
1351	(547)	CHARACTER	10	XDEXPDT	Data set expiration date
1361	(551)	CHARACTER	10	XDEXPDTO	Original data set expiration date
1371	(55B)	CHARACTER	1	XDDEFRET	Default RETPD used
1372	(55C)	CHARACTER	8	XVVENDOR	Vendor information
1380	(564)	CHARACTER	24	XVWWID	Unique world wide ID
1404	(57C)	CHARACTER	5	XVVWMC	Write mount count
1409	(581)	CHARACTER	5	XVTRERR	Temporary read errors
1414	(586)	CHARACTER	5	XVTWERR	Temporary write errors
1419	(58B)	CHARACTER	5	XVPRERR	Permanent read errors
1424	(590)	CHARACTER	5	XVPWERR	Permanent write errors
XvKeyLabel1/XvKeyLabel2: These fields may contain unprintable characters.					
1429	(595)	CHARACTER	64	XVKEYLABEL1	Encryption key label 1
1493	(5D5)	CHARACTER	5	XVKEYENCOD1	Encryption key encoding method
1498	(5DA)	CHARACTER	64	XVKEYLABEL2	Encryption key label 2
1562	(61A)	CHARACTER	5	XVKEYENCOD2	Encryption key encoding method
1567	(61F)	CHARACTER	8	XVMEDINF	Media information
1575	(627)	CHARACTER	1	XVIRMMUSE	IRMM use: Y, N
1576	(628)	CHARACTER	1	XVWORM	WORM: Y, N

Table 36. Structure RXEXT (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1577	(629)	CHARACTER	2	XVFACTOR	Space/size factor, applies to XVCAPACITY, XVAPPUSE, XDSIZE XVPhys_Used, XDPhys_size
1579	(62B)	CHARACTER	10	XVAPPUSE	Data written, XVAPPUSE is factored
1589	(635)	CHARACTER	5	XVUSE	Volume use count
1594	(63A)	CHARACTER	10	XDSIZE	Size of file, XDSIZE is factored
1604	(644)	CHARACTER	10	XDBESKEY	BES key index
1614	(64E)	CHARACTER	20	XDBLKCNT	Block count
1634	(662)	CHARACTER	20	XDTOTAL_BLCNT	Total block count across all volumes
1654	(676)	CHARACTER	1	XVHOLD	Volume hold: Y, N
1655	(677)	CHARACTER	10	XVESB	Expdt set by - of the volume
1665	(681)	CHARACTER	10	XDESB	Expdt set by - of the dataset@08A
1675	(68B)	CHARACTER	10	XVUCDATE	Volume last "user" change date
1685	(695)	CHARACTER	6	XVUETIME	Volume last "user" change time (HHMMSS)
1691	(69B)	CHARACTER	10	XDUUCDATE	Dataset last "user" change date
1701	(6A5)	CHARACTER	6	XDUETIME	Dataset last "user" change time (HHMMSS)
1707	(6AB)	CHARACTER	1	XDVEX	VRSEL Exclude Y, N
1708	(6AC)	CHARACTER	5	XVRETMET	Retention Method
1713	(6B1)	CHARACTER	10	XVRMSB	Retention Method Set By
1723	(6BB)	CHARACTER	6	XVCOMP_RAT	Compression ratio for the volume in hundredths. Always showing 2 decimal places.
1729	(6C1)	CHARACTER	10	XVPHYS_USED	Actual space used by all files after compaction (FACTORED)
1739	(6CB)	CHARACTER	6	XDCOMP_RAT	Compression ratio for the file in hundredths. Always showing 2 decimal places
1745	(6D1)	CHARACTER	10	XDPHYS_SIZE	Actual amount of data on tape after compression (FACTORED)
1755	(6DB)	CHARACTER	5	XDLRED	LASTFREF extra days
1760	(6E0)	CHARACTER	9	XVEXRB	EXPDT retainby
1769	(6E9)	CHARACTER	1	XVEDM	Volume EDM: Y, N
1770	(6EA)	CHARACTER	1	XDWHILECATON	DSN WHILECATALOG=ON: Y, N
1771	(6EB)	CHARACTER	1	XDWHILECATUX	DSN WHILECATALOG=UX: Y, N
1772	(6EC)	CHARACTER	0	RXRCEND	End of RXEXT

Table 37. Constants for RXEXT				
Len	Type	Value	Name	Description
Constants				
1	CHARACTER	L	XVVOLTYPE_LOGICAL	
1	CHARACTER	P	XVVOLTYPE_PHYSICAL	
1	CHARACTER	S	XVVOLTYPE_STACKED	
2	CHARACTER	MB	XVFACTOR_MB	
2	CHARACTER	GB	XVFACTOR_GB	

Table 37. Constants for RXEXT (continued)

Len	Type	Value	Name	Description
2	CHARACTER	TB	XVFACTOR_TB	
10	CHARACTER		XESB_UNDEFINED	
10	CHARACTER	CMD	XESB_CMD	
10	CHARACTER	CMD_DEF	XESB_CMD_DEF	
10	CHARACTER	CMD_VOLCAT	XESB_CMD_VOLCAT	
10	CHARACTER	OCE_JFCB	XESB_OCE_JFCB	
10	CHARACTER	OCE_EXIT	XESB_OCE_EXIT	
10	CHARACTER	OCE_DEF	XESB_OCE_DEF	
10	CHARACTER	OCE_MAX	XESB_OCE_MAX	
10	CHARACTER	OCE_VOLCAT	XESB_OCE_VOLCAT	
10	CHARACTER	LCS	XESB_LCS	
10	CHARACTER	LCS_DEF	XESB_LCS_DEF	
10	CHARACTER	TVEXTPURGE	XESB_TVEXTPURGE	
10	CHARACTER	CNVT	XESB_CNVT	
10	CHARACTER	EXPORT	XESB_EXPORT	
10	CHARACTER	LASTREF	XESB_LASTREF	
10	CHARACTER	OCE_MC	XESB_OCE_MC	
10	CHARACTER	CATRETPD	XESB_CATRETPD	
10	CHARACTER	CATLG_DAYS	XESB_CATLG_DAYS	
10	CHARACTER	DEFTABLE	XESB_DEFTABLE	
5	CHARACTER	VRSEL	XVRETMET_VRSEL	
5	CHARACTER	EXPDT	XVRETMET_EXPDT	
10	CHARACTER	UNDEFINED	XVRMSB_UNDEFINED	
10	CHARACTER	CMD	XVRMSB_CMD	
10	CHARACTER	CMD_DEF	XVRMSB_CMD_DEF	
10	CHARACTER	OCE_DEF	XVRMSB_OCE_DEF	
10	CHARACTER	OCE_EXIT	XVRMSB_OCE_EXIT	
10	CHARACTER	LCS_DEF	XVRMSB_LCS_DEF	
10	CHARACTER	CNVT	XVRMSB_CNVT	
10	CHARACTER	EXPORT_DEF	XVRMSB_EXPORT_DEF	
10	CHARACTER	INERS_DEF	XVRMSB_INERS_DEF	
10	CHARACTER	MC_ATTR	XVRMSB_MC_ATTR	
10	CHARACTER	DEFTABLE	XVRMSB_DEFTABLE	
9	CHARACTER	VOLUME	XVEXRB_VOLUME	
9	CHARACTER	FIRSTFILE	XVEXRB_FIRSTFILE	
9	CHARACTER	SET	XVEXRB_SET	

Table 38. Cross Reference for RXEXT

Name	Offset	Hex Tag	Level
RXEXT	0		1
RXRCEND	6EC		2
RXTYPE	0		3
XDABEND	486		3

Table 38. Cross Reference for RXEXT (continued)			
Name	Offset	Hex Tag	Level
XDBESKEY	644		3
XDBLKCNT	64E		3
XDBLKCNT_OLD	3AA		3
XDBLKSZ	3A4		3
XDCAT	487		3
XDCOMP	3E0		3
XDCOMP_RAT	6CB		3
XDCPGM	4D1		3
XDCRDATE	350		3
XDCRSID	360		3
XDCRTIME	35A		3
XDCRTJBN	41D		3
XDDCNAME	415		3
XDDNAME	46C		3
XDDEFRET	55B		3
XDDELETED	489		3
XDDSNAME	324		3
XDDSNSEQ	529		3
XDDSSIZE	47C		3
XDESB	681		3
XDEXPDT	547		3
XDEXPDT0	551		3
XDEXT1	320		2
XDLABNO	52E		3
XDLCDATE	368		3
XDLCSID	380		3
XDLCTIME	372		3
XDLCUID	378		3
XDLDDNM	4F1		3
XDLDEVN	4F9		3
XDLJOB	4E1		3
XDLPGM	4D9		3
XDLRDDAT	3E1		3
XDLRECL	39E		3
XDLRED	6DB		3
XDLSTEP	4E9		3
XDLWTDAT	3EB		3
XDMCNAME	3F5		3
XDOWNDSN	3B2		3
XDPERCENT	4CE		3
XDPHYS_SIZE	6D1		3
XDRECFM	396		3
XDRETDAT	45A		3

Table 38. Cross Reference for RXEXT (continued)			
Name	Offset	Hex Tag	Level
XDRSVMW1	48A		3
XDSCNAME	40D		3
XDSECLEV	3BA		3
XDSECLNG	3C2		3
XDSGNAME	405		3
XDSIZE	63A		3
XDSTEPNM	464		3
XDTOTAL_BLKCNT	662		3
XDTOTAL_BLKCNT_OLD	4C4		3
XDUCDATE	69B		3
XDUCTIME	6A5		3
XDUNITAD	392		3
XDVEX	6AB		3
XDVOLSEQ	39A		3
XDVRSJBN	452		3
XDVRSNAM	426		3
XDVRSR	488		3
XDVRSSCH	490		3
XDVRSTYP	425		3
XDVRVAL	3FD		3
XDVRXDS	498		3
XDWHILECATON	6EA		3
XDWHILECATUX	6EB		3
XD2VJBN	4AA		3
XD2VNME	4A2		3
XD2VSCH	4B2		3
XD2VXDS	4BA		3
XVABEND	2C8		3
XVACCINF	190		3
XVACCLST	1D6		3
XVACTERA	2C4		4
XVACTINI	2C3		4
XVACTION	2C0		3
XVACTNOT	2C5		4
XVACTREP	2C1		4
XVACTRET	2C2		4
XVACTRSV	2C6		4
XVACTSCR	2C0		4
XVALCUR	2A2		4
XVALREQ	2A3		4
XVALVERS	2A2		3
XVAPPUSE	62B		3
XVASDATE	EB		3

Table 38. Cross Reference for RXEXT (continued)			
Name	Offset	Hex Tag	Level
XVASTIME	F5		3
XVAUTIDS	1D9		3
XVBLP	14F		3
XVBMEDN	2A4		3
XVCAPACITY	2E8		3
XVCOMP	80		3
XVCOMP_RAT	6BB		3
XVCONTNR	2D4		3
XVCONTNR_STV	2D4		4
XVCRDATE	30		3
XVCRJOB	10B		3
XVCRSID	40		3
XVCRTIME	3A		3
XVCRUID	103		3
XVDCRSID	313		3
XVDEFRET	14A		3
XVDEN	7C		3
XVDEST	9F		3
XVDESTBIN	533		3
XVDESTBINMEDIA	539		3
XVDESTYP	243		3
XVDSNAM1	274		3
XVDSNNO	309		3
XVDSNREC	2A1		3
XVEDM	6E9		3
XVERASE	15A		3
XVESB	677		3
XVEXPDT	72		3
XVEXPDT0	68		3
XVEXPTOKEN	2F4		3
XVEXRB	6E0		3
XVEXT1	0		2
XVFACTOR	629		3
XVFEAT	18C		3
XVHLOC	239		3
XVHOLD	676		3
XVHOMTYP	2C9		3
XVINIT	159		3
XVIRMMUSE	627		3
XVKEYENCOD1	5D5		3
XVKEYENCOD2	61A		3
XVKEYLABEL1	595		3
XVKEYLABEL2	5DA		3

Table 38. Cross Reference for RXEXT (continued)			
Name	Offset	Hex Tag	Level
XVLABEL	14C		3
XVLABN01	30E		3
XVLCDATE	48		3
XVLCSID	60		3
XVLCTIME	52		3
XVLCUID	58		3
XVLOAN	147		3
XVLOCTYP	242		3
XVLONLOC	C7		3
XVLRDDAT	D7		3
XVLUDEV	2BC		3
XVLWTDAT	E1		3
XVMDMVID	1C		3
XVMEDATR	26C		3
XVMEDCMP	264		3
XVMEDINF	61F		3
XVMEDREC	254		3
XVMEDTY	25C		3
XVMVDSNAM1	4FD		2
XVMVMODE	2A0		3
XVMVSUSE	15F		3
XVNAME	160		3
XVNEXTYP	2CA		3
XVNLOC	2B4		3
XVNTFY	15B		3
XVNVOL	10		3
XVOBIN	AD		3
XVOBMEDN	2AC		3
XVOCER	149		3
XVOLNLOC	CF		3
XVOLOC	244		3
XVOPEN	148		3
XVOWNAC	15C		3
XVOWNID	FB		3
XVPENDRS	145		3
XVPERCENT	306		3
XVPHYS_USED	6C1		3
XVPPNUM	17E		3
XVPPTAPE	14B		3
XVPRERR	58B		3
XVPRERR_OLD	176		3
XVPVOL	A		3
XVPWERR	590		3

Table 38. Cross Reference for RXEXT (continued)			
Name	Offset	Hex Tag	Level
XVPWERR_OLD	17A		3
XVRACK	168		3
XVRBYSET	2F2		3
XVRELIXD	2CC		4
XVRELRSV	2CE		4
XVRELSI	2CD		4
XVREPL	158		3
XVRETDAT	BD		3
XVRETMET	6AC		3
XVRETS	150		3
XVRMSB	6B1		3
XVRQPRTY	2E4		3
XVSECLEV	113		3
XVSECLNG	11B		3
XVSGNAME	24C		3
XVSTACKED_VOLCOUNT	2FC		3
XVSTACKVOL_ENABLED	2F3		3
XVSTATUS	13D		3
XVSTBIN	A7		3
XVSTDATE	B3		3
XVSTORID	97		3
XVSTVOL	16		3
XVTRANS	241		3
XVTRERR	581		3
XVTRERR_OLD	16E		3
XVTUSE	85		3
XVTWERR	586		3
XVTWERR_OLD	172		3
XVUCDATE	68B		3
XVUCTIME	695		3
XVUNIT	160		4
XVUSE	635		3
XVUSE_OLD	8F		3
XVUSEFLD	1B8		3
XVUSERAC	15D		3
XVVENDOR	55C		3
XVVER	186		3
XVVMUSE	15E		3
XVVOLCNT	31C		2
XVVOLSEQ	139		3
XVVOLSER	4		3
XVVOLTYPE	2CB		3
XVVOL1	541		3

Table 38. Cross Reference for RXEXT (continued)

Name	Offset	Hex Tag	Level
XVVR5	146		3
XVVR5REL	20C		3
XVVWMC	57C		3
XVWORM	628		3
XVWWID	564		3
XXMERGED	529		2

SMF action record information: EDGSAREC

EDGSAREC maps the action record information.

Common name: RMM SMF Action Record SMF Information
 Macro ID: EDGSAREC
 DSECT name: MAREC
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: C
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A

 Size: MARECLN
 Created by: EDGMFIO
 Pointed to by: Assembler - USING on MAREC
 PL/X - %INCLUDE EDGSAREC
 Serialization: None
 Function: Maps the RMM SMF action record information

Table 39. Structure MAREC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	136	MAREC	
0	(0)	CHARACTER	56	MARECORD	EDGSAREC record
0	(0)	CHARACTER	56	MAKEY	Action record key field
0	(0)	CHARACTER	1	MATYPE	Action record record type
1	(1)	CHARACTER	1	MATYPE1	
2	(2)	CHARACTER	8	MAACTION	Action type: one of MOVE, SCRATCH, RETURN, REPLACE, INIT, ERASE, NOTIFY
18	(12)	CHARACTER	8	MALOC	Source location for move
26	(1A)	CHARACTER	8	MADEST	Target location for move
34	(22)	CHARACTER	22	MAPAD1	Reserved - binary zeros
56	(38)	SIGNED	2	MARECLN	Record length
60	(3C)	CHARACTER	4	MACRDATE	Action create date - YYYYDDD
64	(40)	CHARACTER	4	MACRTIME	Action create time - HHMMSS
68	(44)	CHARACTER	8	MACRSID	Create system ID
76	(4C)	CHARACTER	8	MARCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MALCDATE	Last change date - YYYYDDD
88	(58)	CHARACTER	4	MALCTIME	Last change time - HHMMSS
92	(5C)	CHARACTER	8	MALCUID	Last change user ID
100	(64)	CHARACTER	8	MALCSID	Last change system ID
108	(6C)	CHARACTER	4	MAUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MAUCTIME	Last "user" change time

Table 39. Structure MAREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
116	(74)	BIT(8)	1	MACFLG	Control flags 1
		1...		MADEFLG	Record deleted
		.1..		MAPDLFLG	Record previously deleted
		...1		MASEFLG	Select - processed by satellite update
		.... 1...		MADUMMY	Dummy record - allow TSO ADD
		.... .1..		MASETDUMMY	Dummy flag should be set
		.... ..1.		MAGMT1	Record converted to GMT once
		.... ...1		MAGMT2	Time stamps in GMT format
117	(75)	BIT(8)	1	MARECLEV	Record level number
124	(7C)	SIGNED	4	MACOUNT	Count of volumes requiring this action
128	(80)	BIT(8)	1	MASFLAG	Status of moves and actions
		1...		MASCOMP	Status = completed
		.1..		MASPEND	Status = pending
		..1.		MASCONF	Status = confirmed
		...1		MASUNK	Status = unknown
129	(81)	CHARACTER	7	MARESVD	Reserved
136	(88)	CHARACTER	0	MARCEND	End of MAREC

Table 40. Constants for MAREC

Len	Type	Value	Name	Description
1	CHARACTER	C	MATYPEID	Action record ID symbol
1	CHARACTER	A	MATYPE1_ACTION	Action sub-type
1	CHARACTER	M	MATYPE1_MOVE	Move sub-type

Table 41. Cross Reference for MAREC

Name	Offset	Hex Tag	Level
MAACTION	2		4
MACFLG	74		2
MACOUNT	7C		2
MACRDATE	3C		2
MACRSID	44		2
MACRTIME	40		2
MADEFLG	74	80	3
MADEST	1A		4
MADUMMY	74	08	3
MAGMT1	74	02	3
MAGMT2	74	01	3
MAKEY	0		3
MALCDATE	54		2
MALCSID	64		2
MALCTIME	58		2

Table 41. Cross Reference for MAREC (continued)

Name	Offset	Hex Tag	Level
MALCUID	5C		2
MALOC	12		4
MAPAD1	22		4
MAPDLFLG	74	40	3
MARCCDS	4C		2
MARCEND	88		2
MAREC	0		1
MARECLEV	75		2
MARECLN	38		2
MARECORD	0		2
MARESVD	81		2
MASCOMP	80	80	3
MASCONF	80	20	3
MASELFLG	74	10	3
MASETDUMMY	74	04	3
MASFLAG	80		2
MASPEND	80	40	3
MASUNK	80	10	3
MATYPE	0		4
MATYPE1	1		4
MAUCDATE	6C		2
MAUCTIME	70		2

SMF data set information: EDGSDREC

EDGSDREC maps the data set information.

```

Common name: RMM SMF Record Data Set Information
Macro ID: EDGSDREC
DSECT name: MDREC
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: D
Storage attributes: Subpool: N/A
                    Key: N/A
                    Residency: N/A

Size: MDRECLN
Created by: EDGMFIO
Pointed to by: Assembler - USING on MDREC
                PL/X - %INCLUDE EDGSDREC

Serialization: None
Function: Maps the SMF record information for
          data sets

```

Table 42. Structure MDREC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	584	MDREC	
0	(0)	CHARACTER	56	MDRECORD	EDGSDREC information
0	(0)	CHARACTER	56	MDKEY	DSN RECORD KEY FIELD
0	(0)	CHARACTER	1	MDTYPE	Data set record ID: 'D'

Table 42. Structure MDREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
1	(1)	CHARACTER	44	MDDSNAM	Data set name
45	(2D)	CHARACTER	6	MDVOLSER	Volume serial number
52	(34)	UNSIGNED	2	MDDSNSEQ	Data set sequence number
54	(36)	CHARACTER	2	MDPAD1	Reserved - binary zeros
56	(38)	SIGNED	2	MDRECLN	Record length
60	(3C)	CHARACTER	4	MDCRDATE	Data set create date - YYYYDDD
64	(40)	CHARACTER	4	MDCRTIME	Data set create time - HHMMSSST
68	(44)	CHARACTER	8	MDCRSID	Create system ID
76	(4C)	CHARACTER	8	MDRCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MDLCDATE	Last change date - YYYYDDD
88	(58)	CHARACTER	4	MDLCTIME	Last change time - HHMMSSST
92	(5C)	CHARACTER	8	MDLCUID	Last change user ID
100	(64)	CHARACTER	8	MDLCSID	Last change system ID
108	(6C)	CHARACTER	4	MDUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MDUCTIME	Last "user" change time
116	(74)	BIT(8)	1	MDCFLG	Control flags 1
		1...		MDDELFLG	Record deleted
		.1..		MDPDLFLG	Record previously deleted
		..1.		MDUPDFLG	Direct IO update
		...1		MDSELFLG	Select - processed by satellite update
		.... 1...		MDDUMMY	Dummy record - allow TSO ADD
		.... .1..		MDSETDUMMY	Dummy flag should be set
		.... ..1.		MDGMT1	Record converted to GMT once
		.... ...1		MDGMT2	Timestamps in GMT format
117	(75)	BIT(8)	1	MDRECLEV	Record level number
124	(7C)	UNSIGNED	4	MDTOTAL_BLK	Total block count across all volumes containing data set
128	(80)	UNSIGNED	1	MDSTART_POSN	File start media position
129	(81)	UNSIGNED	1	MDEND_POSN	File end media position
130	(82)	SIGNED	2	MDVOLSEQ	Volume sequence number
132	(84)	CHARACTER	4	MDUNITAD	Unit address
136	(88)	CHARACTER	4	MDRECFM	Record format
140	(8C)	SIGNED	4	MDLRECL	Logical record length
144	(90)	UNSIGNED	4	MDBLKSZ	Physical block size
148	(94)	UNSIGNED	4	MDBLKCNT	Block count
152	(98)	CHARACTER	8	MDOWNDSN	Data set owner
160	(A0)	BIT(8)	1	MDSECLEV	Security level
161	(A1)	BIT(8)	1	MDTRTCH	From JFCRTCH - IDRC support
		.... 1...		MDTCOMP	Data set used 3480 IDRC
		.... .1..		MDTNCOMP	No compaction
162	(A2)	UNSIGNED	2	MDFILSEQ	Logical file sequence number
164	(A4)	CHARACTER	8	MDTOKEN	Reserved for RMM internal use

Table 42. Structure MDREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
172	(AC)	UNSIGNED	4	MDDSSIZE	Data set size in kilobytes
176	(B0)	CHARACTER	4	MDLRDATE	Date last read - YYYYDDD
180	(B4)	CHARACTER	4	MDLWDATE	Date last written YYYYDDD
184	(B8)	BIT(8)	1	MDFLAG	Flag byte
		1... ..		MDFCAT	Data set is cataloged
		.1.. ..		MDFVRSR	Data set is retained by VRS
		..1.		MDFNOTCAT	Data set was found not to be cataloged during VRS
		...1		MDFDELETED	Deleted by disposition
		.... 1...		MDFABEND	ABEND in process when data set closed
		.... .1..		MDFOCEAB	ABEND probably in O/C/E0V
		.... ..1.		MDFORCE	Force supplied
		.... ...1		MDDEFRET	Default retention period used
185	(B9)	UNSIGNED	1	MDESBEXPDSETBY	Expiry date set by
186	(BA)	UNSIGNED	1	MDSAVEXPDSETBY	Saved SetBy if ESB_CATRETPD
187	(BB)	CHARACTER	1	MDVRSTYP	Matching VRS type: one of D - data set, S - SMSMC, V - VRSMV, M - DSN/MV
188	(BC)	CHARACTER	8	MDACSMC	Management class name
196	(C4)	CHARACTER	8	MDVRSVAL	VRS management value
Level 1 fixed length section (88 bytes)					
204	(CC)	CHARACTER	8	MDACSSG	Storage group name
212	(D4)	CHARACTER	8	MDACSSC	Storage class name
220	(DC)	CHARACTER	8	MDACSDC	Data class name
228	(E4)	CHARACTER	8	MDCRTJBN	Creating job name
236	(EC)	CHARACTER	8	MDVRSJBN	Matching VRS job name mask
244	(F4)	CHARACTER	4	MDRETDAT	Retention date
248	(F8)	CHARACTER	8	MDSTEPNM	Creating step name
256	(100)	CHARACTER	8	MDDDDNAME	Creating DD name
264	(108)	CHARACTER	8	MDPVSCH	Primary VRS subsequent subchain name
272	(110)	CHARACTER	4	MDPVSDTE	Primary VRS subsequent subchain start date
276	(114)	CHARACTER	4	MDEXPDT	Expiration date
280	(118)	CHARACTER	4	MDEXPDTO	Original expiration date
Level 2 fixed length section (56 bytes)					
292	(124)	UNSIGNED	4	MDBLKIDS	File start block ID
296	(128)	UNSIGNED	4	MDBLKIDE	File end block ID
300	(12C)	CHARACTER	8	MDCPGM	Creating program name
308	(134)	CHARACTER	8	MDLPGM	Last use program name
316	(13C)	CHARACTER	8	MDLJOB	Last use job name
324	(144)	CHARACTER	8	MDLSTEP	Last use step name
332	(14C)	CHARACTER	8	MDLDDNM	Last use DD name
340	(154)	CHARACTER	4	MDLDEVN	Last use device number

Table 42. Structure MDREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
Level 3 fixed length section (64 bytes)					
348	(15C)	UNSIGNED	4	MDBESKEY	BES key index
352	(160)	SIGNED	8	MDDSSIZE64	Size in KB
360	(168)	SIGNED	8	MDBLKCNT64	Block count
368	(170)	SIGNED	8	MDTOTAL_BLK64	Total block count
376	(178)	BIT(8)	1	MDFLAG1	Flag byte
		1... ..		MDFG1_VRSELEXCLUDE	File excluded from VRSEL
		.1... ..		MDFG1_COPYFROM	Record copied from other ds
		..1.		MDFG1_WHILECAT_ON	WHILECATALOG(ON) set
		...1		MDFG1_WHILECAT_UX	WHILECATALOG(UntilExpired)
380	(17C)	SIGNED	4	MDLRED	Last reference extra days
384	(180)	UNSIGNED	8	MDPHYS_SIZE	Dataset physical size in KB
392	(188)	CHARACTER	8	MDSAVEXPDATETIME	Saved Expiry Date/Time
392	(188)	CHARACTER	4	MDSAVEXPDT	Saved EXPDT if ESB_CATRETPD
396	(18C)	CHARACTER	4	MDSAVEXPTM	Saved EXPTM if ESB_CATRETPD
Variable length section					
412	(19C)	CHARACTER	172	MDVARSEC	Variable length section
412	(19C)	UNSIGNED	1	MDPDSNL	Length of previous data set name
413	(19D)	UNSIGNED	1	MDNDSNL	Length of next data set name
414	(19E)	UNSIGNED	1	MDVRSNML	Length of matching VRS name
415	(19F)	UNSIGNED	1	MD2VMTCL	Length of secondary VRS fields
424	(1A8)	CHARACTER	44	MDPDSN	Previous data set name or null
468	(1D4)	CHARACTER	44	MDNDSN	Next data set name or null
512	(200)	CHARACTER	44	MDVRSNAM	Matching VRS name
556	(22C)	CHARACTER	28	MD2VMTC	Secondary VRS details
556	(22C)	CHARACTER	8	MD2VNAME	Secondary VRS mask
564	(234)	CHARACTER	8	MD2VJBNM	Secondary VRS job name mask
572	(23C)	CHARACTER	8	MD2VSCH	Secondary VRS subsequent subchain name
580	(244)	CHARACTER	4	MD2VSDTE	Secondary VRS subsequent subchain start date
584	(248)	CHARACTER	0	MDCEND	End of MDREC

Table 43. Constants for MDREC

Len	Type	Value	Name	Description
----- Constants -----				
1	CHARACTER	D	MDTYPEID	Data set record ID symbol
----- Constants for MdEsbExpdtSetBy -----				

Table 43. Constants for MDREC (continued)

Len	Type	Value	Name	Description
1	DECIMAL	0	MDESB_UNKNOWN	unknown or not set
1	DECIMAL	1	MDESB_CMD	command
1	DECIMAL	2	MDESB_CMD_DEF	command from default RETPD
1	DECIMAL	3	MDESB_CMD_VOLCAT	command from VOLCAT
1	DECIMAL	4	MDESB_OCE_JFCB	O/C/EoV from JFCB
1	DECIMAL	5	MDESB_OCE_EXIT	O/C/EoV from EDG_EXIT100
1	DECIMAL	6	MDESB_OCE_DEF	O/C/EoV from default RETPD
1	DECIMAL	7	MDESB_OCE_MAX	O/C/EoV from MAXRETPD
1	DECIMAL	8	MDESB_OCE_VOLCAT	O/C/EoV from VOLCAT
1	DECIMAL	9	MDESB_LCS	Library Control System
1	DECIMAL	10	MDESB_LCS_DEF	LCS from default RETPD
1	DECIMAL	11	MDESB_TVEXTPURGE	TVEXTPURGE interface
1	DECIMAL	12	MDESB_CNVT	conversion
1	DECIMAL	13	MDESB_EXPORT	export to stacked volume
1	DECIMAL	14	MDESB_LASTREF	last reference event
1	DECIMAL	15	MDESB_OCE_MC	O/C/EoV from Mgmt class
1	DECIMAL	16	MDESB_CATRETPD	CATRETPD hours after creat. time during tape recording
1	DECIMAL	17	MDESB_CATLG_DAYS	Cat Days after DS is UNCTLG
1	DECIMAL	18	MDESB_DEFTABLE	Defaults table

Table 44. Cross Reference for MDREC

Name	Offset	Hex Tag	Level
MDACSDC	DC		2
MDACSMC	BC		2
MDACSSC	D4		2
MDACSSG	CC		2
MDBESKEY	15C		2
MDBLKCNT	94		2
MDBLKCNT64	168		2
MDBLKIDE	128		2
MDBLKIDS	124		2
MDBLKSZ	90		2
MDCFLG	74		2
MDCPGM	12C		2
MDCRDATE	3C		2
MDCRSID	44		2
MDCRTIME	40		2
MDCRTJBN	E4		2
MDDNAME	100		2
MDDEFRET	B8	01	3
MDELFLG	74	80	3
MDDSNAME	1		4

Table 44. Cross Reference for MDREC (continued)			
Name	Offset	Hex Tag	Level
MDDSNSEQ	34		4
MDDSSIZE	AC		2
MDDSSIZE64	160		2
MDDUMMY	74	08	3
MDEND_POSN	81		2
MDESBEXPDTSETBY	B9		2
MDEXPDT	114		2
MDEXPDT0	118		2
MDFABEND	B8	08	3
MDFCAT	B8	80	3
MDFDELETED	B8	10	3
MDFG1_COPYFROM	178	40	3
MDFG1_VRSELEXCLUDE	178	80	3
MDFG1_WHILECAT_ON	178	20	3
MDFG1_WHILECAT_UX	178	10	3
MDFILSEQ	A2		2
MDFLAG	B8		2
MDFLAG1	178		2
MDFNOTCAT	B8	20	3
MDFOCEAB	B8	04	3
MDFORCE	B8	02	3
MDFVRSR	B8	40	3
MDGMT1	74	02	3
MDGMT2	74	01	3
MDKEY	0		3
MDLCDATE	54		2
MDLCSID	64		2
MDLCTIME	58		2
MDLCUID	5C		2
MDLDDNM	14C		2
MDLDEVN	154		2
MDLJOB	13C		2
MDLPGM	134		2
MDLRDATE	B0		2
MDLRECL	8C		2
MDLRED	17C		2
MDLSTEP	144		2
MDLWDATE	B4		2
MDNDSN	1D4		3
MDNDSNL	19D		3
MDOWNDSN	98		2
MDPAD1	36		4

Table 44. Cross Reference for MDREC (continued)			
Name	Offset	Hex Tag	Level
MDPDLFLG	74	40	3
MDPDSN	1A8		3
MDPDSNL	19C		3
MDPHYS_SIZE	180		2
MDPVSCH	108		2
MDPVSDTE	110		2
MDRCCDS	4C		2
MDRCEND	248		2
MDREC	0		1
MDRECFM	88		2
MDRECLEV	75		2
MDRECLN	38		2
MDRECORD	0		2
MDRETDAT	F4		2
MDSAVEXPDATETIME	188		2
MDSAVEXPDT	188		3
MDSAVEXPDTSETBY	BA		2
MDSAVEXPTM	18C		3
MDSECLEV	A0		2
MDSELFGL	74	10	3
MDSETDUMMY	74	04	3
MDSTART_POSN	80		2
MDSTEPNM	F8		2
MDTCOMP	A1	08	3
MDTNCOMP	A1	04	3
MDTOKEN	A4		2
MDTOTAL_BLKs	7C		2
MDTOTAL_BLKs64	170		2
MDTRTCH	A1		2
MDTYPE	0		4
MDUCDATE	6C		2
MDUCTIME	70		2
MDUNITAD	84		2
MDUPDFLG	74	20	3
MDVARSEC	19C		2
MDVOLSEQ	82		2
MDVOLSER	2D		4
MDVRSJBN	EC		2
MDVRSNAM	200		3
MDVRSNML	19E		3
MDVRSTYP	BB		2
MDVRSVAL	C4		2

Table 44. Cross Reference for MDREC (continued)

Name	Offset	Hex Tag	Level
MD2VJBNM	234		4
MD2VMTC	22C		3
MD2VMTCL	19F		3
MD2VNAME	22C		4
MD2VSCH	23C		4
MD2VSDTE	244		4

SMF vital record specification information: EDGSKREC

EDGSKREC maps the vital record specification information.

Common name: RMM Vital Record Specification SMF Information
 Macro ID: EDGSKREC
 DSECT name: MKREC
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: K
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
 Size: MKRECLN
 Created by: EDGMFIO
 Pointed to by: Assembler - USING on MKREC
 PL/X - %INCLUDE EDGSKREC
 Serialization: None
 Function: Maps the RMM vital record specification SMF information

Table 45. Structure MKREC

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	212	MKREC	
0	(0)	CHARACTER	0	MKRECORD	EDGSKREC record
Key					
0	(0)	CHARACTER	56	MKKEY	Key of VRS record
0	(0)	CHARACTER	1	MKTYPE	Record type
1	(1)	CHARACTER	1	MKTYPE2	VRS type
2	(2)	CHARACTER	44	*	
2	(2)	CHARACTER	6	MKVOLSER	Volume serial mask
2	(2)	CHARACTER	8	MKNAME	Name of VRS
2	(2)	CHARACTER	44	MKDSNAME	Data set name mask
46	(2E)	CHARACTER	1	MKGENKEY	Generic/specific indicator
47	(2F)	CHARACTER	8	MKCRTJBN	Job name mask
55	(37)	CHARACTER	1	MKPAD1	Reserved (binary zeros)
Control information					
56	(38)	SIGNED	2	MKRECLN	Record length
60	(3C)	CHARACTER	4	MKCRDATE	VRS create date - YYYYDDD
64	(40)	CHARACTER	4	MKCRTIME	VRS create time - HHMMSS

Table 45. Structure MKREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
68	(44)	CHARACTER	8	MKCRSID	Create system ID
76	(4C)	CHARACTER	8	MKRCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MKLCDATE	Last change date - YYYYDDD
88	(58)	CHARACTER	4	MKLCTIME	Last change time - HHMMSS
92	(5C)	CHARACTER	8	MKLGUID	Last change user ID
100	(64)	CHARACTER	8	MKLCSID	Last change system ID
108	(6C)	CHARACTER	4	MKUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MKUCTIME	Last "user" change time
116	(74)	BIT(8)	1	MKCFLG	Control flags 1
		1... ..		MKDEFLG	Record deleted
		.1.. ..		MKPDFLG	Record previously deleted
		...1 ..		MKSELFLG	Select - processed by satellite update
		.... 1..		MKDUMMY	Dummy record allow TSO ADD
		.... .1..		MKSETDUMMY	Dummy flag should be set
		.... ..1.		MKGMT1	Record converted to GMT once
		.... ...1		MKGMT2	Timestamps in GMT format
117	(75)	BIT(8)	1	MKRECLEV	Record level number
Retention type					
124	(7C)	CHARACTER	1	MKRETN	Type of retention
		1... ..		MKRETN	Cycles
		.1.. ..		MKRETN	Days
		..1.		MKRETN	LastReferenceDays
		...1		MKRETN	WhileCataloged
		.... 1..		MKRETN	UntilExpired
		.... .1..		MKRETN	ExtraDays
		.... ..1.		MKRETN	ByDaysCycle
Data set name mask type					
125	(7D)	BIT(8)	1	MKDSNTYP	Data set name mask type
		1... ..		MKDSNG	Generation Data Group
		.1.. ..		MKDSNP	Pseudo GDG
		..1.		MKDSND	Standard
Store information					
126	(7E)	CHARACTER	1	MKSTORE	Store requirement
127	(7F)	CHARACTER	1	MKRES1	Reserved
128	(80)	CHARACTER	8	MKLLOC	Location name: one of HOME, LOCAL, REMOTE, DISTANT, CURRENT or defined library name
VRS control information					
136	(88)	CHARACTER	8	MKNEXT	Name of NEXTVRS or ANDVRS

Table 45. Structure MKREC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
144	(90)	SIGNED	4	MKCOUNT	Number of cycles, days, volumes
148	(94)	SIGNED	2	MKLPRTY	Location priority override
152	(98)	SIGNED	4	MKSTORE1	Store keep number
156	(9C)	CHARACTER	4	MKLRTIME	Last reference time
160	(A0)	BIT(8)	1	MKFLAGA	Flag-A
		1...		MKFGAAND	MKNEXT is ANDVRS() operand
		.1..		MKFGANXT	MKNEXT is NEXTVRS() operand
161	(A1)	BIT(8)	1	MKRLSOPT	Release options
		1...		MKRLSXDI	Expiration date ignore
		.1..		MKRLSSCI	Scratch immediate
162	(A2)	SIGNED	2	MKDELAY	Number of days before move
164	(A4)	CHARACTER	8	MKOWNER	VRS owner
172	(AC)	CHARACTER	4	MKDELDAT	VRS delete date (YYYYDDD)
176	(B0)	CHARACTER	30	MKDESC	Description
208	(D0)	CHARACTER	4	MKLRLDATE	Last reference date
212	(D4)	CHARACTER	0	MKRCEND	End of MKRECORD

Table 46. Constants for MKREC

Len	Type	Value	Name	Description
Constant for MKTYPE - record type				
1	CHARACTER	K	MKTYPEID	VRS record ID
Constants for MKTYPE2 - VRS type				
1	CHARACTER	V	MKTYPVOL	Volume VRS
1	CHARACTER	N	MKTYPNAM	Name VRS
1	CHARACTER	D	MKTYPDSN	Data set VRS
Constants for MKGENKEY - generic/specific indicator				
1	CHARACTER	0	MKGKSPEC	Specific
1	CHARACTER	1	MKGKGEN	Generic
Constants for MKSTORE - store requirement				
1	CHARACTER	V	MKSTOREV	Vital record only
1	CHARACTER	R	MKSTORER	Remote store
1	CHARACTER	L	MKSTOREL	Local store
1	CHARACTER	D	MKSTORED	Distant store
1	CHARACTER	B	MKSTOREB	Both: local then distant

Table 47. Cross Reference for MKREC

Name	Offset	Hex Tag	Level
MKCF LG	74		2
MKCOUNT	90		2

Table 47. Cross Reference for MKREC (continued)			
Name	Offset	Hex Tag	Level
MKCRDATE	3C		2
MKCRSID	44		2
MKCRTIME	40		2
MKCR TJBN	2F		3
MKDELAY	A2		2
MKDELDAT	AC		2
MKDEFLG	74	80	3
MKDESC	B0		2
MKDSNAME	2		4
MKDSND	7D	20	3
MKDSNG	7D	80	3
MKDSNP	7D	40	3
MKDSNTYP	7D		2
MKDUMMY	74	08	3
MKFGAAND	A0	80	3
MKFGANXT	A0	40	3
MKFLAGA	A0		2
MKGENKEY	2E		3
MKGMT1	74	02	3
MKGMT2	74	01	3
MKKEY	0		2
MKLCDATE	54		2
MKLCSID	64		2
MKLCTIME	58		2
MKLCUID	5C		2
MKLOC	80		2
MKLPRTY	94		2
MKL RDATE	D0		2
MKLRTIME	9C		2
MKNAME	2		4
MKNEXT	88		2
MKOWNER	A4		2
MKPAD1	37		3
MKPD LFG	74	40	3
MKRCCDS	4C		2
MKRCEND	D4		2
MKREC	0		1
MKREC LEV	75		2
MKRECLN	38		2
MKRECORD	0		2
MKRES1	7F		2
MKRETN	7C		2

Table 47. Cross Reference for MKREC (continued)

Name	Offset	Hex Tag	Level
MKRETNC	7C	80	3
MKRETNCD	7C	02	3
MKRETND	7C	40	3
MKRETNR	7C	20	3
MKRETNW	7C	10	3
MKRETNX	7C	08	3
MKRETNXD	7C	04	3
MKRLSOPT	A1		2
MKRLSSCI	A1	40	3
MKRLSXD	A1	80	3
MKSELFGL	74	10	3
MKSETDUMMY	74	04	3
MKSTORE	7E		2
MKSTORE1	98		2
MKTYPE	0		3
MKTYPE2	1		3
MKUCLATE	6C		2
MKUCLTIME	70		2
MKVOLSER	2		4

SMF audit record header information: EDGSMFAR

EDGSMFAR maps the DFSMSrmm SMF audit record header. This macro can only be used to map an audit SMF record that uses a user-written record type 128-255. Use the IGWSMF macro ([“SMF type 42 subtypes information: IGWSMF” on page 319](#)) to map the type 42 subtype 22. See [“Using the security report” on page 81](#) for more information about the DFSMSrmm audit report.

```

Common name: RMM SMF Audit Record
Macro ID: EDGSMFAR
DSECT name: SMFAR
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: None
Storage attributes: Subpool: N/A
                    Key: N/A
                    Residency: N/A

Size: SMFADLEN
Created by: EDGMFIO
Pointed to by: Assembler - USING on SMFAR
                PL/X - %INCLUDE EDGSMFAR

Serialization: None
Function: Maps the RMM SMF audit record header.
          Deprecated - use IBM type 42 records
          (subtype 22) instead of user range
          SMF types.
          To map the information which starts at
          SMFADREC use the following macros:
          Data set information: EDGSDREC
          Rack information: EDGSRREC
          Bin information: EDGSSREC
          Owner information: EDGSOREC
          Product information: EDGSPREC
          VRS information: EDGSKREC
          Volume information: EDGSVREC

```


Table 48. Structure SMFAR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	43	SMFAR	
0	(0)	CHARACTER	0	SMFADRC	SMF audit record
0	(0)	CHARACTER	2	SMFADLEN	Record length
4	(4)	BIT(8)	1	SMFADFLG	System type
5	(5)	BIT(8)	1	SMFADRTY	Record type
6	(6)	CHARACTER	4	SMFADTME	Time, since midnight in Hundredths of a second, That record was placed In the SMF buffer
10	(A)	CHARACTER	4	SMFADDTE	Date that record was Placed in the SMF buffer. In the form 0CYDDDF, Where F is the sign and C is 0 for 19YY and 1 for 20YY
14	(E)	CHARACTER	4	SMFADSID	System identification
18	(12)	CHARACTER	8	SMFADJBN	Job name
26	(1A)	CHARACTER	4	SMFADRST	Reader start time
30	(1E)	CHARACTER	4	SMFADRSD	Reader start date
34	(22)	CHARACTER	8	SMFADUID	RACF user ID
42	(2A)	CHARACTER	1	SMFADACT	Activity type
43	(2B)	CHARACTER	0	SMFADREC	Start of information

Table 49. Cross Reference for SMFAR

Name	Offset	Hex Tag	Level
SMFADACT	2A		2
SMFADDTE	A		2
SMFADFLG	4		2
SMFADJBN	12		2
SMFADLEN	0		2
SMFADRC	0		2
SMFADREC	2B		2
SMFADRSD	1E		2
SMFADRST	1A		2
SMFADRTY	5		2
SMFADSID	E		2
SMFADTME	6		2
SMFADUID	22		2
SMFAR	0		1

SMF security record information: EDGSMFSR

EDGSMFSR maps the DFSMSrmm SMF security record. This macro can only be used to map a security SMF record that uses a user-written record type 128-255. Use the IGWSMF macro (“[SMF type 42 subtypes information: IGWSMF](#)” on page 319) to map the type 42 subtype 23. See “[Using the security report](#)” on page 81 for more information about the DFSMSrmm audit report.

Common name: RMM SMF Security Record
 Macro ID: EDGSMFSR
 DSECT name: SMFSR
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: None
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A

 Size: SMFSALEN
 Created by: EDGSOCE
 Pointed to by: Assembler - USING on SMFSR
 PL/X - %INCLUDE EDGSMFSR

 Serialization: None
 Function: Maps the RMM SMF security record.
 Deprecated - use IBM type 42 records
 (subtype 23) instead of user range
 SMF types.

Table 50. Structure SMFSR

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	140	SMFSR	
0	(0)	CHARACTER	140	SMFSAREC	SMF Security audit record
0	(0)	CHARACTER	2	SMFSALEN	Record length
4	(4)	BIT(8)	1	SMFSAFLG	System type
5	(5)	BIT(8)	1	SMFSARTY	Record type
6	(6)	CHARACTER	4	SMFSATME	Time, since midnight in hundredths of a second, that record was placed in the SMF buffer
10	(A)	CHARACTER	4	SMFSADTE	Date that record was placed in the SMF buffer. in the form 0CYDDDF, where F is the sign and C is 0 for 19YY and 1 for 20YY
14	(E)	CHARACTER	4	SMFSASID	System identification
18	(12)	CHARACTER	8	SMFSAJBN	Job name
26	(1A)	CHARACTER	4	SMFSARST	Reader start time
30	(1E)	CHARACTER	4	SMFSARSD	Reader start date
34	(22)	CHARACTER	8	SMFSAUIF	User identification
42	(2A)	CHARACTER	8	SMFSAUID	RACF user ID
50	(32)	CHARACTER	8	SMFSACGP	RACF connect group
58	(3A)	CHARACTER	1	SMFAVER	Record version identifier (2)
59	(3B)	CHARACTER	1	SMFSAACT	Activity type, one of : C - Data set Create, E - Data set Extend, U - Data set Update, R - Data set Read Access, D - Data set Delete
60	(3C)	BIT(8)	1	SMFSASTP	Security type
62	(3E)	CHARACTER	44	SMFSADSN	Data set name
106	(6A)	CHARACTER	6	SMFSAVOL	Volume serial number
112	(70)	CHARACTER	8	SMFSAUNT	Device type
120	(78)	UNSIGNED	2	SMFSADSQ	Data set sequence number
122	(7A)	UNSIGNED	2	SMFSAVSQ	Volume sequence number
140	(8C)	CHARACTER	0	SMFSEND	End of SMFSR

Table 51. Cross Reference for SMFSR			
Name	Offset	Hex Tag	Level
SMFSAACT	3B		3
SMFSACGP	32		3
SMFSADSN	3E		3
SMFSADSQ	78		3
SMFSADTE	A		3
SMFSAFLG	4		3
SMFSAJBN	12		3
SMFSALEN	0		3
SMFSAREC	0		2
SMFSARSD	1E		3
SMFSARST	1A		3
SMFSARTY	5		3
SMFSASID	E		3
SMFSASTP	3C		3
SMFSATME	6		3
SMFSAUID	2A		3
SMFSAUIF	22		3
SMFSAUNT	70		3
SMFSAVER	3A		3
SMFSAVOL	6A		3
SMFSAVSQ	7A		3
SMFSEND	8C		3
SMFSR	0		1

SMF owner information: EDGSOREC

EDGSOREC maps the owner information.

```

Common name: RMM SMF Record Owner SMF Information
Macro ID: EDGSOREC
DSECT name: MOREC
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: 0
Storage attributes: Subpool: N/A
                    Key: N/A
                    Residency: N/A

Size: MORECLN
Created by: EDGMFIO
Pointed to by: Assembler - USING on MOREC
                PL/X - %INCLUDE EDGMOREC

Serialization: None
Function: Maps the RMM SMF record owner information

```

Table 52. Structure MOREC					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	1728	MOREC	
0	(0)	CHARACTER	0	MORECORD	EDGSOREC information
0	(0)	CHARACTER	56	*	

Table 52. Structure MOREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	CHARACTER	1	MOTYPE	Owner info ID: '0'
1	(1)	CHARACTER	8	MOOWNER	Owner ID
9	(9)	CHARACTER	6	MORTYPE	Owner info type
15	(F)	CHARACTER	41	MOPAD1	Reserved - binary zeros
56	(38)	SIGNED	2	MORECLN	Record length
60	(3C)	CHARACTER	4	MOCRDATE	Owner create date - YYYYDDD
64	(40)	CHARACTER	4	MOCRTIME	Owner create time - HHMMSS
68	(44)	CHARACTER	8	MOCRSID	Create system ID
76	(4C)	CHARACTER	8	MORCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MOLCDATE	Last change date - YYYYDDD
88	(58)	CHARACTER	4	MOLCTIME	Last change time - HHMMSS
92	(5C)	CHARACTER	8	MOLCUID	Last change user ID
100	(64)	CHARACTER	8	MOLCSID	Last change system ID
108	(6C)	CHARACTER	4	MOUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MOUCTIME	Last "user" change time
116	(74)	BIT(8)	1	MOCFLG	Control flags 1
		1...		MODELFLG	Record deleted
		.1..		MOPDLFLG	Record previously deleted
		...1		MOSELFGL	Select - processed by satellite update
		.... 1...		MODUMMY	Dummy record - allow TSO ADD
		.... .1..		MOSETDUMMY	Dummy flag should be set
		.... ..1.		MOGMT1	Record converted to GMT once
		.... ...1		MOGMT2	Timestamps in GMT format
124	(7C)	CHARACTER	1604	*	
124	(7C)	CHARACTER	312	MOOWNDET	Owner details
124	(7C)	CHARACTER	20	MOOWNSUR	Owner surname
144	(90)	CHARACTER	20	MOOWNFST	Owner first name
164	(A4)	CHARACTER	40	MOOWNDEP	Owner department
204	(CC)	CHARACTER	40	MOOWNAD1	Owner address line 1
244	(F4)	CHARACTER	40	MOOWNAD2	Owner address line 2
284	(11C)	CHARACTER	40	MOOWNAD3	Owner address line 3
324	(144)	CHARACTER	8	MOOWNTIN	Owner internal telephone number
332	(14C)	CHARACTER	20	MOOWNTEX	Owner external telephone number
352	(160)	CHARACTER	8	MOOWNUID	Owner userid
360	(168)	CHARACTER	8	MOOWNNOD	Owner node name
368	(170)	SIGNED	4	MOOWNVOL	Total number of owned volumes
372	(174)	CHARACTER	63	MOOWNEML	Owner email address
436	(1B4)	CHARACTER	0	MOODETND	End of owner details
124	(7C)	CHARACTER	1604	MOVOLDDET	Volume details
124	(7C)	SIGNED	2	MOVOLNO	Owned volumes
128	(80)	CHARACTER	16	MOVOLENT	Volume entry
128	(80)	CHARACTER	6	MOVOLSER	Volume serial number

Table 52. Structure MOREC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
136	(88)	CHARACTER	8	MOUNIT	Unit type
144	(90)	CHARACTER	16	MOVOLNZ(99)	Area for remaining entries
1728	(6C0)	CHARACTER	0	MOVDETND	End of volume details
1728	(6C0)	CHARACTER	0	MORCEND	End of MOREC

Table 53. Constants for MOREC

Len	Type	Value	Name	Description
1	CHARACTER	0	MOTYPEID	Owner info ID symbol
1	DECIMAL	100	MOMXVOLS	Define the maximum number

Table 54. Cross Reference for MOREC

Name	Offset	Hex Tag	Level
MOCFLG	74		2
MOCRDATE	3C		2
MOCRSID	44		2
MOCRTIME	40		2
MODELFLG	74	80	3
MODUMMY	74	08	3
MOGMT1	74	02	3
MOGMT2	74	01	3
MOLCDATE	54		2
MOLCSID	64		2
MOLCTIME	58		2
MOLCUID	5C		2
MOODETND	1B4		4
MOOWNAD1	CC		4
MOOWNAD2	F4		4
MOOWNAD3	11C		4
MOOWNDEP	A4		4
MOOWNDET	7C		3
MOOWNEML	174		4
MOOWNER	1		3
MOOWNFST	90		4
MOOWNNOD	168		4
MOOWNSUR	7C		4
MOOWNTEX	14C		4
MOOWNTIN	144		4
MOOWNUID	160		4
MOOWNVOL	170		4
MOPAD1	F		3
MOPDLFLG	74	40	3
MORCCDS	4C		2

Table 54. Cross Reference for MOREC (continued)

Name	Offset	Hex Tag	Level
MORCEND	6C0		2
MOREC	0		1
MORECLN	38		2
MORECORD	0		2
MORTYPE	9		3
MOSELF LG	74	10	3
MOSETDUMMY	74	04	3
MOTYPE	0		3
MOUCDATE	6C		2
MOUCTIME	70		2
MOUNIT	88		5
MOVDETND	6C0		2
MOVOLDET	7C		3
MOVOLENT	80		4
MOVOLENZ	90		4
MOVOLNO	7C		4
MOVOLSER	80		5

SMF software product information: EDGSPREC

EDGSPREC maps the software product information.

Common name: RMM Product Information For SMF Records
Macro ID: EDGSPREC
DSECT name: MPREC
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: P
Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A
Size: MPRECLN
Created by: EDGMFIO
Pointed to by: Assembler - USING on MPREC
 PL/X - %INCLUDE EDGSPREC
Serialization: None
Function: Maps the SMF record product information

Table 55. Structure MPREC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	8420	MPREC	
0	(0)	CHARACTER	0	MPRECORD	EDGSPREC information
0	(0)	CHARACTER	56	*	
0	(0)	CHARACTER	1	MPTYPE	Program product info ID: 'P'
1	(1)	CHARACTER	8	MPPPNUM	Program product number (NNNN-CCC)
9	(9)	CHARACTER	6	MPVER	Version, release, modification number
15	(F)	CHARACTER	41	MPPAD1	Reserved - binary zeros
56	(38)	SIGNED	2	MPRECLN	Record length
60	(3C)	CHARACTER	4	MPCRDATE	Program product create date YYYYDDDD

Table 55. Structure MPREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
64	(40)	CHARACTER	4	MPCRTIME	Program product create time HHMMSS
68	(44)	CHARACTER	8	MPCRSID	Create system ID
76	(4C)	CHARACTER	8	MPRCDS	Record create CDS ID
84	(54)	CHARACTER	4	MPLCDATE	Last change date - YYYYDDD
88	(58)	CHARACTER	4	MPLCTIME	Last change time - HHMMSS
92	(5C)	CHARACTER	8	MPLCUID	Last change user ID
100	(64)	CHARACTER	8	MPLCSID	Last change system ID
108	(6C)	CHARACTER	4	MPUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MPUCTIME	Last "user" change time
116	(74)	BIT(8)	1	MPCFLG	Control flags 1
		1... ..		MPDELFLG	Record deleted
		.1... ..		MPPDLFLG	Record previously deleted
		...1 ...		MPSELFLG	Select - processed by satellite update
		.... 1...		MPDUMMY	Dummy record - allow TSO ADD
		.... .1..		MPSETDUMMY	Dummy flag should be set
		.... ..1.		MPGMT1	Record converted to GMT once
		.... ...1		MPGMT2	Timestamps in GMT format
124	(7C)	CHARACTER	8	MPPPOWN	Program product owner ID
132	(84)	CHARACTER	30	MPPPPNAME	Program product name
162	(A2)	CHARACTER	30	MPPPDDESC	Program product description
256	(100)	CHARACTER	8164	MPVOLDET	Volume details
256	(100)	SIGNED	2	MPVOLNO	Number of program product volumes
260	(104)	CHARACTER	32	MPVOLENT	Volume entry
260	(104)	CHARACTER	6	MPVOLSER	Volume serial
266	(10A)	CHARACTER	6	MPRACK	Rack number
272	(110)	CHARACTER	4	MPFEAT	Feature code
276	(114)	CHARACTER	8	MPUNIT	Unit type
8420	(20E4)	CHARACTER	0	MPRCEND	End of MPREC

Table 56. Constants for MPREC

Len	Type	Value	Name	Description
1	CHARACTER	P	MPTYPEID	Program product info ID symbol
1	DECIMAL	255	MPVOLMAX	Maximum number of program product volumes

Table 57. Cross Reference for MPREC

Name	Offset	Hex Tag	Level
MPCFLG	74		2
MPCRDATE	3C		2
MPCRSID	44		2
MPCRTIME	40		2
MPDELFLG	74	80	3

Table 57. Cross Reference for MPREC (continued)

Name	Offset	Hex Tag	Level
MPDUMMY	74	08	3
MPFEAT	110		4
MPGMT1	74	02	3
MPGMT2	74	01	3
MPLCDATE	54		2
MPLCSID	64		2
MPLCTIME	58		2
MPLCUID	5C		2
MPPAD1	F		3
MPPDLFLG	74	40	3
MPPPDESC	A2		2
MPPNAME	84		2
MPPNUM	1		3
MPPOWN	7C		2
MPRACK	10A		4
MPRCCDS	4C		2
MPRCEND	20E4		2
MPREC	0		1
MPRECLN	38		2
MPRECORD	0		2
MPSELFGL	74	10	3
MPSETDUMMY	74	04	3
MPTYPE	0		3
MPUCDATE	6C		2
MPUCTIME	70		2
MPUNIT	114		4
MPVER	9		3
MPVOLDET	100		2
MPVOLENT	104		3
MPVOLNO	100		3
MPVOLSER	104		4

SMF library shelf location information: EDGSRREC

EDGSRREC maps the library shelf location information.

Common name: RMM SMF Rack Record
 Macro ID: EDGSRREC
 DSECT name: MRREC
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: E, F, or U
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A

 Size: MRRECLN
 Created by: EDGMFIO
 Pointed to by: Assembler - USING on MRREC
 PL/X - %INCLUDE EDGSRREC

 Serialization: None
 Function: Maps the MRREC structure to identify the
 details within the RMM SMF rack record.

Table 58. Structure MRREC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	140	MRREC	
0	(0)	CHARACTER	0	MRRECORD	
0	(0)	CHARACTER	56	*	
0	(0)	CHARACTER	1	MRTYPE	Rack type ID
2	(2)	CHARACTER	8	MRMEDIA	Media name
2	(2)	CHARACTER	8	MRUNIT	Unit type
10	(A)	CHARACTER	6	MRRACK	Rack number
16	(10)	CHARACTER	40	MRPAD1	
56	(38)	SIGNED	2	MRRECLN	Record length
60	(3C)	CHARACTER	4	MRCRDATE	Rack create date (YYYYDDD)
64	(40)	CHARACTER	4	MRCRTIME	Rack create time (HHMMSS)
68	(44)	CHARACTER	8	MRCRSID	Create system ID
76	(4C)	CHARACTER	8	MRRCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MRLCDATE	Last change date (YYYYDDD)
88	(58)	CHARACTER	4	MRLCTIME	Last change time (HHMMSS)
92	(5C)	CHARACTER	8	MRLCUID	Last change user ID
100	(64)	CHARACTER	8	MRLCSID	Last change system ID
108	(6C)	CHARACTER	4	MRUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MRUCTIME	Last "user" change time
116	(74)	BIT(8)	1	MRCFLG	Control flags 1
		1... ..		MRDELFLG	Record deleted
		.1.. ..		MRPDLFLG	Record previously deleted
		...1 ..		MRSELFLG	Select - processed by satellite update
		.... 1..		MRDUMMY	Dummy record - allow TSO ADD
		.... .1..		MRSETDUMMY	Dummy flag should be set
		.... ..1.		MRGMT1	Record converted to GMT once
		.... ...1		MRGMT2	Timestamps in GMT format
124	(7C)	CHARACTER	6	MRVOLSER	Assigned volume serial number or zeroes
140	(8C)	CHARACTER	0	MRRCEND	End of MRREC

Table 59. Constants for MRREC

Len	Type	Value	Name	Description
1	CHARACTER	E	MRTYPEE	Empty rack
1	CHARACTER	F	MRTYPEF	Free / scratch rack
1	CHARACTER	U	MRTYPEU	In use rack

Table 60. Cross Reference for MRREC

Name	Offset	Hex Tag	Level
MRCFLG	74		2
MRCRDATE	3C		2
MRCRSID	44		2
MRCRTIME	40		2
MRDELFLG	74	80	3
MRDUMMY	74	08	3
MRGMT1	74	02	3
MRGMT2	74	01	3
MRLCDATE	54		2
MRLCSID	64		2
MRLCTIME	58		2
MRLCUID	5C		2
MRMEDIA	2		3
MRPAD1	10		3
MRPDLFLG	74	40	3
MRRACK	A		3
MRRCCDS	4C		2
MRRCEND	8C		2
MRREC	0		1
MRRECLN	38		2
MRRECORD	0		2
MRSELFLG	74	10	3
MRSETDUMMY	74	04	3
MRTYPE	0		3
MRUCDATE	6C		2
MRUETIME	70		2
MRUNIT	2		4
MRVOLSER	7C		2

SMF storage location bin information: EDGSSREC

EDGSSREC maps the storage location bin information.

Common name: RMM SMF Bin Record
 Macro ID: EDGSSREC
 DSECT name: MSREC
 Owning component: DFSMSrmm (DF186)
 Eye-catcher ID: R, or S
 Storage attributes: Subpool: N/A
 Key: N/A
 Residency: N/A

 Size: MSRECLN
 Created by: EDGMFIO
 Pointed to by: Assembler - USING on MSREC
 PL/X - %INCLUDE EDGSSREC

 Serialization: None
 Function: Maps the MSREC structure to identify
 the details within the RMM SMF bin record.

Table 61. Structure MSREC

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	164	MSREC	
0	(0)	CHARACTER	0	MSRECORD	
0	(0)	CHARACTER	56	*	
0	(0)	CHARACTER	1	MSTYPE	Store ID: R, S
1	(1)	CHARACTER	1	MSRMSTID	Remote store ID: D, L, R, U
2	(2)	CHARACTER	54	*	Two key formats
2	(2)	CHARACTER	54	*	Old bin format
2	(2)	CHARACTER	8	MSSRSVD1	Reserved
10	(A)	CHARACTER	6	MSBINNO	Bin number
16	(10)	CHARACTER	40	MSPAD1	Reserved
2	(2)	CHARACTER	54	*	New bin format
2	(2)	CHARACTER	8	MSUSTNAM	User store name
10	(A)	CHARACTER	8	MSUMEDNM	User store bin media name
18	(12)	CHARACTER	6	MSUBINNO	User store bin name
56	(38)	SIGNED	2	MSRECLN	Record length
60	(3C)	CHARACTER	4	MSCRDATE	Create date (YYYYDDD)
64	(40)	CHARACTER	4	MSCRTIME	Create time (HHMMSST)
68	(44)	CHARACTER	8	MSCRSID	Create system ID
76	(4C)	CHARACTER	8	MSRCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MSLCDATE	Last change date (YYYYDDD)
88	(58)	CHARACTER	4	MSLCTIME	Last change time (HHMMSST)
92	(5C)	CHARACTER	8	MSLCUID	Last change user ID
100	(64)	CHARACTER	8	MSLCSID	Last change system ID
108	(6C)	CHARACTER	4	MSUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MSUCTIME	Last "user" change time
116	(74)	BIT(8)	1	MSCFLG	Control flags 1
		1...		MSDEFLG	Record deleted
		.1..		MSPDLFLG	Record previously deleted
		...1		MSSELFGL	Select - processed by satellite update
		.... 1...		MSDUMMY	Dummy record - allow TSO add
		.... .1..		MSSETDUMMY	Dummy flag should be set

Table 61. Structure MSREC (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... ..1.		MSGMT1	Record converted to GMT once
		.... ...1		MSGMT2	Timestamps in GMT format
124	(7C)	CHARACTER	6	MSVOLSER	Assigned volume serial number or zeroes
Level 1 section (24 bytes)					
140	(8C)	CHARACTER	6	MSMOVINGINVOL	Moving in volume
146	(92)	CHARACTER	6	MSMOVINGOUTVOL	Moving out volume
152	(98)	CHARACTER	6	MSOLDVOL	Old volume
164	(A4)	CHARACTER	0	MSRCEND	End of MSREC

Table 62. Constants for MSREC				
Len	Type	Value	Name	Description
1	CHARACTER	R	MSTYPER	Empty bin
1	CHARACTER	S	MSTYPES	Assigned bin
1	CHARACTER	D	MSSTIDD	Distant store
1	CHARACTER	L	MSSTIDL	Local store
1	CHARACTER	R	MSSTIDR	Remote store

Table 63. Cross Reference for MSREC			
Name	Offset	Hex Tag	Level
MSBINNO	A		5
MSCFLG	74		2
MSCRDATE	3C		2
MSCRSID	44		2
MSCRTIME	40		2
MSDEFLG	74	80	3
MSDUMMY	74	08	3
MSGMT1	74	02	3
MSGMT2	74	01	3
MSLCDATE	54		2
MSLCSID	64		2
MSLCTIME	58		2
MSLCUID	5C		2
MSMOVINGINVOL	8C		2
MSMOVINGOUTVOL	92		2
MSOLDVOL	98		2
MSPAD1	10		5
MSPDLFLG	74	40	3
MSRCCDS	4C		2
MSRCEND	A4		2
MSREC	0		1
MSRECLN	38		2

Table 63. Cross Reference for MSREC (continued)			
Name	Offset	Hex Tag	Level
MSRECORD	0		2
MSRMSTID	1		3
MSSELF LG	74	10	3
MSSETDUMMY	74	04	3
MSSRSVD1	2		5
MSTYPE	0		3
MSUBINNO	12		5
MSUCDATE	6C		2
MSUCTIME	70		2
MSUMEDNM	A		5
MSUSTNAM	2		5
MSVOLSER	7C		2

SMF volume information: EDGSVREC

EDGSVREC maps the volume information.

```

Common name: RMM SMF Volume Record
Macro ID: EDGSVREC
DSECT name: MVREC
Owning component: DFSMSrmm (DF186)
Eye-catcher ID: V
Storage attributes: Subpool: N/A
                    Key: N/A
                    Residency: N/A

Size: MVRECLN
Created by: EDGMFIO
Pointed to by: Assembler - USING on MVREC
                PL/X - %INCLUDE EDGSVREC

Serialization: None
Function: Maps the MVREC structure to identify
         the details within the RMM SMF volume
         record.

```

Table 64. Structure MVREC					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	1012	MVREC	
0	(0)	CHARACTER	0	MVRECORD	
0	(0)	CHARACTER	56	MVKEY	Volume Record key field
0	(0)	CHARACTER	1	MVTYPE	Volume info type 'V'
2	(2)	CHARACTER	6	MVVOLSER	Volume serial number
8	(8)	CHARACTER	48	MVPAD1	Reserved - binary zeros
56	(38)	SIGNED	2	MVRECLN	Record length
60	(3C)	CHARACTER	4	MVCRDATE	Volume create date (YYYYDDD)
64	(40)	CHARACTER	4	MVCRTIME	Volume create time (HHMMSS)
68	(44)	CHARACTER	8	MVCRSID	Create system ID
76	(4C)	CHARACTER	8	MVRCCDS	Record create CDS ID
84	(54)	CHARACTER	4	MVLCDATE	Last change date (YYYYDDD)
88	(58)	CHARACTER	4	MVLC TIME	Last change time (HHMMSS)

Table 64. Structure MVREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
92	(5C)	CHARACTER	8	MVLCUID	Last change user ID
100	(64)	CHARACTER	8	MVLCSID	Last change system ID
108	(6C)	CHARACTER	4	MVUCDATE	Last "user" change date
112	(70)	CHARACTER	4	MVUETIME	Last "user" change time
116	(74)	BIT(8)	1	MVCFLG	Control flags 1
		1...		MVDELFLG	Record deleted
		.1..		MVPDLFLG	Record previously deleted
		..1.		MVUPDFLG	Direct IO update
		...1		MVSEFLG	Select - processed by satellite update
		.... 1...		MVDUMMY	Dummy record - allow TSO add
		.... .1..		MVSETDUMMY	Dummy flag should be set
		.... ..1.		MVGMT1	Record converted to GMT once
		.... ...1		MVGMT2	Timestamps in GMT format
117	(75)	BIT(8)	1	MVRECLEV	Record level number
124	(7C)	CHARACTER	4	MVEXPDT0	Expiration date - original
128	(80)	CHARACTER	4	MVEXPDT	Expiration date (YYYYDDD)
132	(84)	BIT(8)	1	MVRDEN	Copy of JFCBDEN
133	(85)	CHARACTER	1	MVDEN	Recording density
134	(86)	UNSIGNED	2	MVDSNNO	Number of data sets on volume
136	(88)	UNSIGNED	4	MVTUSE	Tape usage in kilobytes
140	(8C)	SIGNED	2	MVUSE	Volume use count
142	(8E)	BIT(8)	1	MVSTSTAT	Store status
143	(8F)	BIT(8)	1	MVVRSEL	VRS release options
		1...		MVVRFXDI	Expiration date ignore
		.1..		MVVRFSCI	Scratch immediate
144	(90)	UNSIGNED	2	MVLABNO1	Label number of first file
146	(92)	CHARACTER	4	MVTDSI	Tape media type information
146	(92)	BIT(8)	1	MVMEDREC	Recording format, one of: NON CARTRIDGE (X'00'), 18TRACK (X'01'), 36TRACK (X'02'), 128TRACK (X'03'), 256TRACK (X'04'), 384TRACK (X'05'), EFMT1 (X'06'), EFMT2 (X'07'), EEFMT2 (X'08'), EFMT3 (X'09'), EEFMT3 (X'0A'), EFMT4 (X'0B'), EEFMT4 (X'0C')
147	(93)	BIT(8)	1	MVMEDTY	Tape media type, one of: NON CARTRIDGE (X'00'), CST (X'01'), ECCST (X'02'), HPCT (X'03'), EHPCT (X'04'), MEDIA5 3592 R/W (X'05'), MEDIA6 3592 WORM (X'06'), MEDIA7 3592 R/W 60 (X'07'), MEDIA8 3592 WORM 60 (X'08'), MEDIA9 3592 EXTENDED (X'09'), MEDIA10 3592 EXTENDED WORM (X'0A'), MEDIA11 3592 ADVANCED (X'0B'), MEDIA12 3592 ADV.WORM (X'0C'), MEDIA13 3592 ADV.ECON (X'0D')
148	(94)	BIT(8)	1	MVMEDCMP	Tape compaction, one of: UNKNOWN (X'00'), NOT COMPACTED (X'01'), COMPACTED (X'02')
149	(95)	BIT(8)	1	MVMEDATR	Tape special attributes, one of: none (X'00'), 18 track read only (X'01')

Table 64. Structure MVREC (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
150	(96)	CHARACTER	1	MVSTORID	Store location ID
151	(97)	CHARACTER	1	MVNSTRID	New store location
152	(98)	CHARACTER	8	MVNLOC	Desired location name
160	(A0)	SIGNED	4	MVSTBIN	Store bin number
164	(A4)	SIGNED	4	MVOBIN	Old bin number
168	(A8)	CHARACTER	4	MVSTDATE	Date stored (YYYYDDD)
172	(AC)	CHARACTER	4	MVLUDEV	Last used device
176	(B0)	CHARACTER	8	MVLONLOC	Loan location
184	(B8)	CHARACTER	8	MVOLNLOC	Old loan location
192	(C0)	CHARACTER	4	MVLRDDAT	Date volume last read (YYYYDDD)
196	(C4)	CHARACTER	4	MVLWTDAT	Date volume last written
200	(C8)	CHARACTER	8	MVASDATM	Assigned date and time
200	(C8)	CHARACTER	4	MVASDATE	Assigned date (YYYYDDD)
204	(CC)	CHARACTER	4	MVASTIME	Assigned time (HHMMSS)
208	(D0)	CHARACTER	8	MVOWNID	Volume owner user ID
216	(D8)	CHARACTER	8	MVCRUID	Creating user ID
224	(E0)	CHARACTER	8	MVCRJOB	Creating job name
232	(E8)	BIT(8)	1	MVSECLEV	Security classification level
233	(E9)	BIT(8)	1	MVFLGAX	Flags 'A' - status extension
		1... ..		MVGVCFLG	Scratch volume claimed via GETVOLUME
		.1.. ..		MXINFLG	Scratch volume has never been initialized
		..1.		MVINIFLG	Scratch volume with init action pending
		...1		MVENTFLG	Scratch volume waiting to enter ATL
		.... 1...		MVFABEND	ABEND in process when a data set closed
		.... .1..		MVFOCEAB	ABEND probably in O/C/E0V
		.... ..1.		MVATIFLG	Initialization required for ATL volume
		.... ...1		MVFORCE	Force supplied
234	(EA)	SIGNED	2	MVVOLSEQ	Volume sequence number
236	(EC)	CHARACTER	1	*	
236	(EC)	BIT(8)	1	MVFLGA	Flags 'A' - status
		1... ..		MVMSTFLG	Volume is master
		.1.. ..		MVRLSFLG	Volume pending release
		..1.		MVVRFLG	Vital record - do not release
		...1		MVASSFLG	User tape (assigned by library)
		.... 1...		MVLONFLG	Tape is on loan
		.... .1..		MVOPNFLG	Tape opened and not yet closed
		.... ..1.		MVSCRFLG	Volume is scratch
		.... ...1		MVOCEFLG	Volume recorded by O/C/E0V
236	(EC)	BIT(8)	1	*	Flags 'A' - status
		.... ...1		MVEXRFLG	Stacked volume recorded by export

Table 64. Structure MVREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
237	(ED)	BIT(8)	1	MVFLGB	Flags 'B'
		1...		MVDEFRET	Default retention period used
		.1..		MVPPTAPE	Program product tape
		..1.		MVNLTAPE	Label type is NL
		...1		MVALTAPE	Label type is AL
		.... 1...		MVSLTAPE	Label type is SL
		.... ..1.		MVBLTAPE	Tape last written using BLP
		.... ...1		MVULTAPE	SL or AL tape has user labels
238	(EE)	BIT(8)	1	MVFLGC	Flags 'C' - release actions
		1...		MVRETSCR	Return to scratch pool - default
		.111 1111		MVRELACT	Release actions
		.1..		MVREPREL	Replace tape on release
		..1.		MVREINIT	Reinitialize
		...1		MVDEGAUS	Degauss / security erase
		.... 1...		MVROWNER	Return to owner
		.... ..1..		MVNOWNER	Notify owner
239	(EF)	BIT(8)	1	MVFLGD	Flags 'D' - access
		1...		MVOREAD	Owner may read volume
		.1..		MVOUPD	Owner may update volume
		..1.		MVOALT	Owner may alter volume
		...1		MVPROTR	Read-only protection
		.... 1...		MVPROTU	Update protection
		.... ..1..		MVMVSUSE	May be used on MVS systems
		.... ..1.		MVMUSE	May be used on VM systems
		.... ...1		MVNODSNR	Only first data set recorded
240	(F0)	BIT(8)	1	MVFLGE	Flags 'E' - actions pending
		1...		MVRETSCR	
		.111 1111		MVRELACT	
		.1..		MVREPREL	
		..1.		MVREINIT	
		...1		MVDEGAUS	
		.... 1...		MVROWNER	
		.... ..1..		MVNOWNER	
241	(F1)	BIT(8)	1	MVLTP	Copy of JFCBLTYP
242	(F2)	CHARACTER	2	MVALVERS	ANSI label version in binary
242	(F2)	UNSIGNED	1	MVALCUR	Current label version
243	(F3)	UNSIGNED	1	MVALREQ	Required label version
244	(F4)	CHARACTER	8	MVMEDIA	Installations media name
244	(F4)	CHARACTER	8	MVUNIT	Unit type
252	(FC)	CHARACTER	6	MVRACK	Rack number
258	(102)	CHARACTER	6	MVPVOL	Previous volume serial number if multi volume

Table 64. Structure MVREC (continued)					
Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
264	(108)	CHARACTER	6	MVNVOL	Next volume serial number if multi volume
270	(10E)	CHARACTER	4	MVUCBTYP	Copy of UCBTYP field from UCB
274	(112)	CHARACTER	8	MVERRCNT	Error counts
274	(112)	SIGNED	2	MVTRERR	Temporary read errors
276	(114)	SIGNED	2	MVTWERR	Temporary write errors
278	(116)	SIGNED	2	MVPRERR	Permanent read errors
280	(118)	SIGNED	2	MVPWERR	Permanent write errors
282	(11A)	CHARACTER	4	MVBLKID	BLOCKID RETURNED BY OCE EXIT
286	(11E)	CHARACTER	18	MVPPDATA	Program product data
286	(11E)	CHARACTER	8	MVPPNUM	Program product number
294	(126)	CHARACTER	6	MVVER	Version / release / modification level
300	(12C)	CHARACTER	4	MVFEAT	Feature code
304	(130)	BIT(8)	1	MVTRTCH	From JFCTRTCH - IDRC support
		.... 1...		MVTCOMP	Data set compaction
		.... .1..		MVTNCOMP	No compaction
305	(131)	CHARACTER	6	MVOPVOL	OLD PREVIOUS VOLUME
311	(137)	CHARACTER	8	MVTOKEN	Reserved for O/C/E OV
319	(13F)	BIT(8)	1	MVLOCFLG	Flag byte for library support
		1...		MVTRNFLG	Indicates volume in transit, when not set, volume is in location.
		.1..		MVMVMODE	Move mode: automove (B'0'), manualmove (B'1')
		..1.		MVEXTBINAPPLIED	Extended bin applied
		...1		MVCOPEXP	volume was subject to copy export processing
		.... 1111		MVLTFLG	Location type - 4 bits, shelf location (B'0000'), storage location (B'0001'), manual library (B'0010'), automatic library (B'0011'), store with bins (B'0100'), store without bins (B'0101')
320	(140)	CHARACTER	2	MVTYPFLG	Flags for location type information
320	(140)	BIT(8)	1	*	
		1111		MVNTYFLG	Location type - 4 bits, shelf location (B'0000'), storage location (B'0001'), manual library (B'0010'), automatic library (B'0011'), store with bins (B'0100'), store without bins B(B'0101')
		.... 1111		MVDTYFLG	Location type - 4 bits shelf location (B'0000'), storage location (B'0001'), manual library (B'0010'), automatic library (B'0011'), store with bins (B'0100'), store without bins B(B'0101')
321	(141)	BIT(8)	1	*	
		1111		MVHTYFLG	Location type - 4 bits, shelf location (B'0000'), storage location (B'0001'), manual library (B'0010'), automatic library (B'0011'), store with bins (B'0100'), store without bins B(B'0101')

Table 64. Structure MVREC (continued)

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
		.... 1111		MVOTYFLG	Old location type - 4 bits, shelf location (B'0000'), storage location (B'0001'), manual library (B'0010'), automatic library (B'0011'), store with bins (B'0100'), store without bins B(B'0101')
322	(142)	SIGNED	2	MVRQPRTY	Required location priority
324	(144)	UNSIGNED	4	MVCAPACITY	Volume capacity in megabytes (for uncompressed data)
328	(148)	CHARACTER	8	MVHLOC	Home location name
336	(150)	CHARACTER	8	MVSGNAME	Storage group name
344	(158)	CHARACTER	8	MVLOC	Location name
352	(160)	CHARACTER	8	MVDEST	Destination name
360	(168)	CHARACTER	8	MVOLOC	Previous location name
368	(170)	CHARACTER	6	MVUSBIN	Shelf managed store bin number
374	(176)	CHARACTER	8	MVUBMDN	Shelf managed store bin media name
382	(17E)	CHARACTER	6	MVUSOBIN	Shelf managed store old bin number
388	(184)	CHARACTER	8	MVUOBMDN	Shelf managed store old bin media name
396	(18C)	CHARACTER	4	MVRETDAT	Retention date
400	(190)	CHARACTER	6	MVOLDVOLSER	Old VOLSER if renaming VOLSER
406	(196)	CHARACTER	6	MVOLDRACK	Old RACK if renaming VOLSER
412	(19C)	CHARACTER	8	MVLCTOKN	Volume last change token
420	(1A4)	UNSIGNED	1	MVVOLTYPE	Volume type
421	(1A5)	BIT(8)	1	MVFLGF	Flags 'F'
		1...		MVRBYSET	Retained by volume set
		.1..		MVWORM	Write once read multiple
		..1.		MVHOLD	Will not be set pending release
		...1		MVF_KBTRV	MSNS KBTRV used for Phys_siz
		.... 1...		MVWHILECATUX	Volume has EXPDT of DSN with WhileCat=UX and Catalog=yes
		.... .1..		MVEDM	EDM-managed volume
		.... ...1		MVIRMMUSE	May be used on IRMM system
-- Level 1 fixed length section (62 bytes) -----					
422	(1A6)	CHARACTER	8	MVDCRSID	First data set create system ID
430	(1AE)	CHARACTER	16	MVCONTAINER	Container
430	(1AE)	CHARACTER	6	MVCONTAINER_STV	Stacked volume
446	(1BE)	CHARACTER	16	MVOLD_CONTAINER	Old container
462	(1CE)	CHARACTER	8	MVEXPTOKEN	Export token
470	(1D6)	UNSIGNED	2	MVDSKEPTBYCAT	Datasets Kept by Catalog
479	(1DF)	UNSIGNED	1	MVLAST_POSN	Last file end media position
480	(1E0)	UNSIGNED	4	MV_STV_VOLCOUNT	Volume count
Level 2 fixed length section (64 bytes)					
484	(1E4)	CHARACTER	6	MVDESTBIN	Destination bin number

Table 64. Structure MVREC (continued)					
Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
490	(1EA)	CHARACTER	8	MVDESTBINMEDIA	Destination bin media name
498	(1F2)	CHARACTER	6	MVVOL1	VOL1 label volume serial number
504	(1F8)	CHARACTER	8	MVVENDOR	Vendor information
512	(200)	CHARACTER	12	MVWWID	Unique world wide ID
524	(20C)	UNSIGNED	2	MVVWMC	Volume write mount count
526	(20E)	CHARACTER	8	MVMEDINF	Media information name
534	(216)	CHARACTER	4	MVEXPTM	Expiration time
538	(21A)	CHARACTER	4	MVLRDTIM	Last read time
542	(21E)	CHARACTER	4	MVLWTTIM	Last write time
546	(222)	UNSIGNED	1	MVESBEXPTSETBY	Expiry date set by
547	(223)	UNSIGNED	1	MVRETENTIONMETHOD	Retention method
Level 3 fixed length section (64 bytes)					
548	(224)	UNSIGNED	1	MVRETMETSETBY	Retention method set by
549	(225)	UNSIGNED	1	MVEXPDT_RETAINBY	RM(EXPDT) retainBy option
552	(228)	SIGNED	8	MVTUSE64	Size in kilobytes
560	(230)	UNSIGNED	8	MVPHYS_USED	Vol. phys. space used in KB
Variable length section					
612	(264)	CHARACTER	400	MVVARSEC	Variable length section
612	(264)	UNSIGNED	1	MVDSN1L	Length of first data set name on volume
613	(265)	UNSIGNED	1	MVDSNLL	Length of last data set name on volume
614	(266)	UNSIGNED	1	MVACCLEN	Length of accounting field
615	(267)	UNSIGNED	1	MVUSELEN	Length of user description
616	(268)	UNSIGNED	1	MVACCLST	Number of entries in the user access list
617	(269)	UNSIGNED	1	MVENCKEY1L	Length of encryption key 1
618	(26A)	UNSIGNED	1	MVENCKEY2L	Length of encryption key 2
624	(270)	CHARACTER	44	MVDSN1	Data set name of first file
668	(29C)	CHARACTER	44	MVDSNL	Data set name of last file
712	(2C8)	CHARACTER	40	MVACCINF	Accounting information
752	(2F0)	CHARACTER	30	MVDESC	User description
752	(2F0)	CHARACTER	30	MVUSEFLD	User description
784	(310)	CHARACTER	96	MVAUTIDS	Authorized user IDs area
784	(310)	CHARACTER	8	MVAUTHID	First authorized user ID slot
880	(370)	CHARACTER	0	MVAUTHND	Authorized field end marker
880	(370)	CHARACTER	65	MVENCKEY1	Encryption key 1
880	(370)	CHARACTER	1	MVKEYENCOD1	Encoding mechanism 1, L or H
881	(371)	CHARACTER	64	MVKEYLABEL1	Encryption key label 1
945	(3B1)	CHARACTER	65	MVENCKEY2	Encryption key 2
945	(3B1)	CHARACTER	1	MVKEYENCOD2	Encoding mechanism 2, L or H
946	(3B2)	CHARACTER	64	MVKEYLABEL2	Encryption key label 2

Table 64. Structure MVREC (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
1010	(3F2)	CHARACTER	0	MVALLEND	All fields end marker
1012	(3F4)	CHARACTER	0	MVRCEND	End of macro

Table 65. Constants for MVREC

Len	Type	Value	Name	Description
----- Constants -----				
1	CHARACTER	V	MVTYPEID	Volume type ID
1	CHARACTER	3	MVDEN3	1600 bpi
1	CHARACTER	4	MVDEN4	6250 bpi
1	CHARACTER	9	MVDEN9	3480
1	CHARACTER	C	MVDENC	3480 compacted (IDRC)
1	CHARACTER	*	MVDENU	Undefined
1	HEX	01	MVSTS001	Tape library to remote store
1	HEX	02	MVSTS002	Remote store to tape library
1	HEX	03	MVSTS003	Tape library to local store
1	HEX	04	MVSTS004	Local store to tape library
1	HEX	05	MVSTS005	Local store to distant store
1	HEX	06	MVSTS006	Tape library to distant store
1	HEX	07	MVSTS007	Distant store to tape library
1	HEX	09	MVSTS009	Store location valid
1	NUMB HEX	00	MVALNOV	No Label version
1	NUMB HEX	01	MVALVE1	Label version 1
1	NUMB HEX	03	MVALVE3	Label version 3
1	NUMB HEX	04	MVALVE4	Label version 4
1	CHARACTER	D	MVSTIDD	Distant store
1	CHARACTER	L	MVSTIDL	Local store
1	CHARACTER	R	MVSTIDR	Remote store
1	CHARACTER	T	MVSTIDT	Tape library
1	NUMB HEX	00	MVVOLTYPE_PHYSICAL	
1	NUMB HEX	01	MVVOLTYPE_LOGICAL	
1	NUMB HEX	02	MVVOLTYPE_STACKED	
----- Constants for MvEsbExpdtSetBy -----				
1	DECIMAL	0	MVESB_UNKNOWN	unknown or not set
1	DECIMAL	1	MVESB_CMD	command
1	DECIMAL	2	MVESB_CMD_DEF	command from default RETPD
1	DECIMAL	3	MVESB_CMD_VOLCAT	command from VOLCAT
1	DECIMAL	4	MVESB_OCE_JFCB	O/C/EoV from JFCB
1	DECIMAL	5	MVESB_OCE_EXIT	O/C/EoV from EDG_EXIT100
1	DECIMAL	6	MVESB_OCE_DEF	O/C/EoV from default RETPD

Table 65. Constants for MVREC (continued)				
Len	Type	Value	Name	Description
1	DECIMAL	7	MVESB_OCE_MAX	O/C/EoV from MAXRETPD
1	DECIMAL	8	MVESB_OCE_VOLCAT	O/C/EoV from VOLCAT
1	DECIMAL	9	MVESB_LCS	Library Control System
1	DECIMAL	10	MVESB_LCS_DEF	LCS from default RETPD
1	DECIMAL	11	MVESB_TVEXTPURGE	TVEXTPURGE interface
1	DECIMAL	12	MVESB_CNVT	conversion
1	DECIMAL	13	MVESB_EXPORT	export to stacked volume
1	DECIMAL	14	MVESB_LASTREF	last reference event
1	DECIMAL	15	MVESB_OCE_MC	O/C/EoV from Mgmt class
1	DECIMAL	16	MVESB_CATRETPD	hours after creation time
1	DECIMAL	17	MVESB_CATLG_DAYS	Cat Days after DS is UNCTLG
1	DECIMAL	18	MVESB_DEFTABLE	defaults table
----- Constants for MvRetentionMethod -----				
1	DECIMAL	0	MVRM_VRSEL	VRSEL
1	DECIMAL	1	MVRM_EXPDT	EXPDT
----- Constants for MvRetMetSetBy -----				
1	DECIMAL	0	MVRMSB_UNDEFINED	undefined
1	DECIMAL	1	MVRMSB_CMD	command
1	DECIMAL	2	MVRMSB_CMD_DEF	command from parmlib option
1	DECIMAL	3	MVRMSB_OCE_DEF	O/C/EoV from parmlib option
1	DECIMAL	4	MVRMSB_OCE_EXIT	O/C/EoV from EDG_EXIT100
1	DECIMAL	5	MVRMSB_LCS_DEF	LCS from parmlib option
1	DECIMAL	6	MVRMSB_CNVT	conversion
1	DECIMAL	7	MVRMSB_EXPORT_DEF	export from parmlib option
1	DECIMAL	8	MVRMSB_INERS_DEF	EDGINERS from parmlib option
1	DECIMAL	9	MVRMSB_MC_ATTR	O/C/EoV from MC attributes
1	DECIMAL	10	MVRMSB_DEFTABLE	defaults table
----- Constants for MvEXPDT_RetainBy -----				
1	DECIMAL	0	MVEXPDT_VOLUME	retain by volume
1	DECIMAL	1	MVEXPDT_FIRSTFILE	retain by first file
1	DECIMAL	2	MVEXPDT_SET	retain by volume set

Table 66. Cross Reference for MVREC			
Name	Offset	Hex Tag	Level
MV_STV_VOLCOUNT	1E0		2
MVACCINF	2C8		3
MVACCLN	266		3

Table 66. Cross Reference for MVREC (continued)

Name	Offset	Hex Tag	Level
MVACCLST	268		3
MVALCUR	F2		3
MVALLEND	3F2		3
MVALREQ	F3		3
MVALTAPE	ED	10	3
MVALVERS	F2		2
MVASDATE	C8		3
MVASDATM	C8		2
MVASSFLG	EC	10	4
MVASTIME	CC		3
MVATIFLG	E9	02	3
MVAUTHID	310		4
MVAUTHND	370		3
MVAUTIDS	310		3
MVBLKID	11A		2
MVBLTAPE	ED	02	3
MVCAPACITY	144		2
MVCFLG	74		2
MVCONTAINER	1AE		2
MVCONTAINER_STV	1AE		3
MVCOPEXP	13F	10	3
MVCRDATE	3C		2
MVCRJOB	E0		2
MVCRSID	44		2
MVCRTIME	40		2
MVCRUID	D8		2
MVDCRSID	1A6		2
MVDEFRET	ED	80	3
MVDEGAUS	EE	10	4
MVDEGAUS	F0	10	4
MVDELFLG	74	80	3
MVDEN	85		2
MVDESC	2F0		3
MVDEST	160		2
MVDESTBIN	1E4		2
MVDESTBINMEDIA	1EA		2
MVDSKEPTBYCAT	1D6		2
MVDSNL	29C		3
MVDSNLL	265		3
MVDSNNO	86		2
MVDSN1	270		3
MVDSN1L	264		3

Table 66. Cross Reference for MVREC (continued)			
Name	Offset	Hex Tag	Level
MVDTYFLG	140	0F	4
MVDUMMY	74	08	3
MVEDM	1A5	04	3
MVENCKEY1	370		3
MVENCKEY1L	269		3
MVENCKEY2	3B1		3
MVENCKEY2L	26A		3
MVENTFLG	E9	10	3
MVERRCNT	112		2
MVESBEXPDTSETBY	222		2
MVEXPDT	80		2
MVEXPDT_RETAINBY	225		2
MVEXPDT0	7C		2
MVEXPTM	216		2
MVEXPTOKEN	1CE		2
MVEXRFLG	EC	01	4
MVEXTBINAPPLIED	13F	20	3
MVF_KBTRV	1A5	10	3
MVFABEND	E9	08	3
MVFEAT	12C		3
MVFLGA	EC		3
MVFLGAX	E9		2
MVFLGB	ED		2
MVFLGC	EE		2
MVFLGD	EF		2
MVFLGE	F0		2
MVFLGF	1A5		2
MVFOCEAB	E9	04	3
MVFORCE	E9	01	3
MVGMT1	74	02	3
MVGMT2	74	01	3
MVGVCFLG	E9	80	3
MVHLOC	148		2
MVHOLD	1A5	20	3
MVHTYFLG	141	F0	4
MVINIFLG	E9	20	3
MVIRMMUSE	1A5	01	3
MVKEY	0		2
MVKEYENCOD1	370		4
MVKEYENCOD2	3B1		4
MVKEYLABEL1	371		4
MVKEYLABEL2	3B2		4

Table 66. Cross Reference for MVREC (continued)

Name	Offset	Hex Tag	Level
MVLABNO1	90		2
MVLAST_POSN	1DF		2
MVLCDATE	54		2
MVLCSID	64		2
MVLCTIME	58		2
MVLCTOKN	19C		2
MVLCUID	5C		2
MVLOC	158		2
MVLOCFLG	13F		2
MVLONFLG	EC	08	4
MVLONLOC	B0		2
MVLRDDAT	C0		2
MVLRDTIM	21A		2
MVLTYFLG	13F	0F	3
MVLTYP	F1		2
MVLUDEV	AC		2
MVLWTDAT	C4		2
MVLWTTIM	21E		2
MVMEDATR	95		3
MVMEDCMP	94		3
MVMEDIA	F4		2
MVMEDINF	20E		2
MVMEDREC	92		3
MVMEDTY	93		3
MVMSTFLG	EC	80	4
MVMVMODE	13F	40	3
MVMVSUSE	EF	04	3
MVNLOC	98		2
MVNLTAPE	ED	20	3
MVNODSNR	EF	01	3
MVNOWNER	EE	04	4
MVNOWNER	F0	04	4
MVNSTRID	97		2
MVNTYFLG	140	F0	4
MNVVOL	108		2
MVOALT	EF	20	3
MVOBIN	A4		2
MVOCEFLG	EC	01	4
MVOLD_CONTAINER	1BE		2
MVOLDRACK	196		2
MVOLDVOLSER	190		2
MVOLNLOC	B8		2

Table 66. Cross Reference for MVREC (continued)			
Name	Offset	Hex Tag	Level
MVOLOC	168		2
MVOPNFLG	EC	04	4
MVOPVOL	131		2
MVOREAD	EF	80	3
MVOTYFLG	141	0F	4
MVOUPD	EF	40	3
MVOWNID	D0		2
MVPAD1	8		3
MVPDLFLG	74	40	3
MVPHYS_USED	230		2
MVPPDATA	11E		2
MVPPNUM	11E		3
MVPPTAPE	ED	40	3
MVPRERR	116		3
MVPROTR	EF	10	3
MVPROTU	EF	08	3
MVPVOL	102		2
MVPWERR	118		3
MVRACK	FC		2
MVRBYSET	1A5	80	3
MVRCCDS	4C		2
MVRCEND	3F4		2
MVRDEN	84		2
MVREC	0		1
MVRECLEV	75		2
MVRECLN	38		2
MVRECORD	0		2
MVREINIT	EE	20	4
MVREINIT	F0	20	4
MVRELACT	EE	7F	3
MVRELACT	F0	7F	3
MVREPREL	EE	40	4
MVREPREL	F0	40	4
MVRETDAT	18C		2
MVRETENTIONMETHOD	223		2
MVRETMETSETBY	224		2
MVRETSCR	EE	80	3
MVRETSCR	F0	80	3
MVRLSFLG	EC	40	4
MVROWNER	EE	08	4
MVROWNER	F0	08	4
MVRQPTY	142		2

Table 66. Cross Reference for MVREC (continued)

Name	Offset	Hex Tag	Level
MVSCRFLG	EC	02	4
MVSECLEV	E8		2
MVSELFLG	74	10	3
MVSETDUMMY	74	04	3
MVSGNAME	150		2
MVSLTAPE	ED	08	3
MVSTBIN	A0		2
MVSTDATE	A8		2
MVSTORID	96		2
MVSTAT	8E		2
MVTCOMP	130	08	3
MVTDISI	92		2
MVTNCOMP	130	04	3
MVTOKEN	137		2
MVTRERR	112		3
MVTRNFLG	13F	80	3
MVTRTCH	130		2
MVTUSE	88		2
MVTUSE64	228		2
MVTWERR	114		3
MVTYPE	0		3
MVTYPFLG	140		2
MVUBMDN	176		2
MVUCBTYP	10E		2
MVUCDATE	6C		2
MVUCTIME	70		2
MVULTAPE	ED	01	3
MVUNIT	F4		3
MVUOBMDN	184		2
MVUPDFLG	74	20	3
MVUSBIN	170		2
MVUSE	8C		2
MVUSEFLD	2F0		4
MVUSELEN	267		3
MVUSOBIN	17E		2
MVVARSEC	264		2
MVVENDOR	1F8		2
MVVER	126		3
MVVMUSE	EF	02	3
MVVOLSEQ	EA		2
MVVOLSER	2		3
MVVOLTYPE	1A4		2

Table 66. Cross Reference for MVREC (continued)

Name	Offset	Hex Tag	Level
MVVOL1	1F2		2
MVVRFLG	EC	20	4
MVVRFSCI	8F	40	3
MVVRFXDI	8F	80	3
MVVRSEL	8F		2
MVVWMC	20C		2
MVWHILECATUX	1A5	08	3
MVWORM	1A5	40	3
MVWWID	200		2
MXINFLG	E9	40	3

SMF type 42 subtypes information: IGWSMF

IGWSMF maps the header and triplets sections of the SMF type 42 subtypes used by DFSMSrmm. For SMF records in the user-written range, continue to use EDGSMFAR and EDGSMFSR. This macro can be used to map only the common SMF type 42 header, like this:

```
name      IGWSMF
```

or, to generate the header and, optionally, subtype 22 or 23 mappings, like this:

```
name      IGWSMF SMF42_0M=YES,SMF42_0N=YES
```

```
-----
Header for SMF record type 42
-----
```

Table 67. Structure SMF42

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	36	SMF42	SMF42BAS is the basing expr.
0	(0)	UNSIGNED	2	SMF42RCL	Record Length
2	(2)	UNSIGNED	2	SMF42SGD	Segment Descriptor (RDW) -- 0 if record is not spanned
4	(4)	BIT(8)	1	SMF42FLG	System indicator flags
		1... ..		SMF42FSI	When set=subsystem id follows system id
		.1.. ..		SMF42FSU	When set = subtypes are used
		.... .1..		SMF42FXA	When set = MVS/XA (SMF enters)
		.... ..1.		SMF42FS2	When set = VS2 (SMF enters)
		.... ...1		SMF42FS1	When set = VS1 (SMF enters)
5	(5)	UNSIGNED	1	SMF42RTY	Record type: 42 (X'2A')
6	(6)	UNSIGNED	4	SMF42TME	Record written time (entered by SMF)
10	(A)	CHARACTER	4	SMF42DTE	Record written date (by SMF)
14	(E)	CHARACTER	4	SMF42SID	System identification (by SMF)
18	(12)	CHARACTER	4	SMF42SSI	Subsystem Id
22	(16)	UNSIGNED	2	SMF42STY	Record subtype

Table 67. Structure SMF42 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
24	(18)	UNSIGNED	2	SMF42NT	Number of triplets (optional)
Product section triplet					
28	(1C)	UNSIGNED	4	SMF420PS	Offset to product section
32	(20)	UNSIGNED	2	SMF42LPS	Length of product section
34	(22)	UNSIGNED	2	SMF42NPS	Number of product sections
Header must end on word boundary					
36	(24)	CHARACTER	0	SMF42END	1st data section triplet

Product Section

Table 68. Structure SMF42PRD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	40	SMF42PRD	
0	(0)	CHARACTER	8	SMF42PDL	Product Level
8	(8)	CHARACTER	10	SMF42PDN	Product Name
18	(12)	UNSIGNED	1	SMF42PSV	Subtype version number
20	(14)	CHARACTER	8	SMF42PTS	Interval Start or Open TOD
28	(1C)	CHARACTER	8	SMF42PTE	Interval End or Close TOD

SMF42 subtype 22 header section
(DFSMSrmm Audit Information)

Table 69. Structure SMF42SM

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	16	SMF42SM	
0	(0)	UNSIGNED	4	SMF4222AUD	Offset to audit section
4	(4)	UNSIGNED	2	SMF4222LAD	Length of audit section
6	(6)	UNSIGNED	2	SMF4222NAD	Number of audit sections
8	(8)	UNSIGNED	4	SMF4222REC	Offset to record section
12	(C)	UNSIGNED	2	SMF4222LRC	Length of record section
14	(E)	UNSIGNED	2	SMF4222NRC	Number of record sections
16	(10)	CHARACTER	0	SMF4222END	Audit section end

Subtypes 12, 13, and 14 are not in use at this time

DFSMSrmm Audit Information (SMF 42 subtype 22)
Audit Section

Table 70. Structure SMF420MA

Offset Dec	Offset Hex	Type	Len	Name(Dim)	Description
0	(0)	STRUCTURE	76	SMF420MA	
0	(0)	CHARACTER	8	SMF42MJBN	Job name
8	(8)	CHARACTER	4	SMF42MRST	Reader start time
12	(C)	CHARACTER	4	SMF42MRSD	Reader start date
16	(10)	CHARACTER	8	SMF42MUID	RACF user id
24	(18)	CHARACTER	1	SMF42MACT	Activity type:
A - Record added C - Record changed D - Record deleted					
25	(19)	BIT(8)	1	SMF42MFG1	Flag 1
		1... ..		SMF42MLIS	Last in set
		.1... ..		SMF42MJRN	Journal record available
26	(1A)	BIT(8)	1	SMF42MCVTSFLG	Virtual tape server flag
27	(1B)	BIT(8)	1	SMF42MCENABLE	Control record enable flag
28	(1C)	CHARACTER	8	SMF42MLDT0	Local time/date offset
36	(24)	SIGNED	4	SMF42MCJNRECN	Journal record number
40	(28)	SIGNED	4	SMF42MJNRECN	Number of next jn rec
44	(2C)	SIGNED	4	SMF42MCUPDVSI	VSI when MCUPDACT set on
48	(30)	SIGNED	4	SMF42MCVSICNT	VSI control count
52	(34)	CHARACTER	8	SMF42MCVRLCTK	VRSEL last change token
60	(3C)	SIGNED	4	SMF42MCVRSCNT	Current VRS change counter
64	(40)	SIGNED	4	SMF42MCVRSRUN	Last HSKP VRS change counter
68	(44)	CHARACTER	8	SMF42MCSYNCTS	Catsynch time stamp
68	(44)	CHARACTER	4	SMF42MCSYNCDT	Catsynch date
72	(48)	CHARACTER	4	SMF42MCSYNCTM	Catsynch time
76	(4C)	CHARACTER	0	SMF42MEND	1st data section end

Table 71. Constants for SMF42

Len	Type	Value	Name	Description
4	DECIMAL	16	SMF4222LEN	
4	DECIMAL	36	SMF42LN	Length of beginning SMF42 header section
----- Product section must end on word boundary -----				
4	DECIMAL	40	SMF42PLN	Product Section Len
4	DECIMAL	1	SMF42PVR	Product Section Version
4	DECIMAL	76	SMF420MA_LEN	

Table 72. Cross Reference for SMF42

Name	Offset	Hex Tag	Level
SMF42	0		1
SMF42DTE	A		2

Table 72. Cross Reference for SMF42 (continued)			
Name	Offset	Hex Tag	Level
SMF42END	24		2
SMF42FLG	4		2
SMF42FSI	4	80	3
SMF42FSU	4	40	3
SMF42FS1	4	01	3
SMF42FS2	4	02	3
SMF42FXA	4	04	3
SMF42LPS	20		2
SMF42MACT	18		2
SMF42MCENABLE	1B		2
SMF42MCJNRECN	24		2
SMF42MCSYNCDT	44		3
SMF42MCSYNCTM	48		3
SMF42MCSYNCTS	44		2
SMF42MCUPDVSI	2C		2
SMF42MCVRLCTK	34		2
SMF42MCVRSCNT	3C		2
SMF42MCVRSRUN	40		2
SMF42MCVSICNT	30		2
SMF42MCVTSFLG	1A		2
SMF42MEND	4C		2
SMF42MFG1	19		2
SMF42MJBN	0		2
SMF42MJNRECN	28		2
SMF42MJRN	19	40	3
SMF42MLD0	1C		2
SMF42MLIS	19	80	3
SMF42MRSD	C		2
SMF42MRST	8		2
SMF42MUID	10		2
SMF42NPS	22		2
SMF42NT	18		2
SMF42OPS	1C		2
SMF42PDL	0		2
SMF42PDN	8		2
SMF42PRD	0		1
SMF42PSV	12		2
SMF42PTE	1C		2
SMF42PTS	14		2
SMF42RCL	0		2
SMF42RTY	5		2
SMF42SGD	2		2

Table 72. Cross Reference for SMF42 (continued)

Name	Offset	Hex Tag	Level
SMF42SID	E		2
SMF42SM	0		1
SMF42SSI	12		2
SMF42STY	16		2
SMF42TME	6		2
SMF420MA	0		1
SMF4222AUD	0		2
SMF4222END	10		2
SMF4222LAD	4		2
SMF4222LRC	C		2
SMF4222NAD	6		2
SMF4222NRC	E		2
SMF4222REC	8		2

Header for SMF record type 42

Table 73. Structure SMF42

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	36	SMF42	SMF42BAS is the basing expr.
0	(0)	UNSIGNED	2	SMF42RCL	Record Length
2	(2)	UNSIGNED	2	SMF42SGD	Segment Descriptor (RDW) -- 0 if record is not spanned
4	(4)	BIT(8)	1	SMF42FLG	System indicator flags
		1...		SMF42FSI	When set=subsystem id follows system id
		.1..		SMF42FSU	When set = subtypes are used
		.... .1..		SMF42FXA	When set = MVS/XA (SMF enters)
		.... ..1.		SMF42FS2	When set = VS2 (SMF enters)
		.... ...1		SMF42FS1	When set = VS1 (SMF enters)
5	(5)	UNSIGNED	1	SMF42RTY	Record type: 42 (X'2A')
6	(6)	UNSIGNED	4	SMF42TME	Record written time (entered by SMF)
10	(A)	CHARACTER	4	SMF42DTE	Record written date (by SMF)
14	(E)	CHARACTER	4	SMF42SID	System identification (by SMF)
18	(12)	CHARACTER	4	SMF42SSI	Subsystem Id
22	(16)	UNSIGNED	2	SMF42STY	Record subtype
24	(18)	UNSIGNED	2	SMF42NT	Number of triplets (optional)
Product section triplet					
28	(1C)	UNSIGNED	4	SMF420PS	Offset to product section
32	(20)	UNSIGNED	2	SMF42LPS	Length of product section
34	(22)	UNSIGNED	2	SMF42NPS	Number of product sections

Table 73. Structure SMF42 (continued)

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
Header must end on word boundary					
36	(24)	CHARACTER	0	SMF42END	1st data section triplet

Product Section

Table 74. Structure SMF42PRD

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	40	SMF42PRD	
0	(0)	CHARACTER	8	SMF42PDL	Product Level
8	(8)	CHARACTER	10	SMF42PDN	Product Name
18	(12)	UNSIGNED	1	SMF42PSV	Subtype version number
20	(14)	CHARACTER	8	SMF42PTS	Interval Start or Open TOD
28	(1C)	CHARACTER	8	SMF42PTE	Interval End or Close TOD

SMF42 subtype 23 header section
(DFSMSrmm Security Information)

Table 75. Structure SMF42SN

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	8	SMF42SN	
0	(0)	UNSIGNED	4	SMF4223SEC	Offset to security section
4	(4)	UNSIGNED	2	SMF4223LSC	Length of security section
6	(6)	UNSIGNED	2	SMF4223NSC	Number of security sections
8	(8)	CHARACTER	0	SMF4223END	Security section end

Subtypes 12, 13, and 14 are not in use at this time

DFSMSrmm Security Information (SMF 42 subtype 23)
Security Section

Table 76. Structure SMF420NA

Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
0	(0)	STRUCTURE	114	SMF420NA	
0	(0)	CHARACTER	8	SMF42NJBN	Job name
8	(8)	CHARACTER	4	SMF42NRST	Reader start time
12	(C)	CHARACTER	4	SMF42NRSD	Reader start date
16	(10)	CHARACTER	8	SMF42NUIF	User identification
24	(18)	CHARACTER	8	SMF42NUID	RACF user id

Table 76. Structure SMF420NA (continued)					
Offset Dec	Offset Hex	Type	Len	Name (Dim)	Description
32	(20)	CHARACTER	8	SMF42NCGP	RACF connect group
40	(28)	CHARACTER	1	SMF42NVER	Record version identifier (2)
41	(29)	CHARACTER	1	SMF42NACT	Activity type:
C - Dataset create E - Dataset extend U - Dataset update R - Dataset read access D - Dataset delete					
42	(2A)	BIT(8)	1	SMF42NSTP	Security type
(classification number)					
44	(2C)	CHARACTER	44	SMF42NDSN	Dataset name
88	(58)	CHARACTER	6	SMF42NVOL	Volume serial number
94	(5E)	CHARACTER	8	SMF42NUNT	Device type
102	(66)	UNSIGNED	2	SMF42NDSQ	Dataset sequence number
104	(68)	CHARACTER	2	SMF42NVSQ	Volume sequence number
106	(6A)	CHARACTER	8	SMF42NLDT0	Local time/date offset
114	(72)	CHARACTER	0	SMF42NEND	1st data section end

Table 77. Constants for SMF42				
Len	Type	Value	Name	Description
4	DECIMAL	8	SMF4223LEN	
4	DECIMAL	36	SMF42LN	Length of beginning SMF42 header section
----- Product section must end on word boundary -----				
4	DECIMAL	40	SMF42PLN	Product Section Len
4	DECIMAL	1	SMF42PVR	Product Section Version
4	DECIMAL	114	SMF420NA_LEN	

Table 78. Cross Reference for SMF42			
Name	Offset	Hex Tag	Level
SMF42	0		1
SMF42DTE	A		2
SMF42END	24		2
SMF42FLG	4		2
SMF42FSI	4	80	3
SMF42FSU	4	40	3
SMF42FS1	4	01	3
SMF42FS2	4	02	3
SMF42FXA	4	04	3
SMF42LPS	20		2
SMF42NACT	29		2

Table 78. Cross Reference for SMF42 (continued)			
Name	Offset	Hex Tag	Level
SMF42NCGP	20		2
SMF42NDSN	2C		2
SMF42NDSQ	66		2
SMF42NEND	72		2
SMF42NJBK	0		2
SMF42NLDT0	6A		2
SMF42NPS	22		2
SMF42NRSD	C		2
SMF42NRST	8		2
SMF42NSTP	2A		2
SMF42NT	18		2
SMF42NUID	18		2
SMF42NUIF	10		2
SMF42NUNT	5E		2
SMF42NVER	28		2
SMF42NVOL	58		2
SMF42NVSQ	68		2
SMF420PS	1C		2
SMF42PDL	0		2
SMF42PDN	8		2
SMF42PRD	0		1
SMF42PSV	12		2
SMF42PTE	1C		2
SMF42PTS	14		2
SMF42RCL	0		2
SMF42RTY	5		2
SMF42SGD	2		2
SMF42SID	E		2
SMF42SN	0		1
SMF42SSI	12		2
SMF42STY	16		2
SMF42TME	6		2
SMF420NA	0		1
SMF4223END	8		2
SMF4223LSC	4		2
SMF4223NSC	6		2
SMF4223SEC	0		2

Appendix C. List of DFSMSrmm samples

DFSMSrmm provides several samples in SAMPLIB, SMPSTS, and SYS1.SEDGEXE1. [Table 79 on page 327](#) lists the samples that are available and where they can be found after SMP/E APPLY processing. After SMP/E ACCEPT processing, samples in SAMPLIB move to ASAMPLIB and samples in SMPSTS move to the AEDGSRC1 library.

Table 79. DFSMSrmm sample reporting jobs

Member Name	Shows You How To	Supplied In
EDGJACTP	Print the ACTIVITY file	SAMPLIB
EDGJAUDM	Create a monthly archive from weekly audit reports	SAMPLIB
EDGJAUDW	Create a weekly archive from daily audit reports	SAMPLIB
EDGJBCAV	Build RMM ADDVOLUME subcommands from a list of barcode scanned volumes	SAMPLIB
EDGJCEXP	List data sets and volumes that are copy exported	SAMPLIB
EDGJCOMB	Audit tape library using a list of barcode scanned volumes	SAMPLIB
EDGJCVB	Create a report of volumes in a storage location	SAMPLIB
EDGJDSN	Create a report of data sets sorted by data set name	SAMPLIB
EDGJMVRS	Call the EDGMKVRS sample REXX to create a list of ADDVRS commands for backup purposes	SAMPLIB
EDGJNSCR	Create a report of volumes recently returned to scratch status	SAMPLIB
EDGJRACK	Create a report based on rack number prefixes	SAMPLIB
EDGJRECL	Create a report containing information about lost volumes	SAMPLIB
EDGJRECV	Build RMM subcommands to add volumes to DFSMSrmm	SAMPLIB
EDGJROWN	Create a report about owners sorted by name and department number	SAMPLIB
EDGJRPT	Create reports using the extended report extract file	SAMPLIB
EDGJRVOL	Create a report about volumes; by volume serial number, by rack number, by security level, by owner, and by expiration date	SAMPLIB
EDGJSMF	Create a report of SMF records	SAMPLIB
EDGJSMFP	Create a list of types of SMF record found	SAMPLIB
EDGJSTM0	Check for removed REXX stem .0 variables.	SAMPLIB
EDGJVLT	Create a report about volumes currently in storage locations sorted by volume serial number	SAMPLIB
EDGJVLTM	Create a report about volumes moving to storage locations	SAMPLIB
EDGJVME	Create a report for VM tape volumes	SAMPLIB

Table 79. DFSMSrmm sample reporting jobs (continued)

Member Name	Shows You How To	Supplied In
EDGJVOL	Create a report about volumes sorted by volume serial number	SAMPLIB
EDGMKVRS	Use the report extract data set to create a list of ADDVRS commands for backup purposes	SAMPLIB
EDGRRPTE	Create reports using the extended report extract file	EDGEXE1
EDGXMP1	List all volumes in a multivolume set	SAMPLIB
EDGXMP2	List all data set information for a given volume	SAMPLIB
EDGXMP3	Show how the EDGRLCL exec can be coded to handle the 'U' line command	SAMPLIB

Appendix D. Accessibility

Accessible publications for this product are offered through [IBM Documentation \(www.ibm.com/docs/en/zos\)](http://www.ibm.com/docs/en/zos).

If you experience difficulty with the accessibility of any z/OS information, send a detailed message to the [Contact the z/OS team web page \(www.ibm.com/systems/campaignmail/z/zos/contact_z\)](http://www.ibm.com/systems/campaignmail/z/zos/contact_z) or use the following mailing address.

IBM Corporation
Attention: MHVRCFS Reader Comments
Department H6MA, Building 707
2455 South Road
Poughkeepsie, NY 12601-5400
United States

Accessibility features

Accessibility features help users who have physical disabilities such as restricted mobility or limited vision use software products successfully. The accessibility features in z/OS can help users do the following tasks:

- Run assistive technology such as screen readers and screen magnifier software.
- Operate specific or equivalent features by using the keyboard.
- Customize display attributes such as color, contrast, and font size.

Consult assistive technologies

Assistive technology products such as screen readers function with the user interfaces found in z/OS. Consult the product information for the specific assistive technology product that is used to access z/OS interfaces.

Keyboard navigation of the user interface

You can access z/OS user interfaces with TSO/E or ISPF. The following information describes how to use TSO/E and ISPF, including the use of keyboard shortcuts and function keys (PF keys). Each guide includes the default settings for the PF keys.

- *z/OS TSO/E Primer*
- *z/OS TSO/E User's Guide*
- *z/OS ISPF User's Guide Vol I*

Dotted decimal syntax diagrams

Syntax diagrams are provided in dotted decimal format for users who access IBM Documentation with a screen reader. In dotted decimal format, each syntax element is written on a separate line. If two or more syntax elements are always present together (or always absent together), they can appear on the same line because they are considered a single compound syntax element.

Each line starts with a dotted decimal number; for example, 3 or 3.1 or 3.1.1. To hear these numbers correctly, make sure that the screen reader is set to read out punctuation. All the syntax elements that have the same dotted decimal number (for example, all the syntax elements that have the number 3.1)

are mutually exclusive alternatives. If you hear the lines 3.1 USERID and 3.1 SYSTEMID, your syntax can include either USERID or SYSTEMID, but not both.

The dotted decimal numbering level denotes the level of nesting. For example, if a syntax element with dotted decimal number 3 is followed by a series of syntax elements with dotted decimal number 3.1, all the syntax elements numbered 3.1 are subordinate to the syntax element numbered 3.

Certain words and symbols are used next to the dotted decimal numbers to add information about the syntax elements. Occasionally, these words and symbols might occur at the beginning of the element itself. For ease of identification, if the word or symbol is a part of the syntax element, it is preceded by the backslash (\) character. The * symbol is placed next to a dotted decimal number to indicate that the syntax element repeats. For example, syntax element *FILE with dotted decimal number 3 is given the format 3 * FILE. Format 3* FILE indicates that syntax element FILE repeats. Format 3* * FILE indicates that syntax element * FILE repeats.

Characters such as commas, which are used to separate a string of syntax elements, are shown in the syntax just before the items they separate. These characters can appear on the same line as each item, or on a separate line with the same dotted decimal number as the relevant items. The line can also show another symbol to provide information about the syntax elements. For example, the lines 5.1*, 5.1 LASTRUN, and 5.1 DELETE mean that if you use more than one of the LASTRUN and DELETE syntax elements, the elements must be separated by a comma. If no separator is given, assume that you use a blank to separate each syntax element.

If a syntax element is preceded by the % symbol, it indicates a reference that is defined elsewhere. The string that follows the % symbol is the name of a syntax fragment rather than a literal. For example, the line 2.1 %OP1 means that you must refer to separate syntax fragment OP1.

The following symbols are used next to the dotted decimal numbers.

? indicates an optional syntax element

The question mark (?) symbol indicates an optional syntax element. A dotted decimal number followed by the question mark symbol (?) indicates that all the syntax elements with a corresponding dotted decimal number, and any subordinate syntax elements, are optional. If there is only one syntax element with a dotted decimal number, the ? symbol is displayed on the same line as the syntax element, (for example 5? NOTIFY). If there is more than one syntax element with a dotted decimal number, the ? symbol is displayed on a line by itself, followed by the syntax elements that are optional. For example, if you hear the lines 5 ?, 5 NOTIFY, and 5 UPDATE, you know that the syntax elements NOTIFY and UPDATE are optional. That is, you can choose one or none of them. The ? symbol is equivalent to a bypass line in a railroad diagram.

! indicates a default syntax element

The exclamation mark (!) symbol indicates a default syntax element. A dotted decimal number followed by the ! symbol and a syntax element indicate that the syntax element is the default option for all syntax elements that share the same dotted decimal number. Only one of the syntax elements that share the dotted decimal number can specify the ! symbol. For example, if you hear the lines 2? FILE, 2.1! (KEEP), and 2.1 (DELETE), you know that (KEEP) is the default option for the FILE keyword. In the example, if you include the FILE keyword, but do not specify an option, the default option KEEP is applied. A default option also applies to the next higher dotted decimal number. In this example, if the FILE keyword is omitted, the default FILE (KEEP) is used. However, if you hear the lines 2? FILE, 2.1, 2.1.1! (KEEP), and 2.1.1 (DELETE), the default option KEEP applies only to the next higher dotted decimal number, 2.1 (which does not have an associated keyword), and does not apply to 2? FILE. Nothing is used if the keyword FILE is omitted.

*** indicates an optional syntax element that is repeatable**

The asterisk or glyph (*) symbol indicates a syntax element that can be repeated zero or more times. A dotted decimal number followed by the * symbol indicates that this syntax element can be used zero or more times; that is, it is optional and can be repeated. For example, if you hear the line 5.1* data area, you know that you can include one data area, more than one data area, or no data area. If you hear the lines 3* , 3 HOST, 3 STATE, you know that you can include HOST, STATE, both together, or nothing.

Notes:

1. If a dotted decimal number has an asterisk (*) next to it and there is only one item with that dotted decimal number, you can repeat that same item more than once.
2. If a dotted decimal number has an asterisk next to it and several items have that dotted decimal number, you can use more than one item from the list, but you cannot use the items more than once each. In the previous example, you can write HOST STATE, but you cannot write HOST HOST.
3. The * symbol is equivalent to a loopback line in a railroad syntax diagram.

+ indicates a syntax element that must be included

The plus (+) symbol indicates a syntax element that must be included at least once. A dotted decimal number followed by the + symbol indicates that the syntax element must be included one or more times. That is, it must be included at least once and can be repeated. For example, if you hear the line 6.1+ data area, you must include at least one data area. If you hear the lines 2+, 2 HOST, and 2 STATE, you know that you must include HOST, STATE, or both. Similar to the * symbol, the + symbol can repeat a particular item if it is the only item with that dotted decimal number. The + symbol, like the * symbol, is equivalent to a loopback line in a railroad syntax diagram.

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Programming interface information

This publication documents intended Programming Interfaces that allow the customer to write programs to obtain the services of DFSMSrmm.

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