z/OS V2R1.0

DFSMShsm Data Areas

GC14-7504-01

z/OS V2R1.0

DFSMShsm Data Areas

GC14-7504-01

This edition applies to version 2, release 1, modification 0 of IBM z/OS (product number 5650-ZOS) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this document

This document is intended to help you diagnose and report IBM z/OS DFSMShsm problems. It primarily documents diagnosis, modification, and tuning information.

Use this document in conjunction with z/OS DFSMShsm Diagnosis (GC52-1387).

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Introduction to Data Areas and Control Blocks

DFSMShsm modules create, modify, and reference data structures that are internal to DFSMShsm.

In this publication, the term *data area* refers to data structures that define the DFSMShsm control data sets (CDSs). DFSMShsm control data sets are the resources with which DFSMShsm manages the storage environment. The three DFSMShsm control data sets are the backup control data set (BCDS), the migration control data set (MCDS), and the offline control data set (OCDS). These control data sets contain information about DFSMShsm settings and describe in-storage information that is used by DFSMShsm for internal processing.

The term *control block* refers to the remainder of DFSMShsm internal data structures that do not define DFSMShsm control data sets.

A cross-reference section is provided for each data area and control block.

Looking at Data Areas and Control Blocks: The five-column descriptions of the DFSMShsm data areas and control blocks differ in that the actual offsets are shown for control blocks, whereas actual and FIXCDS offsets are provided for data areas. Table 1 shows a portion of a data area.

Table 1. MCR—Management Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	865	MCR	Management control record.
0(0)		CHARACTER	44	MCRKEY	Management control record key, consisting of X'10', followed by MCR, followed by the 1-byte host identification character, and padded with blanks.
44(2C)		CHARACTER	20	MCRHDR	Control data set record header.
64(40)	0(0)	CHARACTER	681	MCRDATA	Data portion of the management control record.
64(40)	0(0)	BITSTRING	4	MCRFLAGS	DFSMShsm control flags
		x...		*	Reserved.
		.1..		MCRFGMR	When set to 1, automatic primary space management can be restarted.
		..1.		MCRFGMF	When set to 1, automatic PSM completed successfully for the day specified by MCRGMST.
		...x xxxx		*	Reserved.

Heading **Description**

Offsets Offset values are listed in decimal followed by its hexadecimal equivalent displayed in parentheses.

Decimal (Hex) For control blocks, the actual offset from the beginning of the data structure is displayed.

Actual / FIXCDS For data areas, both the actual and FIXCDS offsets are displayed. The actual offset is based on the beginning of the data structure. The FIXCDS offset is based on the beginning of the CDS data area. Use FIXCDS offsets when using the FIXCDS command.

Type The defined data type:

ADDRESS This field contains a data address.

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BITSTRING This field contains a sequence of individual bits. A bitstring is made up of the 8-bit positions (0-7) in a byte, for example:

```
1... ..x.
```

Bit settings that are significant are shown and described. A bit that is active is shown as a "1," and a bit that is reserved is shown as an "x." For ease of scanning, the high-order (leftmost) 4 bits are separated from the low-order 4 bits.

CHARACTER This field is a sequence of EBCDIC characters.

FIXED This field contains a numeric quantity.

SIGNED This field contains a signed numeric quantity.

UNSIGNED This field contains an unsigned numeric quantity.

STRUCTURE A collection of data that can have like or unlike attributes. The data occupies a contiguous area of storage and names are assigned to parts of the data so that the entire area, portions of the area, or an individual item can be referenced.

Length This field shows the size, in bytes, of the field. To provide information about the increments that make up a field, the length may be shown as a computation, for example:

```
3(7)
```

This is a 7-element array of 3-byte fields for a total of 21 bytes.

Name This field shows the name that identifies a given field. In some cases, subfields occur below the field names. Fields that are reserved or have no name are indicated by an asterisk (*).

Description This field provides a description of the content, meaning, or use of the field name.

Data Area and Control Block Cross-Reference: A cross-reference section is provided with each data area and control block table. The four-column cross-reference listings contain the actual hex offset reference. The following is an example of a cross-reference listing from the MCR:

Table 2. Example Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCR	0		1
MCRKEY	0		2
MCRHDR	2C		2
MCRDATA	40		2
MCRFLAGS	40		3
MCRFGMF	40	20	3
MCRFGMR	40	40	3

This cross-reference example shows the field name, hex offset, hex value, and structure level of the data areas and control blocks. An explanation of these sections follows:

Heading	Description
Name	The field names are listed in alphabetical order.
Hex Offset	The hex offset is the hexadecimal offset of the name within the data area or control block.
Hex Value	The hex value is the hexadecimal value of the named bit within a bitstring.
Struct Level	The struct level is the level the name holds within the structure.

ABR—Aggregate Backup and Recovery Record

The aggregate backup and recovery record (ABR) describes the information related to a specific version and copy created during an aggregate backup or processed during an aggregate recovery. Aggregate backup and recovery records are 1376 bytes long. The record type is Q. To display the ABR record, use the FIXCDS command as follows:

```
FIXCDS Q agname.yyyydddnnnncc
```

Where:

- *agname* is the name of the aggregate group.
- *yyyyddd* indicates the date of the aggregate backup. *yyyy* is the 4 digit year, and *ddd* is the relative (Julian) day of the year.
- *nnnn* indicates the version number of the aggregate group version. This maintains a one-to-one correspondence between an ABR record and an aggregate backup version.
- *cc* indicates the local copy number described by this record.

Table 3 (Page 1 of 3). ABR—Aggregate Backup and Recovery Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Aggregate backup and recovery record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	1312	ABR	ABARS activity record.
64(40)	0(0)	CHARACTER	30	ABR_AGGNAME	The name of aggregate group.
94(5E)	30(1E)	FIXED	2	ABR_AGGNAME_LENGTH	The length of actual aggregate group name.
96(60)	32(20)	FIXED	4	*	Reserved.
100(64)	36(24)	CHARACTER	44	ABR_CONTROL_FILENAME	The control file name.
144(90)	80(50)	CHARACTER	44	ABR_DFDSS_DATA_FILENAME	DFSMSdssdata file name.
188(BC)	124(7C)	CHARACTER	44	ABR_INTERNALIO_DATA_FILENAME	Internal I/O data file name.
232(E8)	168(A8)	CHARACTER	44	ABR_INST_ACTLOG_FILENAME	Instruction/activity log file name.
276(114)	212(D4)	CHARACTER	44	ABR_INSTRUCT_DATASET_NAME	Instruction DSNAME.
320(140)	256(100)	CHARACTER	8	ABR_UNIT_NAME	Unit name of output files.
328(148)	264(108)	CHARACTER	4	ABR_UCB_TYPE	UCB device type of output.
332(14C)	268(10C)	CHARACTER	4	ABR_EXPDT	Expiration date.
336(150)	272(110)	CHARACTER	4	ABR_SOURCE_SYSTEM	Source system identifier (from MCVTSID).
340(154)	276(114)	CHARACTER	30	ABR_MGMT_CLASS	Name of management class.
370(172)	306(132)	FIXED	2	ABR_MGMT_CLASS_LEN	Length of management class name.
372(174)	308(134)	FIXED	4	ABR_NUM_OF_COPIES	Number of local copies.
376(178)	312(138)	CHARACTER	8	ABR_DFHSM_VERSION	Version/release of DFSMShsm used for ABACKUP.
384(180)	320(140)	FIXED	4(12)	*	An array of 12 reserved entries.
432(1B0)	368(170)	CHARACTER	40(15)	ABR_REMDEST	Array of remote destination information (valid in first copy only).
432(1B0)	368(170)	CHARACTER	30	ABR_REMDEST_DESTID	Remote destination ID of this entry (valid in first copy only).
462(1CE)	398(18E)	CHARACTER	8	ABR_REMDEST_NODEID	Remote node ID of this entry (valid in first copy only).
470(1D6)	406(196)	BITSTRING	1	ABR_FREMDEST_FLAGS	This byte contains the following remote destination flags:
		1...		ABR_FREMDEST_TRANS_COMPLETE	When set to 1, file transfer complete for this entry (valid in first copy only).
		.1..		ABR_FREMDEST_XMIT_NO_ACCOMP	When set to 1, accompany data set not transmitted to this node (valid in first copy only).
		..1.		ABR_FREMDEST_XMIT_CNTRLONLY	

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Table 3 (Page 2 of 3). ABR—Aggregate Backup and Recovery Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
					When set to 1, only the control and information files transmitted to this node (valid in first copy only).
		...x xxxx		*	Reserved.
471(1D7)	407(197)	CHARACTER	1	*	Reserved.
1032(408)	968(3C8)	BITSTRING	1	ABR_COMMON_FLAGS	This byte contains the following flags:
		1...		ABR_FDSS_EXISTS	When set to 1, level 0 data file exists for DFSMSdss output.
		.1..		ABR_FINT_EXISTS	When set to 1, internal I/O data file exists.
		..1.		ABR_FINSACTLOG_EXISTS	When set to 1, the instruction / activity log file exists.
		...1		ABR_IFILE_ALLOCATED	When set to 1, IFILE cataloged and allocated, allow rolloff and expire.
		.... 1...		ABR_INSLOGFILE_ERROR	When set to 1, error dumping instruction data set or activity log to IFILE tape.
		.... .1..		ABR_FSTACK	When set to 1, ABACKUP output is stacked. When set to 0, ABACKUP output is not stacked.
		.... ..1.		ABR_FWORM	When set to 1, ABARS media is a WORM tape.
		1		ABR_FENCRYPT	When set to 1, ABARS data is encrypted.
1033(409)	969(3C9)	CHARACTER	3	*	Reserved.
1036(40C)	972(3CC)	CHARACTER	128	ABR_ABACKUP_FIELDS	Fields for ABACKUP.
1036(40C)	972(3CC)	CHARACTER	4	ABR_ABACKUP_TIME	ABACKUP time in packed decimal.
1040(410)	976(3D0)	CHARACTER	4	ABR_ABACKUP_DATE	ABACKUP date in packed decimal.
1044(414)	980(3D4)	CHARACTER	44	ABR_ABACKUP_ACTLOG_NAME	ABACKUP activity log data set name.
1088(440)	1024(400)	CHARACTER	44	ABR_FODS_DATASET_NAME	Data set name of filter output dataset.
1132(46C)	1068(42C)	FIXED	4	ABR_ABACKUP_TAPECNT	The number of user tapes with tape data sets backed up.
1136(470)	1072(430)	FIXED	4	ABR_ABACKUP_NUM_ACCOM_TP	Number of accompany tapes that were processed.
1140(474)	1076(434)	FIXED	4	ABR_ABACKUP_L0SPACE	Level 0 space used by ABACKUP.
1144(478)	1080(438)	FIXED	4	ABR_ABACKUP_ML1SPACE	Migration level 1 space used by ABACKUP.
1148(47C)	1084(43C)	FIXED	4	ABR_ABACKUP_ML2SPACE	Migration level 2 space used by ABACKUP.
1152(480)	1088(440)	FIXED	4	ABR_ABACKUP_TOTALSPACE	Total space used during ABACKUP.
1156(484)	1092(444)	CHARACTER	1	*	Reserved.
1157(485)	1093(445)	BITSTRING	3	ABR_ABACKUP_FLAGS	This byte contains the following flags for ABACKUP:
		1...		ABR_FABACKUP_NETV	When set to 1, the NetView® has started to transmit files in ABACKUP.
		.xxx xxxx		*	Reserved.
1157(485)	1093(445)	BITSTRING	2	*	Reserved.
1160(488)	1096(448)	CHARACTER	4	ABR_ABACKUP_SPACE_UNIT_INFO	Space unit information.
1160(488)	1096(448)	CHARACTER	1	ABR_FABACKUP_L0SPACE_UNITS	ABACKUP level 0 space unit.
1161(489)	1097(449)	CHARACTER	1	ABR_FABACKUP_ML1SPACE_UNITS	ABACKUP migration level 1 space unit.
1162(48A)	1098(44A)	CHARACTER	1	ABR_FABACKUP_ML2SPACE_UNITS	ABACKUP migration level 2 space unit.
1163(48B)	1099(44B)	CHARACTER	1	ABR_FABACKUP_TOTALSPACE_UNITS	Total of ABACKUP unit.
1164(48C)	1100(44C)	CHARACTER	212	ABR_ARECOVER_FIELDS	Fields for ARECOVER.
1164(48C)	1100(44C)	CHARACTER	4	ABR_ARECOVER_TIME	ARECOVER time packed decimal.
1168(490)	1104(450)	CHARACTER	4	ABR_ARECOVER_DATE	ARECOVER date packed decimal.
1172(494)	1108(454)	FIXED	4	ABR_ARECOVER_RETCODE	ARECOVER last return code.
1176(498)	1112(458)	FIXED	4	ABR_ARECOVER_L0SPACE	Level 0 space needed to perform successful ARECOVER.
1180(49C)	1116(45C)	FIXED	4	ABR_ARECOVER_ML1SPACE	Migration level 1 space needed to perform successful ARECOVER.
1184(4A0)	1120(460)	FIXED	4	ABR_ARECOVER_ML2SPACE	Migration level 2 space (tape and DASD) needed for successful ARECOVER.
1188(4A4)	1124(464)	FIXED	4	ABR_ARECOVER_TOTALSPACE	Total space needed for successful ARECOVER.
1192(4A8)	1128(468)	CHARACTER	44	ABR_ARECOVER_ACTLOG_NAME	ARECOVER activity log data set name.
1236(4D4)	1172(494)	CHARACTER	44	ABR_ARECOVER_CONRES_NAME	ARECOVER conflict resolution data set name.
1280(500)	1216(4C0)	CHARACTER	44	ABR_ARECOVER_RESTART_NAME	ARECOVER restart data set name.
1324(52C)	1260(4EC)	CHARACTER	1	ABR_ARECOVER_OPTION	ARECOVER processing; OPTION: V=Verify, E=Execute, P=Prepare.
1325(52D)	1261(4ED)	CHARACTER	3	*	Reserved.
1328(530)	1264(4F0)	BITSTRING	4	ABR_ARECOVER_FLAGS	This byte contains the following flags for ARECOVER:
		1...		ABR_FARECOVER_ACTLOG	When set to 1, the activity log is recovered.
		.1..		ABR_FARECOVER_INSTRUCT	When set to 1, ARECOVER is processing instruction data set.

Table 3 (Page 3 of 3). ABR—Aggregate Backup and Recovery Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		..1.		ABR_FARECOVER_XMIT	When set to 1, XMIT is specified during prepare operation.
		...1		ABR_FXMITUSED_DFILENOTCAT	When set to 1, XMIT used on ARECOVER and D file not cataloged.
		.... 1...		ABR_FXMITUSED_OFILENOTCAT	When set to 1, XMIT used on ARECOVER and O file not cataloged.
		.... .1..		ABR_FXMITUSED_IFILENOTCAT	When set to 1, XMIT used on ARECOVER and I file not cataloged.
		xx		*	Reserved.
1332(534)	1268(4F4)	CHARACTER	4	ABR_ARECOVER_SPACE_UNIT_INFO	Space unit information.
1332(534)	1268(4F4)	CHARACTER	1	ABR_FARECOVER_L0SPACE_UNITS	ARECOVER level 0 space unit.
1333(535)	1269(4F5)	CHARACTER	1	ABR_FARECOVER_ML1SPACE_UNITS	ARECOVER migration level 1 space unit.
1334(536)	1270(4F6)	CHARACTER	1	ABR_FARECOVER_ML2SPACE_UNITS	ARECOVER migration level 2 space unit.
1335(537)	1271(4F7)	CHARACTER	1	ABR_FARECOVER_TOTALSPACE_UNITS	ARECOVER total space unit.
1336(538)	1272(4F8)	FIXED	4	ABR_ABACKUP_CPUTIME	ABACKUP elapsed time.
1340(53C)	1276(4FC)	FIXED	4	ABR_ARECOVER_CPUTIME	ARECOVER elapsed time.
1344(540)	1280(500)	CHARACTER	32	ABR_AGG_ACCTCODE	Aggregate account code.

ABR Data Area Cross-Reference

Table 4. ABR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ABR	40		1
ABR_ABACKUP_ACTLOG_NAME	414		3
ABR_ABACKUP_CPUTIME	538		3
ABR_ABACKUP_DATE	410		3
ABR_ABACKUP_FIELDS	40C		2
ABR_ABACKUP_FLAGS	485		3
ABR_ABACKUP_L0SPACE	474		3
ABR_ABACKUP_ML1SPACE	478		3
ABR_ABACKUP_ML2SPACE	47C		3
ABR_ABACKUP_NUM_ACCOM_TP	470		3
ABR_ABACKUP_SPACE_UNIT_INFO	488		3
ABR_ABACKUP_TAPECNT	46C		3
ABR_ABACKUP_TIME	40C		3
ABR_ABACKUP_TOTALSPACE	480		3
ABR_AGG_ACCTCODE	540		3
ABR_AGGNAME	40		2
ABR_AGGNAME_LENGTH	5E		2
ABR_ARECOVER_ACTLOG_NAME	4A8		3
ABR_ARECOVER_CONRES_NAME	4D4		3
ABR_ARECOVER_CPUTIME	53C		3
ABR_ARECOVER_DATE	490		3
ABR_ARECOVER_FIELDS	48C		2
ABR_ARECOVER_FLAGS	530		3
ABR_ARECOVER_L0SPACE	498		3
ABR_ARECOVER_ML1SPACE	49C		3
ABR_ARECOVER_ML2SPACE	4A0		3
ABR_ARECOVER_OPTION	52C		3
ABR_ARECOVER_RESTART_NAME	500		3
ABR_ARECOVER_RETCODE	494		3
ABR_ARECOVER_SPACE_UNIT_INFO	534		3
ABR_ARECOVER_TIME	48C		3
ABR_ARECOVER_TOTALSPACE	4A4		3
ABR_COMMON_FLAGS	408		2
ABR_CONTROL_FILENAME	64		2
ABR_DFDSS_DATA_FILENAME	90		2
ABR_DFHSM_VERSION	178		2
ABR_EXPDT	14C		2
ABR_FABACKUP_L0SPACE_UNITS	488		4
ABR_FABACKUP_ML1SPACE_UNITS	489		4
ABR_FABACKUP_ML2SPACE_UNITS	48A		4
ABR_FABACKUP_NETV	485	80	4

Table 4. ABR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ABR_FABACKUP_TOTALSPACE_UNITS	48B		4
ABR_FARECOVER_ACTLOG	530	80	4
ABR_FARECOVER_INSTRUCT	530	40	4
ABR_FARECOVER_L0SPACE_UNITS	534		4
ABR_FARECOVER_ML1SPACE_UNITS	535		4
ABR_FARECOVER_ML2SPACE_UNITS	536		4
ABR_FARECOVER_TOTALSPACE_UNITS	537		4
ABR_FARECOVER_XMIT	530	20	4
ABR_FDSS_EXISTS	408	80	3
ABR_FENCRYPT	408	01	3
ABR_FINSACTLOG_EXISTS	408	20	3
ABR_FINT_EXISTS	408	40	3
ABR_FODS_DATASET_NAME	440		3
ABR_FREMDEST_FLAGS	1D6		3
ABR_FREMDEST_TRANS_COMPLETE	1D6	80	4
ABR_FREMDEST_XMIT_CNTRLONLY	1D6	20	4
ABR_FREMDEST_XMIT_NO_ACCOMP	1D6	40	4
ABR_FSTACK	408	04	3
ABR_FWORM	408	02	3
ABR_FXMITUSED_DFILENOTCAT	530	10	4
ABR_FXMITUSED_IFILENOTCAT	530	04	4
ABR_FXMITUSED_OFILENOTCAT	530	08	4
ABR_IFILE_ALLOCATED	408	10	3
ABR_INSLOGFILE_ERROR	408	08	3
ABR_INST_ACTLOG_FILENAME	E8		2
ABR_INSTRUCT_DATASET_NAME	114		2
ABR_INTERNALIO_DATA_FILENAME	BC		2
ABR_MGMT_CLASS	154		2
ABR_MGMT_CLASS_LEN	172		2
ABR_NUM_OF_COPIES	174		2
ABR_REMDEST	1B0		2
ABR_REMDEST_DESTID	1B0		3
ABR_REMDEST_NODEID	1CE		3
ABR_SOURCE_SYSTEM	150		2
ABR_UCB_TYPE	148		2
ABR_UNIT_NAME	140		2

ABRCB—Aggregate Backup/Recovery Control Block

The aggregate backup/recovery control block (ABRCB) defines the mapping for the aggregate backup and aggregate recovery control block (see Table 5). The ABRCB is 1252 bytes long.

Table 5 (Page 1 of 3). ABRCB—Aggregate Backup/Recovery Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	1252	ABRCB	Aggregate backup/recovery control block.
0	(0)	CHARACTER	8	ABRCNAME	Control block name.
8	(8)	ADDRESS	4	ABRCASCB	Pointer to DFSMShsm ASCB.
12	(C)	FIXED	4	ABRCKNAX	New DFSMShsm AX value, this is the AX that ABARS uses to communicate with the secondary address space.
16	(10)	FIXED	4	ABRCKOAX	Old DFSMShsm AX value, prior to ABARS startup.
20	(14)	FIXED	4	ABRCMSAS	Maximum number of secondary address spaces allowed.
24	(18)	FIXED	4	ABRCNSAS	Number of secondary address spaces active.
28	(1C)	CHARACTER	3	ABRC_ABEND_MSGNO	DFSMSdss ABEND message number.
31	(1F)	FIXED	1	ABRC_ACTINST_OPTION	Instruction data set/activity log dump options: When set to 0, dump if present When set to 1, dump if activity log When set to 2, dump if instruction data set When set to 3, do not dump either
32	(20)	FIXED	4	ABRC_DSS_WAIT	Time to wait for DFSMSdss task to complete.
36	(24)	FIXED	4	ABRCMPRV	Previous maximum secondary address space.
40	(28)	FIXED	2	ABR_TC_TAKEAWAY_DELAY	Number of minutes ABACKUP delays before taking away an ML2 volume from TAPECOPY.
42	(2A)	FIXED	2	ABR_AB_L2INUSE_DELAY	Number of minutes for ABACKUP to delay before retry of access to L2 in use by another ABACKUP.
44	(2C)	CHARACTER	8	ABRCKNAM	Secondary address space PROC name (SETSYS ABARSPROCNAME).
52	(34)	ADDRESS	4	ABRCKNEP	Pointer to ABARS subtask ECB list.
56	(38)	FIXED	1	ABR_AB_L2RETRY	Number of ABACKUP retries when L2 in use by another ABACKUP.
57	(39)	FIXED	1	*	Reserved.
58	(3A)	FIXED	2	*	Reserved.
60	(3C)	FIXED	4(16)	*	Reserved. Used in releases before 1.4.0.
124	(7C)	CHARACTER	3	ABR_PERCENT_UTILIZED	SETSYS or default percent utilized value.
127	(7F)	FIXED	1	ABRCB_OPTIMIZE	OPTIMIZE value from SETSYS.
128	(80)	BITSTRING	4	ABRCFCBR	Application backup/recovery common flags.
		1...		ABRCFXMA	When set to 1, cross-memory authorized.
		.1..		ABRCFNRH	When set to 1, aggregate recovery held.
		..1.		ABRCFKBH	When set to 1, aggregate backup held.
		...1		ABRCFRPL	When set to 1, SETSYS REPLACE specified.
		.... 1...		ABRCFDSS	When set to 1, sufficient level of DFSMSdss.
		.... .1..		ABRCFFDI	When set to 1, function is disabled.
		.... ..1.		ABRCFD32	When set to 1, DFP 3.2.0 installed.
		1		ABRCFSWP	When set to 1, DFSMShsm was swappable.
129	(81)	1...		ABRCFSXA	When set to 1, MVS/XA™ in system.
		.1..		ABRCFCTA	When set to 1, ARCACTL task ABEND.
		..1.		ABRCFTRM	When set to 1, ARCACTL term in progress.
		...1		ABRCFABW	When set to 1, wait for ABACKUP unit.
		.... 1...		ABRCFARW	When set to 1, wait for ARECOVER unit.
		.... .1..		ABRCF_LOGMSG_TO_OPERATOR	When set to 1, send ARC6030I to the operator.
		xx		*	Reserved
130	(82)	1...		ABRCF_NO_VALIDATE	Do not specify VALIDATE TO DFSMSdss SYSIN parameters.
		.1..		ABRCF_DELETE_FILES	When set to 1, do not delete ABACKUP output files.
		..1.		ABRCF_PPRC	When set to 1, skip data sets on PPRC volumes.
		...1		ABRCF_XRC	When set to 1, skip data sets on XRC volumes.
		 xxxx		*	Reserved.
132	(84)	CHARACTER	8	ABRCTUNT	Target unit type for ARECOVER.
140	(8C)	CHARACTER	8	ABRCB_ARML2UNT_GENERIC	Unit (generic) of ML2 scratch tapes set by SETSYS ARECOVERML2UNIT.
148	(94)	CHARACTER	8	ABRCB_ABARSUNT	Unit for ABARS invocation set by SETSYS ABARSUNITNAME.
156	(9C)	CHARACTER	8	ABRCB_ARML2UNT	Unit of ML2 scratch tapes set by SETSYS ARECOVERML2UNIT.
164	(A4)	FIXED	4	ABRCB_ABARSBUF	Number of I/O buffers set by SETSYS ABARSBUFFERS.
168	(A8)	BITSTRING	1	ABRCB_FLAGS	Flag byte.

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Table 5 (Page 2 of 3). ABRCB—Aggregate Backup/Recovery Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		1...		ABRCB_ABARSLOG	ABARS activity log set by SETSYS ABARSACTLOGTYPE: 0=SYSOUT, 1=DASD.
		.1..		ABRCB_ABARSLOGMLEV_FULL	When set to 1, indicates that all DFSMSdss messages are written to the activity log.
		..1.		ABRCB_ABACKUP_HELD_EOD	When set to 1, ABACKUP held EOD.
		...1		ABRCB_ARECOVER_HELD_EOD	When set to 1, ARECOVER held EOD.
		.... 1...		ABRCB_ABARSLOG_SPECFD	When set to 1, SETSYS ABARSACTLOGTYPE was specified.
		.... .1..		ABRCB_PROCESS_BDAM	When set to 1, do not process multi-volume BDAM data sets.
		.... ..1.		ABRCBF_VCNTANY	When set to 1, ABARSVOLCOUNT(ANY) specified.
		1		ABRCB_DELETE_ACTLOG	When set to 1, SETSYS ABARSDELETEACTIVITY(Y). When set to 0, SETSYS ABARSDELETEACTIVITY(N).
169	(A9)	CHARACTER	1	ABRCB_ABARSLOG_SYSOUTCL	SYSOUT class if SYSOUT specified by SETSYS ABARSACTLOGTYPE.
170	(AA)	BITSTRING	1	ABRCB_FLAGS2	This byte contains the following flags:
		1...		ABRCBF_TSKAGNM_OLDWAY	When set to 1, use generated task as the started task ID. When set to 0, use agname as the started task ID, except for DATASETNAME processing.
		.x..		*	Reserved.
		..1.		ABRCF_STACK	When set to 1, STACK requested. When set to 0, NOSTACK requested.
		...1		ABRCBF_TGTGDSD	TGTGDS(DEFERRED) specified.
		.... 1...		ABRCBF_TGTGDSA	TGTGDS(ACTIVE) specified.
		.... .1..		ABRCBF_TGTGDSR	TGTGDS(ROLLEDOFF) specified.
		.... ..1.		ABRCBF_ENABLE_CRD_CHECK	When set to 1, enable common record descriptor checking and PDA trace during ABACKUP I/O.
		1		ABRCBF_DISCONNECT_ABADDR	When set to 1, the address space used during the ABACKUP will be disconnected and not reused by another ABACKUP task.
171	(AB)	CHARACTER	1	*	Reserved.
172	(AC)	CHARACTER	64(15)	*	Reserved. Used in releases before 1.4.0.
1132	(46C)	FIXED	4	*	Reserved.
1136	(470)	BITSTRING	4	ABRCDSEC	ARCCTLs ABARS terminate ECB (posted by ARCACTL upon termination).
		1...		*	Wait bit.
		.1..		ABRCDSPC	Posted bit.
		..xx xxxx		*	Reserved.
1140	(474)	BITSTRING	4	ABRCDTEC	ARCACTLs terminate ECB (posted by ARCCTL for shutdown).
		1...		*	Wait bit.
		.1..		ABRCDTPC	Posted bit.
		..xx xxxx		*	Reserved.
1144	(478)	BITSTRING	4	ABRCDWEC	ARCACTL's work to do ECB.
		1...		*	Wait bit.
		.1..		ABRCDWPC	Posted bit.
		..xx xxxx		*	Reserved.
1148	(47C)	ADDRESS	4	ABRCKNEL_PTR	Address of ABRCKNEL array.
1152	(480)	ADDRESS	4	ABRCKSAS_PTR	Address of ABRCKSAS array.
1156	(484)	FIXED	4(2)	*	Reserved.
1164	(48C)	CHARACTER	8	ABRCAPTR	Pointer to ARVE's.
1164	(48C)	ADDRESS	4	ABRCAVQH	ARVE queue head.
1168	(490)	ADDRESS	4	ABRCAVQT	ARVE queue tail.
1172	(494)	FIXED	4	ABRCASTC	Start time for secondary address space, value is HEX representation of seconds, ie. '1E'X = 30 seconds.
1176	(498)	CHARACTER	8	ABRCHPTR	Pointer to hold table.
1176	(498)	ADDRESS	4	ABRCHLQH	HOLD queue head.
1180	(49C)	ADDRESS	4	ABRCHLQT	HOLD queue tail.
1184	(4A0)	FIXED	2	ABRC_IO_ERROR_THRESHOLD	The read tape I/O error threshold number for ARECOVER.
1186	(4A2)	FIXED	2	ABR_ML2_RETRY	Number of retries for ABACKUP if ML2 volume in use.
1188	(4A4)	ADDRESS	4	ABRCRCBP	Pointer to ARCACTL's RCB.
1192	(4A8)	ADDRESS	4	ABRCTCBP	Pointer to ARCACTL's TCB.
1196	(4AC)	ADDRESS	4	ABRCABQH	Pointer to ABACKUP queue head.
1200	(4B0)	ADDRESS	4	ABRCABQT	Pointer to ABACKUP queue tail.
1204	(4B4)	ADDRESS	4	ABRCARQH	Pointer to ARECOVER queue head.
1208	(4B8)	ADDRESS	4	ABRCARQT	Pointer to ARECOVER queue tail.
1212	(4BC)	CHARACTER	8	ABR_AUTH_USERID	Patchable field for userid.
1220	(4C4)	FIXED	2	ABR_ALLOCATE_FAIL_RETRY	Patchable field for number of 20 second intervals to be tried before message ARC6083A is issued.
1222	(4C6)	FIXED	2	ABRCB_WRITE_IO_ERROR_THRESHOLD	The write tape I/o error threshold number for ARECOVER.
1224	(4C8)	FIXED	4(7)	*	Reserved.

The following array contains the information specific to each of the possible 64 subtasks. This area is based on the ABRCKSAS_PTR.

Table 5 (Page 3 of 3). ABRCB—Aggregate Backup/Recovery Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	64	ABRCKSAS (64)	64 element array, 1 element is used for each of the 64 possible subtasks.
0	(0)	ADDRESS	4	ABRCMSCP	Pointer to MASCB in ECSA.
4	(4)	ADDRESS	4	ABRCTCBK	Pointer to ARCAGEN'S TCB.
8	(8)	ADDRESS	4	ABRCRCBK	Pointer to ARCAGEN'S RCB.
12	(C)	ADDRESS	4	ABRCMWEP	Pointer to active MWE for subtask.
16	(10)	BITSTRING	4	ABRCSCEC	ACTL'S subtask communication ECB posted to indicate ARCAGEN has terminated.
		1...		*	Wait bit
		.1..		ABRCSCPC	Posted bit.
		..xx xxxx		*	Reserved.
20	(14)	FIXED	4	*	Reserved.
24	(18)	BITSTRING	4	ABRCSTEC	AGEN's communication ECB posted by ARCACTL to indicate work requested.
		1...		*	Wait bit.
		.1..		ABRCSTPC	Posted bit.
		..xx xxxx		*	Reserved.
28	(1C)	FIXED	4	ABRCSSID	ASID of secondary address space.
32	(20)	ADDRESS	4	ABRCB_ABR_BUFPTR	Address of ABR buffer for subtask.
36	(24)	FIXED	4	ABRCB_ABR_BUFLEN	Length of ABR buffer.
40	(28)	BITSTRING	4	ABRCB_ABR_FLAGS	ABR flags.
		1...		ABRCB_FABR_VALID	When set to 1, record in buffer valid.
		1...		ABRCF_AB_AGNAME_EOD	HOLD ABACKUP(agg) EOD issued
		.xxx xxxx		*	Reserved.
44	(2C)	FIXED	4	ABRCFST	Subtask flags.
		1...		ABRCFSRD	When set to 1, disconnect requested by ARCAGEN.
		.1..		ABRCFDOK	When set to 1, disconnect okayed by ARCACTL.
		..1.		ABRCFSTA	When set to 1, ARCAGEN subtask abnormally ended. Needs DETACH / REATTACH.
		...1		ABRCFSSR	When set to 1, MGCR issued to start secondary address space (used for retry).
		.... 1...		ABRCFSSC	When set to 1, ARCATIME has issued MGCR to cancel secondary address space.
		.... .1..		ABRCFSAB	When set to 1, secondary address space has encountered a non-recoverable ABEND.
		.... ..1.		ABRCFRCA	When set to 1, recursive ABEND occurred in ARCAGEN subtask.
		1		ABRCFFSA	When set to 1, fail to start secondary address space.
48	(30)	ADDRESS	4	ABRCATTC	ARCATIME's TCB pointer. Posted upon completion of ARCATIME.
52	(34)	BITSTRING	4	ABRCABCC	ARCAGEN ABEND code.
56	(38)	ADDRESS	4	ABRCABN@	ARCAGEN ABEND address.
60	(3C)	FIXED	4	*	Reserved.

ABRCB Control Block Cross-Reference

Table 6 (Page 1 of 2). ABRCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ABR_AB_L2INUSE_DELAY	2A		2
ABR_AB_L2RETRY	38		2
ABR_ALLOCATE_FAIL_RETRY	4C4		2
ABR_AUTH_USERID	4BC		2
ABR_ML2_RETRY	4A2		2
ABR_PERCENT_UTILIZED	7C		2
ABR_TC_TAKEAWAY_DELAY	28		2
ABRC_ABEND_MSGNO	1C		2
ABRC_ACTINST_OPTION	1F		2
ABRC_DSS_WAIT	20		2
ABRC_IO_ERROR_THRESHOLD	4A0		2
ABRCABCC	34		2
ABRCABN@	38		2
ABRCABQH	4AC		2
ABRCABQT	4B0		2
ABRCAPTR	48C		2
ABRCARQH	4B4		2
ABRCARQT	4B8		2
ABRCASCB	8		2
ABRCASTC	494		2
ABRCATTC	30		2
ABRCAVQH	48C		3
ABRCAVQT	490		3
ABRCB	0		1
ABRCB_ABACKUP_HELD_EOD	A8	20	3
ABRCB_ABARSBUF	A4		2
ABRCB_ABARSLOG	A8	80	3
ABRCB_ABARSLOG_SPECFD	A8	08	3
ABRCB_ABARSLOG_SYSOUTCL	A9		2
ABRCB_ABARSLOGMLEV_FULL	A8	40	3
ABRCB_ABARSUNT	94		2
ABRCB_ABR_BUFLEN	24		2
ABRCB_ABR_BUFPTR	20		2
ABRCB_ABR_FLAGS	28		2
ABRCB_ARECOVER_HELD_EOD	A8	10	3
ABRCB_ARML2UNT	9C		2
ABRCB_ARML2UNT_GENERIC	8C		2
ABRCB_DELETE_ACTLOG	A8	01	3
ABRCB_FABR_VALID	28	80	3
ABRCB_FLAGS	A8		2

Table 6 (Page 1 of 2). ABRCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ABRCB_FLAGS2	AA		2
ABRCB_OPTIMIZE	7F		2
ABRCB_PROCESS_BDAM	A8	04	3
ABRCB_WRITE_IO_ERROR_THRESHOLD	4C6		2
ABRCBF_DISCONNECT_ABADDR	AA	01	3
ABRCBF_ENABLE_CRD_CHECK	AA	02	3
ABRCBF_TGTGDSA	AA	08	3
ABRCBF_TGTGDSD	AA	10	3
ABRCBF_TGTGDSR	AA	04	3
ABRCBF_TSKAGNM_OLDWAY	AA	80	3
ABRCBF_VCNTANY	A8	02	3
ABRCDSEC	470		2
ABRCDSPC	470	40	3
ABRCDTEC	474		2
ABRCDTPC	474	40	3
ABRCDWEC	478		2
ABRCDWPC	478	40	3
ABRCF_AB_AGNAME_EOD	28	40	3
ABRCF_DELETE_FILES	82	40	3
ABRCF_LOGMSG_TO_OPERATOR	81	04	3
ABRCF_NO_VALIDATE	82	80	3
ABRCF_PPRC	82	20	3
ABRCF_STACK	AA	20	3
ABRCF_XRC	82	10	3
ABRCFABW	81	10	3
ABRCFARW	81	08	3
ABRCFCBR	80		2
ABRCFCTA	81	40	3
ABRCFDOK	2C	40	3
ABRCFDSS	80	08	3
ABRCFD32	80	02	3
ABRCFFDI	80	04	3
ABRCFFSA	2C	01	3
ABRCFKBH	80	20	3
ABRCFNRH	80	40	3
ABRCFRCA	2C	02	3
ABRCFRPL	80	10	3
ABRCFSAB	2C	04	3
ABRCFSRD	2C	80	3

Table 6 (Page 2 of 2). ABRCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ABRCFSSC	2C	08	3
ABRCFSSR	2C	10	3
ABRCFST	2C		2
ABRCFSTA	2C	20	3
ABRCFSWP	80	01	3
ABRCFSXA	81	80	3
ABRCFTRM	81	20	3
ABRCFXMA	80	80	3
ABRCHLQH	498		3
ABRCHLQT	49C		3
ABRCHPTR	498		2
ABRCKNAM	2C		2
ABRCKNAX	C		2
ABRCKNEL_PTR	47C		2
ABRCKNEP	34		2
ABRCKOAX	10		2
ABRCKSAS	0		1
ABRCKSAS_PTR	480		2
ABRCMPRV	24		2
ABRCMSAS	14		2
ABRCMSCP	0		2
ABRCMWEP	C		2
ABRCNAME	0		2
ABRCNSAS	18		2
ABRCRCBK	8		2
ABRCRCBP	4A4		2
ABRCSCEC	10		2
ABRCSCPC	10	40	3
ABRCSSID	1C		2
ABRCSTEC	18		2
ABRCSTPC	18	40	3
ABRCTCBK	4		2
ABRCTCBP	4A8		2
ABRCTUNT	84		2

BCR—Backup Control Record

The backup control record (BCR) is a data area record in the backup control data set that contains control information for backup processing of a particular host (see Table 7). A copy is also maintained in the DFSMShsm work space. Backup control records are 584 bytes long. The record type is R.

The key for a type R backup control record is the constant BCR and the host identification in a multiple-host environment. The host identification is a 1-digit alphanumeric character. If you omit the host identification, DFSMShsm defaults to the ID of the issuing host. An example of the key that is used with an R backup control record is:

```
FIXCDS R BCR3
```

Table 7 (Page 1 of 3). BCR—Backup Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	584	BCR	Backup control record.
0(0)		CHARACTER	44	BCRKEY	Backup control record key consisting of X'30', followed by BCR, followed by the 1-byte host identification character, and padded with blanks. (See MCK for details.)
44(2C)		CHARACTER	20	BCRHDR	Control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	152	BCRDATA	Data portion of the backup control record.
64(40)	0(0)	BITSTRING	4	BCRFLAGS	A 4-byte field that contains the following DFSMShsm backup control flags:
64(40)	0(0)	BITSTRING	1	*	First byte.
		1...		BCRFGBR	When set to 1, automatic backup is in progress.
		.1..		BCRFGBF	When set to 1, automatic backup completed successfully today.
		..1.		BCRFBCBU	When set to 1, the backup control data set was backed up successfully today.
		...1		BCRFOCBU	When set to 1, the offline control data set was backed up successfully today.
		.... 1...		BCRFNDBV	When set to 1, no DASD backup volumes were available.
		.... .1..		BCRFNTBV	When set to 1, no tape backup volumes were available.
		.... ..1.		BCRFRAB	When set to 1, automatic backup is to be restarted.
		1		BCRFMVBC	When set to 1, the multiple volume backup command task is in progress.
65(41)	1(1)	BITSTRING	1	*	Second byte.
		1...		BCRFNDSV	When set to 1, DFSMShsm ran out of DASD spill volumes during backup or recycle processing.
		.1..		BCRFNTSV	When set to 1, DFSMShsm ran out of tape spill volumes during backup or recycle processing.
		..1.		BCRFBL1	When set to 1, level 1 backup can be performed (BMDS & BMBC).
		...1		BCRFRBC	When set to 1, BACKVOL command task is to be restarted.
		 1111		BCRFRFLS	Automatic backup restart flags.
		.... 1...		BCRFREXC	When set to 1, automatic backup is to be restarted when the control data sets are exported.
		.... .1..		BCRFRBMD	When set to 1, automatic backup is to be restarted at the backup of migrated data sets.
		.... ..1.		BCRFRMBV	When set to 1, automatic backup is to be restarted at the movement of backup versions.
		1		BCRFRPVB	When set to 1, automatic backup is to be restarted at the backup of primary volumes.
66(42)	2(2)	BITSTRING	1	*	Third byte.
		1...		BCRFMBUP	When set to 1, the migration control data set is being backed up.
		.1..		BCRFBBUP	When set to 1, the backup control data set is being backed up.

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Table 7 (Page 2 of 3). BCR—Backup Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
		..1.		BCRFOBUP	When set to 1, the offline control data set is being backed up.
		...1		BCRFBMDS	When set to 1, migrated data sets are being backed up.
		.... 1...		BCRFMBV	When set to 1, the backup versions are being moved from migration volumes to backup volumes.
		.... .1..		BCRFXBUP	When set to 1, the backup control data set is running.
		.... ..1.		BCRFPVB	When set to 1, the primary volume backup is in progress.
		1		BCRV260	When set to 1, BCR is in DFHSM 2.6.0 format.
67(43)	3(3)	BITSTRING	1	*	Fourth byte.
		1...		BCRFDAB	When set to 1, the host taking over for this demoted host was not in the middle of autobackup when it was promoted. The demoted host's restart flags should be used.
		.xxx xxxx		*	Reserved.
68(44)	4(4)	BITSTRING	4	BCRCYCLE	Backup control record automatic backup cycle. Each bit, left to right, represents a day in the cycle. If a bit is set to 1, automatic backup is requested that day.
72(48)	8(8)	FIXED	2	BCRCLEN	Number of days in the backup cycle.
74(4A)	10(A)	FIXED	2	BCRNVOL	Number of volumes to use each day before doing DASD spill processing.
76(4C)	12(C)	CHARACTER	4	BCRCDATE	Date the backup cycle was defined. It is used to determine which day in the cycle the present day is. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
80(50)	16(10)	CHARACTER	4	BCRBDATE	Start date of the last automatic backup that completed. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
84(54)	20(14)	CHARACTER	8	BCRTSBLA	Time stamp when ARCBGEN was last awakened from wait.
84(54)	20(14)	CHARACTER	4	BCRTBLA	Time ARCBGEN was last taken out of wait state. The time is obtained from the TIME macro in format *X'hhmmssth'*.
88(58)	24(18)	CHARACTER	4	BCRDBLA	Date ARCBGEN was last taken out of wait state. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
92(5C)	28(1C)	CHARACTER	4	BCRBL1D	Date that the last level 1 backup function was performed, in format *X'00yydddf'*.
96(60)	32(20)	CHARACTER	8	BCRTSLAB	Automatic backup start time. The time is obtained from the TIME macro in hundredths of seconds.
96(60)	32(20)	BITSTRING	4	BCRTLAB	Last automatic backup start time.
100(64)	36(24)	BITSTRING	4	BCRTCAB	Current automatic backup start time.
104(68)	40(28)	CHARACTER	6	*	Reserved.
110(6E)	46(2E)	CHARACTER	6	*	Reserved.
116(74)	52(34)	CHARACTER	6(15)	BCRYVOLM	A 15-element array of 6-byte fields containing target backup tape volumes currently selected for output by recycle tasks.
206(CE)	142(8E)	BITSTRING	1	*	Special processing flags.
		1...		BCRFRVL1	When set to 1, FREEVOL ML1BACKUPCOPIES is requested for this host.
		.xxx xxxx		*	Reserved.
207(CF)	143(8F)	CHARACTER	1	*	Reserved.
208(D0)	144(90)	FIXED	4	BCRBCDAY	Day in the backup cycle when automatic backup last started from the beginning.
212(D4)	148(94)	CHARACTER	4	BCRDSAB	Date that automatic backup last started from the beginning.
216(D8)	152(98)	FIXED	2	BCRAKLN	Length of BCRAKEY.
218(DA)	154(9A)	CHARACTER	44	BCRAKEY	Key of the last BCDS record read for EXPIRE ABARS versions processing.
218(DA)	154(9A)	CHARACTER	1	BCRATYPE	Hex type of record.
219(DB)	155(9B)	CHARACTER	43	BCRAKEY2	The rest of the key for the BCDS record read for EXPIRE ABARS versions processing.
262(106)	198(C6)	FIXED	2	BCRSKLN	Length of the BCRSKEY.
264(108)	200(C8)	CHARACTER	44	BCRSKEY	Key of last BCDS record read for EXPIRE backup versions processing.
308(134)	244(F4)	FIXED	2	BCRPEKLN	Length of the BCRPEKEY.
310(136)	246(F6)	CHARACTER	44	BCRPEKEY	Planned ending key for most recent EXPIREBV command.
354(162)	290(122)	CHARACTER	28	*	Reserved. Used in releases before 1.4.0.
382(17E)	318(13E)	CHARACTER	6	*	Reserved.
388(184)	324(144)	CHARACTER	6(17)	BCRVBVL	A 17-element array of 6-byte fields containing target backup tape volumes currently selected for output by backup tasks.

Table 7 (Page 3 of 3). BCR—Backup Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
490(1EA)	426(1AA)	CHARACTER	45	BCRAUDK	Key of the record to resume.
490(1EA)	426(1AA)	CHARACTER	1	BCRAUDTP	Character type of the record.
491(1EB)	427(1AB)	CHARACTER	44	BCRAUDKY	BCR key.
535(217)	471(1D7)	CHARACTER	1	BCRCBUSE	If set to Y, use the ARCCBEXT exit.
536(218)	472(1D8)	FIXED	4	BCRJBTOD	Time of day in minutes autobackup to start.
540(21C)	476(1DC)	FIXED	4	BCRJBTEN	Latest time in minutes autobackup allowed to start.
544(220)	480(1E0)	FIXED	4	BCRJBTSS	Time after which no more volume backups will begin during autobackup.
548(224)	484(1E4)	CHARACTER	4	BCR_PRMTD_START_DATE	Date that the promoted host started performing autobackup.
552(228)	488(1E8)	FIXED	4	*(8)	Reserved.

BCR Data Area Cross-Reference

Table 8 (Page 1 of 2). BCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BCR	0		1
BCR_PRMTD_START_DATE	224		2
BCRAKEY	DA		2
BCRAKEY2	DB		3
BCRAKLN	D8		2
BCRATYPE	DA		3
BCRAUDK	1EA		2
BCRAUDKY	1EB		3
BCRAUDTP	1EA		3
BCRBCDAY	D0		3
BCRBDATE	50		3
BCRBL1D	5C		3
BCRCBUSE	217		2
BCRCDATE	4C		3
BCRCLEN	48		3
BCRCYCLE	44		3
BCRDATA	40		2
BCRDBLA	58		4
BCRDSAB	D4		3
BCRFBBUP	42	40	5
BCRFBCBU	40	20	5
BCRFBL1	41	20	5
BCRFBMDS	42	10	5
BCRFDAB	43	80	5
BCRFGBF	40	40	5
BCRFGBR	40	80	5
BCRFLAGS	40		3
BCRFMBUP	42	80	5

Table 8 (Page 1 of 2). BCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BCRFMBV	42	08	5
BCRFMVBC	40	01	5
BCRFNDBV	40	08	5
BCRFNDSV	41	80	5
BCRFNTBV	40	04	5
BCRFNTSV	41	40	5
BCRFOBUP	42	20	5
BCRFOCBU	40	10	5
BCRFPVB	42	02	5
BCRFRAB	40	02	5
BCRFRBC	41	10	5
BCRFRBMD	41	04	6
BCRFREXC	41	08	6
BCRFRFLS	41	0F	5
BCRFRMBV	41	02	6
BCRFRPVB	41	01	6
BCRFRVL1	CE	80	4
BCRFXBUP	42	04	5
BCRHDR	2C		2
BCRJBTEN	21C		2
BCRJBTOD	218		2
BCRJBTSS	220		2
BCRKEY	0		2
BCRNVOL	4A		3
BCRPEKEY	136		2
BCRPEKLN	134		2
BCRSKEY	108		2
BCRSKLN	106		2

Table 8 (Page 2 of 2). BCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BCRTBLA	54		4
BCRTCAB	64		4
BCRTLAB	60		4
BCRTSBLA	54		3
BCRTSLAB	60		3
BCRVBVL	184		2
BCRV260	42	01	5
BCRYVOLM	74		3

BGCB—Backup Global Control Block

The backup global control block (BGCB) defines the mapping for the globally addressable, functional control block for Backup. The BGCB is 248 bytes long.

The contents of the BGCB can be displayed using the DISPLAY command as follows:

```
DISPLAY .BGCB.+0 LENGTHS(248)
```

Table 9 (Page 1 of 3). BGCB—Backup Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	248	BGCB	Backup Global Control Block.
0	(0)	CHARACTER	8	BGCBID	Control block ID.
8	(8)	ADDRESS	4	BGCB_BDSC_TCBP	Address of BDSC TCB Pointer.
12	(C)	ADDRESS	4	BGCVTCBP	Address of BGEN task TCB.
16	(10)	CHARACTER	16	BGCSMSDA	SMS data.
16	(10)	ADDRESS	4	BGCBSLKP	Address of SMS lock token for Autobackup.
20	(14)	ADDRESS	4	BGCBDMCP	Address of default MC definition area for Autobackup.
24	(18)	ADDRESS	4	BGCMCLSP	Address of backups list of MCs (header record on list contains the number of MC entries.
28	(1C)	FIXED	4	BGCMCLSL	Length of area of backups list of MCs (used for freeing storage of MC list.
32	(20)	BITSTRING	2	BGC_FLAGS	Flags.
		1...		BGCFRTRY	When set to 1, retry a data set backup if the first try fails because the data set is in use.
		.1..		*	NLU, was BGCFL1OV
		..1.		BGCFOKNQ	When set to 1, if a data set backup is retried and the data set is still in use (ENQ fails again) it is okay to make the backup anyway. Valid only if BGCFRTRY is set to 1.
		...1		BGCBF_ENQGDG_BASE	When set to 1, enqueue on SYSDSN and GDG base name during backup of GDS.
		.... 1...		BGCBF_SINGLE_PATH	When set to 1, do not overlap data set backups during volume backup.
		.... .1..		BGCBF_AB_COMP_PEND	When set to 1, autobackup BACKVOL tasks have completed processing. Autobackup completion is pending for serialization retries.
		.... ..1.		BGCBF_RLS_ENQG	When set to 1, release ARCENQG/ARCCAT in an RLS environment if CDS backup is waiting.
		1		BGCBF_DS_MARKFULL	When set to 1, override reuse and mark tape full.
		1...		BGCBF_DEQ_GDGBASE	When set to 1, DEQ GDG BASE after T0 connection established when using Concurrent Copy.
		.xxx xxxx		*	Reserved.
34	(22)	BITSTRING	2	*	Reserved.
36	(24)	BITSTRING	1	BGCBTSVL	Trace processing of an SMS volume, X'FF' = issue ARC0734I msg for all extract list entries; otherwise issue ARC0734I msg according to SETSYS ACTLOGMSGLVL.
37	(25)	BITSTRING	1	*	Reserved.
38	(26)	BIT(16)	2	*	NLU,was BGCB_LARGE_BACKDS
40	(28)	FIXED	2	BGCBBKTB	Number of tape buffers for backup.
42	(2A)	FIXED	2	BGCBRCTB	Number of tape buffers for recover.
44	(2C)	FIXED	2	BGCB_RETRY_DELAY	The number of minutes to delay retrying a data set backup if an initial try fails because the data set is in use. Valid only if BGCFRTRY is set to 1.
46	(2E)	FIXED	2	BGCB_GIANT	Data set size for a giant data set. Value in 100s of tracks. Initialized to 50 (5000 used tracks).
48	(30)	ADDRESS	4	BGCBICAP	Pointer to backup in storage TTOC invalidation element chain anchors.
52	(34)	CHARACTER	32	BGCTCIEB	Backup TCIE block chain anchor.
84	(54)	FIXED	4	BGCB_EARLIEST_ RETRY	If non-zero, the earliest retry time of all the retry MWEs currently queued for backup.
88	(58)	ADDRESS	4	BGCBSGBAK_HEAD	Address of first element in queue of BACKVOL SG commands.
92	(5C)	ADDRESS	4	BGCBSGBAK_TAIL	Address of last element in queue of BACKVOL SG commands.
96	(60)	FIXED	1	BGCB_PPQ_MAX_SC	Small cache maximum PPQ elements.
97	(61)	FIXED	1	BGCB_PPQ_MAX_LC	Large cache maximum PPQ elements.

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Table 9 (Page 2 of 3). BGCB—Backup Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
98	(62)	CHARACTER	2	*	Reserved.
100	(64)	BITSTRING	1	BGCB_DS_FLAGS	DSBACKUP flags
		1...		BGCBF_DS_GVCN	When set to 1, GVCN(YES) used when ISV-checking. When set to 0, GVCN(NO) used when ISV-checking.
		.xxx xxxx		*	Reserved
101	(65)	CHARACTER	6	BGCB_ISV_MIG_VOL	Constant used for ISV-checking
107	(6B)	UNSIGNED	1	*	Reserved
108	(6C)	SIGNED	4(3)	*	Reserved
120	(78)	FIXED	4	BGCBBDHL	DASD high threshold (KB).
124	(7C)	FIXED	4	BGCBBTLT	Tape low threshold (KB).
128	(80)	FIXED	2	BGCB_DS_MAX_DASD	Maximum DASD tasks specified.
130	(82)	FIXED	2	BGCB_DS_MAX_TAPE	Maximum tape tasks specified.
132	(84)	FIXED	2	BGCB_DEMOUNT_MINUTES	Demount delay minutes.
134	(86)	FIXED	2	BGCB_DEMOUNT_DRIVES	Demount - MAXIDLEDRIVES specified.
136	(88)	FIXED	2	BGCB_DS_ACT_MAX_DASD	Internal maximum DASD allowed.
138	(8A)	FIXED	2	BGCB_DS_ACT_MAX_TAPE	Internal maximum tape allowed.
140	(8C)	FIXED	2	BGCB_DS_CURR_DASD	Current DASD actually active.
142	(8E)	FIXED	2	BGCB_DS_CURR_TAPE	Current tape actually active.
144	(90)	FIXED	2	BGCB_DS_IDLE_TAPE	Idle tape count.
146	(92)	FIXED	2	*	Time to switch tapes.
148	(94)	BITSTRING	4	BGCB_BDSC_HECB	ARCBDSC hold ECB.
152	(98)	BITSTRING	4	BGCB_BDSC_SECB	ARCBDSC SETSYS ECB.
156	(9C)	BITSTRING	4	BGCB_BDSC_WECB	ARCBDSC work ECB.
160	(A0)	BITSTRING	4	BGCB_BDSC_CECB	ARCBDSC check tape ECB.
164	(A4)	BITSTRING	4	BGCB_BDSC_TECB	ARCBDSC termination ECB.
		1...		BGCB_BDSC_TECB_WAIT	Wait bit.
		.1..		BGCB_BDSC_TECB_POST	Post bit.
		..xx xxxx		*	Reserved.
168	(A8)	FIXED	2	BGCB_DS_RETAIN_TAPE	Tape retain time.
170	(AA)	FIXED	2	BGCB_DS_IDLE_CHECK	Check tape interval timer.
172	(AC)	ADDRESS	4	BGCB_DS_MAP	Mount time structure pointer.
176	(B0)	FIXED	2	BGCB_DS_MASIZE	Number of elements in mount structure.
178	(B2)	BITSTRING	1	BGCB_DS_SETSYS	SETSYS changed flags.
		1...		BGCB_DSF_MAXTAPE	Maximum tape tasks updated.
		.1..		BGCB_DSF_MAXDASD	Maximum DASD tasks updated.
		..1.		BGCB_DSF_DASDSEL	DASDSELECTIONSIZE changed.
		...1		BGCB_DSF_DEMNTMIN	Demount delay minutes updated.
		.... 1...		BGCB_DSF_DEMNTNUM	Maximum idle tape tasks change.
		.... .1..		BGCB_DSF_DEMNT_OK	Enable demount delay.
179	(B3)	BITSTRING	1	BGCB_DS_RELEASE	Release specified.
		1...		BGCB_DSF_RELTAPE	Tape released.
		.1..		BGCB_DSF_RELDASD	DASD released.
		..xx xxxx		*	Reserved.
180	(B4)	BITSTRING	2	BGCB_DS_SWTCHTP	Define switch tapes.
		1...		BGCB_DSF_PTLTAPE_SETSYS	PARTIALTAPE SETSYS specified.
		.1..		BGCB_DSF_PTLTAPE_REUSE	PARTIALTAPE REUSE specified.
		..1.		BGCB_DSF_PTLTAPE_MKFULL	PARTIALTAPE MARKFULL specified.
		...1		BGCB_DSF_STTRIGGER_ABE	Trigger switch tapes at autobackup end.
		.... 1...		BGCB_DSF_STMODE	Initiate tape switching.
		.... .1..		BGCB_DSF_STINIT_DONE	Switch tapes initiated.
		.... ..1.		BGCB_DSF_STTRIGGER_TOD	Trigger switch tapes at time of day.
		1		BGCB_DSF_STTRIGGER_NONE	No switch tapes environment.
181	(B5)	BITSTRING	1	*	Flags.
		1...		BGCB_DSF_STRIGGER_TOD_CHGD	Switch tapes time of day changed.
		.xxx xxxx		*	Reserved.
182	(B6)	CHARACTER	2	*	Reserved.
184	(B8)	CHARACTER	8	BDCB_DS_STRIGGER_TOD	Switch tapes TOD.
184	(B8)	CHARACTER	4	BGCB_DS_STTRIGGER_HHMM	Switch tapes HHMM.
188	(BC)	CHARACTER	4	BGCB_DS_STTRIGGER_STH	Seconds and tenths for TOD.
192	(C0)	BIT(16)	2	BGCB_BDSC_FTPRNT	ARCBDSC Foot Prints
		1...		BGCB_BDSCF_ACT	ARCBDSC Currently Active
		.1..		BGCB_BDSCF_INIT	Initialize Proc
		..1.		BGCB_BDSCF_PHR	ProcessHoldRelease Proc
		...1		BGCB_BDSCF_PSET	ProcessSetsys Proc
		.... 1...		BGCB_BDSCF_RMAX	ResetMaxVariables Proc
		.... .1..		BGCB_BDSCF_SAC	SetAlarmClock Proc
		.... ..1.		BGCB_BDSCF_TTX	TapeTimerExit Exit
		1		BGCB_BDSCF_PM	PrintMsg Proc
193	(C1)	1...		BGCB_BDSCF_WFW	WaitForWork Proc
194	(C2)	BIT(16)	2	BGCB_BDSIP_FTPRNT	ARCBDSIP Foot Prints
		1...		BGCB_BDSIPF_CALL	ARCBDSIP Processing

Table 9 (Page 3 of 3). BGCB—Backup Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.1..		BGCB_BDSIPF_PIT	ProcessIdleTape
		..1.		BGCB_BDSIPF_RTIT	ResetTapeIdleTimes
		...1		BGCB_BDSIPF_ET	EndTask
		.... 1...		BGCB_BDSIPF_POST	PostTask
		.... .1..		BGCB_BDSIPF_PERR	POSTERR
196	(C4)	BIT(16)	2	BGCB_BDSMF_FTPRNT	ARCBDSMF Foot Prints
		1...		BGCB_BDSMFF_CALL	ARCBDSMF Processing
		.1..		BGCB_BDSMFF_IDR	IsDASDReq Proc
		..1.		BGCB_BDSMFF_ITR	IsTapeReq Proc
		...1		BGCB_BDSMFF_VMWE	ValidMWE Proc
198	(C6)	BIT(16)	2	BGCB_BDSRP_FTPRNT	ARCBDSRP Foot Prints
		1...		BGCB_BDSRPF_CALL	ARCBDSRP Processing
		.1..		BGCB_BDSRPF_PR	ProcessRequest Proc
		..1.		BGCB_BDSRPF_IST	InitStartTask Proc
		...1		BGCB_BDSRPF_EWL	EstWorkLoad Proc
		.... 1...		BGCB_BDSRPF_PM	PrintMsg Proc
		.... .1..		BGCB_BDSRPF_AT	AttachTask Proc
		.... ..1.		BGCB_BDSRPF_SE	SetupEstae Proc
		1		BGCB_BDSRPF_ERTY	ESTAERTY Routine
199	(C7)	1...		BGCB_BDSRPF_RQ	RecoverQ Routine
200	(C8)	BIT(16)	2	BGCB_BDSSP_FTPRNT	ARCBDSSP Foot Prints
		1...		BGCB_BDSSPF_CALL	ARCBDSSP Processing
		.1..		BGCB_BDSSPF_CAT	CheckAllTask Proc
		..1.		BGCB_BDSSPF_PT	ProcessTask Proc
		...1		BGCB_BDSSPF_EFW	ElligibleForWork Proc
		.... 1...		BGCB_BDSSPF_ITA	IsTakeAway Proc
		.... .1..		BGCB_BDSSPF_RMD	RegisterMountDelay Proc
		.... ..1.		BGCB_BDSSPF_ET	EndTask Proc
		1		BGCB_BDSSPF_TC	TaskCleanup Proc
201	(C9)	1...		BGCB_BDSSPF_PM	PrintMsg Proc
		.1..		BGCB_BDSSPF_POST	PostTask Proc
		..1.		BGCB_BDSSPF_PERR	POSTERR Exit
		...1		BGCB_BDSSPF_IS	InitiateSwitch Proc
		.... 1...		BGCB_BDSSPF_ISD	IsSwitchDone Proc
202	(CA)	BIT(16)	2	BGCB_BDSAM_FTPRNT	ARCBDSAM Foot Prints
		1...		BGCB_BDSAMF_CALL	ARCBDSAM Processing
		.1..		BGCB_BDSAMF_FW	FindWork Proc
		..1.		BGCB_BDSAMF_GNR	GetNextReq Proc
		...1		BGCB_BDSAMF_POST	PostTask Proc
		.... 1...		BGCB_BDSAMF_PERR	POSTERR Exit
		.... .1..		BGCB_BDSAMF_SE	SetupEstae Proc
		.... ..1.		BGCB_BDSAMF_ERTY	ESTAERTY Routine
		1		BGCB_BDSAMF_RQ	RecoverQ Routine
192	(C0)	CHARACTER	12	*	Reserved.

The following data rates are used by data set backup to determine the time necessary to backup the data set if the medium is tape or DASD. The data rate is set using the standard DFSMShsm data rate as seen in customer data. Tape is 1.43 MB/SEC and DASD is .9MB/SEC.

204	(CC)	FIXED	2	BGCB_DASD_DATARATE	DASD data rate.
206	(CE)	FIXED	2	BGCB_TAPE_DATARATE	Tape data rate.
208	(D0)	FIXED	2	BGCB_TAPE_MOUNT_DELAY	Tape mount delay .1 seconds.
210	(D2)	FIXED	2	BGCB_TAPE_WORKLOAD_RES	Workload reserve .1 seconds.
212	(D4)	FIXED	2	BGCB_DASD_WORKLOAD_RES	Workload reserve DASD.
214	(D6)	FIXED	2	BGCB_DS_TAKEAWAY_CHECK	Minimum time for take away checks in seconds.
216	(D8)	FIXED	4(8)	*	Reserved.
248	(F8)	CHARACTER		BGCB_END	End of control block.

The information below (see Table 10) describes a queue element anchored in fields BGCBSGBAK_xxxx. Each element represents one BACKVOL SG command.

Table 10. BGCB—BACKVOL SG Command Queue Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	*	BGCB_BAKQUE	
0	(0)	CHARACTER	20	BGCB_SGHDR	
0	(0)	ADDRESS	4	BGCB_SGFWD	Address of next element.
4	(4)	ADDRESS	4	BGCB_SGBWD	Address of prior element.
8	(8)	FIXED	4	BGCB_BAKSZ	Size of this queue element.
12	(C)	FIXED	4	BGCB_RQN	Request number from MWE for BACKVOL command.
16	(10)	FIXED	2	BGCB_SGSPL	Subpool for this element.
18	(12)	FIXED	2	BGCB_SGCNT	Count of storage groups in array.
The following is an array of storage group names from the BACKVOL command:					
20	(14)	CHARACTER	36	BGCB_SGN(*)	
20	(14)	CHARACTER	30	BGCB_SGNAM	Storage group name.
50	(32)	FIXED	2	BGCB_SGL	Length of storage group name in BGCB_SGNAM.
52	(34)	FIXED	4	BGCB_SGVOLS	Count of eligible volumes being backed up from this storage group.

BGCB Control Block Cross-Reference

Table 11 (Page 1 of 3). BGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BGC_FLAGS	20		2
BGCB	0		1
BGCB_BAKQUE	0		1
BGCB_BAKSZ	8		2
BGCB_BDSAM_FTPRNT	CA		2
BGCB_BDSAMF_CALL	CA	80	3
BGCB_BDSAMF_ERTY	CA	02	3
BGCB_BDSAMF_FW	CA	40	3
BGCB_BDSAMF_GNR	CA	20	3
BGCB_BDSAMF_PERR	CA	08	3
BGCB_BDSAMF_POST	CA	10	3
BGCB_BDSAMF_RQ	CA	01	3
BGCB_BDSAMF_SE	CA	04	3
BGCB_BDSC_CECB	A0		2
BGCB_BDSC_FTPRNT	C0		2
BGCB_BDSC_HECB	94		2
BGCB_BDSC_SECB	98		2
BGCB_BDSC_TCBP	8		2
BGCB_BDSC_TECB	A4		2
BGCB_BDSC_TECB_POST	A4	40	3
BGCB_BDSC_TECB_WAIT	A4	80	3
BGCB_BDSC_WECB	9C		2
BGCB_BDSCF_ACT	C0	80	3

Table 11 (Page 1 of 3). BGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BGCB_BDSCF_INIT	C0	40	3
BGCB_BDSCF_PHR	C0	20	3
BGCB_BDSCF_PM	C0	01	3
BGCB_BDSCF_PSET	C0	10	3
BGCB_BDSCF_RMAX	C0	08	3
BGCB_BDSCF_SAC	C0	04	3
BGCB_BDSCF_TTX	C0	02	3
BGCB_BDSCF_WFW	C1	80	3
BGCB_BDSIP_FTPRNT	C2		2
BGCB_BDSIPF_CALL	C2	80	3
BGCB_BDSIPF_ET	C2	10	3
BGCB_BDSIPF_PERR	C2	04	3
BGCB_BDSIPF_PIT	C2	40	3
BGCB_BDSIPF_POST	C2	08	3
BGCB_BDSIPF_RTIT	C2	20	3
BGCB_BDSMF_FTPRNT	C4		2
BGCB_BDSMFF_CALL	C4	80	3
BGCB_BDSMFF_IDR	C4	40	3
BGCB_BDSMFF_ITR	C4	20	3
BGCB_BDSMFF_VMWE	C4	10	3
BGCB_BDSRP_FTPRNT	C6		2
BGCB_BDSRPF_AT	C6	04	3
BGCB_BDSRPF_CALL	C6	80	3

Table 11 (Page 2 of 3). BGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BGCB_BDSRPF_ERTY	C6	01	3
BGCB_BDSRPF_EWL	C6	10	3
BGCB_BDSRPF_IST	C6	20	3
BGCB_BDSRPF_PM	C6	08	3
BGCB_BDSRPF_PR	C6	40	3
BGCB_BDSRPF_RQ	C7	80	3
BGCB_BDSRPF_SE	C6	02	3
BGCB_BDSSP_FTPRNT	C8		2
BGCB_BDSSPF_CALL	C8	80	3
BGCB_BDSSPF_CAT	C8	40	3
BGCB_BDSSPF_EFW	C8	10	3
BGCB_BDSSPF_ET	C8	02	3
BGCB_BDSSPF_IS	C9	10	3
BGCB_BDSSPF_ISD	C9	08	3
BGCB_BDSSPF_ITA	C8	08	3
BGCB_BDSSPF_PERR	C9	20	3
BGCB_BDSSPF_PM	C9	80	3
BGCB_BDSSPF_POST	C9	40	3
BGCB_BDSSPF_PT	C8	20	3
BGCB_BDSSPF_RMD	C8	04	3
BGCB_BDSSPF_TC	C8	01	3
BGCB_DASD_DATARATE	CC		2
BGCB_DASD_WORKLOAD_RES	D4		2
BGCB_DEMOUNT_DRIVES	86		2
BGCB_DEMOUNT_MINUTES	84		2
BGCB_DS_ACT_MAX_DASD	88		2
BGCB_DS_ACT_MAX_TAPE	8A		2
BGCB_DS_CURR_DASD	8C		2
BGCB_DS_CURR_TAPE	8E		2
BGCB_DS_FLAGS	64		2
BGCB_DS_IDLE_CHECK	AA		2
BGCB_DS_IDLE_TAPE	90		2
BGCB_DS_MAP	AC		2
BGCB_DS_MASIZE	B0		2
BGCB_DS_MAX_DASD	80		2
BGCB_DS_MAX_TAPE	82		2
BGCB_DS_RELEASE	B3		2
BGCB_DS_RETAIN_TAPE	A8		2
BGCB_DS_SETSYS	B2		2
BGCB_DS_STTRIGGER_HHMM	B8		2
BGCB_DS_STTRIGGER_STH	BC		3
BGCB_DS_STTRIGGER_TOD	B8		2

Table 11 (Page 2 of 3). BGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BGCB_DS_SWTCHTP	B4		2
BGCB_DS_TAKEAWAY_CHECK	D6		2
BGCB_DSF_DASDSEL	B2	20	3
BGCB_DSF_DEMNT_OK	B2	04	3
BGCB_DSF_DEMNTMIN	B2	10	3
BGCB_DSF_DEMNTNUM	B2	08	3
BGCB_DSF_MAXDASD	B2	40	3
BGCB_DSF_MAXTAPE	B2	80	3
BGCB_DSF_PTLTAPE_MKFULL	B4	20	3
BGCB_DSF_PTLTAPE_REUSE	B4	40	3
BGCB_DSF_PTLTAPE_SETSYS	B4	80	3
BGCB_DSF_RELDASD	B3	40	3
BGCB_DSF_RELTAPE	B3	80	3
BGCB_DSF_STINIT_DONE	B4	04	3
BGCB_DSF_STMODE	B4	08	3
BGCB_DSF_STTRIGGER_ABE	B4	10	3
BGCB_DSF_STTRIGGER_NONE	B4	01	3
BGCB_DSF_STTRIGGER_TOD	B4	02	3
BGCB_DSF_STTRIGGER_TOD_CHGD	B5	80	3
BGCB_EARLIEST_RETRY	54		2
BGCB_END	F8		2
BGCB_GIANT	2C		2
BGCB_ISV_MIG_VOL	65		2
BGCB_PPQ_MAX_LC	61		2
BGCB_PPQ_MAX_SC	60		2
BGCB_RETRY_DELAY	2C		2
BGCB_RQN	C		2
BGCB_SGBWD	4		2
BGCB_SGCNT	12		2
BGCB_SGFWD	0		2
BGCB_SGHDR	0		2
BGCB_SGL	32		2
BGCB_SGN	14		2
BGCB_SGNAM	14		2
BGCB_SGSPL	10		2
BGCB_SGVOLS	34		2
BGCB_TAPE_DATARATE	CE		2
BGCB_TAPE_MOUNT_DELAY	D0		2
BGCB_TAPE_WORKLOAD_RES	D2		2
BGCBBDHL	78		2
BGCBBKTB	28		2
BGCBBTLT	7C		2

Table 11 (Page 3 of 3). BGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BGCBDMCP	14		3
BGCBF_AB_COMP_PEND	20	10	3
BGCBF_DEQ_GDGBASE	21	80	3
BGCBF_DS_GVCN	64	80	3
BGCBF_DS_MARKFULL	20	01	3
BGCBF_ENQGDG_BASE	20	10	3
BGCBF_RLS_ENQG	20	02	3
BGCBF_SINGLE_PATH	20	08	3
BGCBICAP	30		2
BGCBID	0		2
BGCBRCTB	2A		2
BGCBSGBAK_HEAD	58		2
BGCBSGBAK_TAIL	5C		2
BGCBSLKP	10		3
BGCBTSVL	24		2
BGCFOKNQ	20	20	3
BGCFRTRY	20	80	3
BGCMCLSL	1C		3
BGCMCLSP	18		3
BGCSMSDA	10		2
BGCTCIEB	34		2
BGCVTCBP	C		2

BVR—Backup Cycle Volume Record

The backup cycle volume record (BVR), which is a data area record in the backup control data set, describes the backup volumes that are:

- Assigned for use on a particular day of the backup cycle
- Used for spill processing
- Unassigned

When backup volumes are unassigned, either the type was not specified, or a primary backup volume has not been associated to a particular day. Backup cycle volume records are 72 bytes long, plus 12 bytes for each volume description. The record type is R.

The key for a type R backup cycle volume record is the constant BVR followed by two characters representing the type of record (01–31 for daily, SP for spill, and UN for unassigned), a dash (-), and a four-character sequence number. An example of the key that is used with an R backup cycle volume record for day 1 of the backup cycle is:

```
FIXCDS R BVR01-0000
```

Table 12 (Page 1 of 2). BVR—Backup Cycle Volume Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	*	BVR	Backup volume record.
0(0)		CHARACTER	44	BVRKEY	Backup cycle volume record key, consisting of X'30', followed by BVR, followed by a 2-byte field containing the day in the backup cycle for a daily BVR, or an SP for the spill BVR, or a UN for the unassigned BVR, followed by a dash and a 4-byte sequence number in character form (0000,...). (See MCK for details.)
44(2C)		CHARACTER	20	BVRHDR	Control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	8	BVRDATA	Variable part of record.
64(40)	0(0)	CHARACTER	1	BVRHSTID	Identifier of the host that is currently using this record.
65(41)	1(1)	BITSTRING	1	BVRFLGS	This byte contains the following flags:
		1...		BVRFEXTN	When set to 1, an extension record exists.
		.1..		BVRFVALD	When set to 1, the BVR conversion module from release 2 to release 3 was successful. This bit is valid only for spill type BVRs with a sequence number of 0000.
		..1.		BVRF_REFRESH	When set to 1 and this is a base record of a spill BVR, DFSMShsm has been told to refresh the BVR records after the next successful CDS backup. When set to 0, the BVR records do not need to be refreshed at this time.
		...1		BVRF_INVALID	When set to 1, the BVR record has been invalidated by the BVR refresh. When set to 0, the record is valid.
		 xxxx		*	Reserved.
66(42)	2(2)	FIXED	2	BVRNVOLS	Number of volume entries in this control data set record.
68(44)	4(4)	CHARACTER	4	*	Reserved.
72(48)		CHARACTER	0	BVRDEND	END OF BVRDATA PORTION
The following information is repeated for each volume and continues through the end of the backup cycle volume record description. The maximum record length of the backup control data set is 2040. A total of 164 entries can be put into each BVR.					
72(48)	8(8)	CHARACTER	12(*)	BVRVOLS	One entry per volume assigned to this record. Maximum number of entries per record set in MCVT using the users max LRECL at open time.
72(48)	8(8)	CHARACTER	6	BVRVSN	Volume serial number of the backup volume.
78(4E)	14(E)	BITSTRING	2	BVREFLGS	The next two bytes contain the following flags:

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Table 12 (Page 2 of 2). BVR—Backup Cycle Volume Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		1...		BVRETAPE	When set to 1, this volume is a tape volume. When set to 0, this volume is a DASD volume.
		.1..		BVREFULL	When set to 1, this volume is full.
		..1.		BVREUSED	When set to 1, this volume has been selected as a backup or spill volume and is in use.
		...1		BVREDALY	When set to 1, this volume is a primary backup volume not assigned to a particular day in the backup cycle. Valid only in an unassigned BVR.
		.... 1...		BVREUNAV	When set to 1, either DFSMShsm requested that this tape volume be mounted, but the volume was never mounted, or an I/O error occurred on the control data set record for the volume.
		.... .1..		BVRESPCL	When set to 1 and MCVTFNSP set to 0 in a primary BVR, this volume was recently spilled. When set to 0 and MCVTFNSP set to 1 in a primary BVR, this volume was recently cleaned up.
		.... ..1.		BVRETSPW	When set to 1, the tape security is password protection.
		1		BVRETSDT	When set to 1, the tape security is expiration date protection.
79(4F)	15(F)	1...		BVRETSRF	When set to 1, the type of tape security is RACF®, a component of the Security Server for z/OS.
		.1..		BVREMPTY	When set to 1, this volume is empty. The BVRETAPE field must also be set to one.
		..1.		BVRE1FT	When set to 1, the backup volume is a cartridge tape volume written in single-file format.
		...1		BVREXEPI	Tape emulation (BVRXEPI) is valid.
		.... 1...		BVRF_IN_XCAP	When set to 1, CAPACITYMODE(EXTENDED) tape.
		xxx		*	Reserved.
80(50)	16(10)	CHARACTER	1	BVREHOST	Host identifier of the using host if BVREUSED is set to one.
81(51)	17(11)	BITSTRING	1	BVRTPDEN	BVRTPDEN contains the tape density.
		1111		BVREDEN	B'0000'—Indicates no density assigned. B'0001'—Reserved. B'0010'—32 bytes/mm (800 BPI). B'0011'—63 bytes/mm(1600 BPI). B'0100'—246 bytes/mm (6250 BPI). B'0101'—Reserved. B'0110'—Reserved. B'0111'—Reserved.
		 xxxx		*	Reserved.
82(52)	18(12)	CHARACTER	1	BVRXEPI	Emulation byte (UCBXEPI).
83(53)	19(13)	BITSTRING	1	BVRDEVT2	Device type (UCBBYT4).

BVR Data Area Cross-Reference

Table 13. BVR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
BVR	0		1
BVRDATA	40		2
BVRDEND	48		2
BVRDEVT2	53		3
BVREDALY	4E	10	4
BVREDEN	51	F0	4
BVREFLGS	4E		3
BVREFULL	4E	40	4
BVREHOST	50		3
BVREMPTY	4F	40	4
BVRESPCL	4E	04	4
BVRETAPE	4E	80	4
BVRETSDT	4E	01	4
BVRETSPW	4E	02	4
BVRETSRF	4F	80	4
BVREUNAV	4E	08	4
BVREUSED	4E	20	4
BVREXEPI	4F	10	4
BVRE1FT	4F	20	4
BVRF_IN_XCAP	4F	08	4
BVRF_INVALID	41	10	4
BVRF_REFRESH	41	20	4
BVRFEXTN	41	80	4
BVRFLGS	41		3
BVRFVALD	41	40	4
BVRHDR	2C		2
BVRHSTID	40		3
BVRKEY	0		2
BVRNVOLS	42		3
BVRTPDEN	51		3
BVRVOLS	48		2
BVRVSN	48		3
BVRXEPI	52		3

CDD—Common Data Set Descriptor Record

The common data set descriptor record (CDD) contains information that is necessary to recall or recover a data set. This record is the first record in the migrated or backup copy of a data set. Common data set descriptor records are 180 bytes long for non-VSAM data sets and 198 bytes for VSAM data sets, plus 46 for each alternate index.

Table 14 (Page 1 of 2). CDD—Common Data Set Descriptor Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	180	CDD	DATASET DESCRIPTOR, FIRST RECORD IN DS
0	(0)	CHARACTER	44	CDDDSN	If the data set is non-VSAM, CDDDSN contains the original data set name. If for a backup version of a VSAM data set, CDDDSN contains the cluster name. If the data set is a migrated VSAM data set, CDDDSN contains the base data object for a base cluster, and contains the AIX® cluster name for an AIX.
44	(2C)	CHARACTER	96	*	Data set control block and other device information.
44	(2C)	CHARACTER	71	CDDDSCB	Data set VTOC entry information except for the first extent.
44	(2C)	CHARACTER	61	*	Position to field.
105	(69)	CHARACTER	10	CDDEXT1	Description of the first extent.
115	(73)	CHARACTER	4	CDDUCBTY	Device type of the source device.
119	(77)	CHARACTER	1	*	Reserved.
120	(78)	FIXED	4	CDDSUSED	Size used on the user's volume in units of tracks, if the CDDFUSIZ field is set to 1.
124	(7C)	CHARACTER	6	CDDID	Constant '*CDD**'.
130	(82)	CHARACTER	8	CDDOLDHQ	HLQ of the original data set before ARECOVER RENAME command was used to rename it.
138	(8A)	CHARACTER	2	*	Reserved.
140	(8C)	CHARACTER	4	CDDCTID	Compaction table identification.
144	(90)	BITSTRING	2	CDDFLGS	The next 2 bytes contain the following flags:
		1...		CDDFNCAT	When set to 1, the backup version is for an uncataloged data set.
		.1..		CDDFMIG	When set to 1, the common data set descriptor record describes a migrated data set. When set to 0, it describes a backup version.
		..1.		CDDFONL1	When set to 1, the backup version resulted from BACKDS or HBACKDS command processing.
		...1		CDDFVBCL	When set to 1, CDDDSN contains a VSAM base cluster name.
		.... 1...		CDDFDSS	When set to 1, DFSMSdss is data mover.
		.... .1..		CDDFBPTH	When set to 1, the VSAM base cluster has a path defined on it.
		.... .1..		CDDSUL	When set to 1, the non-VSAM data set contains standard user labels.
		.... ..1.		CDDFBNOI	When set to 1, a VSAM cluster has no index (I) component.
		1		CDDFUSIZ	When set to 1, the CDDSUSED field is valid.
145	(91)	1...		CDDFBWO	When set to 1, backup was of bwo candidate
		.1..		CDDFVSCR	When set to 1, the VSCR function was enabled when the migration or backup copy was made.
		..1.		CDDFEOD	When set to 1, the CRDFEOD field is valid.
				CDDF_CDD2	ON if CDD2 is available
		 xxxx		*	Reserved.
146	(92)	BITSTRING	2	*	Reserved.
148	(94)	CHARACTER	32	*	The next 32 bytes contain data set statistics information.
148	(94)	CHARACTER	8	CDDTSLR	Time stamp the data set was last referenced.
148	(94)	CHARACTER	4	CDDTSLRT	Time the data set was last referenced. The time is obtained from the TIME macro in format *X'hhmmssth'*.
152	(98)	CHARACTER	4	CDDTSLRD	Date the data set was last referenced. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
156	(9C)	CHARACTER	8	CDDTSLU	Time stamp the data set was last updated.
156	(9C)	CHARACTER	4	CDDTSLUT	Time the data set was last updated. The time is obtained from the TIME macro in format *X'hhmmssth'*.
160	(A0)	CHARACTER	4	CDDTSLUD	Date the data set was last updated. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
164	(A4)	CHARACTER	8	CDDTSMIG	Time stamp the data set migrated or backed up.
164	(A4)	CHARACTER	8	CDDTSBAK	Time stamp data set migrated or backed up.
164	(A4)	CHARACTER	4	CDDTSLMT	Time the data set was migrated or backed up. The time is obtained from the TIME macro in format *X'hhmmssth'*. CDDTSLBT is a synonym for CDDTSLMT.
164	(A4)	CHARACTER	4	CDDTSLBT	Alias for CDDTSLMT.

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Table 14 (Page 2 of 2). CDD—Common Data Set Descriptor Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
168	(A8)	CHARACTER	4	CDDTSLMD	Date the data set was migrated or backed up. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*. CDDTSLBD is a synonym for CDDTSLMD.
168	(A8)	CHARACTER	4	CDDTSLBD	Alias for CDDTSLMD.
172	(AC)	FIXED	4	CDDSIZE	Size, in tracks, of the space allocated on the user's volume.
176	(B0)	FIXED	4	CDDDBLK	Number of directory blocks for a partitioned data set.
180	(B4)	CHARACTER	0	CDDEND	END OF CDD
The following fields exist only for the base cluster of a VSAM data set:					
0	(0)	STRUCTURE	*	CDDVSAM	VSAM version of common data set descriptor record:
0	(0)	CHARACTER	180	*	Compatible with non-VSAM.
180	(B4)	CHARACTER	8	CDDPW	Master password of the VSAM data set.
188	(BC)	FIXED	4	CDDBUFSZ	Buffer size used by MIGRATE or BACKUP during data movement (= 0 for CDD built prior to the install of the 2.4.0 PTF).
192	(C0)	CHARACTER	2	*	Reserved.
194	(C2)	FIXED	2	CDDNAIX	Number of AIX cluster entries that follow.
196	(C4)	CHARACTER	2	*	Reserved.
The following fields exist for each AIX, starting at offset 198 (C6):					
198	(C6)	CHARACTER	46	CDDENTRY	Information about an AIX cluster.
198	(C6)	CHARACTER	1	CDDENTYP	Catalog record type.
199	(C7)	CHARACTER	1	*	Reserved.
200	(C8)	CHARACTER	44	CDDAIXNM	Name of the AIX cluster.

The following fields exist only for the base cluster of a VSAM data set.

Table 15. CDD VSAM—VSAM Common Data Set Descriptor Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	*	CDDVSAM	VSAM version of CDD
0	(0)	CHARACTER	180	*	Compatible with nonvsam
150	(96)	CHARACTER	144	CDD2_ENTRY (*)	Structure for entries
150	(96)	CHARACTER	140	CDD2_AIX_DSCB9	Copy of 1st F9 DSCB for VSAM ds AIX
180	(B4)	CHARACTER	8	CDDPW	BASE CLUSTER PASSWORD
188	(BC)	FIXED	4	CDDBUFSZ	Buffer size used by Migrate or Backup during data movement (= for CDD built prior to the install of the 2.4.0 PTF)
192	(C0)	CHARACTER	2	*	RESERVED
194	(C2)	FIXED	2	CDDNAIX	NUMBER OF AIX'S
196	(C4)	CHARACTER	2	*	RESERVED
198	(C6)	CHARACTER	46	CDDENTRY (*)	STRUCTURE FOR ENTRIES
198	(C6)	CHARACTER	1	CDDENTYP	ENTRY TYPE - G=AIX
199	(C7)	CHARACTER	1	*	RESERVED
200	(C8)	CHARACTER	44	CDDAIXNM	AIX DSNAME

Table 16. CDD2—CDD Extension

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	150	CDD2	Disaset descriptor included at the end of CDD if F9 DSCB is available.
0	(0)	CHARACTER	8	CDD2_ID	This field contains the CDD2 eye-catcher specified by CDD2IDCON. Use of this field starts with new F9 DSCB copies embeded in z/OS V1R11.
8	(8)	CHARACTER	2	*	Reserved
10	(A)	CHARACTER	140	CDD2_DSCB9	Copy of 1st F9 DSCB for EAS eligible non-VSAM ds or VSAM base cluster.
150	(96)	CHARACTER	0	CDD2_END	End of CDD2

CDD Control Block Cross-Reference

Table 17. CDD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
CDD	0		1
CDDAIXNM	C8		3
CDDBUFSZ	BC		2
CDDCTID	8C		2
CDDDBLK	B0		3
CDDDSCB	2C		3
CDDDSN	0		2
CDDEND	B4		2
CDDENTRY	C6		2
CDDENTYP	C6		3
CDDEXT1	69		4
CDDF_CDD2	91	10	3
CDDFBNOI	90	02	3
CDDFBPTH	90	04	3
CDDFBWO	91	80	3
CDDFDSS	90	08	3
CDDFEOD	91	20	3
CDDFLGS	90		2
CDDFMIG	90	40	3
CDDFNCAT	90	80	3
CDDFONL1	90	20	3
CDDFUSIZ	90	01	3
CDDFVBCL	90	10	3
CDDFVSCR	91	40	3
CDDID	7C		3
CDDNAIX	C2		2
CDDOLDHQ	82		3
CDDPW	B4		2
CDDSIZE	AC		3
CDDSUL	90	04	4
CDDSUSED	78		3
CDDTSBAK	A4		4
CDDTSLBD	A8		6
CDDTSLBT	A4		6
CDDTSLMD	A8		5
CDDTSLMT	A4		5
CDDTSLR	94		3
CDDTSLRD	98		4
CDDTSLRT	94		4
CDDTSLU	9C		3
CDDTSLUD	A0		4

Table 17. CDD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
CDDTSLUT	9C		4
CDDTSMIG	A4		3
CDDUCBTY	73		3
CDDVSAM	0		1
CDD2	0		1
CDD2_AIX_DSCB9	96		3
CDD2_DSCB9	A		2
CDD2_END	96		2
CDD2_ENTRY	96		2
CDD2_ID	0		2
CDD2_VSAM	0		1

CDSV—CDSVERSIONBACKUP Parameters Table

The CDSVERSIONBACKUP (CDSV) parameters table contains the parameters that are specified with the SETSYS command or the appropriate defaults. This table is used if a failure occurs while DFSMShsm is reading the MHCR. The record is 260 bytes long.

Note: A **FIXCDS S MHCR** command will *not* display the first 16 bytes of this table.

Table 18. CDSV—CDSVERSIONBACKUP Parameters Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	CHARACTER	8	CDSVNAME	Name of the table, which is ARCCDSVB.
8	(8)	CHARACTER	5	CDSVDATE	Date when the control data sets were last updated.
13	(D)	CHARACTER	3	*	Reserved.
16	(10)	CHARACTER	244	CDSVDATA	CDSVERSIONBACKUP parameters.
16	(10)	CHARACTER	35	CDSVMHLQ	Set of initial characters of the MCDS backup data set name.
51	(33)	CHARACTER	35	CDSVBHLQ	Set of initial characters of the BCDS backup data set name.
86	(56)	CHARACTER	35	CDSVOHLQ	Set of initial characters of the OCDS backup data set name.
121	(79)	CHARACTER	35	CDSVJHLQ	Set of initial characters of the journal backup data set name.
156	(9C)	CHARACTER	8	CDSVCFQN	Final qualifier of the backup data set name.
156	(9C)	CHARACTER	1	CDSVCFQH	First character (V) of the final qualifier of the backup data set name.
157	(9D)	CHARACTER	7	CDSVCFQV	Version number of the final qualifier of the backup data set name.
164	(A4)	BITSTRING	1	CDSVFLGS	This byte contains the following flags:
		1...		CDSVDVTY	When set to 1, the backup device category is DASD. When set to 0, the backup device category is tape.
		.1..		CDSVRPFL	When set to 1, a tape retention period was specified.
		..1.		CDSVEDFL	When set to 1, a tape expiration date was specified.
		...1		CDSVMOVR	When set to 0, the CDS backup datamover is DFSMShsm. When set to 1, the CDS backup datamover is DFSMSdss.
		.... xx..		*	Reserved.
		.... ..1.		CDSVFQF	When set to 1, examine frequency has been specified on CDSVERSIONBACKUP command at least once.
		1		CDSVPARL	When set to 1, TAPE (PARALLEL) has been specified. When set to 0, TAPE (NOPARALLEL) has been specified, or default.
165	(A5)	CHARACTER	1	CDSVTDEN	Tape density.
166	(A6)	FIXED	2	CDSVTCNT	Number of cataloged tape backup data sets.
168	(A8)	CHARACTER	4	CDSVDVCT	Number of DASD backup versions.
172	(AC)	CHARACTER	8	CDSVUNIT	Tape unit name.
180	(B4)	CHARACTER	4	CDSVRTPD	Tape retention period.
184	(B8)	CHARACTER	5	CDSVEXPD	Tape expiration date in format *X'yyddd'*. See field CDSVXPD2 for possible 7-digit format of same date.
184	(B8)	CHARACTER	2	CDSVYEAR	Year of the expiration date.
186	(BA)	CHARACTER	3	CDSVDAY	Day of the expiration date.
189	(BD)	CHARACTER	3	*	Reserved.
192	(C0)	FIXED	1	CDSVMLEN	Length of the backup data set for the MCDS.
193	(C1)	FIXED	1	CDSVBLEN	Length of the backup data set for the BCDS.
194	(C2)	FIXED	1	CDSVOLEN	Length of the backup data set for the OCDS.
195	(C3)	FIXED	1	CDSVJLEN	Length of the backup data set for the journal.
196	(C4)	FIXED	1	CDSVULEN	Length of the tape unit.
197	(C5)	CHARACTER	1	*	Reserved for alignment.
198	(C6)	FIXED	2	CDSVFREQ	Frequency number for IDCAMS examine function.
200	(C8)	FIXED	2	CDSVFCTR	Frequency increment counter for examine function.
202	(CA)	CHARACTER	7	CDSVXPD2	Tape expiration date in format *X'yyyyddd'*. This field is valid only if the first 2 characters are not X'0000'. See field CDSVEXPD.
209	(D1)	BITSTRING	1	CDSVFLG2	This byte contains the following flags:
		1...		CDSVF_NIJ_ERR	When set to 1, non-intrusive journal backup failed
		.xxx xxxx		*	Reserved.
210	(D2)	CHARACTER	50	*	Reserved.

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CDSV Control Block Cross-Reference

Table 19. CDSV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
CDSV_NIJ_ERR	D1	80	4
CDSVBHLQ	33		3
CDSVBLEN	C1		3
CDSVCFQH	9C		4
CDSVCFQN	9C		3
CDSVCFQV	9D		4
CDSVDATA	10		2
CDSVDATE	8		2
CDSVDAY	BA		4
CDSVDVCT	A8		3
CDSVDVTY	A4	80	4
CDSVEDFL	A4	20	4
CDSVEXPD	B8		3
CDSVFCTR	C8		3
CDSVFLGS	A4		3
CDSVFLG2	D1		3
CDSVFQF	A4	02	4
CDSVFREQ	C6		3
CDSVJHLQ	79		3
CDSVJLEN	C3		3
CDSVMHLQ	10		3
CDSVMLEN	C0		3
CDSVMOVR	A4	10	4
CDSVNAME	0		2
CDSVOHLQ	56		3
CDSVOLEN	C2		3
CDSVPARL	A4	01	4
CDSVRPFL	A4	40	4
CDSVRTPD	B4		3
CDSVTCNT	A6		3
CDSVTDEN	A5		3
CDSVULEN	C4		3
CDSVUNIT	AC		3
CDSVXPD2	CA		3
CDSVYEAR	B8		4

CRD—Common Record Descriptor

The common record descriptor (CRD) heads each source record within the migration or backup copy of a user's data set and describes the characteristics of the source data set records. Common record descriptors are 12 bytes long for a partitioned data set and 8 bytes long for all others.

Table 20. CRD—Common Record Descriptor

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	8	CRD	RECORD DESCRIPTOR
0	(0)	BITSTRING	1	CRDFLG	This byte contains common record descriptor flags:
		1...		CRDFCOMP	When set to 1, the record is compacted.
		.1..		CRDFROC	When set to 1, first record on cylinder.
		..1.		CRDFROT	When set to 1, first record on track.
		...1		CRDFEOD	When set to 1, this is the end of the data set. The record contains no data.
		.... 1...		CRDFTO	When set to 1, this record is from a track overflow segment.
		.... .1..		CRDFCNT	When set to 1, the count field is in the first 8 bytes of data.
		.... ..1.		CRDFLAB	When set to 1, this record contains a standard user label.
		x		*	Reserved.
1	(1)	FIXED	3	CRDLEN	Length of the common record descriptor plus the length of the actual data record that follows it in the 2K record.
4	(4)	FIXED	4	CRDOLEN	Original record length of an individual record.
The following is appended only for partitioned data sets:					
8	(8)	CHARACTER	4	CRDDAT	Except for DSORG=PO, user data begins at this point. For PO, the following 4 bytes exist before the beginning of user data.
8	(8)	STRUCTURE	4	CRDDAT3	Overlay for partitioned datasets.
8	(8)	BITSTRING	1	CRDFLG2	This byte contains partitioned data set flags:
		1...		CRDFNL	When set to 1, the record is a note list. When set to 0, the data is a note list.
		.1..		CRDFNLD	When set to 1, the note list is a dummy record.
		..xx xxxx		*	Reserved.
9	(9)	CHARACTER	3	CRDTTR	Original record location TTR of this partitioned data set record.
12	(C)	CHARACTER	0	CRDEND2	ACTUAL DATA RECORD

CRD Control Block Cross-Reference

Table 21. CRD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
CRD	0		1
CRDDAT	8		2
CRDDAT3	8		1
CRDEND2	C		2
CRDFCNT	0	04	3
CRDFCOMP	0	80	3
CRDFEOD	0	10	3
CRDFLAB	0	02	3
CRDFLG	0		2
CRDFLG2	8		2
CRDFNL	8	80	3
CRDFNLD	8	40	3
CRDFROC	0	40	3

Table 21. CRD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
CRDFROT	0	20	3
CRDFTO	0	08	3
CRDLEN	1		2
CRDOLEN	4		2
CRDTTR	9		2

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DCL—Dump Class Record

The dump class record (DCL) defines the format of backup control data set dump class data area records. Each dump class record describes a dump class that is specified with the DEFINE command. Dump class records are 172 bytes long. The record type is W.

The key for the type W dump class record is the dump class name, which includes one to eight alphanumeric characters. An example of the key that is used with a W dump class record for a dump class name of DCLASS01 is:

```
FIXCDS W DCLASS01
```

Table 22 (Page 1 of 2). DCL—Dump Class Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0	(0)	STRUCTURE	244	DCL_REC	DUMP CLASS RECORD
0(0)		CHARACTER	44	DCLKEY	Dump class record key.
0(0)		BITSTRING	1	DCLTYPE	DCL record type, which is X'22'.
1(1)		CHARACTER	8	DCLCID	Dump class ID from the define command.
9(9)		CHARACTER	35	*	Reserved.
44(2C)		CHARACTER	20	DCLHDR	DCL header information.
44(2C)		FIXED	2	DCLLEN	DCL record length, calculated as the sum of DCLKEY + DCLHDR + DCLDATA.
46(2E)		BITSTRING	1	DCLETYPE	DCL entry type, which is the same as DCLTYPE (X'22').
47(2F)		CHARACTER	1	*	Reserved.
48(30)		CHARACTER	8	DCLTSLU	Time stamp, in microsecond format, that indicates when the DCL record was last updated.
56(38)		CHARACTER	8	DCLTSCR	Time stamp, in microsecond format, that indicates when the DCL record was created.
64(40)	0(0)	CHARACTER	108	DCLDATA	Data portion of the DCL record:
64(40)	0(0)	BITSTRING	4	DCLFLAGS	The next 4 bytes contain the following flags:
		1...		DCLFARUS	When set to 1, AUTOREUSE(Y) was specified on the dump class definition.
		.1..		DCLFDSRE	When set to 1, DATASETRESTORE(Y) was specified on the dump class definition.
		..1.		DCLFRSET	When set to 1, RESET(Y) was specified on the dump class definition.
		...1		DCLFDAY	When set to 1, DAY was specified on the dump class definition (day value recorded in DCLDAY#).
		.... 1...		DCLFDISP	When set to 1, DISPOSITION was specified on the dump class definition (string given is in DCLDISP and its length is in DCLDISPL).
		.... .1..		DCLFDBLD	When set to 1, REMOVE was specified for this dump class. But it was determined that the DCL record must be retained, because valid dump copies still exist in this dump class.
		.... ..1.		DCLFEXPD	When set to 1, TAPEEXPDT was specified for this dump class. The value of the tape expiration date is stored in DCL_TAPE_EXPDT.
		1		DCLFVCPY	When set to 1, VTOCCOPIES was specified for this dump class. The value of the VTOCCOPIES is stored in DCLVCPY#.
65(41)	1(1)	1...		DCLFNCPR	When set to 1, dump copies made to this dump class cannot be compressed.
		.1..		DCLF_FRD	When set to 1, Fast Replication Copy Dump options have been specified.
		..1.		DCLF_FRD_OPTIONAL	When set to 1, dump class is optional when dumping FR copies. When set to 0, dump class is required.
		...1		DCLF_FRR_UNAVAILABLE	When set to 1, unavailable. When set to 0, available.
		.... 1...		DCLFHWCOMP	When set to 1, HW Compress will be preformed for this dump class.

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Table 22 (Page 2 of 2). DCL—Dump Class Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
		.... .1..		DCLFZCOMP	When set to 1, zEDC compression will be preformed for this dump class.
		xxx		*	Reserved.
68(44)	4(4)	FIXED	4	DCLFREQ	Indicates that FREQUENCY was the value specified for the dump class.
72(48)	8(8)	FIXED	2	DCLRETPD	Indicates that RETPD was the value specified for the dump class. If NONE is specified, this field is set to zero.
74(4A)	10(A)	FIXED	2	DCLDAY#	Value specified for the DAY parameter (valid only if DCLFDAY is set to 1).
76(4C)	12(C)	CHARACTER	8	DCLUNIT	Unit name specified for the UNIT parameter.
84(54)	20(14)	CHARACTER	20	DCLDISP	Value specified for the DISPOSITION parameter (valid only if DCLFDISP is set to 1). If valid, length of string is recorded in DCLDISPL.
104(68)	40(28)	FIXED	2	DCLDISPL	Length of the DISPOSITION string in the DCLDISP field (valid only if DCLFDISP is set to 1).
106(6A)	42(2A)	CHARACTER	7	DCLEXPDT	Tape expiration date.
113(71)	49(31)	FIXED	1	DCLSTACK	Stack value.
114(72)	50(32)	FIXED	2	DCLVCPY#	Number of VTOCCOPIES to create.
116(74)	52(34)	FIXED	2	DCLENC	Encryption method to use: 1=RSA 2=KEYPASSWORD 3=NONE
118(76)	54(36)	FIXED	2	DCLENCTYP	Type of encryption: 1=CLRAES128 2=CLRTDES 3=ENCTDES
120(78)	56(38)	CHARACTER	64	DCLKEYLBL	RSA key label
120(78)	56(38)	CHARACTER	32	DCLPASSWD	Password
152(98)	88(58)	CHARACTER	32	*	Reserved
184(B8)	120(78)	FIXED	4	DCLICOUNT	Iteration count
188(BC)	124(7C)	UNSIGNED	1	DCL_RECRESET	RECOVERRESET value: 0=NOT SPECIFIED, 1=YES, 2=NO, 3=DUMP
189(BD)	125(7D)	CHARACTER	55	*	Reserved.

DCL Data Area Cross-Reference

Table 23 (Page 1 of 2). DCL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DCL_REC	0		1
DCL_RECRESET	BC		3
DCLCID	1		3
DCLDATA	40		2
DCLDAY#	4A		3
DCLDISP	54		3
DCLDISPL	68		3
DCLENC	74		3
DCLENCTYP	76		3
DCLETYPE	2E		3
DCLEXPDT	6A		3
DCLF_FRD	41	40	4
DCLF_FRD_OPTIONAL	41	20	4
DCLF_FRR_UNAVAILABLE	41	10	4
DCLFARUS	40	80	4

Table 23 (Page 1 of 2). DCL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DCLFDAY	40	10	4
DCLFDBLD	40	04	4
DCLFDISP	40	08	4
DCLFDSRE	40	40	4
DCLFEXPD	40	02	4
DCLFHWCOMP	41	08	4
DCLFLAGS	40		3
DCLFNCPR	41	80	4
DCLFREQ	44		3
DCLFRSET	40	20	4
DCLFVCPY	40	01	4
DCLHDR	2C		2
DCLICOUNT	B8		3
DCLKEY	0		2
DCLKEYLBL	78		3

Table 23 (Page 2 of 2). DCL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DCLLEN	2C		3
DCLPASSWD	78		4
DCLRETPD	48		3
DCLSTACK	71		3
DCLTSCR	38		3
DCLTSLU	30		3
DCLTYPE	0		3
DCLUNIT	4C		3
DCLVCPY#	72		3

DCR—Dump Control Record

The dump control record (DCR) describes the automatic dump environment (see Table 24). This data area record is maintained in storage while DFSMShsm is started, and it is periodically written to DASD when a field is changed. Dump control records are 192 bytes long. The record type is R.

The key for the type R dump control record is the constant DCR and the host identification in a multiple-host environment. The host identification is a 1-digit alphanumeric character. If you omit the host identification, DFSMShsm defaults to the identification of the issuing host. An example of the key that is used with an R dump control record and a host identification of 2 is:

```
FIXCDS R DCR2
```

Table 24 (Page 1 of 2). DCR—Dump Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	192	DCR	DUMP CONTROL RECORD
0(0)		CHARACTER	44	DCRKEY	Dump control record key.
0(0)		BITSTRING	1	DCRTYPE	DCR record type, which is X'30'.
1(1)		CHARACTER	3	DCRID	DCR ID, which is DCR.
4(4)		CHARACTER	1	DCRHID	Host ID.
5(5)			39	*	Reserved.
44(2C)		CHARACTER	20	DCRHDR	A 20-byte field containing DCR header information.
44(2C)		FIXED	2	DCRLEN	DCR record length, calculated as the sum of DCRKEY + DCRHDR + DCRDATA.
46(2E)		BITSTRING	1	DCRETYPE	Entry type, which is the same as DCRTYPE (X'30').
47(2F)		CHARACTER	1	*	Reserved.
48(30)		CHARACTER	8	DCRTSLU	Time stamp, in microsecond format, that indicates when the DCR record was last updated.
56(38)		CHARACTER	8	DCRTSCR	Time stamp, in microsecond format, that indicates when the DCR record was created.
64(40)	0(0)	CHARACTER	128	DCRDATA	Data portion of the DCR record.
64(40)	0(0)	CHARACTER	8	DCRDMPID	Macro identifier (set to DCRNAME).
72(48)	8(8)	BITSTRING	2	DCR_AUTO_FLGS	The next 2 bytes contain the following flags:
		1...		DCRFADR	When set to 1, automatic dump is currently running (Y day in cycle).
		.1..		DCRFLVLR	When set to 1, dump level functions are currently running (N day in cycle).
		..1.		DCRFREST	When set to 1, automatic dump is currently in the process of restarting the dumping of primary volumes.
		...1		DCRFADC	When set to 1, automatic functions completed the last time they ran. DCRSTRDT contains the date these functions last began running. DCRCMPDT contains their actual completion date.
		.... 1...		DCRFRSAD	When set to 1, automatic dump is eligible to restart (Y day in cycle).
		.... .1..		DCRFRSLV	When set to 1, level functions are eligible to restart (N days in cycle).
		.... ..1.		DCRFADCE	When set to 1, automatic expiration of dump copies is in progress.
		1		DCRFDPVL	When set to 1, automatic dump of primary volumes is in progress.
73(49)	9(9)	1...		DCRFDEVC	When set to 1, automatic deletion of excess VTOC copy data sets is in progress.
		.1..		DCRFRACE	When set to 1, restart with automatic expiration of dump copies.
		..1.		DCRFRPVL	When set to 1, restart with automatic dumping of primary volumes.
		...1		DCRFRDEV	When set to 1, restart with deletion of excess dump VTOC copy data sets.

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Table 24 (Page 2 of 2). DCR—Dump Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
		 xxxx		*	Reserved.
74(4A)	10(A)	BITSTRING	2	DCR_FLGS	The next 2 bytes contain the following dump processing flags:
		1...		DCRF_BUILD_DVST	When set to 1, the DVST should be built or rebuilt.
		.1..		DCRF_DEBUG	When set to 1, the DCR contains autodump information in debug mode.
		..xx xxxx		*	Reserved.
76(4C)	12(C)	BITSTRING	4	DCRCYCLE	Dump cycle as defined with the define command. All Y days are specified with one bit; all N days are specified with zero bits.
80(50)	16(10)	FIXED	2	DCRCLEN	Length of the dump cycle contained in the DCRCYCLE (maximum value = 31).
82(52)	18(12)	CHARACTER	4	DCRCDATE	Dump cycle start date, which is a Julian date in packed decimal format.
86(56)	22(16)	CHARACTER	4	DCRSTRTM	Planned early start time defined when the automatic functions last started from the beginning, or restarted, whether they completed or not.
90(5A)	26(1A)	CHARACTER	4	DCRSTRDT	Date of the day in the cycle when the automatic functions last started from the beginning, or restarted, whether they completed or not. This is the date the early start time was on. It is a Julian date in packed decimal format.
94(5E)	30(1E)	CHARACTER	4	DCRCMPTM	Actual completion time for the automatic functions from the last time they ran to completion. This field is in packed decimal format, *X'hhmmssth'*.
98(62)	34(22)	CHARACTER	4	DCRCMPDT	Actual completion date for the automatic functions from the last time they completed their entire function. The date is a Julian date in packed decimal format.
102(66)	38(26)	CHARACTER	4	DCRCHKTM	Time when the start time of the automatic functions was last checked. This field is in packed decimal format, *X'hhmmssth'*.
106(6A)	42(2A)	CHARACTER	4	DCRCHK_DATE	Date when the start time of the automatic functions was last checked. The date is a Julian date in packed decimal format.
110(6E)	46(2E)	CHARACTER	4	DCRCHK_CYCLE_DATE	Date in the cycle when the start time of automatic functions was last checked. The date is a Julian date in packed decimal format.
114(72)	50(32)	FIXED	2	DCRDCDAY	Day in the dump cycle of the last time that the automatic functions started from the beginning.
116(74)	52(34)	FIXED	2	DCRCHKDY	Day in the dump cycle when the start time of automatic functions was last checked.
118(76)	54(36)		2	*	Reserved.
120(78)	56(38)	FIXED	4	DCRDCDST_RC	Return code issued by ARCDCDST the last time it was called.
124(7C)	60(3C)	FIXED	4	DCRDCDST_REAS	Reason code issued by ARCDCDST the last time it was called.
128(80)	64(40)	CHARACTER	4	DCRJDTOD	Earliest start time for auto dump.
132(84)	68(44)	CHARACTER	4	DCRJDTEN	Latest start time for auto dump.
136(88)	72(48)	CHARACTER	4	DCRJDTSS	Time after which no more full volume dumps will begin during auto dump.
140(8C)	76(4C)	CHARACTER	4	DCR_PRMTD_START_DATE	Date that the promoted host started performing auto dump.
144(90)	80(50)	CHARACTER	48	*	Reserved.

DCR Data Area Cross-Reference

Table 25. DCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DCR	0		1
DCR_AUTO_FLGS	48		3
DCR_FLGS	4A		3
DCR_PRMTD_START_DATE	8C		3
DCRCDATE	52		3
DCRCHK_CYCLE_DATE	6E		3
DCRCHK_DATE	6A		3
DCRCHKDY	74		3
DCRCHKTM	66		3
DCRCLEN	50		3
DCRCMPDT	62		3
DCRCMPTM	5E		3
DCRCYCLE	4C		3
DCRDATA	40		2
DCRDCDAY	72		3
DCRDCDST_RC	78		3
DCRDCDST_REAS	7C		3
DCRDMPID	40		3
DCRETYPE	2E		3
DCRF_BUILD_DVST	4A	80	4
DCRF_DEBUG	4A	40	4
DCRFADC	48	10	4
DCRFADCE	48	02	4
DCRFADR	48	80	4
DCRFDEVC	49	80	4
DCRFDPVL	48	01	4
DCRFLVLR	48	40	4
DCRFRACE	49	40	4
DCRFRDEV	49	10	4
DCRFREST	48	20	4
DCRFRPVL	49	20	4
DCRFRSAD	48	08	4
DCRFRSLV	48	04	4
DCRHDR	2C		2
DCRHID	4		3
DCRID	1		3
DCRJDTEN	84		3
DCRJDTOD	80		3
DCRJDTSS	88		3
DCRKEY	0		2
DCRLEN	2C		3

Table 25. DCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DCRSTRDT	5A		3
DCRSTRTM	56		3
DCRTSCR	38		3
DCRTSLU	30		3
DCRTYPE	0		3

DGCB—Dump Global Control Block

The Dump Global Control Block (DGCB) defines the mapping for the globally addressable, functional control block for dump processing. The DGCB is 32 bytes long.

The contents of the DGCB can be displayed using the DISPLAY command as follows:

```
DISPLAY .DGCB.+0 LENGTHS(32)
```

Table 26. DGCB—Dump Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	32	DGCB	DUMP GLOBAL CONTROL BLOCK
0	(0)	CHARACTER	8	DGCBID	CONTROL BLOCK ID
8	(8)	ADDRESS	4	DGCBSLKP	ADDRESS OF SMS LOCK TOKEN FOR DUMP
12	(C)	ADDRESS	4	DGCBSGDMP_HEAD	Pointer to queue of unique sets of dump classes for BACKVOL DUMP commands
16	(10)	ADDRESS	4	DGCBSGDMP_TAIL	Pointer to tail of queue
20	(14)	FIXED	1	DGCB_RESCAN	Maximum number of times Autodump rescans the MVT chain for source volumes whose dumps are to be stacked. This value applies separately for affinity and non-affinity volumes.
21	(15)	UNSIGNED	1	*	Reserved
22	(16)	FIXED	2	DGCB_DELAY	Interval, in minutes, that Autodump delays before doing a rescan, if at least one source volume was in use by another DFHSM function.
24	(18)	CHARACTER	8	*	Reserved

The following table defines the queue elements for BACKVOL ...DUMP command. It lists all the storage groups which use a given set of (defined, enabled) dump classes.

Table 27. DGCB—Dump Global Control Block Queue Elements

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	*	DGCB_DMPQUE	
0	(0)	CHARACTER	72	DGCB_CLHDR	
0	(0)	ADDRESS	4	DGCB_SGFWD	Forward pointer
4	(4)	ADDRESS	4	DGCB_SGBWD	Backward pointer
8	(8)	FIXED	4	DGCB_DMPSZ	Size of this queue element
12	(C)	FIXED	4	DGCB_RQN	Request number from BACKVOL DUMP command MWE
16	(10)	CHARACTER	8(5)	DGCB_DCLASS	Array of dump-class names
56	(38)	FIXED	1(5)	DGCB_DSTACK	Array of STACK values
61	(3D)	UNSIGNED	1	*	Reserved
62	(3E)	FIXED	2	DGCB_SGSPL	Subpool for this element
64	(40)	FIXED	1	DGCB_DCLCNT	Count of dump classes
65	(41)	FIXED	1	DGCB_MAXSTK	Max value of STACK values from a BACKVOL DUMP command
66	(42)	FIXED	2	DGCB_SGCNT	Count of SGs in array
68	(44)	CHARACTER	4	*	Reserved
Array of SG names from BACKVOL... DUMP command.					
72	(48)	CHARACTER	36(*)	DGCB_SGN	Array of storage group names
72	(48)	CHARACTER	30	DGCB_SGNAM	Storage group name
102	(66)	FIXED	2	DGCB_SGL	Length of SG name
104	(68)	FIXED	4	DGCB_SGVOLS	Count of eligible volumes being dumped from DGCB_SGNAM

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DGCB Data Area Cross-Reference

Table 28. DGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DGCB	0		1
DGCB_CLHDR	0		2
DGCB_DCLASS	10		3
DGCB_DCLCNT	40		3
DGCB_DELAY	16		2
DGCB_DMPQUE	0		1
DGCB_DMPSZ	8		3
DGCB_DSTACK	38		3
DGCB_MAXSTK	41		3
DGCB_RESCAN	14		2
DGCB_RQN	C		3
DGCB_SGBWD	4		3
DGCB_SGCNT	42		3
DGCB_SGFWD	0		3
DGCB_SGL	66		3
DGCB_SGN	48		2
DGCB_SGNAM	48		3
DGCB_SGSPL	3E		3
DGCB_SGVOLS	68		3
DGCBID	0		2
DGCBSGDMP_HEAD	C		2
DGCBSGDMP_TAIL	10		2
DGCBSLKP	8		2

DGN—Dump Generation Record

The dump generation record (DGN) contains information about the dump generation of a given volume when this volume has been processed by the full-volume dump function. This data area record can describe up to five dump copies. Dump generation records are 160 bytes long, plus 296 bytes for each dump copy. The maximum record length is 1640 bytes. The record type is G.

The key for the type G dump generation record is the volume serial number followed by the time of the day (*hhmmssth*) in packed decimal format. The time of day is followed by the year and day (*0Cyyddd*F) in packed decimal format. Because the time and date are in packed decimal format, you must specify the key in hexadecimal. An example of the key that is used for a dump generation record for volume TSO444 created at 12:55 p.m. on day 135 of the year 1992 is:

```
FIXCDS G X'E3E2D6F4F4F4125519490092135F'
```

Table 29 (Page 1 of 2). DGN—Dump Generation Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0	(0)	STRUCTURE	1640	DGN	DGN RECORD
0(0)		CHARACTER	44	DGNKEY	Dump generation backup control data set record key.
0(0)		BITSTRING	1	DGNTYPE	DGN record type, which is X'29'.
1(1)		CHARACTER	6	DGNSVSN	Source volume serial number.
7(7)		CHARACTER	4	DGNTSDT	Time stamp, in packed decimal format, that indicates when the full-volume dump operation began.
11(B)		CHARACTER	4	DGNTSDD	Date, in packed decimal format, that indicates when the full-volume dump operation began.
15(F)			29	*	Reserved.
44(2C)		CHARACTER	20	DGNHDR	A 20-byte field containing DGN header information:
44(2C)		FIXED	2	DGNLEN	DGN record length, calculated as the sum of DGNKEY + DGNHDR + DGNDATA.
46(2E)		BITSTRING	1	DGNETYPE	DGN entry type, which is the same as DGNTYPE (X'29').
47(2F)			1	*	Reserved.
48(30)		CHARACTER	8	DGNTSLU	Time stamp, in microsecond format, that indicates when the DGN record was last updated.
56(38)			8	DGNTSCR	Time stamp, in microsecond format, that indicates when the DGN record was created.
64(40)	0(0)	CHARACTER	1576	DGNDATA	Data portion of the dump generation record.
64(40)	0(0)	BITSTRING	4	DGNFLAGS	The next 4 bytes contain the following flags:
		1...		DGNFVTOC	When set to 1, this dump generation has a dump VTOC copy data set associated with it.
		.1..		DGNFRSET	When set to 1, the reset option was specified for this dump generation.
		..x.		*	Reserved.
		...1		DGNFCMD	When set to 1, generation created as a result of a command-initiated request.
		.... 1...		DGNFSMS	When set to 1, the dump generation is an SMS-managed generation.
		.... .1..		DGNFCOMP	When set to 1, the volume is compressed.
		.... ..1.		DGNFNAMT	When set to 1, the tape data set name is in a new format, PFX_DMP_DCLASS_VOLSER_DATE_ TIMESTMP. When set to 0, the tape data set name is in the old format, PFX_DMP_ TIMESTMP_DCLASS_ DATE_VOLSER.
		1		DGNF_FR_DVTOC	When set to 1, FRBACKUP successfully created a DVTOC data set.
65(41)	1(1)	1...		DGNF_RESUMING	Used by FRB DUMPONLY processing, while processing.
		.1..		DGNF_COPYPOOL	When set to 1, DGN is for copypool volume.
		..1.		DGNF_ZCOMP	When set to 1, zEDC compression is requested for this volume.
		..xx xxxx		*	Reserved.

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Table 29 (Page 2 of 2). DGN—Dump Generation Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
68(44)	4(4)	FIXED	4	DGNBLKS	Number of 2K blocks that the VTOC copy data set occupies.
72(48)	8(8)	FIXED	4	DGNRECS	Number of records that have been written to the VTOC copy data set.
76(4C)	12(C)	CHARACTER	8	DGNBPRFX	Backup prefix at the time the full-volume dump began. This field is the high-level qualifier of the dump VTOC copy data set. Its length is recorded in DGNPFXL.
84(54)	20(14)	FIXED	4	DGNBPFXL	Length of the backup prefix that is stored in DGNBPRFX.
88(58)	24(18)	CHARACTER	6	DGNML1VS	Volume serial number of the migration level 1 volume where the dump copy resides. It is valid only if DGNFVTOC is set to 1.
94(5E)	30(1E)	FIXED	1	DGN_RESUME_INDEX	Used by FRB DUMPONLY processing to resume the dumping of FRB target volumes.
95(5F)	31(1F)		1	*	Reserved.
96(60)	32(20)	CHARACTER	4	DGNSDEV	Device type of the source volume.
100(64)	36(24)	CHARACTER	4	DGNCYLDT	Cycle date, in packed decimal format, when full-volume dump operation began.
104(68)	40(28)		8	*	Reserved.
112(70)	48(30)	CHARACTER	30	DGNCPNAME	Copypool name
142(8E)	78(4E)		14	*	Reserved.
156(9C)	92(5C)	FIXED	4	DGNCOPY#	Number of the copies described in the DGNCPYS array. This must be a value between 1 and 5, inclusive.
The following describes the one-to-five dump copies that exist for this generation:					
160(A0)	96(60)	CHARACTER	296(5)	DGNDCPYS	A 5-element array consisting of 296-byte fields, that describes each dump copy that exists for this dump generation.
160(A0)	96(60)	CHARACTER	52	DGN_INFO	Addresses the next 52 bytes of the DGN record.
160(A0)	96(60)	CHARACTER	8	DGNDCL	Dump class in which this dump copy was created.
168(A8)	104(68)	CHARACTER	8	DGNUNIT	Unit names of target volumes.
176(B0)	112(70)	CHARACTER	4	DGNEXPDT	Expiration date of this dump copy. It is a Julian date, packed in decimal format. It was calculated when the dump copy was created, using the retention period from either the BACKVOL command or the dump class definition. This location will contain zeros if the retention period was none. The date is based on the cycle date, not necessarily on the date the dump was created.
180(B4)	116(74)	BITSTRING	4	*	The next 4 bytes contain the following flags:
		1...		DGNFVCPY	When set to 1, a VTOCCOPY data set is created for this dump class generation.
		.1..		DGNFEXPD	When set to 1, an expiration date was specified in the field DGNTEXPD.
		..xx xxxx		*	Reserved.
184(B8)	120(78)	CHARACTER	7	DGNTEXPD	Tape expiration date.
191(BF)	127(7F)	FIXED	1	DGNFLSEQ	File sequence number of copy on volser DGNDVSN(1).
192(C0)	128(80)	FIXED	4	DGNFBID	File block ID where copy starts on volser DGNDVSN(1). Only valid when DGNFLSEQ is greater than or equal to two.
196(C4)	132(84)	CHARACTER	16	*	Reserved.
212(D4)	148(94)	CHARACTER	244	DGNVLIST	Volume list.
212(D4)	148(94)	FIXED	4	DGNNVSN	Number of dump volume serial numbers that contain part of this dump copy.
The following volume list, within the DGNDCPYS array, contains 40 entries. Each entry consists of the following field:					
216(D8)	152(98)	CHARACTER	6(40)	DGNDVSN	A 40-element array consisting of 6-byte fields. It contains the volume serial numbers that contain part of this dump copy. Volumes are recorded in the volume sequence order of the dump copy when the dump copy was created.

DGN Data Area Cross-Reference

Table 30. DGN Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DGN	0		1
DGN_INFO	A0		4
DGN_RESUME_INDEX	5E		3
DGNBLKS	44		3
DGNBPFXL	54		3
DGNBPRFX	4C		3
DGNCOPY#	9C		3
DGNCPNAME	70		3
DGNCYLDT	64		3
DGNDATA	40		2
DGNDCL	A0		5
DGNDCPYS	A0		3
DGNDVSN	D8		5
DGNETYPE	2E		3
DGNEXPDT	B0		5
DGNF_COPYPOOL	41	40	4
DGNF_FR_DVTOC	40	01	4
DGNF_RESUMING	41	80	4
DGNFBID	C0		5
DGNFCMD	40	10	4
DGNFCOMP	40	04	4
DGNFEXPD	B4	40	6
DGNFLAGS	40		3
DGNFLSEQ	BF		5
DGNFNAMT	40	02	4
DGNFRSET	40	40	4
DGNFSMS	40	08	4
DGNFVCPY	B4	80	6
DGNFVTOC	40	80	4
DGNHDR	2C		2
DGNKEY	0		2
DGNLEN	2C		3
DGNML1VS	58		3
DGNNVSN	D4		5
DGNRECS	48		3
DGNSDEV	60		3
DGNSVSN	1		3
DGNTEXPD	B8		5
DGNTSCR	38		3
DGNTSDD	B		3
DGNTSDT	7		3

Table 30. DGN Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DGNTSLU	30		3
DGNTYPE	0		3
DGNUNIT	A8		5
DGNVLIST	D4		4

DSR—Daily Statistics Record

The daily statistics record (DSR) contains DFSMShsm operation statistics for a day (see Table 31). The daily statistics record report output shows the number of extent reductions that are done each day. You can use this information to tune the SETSYS MAXEXTENTS parameter. The statistics are accumulated in the DFSMShsm work space and are written to the MCDS and to SMF under the following conditions:

- At the start of a new hour (see following note)
- When a REPORT command is entered
- When a QUERY STATISTICS command is entered
- When DFSMShsm shuts down
- At the start of a new day (the previous day's record is written; see following note)

Note: DFSMShsm activity (recalls, migrations, backups, recovers, dumps, recycles, restores, and deletions of migrated data sets) must occur in order for DFSMShsm to recognize the start of a new hour or day.

Daily statistics records are 1080 bytes long. The record type is S.

The key for a type S daily statistics record is the constant X'C4E2D9' (DSR) followed by the year and day in packed decimal format. The sign code is F. Because the date is in packed decimal format, you must specify the key in hexadecimal. An example of the key that is used with an S daily statistics record for day 76 of 1992 is:

```
FIXCDS S X'C4E2D992076F'
```

When the daily statistics record is written to SMF, 20 bytes of additional information are added to the front of the record. The first 18 bytes are the standard SMF record header. Byte 18(12) is set to a binary 1 to indicate that this is a daily statistics record, and byte 19(13) is reserved. All the offsets for the daily statistics record are increased by 20 (14) bytes when the record is written to SMF.

Table 31 (Page 1 of 3). DSR—Daily Statistics Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	1080	DSR	Daily statistics record.
0(0)		CHARACTER	44	DSRKEY	Daily statistics record key, consisting of X'10'||DSR||*yyddds*.
0(0)		CHARACTER	1	*	Reserved.
1(1)		CHARACTER	6	DSRKEY2	The next 6 bytes contain the rest of the key.
1(1)		CHARACTER	3	*	DSR.
4(4)		CHARACTER	3	DSRDATE	Date in format *X'yyddds'*, in packed decimal.
44(2C)		CHARACTER	20	DSRHDR	Migration control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	118	DSRDATA	Daily statistics record information.
64(40)	0(0)	FIXED	4	DSRIPL	Number of DFSMShsm startups that day.
68(44)	4(4)	FIXED	4	DSRABEND	Number of DFSMShsm subtask abnormal ends that day.
72(48)	8(8)	FIXED	4	DSRSHUT	Number of DFSMShsm shutdowns that day.
76(4C)	12(C)	FIXED	4	DSRNMWE	Number of management work elements received from DFSMShsm SVC.
80(50)	16(10)	FIXED	2	DSRNPIGB_RCL	Number of times today a recall was satisfied by a tape already mounted.

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Table 31 (Page 2 of 3). DSR—Daily Statistics Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
82(52)	18(12)	FIXED	2	DSRNPIGB_RCV	Number of times today a recover was satisfied by a tape already mounted.
84(54)	20(14)	FIXED	4	DSREJST	Todays total elapsed job step time, in milliseconds, from the address space control block (ASCB).
88(58)	24(18)	FIXED	4	DSR_FR_BACKUP_TOTAL	Total number of fast replication backups.
92(5C)	28(1C)	FIXED	4	DSR_FR_BACKUP_FAILED	Total number of failed fast replication backups.
96(60)	32(20)	FIXED	4	DSR_FR_RECOVER_TOTAL	Total number of fast replication recovers.
100(64)	36(24)	FIXED	4	DSREVENT	Event count, used to determine when to write the DSR to SMF.
104(68)	40(28)	FIXED	4	DSRTIME	Time of day the daily statistics record was last written to the log.
108(6C)	44(2C)	FIXED	2	DSRNVMG	Number of volume migrations done that day.
110(6E)	46(2E)	FIXED	2	DSRNVMGF	Number of volume migrations forced because space was not available.
112(70)	48(30)	FIXED	2	DSRNVBU	Number of volumes backed up.
114(72)	50(32)	FIXED	2	DSRNVRCY	Number of tape backup volumes recycled today.
116(74)	52(34)	FIXED	2	DSRMVRCY	Number of tape migration level 2 volumes recycled today.
118(76)	54(36)	BITSTRING	1	DSRFLAG	The next byte contains the following flags:
		1...		DSRFNTAG	When set to 1, DSRNTAGE field is being used.
		.1..		DSRFNDS	When set to 1, DSRNDS field is 4 bytes in length.
		..xx xxxx		*	Reserved.
119(77)	55(37)	BITSTRING	1	*	Reserved.
120(78)	56(38)	FIXED	2	DSRDUMPS	Number of system-requested volume dumps.
122(7A)	58(3A)	FIXED	2	DSRDUMPU	Number of user-requested volume dumps.
124(7C)	60(3C)	FIXED	2	DSRDUMPF	Number of volume dumps that failed.
126(7E)	62(3E)	FIXED	2	DSRDCOPS	Number of system-requested dump copies.
128(80)	64(40)	FIXED	2	DSRDCOPU	Number of user-requested dump copies.
130(82)	66(42)	FIXED	2	DSRDCOPF	Number of dump copies that failed.
132(84)	68(44)	FIXED	4	DSRDTINQ	Amount of time that dump requests waited in the queue.
136(88)	72(48)	FIXED	4	DSRDTWV	Amount of time that dump requests waited for volume allocation.
140(8C)	76(4C)	FIXED	4	DSRDTINP	Elapsed time each dump request took to process.
144(90)	80(50)	FIXED	4	DSRDTOT	Total elapsed time for all dump requests to be processed.
148(94)	84(54)	FIXED	2	DSRREST	Number of volume restores requested.
150(96)	86(56)	FIXED	2	DSRRESTF	Number of volume restores that failed.
152(98)	88(58)	FIXED	2	DSRDSRES	Number of data set restores requested.
154(9A)	90(5A)	FIXED	2	DSRDSRESF	Number of data set restores that failed.
156(9C)	92(5C)	FIXED	4	DSREXRED	Extent reductions.
160(A0)	96(60)	FIXED	2	DSRABACK	Count of ABACKUPs requested.
162(A2)	98(62)	FIXED	2	DSRABAKF	Count of ABACKUPs that failed.
164(A4)	100(64)	FIXED	2	DSRABXTR	Count of extra mounts of ML2 volumes by ABACKUP due to recall takeaway.
166(A6)	102(66)	FIXED	2	*	Reserved.
168(A8)	104(68)	FIXED	4	DSRDRECN	Number of data sets reconnected.
172(AC)	108(6C)	FIXED	4	DSRBRECN	Number of tracks reconnected to tape.
176(B0)	112(70)	FIXED	4	DSR_FR_RECOVER_FAILED	Total number of failed fast replication recovers.
180(B4)	116(74)	FIXED	2	*	Reserved.

The following information, starting at offset 182(B6) (or 184(B8) if flag DSRFNDS is set to 0), through the remainder of the daily statistics record description, is repeated once for each of the following functions in the order given:

1. Primary to level 1 migration
2. Level 1 to level 2 migration
3. Primary to level 2 migration
4. Recall from level 1 to primary
5. Recall from level 2 to primary
6. Deletion of migrated data sets
7. Daily backup
8. Spill backup
9. Recovery
10. Recycle of backup volumes
11. Data set deletion from user volumes
12. Recycle of level 2 tape migration volumes
13. Delete backup versions
14. Class transition

Only data for data sets that are successfully processed is included.

182(B6)	118(76)	CHARACTER	64(14)	DSRFSTAT	Data for each of 14 functions types. Each function has its own index in table defined by DSRFXXXX. Statistics are only for successful functions. Start of array.

Table 31 (Page 3 of 3). DSR—Daily Statistics Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
182(B6)	118(76)	FIXED	4(2*)	DSRNDS	Number of non-VSAM data sets processed. (*This field is 2 bytes long if flag DSRFNDS is set to 0.)
186(BA)	122(7A)	FIXED	6	*	Reserved.
192(C0)	128(80)	FIXED	4	DSRNTRKR	Number of tracks read.
196(C4)	132(84)	FIXED	4	DSRNTRKW	Number of tracks written.
200(C8)	136(88)	FIXED	4	DSRNBYTR	Number of bytes read below 1 gigabyte.
204(CC)	140(8C)	FIXED	4	DSRNBYTW	Number of bytes written below 1 gigabyte.
208(D0)	144(90)	FIXED	2	DSRNDSF	Number of failing requests.
210(D2)	146(92)	FIXED	2	DSRNVOL	Number of voluntary requests initiated by user commands.
212(D4)	148(94)	FIXED	2	DSRNSYS	Number of requests initiated automatically by the system.
214(D6)	150(96)	FIXED	2	DSRTAGE	Total age in days of the data sets processed.
216(D8)	152(98)	FIXED	4	DSRTTINQ	Total time, in seconds, that the requests were queued before processing started.
220(DC)	156(9C)	FIXED	4	DSRTTWV	Total time, in seconds, that the requests were queued waiting for volume mounts.
224(E0)	160(A0)	FIXED	4	DSRTTINP	Total elapsed time, in seconds, to process requests.
228(E4)	164(A4)	FIXED	4	DSRTTOT	Total time, in seconds, for requests from the time received to the time finished.
232(E8)	168(A8)	FIXED	4	DSRNGBR	Number of gigabytes read.
236(EC)	172(AC)	FIXED	4	DSRNGBW	Number of gigabytes written.
240(F0)	176(B0)	FIXED	4	DSRNTAGE	Total age of the data sets processed.
244(F4)	180(B4)	CHARACTER	2(4*)	*	Reserved. (*If flag DSRFNDS is set to 0, field length is 4 bytes.)

DSR Data Area Cross-Reference

Table 32 (Page 1 of 2). DSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DSR	0		1
DSR_FR_BACKUP_FAILED	5C		3
DSR_FR_BACKUP_TOTAL	58		3
DSR_FR_RECOVER_FAILED	B0		3
DSR_FR_RECOVER_TOTAL	60		3
DSRABACK	A0		3
DSRABAKF	A2		3
DSRABEND	44		3
DSRABXTR	A4		3
DSRBRECN	AC		3
DSRDATA	40		2
DSRDATE	4		4
DSRDCOPF	82		3
DSRDCOPS	7E		3
DSRDCOPU	80		3
DSRDRECN	A8		3
DSRDSRES	98		3
DSRDSRESF	9A		3
DSRDTINP	8C		3
DSRDTINQ	84		3

Table 32 (Page 1 of 2). DSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DSRDTOT	90		3
DSRDTWV	88		3
DSRDUMPF	7C		3
DSRDUMPS	78		3
DSRDUMPU	7A		3
DSREJST	54		3
DSREVENT	64		3
DSREXRED	9C		3
DSRFLAG	76		3
DSRFNDS	76	40	4
DSRFNTAG	76	80	4
DSRFSTAT	B6		2
DSRHDR	2C		2
DSRIPL	40		3
DSRKEY	0		2
DSRKEY2	1		3
DSRMVRCY	74		3
DSRNBYTR	C8		3
DSRNBYTW	CC		3
DSRNDS	B8		3

Table 32 (Page 2 of 2). DSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DSRNDSF	D0		3
DSRNDSV	BA		3
DSRNGBR	E8		3
DSRNGBW	EC		3
DSRNMWE	4C		3
DSRNPIGB_RCL	50		3
DSRNPIGB_RCV	52		3
DSRNSYS	D4		3
DSRNTAGE	F0		3
DSRNTRKR	C0		3
DSRNTRKW	C4		3
DSRNVBU	70		3
DSRNVM	BC		3
DSRNVMG	6C		3
DSRNVMGF	6E		3
DSRNVOL	D2		3
DSRNVRCY	72		3
DSRREST	94		3
DSRRESTF	96		3
DSRSHUT	48		3
DSRTAGE	D6		3
DSRTIME	68		3
DSRTTINP	E0		3
DSRTTINQ	D8		3
DSRTTOT	E4		3
DSRTTWV	DC		3

DVL—Dump Volume Record

The dump volume record (DVL) defines the format for control data set data area records that are generated from dump volumes. Dump volume records are 174 bytes long. The record type is Y.

The key for type Y volume records is the volume serial number. An example of the key that is used with an Y dump volume record for a volume serial number of DUMP01 is:

```
FIXCDS Y DUMP01
```

Table 33 (Page 1 of 2). DVL—Dump Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	*	DVL	Dump volume record.
0(0)		CHARACTER	44	DVLKEY	Dump volume record key.
0(0)		BITSTRING	1	DVLTYPE	DVL record type, which is X'21'.
1(1)		CHARACTER	6	DVLVSN	Dump volume serial number.
7(7)		CHARACTER	37	*	Reserved.
44(2C)		CHARACTER	20	DVLHDR	DVL header information.
44(2C)		FIXED	2	DVLLEN	DVL record length, calculated as the sum of the lengths of (DVLKEY + DVLHDR + DVLBASE + DVL_SIZE) + (DVLSTACK × the length of DVLCOPIES).
46(2E)		BITSTRING	1	DVLETYPE	DVL entry type, which is the same as DVLTYPE (X'21').
47(2F)		FIXED	1	DVL_REC	Recording technology: 6=EFMT1, etc.
48(30)		CHARACTER	8	DVLTSLU	Time stamp, in microsecond format, that indicates when the DVL record was last updated.
56(38)		CHARACTER	8	DVLTSCR	Time stamp, in microsecond format, that indicates when the DVL record was created.
64(40)	0(0)	CHARACTER	*	DVLDATA	Data portion of DVL record.
64(40)	0(0)	CHARACTER	31	DVLBASE	Tape specific DVL data, preceeding copy data.
64(40)	0(0)	CHARACTER	8	DVLUNIT	Unit name specified for the volume.
72(48)	8(8)	BITSTRING	2	DVLFLAGS	The next 2 bytes contain the following flags:
		1...		DVLFWRIT	When set to 1, DFSMShsm has written on the volume.
		.1..		DVLFUSED	When set to 1, the volume is currently in use. The host using the record has stored its host ID in DVLHID.
		..1.		DVLFUNAV	When set to 1, the volume is unavailable for output selection.
		...1		DVLFVALD	When set to 1, the volume contains part of one or more valid copies.
		.... 1...		DVLFTPSW	When set to 1, the volume is password protected in the header label.
		.... .1..		DVLFTSED	When set to 1, the volume is expiration-date protected in the header label.
		.... ..1.		DVLFTSRF	When set to 1, the volume was RACF protected by DFSMShsm. When set to 0, see DVLFURAC to find out if the volume was RACF protected by the user.
		1		DVLFURAC	When set to 1, the user had already added the volume to the RACF tape volume set when DFSMShsm used it.
73(49)	9(9)	1...		DVLFUASN	When set to 1, the volume was not originally assigned a dump class when ADDVOLed (either its dump class was not specified on the ADDVOL command, or the volume ADDVOLed internally after being mounted in response to a mount scratch request).
		.1..		DVLTVEXT	When set to 1, the tape volume exit needs to be called at DELVOL time.
		..1.		DVLFCUCS	When set to 1, the volume contains control unit compacted data.
		...1		DVLFSIZE	When set to 1, data set size information is present.
		.... 1...		DVLFCPOOL	When set to 1, DVL has at least one source volume belonging to a copypool.

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Table 33 (Page 2 of 2). DVL—Dump Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
		.... .1..		DVLFHWCOMP	When set to 1, HWCOMPRESS was performed on this volume
		.... ..1.		DVLF_DSS_XM	ON = Dump volume created using DSS cross mem
		x		*	Reserved
74(4A)	10(A)	FIXED	1	DVL_MEDIA	Media type, for example: 5 = MEDIA5 6 = MEDIA6 7 = MEDIA7 8 = MEDIA8
If DVLSTACK is zero, and DVLFVALD is on, this DVL was created before dump stacking. Consider DVLSTACK as equal to one.					
75(4B)	11(B)	FIXED	1	DVLSTACK	Number of dump stacked on this volume (the total number of entries in the array DVLCOPIES).
76(4C)	12(C)	CHARACTER	4	DVLUCBTY	UCB device type for the volume.
80(50)	16(10)	FIXED	2	DVLVOLSQ	Volume sequence number, signifying a volumes relative position within a set of volumes that constitute a dump copy.
82(52)	18(12)	FIXED	1	DVLDEN	Volumes recording density.
83(53)	19(13)	CHARACTER	8	DVLDCLAS	Dump class identification that the dump copy is part of, if the volume contains one or more dump copies. If the volume does not contain part of a valid dump copy, then this is the dump class the volume was ADDVOLed to. If the volume is empty and was not assigned to a specific dump class, then this field is X'0'.
91(5B)	27(1B)	CHARACTER	4	DVLEXPDT	Dump volume expiration date, which will be X'0' if RETPD was NONE. This field is a Julian date in packed decimal format.
95(5F)	31(1F)	CHARACTER	19(*)	DVLCOPIES	Dump copies stacked on this volume. The position in this array equals the file sequence number of the copy.
95(5F)	31(1F)	CHARACTER	14	DVLDGNKY	DGN record key.
95(5F)	31(1F)	CHARACTER	6	DVLSVSN	Volume serial number of the source volume that the dump copy was created from.
101(65)	37(25)	CHARACTER	4	DVLTSDT	Time stamp, in packed decimal format, that indicates when the dump copy was written.
105(69)	41(29)	CHARACTER	4	DVLTSDD	Date stamp, in packed decimal format, that indicates when the dump copy was written. Value of DVLNODMP means copy has been rolled off and is no longer valid.
109(6D)	45(2D)	CHARACTER	1	DVLHID	Host ID for the host currently using this volume (valid only when DVLFUSED is also on).
110(6E)	46(2E)	CHARACTER	4	DVLSDEVT	Source volume UCB device type.
110(6E)	46(2E)	CHARACTER	2	*	Source volume device options.
112(70)	48(30)	CHARACTER	2	DVLSDEVC	Source volume device characteristics.
112(70)	48(30)	CHARACTER	1	DVLSDEV	Source volume device type.
113(71)	49(31)	CHARACTER	1	*	Source volume device code.
The following fields come after the last DVLCOPIES entry. Compare them with corresponding fields that are used for migration and backup tapes.					
0(0)		STRUCTURE	20	DVL_SIZE	Figures for the use and capacity of volume DVLVSN.
0(0)		FIXED	4	DVLDPWTV	Amount of data, in KB, physically written to dump volume. Valid only if DVLFSIZE is set to 1 and DVLFULL is set to 0.
4(4)		FIXED	4	DVLNTCAP	Capacity of tape in MB.
8(8)		FIXED	4	DVLPCT	Percentage full that DVLDPWTV represents. Valid only if field DVLDPWTV not zero.
12(C)		BITSTRING	2	DVLSZFLGS	Flags.
12(C)		BITSTRING	1	*	Reserved.
		1...		DVLFULL	When set to 1, last or only dump copy spans to another dump volume.
		.1..		DVLFSTD	Standard capacity.
		..1.		DVLFECT	Enhanced capacity.
		...1		DVLF32K	When set to 1, 32KB blocks. When set to 0, 64KB blocks.
		.... 1...		DVLFEMUL	When set to 1, emulation data present.
		xxx		*	Reserved.
13(D)		BITSTRING	1	DVLEMUL	Emulation data.
14(E)		UNSIGNED	2	*	Reserved.
16(10)		UNSIGNED	4	DVLDPWTV_HOW	2GB KB

Table 34. DVL—Dump Volume Record

Offsets Decimal (Hex)	Type	Length	Name	Description
0(0)	STRUCTURE	84	DVL_ENCRYPTION	Length is: (ADDR(DVLCPIES) + (DVLSTACK) * LENGTH(DVLCOPIES) + LENGTH(DVL_SIZE))
0(0)	FIXED	2	DVLENC	Encryption method: 1=RSA 2=KEYPASSWORD 3=NONE 4=THW (tape hardware)
2(2)	FIXED	2	DVLENCTYPE	Type of encryption: 1=CLRAES128, 2=CLRTDES, 3=ENCTDES.
4(4)	CHARACTER	64	DVLKEYLBL	RSA key label
4(4)	CHARACTER	32	DVLPASSWD	Password
36(24)	CHARACTER	32	*	Reserved
68(44)	CHARACTER	16	*	Reserved

DVL Data Area Cross-Reference

Table 35 (Page 1 of 2). DVL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DVL	0		1
DVL_ENCRYPTION	0		1
DVL_MEDIA	4A		4
DVL_REC	2F		3
DVL_SIZE	0		1
DVLBASE	40		3
DVLCOPIES	5F		3
DVLDATA	40		2
DVLDCLAS	53		3
DVLDEN	52		3
DVLDGNKY	5F		3
DVLDPWTV	0		2
DVLDPWTV_HOW	10		2
DVLEMUL	D		3
DVLENC	0		2
DVLENCTYP	2		2
DVLETYPE	2E		3
DVLEXPDT	5B		3
DVLF_DSS_XM	49	02	5
DVLFCPOOL	49	08	4
DVLFCUCS	49	20	5
DVLFECT	C	20	4
DVLFEMUL	C	08	4
DVLFHWCOMP	49	04	4
DVLFLAGS	48		3
DVLFSIZE	49	10	4

Table 35 (Page 1 of 2). DVL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DVLFSTD	C	40	4
DVLFTPSW	48	08	4
DVLFTSED	48	04	4
DVLFTSRF	48	02	4
DVLFUASN	49	80	4
DVLFULL	C	80	4
DVLFUNAV	48	20	4
DVLFURAC	48	01	4
DVLFUSED	48	40	4
DVLFVALD	48	10	4
DVLFWRIT	48	80	4
DVLF32K	C	10	4
DVLHDR	2C		2
DVLHID	6D		3
DVLKEY	0		2
DVLKEYLBL	64		2
DVLLEN	2C		3
DVLNTCAP	4		2
DVLPASSWD	32		3
DVLPCT	8		2
DVLSDEV	70		5
DVLSDEVC	70		4
DVLSDEVT	6E		3
DVLSTACK	4B		4
DVLSVSN	5F		4
DVLSZFLGS	C		2

Table 35 (Page 2 of 2). DVL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
DVLTSCR	38		3
DVLTSDD	69		4
DVLTSDT	65		4
DVLTSLU	30		3
DVLTVEXT	49	40	4
DVLTYPE	0		3
DVLUCBTY	4C		3
DVLUNIT	40		3
DVLVOLSQ	50		3
DVLVSN	1		3

EGCB—Expire Backup Version Global Control Block

The Expire Backup Version Global Control Block (EGCB) defines the mapping for the globally addressable, functional control block for backup version processing. The EGCB is 246 bytes long.

The contents of the EGCB can be displayed using the DISPLAY command as follows:

```
DISPLAY .EGCB.+0 LENGTHS(246)
```

Table 36 (Page 1 of 2). EGCB—EXPIRE BACKUP VERSIONS GLOBAL CONTROL BLOCK

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	246	EGCB	EBV GLOBAL CONTROL BLOCK
0	(0)	CHARACTER	8	EGCBID	CONTROL BLOCK ID
8	(8)	ADDRESS	4	*	RESERVED
12	(C)	ADDRESS	4	EGCRCBPR	ADDRESS OF EBV RCB
16	(10)	ADDRESS	4	EGCPDLP	ADDRESS OF THE XPCDL (EBV COMMAND PARSE LISTS)
20	(14)	ADDRESS	4	EGCTCBPR	ADDRESS OF EBV TCB
24	(18)	BITSTRING	4	EGCBECB	EXPIREBACKUPVERSIONS ECB
		1...		*	Reserved
		.1..		EGCCBEBV	COMPLETION BIT FOR EXPIREBACKUPVERSIONS
		..xx xxxx		*	Reserved
28	(1C)	CHARACTER	12	EGCSMSDA	
28	(1C)	ADDRESS	4	EGCBDMCP	ADDRESS OF DEFAULT MC DEFINITION AREA FOR EBV FUNCTION
32	(20)	ADDRESS	4	EGCMCLSP	ADDRESS OF EBV'S LIST OF MC'ES (HEADER RECORD ON LIST CONTAINS # OF MC ENTRIES
36	(24)	FIXED	4	EGCMCLSL	LENGTH OF AREA OF EBV'S LIST OF MC'ES (USED FOR FREEING STORAGE OF MC LIST
40	(28)	ADDRESS	4	EGCBRECP	ADDRESS OF THE EBV TASK GLOBAL MCB/ABR RECORD BUFFER
44	(2C)	FIXED	4	EGC_EBV_COUNT	COUNT OF BACKUP VERSIONS EXPIRED DURING PROCESSING
48	(30)	CHARACTER	20	EGC_DATES	STARTING TIMES AND DATES:
48	(30)	CHARACTER	8	EGC_START	STARTING TIME AND DATE FOR EXPIREBV PROCESSING
48	(30)	CHARACTER	4	EGC_START_TIME	STARTING TIME IN PACKED DEC
52	(34)	CHARACTER	4	EGC_START_DATE	STARTING DATE IN PACKED DEC
56	(38)	CHARACTER	4	EGC_DBU_DATE	PACKED DECIMAL DATE EQUAL TO START_DATE - DBU(DAYS) FROM IFPIREBV COMMAND, OR DBU(DAYS) NOT SPECIFIED
60	(3C)	CHARACTER	4	EGC_CAT_DATE	PACKED DECIMAL DATE EQUAL TO START_DATE - CAT(DAYS) FROM IFPIREBV COMMAND, OR CAT(DAYS) NOT SPECIFIED
64	(40)	CHARACTER	4	EGC_UNCAT_DATE	PACKED DECIMAL DATE EQUAL TO START_DATE - UNCAT(DAYS) IFOM EXPIREBV COMMAND, OR UNCAT(DAYS) NOT SPECIFIED
68	(44)	BITSTRING	4	EGCBFLGS	FLAGS
		1...		EGCFEBVH	When set to 1, EBV is held
		.1..		EGCFEBVA	When set to 1, EBV is active
		..1.		EGCFDBUG	DFHSM DEBUG STATUS AT THE START OF EBV PROCESSING
		...1		EGCFENQD	When set to 1, ARCGPA/ARCCAT resource is enqueued
		.... 1...		EGCFHIKE	When set to 1, planned hikey was reached (normal end)
		.... .1..		EGCF_START_MSG	When set to 1, EXPIREBV starting message (ARC0680I) has been issued
		.... ..1.		EGCF_RETCPY	ON=RETAINED CPY EXIST 1P
		xx		*	Reserved
72	(48)	FIXED	4	EGC_LINE_COUNT	FOR DISPLAY OUTPUT
76	(4C)	ADDRESS	4	EGC_LAST_KEYP	ADDR OF SAVE AREA FOR KEY OF LAST MCB PROCESSED, USED FOR ENDING MSG ARC0681I
80	(50)	CHARACTER	30	EGC_AGNAME	AGNAME FOR EXPIRE ABARS
110	(6E)	FIXED	2	EGC_AGNAME_LEN	AGNAME LENGTH
112	(70)	CHARACTER	4	EGC_LAST_VERSION	LAST VERS FOR EXP ABARS
116	(74)	FIXED	4	EGC_VERSION_OFFSET	VERSION OFFSET IN ABRKEY

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Table 36 (Page 2 of 2). EGCB—EXPIRE BACKUP VERSIONS GLOBAL CONTROL BLOCK

Offsets Decimal	(Hex)	Type	Length	Name	Description
120	(78)	FIXED	4	EGC_NUM_OF_VERSIONS	# OF VERSIONS FOR AGNAME
124	(7C)	CHARACTER	44	EGC_CONT_FROM_KEY	SAVE FOR RESTARTING PORD
168	(A8)	CHARACTER	32	EGC_MGMT_CLASS	LATEST MGMT CLASS
168	(A8)	FIXED	2	EGC_MGMT_LEN	MGMT CLASS LENGTH
170	(AA)	CHARACTER	30	EGC_MGMT_NAME	MGMT CLASS NAME
200	(C8)	CHARACTER	30	EGC_SAVE_AGNAME	SAVE AGGNAME FOR DISPLAY
230	(E6)	CHARACTER	4	EGC_SAVE_VERSIONS	
236	(EC)	FIXED	4	EGC_NUM_OF_BCKCPY	# OF BCKCPY FOR A DS SV VERSIONS FOR DISPLAY
234	(EA)	CHARACTER	12	*	RESERVED

EGCB Data Area Cross-Reference

Table 37. EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
EGC_AGNAME	50		2
EGC_AGNAME_LEN	6E		2
EGC_CAT_DATE	3C		3
EGC_CONT_FROM_KEY	7C		2
EGC_DATES	30		2
EGC_DBU_DATE	38		3
EGC_EBV_COUNT	2C		2
EGC_LAST_KEYP	4C		2
EGC_LAST_VERSION	70		2
EGC_LINE_COUNT	48		2
EGC_MGMT_CLASS	A8		2
EGC_MGMT_LEN	A8		3
EGC_MGMT_NAME	AA		3
EGC_NUM_OF_BCKCPY	EC		2
EGC_NUM_OF_VERSIONS	78		2
EGC_SAVE_AGNAME	C8		2
EGC_SAVE_VERSIONS	E6		2
EGC_START	30		3
EGC_START_DATE	34		4
EGC_START_TIME	30		4
EGC_UNCAT_DATE	40		3
EGC_VERSION_OFFSET	74		2
EGCB	0		1
EGCBBUFF	0		1
EGCBDMCP	1C		3
EGCBECB	18		2
EGCBFLGS	44		2
EGCBID	0		2
EGCBRECD	2		2
EGCBRECP	28		2

Table 37. EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
EGCBUFLN	0		2
EGCCBEBV	18	40	3
EGCF_RETCPY	44	02	3
EGCF_START_MSG	44	04	3
EGCFDBUG	44	20	3
EGCFEBVA	44	40	3
EGCFEBVH	44	80	3
EGCFENQD	44	10	3
EGCFHIKE	44	08	3
EGCMCLSL	24		3
EGCMCLSP	20		3
EGCPDLP	10		2
EGCRCBPR	C		2
EGCSMSDA	1C		2
EGCTCBPR	14		2

FRB—Fast Replication Backup Record

The DFSMShsm fast replication backup record (FRB) represents all of the backup versions created for a copy pool. The FRB record contains the number of versions created for the copy pool, as well as important information for each version, such as the token, time and date the backup occurred, and whether the version is valid. Fast replication backup records are 104 bytes long, plus 68 bytes for each copy pool. The maximum record length is 6020 bytes. The record type is F.

The key for type F fast replication backup records is the copy pool name. An example of the key that is used with an F fast replication backup record for a copy pool with a name of COPYPOOLA is:

```
FIXCDS F COPYPOOLA
```

Table 38. FRB—Fast Replication Backup Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Control data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	40	FRB	Fast Replication backup entry.
64(40)	0(0)	FIXED	4	FRB_NUM_SMS_DASD_VER	Number of DASD versions created for this copy pool.
68(44)	4(4)	FIXED	4	FRB_BVI_ELEM	Number of elements in the BVI.
72(48)	8(8)	FIXED	2	FRB_NUMDMPVERS	Number of dump versions created for this copypool.
74(4A)	10(A)	FIXED	2	FRB_BVI_DASDELEM	Number of DASD elements in the BVI.
76(4C)	12(C)	FIXED	1	FRB_RELEASE	Release this copypool was processed by...
77(4D)	13(D)	BITSTRING	2	FRB_CP_FLAGS	The next 2 bits contain the following flags.
		1...		FRBF_INCREMENTAL	When set to 1, copy pool has one or more incremental versions
		.1..		FRBF_CPBSG	When set to 1, override target backup storgrp with FRB_CPBSG_NAME
		..1.		FRBF_FCIALL_CP	When set to 1, copy pool has FCINCREMENTAL(ALL) specified
		...x xxxx		*	Reserved
78(4E)	14(E)	BITSTRING	1	*	Reserved.
79(4F)	15(F)	FIXED	1	FRB_NO_ARC1827	Valid when FR volume preferencing is enabled When set to 0, enable ARC1827I for the copy pool. When set to n, suppress ARC1827I when msg return code < n. When set to 0xFF, suppress ARC1827I msg for all return codes.
80(50)	16(10)	CHARACTER	8	FRB_CPBSG_NAME	Backup Storage Group Name
88(58)	24(18)	FIXED	1	FRB_FRB_FC_ABILITY	ALLOWPPRCP option set for FRB. 0= ALLOWPPRCP keyword not specified. 1= NO, disallow PPRC primary. 2= PMNO or YES specified. 3= PMPREF specified. 4= PMREQ specified.
89(59)	25(19)	FIXED	1	FRB_FRR_FC_ABILITY	ALLOWPPRCP option set for FRR. 0= ALLOWPPRCP keyword not specified. 1= NO, disallow PPRC primary. 2= PMNO or YES specified. 3= PMPREF specified. 4= PMREQ specified.
90(5A)	26(1A)	CHARACTER	14	*	Reserved.
104(68)	40(28)	CHARACTER		FRBENDF	End of fixed portion of record.

As shown in Table 39, the following fields describe the FRB backup version information:

Table 39 (Page 1 of 2). FRB—Fast Replication Backup Version Information

Offsets Decimal	Offsets (Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	68(*)	FRB_BVI	Backup version information. A maximum of 85 version are kept.

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Table 39 (Page 2 of 2). FRB—Fast Replication Backup Version Information

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	FIXED	4	FRB_VERSION	Version number for this copy pool backup.
4	(4)	FIXED	4	FRB_COMP_VER	Version number of the version that replaced this version.
8	(8)	CHARACTER	40	FRB_TOKEN	Token which represents this backup version of the copy pool.
48	(30)	CHARACTER	8	FRB_TSTAMP	Backup time stamp.
48	(30)	CHARACTER	4	FRB_TIME	Time that this backup version was made, in format X'hhmmssth'.
52	(34)	CHARACTER	4	FRB_DATE	Date that this backup version was made, in format X'0cyyddds'.
56	(38)	FIXED	2	FRB_NUM_FRVP	Number of FRVP records associated with this version. (Only set after a backup, not set for prepare records.)
58	(3A)	FIXED	1	FRB_STATE	Version state.
59	(3B)	BITSTRING	2	FRB_FLAGS	The next two bytes contain the following flags.
		1...		FRBF_NOVTOCENQ	When set to 1, NOVTOCENQ was specified for this version.
		.1..		FRBF_PREPARE	When set to 1, FRVP PREPARE records exist for this version.
		..1.		FRBF_PARITY	FRVP prepare index that is odd or even.
		...1		FRBF_PARTIAL_RO	When set to 1, a partial roll-off has been done.
		.... 1...		FRBF_FRD_EXISTS	When set to 1, an FRD record exists for ths version.
		.... .1..		FRBF_NOCOPY	When set to 1, version created in NOCOPY environment.
		.... ..1.		FRBF_INC_VER	When set to 1, CP incremental version.
				FRBF_CAT_INFO	ON = Catalog info captured
60	(3C)	1...		FRBF_CAT_PART	ON = Partial cat capture only
		.1..		FRBF_FCFRR	When set to 1, FCFRR eligible version
		..1.		FRBF_FVREL	When set to 1, full volume FC relation established for this verision
		...1		FRBF_FRR_INCOMP	When set to 1, recovery incomplete
		.... 1...		FRBF_FRR_ALLQUEUED	When set to 1, recovery setup completed
		.... .1..		FRBF_FCFRR_NOVFY	When set to 1, no longer need to check FC state for FCFRR-eleigible DASD backup version
		.... ..1.		FRBF_FCFRR_RO	When set to 1, FCFRR rolloff processing needed. DASD backup version.
		1		FRBF_FCCG_VER	When set to 1, FC consistency group version.
61	(3D)	FIXED	1	FRB_CIDS_NUM	CIDS collision number
62	(3E)	BITSTRING		FRB_FLAGS2	Flags
		1...		FRBF_FCILA_CP	When set to 1, FCINCRLAST(ALL) was issued. FCINCRLAST needs to be specified on the next increment for the version.
		.xxx xxxx			Reserved
63	(3F)	CHARACTER	1	*	
64	(40)	FIXED	4	FRB_VOLUMES	Number of source volumes in this copy pool backup version.

FRB Data Area Cross-Reference

Table 40 (Page 1 of 2). FRB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRB	40		1
FRB_BVI	0		1
FRB_BVI_DASDELEM	4A		2
FRB_BVI_ELEM	44		2
FRB_CIDS_NUM	3D		2
FRB_COMP_VER	4		2
FRB_CP_FLAGS	4D		2
FRB_CPBSG_NAME	50		2
FRB_DATE	34		3
FRB_FLAGS	3B		2
FRB_FRB_FC_ABILITY	58		2
FRB_FRR_FC_ABILITY	59		2

Table 40 (Page 1 of 2). FRB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRB_NO_ARC1827	4F		2
FRB_NUM_FRVP	38		2
FRB_NUM_SMS_DASD_VER	40		2
FRB_NUMDMPVERS	48		2
FRB_RELEASE	4C		2
FRB_STATE	3A		2
FRB_TIME	30		3
FRB_TOKEN	8		2
FRB_TSTAMP	30		2
FRB_VERSION	0		2
FRB_VOLUMES	40		2
FRBENDF	68		2

Table 40 (Page 2 of 2). FRB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRBF_CAT_INFO	3B	01	5
FRBF_CAT_PART	3C	80	5
FRBF_CPBSG	4D	40	3
FRBF_FCCG_VER	3C	01	5
FRBF_FCFRR	3C	40	5
FRBF_FCFRR_NOVFY	3C	04	5
FRBF_FCFRR_RO	3C	02	5
FRBF_FRD_EXISTS	3B	08	3
FRBF_FRR_ALLQUEUED	3C	08	5
FRBF_FRR_INCOMP	3C	10	5
FRBF_FVREL	3C	20	5
FRBF_INC_VER	3B	02	3
FRBF_INCREMENTAL	4D	80	3
FRBF_NOCOPY	3B	04	3
FRBF_NOVTOCENQ	3B	80	3
FRBF_PARITY	3B	20	3
FRBF_PARTIAL_RO	3B	10	3
FRBF_PREPARE	3B	40	3

FRD—Fast Replication Dump Control Block

The DFSMShsm fast replication dump record (FRD) represents all of the dump versions created for a copy pool. The FRD record contains the number of versions created for the copy pool, as well as important information for each version, such as the token, time and date the dump occurred. The record type is K.

The key for the type K fast replication dump record is the copy pool name followed by the dump version.

- If the copy pool name is less than the allotted 30 bytes, it will be padded with periods (".").
- Because the version number value is in hexadecimal format, the key must be specified in hexadecimal.

An example of the key that is used with a K fast replication dump record record where the copy pool name is COPYPOOLA and the version is 1:

```
FIXCDS K X'C3D6D7E8D7D6D6D3C14B4B4B4B4B4B4B4B4B4B4B4B4B
           4B4B4B4B4B4B4B4BF0F0F1'
```

Table 41 (Page 1 of 2). FRD—Fast Replication Dump Control Block

Offsets Actual	Offsets / FIXCDS	Type	Length	Name	Description
0(0)		CHARACTER	1	MCKTYPE	MCKTYPE = '23'x
1(1)		STRUCTURE	43	FRD_KEY	FRD key
1(1)		CHARACTER	30	FRD_CPNAME	Copy pool name. If less than characters, will be padded with periods.
31(1F)		CHARACTER	3	FRD_VERSION	CHAR representation of version.
34(22)		CHARACTER	10	*	Reserved
44(2C)		STRUCTURE	20	MCH	Control data set record header.
64(40)	0(0)	STRUCTURE	412	FRD	Fast Repl Dump record.
64(40)	0(0)	FIXED	2	FRD_STATE	Dump version state: 0=Failed 1=All complete, 2=Required complete 3=Partial
66(42)	2(2)	CHARACTER	2	FRD_HOSTID	Host id of host that is currently processing this copy pool dump version.
68(44)	4(4)	FIXED	1	FRD_FUNCTION	Function that is currently processing this copy pool dump version. 1=AUTODUMP 2=DUMP 3=DUMPONLY 4=FRRECOV 5=FRDELETE 6=DELVOL 7=AUDIT
69(45)	5(5)	UNSIGNED	1	*	Reserved
70(46)	6(6)	BITSTRING	2	FRD_FLAGS	Miscellaneous flags
		1...		FRDF_FORCE_ISSUED	When set to 1, dump of this version is in progress, stop dump of each volume that has not been processed.
		.1..		FRDF_WITHDRAWN	When set top 1, one or more relationships were WITHDRAWN.
		..xx xxxx		*	Reserved
72(48)	8(8)	CHARACTER	60	FRD_DUMPCLASS (5)	Dump class array
72(48)	8(8)	CHARACTER	8	FRD_DCLASS_NAME	Dump class name.
80(50)	16(10)	FIXED	2	FRD_DCLASS_STATE	Dump class state: 1=Complete 2=Partial 3=Failed
82(52)	18(12)	SIGNED	2	*	Reserved

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Table 41 (Page 2 of 2). FRD—Fast Replication Dump Control Block

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
84(54)	20(14)	CHARACTER	4	FRD_DCLASS_EXPDT	Expiration date of this dump copy (packed decimal Julian date.
88(58)	24(18)	FIXED	2	FRD_DCLASS_VOLS	Number of volumes successfully dumped to this dump class
90(5A)	26(1A)	BITSTRING	2	FRD_DCLASS_FLAGS	The next two bytes contain the following flags:
		1...		FRDF_DCLASS_REQD	When set to 1, this dump class is required. FRD_DCLASS_STATE must be COMPLETE for FRD_STATE to be COMPLETE.
		.xxx xxxx		*	Reserved
90(5A)	26(1A)		2	*	Reserved.
92(5C)	28(1C)	SIGNED	4	* (10)	Reserved.
372(174)	308(134)	SIGNED	4	* (26)	Reserved.

FRD Data Area Cross-Reference

Table 42. FRD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRD	40		1
FRD_CPNAME	1		2
FRD_DCLASS_EXPDT	54		3
FRD_DCLASS_FLAGS	5A		3
FRD_DCLASS_NAME	48		3
FRD_DCLASS_STATE	50		3
FRD_DCLASS_VOLS	58		3
FRD_DUMPCLASS	48		2
FRD_FLAGS	46		2
FRD_FUNCTION	44		2
FRD_HOSTID	42		2
FRD_KEY	1		1
FRD_STATE	40		2
FRD_VERSION	1F		2
FRDF_DCLASS_REQD	5A	80	4
FRDF_FORCE_ISSUED	46	80	3
FRDF_WITHDRAWN	46	40	3

FRGCB—Fast Replication Global Control Block

The DFSMShsm Fast Replication Global Control Block (FRGCB) defines the mapping for the globally addressable, functional control block for fast replication processing. The FRGCB is 828 bytes long.

The contents of the FRGCB can be displayed using the DISPLAY command as follows:

```
DISPLAY .FRGCB.+0 LENGTHS(828)
```

Table 43 (Page 1 of 3). FRGCB—Fast Replication Global Control Block

Actual Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	828	ARCFRGCB	Fast Replication GCB
0	(0)	CHARACTER	8	FRGCB_ID	FRGCB identifier
8	(8)	BITSTRING	4	FRGCB_FLAGS	Miscellaneous flags
		1...		FRGCBF_TM_ABEND_BM	When set to 1, ARCFRTM task manager abended - this flag is is to notify FRBM. FRBM will reset this flag
		.1..		FRGCBF_TM_ABEND_RM	When set to 1, ARCFRTM task manager abended - this flag is is to notify FRRM. FRRM will reset this flag
		..1.		FRGCBF_BM_ABEND	When set to 1, ARCFRBM task abended
				FRGCBF_RM_ABEND	On=ARCFRRM task abended
		...1		FRGCBF_RM_ABEND	When set to 1, ARCFRRM task abended
		.... 1...		FRGCBF_HOLD_FRBACK	When set to 1, FRBACKUP is held
		.... .1..		FRGCBF_HOLD_FRRECV	When set to 1, FRRECOV is held
		.... ..1.		FRGCBF_CPBACK_LAST_PAIR	When set to 1, the last pair has been placed onto the waiting queue.
		1		FRGCBF_CPRECV_LAST_PAIR	When set to 1, the last pair has been placed onto the waiting queue.
9	(9)	1...		FRGCBF_FRPAR_ERROR	When set to 1, ARCFRPAR encountered an error. Fail the remaining pairs.
		.1..		FRGCBF_COND_MSG	When set to 1, issue conditional msgs specific to individual target volume rejection
		..1.		FRGCBF_HOLD_FRRECV_TAPE	When set to 1, FRRECOV FROMDUMP is held
		...1		FRGCBF_HOLD_FRRECV_TAPE_EOD	When set to 1, FRRECOV FROMDUMP is held at EOD
		.... 1...		FRGCBF_HOLD_FRBACK_DUMP	When set to 1, FRBACKUP dump is held
		.... .1..		FRGCBF_HOLD_FRBACK_DUMP_EOD	When set to 1, FRBACKUP dump is held at EOD
		.... ..1.		FRGCBF_AD_EARLY_TERM	When set to 1, Auto Dump terminated early.
		1		FRGCBF_HOLD_FRRECOV_DATASET	When set to 1, FRRECOV DATASET is Held
10	(A)	1...		FRGCBF_FRDSM_ABEND	When set to 1, ARCFDSM abended
		.1..		FRGCBF_VOLINIT_DISABLE	When set to 1, disable VOLINIT
		..1.		FRGCBF_ENABLE_TSEFC	When set to 1, enable track space efficient FlashCopy
		...1		FRGCBF_FCREL_FULL	When set to 1, SETSYS FR(FCREL(FULL)) was specified
		.... 1...		FRGCBF_ENABLE_VPRF_CLUS	When set to 1, prefer FR target in the same cluster as the source volume.
		.... .1..		FRGCBF_ANYREL_INIT	When set to 1, init NOCOPY volume if any tracks are in a relationship.
		.... ..1.		FRGCBF_NOTIFY_NOREL	When set to 1, set TRAP when no trks in a FC relationship for NOCOPY volume. Applies only when FRGCBF_ANYREL_INIT is ON.
		1		FRGCBF_CPBACK_CG_LAST_PAIR	When set to 1, last CG pair has been placed on the wait queue.
11	(B)	BITSTRING	1	*	Reserved
12	(C)	FIXED	1	FRGCB_DSSASID_MAX	Maximum pairs per xmaia asid P2@XMC
13	(D)	CHARACTER	1	FRGCB_DSSASID_MIN	Minutes to down P
14	(E)	CHARACTER	2	FRGCB_DSSASID_SEC	Seconds to down P
16	(10)	ADDRESS	4	FRGCB_FRB_SMSLOCK	SMS lock token for bkup
20	(14)	ADDRESS	4	FRGCB_FRR_SMSLOCK	SMS lock token recover
24	(18)	ADDRESS	4	FRGCB_MWE_FRBACK	Ptr to FRBACKUP MWE
28	(1C)	ADDRESS	4	FRGCB_MWE_FRRECV	Ptr to FRRECOV MWE
32	(20)	FIXED	2	FRGCB_CPB_MAX_TASKS	Maximum copy pool Backup tasks
34	(22)	FIXED	2	FRGCB_CPR_MAX_TASKS	Maximum copy pool Recover tasks
36	(24)	FIXED	2	FRGCB_DSS_MAX_TASKS	Maximum copy pool DSS tasks

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Table 43 (Page 2 of 3). FRGCB—Fast Replication Global Control Block

Actual Decimal	(Hex)	Type	Length	Name	Description
38	(26)	FIXED	2	FRGCB_MAX_RETRIES	Maximum number of times to retry an in-use volume
40	(28)	FIXED	4	FRGCB_RETRY_SECS	Number of seconds to wait inbetween retries.
Fast Replication tasks' variables.					
44	(2C)	ADDRESS	4	FRGCB_FRBM_RCB_PTR	ARCFRBM RCB
48	(30)	ADDRESS	4	FRGCB_FRBM_TCB_PTR	ARCFRBM TCB
52	(34)	BIT(32)	4	FRGCB_FRBM_TECB	ARCFRBM Termination ECB
56	(38)	BIT(32)	4	FRGCB_FRBM_ECB	Shutdown processing/ARCFRTM Abended
60	(3C)	BIT(32)	4	FRGCB_FRBM_MWE_ECB	Fast Replication MWE on Backup Queue
64	(40)	BIT(32)	4	FRGCB_FRBM_SBLC_ECB	Volume pair completed
68	(44)	ADDRESS	4	FRGCB_FRTM_RCB_PTR	ARCFRTM RCB
72	(48)	ADDRESS	4	FRGCB_FRTM_TCB_PTR	ARCFRTM TCB
76	(4C)	BIT(32)	4	FRGCB_FRTM_TECB	ARCFRTM Termination ECB
80	(50)	BIT(32)	4	FRGCB_FRTM_ECB	General ECB
84	(54)	BIT(32)	4	FRGCB_FRTM_BKP_ECB	Volume pairs on FRBWQ ready for processing
88	(58)	BIT(32)	4	FRGCB_FRTM_RCV_ECB	Volume pairs on FRRWQ ready for processing
92	(5C)	BIT(32)	4	FRGCB_FRTM_DSS_ECB	ARCFRDSS ready for work
96	(60)	ADDRESS	4	FRGCB_FRRM_RCB_PTR	ARCFRRM RCB
100	(64)	BIT(32)	4	FRGCB_FRRM_ECB	Volume pairs on FRRCQ ready for processing
104	(68)	BIT(32)	4	FRGCB_FRDSS_ECB	Process a sublist
108	(6C)	ADDRESS	4	FRGCB_FRCSI_RCB_PTR	RCB address for FRCSI
112	(70)	ADDRESS	4	FRGCB_FRCSI_TCB_PTR	TCB address for FRCSI
116	(74)	BIT(32)	4	FRGCB_FRCSI_TECB	FRCSI Termination ECB
120	(78)	ADDRESS	4	FRGCB_FRCSP_PTR	FRCSI Parm list PTR
124	(7C)	ADDRESS	4	* (8)	Reserved.
156	(9C)	FIXED	4	FRGCB_NUM_PAIRS (2)	Number of volume pairs that have been placed onto the Waiting Queues by the function managers.
Fast Replication Backup structures for the Waiting and Completed queues.					
164	(A4)	CHARACTER	14	FRGCB_FRBQ_BLKCHAIN_ANCHOR	For Backup ZQBLD calls
164	(A4)	ADDRESS	4	FRGCB_FRBQ_FIRST_BLKPTR	FRBxQ storage ptr
168	(A8)	ADDRESS	4	FRGCB_FRBQ_LAST_BLKPTR	FRBxQ last block ptr
172	(AC)	FIXED	4	FRGCB_FRBQ_BLKSIZE	FRBQ blocksize
176	(B0)	FIXED	2	FRGCB_FRBQ_SUBPOOL	FRBQ subpool
178	(B2)	UNSIGNED	1(2)	*	Reserved
180	(B4)	CHARACTER	8	FRGCB_FRBWQ_CHAIN	FR Backup waiting queue
180	(B4)	ADDRESS	4	FRGCB_FRBWQ_HEAD_PTR	Head ptr for pairs waiting for backup
184	(B8)	ADDRESS	4	FRGCB_FRBWQ_TAIL_PTR	Tail ptr for pairs waiting for backup
188	(BC)	CHARACTER	8	FRGCB_FRBCQ_CHAIN	FR Backup completed queue
188	(BC)	ADDRESS	4	FRGCB_FRBCQ_HEAD_PTR	Head ptr for pairs that have completed backup
192	(C0)	ADDRESS	4	FRGCB_FRBCQ_TAIL_PTR	Tail ptr for pairs that have completed backup.
Fast Replication Recover structures for the Waiting and Completed queues.					
196	(C4)	CHARACTER	14	FRGCB_FRRQ_BLKCHAIN_ANCHOR	For Recover ZQBLD calls
196	(C4)	ADDRESS	4	FRGCB_FRRQ_FIRST_BLKPTR	FRRxQ storage ptr
200	(C8)	ADDRESS	4	FRGCB_FRRQ_LAST_BLKPTR	FRRxQ last block ptr
204	(CC)	FIXED	4	FRGCB_FRRQ_BLKSIZE	FRRQ blocksize
208	(D0)	FIXED	2	FRGCB_FRRQ_SUBPOOL	FRRQ subpool
210	(D2)	FIXED	2	FRGCB_CPAUTO_NONAFF	Number of copypools with non affinity being dumped by autodump
212	(D4)	CHARACTER	8	FRGCB_FRRWQ_CHAIN	FR RECOVER waiting queue
212	(D4)	ADDRESS	4	FRGCB_FRRWQ_HEAD_PTR	Head ptr for pairs waiting for recovery
216	(D8)	ADDRESS	4	FRGCB_FRRWQ_TAIL_PTR	Tail ptr for pairs waiting for recovery
220	(DC)	CHARACTER	8	FRGCB_FRRCQ_CHAIN	FR Recover completed queue
220	(DC)	ADDRESS	4	FRGCB_FRRCQ_HEAD_PTR	Head ptr for pairs that have completed recovery
224	(E0)	ADDRESS	4	FRGCB_FRRCQ_TAIL_PTR	Tail ptr for pairs that have completed recovery
Fast Replication Sublist Queues being built by ARCFRTM to be passed to an ARCFRDSS task for processing.					
228	(E4)	CHARACTER	8	FRGCB_FRBSUB_CHAIN	FR Backup sublist
228	(E4)	ADDRESS	4	FRGCB_FRBSUB_HEAD_PTR	Head ptr for pairs on sublist
232	(E8)	ADDRESS	4	FRGCB_FRBSUB_TAIL_PTR	Tail ptr for pairs on sublist
236	(EC)	CHARACTER	8	FRGCB_FRRSUB_CHAIN	FR Recover sublist
236	(EC)	ADDRESS	4	FRGCB_FRRSUB_HEAD_PTR	Head ptr for pairs on sublist
240	(F0)	ADDRESS	4	FRGCB_FRRSUB_TAIL_PTR	Tail ptr for pairs on sublist.

Table 43 (Page 3 of 3). FRGCB—Fast Replication Global Control Block

Actual Decimal (Hex)		Type	Length	Name	Description
Pointers to Fast Replication Task Control Blocks for Backup and Recover. The first dimension of the array contains the Backup pointers. The second dimension contains the Recover pointers.					
244	(F4)	ADDRESS	4(2,64)	FRGCB_FRTCB_PTR	Array of FRTCB ptrs
756	(2F4)	FIXED	2	FRGCB_CPAUTO_AFF	Number of copypools with affinity being dumped by autodump
758	(2F6)	SIGNED	2	FRGCB_FRDSR_MAX_RETRIES	Maximum number of times to retry DSS allocation,
760	(2F8)	CHARACTER	8	FRGCB_CPELM_CHAIN	Copy pool ver chain
760	(2F8)	ADDRESS	4	FRGCB_CPELM_HEAD_PTR	Chain head ptr
764	(2FC)	ADDRESS	4	FRGCB_CPELM_TAIL_PTR	Chain tail ptr.
Chain of FRDS elements. An FRDS element represents a single FRRECOV DSNAME command.					
768	(300)	CHARACTER	8	FRGCB_FRDS_CHAIN	
768	(300)	ADDRESS	4	FRGCB_FRDS_HEAD_PTR	Chain head ptr
772	(304)	ADDRESS	4	FRGCB_FRDS_TAIL_PTR	Chain tail ptr
Initialize to the value of FRGCB_PREFERRED.					
776	(308)	FIXED	1	FRGCB_FRDSR_COPYMETHOD	Value of SETSYS FR(DS())
777	(309)	UNSIGNED	3	*	Reserved
780	(30C)	FIXED	4	FRGCB_CIDS_PQTY	Primary allocation cyls for catalog information data sets
784	(310)	FIXED	4	FRGCB_CIDS_SQTY	Secondary allocation cyls for catalog information data sets
788	(314)		8	FRGCB_CPRELQ_CHAIN	CP Queue for FR CP FROMDUMP
788	(314)	ADDRESS	4	FRGCB_CPRELQ_HEAD_PTR	Head pointer for copypool recover elements
792	(318)	ADDRESS	4	FRGCB_CPRELQ_TAIL_PTR	Tail pointer for copypool recover elements
Chain of FlashCopy CG elements. Each CG element on the list represents an access volume to be used to issue a command to the LSS. There is one FRCG element for each LSS.					
796	(31C)	CHARACTER	8	FRGCB_FRCGBQ_CHAIN	FlashCopy consistency group element access list chain.
796	(31C)	ADDRESS	4	FRGCB_FRCGB_HEAD_PTR	Head ptr for CG elements.
800	(320)	ADDRESS	4	FRGCB_FRCGB_TAIL_PTR	Tail ptr for CG elements.
804	(324)	UNSIGNED	1	*(24)	Reserved
828	(33C)	CHARACTER	8	FRGCB_END	Leave this alone
828	(33C)	CHARACTER	8	FRGCB_ENDID	Control block end

FRGCB Data Area Cross-Reference

Table 44 (Page 1 of 2). FRGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ARCFRGCB	0		1
FRGCB_CIDS_PQTY	30C		2
FRGCB_CIDS_SQTY	310		2
FRGCB_CPAUTO_AFF	2F4		2
FRGCB_CPAUTO_NONAFF	D2		2
FRGCB_CPB_MAX_TASKS	20		2
FRGCB_CPELM_CHAIN	2F8		2
FRGCB_CPELM_HEAD_PTR	2F8		3
FRGCB_CPELM_TAIL_PTR	2FC		3
FRGCB_CPR_MAX_TASKS	22		2
FRGCB_CPRELQ_CHAIN	314		5
FRGCB_CPRELQ_HEAD_PTR	314		7
FRGCB_CPRELQ_TAIL_PTR	318		7
FRGCB_DSS_MAX_TASKS	24		2
FRGCB_DSSASID_MAX	C		2

Table 44 (Page 1 of 2). FRGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRGCB_DSSASID_MIN	D		2
FRGCB_DSSASID_SEC	E		2
FRGCB_END	33C		2
FRGCB_ENDID	33C		3
FRGCB_FLAGS	8		2
FRGCB_FRB_SMSLOCK	10		2
FRGCB_FRBCQ_CHAIN	BC		2
FRGCB_FRBCQ_HEAD_PTR	BC		3
FRGCB_FRBCQ_TAIL_PTR	C0		3
FRGCB_FRBM_ECB	38		2
FRGCB_FRBM_MWE_ECB	3C		2
FRGCB_FRBM_RCB_PTR	2C		2
FRGCB_FRBM_SBLC_ECB	40		2
FRGCB_FRBM_TCB_PTR	30		2
FRGCB_FRBM_TECB	34		2

Table 44 (Page 2 of 2). FRGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRGCB_FRBQ_BLKCHAIN_ANCHOR	A4		2
FRGCB_FRBQ_BLKSIZE	AC		3
FRGCB_FRBQ_FIRST_BLKPTR	A4		3
FRGCB_FRBQ_LAST_BLKPTR	A8		3
FRGCB_FRBQ_SUBPOOL	B0		3
FRGCB_FRBSUB_CHAIN	E4		2
FRGCB_FRBSUB_HEAD_PTR	E4		3
FRGCB_FRBSUB_TAIL_PTR	E8		3
FRGCB_FRBWQ_CHAIN	B4		2
FRGCB_FRBWQ_HEAD_PTR	B4		3
FRGCB_FRBWQ_TAIL_PTR	B8		3
FRGCB_FRCGB_HEAD_PTR	31C		3
FRGCB_FRCGB_TAIL_PTR	320		3
FRGCB_FRCGBQ_CHAIN	31C		2
FRGCB_FRCSI_RCB_PTR	6C		2
FRGCB_FRCSI_TCB_PTR	70		2
FRGCB_FRCSI_TECB	74		2
FRGCB_FRCSP_PTR	78		2
FRGCB_FRDS_CHAIN	300		2
FRGCB_FRDS_HEAD_PTR	300		3
FRGCB_FRDS_TAIL_PTR	304		3
FRGCB_FRDSR_COPYMETHOD	308		2
FRGCB_FRDSR_MAX_RETRIES	2F6		2
FRGCB_FRDSS_ECB	68		2
FRGCB_FRR_SMSLOCK	14		2
FRGCB_FRRCQ_CHAIN	DC		2
FRGCB_FRRCQ_HEAD_PTR	DC		3
FRGCB_FRRCQ_TAIL_PTR	E0		3
FRGCB_FRRM_ECB	64		2
FRGCB_FRRM_RCB_PTR	60		2
FRGCB_FRRQ_BLKCHAIN_ANCHOR	C4		2
FRGCB_FRRQ_BLKSIZE	CC		3
FRGCB_FRRQ_FIRST_BLKPTR	C4		3
FRGCB_FRRQ_LAST_BLKPTR	C8		3
FRGCB_FRRQ_SUBPOOL	D0		3
FRGCB_FRRSUB_CHAIN	EC		2
FRGCB_FRRSUB_HEAD_PTR	EC		3
FRGCB_FRRSUB_TAIL_PTR	F0		3
FRGCB_FRRWQ_CHAIN	D4		2
FRGCB_FRRWQ_HEAD_PTR	D4		3
FRGCB_FRRWQ_TAIL_PTR	D8		3
FRGCB_FRTCB_PTR	F4		2

Table 44 (Page 2 of 2). FRGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRGCB_FRTM_BKP_ECB	54		2
FRGCB_FRTM_DSS_ECB	5C		2
FRGCB_FRTM_ECB	50		2
FRGCB_FRTM_RCB_PTR	44		2
FRGCB_FRTM_RCV_ECB	58		2
FRGCB_FRTM_TCB_PTR	48		2
FRGCB_FRTM_TECB	4C		2
FRGCB_ID	0		2
FRGCB_MAX_RETRIES	26		2
FRGCB_MWE_FRBACK	18		2
FRGCB_MWE_FRRECV	1C		2
FRGCB_NUM_PAIRS	9C		2
FRGCB_RETRY_SECS	28		2
FRGCBF_AD_EARLY_TERM	9	02	3
FRGCBF_ANYREL_INIT	A	04	3
FRGCBF_BM_ABEND	8	20	3
FRGCBF_COND_MSG	9	40	3
FRGCBF_CPBACK_CG_LAST_PAIR	A	01	3
FRGCBF_CPBACK_LAST_PAIR	8	02	3
FRGCBF_CPRECV_LAST_PAIR	8	01	3
FRGCBF_ENABLE_TSEFC	A	20	3
FRGCBF_ENABLE_VPRF_CLUS	A	08	3
FRGCBF_FCREL_FULL	A	10	3
FRGCBF_FRDSM_ABEND	A	80	3
FRGCBF_FRPAR_ERROR	9	80	3
FRGCBF_HOLD_FRBACK	8	08	3
FRGCBF_HOLD_FRBACK_DUMP	9	08	3
FRGCBF_HOLD_FRBACK_DUMP_EOD	9	04	3
FRGCBF_HOLD_FRRECOV_DATASET	9	01	3
FRGCBF_HOLD_FRRECV	8	04	3
FRGCBF_HOLD_FRRECV_TAPE	9	20	3
FRGCBF_HOLD_FRRECV_TAPE_EOD	9	10	3
FRGCBF_ENABLE_TSEFC	A	20	
FRGCBF_ENABLE_VPRF_CLUS	A	08	
FRGCBF_FCREL_FULL	A	10	
FRGCBF_NOTIFY_NOREL	A	02	3
FRGCBF_RM_ABEND	8	10	3
FRGCBF_TM_ABEND_BM	8	80	3
FRGCBF_TM_ABEND_RM	8	40	3
FRGCBF_VOLINIT_DISABLE	A	40	3

FRSV—Fast Replication Source Volume Record

The DFSMShsm fast replication source volume record (FRSV) is used to keep track of which copy pools a source volume is associated with. This record contains the copy pool name and the number of versions to which the volume belongs. Fast replication source volume records are 1964 bytes long. The record type is J.

The key for type J fast replication source volume records is the source volume serial number. An example of the key that is used with a J fast replication source volume record for a volume serial number of SMS001 is:

```
FIXCDS J SMS001
```

Table 45. FRSV—Fast Replication Source Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Control data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	1900	FRSV	FRSV record.
64(40)	0(0)	CHARACTER	36(50)	FRSV_COPYPOOL	Array of SMS copy pools that this volume is a part of.
64(40)	0(0)	FIXED	30	FRSV_CPNAME	Copy pool name.
94(5E)	30(1E)	FIXED	1	FRSV_CPNAME_LEN	Length of copy pool name.
95(5F)	31(1F)	FIXED	1	FRSV_NUM_VERSIONS	Number of backup versions that this volume is part of.
96(60)	32(20)	FIXED	1	FRSV_NUM_DUMP_COPIES	Number of dump copies.
97(61)	33(21)	FIXED	1	*	Reserved.
1864(748)	1800(708)	FIXED	1(100)	*	Reserved.

FRSV Data Area Cross-Reference

Table 46. FRSV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRSV	40		1
FRSV_COPYPOOL	40		2
FRSV_CPNAME	40		3
FRSV_CPNAME_LEN	5E		3
FRSV_NUM_DUMP_COPIES	60		3
FRSV_NUM_VERSIONS	5F		3

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FRTV—Fast Replication Target Volume Record

The DFSMShsm fast replication target volume record (FRTV) is used to indicate that a target volume has been paired with a source volume. Fast replication target volume records are 102 bytes long. The record type is I.

The key for type I fast replication target volume records is the target volume serial number. An example of the key that is used with an I fast replication target volume record for a target volume serial number of TRT001 is:

```
FIXCDS I TRT001
```

Table 47. FRTV—Fast Replication Target Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Control data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	38	FRTV	FRTV record.
64(40)	0(0)	CHARACTER	6	FRTV_SRC	Source volume.
70(46)	6(6)	CHARACTER	2	FRTV_FLAGS	Flag bytes.
		1...		FRTVF_AUDIT	For AUDIT copypoolcontrols processing.
		.1..		FRTVF_OVERUSED	Too many FRVP pointers.
		..xx xxxx		*	Reserved.
72(48)	8(8)	CHARACTER	8	FRTV_CPUTOD	Last time audited.
80(50)	16(10)	CHARACTER	22	*	Reserved.

FRTV Data Area Cross-Reference

Table 48. FRTV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRTV	40		1
FRTVF_CPUTOD	48		2
FRTV_FLAGS	46		2
FRTV_SRC	40		2
FRTVF_AUDIT	46	80	3
FRTVF_OVERUSED	46	40	3

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FRVP—Fast Replication Volume Pairs Record

The DFSMShsm fast replication volume pairs record (FRVP) contains the source and target pairs for one backup version of a single storage group, and indicates whether the record was created as preparation for a future copy (field contains a “P”) or represents a backup copy that has already been made (field contains a “B”). Additionally, because a storage group can consist of a large number of volumes, record extents are often required to maintain the entire FRVP source and target list. The extent number, which is part of the FRVP key, is used to distinguish the extent records. Fast replication volume pairs records are 96 bytes long, plus 26 bytes for each copy pool. The maximum record length is 4074 bytes. The record type is H.

The key for the type H fast replication volume pairs record is the copy pool name followed by the record type, version, storage group name, and extent number.

- If the copy pool name is less than the allotted 30 bytes, it must be padded with periods (".").
- If the storage group name is less than the allotted 8 bytes, it must be padded with periods (".").
- Because the version number value is in hexadecimal format, you must specify the entire key in hexadecimal.

An example of the key that is used with an H fast replication volume pairs record where the copy pool name is COPYPOOLA, record type is B, version is 1, storage group is SGRP1 and extent number is 1:

```
FIXCDS H X'C3D6D7E8D7D6D6D3C14B4B4B4B4B4B4B4B4B4B4B4B4B
             4B4B4B4B4B4B4B4BC20001E2C7D9D7F14B4B4B0001'
```

Table 49. FRVP—Fast Replication Volume Pairs Record Key

Offsets Actual / FIXCDS	Type	Length	Name	Description
1(1)	STRUCTURE	43	FRVP_KEY	FRVP key.
1(1)	CHARACTER	30	FRVP_CPNAME	Copy pool name. Names that are less then 30 characters will be padded with periods.
31(1F)	CHARACTER	1	FRVP_TYPE	When set to P, this record was created in preparation of a future copy pool backup. When set ot B, this record represents a copy pool backup that has already been made.
32(20)	FIXED	2	FRVP_VERSION	Version number for copy pool backup. Value is in hexadecimal format.
34(22)	CHARACTER	8	FRVP_SGNAME	Name of storage group which contains source volumes for this backup version of the copy pool. Names less than 8 characters are padded with periods.
42(2A)	FIXED	2	FRVP_INDEX	Odd or even number that acts as an extent number but allows duplicate FRVP records created with unique odd or even keys.

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As shown in Table 50, the following fields describe the FRVP volume pairs.

Table 50. FRVP—Fast Replication Volume Pairs Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Control data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	32	FRVP	Fast Replication volume pairs.
64(40)	0(0)	CHARACTER	32	*	Reserved.
96(60)	32(20)	CHARACTER		FRVPENDF	End of record.

As shown in Table 51, the following fields describe the FRVP volume pair information.

Table 51. FRVP—Fast Replication Volume Pair Information

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	26(*)	FRVP_VP1	Volume pair information.
0	(0)	CHARACTER	12	FRVP_PAIR	Volume pair.
0	(0)	CHARACTER	6	FRVP_L0_ VOLSER	Volume that was flashed.
6	(6)	CHARACTER	6	FRVP_CPB_VOLSER	Copy pool backup volume that was flashed to.
12	(C)	CHARACTER	2	FRVP_FLAGS	Miscellaneous flags.
		1...		FRVPF_ FLASHCOPY	When set to 1, created with FlashCopy.
		.1..		FRVPF_ SNAPSHOT	When set to 1, created with SnapShot.
		..1.		FRVPF_ LASTPAIR	When set to 1, last pair in record.
		...1		FRVPF_ NEWPAIR	When set to 1, added since last backup
		.... 1...		FRVPF_DC1_DUMPED	When set to 1, volume dumped to first dump class in FRD record.
		.... .1..		FRVPF_DC2_DUMPED	When set to 1, volume dumped to second dump class in FRD record.
		.... ..1.		FRVPF_DC3_DUMPED	When set to 1, volume dumped to third dump class in FRD record.
		1		FRVPF_DC4_DUMPED	When set to 1, volume dumped to fourth dump class in FRD record.
13	(D)	1...		FRVPF_DC5_DUMPED	ON=Volume dumped to fifth dump class in FRD record.
		.1..		FRVPF_FRR_INCOMP	When set to 1, volume recovery is incomplete
		..1.		FRVPF_CPB_INVALID	When set to 1, CPB volume has been used in a fast reverse restore, and is therefore no longer a valid backup.
		...1		FRVPF_CPB_NONPREF	When set to 1, CPB volume is not preferred
		 xxxx		*	Reserved.
14	(E)	CHARACTER	6	FRVP_CPB_VOLSER_SAVED	Saved CPB volser. Used for FC INCREMENTAL versions.
20	(14)	CHARACTER	6	*	Reserved.

FRVP Data Area Cross-Reference

Table 52 (Page 1 of 2). FRVP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRVP	40		1
FRVP_CPB_VOLSER	6		3
FRVP_CPB_VOLSER_SAVED	E		3
FRVP_CPNAME	1		2
FRVP_FLAGS	C		2
FRVP_INDEX	2A		2
FRVP_KEY	1		1
FRVP_L0_VOLSER	0		3
FRVP_PAIR	0		2

Table 52 (Page 1 of 2). FRVP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRVP_SGNAME	22		2
FRVP_TYPE	1F		2
FRVP_VERSION	20		2
FRVP_VPI	0		1
FRVPENDF	60		2
FRVPF_CPB_INVALID	D	20	5
FRVPF_CPB_NONPREF	D	10	5
FRVPF_DC1_DUMPED	C	08	3
FRVPF_DC2_DUMPED	C	04	3

Table 52 (Page 2 of 2). FRVP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRVPF_DC3_DUMPED	C	02	3
FRVPF_DC4_DUMPED	C	01	3
FRVPF_DC5_DUMPED	D	80	3
FRVPF_FLASHCOPY	C	80	3
FRVPF_FRR_INCOMP	D	40	5
FRVPF_LASTPAIR	C	20	3
FRVPF_NEWPAIR	C	10	3
FRVPF_SNAPSHOT	C	40	3

FSR—Function Statistics Record

The function statistics record (FSR) is a control block that contains statistics for a particular function that is performed on one data set (see Table 53). It is maintained in the DFSMShsm work space until the data set processing has completed. Upon completion of the function, the record is written to the DFSMShsm log and accumulated by category into the daily and volume statistics records in the migration control data set. The control block has a length of 6396 bytes. Only the first 300 bytes are used, unless tape volumes are used for the function.

When the function statistics record is written to SMF, its first 18 bytes are replaced with the standard 18-byte SMF record header.

Notes:

1. When a DFSMShsm function is executed, only selected fields within the FSR record are set. Which fields are actually set depends on the function being performed and the method that is used to request the function. The fields that are set are required by the DFSMShsm REPORT command.
2. Function statistics records for ABACKUP and ARECOVER activity can be found in “WWFSR—ABACKUP/ARECOVER Function Statistics Record Control Block” on page 277.

Table 53 (Page 1 of 6). FSR—Function Statistics Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	300	FSR	Function statistics record.
0	(0)	CHARACTER	18	FSRHDR	Standard 18-byte SMF record header.
0	(0)	FIXED	2	FSRLEN	Function statistics record length.
2	(2)	FIXED	2	FSRSEG	RDW SEGMENT DESCRIPTOR NX
2	(2)	FIXED	2	*	Reserved.
4	(4)	BITSTRING	1	FSRFLG	Operating environment.
5	(5)	FIXED	1	FSRRTY	System management facility record identification associated with function statistics records.
6	(6)	FIXED	4	FSRTME	TOD REC WRITTEN NX
10	(A)	CHARACTER	4	FSRDTE	DATE RECORD WRITTEN NX
6	(6)	FIXED	8	*	Reserved.
14	(E)	CHARACTER	4	FSRSID	System identification from the computing system.
18	(12)	CHARACTER	8	FSRJBN	Job name requesting the function.
26	(1A)	FIXED	4	FSRRST	Job start time. The time is obtained from the TIME macro in hund redths of seconds.
30	(1E)	CHARACTER	4	FSRRSD	Reader start date. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
34	(22)	CHARACTER	8	FSRUID	ID of the user requesting the function.

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Table 53 (Page 2 of 6). FSR—Function Statistics Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
42	(2A)	FIXED	1	FSRTYPE	DFSMShsm function type: 1 = Primary to level 1 migration 2 = Level 1 to level 2 migration, or level 1 to level 1 migration, or level 2 to level 2 migration 3 = Primary to level 2 migration 4 = Recall from level 1 to primary 5 = Recall from level 2 to primary 6 = Delete a migrated data set 7 = Daily backup 8 = Spill backup 9 = Recovery 10 = Recycle backup volume 11 = Data set deletion by age 12 = Recycle migration volume 13 = Full volume dump 14 = Volume or data set restore 15 = ABACKUP function (see WWFSR control block) 16 = ARECOVER function (see WWFSR control block) 17 = Expire primary or migrated data sets 18 = Partrel function 19 = Expire or roll off incremental backup version 20 = (H)BDELETE an incremental backup version 21 = Fast replication backup function 22 = Fast replication recover function 23 = Fast replication delete function 24 = Class transition
43	(2B)	BITSTRING	1	FSRFLAGS	This byte contains the following flags:
		1...		FSRFFSTR	When set to 1, from a striped data set.
		.1..		FSRFTSTR	When set to 1, to a striped data set.
		..1.		FSRF32K	When set to 1, data set is greater than 32K tracks. Use fields FSRTRKKR and FSRTRKKW instead of FSRTRKR and FSRTRKW.
		...1		FSRFKB	When set to 1, data set is greater than 2GB. Fields FSRBYTR and FSRBYTW represent KB (1024 bytes).
		.... 1...		FSRFVER	When set to 1, FSRGEN contains a version number.
		.... .1..		FSRFNONQ	When set to 1, DFSMShsm was directed to not serialize (enqueue) before making a backup copy.
		.... ..1.		FSRFNQN1	When set to 1, data set was backed up even though enqueue failed (once).
		1		FSRFNQN2	When set to 1, attempted enqueue failed, backup was retried and enqueue failed again.
44	(2C)	CHARACTER		FSRDATA	Start of function data.
44	(2C)	CHARACTER	92	FSRMWE	The next 92 bytes contain information from the management work element for the request.
44	(2C)	CHARACTER	44	FSRDSN	Data set name. For types 21, 22, and 23, this field contains the copy pool name.
88	(58)	CHARACTER	6	FSRTVOL	Receiving volume from the management work element. Also used for fast replication.
94	(5E)	CHARACTER	4	FSRDEVT	Receiving device type as defined by the UCB. If FSRTYPE=10 or 12, this is for the recycle target volume.
98	(62)	CHARACTER	6	FSRFVOL	Serial number of the original volume from the management work element.
98	(62)	CHARACTER	6	FSRCLIP FSR_RECYCLE_SOURCE_VOLSER	For volume restore only: Target volume from MWE For recycle only: Source volume for recycle - first volume of a connected data set.
104	(68)	FIXED	4	FSRGEN	Backup copy generation number if FSRFDAT is set to 0 and FSRFVER is set to 0. Backup copy version number if FSRFDAT is set to 0 and FSRFVER is set to 1.
104	(68)	CHARACTER	4	FSRDATE	Backup date if FSRFDAT is set to 1 and a recovery command with a from date was specified. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
108	(6C)	FIXED	4	FSRRC	Return code from the management work element. Use this field along with the FSRTYPE field to find out what function was running. Then, see message ARC0734I to determine what the return code means.
112	(70)	FIXED	4	FSRREAS	Reason code from the management work element.
116	(74)	CHARACTER	4	FSRABCC	Abnormal end code if there is one.
120	(78)	FIXED	2	FSRDARC	Dynamic allocation return code.

Table 53 (Page 3 of 6). FSR—Function Statistics Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
122	(7A)	CHARACTER	8	FSRGRP	RACF group name.
130	(82)	BITSTRING	1	FSRRACF	RACF flags from the ACEEFLG1 field of the attachment environment element.
131	(83)	BITSTRING	1	FSRMFLGS	Flags from the MWE.
		1...		FSRFRTRY	When set to 1, the backup copy was made during a retry, after the first try failed because the data set was in use.
		.1..		FSRF_REMOTE	When set to 1, this request completed successfully on a remote system.
		..1.		FSRFPIGB	When set to 1, the request was completed using a tape already mounted.
		...1		FSRF_REMOTE_HOST_PROCESSED	When set to 1, MWE processed by remote host.
		.... 1...		FSRF_DASD	When set to 1, the DASD copy of the version was deleted.
		.... .1..		FSRF_DUMPCPY	When set to 1, the dump class of the copy pool dump was deleted.
		.... ..1.		FSRF_DUMPVER	When set to 1, the entire dump version of the copy pool version was deleted.
		1		FSRF_COPYPOOL_FRDUMP	A value of 1 indicates a fast replication dump or restore.
132	(84)	FIXED	4	FSRRQN	DFSMShsm request number.
136	(88)	FIXED	4	FSRDATR	Date the user made the request. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
140	(8C)	CHARACTER	4	FSRTIMR	Time the user request was received by DFSMShsm. The time is obtained from the TIME macro in format *X'hhmmssth'*.
144	(90)	CHARACTER	4	FSRTIMS	Time when the request processing was started. The time is obtained from the TIME macro in format *X'hhmmssth'*.
144	(90)	CHARACTER	4	FSRTIMS1	Alias name for BACKUP and RECYCLE.
148	(94)	CHARACTER	4	FSRTIME	Time when the request processing was completed. The time is obtained from the TIME macro in format *X'hhmmssth'*.
148	(94)	CHARACTER	4	FSRTIME2	Alias name for BACKUP and RECYCLE.
152	(98)	CHARACTER	4	FSRTIMA	Time when the data set allocations were completed. The time is obtained from the TIME macro in format *X'hhmmssth'*. The value of FSRTIMA minus the value of FSRTIMS equals the mount time.
156	(9C)	CHARACTER	4	FSRDLU	Data set last reference date for migration or the last change date for backup. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
160	(A0)	CHARACTER	4	FSRDLM	Date that the data set was last moved, migrated, backed up, or recalled. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
164	(A4)	FIXED	4	FSRBYTR	If FSRFKB is set to 0, then the number of DASD bytes read. If FSRFKB is set to 1, then the number of DASD KB (1024 bytes) read. **Note:** This FSR field is significantly affected by DFSMSdss control information added to the data stream when DFSMSdss is the datamover (FSRTRKR and FSRTRKKR are not affected during migration or backup).
168	(A8)	FIXED	4	FSRBYTW	If FSRFKB is set to 0, then the number of DASD bytes written. If FSRFKB is set to 1, then the number of DASD KB (1024 bytes) written. See note under the FSRBYTR field.
172	(AC)	FIXED	2	FSRTRKR	If FSRF32K is set to 0, then if FSRTYPE is 17 or 18 (EXPIRE or PARTREL) it is the number of tracks freed; otherwise this is the number of DASD tracks read. If FSRF32K is set to 1, then this field is not valid; use FSRTRKKR instead. If this field is negative, then processing to an SDSP. See note under the FSRBYTR field.
174	(AE)	FIXED	2	FSRTRKW	If FSRF32K is set to 0, then the number of DASD tracks written. If FSRF32K is set to 1, then this field is not valid; use FSRTRKKW instead. If this field is negative, then processing to an SDSP. See note under the FSRBYTR field.
176	(B0)	BITSTRING	2	FSRDORG	Data set organization. Values have the same meanings as DS1DSORG in F1 DSCB. If the data set is moved or copied from a L0 volume, the field shows the original user data set organization. If the data set is a DFSMShsm data set (for example, migration copy or backup version), this field always indicates physical sequential data set organization.
176	(B0)	BITSTRING	1	*	First byte of FSRDORG, skipped.
177	(B1)	BITSTRING	1	*	Second byte of FSRDORG.
		xxxx		*	Reserved.
		.... 1...		FSRFVSDS	When set to 1, this is a VSAM data set.
		.... .x..		*	Reserved.

Table 53 (Page 4 of 6). FSR—Function Statistics Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... ..1.		FSRF_F9ATT	When FSRTYPE = 4, 5, 9, 14: When set to 1, F9 DSCB extended attributes lost
		x		*	Reserved.
178	(B2)	BITSTRING	2	FSRFLG2	The next 2 bytes contain the following request flags:
		1...		FSRFMNT	When set to 1, the volume is mounted.
		.1..		FSRTSO	When set to 1, it is TSO requested. When set to 0, it is batch requested.
		..1.		FSRUSER	When set to 1, it is a data set request from a user address space. When set to 0, it is system requested.
		...1		FSRWAIT	When set to 1, a wait was requested. When set to 0, the user did not wait for the request to complete.
		.... 1...		FSRFDAT	When set to 1, the FSRDATE has the date when the function statistics record was created. When set to 0, the FSRDATE contains the generation number.
		.... .1..		FSRFRSV	When set to 1, the user specified the volume for a recall of a data set.
		.... ..1.		FSRFML2	When set to 1, the user specified migration directly to level 2.
		1		FSRFFRV	When set to 1, the user specified the FROM volume for a data set recovery.
179	(B3)	1...		FSRFREP	When set to 1, the user specified the REPLACE parameter for a data set recovery.
		.1..		FSRFDSRE	When set to 1, the statistics associated with a data set restore from a full volume dump are being requested.
		..1.		FSRFAPIN	When set to 1, APPLYINCREMENTAL has been requested following a full volume restore.
		...1		FSRFEXT	When set to 1, extent reduction has been requested.
		.... 1...		FSRFCNVT	When set to 1, conversion has been requested.
		.... .1..		FSRFROG	When set to 1, the GDS has been rolled off.
		.... ..1.		FSRFDSS	When set to 1, data set was moved by DFSMSdss.
		1		FSRFT0	When set to 1, concurrent copy function was used to back up the dataset.
180	(B4)	FIXED	4	FSRCPU	CPU time in .01 seconds for request.
184	(B8)	FIXED	2	FSRAGE	Data set age in days since the last reference for a migration, since last update for a backup, since migration was done for a recall, or since last update for a recovery.
186	(BA)	BITSTRING	1	FSRRECFM	Record format from the DSCB.
187	(BB)	BITSTRING	1	FSROPTCD	I/O option codes from the data set control block.
188	(BC)	FIXED	2	FSR_DS_MOUNT	Count of recalls or recovers thus far from a mounted tape (i.e., number of tape mounts avoided).
190	(BE)	FIXED	1	FSR_RECALL_RETRIES	Number of attempts to recall a data set before the recall was successful.
		1...		FSRF_LFS_COPY	ON - Migration copy or backup version is LFS
		.1..		FSRF_ML1_OVERFLOW	ON - Migration copy or backup version is on ML1 OVERFLOW volume
		..1.		FSRF_NOOVERFLOW_DS	ON - NOOVERFLOW eligible data set has been redirected up to a OVERFLOW volume
		...1		FSRF_OVERFLOW_DS	ON - OVERFLOW eligible data set has been redirected up to a NOOVERFLOW volume
191	(BF)	FIXED	1	FSR_COPYMETHOD	When FSRTYPE = 21, 22, 23: Requested method of fast replication. The valid methods are: 1=None 2=Preferred 3=Required
				FSR_RECYCLE_COUNTER	When FSRTYPE = 5: Number of times a data set was recycled before being recalled. When FSRTYPE = 12 Number of times a data set has been recycled since its last migration.
		BITSTRING	1	FSRFLG5	Additional flags
		1...		FSRF_BACKDS_NEWNAME	When FSRTYPE = 7: When set to 1, NEWNAME specified at time of backup
		.1..		FSRF_BACKDS_NOSPHERE	When FSRTYPE = 7: When set to 1, NOSPHERE processed at time of backup
		..1.		FSRF_BACKDS_RD_SPCD	ON=RETAINDAYS specified at time of ds backup
		...1		FSRF_BACKDS_NEVER_EXP	When set to 1, this version will never expire. Only valid when FSRF_BACKDS_RD_SPCD is set to 1.
192	(C0)	CHARACTER	2	FSR_SRCDEV	Recall/recover/recycle source. Last two bytes of device type.
194	(C2)	FIXED	2	FSRSCLEN	Length of storage-class name.
196	(C4)	CHARACTER	8	FSRSCNAM	First 8 characters of storage-class name.

Table 53 (Page 5 of 6). FSR—Function Statistics Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
204	(CC)	FIXED	4	FSRTRKKR	If FSRF32K is set to 1, then if FSRTYPE is 17 or 18 (EXPIRE or PARTREL) it is the number of tracks freed; otherwise this is the number of DASD tracks read. If FSRF32K is set to 0, then this field is not valid. Use FSRTRKR instead. See note under the FSRBYTR field.
208	(D0)	FIXED	4	FSRTRKKW	If FSRF32K is set to 1, then the number of DASD tracks written. If FSRF32K is set to 0, then this field is not valid. Use FSRTRKW instead. See note under the FSRBYTR field.
212	(D4)	FIXED	2	FSRMCLEN	Length of management class name (zero means there is no management class).
214	(D6)	CHARACTER	8	FSRMCNAM	Name of the management class. If field FSRMCLEN is greater than 8, this field contains the first 8 characters of the name.
222	(DE)	BITSTRING	1	FSRFLG3	Request flags:
		1...		FSRFVINI	When set to 1, the data set recovery request was scheduled from a volume request.
		.1..		FSRFXPL1	When set to 1, the data set being expired is from an ML1 volume.
		..1.		FSRFXPL2	When set to 1, the data set being expired is from an ML2 volume.
		...1		FSRFEXBV	When set to 1, the backup version is being deleted by the EXPIREBV command.
		.... 1...		FSRFBKTP	When set to 1, the backup version being deleted is on a tape volume.
		.... .1..		FSRFEXDT	When set to 1, the data set is being deleted by expiration date or management class age attributes.
		.... ..1.		FSRRECON	When set to 1, data set was migrated because of reconnection.
		1		FSRF_RECALL_TAKEAWAY	When set to 1, this recall caused a tape-takeaway.
223	(DF)	BITSTRING	1	FSRFLG4	Flags
		1...		FSRF_FRRECOV_DSNAME	When set to 1, fast replication recovery was requested for a data set through the FRRECOV DSNAME command.
		.1..		FSRF_FRRECOV_FROMDISK	When set to 1, fast replication recovery will be performed from disk. This flag is set only when FSRF_FRRECOV_DSNAME is set to 1.
		..1.		FSRF_MULT_DSNAMES	When set to 1, the fast replication recovery request specified more than one data set name.
		...1		FSRF_MULTIVOLUME	When set to 1, the fast replication recovery request was performed on part of a multi-volume data set. This flag is set only when FSRF_FRRECOV_DSNAME is set to 1.
		.... 1...		FSRF_ALTERPRI	When set to 1, the priority of this request was altered through the ALTERPRI command.
		.... .1..		FSRF_ALTERPRI_HI	This flag applies only when FSRF_ALTERPRI is set to 1. When set to 1, the HIGH keyword was specified on the ALTERPRI command. When set to 0, the LOW keyword was specified.
		.... ..1.		FSRF_INC	When set to 1, copy pool incremental processing was used.
		1		FSRF_CPBSG	When set to 1, FRBACKUP override CPBSG
224	(E0)	CHARACTER	4	FSRTIMS2	Time preprocessing completed for BACKUP. The time is obtained from the TIME macro in format *X'hhmmssth'*.
228	(E4)	CHARACTER	4	FSRTIMM1	Time data movement started for RECYCLE. The time is obtained from the TIME macro in format *X'hhmmssth'*.
232	(E8)	CHARACTER	4	FSRTIMM2	Time data movement completed for BACKUP and RECYCLE. The time is obtained from the TIME macro in format *X'hhmmssth'*.
236	(EC)	CHARACTER	4	FSRTIME1	Time post-processing started for BACKUP and RECYCLE. The time is obtained from the TIME macro in format *X'hhmmssth'*.
If tape volumes are used, the following fields are used instead of FSRTVOL, FSRFVOL, FSRBYTR, FSRBYTW, and other DASD-specific fields:					
240	(F0)	FIXED	2	FSRNENT1	Number of tape volumes used for backup, recovery, or migration level 2, or the number of recycle input tapes for recycle processing, or the number of dump copies, depending on the function type specified in the FSRTYPE field. The tape volume entries follow the fixed portion of the control block.
242	(F2)	FIXED	2	FSRNENT2	Number of output recycle tape entries that follow the FSRNENT1 entry.
244	(F4)	FIXED	2	FSRDCOPR	Number of dump copies requested.
246	(F6)	FIXED	2	FSRDCOPF	Number of attempted dump copies that failed.
FSR_CPNAME and FSRDCLAS use the same storage. FSR_CPNAME is used when FSRF_FRRECOV_DSNAME is set to 1.					
248	(F8)	CHARACTER	40	FSR_CPNAME	Copy pool name. This flag is set only when FSRF_FRRECOV_DSNAME is set to 1.

Table 53 (Page 6 of 6). FSR—Function Statistics Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
248	(F8)	CHARACTER	8(5)	FSRDCLAS	A 5-element array consisting of 8-byte fields containing the names of dump classes.
288	(120)	CHARACTER	2	FSRHOST	Host identifier.
290	(122)	CHARACTER	2	FSR_ORGNL_HID	Host ID that generated the request. This field is valid only for recall requests.
292	(124)	FIXED	4	FSR_FR_REAS	During fast replication: Fast replication return code.
				FSR_PSQTY	During migration: The number of tracks needed when an error occurred due to not enough ML1 space.
296	(128)	FIXED	2	FSR_BACKDS_RETAINDAYS	RETAINDAYS value for data set backup
298	(12A)	BITSTRING	1	FSRFLG6	More flags
		1...		FSRFMB	When set to 1, FSRBYTR and FSRBYTW are in Mbytes
		.xxx xxxx		*	Reserved
299	(12B)	FIXED	1	*	Reserved

The following tape volume entries, starting at offset 300 (12C), are valid for each tape volume that is used as indicated in the FSRNENT1 and FSRNENT2 fields. The entries for the FSRNENT1 field are first.

300	(12C)	STRUCTURE	12	FSRTAPE	Tape volume entry.
300	(12C)	CHARACTER	6	FSRTPVOL	Volume serial numbers. For dump processing, this field contains only the first volume serial number in each dump copy.
306	(132)	BITSTRING	1	FSRTFLGS	This byte contains the following flags:
		1...		FSRFTKB	When set to 1, more than 2GB worth of data, FSRTBYBK represents KB (1024 bytes). When set to 0, less than 2GB worth of data, FSRTBYBK represents bytes.
		.1..		FSRFALT	When set to 1, the data set on this volume was written in duplex mode; therefore, the total amount of output is twice that shown in the bytes written.
		..1.		FSRFTMB	When set to 1, FSRTBYBK is in Mbytes
		...x xxxx		*	Reserved.
307	(133)	CHARACTER	1	*	Reserved.
308	(134)	FIXED	4	FSRTBYBK	The next 4 bytes contain one of the following: • For backup processing, if FSRFTKB is set to 0, then bytes written. If FSRFTKB is set to 1, then KB (1024 bytes) written. • For recycle output processing, the blocks written. • For recycle input processing, the blocks read. • For recovery processing, if FSRFTKB is set to 0, then bytes read. If FSRFTKB is set to 1, then KB (1024 bytes) read. • For migration processing, if FSRFTKB is set to 0, then bytes written. If FSRFTKB is set to 1, then KB (1024 bytes) written. • For recall processing, if FSRFTKB is set to 0, then bytes read. If FSRFTKB is set to 1, then KB (1024 bytes) read. • For delete migrated data set processing, the total number of bytes deleted for the entire data set appears in the bytes read entry for the first tape volume serial number.

FSR Control Block Cross-Reference

Table 54 (Page 1 of 3). FSR Control Block Cross-Reference

Name	Hex Offset	Hex Value	Struct Level
FSR	0		1
FSR_BACKDS_RETAINDAYS	128		2
FSR_COPYMETHOD	BF		2
FSR_CPNAME	F8		2
FSR_DS_MOUNT	BC		2
FSR_FR_REAS	124		2

Table 54 (Page 1 of 3). FSR Control Block Cross-Reference

Name	Hex Offset	Hex Value	Struct Level
FSR_ORGNL_HID	122		2
FSR_PSQTY	124		3
FSR_RECALL_RETRIES	BE		2
FSR_RECYCLE_COUNTER	BF		3
FSR_RECYCLE_SOURCE_VOLSER	62		5
FSR_SRCDEV	C0		2

Table 54 (Page 2 of 3). FSR Control Block Cross-Reference

Name	Hex Offset	Hex Value	Struct Level
FSRABCC	74		3
FSRAGE	B8		2
FSRBYTR	A4		2
FSRBYTW	A8		2
FSRCLIP	62		4
FSRCPU	B4		2
FSRDARC	78		3
FSRDATA	2C		2
FSRDATE	68		4
FSRDATR	88		2
FSRDCLAS	F8		2
FSRDCOPF	F6		2
FSRDCOPR	F4		2
FSRDEVT	5E		3
FSRDLM	A0		2
FSRDLU	9C		2
FSRDORG	B0		2
FSRDSN	2C		3
FSRDTE	A		3
FSRF_ALTERPRI	DF	8	3
FSRF_ALTERPRI_HI	DF	4	3
FSRF_BACKDS_NEVER_EXP	BF	10	5
FSRF_BACKDS_NEWNAME	BF	80	5
FSRF_BACKDS_NOSPHERE	BF	40	5
FSRF_BACKDS_RD_SPCD	BF	20	5
FSRF_COPYPOOL_FRDUMP	83	01	4
FSRF_CPBSG	DF	01	3
FSRF_DASD	83	08	4
FSRF_DUMPCPY	83	04	4
FSRF_DUMPVER	83	02	4
FSRF_FRRECOV_DSNAME	DF	80	3
FSRF_FRRECOV_FROMDISK	DF	40	3
FSRF_F9ATT	B1	02	3
FSRF_INC	DF	02	3
FSRF_LFS_COPY	BE	80	3
FSRF_ML1_OVERFLOW	BE	40	3
FSRF_MULT_DSNAMES	DF	20	3
FSRF_MULTIVOLUME	DF	10	3
FSRF_NOOVERFLOW_DS	BE	20	3
FSRF_OVERFLOW_DS	BE	10	3
FSRF_RECALL_TAKEAWAY	DE	01	3
FSRF_REMOTE	83	40	4

Table 54 (Page 2 of 3). FSR Control Block Cross-Reference

Name	Hex Offset	Hex Value	Struct Level
FSRF_REMOTE_HOST_PROCESSED	83	10	4
FSRFALT	132	40	3
FSRFAPIN	B3	20	3
FSRFBKTP	DE	08	3
FSRFCNVT	B3	08	3
FSRFDAT	B2	08	3
FSRFDSRE	B3	40	3
FSRFDSS	B3	02	3
FSRFEXBV	DE	10	3
FSRFEXDT	DE	04	3
FSRFEXT	B3	10	3
FSRFFRV	B2	01	3
FSRFFSTR	2B	80	3
FSRFKB	2B	10	3
FSRFLAGS	2B		2
FSRFLG	4		3
FSRFLG2	B2		2
FSRFLG3	DE		2
FSRFLG4	DF		2
FSRFLG5	BF		4
FSRFLG6	12A		2
FSRFMB	12A	80	3
FSRFML2	B2	02	3
FSRFMNT	B2	80	3
FSRFNONQ	2B	04	3
FSRFNQN1	2B	02	3
FSRFNQN2	2B	01	3
FSRFPIGB	83	20	4
FSRFREP	B3	80	3
FSRFROG	B3	04	3
FSRFRSV	B2	04	3
FSRFRTRY	83	80	4
FSRFTKB	132	80	3
FSRFTSTR	2B	40	3
FSRFT0	B3	01	3
FSRFTMB	132	20	3
FSRFVER	2B	08	3
FSRFVINI	DE	80	3
FSRFVOL	62		3
FSRFVSDS	B1	08	3
FSRFXPL1	DE	40	3
FSRFXPL2	DE	20	3

Table 54 (Page 3 of 3). FSR Control Block Cross-Reference

Name	Hex Offset	Hex Value	Struct Level
FSRF32K	2B	20	3
FSRGEN	68		3
FSRGRP	7A		3
FSRHDR	0		2
FSRHOST	120		2
FSRJBN	12		2
FSRLEN	0		3
FSRMCLEN	D4		2
FSRMCNAM	D6		2
FSRMFLGS	83		3
FSRMWE	2C		2
FSRNENT1	F0		2
FSRNENT2	F2		2
FSROPTCD	BB		2
FSRRACF	82		3
FSRRC	6C		3
FSRREAS	70		3
FSRRECFM	BA		2
FSRRECON	DE	02	3
FSRRQN	84		3
FSRRSD	1E		2
FSRRST	1A		2
FSRRTY	5		3
FSRSCLEN	C2		2
FSRSCNAM	C4		2
FSRSEG	2		3
FSRSID	E		3
FSRTAPE	12C		1
FSRTBYBK	134		2
FSRTFLGS	132		2
FSRTIMA	98		2
FSRTIME	94		2
FSRTIME1	EC		2
FSRTIME2	94		3
FSRTIMM1	E4		2
FSRTIMM2	E8		2
FSRTIMR	8C		2
FSRTIMS	90		2
FSRTIMS1	90		3
FSRTIMS2	E0		3
FSRTME	6		3
FSRTPVOL	12C		2

Table 54 (Page 3 of 3). FSR Control Block Cross-Reference

Name	Hex Offset	Hex Value	Struct Level
FSRTRKKR	CC		2
FSRTRKKW	D0		2
FSRTRKR	AC		2
FSRTRKW	AE		2
FSRTSO	B2	40	3
FSRTVOL	58		3
FSRTYPE	2A		2
FSRUID	22		2
FSRUSER	B2	20	3
FSRWAIT	B2	10	3

FSR2—Function Statistics Record for RMM Reporting

The Function Statistics Record for RMM Reporter (FSR2) is a control block that contains FSR statistical information for the RMM Reporter function. The maximum length of FSR2 is 6520 bytes.

Table 55 (Page 1 of 4). FSR2—Function Statistics Record used for RMM Reporter

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	FIXED	2	FSR2LEN	SMF RDW record length.
2	(2)	FIXED	2	FSR2SEG	SMF RDW segment descriptor.
4	(4)	BITSTRING	1	FSR2FLG	Operating environment.
5	(5)	FIXED	1	FSR2RTY	SMF Record type
6	(6)	FIXED	4	FSR2TME	Time that SMF record was written.
10	(A)	FIXED	4	FSR2DTE	Date that SMF record was written.
14	(E)	CHARACTER	4	FSR2SID	System identification from installation.
18	(12)	CHARACTER	8	FSR2JBN	Job name requesting the function.
26	(1A)	FIXED	4	FSR2RST	Reader start time. In format *X'hhmmssth'*
30	(1E)	CHARACTER	8	FSR2RSD	Reader start date. In format *'yyyyddd'*
38	(26)	CHARACTER	8	FSR2UID	ID of the user requesting the function.
46	(2E)	FIXED	1	FSR2TYPE	DFSMShsm function type. The function types are as follows: 1=Primary to level 1 migration 2=Level 1 to level 2 migration, or level 1 to level 1 migration or level 2 to level 2 migration 3=Primary to level 2 migration 4=Recall from level 1 to primary 5=Recall from level 2 to primary 6=Delete a migrated data set 7=Daily backup 8=Spill backup 9=Recovery 10=Recycle backup volume 11=Data set deletion by age 12=Recycle migration volume 13=Full volume dump 14=Volume or data set restore 15=ABACKUP function (see WWFSR control block) 16=ARECOVER function (see WWFSR control block) 17=Expire primary or migrated data sets 18=Partrel function 19=Expire or roll off incremental backup version 20=(H)BDELETE an incremental backup version 21=Fast replication backup function 22=Fast replication recover function 23=Fast replication delete function 24=Class transition
47	(2F)	BITSTRING	1	FSR2FLAGS	This byte contains the following flags:
		1...		FSR2FFSTR	When set to 1, from a striped data set.
		.1..		FSR2FTSTR	When set to 1, to a striped data set.
		..1.		FSR2F32K	When set to 1, data set is greater than 32K tracks. Use fields FSRTRKKR and FSRTRKKW instead of FSRTRKR and FSRTRKW.
		...1		FSR2FKB	When set to 1, data set is greater than 2GB.
		.... 1...		FSR2FVER	When set to 1, used in ARCFSR only.
		.... .1..		FSR2FNONQ	When set to 1, DFSMShsm was directed to not serialize (enqueue) before making a backup copy.
		.... ..1.		FSR2FNQN1	When set to 1, data set was backed up even though enqueue failed (once).
		1		FSR2FNQN2	When set to 1, attempted enqueue failed, backup was retried and enqueue failed again.
48	(30)	CHARACTER	44	FSR2DSN	Data set name. For types 21, 22, and 23, this field contains the copy pool name.
92	(5C)	CHARACTER	6	FSR2TVOL	Receiving volume from the management work element. Also used for fast replication.
98	(62)	CHARACTER	4	FSR2DEVT	Receiving device type as defined by the UCB.
102	(66)	CHARACTER	6	FSR2FVOL	Source volume, use browse macro. represents FSRFVOL (from volume) and FSR_RECYCLE_SOURCE_VOLUME.

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Table 55 (Page 2 of 4). FSR2—Function Statistics Record used for RMM Reporter

Offsets Decimal	(Hex)	Type	Length	Name	Description
108	(6C)	CHARACTER	6	FSR2CLIP	Target volume from MWE (volume restore only).
114	(72)	FIXED	2	*	Reserved
116	(74)	FIXED	4	FSR2GEN	Backup copy generation number.
120	(78)	FIXED	4	FSR2VER	Backup version number
124	(7C)	CHARACTER	8	FSR2DATE	Backup date (if recovery) In format *'yyyyddd'*
132	(84)	FIXED	4	FSR2RC	Return code from the management work element.
136	(88)	FIXED	4	FSR2REAS	Reason code from the management work element.
140	(8C)	CHARACTER	4	FSR2ABCC	Abnormal end code if there is one.
144	(90)	FIXED	2	FSR2DARC	Dynamic allocation return code.
146	(92)	CHARACTER	8	FSR2GRP	RACF group name.
154	(9A)	BITSTRING	1	FSR2RACF	RACF flags from the ACEEFLG1 field of the attachment environment element.
155	(9B)	BITSTRING	1	FSR2MFLGS	Flags from the MWE (use browse macro).
		1...		FSR2FRTRY	When set to 1, the backup copy was made during a retry, after the first try failed because the data set was in use.
		.1..		FSR2F_REMOTE	When set to 1, this request completed successfully on a remote system.
		..1.		FSR2FPIGB	When set to 1, the request was completed using a tape already mounted.
		...1		FSR2F_REMOTE_HOST_PROCESSED	When set to 1, MWE processed by remote host.
		.... 1...		FSR2F_DASD	When set to 1, the DASD copy of the version was deleted.
		.... .1..		FSR2F_DUMPCPY	When set to 1, the dump class of the copy pool dump was deleted.
		.... ..1.		FSR2F_DUMPVER	When set to 1, the entire dump version of the copy pool version was deleted.
		1		FSR2F_COPYPOOL_FRDUMP	A value of 1 indicates a fast replication dump or restore.
156	(9C)	FIXED	4	FSR2RQN	DFSMShsm request number.
160	(A0)	FIXED	8	FSR2DATR	Date the user made the request. In format *'yyyyddd'*
168	(A8)	CHARACTER	4	FSR2TIMR	Time the request and was received by DFSMShsm In format *X'hhmmssth'*
172	(AC)	CHARACTER	4	FSR2TIMS	Time when the request processing was started In format *X'hhmmssth'*
176	(B0)	CHARACTER	4	FSR2TIME	Time when the request processing was completed. In format *X'hhmmssth'*
180	(B4)	CHARACTER	4	FSR2TIMA	Time when the data set allocations were completed In format *X'hhmmssth'*
184	(B8)	CHARACTER	8	FSR2DLU	Data set last reference date for migration or the last change date for backup. In format *'yyyyddd'*
192	(C0)	CHARACTER	8	FSR2DLM	Date that the data set was last moved, migrated, backed up, or recalled. In format *'yyyyddd'*
200	(C8)	FIXED	4	FSR2BYTR	The number of DASD KB (1024 bytes) read.
204	(CC)	FIXED	4	FSR2BYTW	The number of DASD KB (1024 bytes) written.
208	(D0)	FIXED	2	FSR2TRKR	Tracks freed/read if less than 32K. This field is also available in FSR2TRKKR as K-TRKS
210	(D2)	FIXED	2	FSR2TRKW	Tracks written if less than 32K. This field is also available in FSR2TRKKR as K-TRKS
212	(D4)	BITSTRING	2	FSR2DORG	Data set organization.
		xxx.		*	Reserved.
		.... 1...		FSR2FVSDS	ON IF VSAM DATA SET
		.... ..1.		FSR2F9ATT	For types 4,5,9,14: F9 DSCB attributes lost during DSS restore.
		.... .x.x		*	Reserved.
214	(D6)	BITSTRING	2	FSR2FLG2	The next 2 bytes contain the following request flags:
		1...		FSR2FMNT	When set to 1, the volume is mounted.
		.1..		FSR2TSO	When set to 1, it is TSO requested. When set to 0, it is batch requested.
		..1.		FSR2USER	When set to 1, it is a data set request from a user address space. When set to 0, it is a volume requested.
		...1		FSR2WAIT	When set to 1, a wait was requested. When set to 0, the user did not wait for the request to complete.
		.... 1...		FSR2FDAT	When set to 1, the FSRDATE has the date of FSRs
		.... .1..		FSR2FRSV	When set to 1, user specified the volume for restore of a data set.
		.... ..1.		FSR2FML2	When set to 1, the user specified migration directly to level 2.
		1		FSR2FFRV	When set to 1, the user specified the FROM volume for a data set recovery.
179	(B3)	1...		FSR2FREP	When set to 1, the user specified the REPLACE parameter for a data set recovery.

Table 55 (Page 3 of 4). FSR2—Function Statistics Record used for RMM Reporter

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.1..		FSR2FDSRE	When set to 1, the statistics associated with a data set restore from a full volume dump are being requested.
		..1.		FSR2FAPIN	When set to 1, APPLYINCREMENTAL has been requested following a full volume restore.
		...1		FSR2FEXT	When set to 1, extent reduction has been requested.
		.... 1...		FSR2FCNVT	When set to 1, conversion has been requested.
		.... .1..		FSR2FROG	When set to 1, the GDS has been rolled off.
		.... ..1.		FSR2FDSS	When set to 1, data set was moved by DFSMSdss.
		1		FSR2FT0	When set to 1, backup used to copy the dataset.
216	(D8)	FIXED	4	FSR2CPU	CPU time in .01 seconds for request.
220	(DC)	FIXED	2	FSR2AGE	Data set age in days: since the last reference for a migration since last update for a backup since migration was done for a recall since last update for a recovery
222	(DE)	BITSTRING	1	FSR2RECFM	Record format from the DSCB.
223	(DF)	BITSTRING	1	FSR2OPTCD	I/O option codes from the data set control block.
224	(E0)	FIXED	2	FSR2DS_MOUNT	Count of recalls or recovers thus far from a mounted tape (i.e., number of tape mounts avoided).
226	(E2)	FIXED	1	FSR2RECALL_RETRIES	Number of attempts to recall a data set before the recall was successful.
		1...		FSR2F_LFS_COPY	On if migration copy or backup version is LFS.
		.1..		FSR2F_ML1_OVERFLOW	On if migration copy or backup version is on ML1 OVERFLOW volume.
		..1.		FSR2F_NOOVERFLOW_DS	ON - NOOVERFLOW eligible data set has been redirected up to a OVERFLOW volume.
		...1		FSR2F_OVERFLOW_DS	ON - OVERFLOW eligible data set has been redirected up to a NOOVERFLOW volume.
227	(E3)	FIXED	1	FSFSR2COPYMETHOD	Requested method of fast replication. The valid methods are as follows: 1=None 2=Preferred 3=Required
228	(E4)	FIXED	1	FSR2RECYCLE_COUNTER	Number of times recycled.
229	(E5)	FIXED	1	FSR2FLG5	Additional flags
		1...		FSR2FBACKDS_NEWNAME	When set to 1, NEWNAME specified at backup.
		.1..		FSR2FBACKDS_NOSPHERE	When set to 1, NOSPH specified at backup.
		..1.		FSR2FBACKDS_RD_SPCD	ON=RETAINDAYS specified at bacup time.
		...1		FSR2FBACKDS_NEVER_EXP	ON=The version will never expire. Only valid when FSRF_BACKDS_RD_SPCD is 1.
		 xxxx		*	Reserved
230	(E6)	FIXED	2	*	Reserved
232	(E8)	CHARACTER	2	FSR2SRCDEV	Recall/recover/recycle source. Last two bytes of device type.
234	(EA)	FIXED	2	FSR2SCLEN	Length of storage-class name.
236	(EC)	CHARACTER	8	FSR2SCNAM	First 8 characters of storage-class name.
244	(F4)	FIXED	4	FSR2TRKKR	K-Tracks freed/read.
248	(F8)	FIXED	4	FSR2TRKKW	K-Tracks written.
252	(FC)	FIXED	2	FSR2MCLEN	Length of management class name (zero means there is no management class).
254	(FE)	CHARACTER	8	FSR2MCNAM	Name of the management class.
262	(106)	BITSTRING	1	FSR2FLG3	Request flags:
		1...		FSR2FVINI	When set to 1, the data set recovery request was scheduled from a volume request.
		.1..		FSR2FXPL1	When set to 1, the data set being expired is from an ML1 volume.
		..1.		FSR2FXPL2	When set to 1, the data set being expired is from an ML2 volume.
		...1		FSR2FEXBV	When set to 1, the backup version is being deleted by the EXPIREBV command.
		.... 1...		FSR2FBKTP	When set to 1, the backup version being deleted is on a tape volume.
		.... .1..		FSR2FEXDT	When set to 1, the data set is being deleted by expiration date or management class age attributes.
		.... ..1.		FSR2RECON	When set to 1, data set was migrated because of reconnection.
		1		FSR2F_RECALL_TAKEAWAY	When set to 1, this recall caused a tape-takeaway
263	(107)	BITSTRING	1	FSR2FLG4	Flags
		1...		FSR2F_FRRECOV_DSNAME	When set to 1, fast replication recovery was requested for a data set through the FRRECOV DSNAME command.
		.1..		FSR2F_FRRECOV_FROMDISK	When set to 1, fast replication recovery will be performed from disk. This flag is set only when FSRF_FRRECOV_DSNAME is set to 1.

Table 55 (Page 4 of 4). FSR2—Function Statistics Record used for RMM Reporter

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		FSR2F_MULT_DSNAMES	When set to 1, the fast replication recovery request specified more than one data set name. Only set for Type 22 FSRs.
		...1		FSR2F_MULTIVOLUME	When set to 1, the fast replication recovery request was performed on part of a multi-volume data set. This flag is set only when FSR2F_FRRECOV_DSNAME is set to 1.
		.... 1...		FSR2F_ALTERPRI	When set to 1, the priority of this request was altered through the ALTERPRI command.
		.... .1..		FSR2F_ALTERPRI_HI	When set to 1, the HIGH keyword was specified on the ALTERPRI command. When set to 0, the LOW keyword was specified. This flag applies only when FSR2F_ALTERPRI is set to 1.
		.... ..1.		FSR2F_INC	When set to 1, copy pool incremental processing was used.
		1		FSR2F_CPBSG	When set to 1, FRBACKUP overrides CPBSG
264	(108)	CHARACTER	4	FSR2TIMS2	Time preprocessing completed In format *X'hhmmssth'*
268	(10C)	CHARACTER	4	FSR2TIMM1	Time data movement started In format *X'hhmmssth'*
272	(110)	CHARACTER	4	FSR2TIMM2	Time data movement completed In format *X'hhmmssth'*
276	(114)	CHARACTER	4	FSR2TIME1	Time post-processing started In format *X'hhmmssth'*
If tape volumes are used, the following fields are used instead of FSRTVOL, FSR2FVOL, FSR2BYTR, FSR2BYTW, and other DASD-specific fields:					
280	(118)	FIXED	2	FSR2NENT1	Number of tape volumes used for backup, recovery, or migration level 2, or the number of recycle input tapes for recycle processing.
282	(11A)	FIXED	2	FSR2NENT2	Number of output recycle tape entries that follow the FSRNENT1 entry.
284	(11C)	FIXED	2	FSR2DCOPR	Number of dump copies requested.
286	(11E)	FIXED	2	FSR2DCOPF	Number of attempted dump copies that failed.
288	(120)	CHARACTER	40	FSR2CPNAME	Copy pool name. This flag is set only when FSR2F_FRRECOV_DSNAME is set to 1.
328	(148)	CHARACTER	8	FSR2DCLA1	Name of first Dump Class
336	(150)	CHARACTER	8	FSR2DCLA2	Name of second Dump Class
344	(158)	CHARACTER	8	FSR2DCLA3	Name of third Dump Class
352	(160)	CHARACTER	8	FSR2DCLA4	Name of fourth Dump Class
360	(168)	CHARACTER	8	FSR2DCLA5	Name of fifth Dump Class
368	(170)	CHARACTER	2	FSR2HOST	Host identifier.
370	(172)	CHARACTER	2	FSR2ORGNL_HID	Host ID that generated the request. This field is valid only for recall requests.
372	(174)	FIXED	4	FSR2FR_REAS	Fast replication return code.
376	(178)	ADDRESS	4	FSR2PSQTY	Tracks needed if not enough ML1 error
380	(17C)	FIXED	2	FSR2BACKDS_RETAINDAYS	RETAINDAYS value for ds backup.
230	(E6)	FIXED	1	FSR2FLG6	More flags
		1...		FSR2FMB	When set to 1, FSRBYTR and FSRBYTW are in megabytes
		.xxx xxxx		*	Reserved
383	(17F)	CHARACTER	41	*	Reserved
424	(1A8)	STRUCTURE	*	FSR2TAPE	Tape volume entry (Maximum 254 in and 254 out)
424	(1A8)	CHARACTER	6	FSR2TPVOL	First volume serial number.
430	(1AE)	BITSTRING	1	FSR2TFLGS	This byte contains the following flags:
		1...		FSR2FTKB	When set to 1, more than 2GB worth of data, FSRTBYBK represents KB (1024 bytes). When set to 0, less than 2GB worth of data, FSRTBYBK represents bytes.
		.1..		FSR2FALT	When set to 1, the data set on this volume was written in duplex mode; therefore, the total amount of output is twice that shown in the bytes written.
		..1.		FSR2FTMB	When set to 1, more than 2TB worth of data, FSR2TBYBK represents megabytes (1024 KB). When set to 0, less than 2TB worth of data, FSR2TBYBK represents bytes or kilobytes.
		...x xxxx		*	Reserved.
431	(1AF)	CHARACTER	1	*	Reserved.
432	(1B0)	FIXED	4	FSR2TBYBK	The next 4 bytes contain one of the following: • For backup processing, if FSRFTKB is set to 0, then bytes written. If FSR2FTKB is set to 1, then KB (1024 bytes) written. • For recycle output processing, the blocks written. • For recycle input processing, the blocks read.
436	(1B4)	FIXED	0	LAST	End of FSR2

FSR2 Data Area Cross-Reference

Table 56 (Page 1 of 2). FSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FSR22	0		
FSR2ABCC	8C		
FSR2AGE	DC		
FSR2BACKDS_RETAINDAYS	17C		
FSR2BYTR	C8		
FSR2BYTW	CC		
FSR2CLIP	6C		
FSR2COPYMETHOD	E3		
FSR2CPNAME	120		
FSR2CPU	D8		
FSR2DARC	90		
FSR2DATA	2C		
FSR2DATE	7C		
FSR2DATR	A0		
FSR2DCLA1	148		
FSR2DCLA2	150		
FSR2DCLA3	158		
FSR2DCLA4	160		
FSR2DCLA5	168		
FSR2DCOPF	11E		
FSR2DCOPR	11C		
FSR2DEVT	62		
FSR2DLM	C0		
FSR2DLU	B8		
FSR2DORG	D4		
FSR2DS_MOUNT	E0		
FSR2DSN	30		
FSR2DTE	A		
FSR2F_ALTERPRI	107	8	
FSR2F_ALTERPRI_HI	107	4	
FSR2F_COPYPOOL_FRDUMP	9B	01	
FSR2F_CPBSG	107	01	
FSR2F_DASD	9B	08	
FSR2F_DUMPCPY	9B	04	
FSR2F_DUMPVER	9B	02	
FSR2F_FRRECOV_DSNAME	107	80	
FSR2F_FRRECOV_FROMDISK	107	40	
FSR2F_INC	107	02	
FSR2F_LFS_COPY	E2	80	
FSR2F_MULT_DSNAMES	107	20	

Table 56 (Page 1 of 2). FSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FSR2F_MULTIVOLUME	107	10	
FSR2F_ML1_OVERFLOW	E2	40	
FSR2F_NOOVERFLOW_DS	E2	20	
FSR2F_OVERFLOW_DS	E2	10	
FSR2F_RECALL_TAKEAWAY	106	01	
FSR2F_REMOTE	9B	40	
FSR2F_REMOTE_HOST_PROCESSED	9B	10	
FSR2FALT	1AE	40	
FSR2FAPIN	B3	20	
FSR2FBACKDS_NEWNAME	E5	80	
FSR2FBACKDS_NEVER_EXP	E5	10	
FSR2FBACKDS_NOSPHERE	E5	40	
FSR2FBACKDS_RD_SPCD	E5	20	
FSR2FBKTP	106	08	
FSR2FCNVT	B3	08	
FSR2FDAT	D6	08	
FSR2FDSRE	B3	40	
FSR2FDSS	B3	02	
FSR2FEXBV	106	10	
FSR2FEXDT	106	04	
FSR2FEXT	B3	10	
FSR2FFRV	D6	01	
FSR2FFSTR	2F	80	
FSR2FKB	2F	10	
FSR2FLAGS	2F		
FSR2FLG	4		
FSR2FLG2	D6		
FSR2FLG3	106		
FSR2FLG4	107		
FSR2FLG5	E5		
FSR2FLG6	E6		
FSR2FMB	E6	80	
FSR2FML2	D6	02	
FSR2FMNT	D6	80	
FSR2FNONQ	2F	04	
FSR2FNQN1	2F	02	
FSR2FNQN2	2F	01	
FSR2FPIGB	9B	20	
FSR2FR_REAS	174		
FSR2FREP	B3	80	

Table 56 (Page 2 of 2). FSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FSR2FROG	B3	04	
FSR2FRSV	D6	04	
FSR2FRTRY	9B	80	
FSR2FTKB	1AE	80	
FSR2FTMB	1AE	20	
FSR2FTSTR	2F	40	
FSR2FT0	B3	01	
FSR2FVER	2F	08	
FSR2FVINI	106	80	
FSR2FVOL	66		
FSR2FVSDS	D4	40	
FSR2FXPL1	106	40	
FSR2FXPL2	106	20	
FSR2F32K	2F	20	
FSR2F9ATT	D4	10	
FSR2GEN	74		
FSR2GRP	92		
FSR2HOST	170		
FSR2JBN	12		
FSR2LEN	0		
FSR2MCLEN	FC		
FSR2MCNAM	FE		
FSR2MFLGS	9B		
FSR2NENT1	118		
FSR2NENT2	11A		
FSR2OPTCD	DF		
FSR2ORGNL_HID	172		
FSR2PSQTY	178		
FSR2RACF	9A		
FSR2RC	84		
FSR2REAS	88		
FSR2RECALL_RETRIES	E2		
FSR2RECFM	DE		
FSR2RECON	106	02	
FSR2RECYCLE_COUNTER	E4	02	
FSR2RQN	9C		
FSR2RSD	1E		
FSR2RST	1A		
FSR2RTY	5		
FSR2SCLEN	EA		
FSR2SCNAM	EC		
FSR2SEG	2		

Table 56 (Page 2 of 2). FSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
FSR2SID	E		
FSR2SRCDEV	E8		
FSR2TAPE	1A8		
FSR2TBYBK	1B0		
FSR2TFLGS	1AE		
FSR2TIMA	B4		
FSR2TIME	B0		
FSR2TIME1	114		
FSR2TIMM1	10C		
FSR2TIMM2	110		
FSR2TIMR	A8		
FSR2TIMS	AC		
FSR2TIMS2	108		
FSR2TME	6		
FSR2TPVOL	1A8		
FSR2TRKKR	F4		
FSR2TRKKW	F8		
FSR2TRKR	D0		
FSR2TRKW	D2		
FSR2TSO	D6	40	
FSR2TVOL	5C		
FSR2TYPE	2E		
FSR2UID	26		
FSR2USER	D6	20	
FSR2VER	78		
FSR2WAIT	D6	10	
LAST	1B4		

JGCB—HSMplex Global Control Block

Defines the fields used for multi-host processing in a HSMplex.

Table 57 (Page 1 of 3). JGCB—HSMplex Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	528	ARCJGCB	HSMplex Global Control Block
0	(0)	CHARACTER	8	JGCB_ID	JGCB identifier
8	(8)	CHARACTER	8	JGCB_HSMPLEX	Name of HSMplex
8	(8)	CHARACTER	3	*	PLEXNAME prefix is always ARC
11	(B)	CHARACTER	5	JGCB_HSMPLEX_SUFFIX	PLEXNAME suffix
16	(10)	BITSTRING	2	JGCB_FLAGS	Miscellaneous flags
		1...		JGCBF_LOCAL	On - Host is sysplex local
		.1..		JGCBF_CDSS	On - Host is participating in GPA/CAT release via XCF
16	(10)	BITSTRING	2	*	Reserved
18	(12)	UNSIGNED	1	JGCB_MAX_RETRY	Max number of retries for IXCSETUS invocations
19	(13)	CHARACTER	5	JGCB_MEM_PREFIX	Prefix for XCF member name
24	(18)	CHARACTER	3	JGCB_PLEX_PREFIX	Prefix for HSMplex name
27	(1B)	UNSIGNED	1	* (33)	Reserved
60	(3C)	CHARACTER	128	JGCB_SHP	Secondary Host Promotion fields
60	(3C)	BITSTRING	2	JGCB_SHP_FLAGS	Secondary Host Promotion flags
		1...		JGCBF_PRIM_PRMTBL	On - Promotable for Primary
		.1..		JGCBF_SSM_PRMTBL	On - Promotable for SSM
		..1.		JGCBF_SSM_PRMT_KWD	On - PROMOTE(SSM(Y)) was specified
		...1		JGCBF_STOP	On - STOP command was issued
		.... 1...		JGCBF_DUMP	On - DUMP was specified on STOP command
		.... .1..		JGCBF_PROMOTE	On - PROMOTE was specified on STOP command
		.... ..1.		JGCBF_SSM_HOST	On - This is a Secondary Space Management host
		1		JGCBF_AB_HOST	On - This is an Autobackup host
61	(3D)	1...		JGCBF_AD_HOST	On - This is an Autodump host
		.1..		JGCBF_INELIGIBLE	On - Host in ineligible for SHP functions
		..1.		JGCBF_AB_DEMOTE	On - Reset AB window/cycle after AB completion P1
		...1		JGCBF_AD_DEMOTE	On - Reset AD window/cycle after AD completion P1
		.... 1...		JGCBF_SSM_DEMOTE	On - Reset SSM window/cycle after SSM completion P1
		xxx		*	Reserved
62	(3E)	SIGNED	2	JGCB_JSHPQ_SIZE	Size of queue used by ARCJSHP
64	(40)	SIGNED	4	JGCB_JSHPQ_LOCK	Lock for queue updates - Inuse
68	(44)	BITSTRING	4	JGCB_JSHP_ECB	ARCJSHP active ECB
72	(48)	BITSTRING	4	JGCB_JSHP_TECB	ARCJSHP terminating ECB
76	(4C)	ADDRESS	4	JGCB_JSHP_RCB_PTR	ARCJSHP RCB pointer
80	(50)	ADDRESS	4	JGCB_JSHP_TCB_PTR	ARCJSHP TCB pointer
84	(54)	ADDRESS	4	JGCB_JGRPU_PTR	PTR to ARCJGRPU
88	(58)	ADDRESS	4	JGCB_JSHPQ_PTR	Pointers to queue storage blocks
92	(5C)	ADDRESS	4	JGCB_CURR_EVENT_PTR	PTR to current event to process on SHP queue
96	(60)	ADDRESS	4	JGCB_FREE_EVENT_PTR	PTR to next free event on SHP queue
100	(64)	CHARACTER	108	JGCB_HOST	This host
208	(D0)	CHARACTER	2	JGCB_SAVE_PRMTD	Hosts promoted for this host
208	(D0)	CHARACTER	1	JGCB_SAVE_PRIM_PRMTD	Promoted for Primary
209	(D1)	CHARACTER	1	JGCB_SAVE_SSM_PRMTD	Promoted for SSM
210	(D2)	UNSIGNED	1	* (2)	Reserved P1
212	(D4)	CHARACTER	60	JGCB_PROMOTION_SAVE_AREA	Save area for this host's fields that will be overwritten during promotion P1
212	(D4)	CHARACTER	20	JGCB_AB_FIELDS	Autobackup fields P1
212	(D4)	SIGNED	4	JGCB_AB_BTOD	Start time P1
216	(D8)	SIGNED	4	JGCB_AB_BTEN	Latest AB start time P1
220	(DC)	SIGNED	4	JGCB_AB_BTSS	Last backup start time P1
224	(E0)	BITSTRING	4	JGCB_AB_CYCLE	Cycle P1
228	(E4)	SIGNED	2	JGCB_AB_CLEN	Cycle length P1
230	(E6)	UNSIGNED	1	* (2)	Reserved P1
232	(E8)	CHARACTER	20	JGCB_AD_FIELDS	Autodump fields P1
232	(E8)	SIGNED	4	JGCB_AD_DTOD	Start time P1
236	(EC)	SIGNED	4	JGCB_AD_DTEN	Latest AD start time P1
240	(F0)	SIGNED	4	JGCB_AD_DTSS	Last dump start time P1
244	(F4)	BITSTRING	4	JGCB_AD_CYCLE	Cycle P1
248	(F8)	SIGNED	2	JGCB_AD_CLEN	Cycle length P1
250	(FA)	UNSIGNED	1	* (2)	Reserved P1
252	(FC)	CHARACTER	16	JGCB_SSM_FIELDS	SSM fields P1
252	(FC)	SIGNED	4	JGCB_SSM_STOD	Start time P1
256	(100)	SIGNED	4	JGCB_SSM_STEN	End time P1
260	(104)	BITSTRING	4	JGCB_SSM_CYCLE	Cycle P1

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Table 57 (Page 2 of 3). JGCB—HSMplex Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
264	(108)	SIGNED	2	JGCB_SSM_CLEN	Cycle length P1
266	(10A)	BIT(8)	1	JGCB_SSM_FLAGS	Misc flags P1
		1...		JGCBF_SSM_SSTS	End time set P1
		.xxx xxxx		*	Reserved P1
267	(10B)	UNSIGNED	1	* (1)	Reserved P1
268	(10C)	BIT(8)	1	JGCB_EXIT_FLAGS	Exit Settings P1
		1...		JGCBF_CBUSE	ARCCBEXT P1
		.1..		JGCBF_MMUSE	ARCMMEXT P1
				*	Reserved P1
269	(10D)	UNSIGNED	1	* (3)	Reserved P1
272	(110)	UNSIGNED	1	* (20)	Reserved
292	(124)	UNSIGNED	1	* (20)	Reserved for 1.5.0 and R10

The following array contains all of the fields that are common to CF common queues. The dimension of the array is the number of common queues that DFSMShsm can use. Currently, there is only one, the Common Recall Queue.

312	(138)	CHARACTER	80	JGCB_CF (1)	
312	(138)	CHARACTER	16	JGCB_CONTOKEN	Structure Token
328	(148)	CHARACTER	4	JGCB_CONNVERSION	Connection Version
332	(14C)	CHARACTER	12	JGCB_VCTRTOKEN	Vector Token
344	(158)	UNSIGNED	4	JGCB_CF_FLAGS	
		1...		JGCBF_REQST_CONN	On=User specified CQ(x(CONN))
		.1..		JGCBF_REQST_DISC	On=User specified CQ(x(DISC))
		..1.		JGCBF_REQST_FAILURE	On=Host lost connection
		...1		JGCBF_REQST_ABEND	On=Cleanup after abend
		.... 1...		JGCBF_TASKS_IDENTIFIED	On=Tasks have been identified
		.... .1..		JGCBF_TASKS_STARTED	On=Tasks have been started
		.... ..1.		JGCBF_STR_INITIALIZED	On = Structure initialization is complete
		1		JGCBF_PCNT_THRES_EXCD	The high threshold for the structure was exceeded
345	(159)	1...		JGCBF_STR_TERM	Usage of the structure is terminating
345	(159)	BIT(23) POS(2)	3	*	Unused
348	(15C)	CHARACTER	5	JGCB_BASENAME	Coupling Facility basenm
353	(161)	UNSIGNED	1	JGCB_STATE	0=Unconnected, 1=Connecting, 2=Connected, 3=Disconnecting, 4=Retry, 5=Failed
354	(162)	UNSIGNED	1	* (2)	Unused
356	(164)	CHARACTER	20	JGCB_SIZE	Fields related to size
356	(164)	SIGNED	4	JGCB_MAX_ENTRIES	Maximum number entries
360	(168)	SIGNED	4	JGCB_CUR_ENTRIES	Current number entries
364	(16C)	SIGNED	4	JGCB_MAX_ELEMENTS	Maximum number elements
368	(170)	SIGNED	4	JGCB_CUR_ELEMENTS	Current number elements
372	(174)	SIGNED	2	JGCB_PCNT_ENTRIES	Percent entries in-use
374	(176)	SIGNED	2	JGCB_PCNT_ELEMENTS	Percent elements in-use
376	(178)	CHARACTER	16	JGCB_CF_EXITS	Addresses of the exits
376	(178)	ADDRESS	4	JGCB_EVNT_EXT	Event Exit
380	(17C)	ADDRESS	4	JGCB_CMPT_EXT	Completion Exit
384	(180)	ADDRESS	4	JGCB_TRNS_EXT	Transition Exit
388	(184)	ADDRESS	4	JGCB_NTFY_EXT	Notify Exit

A hold can be placed on the common queue functions both internally, and externally by a customer. Two flags are set for each type of hold, internal and external. To determine if a certain level is held, the variable containing the two flags should be checked.

392	(188)	BITSTRING	4	JGCB_CF_HOLD	HOLD COMMONQUEUE settings
		1...		JGCBF_HOLD_CQ	1=HOLD CQ
		.11.		JGCB_HOLD_CRQ	Nonzero=HOLD CQ(RECALL)
		.1..		JGCBF_HOLDX_CRQ	1=Ext HOLD CQ(RECALL)
		..1.		JGCBF_HOLDI_CRQ	1=Int HOLD CQ(RECALL)
		...1 1...		JGCB_HOLD_CRQ_P	Nzero=HOLD CQ(REC(PLACE))
		...1		JGCBF_HOLDX_CRQ_P	1=Ext HOLD CQ(REC(PLACE))
		.... 1...		JGCBF_HOLDI_CRQ_P	1=Int HOLD CQ(REC(PLACE))
		.... .11.		JGCB_HOLD_CRQ_S	Nzero=HOLD CQ(REC(SELEC))
		.... .1..		JGCBF_HOLDX_CRQ_S	1=Ext HOLD CQ(REC(SELEC))
		.... ..1.		JGCBF_HOLDI_CRQ_S	1=Int HOLD CQ(REC(SELEC))
393	(189)	BIT(25) POS(8)	3	*	Unused

Local copy of the CRQ Eligibility Status:

396	(18C)	UNSIGNED	1	JGCB_CRQ_CES	
396	(18C)	BITSTRING	1	JGCB_CRQ_CES_FLAGS	
		x...		*	Unused
		.1..		JGCBF_CES_NOT_ELGBL	1=There is no eligible host in the CRQplex
		..x.		*	Unused
		...1		JGCBF_CES_TP_HELD	1=Tape is Held

Table 57 (Page 3 of 3). JGCB—HSMplex Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... x...		*	Unused
		.... .1..		JGCBF_CES_TPTSO_HELD	1=TAPE(TSO) is Held
		xx		*	Unused
Local copy of the CRQ Processing Options:					
397	(18D)	UNSIGNED	1	JGCB_CRQ_POP	CRQ Processing OPtions
397	(18D)	BITSTRING	1	JGCB_CRQ_POP_FLAGS	
		1...		JGCBF_POP_RCLFBID	1=Recall from tape in FBID order
		.xxx xxxx		*	Unused
398	(18E)	BITSTRING	1	JGCB_LOCAL_FLAGS	Misc Local Flags
		1...		JGCBF_SETSYS_TAPEDSORD	SETSYS TAPEDSORDER specified
		.xxx xxxx		*	Unused
399	(18F)	UNSIGNED	1	* (1)	Unused
400	(190)	ADDRESS	4	JGCB_CRQMQ_HEAD	Head of CRQ Mirror Queue
404	(194)	ADDRESS	4	JGCB_CRQMQ_TAIL	Tail of CRQ Mirror Queue
408	(198)	CHARACTER	56	JGCB_CRQ_TASK_PTRS	Task pointer for CRQ
408	(198)	CHARACTER	12	JGCB_CRQ_TCBS	CRQ task TCB pointers
408	(198)	ADDRESS	4	JGCB_JRSM_TCB	ARCJRSM TCB pointer
412	(19C)	ADDRESS	4	JGCB_JREP_TCB	ARCJREP TCB pointer
416	(1A0)	ADDRESS	4	JGCB_JRALP_TCB	ARCJRALP TCB pointer
420	(1A4)	CHARACTER	20	JGCB_CRQ_ECBS	CRQ task ECBs
420	(1A4)	BITSTRING	4	JGCB_JCFCM_ECB	ARCJCFCM ECB
420	(1A4)	BITSTRING	1	*	Post bits
421	(1A5)	BIT(24)	3	JGCB_JCFCM_ECB_CODE	Post code
424	(1A8)	BITSTRING	4	JGCB_JRSM_ECB_JCFCM	ARCJRSM ECB for ARCJCFCM
424	(1A8)	BITSTRING	1	*	Post bits
425	(1A9)	BIT(24)	3	JGCB_JRSM_ECB_JCFCM_CODE	Post code
428	(1AC)	BITSTRING	4	JGCB_JRSM_ECB_JRTXT	ARCJRSM ECB for the List Transition Exit
432	(1B0)	BITSTRING	4	JGCB_JREP_ECB	ARCJREP ECB
436	(1B4)	BITSTRING	4	JGCB_JRALP_ECB	ARCJRALP ECB
440	(1B8)	CHARACTER	12	JGCB_CRQ_TECBS	CRQ terminating ECBs
440	(1B8)	BITSTRING	4	JGCB_JRSM_TECB	ARCJRSM TECB
444	(1BC)	BITSTRING	4	JGCB_JREP_TECB	ARCJREP TECB
448	(1C0)	BITSTRING	4	JGCB_JRALP_TECB	ARCJRALP TECB
452	(1C4)	CHARACTER	12	JGCB_CRQ_RCBS	CRQ task RCB pointers
452	(1C4)	ADDRESS	4	JGCB_JRSM_RCB	ARCJRSM RCB pointer
456	(1C8)	ADDRESS	4	JGCB_JREP_RCB	ARCJREP RCB pointer
460	(1CC)	ADDRESS	4	JGCB_JRALP_RCB	ARCJRALP RCB pointer
464	(1D0)	ADDRESS	4	JGCB_JRTXT_BFR	Buffer used by ARCJRTXT for Dequeing EMCs
468	(1D4)	CHARACTER	10	JGCB_ENF35	
468	(1D4)	ADDRESS	4	JGCB_ENF35_PTR	Pointer to ENF35 Exit
472	(1D8)	CHARACTER	4	JGCB_ENF35_TOKEN	?ENFREQ Token
476	(1DC)	BITSTRING	2	JGCB_ENF35_FLAGS	Flags for ENF
		1...		JGCBF_ENF35_ACTIVE	On=Currently listening For the ENF event
476	(1DC)	BIT(15) POS(2)	2	JGCB_ENF35_NEEDED	One of these flags will be set if one of the CF structure connectors is listening for an ENF event
		.1..		JGCBF_ENF35_NEEDED_CRQ	CRQ is listening
478	(1DE)	CHARACTER (39)	2	JGCB_CRQ_CONNECTIONS	Host ids of all hosts currently connected to this CRQ. Host ids are in no particular order and may not be contiguous.
556	(22C)	ADDRESS	4	JGCB_JREPQ_PTR	Ptr to head of queue
560	(230)	ADDRESS	4	JGCB_JREPQ_CURR_PTR	Ptr to current event
564	(234)	ADDRESS	4	JGCB_JREPQ_FREE_PTR	Next free event ptr
568	(238)	SIGNED	4	JGCB_JREPQ_SIZE	Maximum number of concurrent events
572	(23C)	SIGNED	4	JGCB_JREPQ_LOCK	Lock for the JREPQ
576	(240)	SIGNED	2	JGCB_CRQ_NUM_CONNECTIONS	Total number of hosts connected to the CRQ
578	(242)	CHARACTER	8	JGCB_CRQ_ABEND_DATE	Date of last abend of a CRQ task
586	(24A)	UNSIGNED	1	* (2)	Reserved
588	(24C)	UNSIGNED	4	JGCB_DOM_1505_ID	WTO ID for ARC1505
592	(250)	UNSIGNED	1	* (32)	Reserved
624	(270)	CHARACTER	8	JGCB_END	Leave this alone
624	(270)	CHARACTER	8	JGCB_ENDID	Control block end

JGCB Data Area Cross-Reference

Table 58 (Page 1 of 2). JGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ARCJGCB	0		1
JGCB_AB_BTEN	D8		5
JGCB_AB_BTOD	D4		5
JGCB_AB_BTSS	DC		5
JGCB_AB_CLEN	E4		5
JGCB_AB_CYCLE	E0		5
JGCB_AB_FIELDS	D4		4
JGCB_AD_CLEN	F8		5
JGCB_AD_CYCLE	F4		5
JGCB_AD_DTEN	EC		5
JGCB_AD_DTOD	E8		5
JGCB_AD_DTSS	F0		5
JGCB_AD_FIELDS	E8		4
JGCB_BASENAME	15C		3
JGCB_CF	138		2
JGCB_CF_EXITS	178		3
JGCB_CF_FLAGS	158		3
JGCB_CF_HOLD	120		2
JGCB_CMPT_EXT	17C		4
JGCB_CONNVERSION	148		3
JGCB_CONTOKEN	138		3
JGCB_CRQ_ABEND_DATE	242		2
JGCB_CRQ_CES	18C		2
JGCB_CRQ_CES_FLAGS	18C		3
JGCB_CRQ_CONNECTIONS	1DE		2
JGCB_CRQ_ECBS	1A4		3
JGCB_CRQ_NUM_CONNECTIONS	240		2
JGCB_CRQ_POP	18D		2
JGCB_CRQ_POP_FLAGS	18D		3
JGCB_CRQ_RCBS	1C4		3
JGCB_CRQ_TASK_PTRS	198		2
JGCB_CRQ_TCBS	198		3
JGCB_CRQ_TECBS	1B8		3
JGCB_CRQMQ_HEAD	190		2
JGCB_CRQMQ_TAIL	194		2
JGCB_CUR_ELEMENTS	170		4
JGCB_CUR_ENTRIES	168		4
JGCB_CURR_EVENT_PTR	5C		3
JGCB_DOM_1505_ID	24C		2
JGCB_END	270		2

Table 58 (Page 1 of 2). JGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
JGCB_ENDID	270		3
JGCB_ENF35	1D4		2
JGCB_ENF35_FLAGS	1DC		3
JGCB_ENF35_NEEDED	1DC		4
JGCB_ENF35_PTR	16C		3
JGCB_ENF35_TOKEN	1D8		3
JGCB_EVNT_EXT	178		4
JGCB_EXIT_FLAGS	10C		4
JGCB_FLAGS	10		2
JGCB_FREE_EVENT_PTR	60		3
JGCB_HOLD_CRQ	120	60	3
JGCB_HOLD_CRQ_P	120	18	3
JGCB_HOLD_CRQ_S	120	06	3
JGCB_HOST	64		3
JGCB_HSMPLEX	8		2
JGCB_HSMPLEX_SUFFIX	B		3
JGCB_ID	0		2
JGCB_JCFCM_ECB	1A4		4
JGCB_JCFCM_ECB_CODE	1A5		5
JGCB_JGRPU_PTR	54		3
JGCB_JRALP_ECB	1B4		4
JGCB_JRALP_RCB	1CC		4
JGCB_JRALP_TCB	1A0		4
JGCB_JRALP_TECB	1C0		4
JGCB_JREP_ECB	1B0		4
JGCB_JREP_RCB	1C8		4
JGCB_JREP_TCB	19C		4
JGCB_JREP_TECB	1BC		4
JGCB_JREPQ_CURR_PTR	230		2
JGCB_JREPQ_FREE_PTR	234		2
JGCB_JREPQ_LOCK	23C		2
JGCB_JREPQ_PTR	22C		2
JGCB_JREPQ_SIZE	238		2
JGCB_JRSM_ECB_JCFCM	1A8		4
JGCB_JRSM_ECB_JCFCM_CODE	1A9		5
JGCB_JRSM_ECB_JRTXT	1AC		4
JGCB_JRSM_RCB	1C4		4
JGCB_JRSM_TCB	198		4
JGCB_JRSM_TECB	1B8		4
JGCB_JRTXT_BFR	1D0		2

Table 58 (Page 2 of 2). JGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
JGCB_JSHP_ECB	44		3
JGCB_JSHP_RCB_PTR	4C		3
JGCB_JSHP_TCB_PTR	50		3
JGCB_JSHP_TECB	48		3
JGCB_JSHPQ_LOCK	40		3
JGCB_JSHPQ_PTR	58		3
JGCB_JSHPQ_SIZE	3E		3
JGCB_LOCAL_FLAGS	18E		2
JGCB_MAX_ELEMENTS	16C		4
JGCB_MAX_ENTRIES	FC		4
JGCB_MAX_RETRY	12		2
JGCB_MEM_PREFIX	13		2
JGCB_NTFY_EXT	184		4
JGCB_PCNT_ELEMENTS	176		4
JGCB_PCNT_ENTRIES	174		4
JGCB_PLEX_PREFIX	18		2
JGCB_PROMOTION_SAVE_AREA	D4		3
JGCB_SAVE_PRIM_PRMTD	D0		4
JGCB_SAVE_PRMTD	65		3
JGCB_SAVE_SSM_PRMTD	66		4
JGCB_SHP	3C		2
JGCB_SHP_FLAGS	3C		3
JGCB_SIZE	FC		3
JGCB_SSM_CLEN	A0		5
JGCB_SSM_CYCLE	9C		5
JGCB_SSM_FIELDS	94		4
JGCB_SSM_FLAGS	A2		5
JGCB_SSM_STEN	98		5
JGCB_SSM_STOD	94		5
JGCB_STATE	F9		3
JGCB_TRNS_EXT	118		4
JGCB_VCTRTOKEN	E4		3
JGCBF_AB_DEMOTE	3D	20	4
JGCBF_AB_HOST	3C	01	4
JGCBF_AD_DEMOTE	3D	10	4
JGCBF_AD_HOST	3D	80	4
JGCBF_CBUSE	A4	80	5
JGCBF_CDSS	10	40	3
JGCBF_CES_NOT_ELGBL	124	40	4
JGCBF_CES_TP_HELD	124	10	4
JGCBF_CES_TPTSO_HELD	124	04	4
JGCBF_DUMP	3C	08	4

Table 58 (Page 2 of 2). JGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
JGCBF_ENF35_ACTIVE	174	80	4
JGCBF_ENF35_NEEDED_CRQ	174	40	5
JGCBF_HOLD_CQ	120	80	3
JGCBF_HOLDI_CRQ	120	20	4
JGCBF_HOLDI_CRQ_P	120	08	4
JGCBF_HOLDI_CRQ_S	120	02	4
JGCBF_HOLDX_CRQ	120	40	4
JGCBF_HOLDX_CRQ_P	120	10	4
JGCBF_HOLDX_CRQ_S	120	04	4
JGCBF_INELIGIBLE	3D	40	4
JGCBF_LOCAL	10	80	3
JGCBF_MMUSE	A4	40	5
JGCBF_PCNT_THRES_EXCD	F0	01	4
JGCBF_POP_RCLFBID	125	80	4
JGCBF_PRIM_PRMTBL	3C	80	4
JGCBF_PROMOTE	3C	04	4
JGCBF_REQST_ABEND	F0	10	4
JGCBF_REQST_CONN	F0	80	4
JGCBF_REQST_DISC	F0	40	4
JGCBF_REQST_FAILURE	F0	20	4
JGCBF_SETSYS_TAPEDSORD	126	80	3
JGCBF_SSM_DEMOTE	3D	08	4
JGCBF_SSM_HOST	3C	02	4
JGCBF_SSM_PRMT_KWD	3C	20	4
JGCBF_SSM_PRMTBL	3C	40	4
JGCBF_SSM_SSTS	A2	80	6
JGCBF_STOP	3C	10	4
JGCBF_STR_INITIALIZED	F0	02	4
JGCBF_STR_TERM	F1	80	4
JGCBF_TASKS_IDENTIFIED	F0	08	4
JGCBF_TASKS_STARTED	F0	04	4

JRENT—Common Recall Queue Entry Control Block

Defines mappings for CRQ entry controls.

Table 59. JRENT—CRQ Control List Entry ID

Offsets Decimal (Hex)		Type	Length	Name	Description
0	(0)	STRUCTURE	12	JRENT_CL_ENTRYID	Control List entry id
0	(0)	CHARACTER	3	JRENT_CL_IDTYPE	Type of entry 'CES' for the CES entry Hostid||'4000'x for host entry
0	(0)	CHARACTER	2	JRENT_CL_HID	Use for host entries
2	(2)	CHARACTER	1	*	Reserved
3	(3)	CHARACTER	9	*	Reserved

Table 60. JRENT—CRQ Control List Entry Key

Offsets Decimal (Hex)		Type	Length	Name	Description
0	(0)	STRUCTURE	16	JRENT_CL_ENTRYKEY	Control List entry key
0	(0)	CHARACTER	3	JRENT_CL_KTYPE	Type of entry 'CES' for the CES entry Hostid||'4000'x for host entry
0	(0)	CHARACTER	2	JRENT_CL_HKEY	Use for host entries
2	(2)	CHARACTER	1	*	Reserved
3	(3)	CHARACTER	13	*	Reserved

Table 61. JRENT—CRQ Control List Adjunct Area

Offsets Decimal (Hex)		Type	Length	Name	Description
0	(0)	STRUCTURE	64	JRENT_CL_ADJAREA	Control list adjunct area
0	(0)	FIXED	1	JRENT_CL_CES	CRQ Eligibility Status
0	(0)	BITSTRING	1	JRENTF_CL_CES_FLAGS	CES flags
		x...		*	Reserved
		.1..		JRENTF_CL_NOT_ELIG	When set to 1, not eligible for RECALL or CQ(RECALL) or CQ(RECALL(SELECTION)) held
		..x.		*	Reserved
		...1		JRENTF_CL_TP_HELD	When set to 1, RECALL tape held
		.... x...		*	Reserved
		.... .1..		JRENTF_CL_TPTSO_HELD	When set to 1, RECALL tape(TSO) held
1	(1)	FIXED	1	JRENT_CL_POP	Processing OPtions
1	(1)	BIT(8)	1	JRENTF_CL_POP_FLAGS	POP flags
		1...		JRENTF_CL_FBID_ORD	1=Recall from tape in ascending FBID order
		xx		*	Reserved
1	(1)	CHARACTER	63	*	Reserved

Table 62. JRENT—CRQ Tape Volser Name

Offsets Decimal (Hex)		Type	Length	Name	Description
0	(0)	STRUCTURE	12	JRENT_TL_ENTRYID	Tape List entry id
0	(0)	CHARACTER	6	JRENT_TL_IDVOLSER	Tape volser name
6	(6)	CHARACTER	6	*	Reserved

Table 63. JRENT—CRQ Tape List Entry Key

Offsets Decimal (Hex)		Type	Length	Name	Description
0	(0)	STRUCTURE	16	JRENT_TL_ENTRYKEY	Tape List entry key
0	(0)	CHARACTER	6	JRENT_TL_VOLSER	Tape volser name
6	(6)	CHARACTER	10	*	Reserved

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Table 64. JRENT—CRQ Tape List Adjunct Area

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	64	JRENT_TL_ADJAREA	Tape list adjunct area
0	(0)	FIXED	2	JRENT_TL_PRIORITY	Highest priority of any single tape request needing tape
2	(2)	CHARACTER	12	JRENT_TL_HI_EID	Entry ID of highest priority Single tape request needing this tape
14	(E)	CHARACTER	2	JRENT_TL_HOSTID	Host id of the host that has tape currecntly selected for recall
16	(10)	BITSTRING	2	JRENT_TL_FLAGS	Flags
		1...		JRENTF_TL_INUSE	When set to 1, In-Use. Note that if this flag is ON, then the ...SNGL_TAPE_PROC flag will also be on if a single tape is being processed
		.1..		JRENTF_TL_SNGL_TAPE_REQ	When set to 1, Single tape request
		..1.		JRENTF_TL_SNGL_TAPE_PROC	When set to 1, processing single tape requests
		...1		JRENTF_TL_FIRST_VOL	When set to 1, first volume of multi-volume request
		.... 1...		JRENTF_TL_LAST_VOL	When set to 1, last volume of multi-volume request
		xxx		*	Reserved
18	(12)	FIXED	2	JRENT_TL_FIRST_VOL_CNT	Number of requests needing the tape as the first volume.
20	(14)	FIXED	2	JRENT_TL_LAST_VOL_CNT	Number of requests needing the tape as the last volume.
22	(16)	CHARACTER	8	JRENT_TL_CTS	TIME STAMP TL CREATED
22	(16)	CHARACTER	4	JRENT_TL_CTIME	Time the TL was created.
26	(1A)	CHARACTER	4	JRENT_TL_CDATE	Date the TL was created. The date is obtained from the TIME DEC macro in format X'Ocyyddds'
22	(16)	CHARACTER	42	*	Reserved

Table 65. JRENT—CRQ PUR Queue Entry Key

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	16	JRENT_PURL_ENTRYKEY	PUR List entry key
0	(0)	FIXED	2	JRENT_PURL_PRIORITY	Priority
2	(2)	FIXED	2	JRENT_PURL_USER_PRIORITY	Calculated user priority
4	(4)	CHARACTER	8	JRENT_PURL_USERID	Userid
12	(C)	CHARACTER	4	*	Reserved

Table 66. JRENT—CRQ SUR Queue Entry Key

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	16	JRENT_SURL_ENTRYKEY	SUR queue entry key
0	(0)	CHARACTER	6	JRENT_SURL_VOLSER	Tape volser
6	(6)	FIXED	2	JRENT_SURL_PRIORITY	MWE priority
8	(8)	FIXED	4	JRENT_SURL_FBIDCOMP	Compliment of FBID
8	(8)	CHARACTER	8	*	Reserved

Table 67. JRENT—CRQ SRL Entry Key

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	16	JRENT_SRL_ENTRYKEY	SR List entry key
0	(0)	CHARACTER	2	JRENT_SRL_HOSTID	Processing host's ID
2	(2)	CHARACTER	2	*	Reserved
4	(4)	FIXED	4	JRENT_SRL_REQNUM	MWE request number
8	(8)	CHARACTER	8	*	Reserved

Table 68. JRENT—CRQ Common Entry ID

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	12	JRENT_COMMON_ENTRYID	PUR, SUR, SR common entry id
0	(0)	CHARACTER	2	JRENT_ENTRYID_HOSTID	Host id
2	(2)	CHARACTER	2	*	Reserved
4	(4)	FIXED	4	JRENT_ENTRYID_REQNUM	MWE request number
8	(8)	CHARACTER	4	*	Reserved

Table 69. JRENT—CRQ Common Adjunct Area

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	64	JRENT_COMMON_ADJAREA	PUR, SUR, SR common adjunct area
0	(0)	CHARACTER	44	JRENT_ADJ_DSNAME	Dataset name
44	(2C)	CHARACTER	8	JRENT_ADJ_USERID	User ID
52	(34)	FIXED	4	JRENT_ADJ_RETRY	Earliest time to retry recall
56	(38)	BITSTRING	4	JRENTF_ADJ_FLAGS	Flags
		1...		JRENTF_ADJ_TAPE	When set to 1, RECALL request from tape
		.1..		JRENTF_ADJ_TPTSO	When set to 1, RECALL request from TSO
		..1.		JRENTF_ADJ_EXT	When set to 1, extent reduction request from EAV volume. Note: This flag is needed for coexistence and is only referenced by preV1R10 systems.
		...1		JRENTF_ADJ_CLTR	When set to 1, class transition candidate
		 xxxx		*	Reserved
60	(3C)	CHARACTER	4	*	Reserved

Table 70. JRENT—CRQ Action List Entry ID

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	12	JRENT_AL_ENTRYID	Action List entry id
0	(0)	CHARACTER	2	JRENT_AL_IDHOSTID	Host id
2	(2)	CHARACTER	2	*	Reserved
4	(4)	FIXED	4	JRENT_AL_REQNUM	MWE request number or timestamp portion(WTO)
8	(8)	CHARACTER	4	JRENT_AL_UNIQUE	Contains either binary zeroes or 'MSG1'.

Table 71. JRENT—CRQ Action List Entry Key

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	16	JRENT_AL_ENTRYKEY	Action List entry key
0	(0)	CHARACTER	2	JRENT_AL_HOSTID	ID of originating host
2	(2)	CHARACTER	14	*	Reserved

Table 72. JRENT—CRQ Action List Adjunct Area

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	64	JRENT_AL_ADJAREA	Action list adjunct area
0	(0)	BITSTRING	4	JRENTF_AL_FLAGS	Action list flags
		1...		JRENTF_AL_MWE_COMPLT	When set to 1, MWE complete
		.1..		JRENTF_AL_HSM_MSG	When set to 1, there is an HSM msg
		..1.		JRENTF_AL_DSS_MSG	When set to 1, there is an RSS message
		...x xxxx		*	Reserved
4	(4)	FIXED	1	JRENT_AL_MSG_ELEMCNT	Count of AL data elements
5	(5)	FIXED	1	JRENT_AL_TOTAL_MSGCNT	Total num of msg fields
6	(6)	CHARACTER	8	JRENT_AL_USERID	USERID of originator
14	(E)	CHARACTER	12	JRENT_AL_XINFO	Console info when Userid is **O-
26	(1A)	CHARACTER	38	*	Reserved

JRENT Data Area Cross-Reference

Table 73. JRENT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
JRENT_ADJ_DSNAME	0		2
JRENT_ADJ_RETRY	34		2
JRENT_ADJ_USERID	2C		2
JRENT_AL_ADJAREA	0		1
JRENT_AL_ENTRYID	0		1
JRENT_AL_ENTRYKEY	0		1
JRENT_AL_HOSTID	0		2
JRENT_AL_IDHOSTID	0		2
JRENT_AL_MSG_ELEMCNT	4		2
JRENT_AL_REQNUM	4		2
JRENT_AL_TOTAL_MSGCNT	5		2
JRENT_AL_UNIQUE	8		2
JRENT_AL_USERID	6		2
JRENT_AL_XINFO	E		2
JRENT_CL_ADJAREA	0		1
JRENT_CL_CES	0		2
JRENT_CL_ENTRYID	0		1
JRENT_CL_ENTRYKEY	0		1
JRENT_CL_HID	0		3
JRENT_CL_HKEY	0		3
JRENT_CL_IDTYPE	0		2
JRENT_CL_KTYPE	0		2
JRENT_CL_POP	1		2
JRENT_COMMON_ADJAREA	0		1
JRENT_COMMON_ENTRYID	0		1
JRENT_ENTRYID_HOSTID	0		2
JRENT_ENTRYID_REQNUM	4		2
JRENT_PURL_ENTRYKEY	0		1
JRENT_PURL_PRIORITY	0		2
JRENT_PURL_USER_PRIORITY	2		2
JRENT_PURL_USERID	4		2
JRENT_SRL_ENTRYKEY	0		1
JRENT_SRL_HOSTID	0		2
JRENT_SRL_REQNUM	4		2
JRENT_SURL_ENTRYKEY	0		1
JRENT_SURL_FBIDCOMP	8		2
JRENT_SURL_PRIORITY	6		2
JRENT_SURL_VOLSER	0		2
JRENT_TL_ADJAREA	0		1
JRENT_TL_CDATE	1A		3

Table 73. JRENT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
JRENT_TL_CTIME	16		3
JRENT_TL_CTS	16		2
JRENT_TL_ENTRYID	0		1
JRENT_TL_ENTRYKEY	0		1
JRENT_TL_FIRST_VOL_CNT	12		2
JRENT_TL_FLAGS	10		2
JRENT_TL_HI_EID	2		2
JRENT_TL_HOSTID	E		2
JRENT_TL_IDVOLSER	0		2
JRENT_TL_LAST_VOL_CNT	14		2
JRENT_TL_PRIORITY	0		2
JRENT_TL_VOLSER	0		2
JRENTF_ADJ_CLTR	38	10	3
JRENTF_ADJ_EXT	38	20	3
JRENTF_ADJ_FLAGS	38		2
JRENTF_ADJ_TAPE	38	80	3
JRENTF_ADJ_TPTSO	38	40	3
JRENTF_AL_DSS_MSG	0	20	3
JRENTF_AL_FLAGS	0		2
JRENTF_AL_HSM_MSG	0	40	3
JRENTF_AL_MWE_COMPLT	0	80	3
JRENTF_CL_CES_FLAGS	0		3
JRENTF_CL_FBID_ORD	1	80	4
JRENTF_CL_NOT_ELIG	0	40	4
JRENTF_CL_POP_FLAGS	1		3
JRENTF_CL_TP_HELD	0	10	4
JRENTF_CL_TPTSO_HELD	0	04	4
JRENTF_TL_FIRST_VOL	10	10	3
JRENTF_TL_INUSE	10	80	3
JRENTF_TL_LAST_VOL	10	08	3
JRENTF_TL_SNGL_TAPE_PROC	10	20	3
JRENTF_TL_SNGL_TAPE_REQ	10	40	3

L2CR—Migration Level 2 Control Record

The migration level-2 control record (L2CR) defines the structure of migration level-2 DASD volumes and their associated key ranges. A copy is maintained in the DFSMShsm work space. It is a data area record in the migration control data set. Migration level-2 control records are 68 bytes long, plus 32 bytes for each key range definition. The maximum number of key ranges is 29 if the maximum record permitted in the MCDS is 1016, but it is 61 if the maximum record permitted is 2040. The record type is S.

The key for a type S level 2 control record is the constant L2CR. An example of the key that is used with an S level 2 control record is:

```
FIXCDS S L2CR
```

Table 74. L2CR—Migration Level 2 Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0	(0)	STRUCTURE	*	L2CR	
0(0)		CHARACTER	44	L2CRKEY	Migration level-2 control record key, consisting of X'10', followed by L2CR, and padded with blanks.
44(2C)		CHARACTER	20	L2CRMCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	*	L2CRDATA	Data area.
64(40)	0(0)	CHARACTER	4	L2CRHDR	Migration level-2 control record header.
64(40)	0(0)	FIXED	2	L2CRNVOL	Number of volumes in the level 2 structure.
66(42)	2(2)	BITSTRING	1	L2CRFLGS	This byte contains flags.
67(43)	3(3)	FIXED	1	L2CRNENT	Number of level 2 key ranges. This area may be larger than the number of volumes if empty entries exist.
The following information is repeated once for each key range in ascending alphanumeric order:					
68(44)	4(4)	CHARACTER	32	L2CRKEYR	The following 32 bytes contain key range information.
68(44)	4(4)	CHARACTER	8	L2CRLOKY	Low key for a key range. The data set high-level qualifier must be greater than or equal to this key to be migrated to the associated level 2 volume.
76(4C)	12(C)	CHARACTER	8	L2CRHIKY	High key for a key range. The data set high-level qualifier must be less than this key to be migrated to the associated level 2 volume.
84(54)	20(14)	CHARACTER	6	L2CRKRVL	Volume currently associated with this key range.
90(5A)	26(1A)	BITSTRING	1	L2CRDEVT	Device type code indicated in the unit control block of the volume.
91(5B)	27(1B)	BITSTRING	1	*	This byte contains the following flags:
		1...		L2CRMSS	When set to 1, the volume is a virtual volume.
		.1..		L2CRNMIG	When set to 1, skip this key range.
		..xx xxxx		*	Reserved.
92(5C)	28(1C)	CHARACTER	8	*	Reserved.

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L2CR Data Area Cross-Reference

Table 75. L2CR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
L2CR	0		1
L2CRDATA	40		2
L2CRDEVT	5A		4
L2CRFLGS	42		4
L2CRHDR	40		3
L2CRHIKY	4C		4
L2CRKEY	0		2
L2CRKEYR	44		3
L2CRKRVL	54		4
L2CRLOKY	44		4
L2CRMCH	2C		2
L2CRMSS	5B	80	5
L2CRNENT	43		4
L2CRNMIG	5B	40	5
L2CRNVOL	40		4

MCA—Migration Control Data Set Alias Entry Record

The migration control data set alias entry record (MCA) describes the association of a migrated data set name with the original name of the user data set. This data area record type is a migration control data set record. The record is used in two ways:

1. An alias entry record exists for each migrated data set, and the name being associated is the generated name of the migration data set containing the users data.
2. An alias entry record also exists for each object of a migrated VSAM data set, and the name being associated is that of the VSAM object.

Migration control data set alias entry records are 112 bytes long. The record type is A.

The key for a type A migration control data set alias entry record is the migrated data set name. An example of the key that is used with an A migration control data set alias entry record is:

```
FIXCDS A DFHSM.HMIG.T231510.USER.DATA.H4060
```

Notes:

1. There are multiple MCA records for VSAM data sets. The key for the cluster is the HSM generated name, while the key for a component is the component name.
2. MCA records are not generated for data sets that migrate to small data set packing (SDSP) data sets.

Table 76. MCA—Migration Control Data Set Alias Entry Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Migration control data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	48	MCA	Migration control data set alias entry record.
64(40)	0(0)	CHARACTER	1	MCAINTTP	This byte contains one of the following recall intercept types: D - Data object I - Index object R - Path object G - AIX object M - Generated name of migration data set (VSAM or non-VSAM).
65(41)	1(1)	CHARACTER	1	MCAVSATP	VSAM association type: C - Cluster G - AIX
66(42)	2(2)	CHARACTER	2	*	Reserved.
68(44)	4(4)	CHARACTER	44	MCAINTNM	Migration control data set alias entry record key, which is the name of the user data set.

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MCA Data Area Cross-Reference

Table 77. MCA Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCA	40		1
MCAINTNM	44		2
MCAINTTP	40		2
MCAVSATP	41		2

MCB—Backup Control Data Set Data Set Record

The backup control data set data set record (MCB) describes a data set that has been backed up and that identifies backup versions. This data area record type is a backup control data set data set record. Part of the base portion (offset 64-140) describes the latest version made, such as dates, flags, counts, and size. This can be confusing and meaningless if several data sets have the same name. Backup control data set records are 144 bytes long, plus 64 bytes for each backup version description. The record type is B.

The key for a type B backup control data set data set record is the original data set name. An example of the key that is used with a B backup control data set data set record is:

```
FIXCDS B USER.DATA.NAME
```

Table 78 (Page 1 of 2). MCB—Backup Control Data Set Data Set Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	MCDS data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	80	MCB	Data portion of the BCDS data set record.
64(40)	0(0)	CHARACTER	6	MCBVSN	MCBVSN contains the volume serial number of the volume containing the most recently created backup version at the time the MCB record was created.
70(46)	6(6)	FIXED	2	MCBMBC	Maximum number of backup copies. –1 means to use the system default.
72(48)	8(8)	CHARACTER	8	MCBTSLU	Time stamp when dataset was last updated
72(48)	8(8)	CHARACTER	4	MCBTLU	Time in packed decimal
76(4C)	12(C)	CHARACTER	4	MCBDLU	Date in packed decimal (PRIORONLY in version to 2.4.0). Also used by HSM utility for its scratch date, w/x'FF' in first byte, and entire time stamp used in vandion for both VSAM and non-VSAM
80(50)	16(10)	CHARACTER	8	MCBTSBU	Time stamp backup copy made.
80(50)	16(10)	CHARACTER	4	MCBTBU	Time when the latest backup version was made. The time is obtained from the TIME macro in hundredths of seconds.
84(54)	20(14)	CHARACTER	4	MCBDBU	Date when the latest backup version was made. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
88(58)	24(18)	BITSTRING	2	MCBDSORG	Data set organization from the data set control block.
90(5A)	26(1A)	FIXED	2	MCBBLKSZ	Maximum block size of the data set.
92(5C)	28(1C)	FIXED	1	MCBKEYLN	Key length of the data set.
93(5D)	29(1D)	BITSTRING	1	MCBRECFM	Data set record format from the VTOC entry:
		11..		MCBRFTYP	These flags indicate a V, B, or F format.
		..1.		MCBRFTO	When set to 1, the track overflow feature is present.
		...x xxxx	1	*	Reserved.
94(5E)	30(1E)	BITSTRING	1	MCBDSIND	Data set indicators from the data set VTOC entry.
		x...		*	Reserved.
		.1..		MCBFRACF	When set to 1, the data set is RACF indicated.
		..x.		*	Reserved.
		...1		MCBFSCTY	When set to 1, the data set is password protected.
		.... x...		*	Reserved.
		.... .1..		MCBFWSEC	When set to 1, the data set is write password protected.
		.... ..1.		MCBDSCHA	When set to 1, the data set was changed.
		x		*	Reserved.
95(5F)	31(1F)	FIXED	1	MCBCOMPR	Percent of space saved if the data set was compacted.
96(60)	32(20)	FIXED	4	MCBSIZE	Size allocation, in tracks, on the users volume.

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Table 78 (Page 2 of 2). MCB—Backup Control Data Set Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
100(64)	36(24)	FIXED	4	MCBSIZEB	When MCBFSIZE is set to 0, then this is the size used, in bytes, on the user volume. When MCBFSIZE is set to 1, then this is the size used, in KB (1024 bytes), on the user volume. When MCBFMSIZE is set to 1, then this is the used size in megabytes on the user volume (1024 KB).
104(68)	40(28)	FIXED	4	MCBCSZ	Size of the latest version of the data set in 2K blocks on the backup volume.
108(6C)	44(2C)	FIXED	2	MCB_MCBR_SEQ	For MCB, this indicates the seq num of the most recent MCBR. For MCBR, the field stands for the seq number of the current MCBR
110(6E)	46(2E)	BITSTRING	2	MCBFLGS	The next 2 bytes contain the following flags:
		1...		MCBFASN	When set to 1, this record contains information about backup versions. When set to 0, this record does not contain information about backup versions.
		.1..		MCBFDBU	When set to 1, DFSMShsm found a current backup version during data set retirement processing. DFSMShsm scratches the user data set.
		..1.		MCBFSMS	When set to 1, the data set was an SMS-managed data set when it was last backed up.
		...1		MCBFSIZE	When set to 1, MCBSIZEB represents KB (1024 bytes).
		.... 1...		MCBFCCSR	When set to 1, current copy session was started and has not finished.
		.... .1..		MCBFNRCM	When set to 1, invoke the recovery manager notification service.
		.... ..1.		MCBFMSIZE	When set to 1, MCBSIZEB is in Mbytes.
		1		MCBF_ZEDC	When set to 1, zEDC compression was used during backup.
		x		*	Reserved.
112(70)	48(30)	FIXED	2	MCBGEN	Version (not generation) number of the latest backup version.
114(72)	50(32)	FIXED	2	MCBNBC	Current number of backup versions for the cataloged data set.
116(74)	52(34)	FIXED	2	MCBTBC	Total number of backup versions.
118(76)	54(36)	FIXED	2	MCBFREQ	Backup frequency in days. The data set will not be backed up automatically more frequently than this value. –1 means to use the system default.
120(78)	56(38)	CHARACTER	4	MCBDLRPB	MCBDLRPB is maintained only for non-VSAM cataloged data sets. It contains the date last referenced that existed at the time of backup. It is in the format *X'0cyyddds'*.
124(7C)	60(3C)	CHARACTER	4	MCBCTID	Compaction table identification if the cataloged data set was compacted.
128(80)	64(40)	CHARACTER	8	MCBVSPWD	Master password of the VSAM sphere at the time it was last backed up.
136(88)	72(48)	CHARACTER	4	MCBSCRD	Date when the data set was determined to not be cataloged (date is in packed decimal format).
140(8C)	76(4C)	FIXED	8	MCBZCOMP	Percent of space saved by zEDC compression.
141(8D)	77(4D)	CHARACTER	3	*	Reserved.
144(90)	80(50)	CHARACTER		MCBENDF	End of fixed portion of record.

The following array (see Table 79) is based on the address of MCBENDF and repeats for for each backup version:

Table 79. MCB—Based on Address of MCBENDF

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	64(*)	MCBBUI	Backup copy information.
0	(0)	CHARACTER	44	MCBBDSN	Data set name of the backup version.
44	(2C)	CHARACTER	6	MCBFRVOL	Serial number of the user volume the data set resides on.
50	(32)	BITSTRING	2	MCBBUIF	The next 2 bytes contain the following backup version flags:
		1...		MCBFONL1	When set to 1, the backup version was made by the BACKDS or HBACKDS command, and is currently on a migration level 1 volume.
		.1..		MCBFCAT	When set to 1, the data set was cataloged as being on the MCBFRVOL volume when the backup version was made.
		..1.		MCBFVSDS	When set to 1, this data set is a VSAM data set.
		...1		MCBFTAPE	When set to 1, this backup version is on tape.
		.... 1...		MCBFDBUV	When set to 1, this is a retired data set.
		.... .1..		MCBFPROF	When set to 1, a backup profile exists for this backup version.
		.... ..1.		MCBFVSMS	When set to 1, this version of the data set is SMS-managed.
		1		MCBFEXPD	When set to 1, this version of the data set has expired. (This field is set to 1 only in an in-storage copy used by EXPIREBV.)
51	(33)	1...		MCBF_RETAIN_SPCD	When set to 1, RETAINDAYS specified on backup copy
		.1..		MCBF_NEVER_EXPIRE	When set to 1, the version never expires.
		..1.		MCBF_NONEXP_ROLLOFF	When set to 1, version is rolled off, but has not been expired
		...x xxxx		*	Reserved
52	(34)	CHARACTER	4	MCBCDATE	Date that this backup version was made. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
56	(38)	FIXED	4	MCBVER	Backup data set version.
60	(3C)	FIXED	2	MCB_RETAINDAYS	RETAINDAYS specified for the copy
62	(3E)	CHARACTER	2	*	Reserved.

MCB Data Area Cross-Reference

Table 80 (Page 1 of 2). MCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCB	40		1
MCB_MCBR_SEQ	6C		2
MCB_RETAINDAYS	3C		2
MCBBDSN	0		2
MCBBLKSZ	5A		2
MCBBUI	0		1
MCBBUIF	32		2
MCBCDATE	34		2
MCBCOMPR	5F		2
MCBCSZ	68		2
MCBCTID	7C		2
MCBDBU	54		3
MCBDLRPB	78		2
MCBDLU	4C		3
MCBDSCHA	5E	02	3
MCBDSIND	5E		2
MCBDSORG	58		2
MCBENDF	90		2

Table 80 (Page 1 of 2). MCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCBF_NEVER_EXPIRE	33	40	3
MCBF_NONEXP_ROLLOFF	33	20	3
MCBF_RETAIN_SPCD	33	80	3
MCBFASN	6E	80	3
MCBFCAT	32	40	3
MCBFCCSR	6E	08	3
MCBFDBU	6E	40	3
MCBFDBUV	32	08	3
MCBFEXPD	32	01	3
MCBFLGS	6E		2
MCBFMSIZE	6E	02	3
MCBFNRCM	6E	04	3
MCBFONL1	32	80	3
MCBFPROF	32	04	3
MCBFRACF	5E	40	3
MCBFREQ	76		2
MCBFRVOL	2C		2
MCBFSCTY	5E	10	3

Table 80 (Page 2 of 2). MCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCBFSIZE	6E	10	3
MCBFSMS	6E	20	3
MCBFTAPE	32	10	3
MCBFVSDS	32	20	3
MCBFVSMS	32	02	3
MCBFWSEC	5E	04	3
MCBGEN	70		2
MCBKEYLN	5C		2
MCBMBC	46		2
MCBNBC	72		2
MCBRECFM	5D		2
MCBRFTO	5D	20	3
MCBRFTYP	5D	C0	3
MCBSCRD	88		2
MCBSIZE	60		2
MCBSIZEB	64		2
MCBTBC	74		2
MCBTBU	50		3
MCBTLU	48		3
MCBTSBU	50		2
MCBTSLU	48		2
MCBVER	38		2
MCBVSN	40		2
MCBVSPWD	80		2

MCBR—Backup Control Data Set Data Set Record (Retained)

The MCB and MCBR records have identical mappings. An MCB record contains active backup copies while an MCBR contains retained backup copies. While the records have identical mappings, not all fields are used in each record. Individual field comments will describe the differences. The key to an MCBR is different than an MCB, hence MCBR_KEY is defined here. A simple conversion algorithm is used to convert the key of the MCB (the original data set name) to a unique key for a subsequent new MCBR record. MCBR_KEY consists of a partial of DSNAME (or MCB key) combined with a series of characters that are converted from MCBDSN, and a sequential number for ordering MCBRs (X'FFFF' to X'0001', where X'FFFF' is the oldest MCBR sequential number).

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MCC—Backup Control Data Set Backup Version Record

The backup control data set backup version record (MCC) describes a backup version of a data set. Backup control data set backup version records are 380 bytes long, plus 6 times one less than the number of tape volumes that are used.

For example, if 11 volumes are used, the record length would be computed as follows:

```
 11 –   1 = 10
 10 ×   6 = 60
380 +  60 = 440
```

The total record length of this MCC record is 440 bytes. A maximum of 254 tape volumes can be used, so the maximum record length is 1898 bytes. The record type is C.

The key for a type C backup control data set backup version record is the backup version data set name. An example of the key that is used with a C backup control data set backup version record is:

```
FIXCDS C DFHSM.BACK.T352016.DATA.NAME.H4323
```

Using the DISPLAY GEN(*nn*) parameter or the PATCH GEN(*nn*) parameter with the FIXCDS command allows you to specify the original data set name, along with a generation number, instead of specifying the DFSMShsm-generated name for the backup version data set. An example of displaying a type C backup version record using the original data set name and a generation number is:

```
FIXCDS C JLT7652.REPORT.DATA DISPLAY GEN(0)
```

Table 81 (Page 1 of 4). MCC—BCDS Backup Version Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Backup control data set backup version record key, consisting of the data set name of a backup version and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	316	MCC	Data portion of the BCDS backup version record.
64(40)	0(0)	CHARACTER	44	MCCADSN	Data set name of the original data set.
108(6C)	44(2C)	CHARACTER	6	MCCVSN	Volume serial number of the backup volume containing this version.
114	(72)	FIXED	2	MCCBCN	BACKUP COPY NUMBER NX
114(72)	50(32)		2	*	Reserved.
116(74)	52(34)	CHARACTER	4	MCCUCBTY	The next 4 bytes contain the device type of the backup volume.
116(74)	52(34)	CHARACTER	2	*	Reserved.
118(76)	54(36)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCCTPDEV	When set to 1, this version is on a tape device.
		.xxx xxxx		*	Reserved.
120(78)	56(38)	CHARACTER	8	MCCTSBU	Time stamp when backup copy is created, containing the following:

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Table 81 (Page 2 of 4). MCC—BCDS Backup Version Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
120(78)	56(38)	CHARACTER	4	MCCTSBUT	Time when the version was made. The time is obtained from the TIME macro in format *X'hhmmssth'*.
124(7C)	60(3C)	CHARACTER	4	MCCTSBUD	Date when the version was made. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
128(80)	64(40)	BITSTRING	2	MCCDSORG	Data set organization from the data set control block:
128(80)	64(40)	BITSTRING	1	*	Reserved.
129(81)	65(41)	xxxx		*	Reserved.
		.... 1...		MCCFVSDS	Data set organization of the VSAM.
		xxx		*	Reserved.
130(82)	66(42)	FIXED	2	MCCBLKSZ	Maximum block size of the data set.
132(84)	68(44)	FIXED	1	MCCKEYLN	Key length of the data set.
133(85)	69(45)	BITSTRING	1	MCCRECFM	Data set record format from the VTOC entry:
		11..		MCCRFTYP	These flags indicate a V, B, or F format.
		..1.		MCCRFTO	When set to 1, the track overflow feature is present.
		...x xxxx		*	Reserved.
134(86)	70(46)	FIXED	2	MCCGEN	A unique binary version number assigned to a backup version as it is created, it represents the number of backups made of this data set name. It is what is used with the VERSION parameter of the RECOVER command, the HRECOVER command, or the ARCHRCOV user macro.
136(88)	72(48)	FIXED	4	MCCSIZE	Size allocation, in tracks, on the user's volume.
140(8C)	76(4C)	FIXED	4	MCCSIZEB	If MCCFSIZE is set to 0, then this is the size used, in bytes, on the user volume. If MCCFSIZE is set to 1, then this is the size used, in KB (1024 bytes), on the user volume. If MCCFMSIZE is set to 1, then this is the used size in megabytes (1024 KB) on the user volume.
144(90)	80(50)	FIXED	4	MCCCSZ	Size of the data set in 2K blocks.
148(94)	84(54)	FIXED	2	MCCVOLSQ	Volume sequence of 3480 tape, written in the single-file format, in the volume set.
150(96)	86(56)	BITSTRING	2	MCCFLGS	The next 2 bytes contain the following flags:
		1...		MCCFASN	1=ENTRY IN USE, 0=EMPTY ENTRY NX
		.1..		MCCFPDSX	When set to 1, the data set was a Hierarchical File System (HFS) data set when backed up.
		..1.		MCCFCAT	When set to 1, the data set was cataloged on the correct volume at the time that this backup version was made. When set to 0, the data set was cataloged on another volume or was not cataloged.
		...1		MCCF1ICD	When set to 1, the VSAM data set is cataloged in the Integrated Catalog Facility catalog.
		.... 1...		MCCF1ICC	When set to 1, this is an Integrated Catalog Facility catalog.
		.... .1..		MCCFTSP	When set to 1, the tape security option for the backup version is password.
		.... ..1.		MCCFTSD	When set to 1, the tape security option for the backup version is date.
		1		MCCFDELC	When set to 1, the backup version is no longer valid and should be scratched.
151(97)	87(57)	1...		MCCFEOS	When set to 1, the backup version should be erased when it is scratched.
		.1..		MCCFD23	When set to 1, DFP 2.3.0 or higher was installed when this backup version was created.
		..1.		MCCFDMV	When set to 1, DFSMSdss was the data mover used when the backup was processed.
		...1		MCCFPDSE	When set to 1, the data set backed up is a PDSE data set.
		.... 1...		MCCFNONQ	When set to 1, standard serialization was not used during backup processing.
		.... .1..		MCCFVBSZ	When set to 1, MCCVBSZB represents KB (1024 bytes).
		.... ..1.		MCCFSIZE	When set to 1, MCCSIZEB represents KB (1024 bytes).
		1		MCCFSTRP	When set to 1, data set was striped when backed up.
152(98)	88(58)	BITSTRING	1	MCCDSIND	This byte contains the data set indicators from the data set VTOC entry:
		x...		*	Reserved.
		.1..		MCCFRACF	When set to 1, the data set is RACF-protected.
		..x.		*	Reserved.
		...1		MCCFSCTY	When set to 1, the data set is password protected.
		.... x...		*	Reserved.
		.... .1..		MCCFWSEC	When set to 1, the data set is write password protected.
		xx		*	Reserved.
153(99)	89(59)	BITSTRING	1	MCCFLGSA	This byte contains the following flags:

Table 81 (Page 3 of 4). MCC—BCDS Backup Version Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		1...		MCCFNQN1	When set to 1, this version is created even though serialization failed (once).
		.1..		MCCFNQN2	When set to 1, this version is created even though serialization failed once, the backup retried and serialization failed again.
		..1.		MCCFSDVF	When set to 1, this version is created even though a SYNC or NOTE failed to update the MEDIA_FBID. The data is moved to the tape at close, if not before.
		...1		MCCFNRCM	When set to 1, invoke the recovery control manager notification service.
		.... 1...		MCCFLFS	When set to 1, data set was large format sequential when backed up.
		.... .1..		MCCDSRNM	Data set renamed by ARECOVER.
		xx		*	Reserved.
154(9A)	90(5A)	CHARACTER	6	MCCFRVOL	Serial number of the volume that the original data set was on when the backup version was made.
160(A0)	96(60)	CHARACTER	4	MCCCTID	The next 4 bytes contain the identifier of the compaction table.
164(A4)	100(64)	CHARACTER	4	MCCFRUCB	UCB device type of the volume that the original data set was on.
168(A8)	104(68)	CHARACTER	8	MCCTSLU	Time stamp when last updated, containing the following:
168(A8)	104(68)	CHARACTER	4	MCCTSLUT	A field containing zeros.
172(AC)	108(6C)	CHARACTER	4	MCCTSLUD	Date the VSAM data set was last updated or the date the backup version was created for the non-VSAM data set. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
176(B0)	112(70)	FIXED	4	MCCVBSZB	If MCCFVBSZ is set to 0, then this is the number of bytes in the VSAM base cluster. If MCCFVBSZ is set to 1, then this is the number of KB (1024 bytes) in the base cluster. If MCCFVBMSZ is set to 1, then this is the number of megabytes (1024 KB) in the base VSAM cluster.
180(B4)	116(74)	FIXED	4	MCCVBCXZ	Size, in 2K blocks, of the VSAM base cluster.
184(B8)	120(78)	FIXED	4	MCCTPBLK	Total number of 16K blocks the backup version occupies on all volumes.
188(BC)	124(7C)	CHARACTER	4	MCCTERN	TTOC entry for the TTOC extension record of the migration copy.
192(C0)	128(80)	FIXED	4	MCCFBID	Contains positioning information necessary to recover a data set from tape. For single-file format tapes: contains the block-ID of the first block of the backup version on a backup tape. For multi-file format tapes: contains the file sequence number of the backup version contained in a volume set that may span multiple tapes.
196(C4)	132(84)	FIXED	2	MCCNVSN	The number of volumes, excluding the first, that contain the backup version.
198(C6)	134(86)	FIXED	2	MCCNVSNO	Offset in this record from MCCADSN to the beginning of MCCAVSN(1).
200(C8)	136(88)	CHARACTER	96	MCCSMSWA	Area consisting of SMS constructs, containing the following:
200(C8)	136(88)	FIXED	2	MCCDCLEN	Length of the data class name.
202(CA)	138(8A)	CHARACTER	30	MCCDCNAM	Data class name.
232(E8)	168(A8)	FIXED	2	MCCSCLEN	Length of the storage class name.
234(EA)	170(AA)	CHARACTER	30	MCCSCNAM	Storage class name.
264(108)	200(C8)	FIXED	2	MCCMCLEN	Length of the management class name.
266(10A)	202(CA)	CHARACTER	30	MCCMCNAM	Management class name.
296(128)	232(E8)	CHARACTER	4	MCCEXPDT	Data set expiration date.
300(12C)	236(EC)	FIXED	1	MCCRECOR	VSAM data set record organization.
301(12D)	237(ED)	BITSTRING	1	MCCSMSFG	This byte contains the following SMS-related flags:
		1...		MCCFGDG	When set to 1, the data set is a generation data set.
		.1..		MCCFROG	When set to 1, the data set is a rolled-off generation data set.
		..1.		MCCKEYRG	When set to 1, the data set is a VSAM keyrange data set.
		...1		MCCFMVOL	When set to 1, the data set is a multiple-volume data set.
		.... 1...		MCCFSMS	When set to 1, the data set is an SMS-managed data set.
		.... .1..		MCCFRBLK	When set to 1, the data set is a system-reblockable data set.
		.... ..1.		MCCFBWO	When set to 1, the data set may have been backed up while open.
		 1		MCCF_COMPR	When set to 1, the data set is in compressed format.

Table 81 (Page 4 of 4). MCC—BCDS Backup Version Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
302(12E)	238(EE)	CHARACTER	8	MCCDLBU	Date that the data set was last backed up (STCK format). It is only filled in for SMS data sets.
310(136)	246(F6)	CHARACTER	16	MCCROWNR	Resource owner name.
326(146)	262(106)	CHARACTER	8	MCCRDATA	Recovery data field.
334(14E)	270(10E)	CHARACTER	4	MCCSCALO	Secondary allocation information, containing the following:
334(14E)	270(10E)	CHARACTER	1	MCCSCAL1	This byte contains the following flags:
		11..		MCCALCYL	Cylinder request.
		1...		MCCALTRK	Track request.
		.1..		MCCALBLK	Block request.
		..xx xxxx		*	Reserved.
335(14F)	271(10F)	CHARACTER	3	MCCSCAL3	Secondary allocation quantity.
338(152)	274(112)	CHARACTER	2	MCCBVTYP	Backup volume type indicated by the first two characters of the TTOC key.
340(154)	276(114)	FIXED	4	MCC_USER_ DATASIZE	Valid when MCCF_COMPR is set to 1. This value represents, in KB (1024 bytes), the size of the data set if it were not compressed.
344(158)	280(118)	FIXED	4	MCC_COMP_ DATASIZE	Valid when MCCF_COMPR is set to 1. This value represents, in KB (1024 bytes), the actual size of the (compressed) data set.
348(15C)	284(11C)	CHARACTER	16	MCC_RLS_TIMES	RLS time stamps.
348(15C)	284(11C)	CHARACTER	8	MCC_RLS_GMTTIME	RLS recover time stamp (GMT).
356(164)	292(124)	CHARACTER	8	MCC_RLS_LOCTIME	RLS recover time stamp (local).
364(16C)	300(12C)	BITSTRING	1	MCCFLGS2	This byte contains the following SMS-related flags:
		1...		MCC_FRLS_RCVRQD	State of RCV RQD indicator.
		.1..		MCCF_NEWNAME	When set to 1, NEWNAME specified on backup.
		..1.		MCCF_NOSPHERE	When set to 1, SPHERE(NO) processed on backup.
		...1		MCCF_GVCN	When set to 1, GENVSAMCOMPNAME processed on backup.
		.... 1...		MCCF_APEXIST	When set to 1, An associated AIX and/or PATH existed for this data set at backup time.
		.... .1..		MCCF_NOSPH_RESTOR	When set to 1, Do not specify SPHERE on a DFSMSdss RESTORE of this backup version.
		.... ..1.		MCCF_RETAINED_BCKCPY	When set to 1, stands for retained version
		1		MCCF_RETAIN_SPCD	When set to 1,RETAINDAYS spec'd for the backup version
365(16D)	301(12D)	BIT(8)	1	MCCFLGS3	More flags
		1...		MCCF_NEVER_EXPIRE	When set to 1, the copy never expires
		.1..		MCCF_LFSBV	When set to 1, the backup version is LFS DS
		..1.		MCCFMSIZE	When set to 1, MCCSIZEB is in megabytes
		...1		MCCFVBMSZ	When set to 1, MCCVBSZB is in megabytes
		.... 1...		MCC_FMB	When set to 1, MCC_USER_DATASIZE and MCC_COMP_DATASIZE are in megabytes
		.... .1..		MCCF_DSCBF8_BV	When set to 1, the backup version has F8 DSCB
		xx		*	Reserved.
366(16E)	302(12E)	FIXED	2	MCC_RETAINDAYS	RETAINDAYS val for ds bckcpy
368(170)	304(130)	FIXED	2	MCC_SEQ	The sequential num of MCBR that this version belongs to
370(172)	306(132)	FIXED	2	*	Reserved.
372(174)	308(134)	FIXED	4	MCCVBCXZ_HO	High order for MCCVBCXZ
376(178)	312(138)	FIXED	4	MCCCSZ_HO	High order for MCCCSZ
380(17C)	316(13C)	CHARACTER		MCCEND	End of record.

The following array exists if this backup version resides on more than one tape and is addressed by the MCCNVSNO field (see Table 82):

Table 82. MCC—BCDS Backup Version Record Array

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	CHARACTER	6	MCCAVSN	MCCAVSN is an array containing volume serial numbers of additional volumes after the first one that contains the backup version. The first volume serial number is given in the MCCVSN field.

MCC Data Area Cross-Reference

Table 83 (Page 1 of 2). MCC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCC	40		1
MCC_COMP_DATASIZE	158		2
MCC_FMB	16D	08	3
MCC_FRLS_RCVRQD	16C	80	3
MCC_RETAINDAYS	16E		2
MCC_RLS_GMTTIME	15C		3
MCC_RLS_LOCTIME	164		3
MCC_RLS_TIMES	15C		2
MCC_SEQ	170		2
MCC_USER_DATASIZE	154		2
MCCADSN	40		2
MCCALBLK	14E	40	5
MCCALCYL	14E	C0	4
MCCALTRK	14E	80	5
MCCBCN	72		2
MCCBLKSZ	82		2
MCCBVTYP	152		2
MCCCSZ	90		2
MCCCSZ_HO	178		2
MCCCTID	A0		2
MCCDCLEN	C8		3
MCCDCNAM	CA		3
MCCDLBU	12E		2
MCCDSIND	98		2
MCCDSORG	80		2
MCCDSRNM	99	04	3
MCCEND	17C		2
MCCEXPDT	128		2
MCCF_APEXIST	16C	08	3
MCCF_COMPR	12D	01	3
MCCF_DSCBF8_BV	16D	04	3
MCCF_GVCN	16C	10	3
MCCF_LFSBV	16D	40	3
MCCF_NEVER_EXPIRE	16D	80	3
MCCF_NEWNAME	16C	40	3
MCCF_NOSPH_RESTOR	16C	04	3
MCCF_NOSPHERE	16C	20	3
MCCF_RETAIN_SPCD	16C	01	3
MCCF_RETAINED_BCKCPY	16C	02	3
MCCFASN	96	80	3

Table 83 (Page 1 of 2). MCC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCCFBID	C0		2
MCCFBWO	12D	02	3
MCCFCAT	96	20	3
MCCFDELC	96	01	3
MCCFDMV	97	20	3
MCCFD23	97	40	3
MCCFEOS	97	80	3
MCCFGDG	12D	80	3
MCCFLFS	99	08	3
MCCFLGS	96		2
MCCFLGSA	99		2
MCCFLGS2	16C		2
MCCFLGS3	16D		2
MCCFMSIZE	16D	20	3
MCCFMVOL	12D	10	3
MCCFNONQ	97	08	3
MCCFNQN1	99	80	3
MCCFNQN2	99	40	3
MCCFNRCM	99	10	3
MCCFPDSE	97	10	3
MCCFPDSX	96	40	3
MCCFRACF	98	40	3
MCCFRBLK	12D	04	3
MCCFROG	12D	40	3
MCCFRUCB	A4		2
MCCFRVOL	9A		2
MCCFSCTY	98	10	3
MCCFSDVF	99	20	3
MCCFSIZE	97	02	3
MCCFSMS	12D	08	3
MCCFSTRP	97	01	3
MCCFTSD	96	02	3
MCCFTSP	96	04	3
MCCFVBMSZ	16D	10	3
MCCFVBSZ	97	04	3
MCCFVSDS	81	08	3
MCCFWSEC	98	04	3
MCCF1ICC	96	08	3
MCCF1ICD	96	10	3
MCCGEN	86		2

Table 83 (Page 2 of 2). MCC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCCKEYLN	84		2
MCCKEYRG	12D	20	3
MCCMCLEN	108		3
MCCMCNAM	10A		3
MCCNVSN	C4		2
MCCNVSNO	C6		2
MCCRDATA	146		2
MCCRECFM	85		2
MCCRECOR	12C		2
MCCRFTO	85	20	3
MCCRFTYP	85	C0	3
MCCROWNR	136		2
MCCSCALO	14E		2
MCCSCAL1	14E		3
MCCSCAL3	14F		3
MCCSCLEN	E8		3
MCCSCNAM	EA		3
MCCSIZE	88		2
MCCSIZEB	8C		2
MCCSMSFG	12D		2
MCCSMSWA	C8		2
MCCTERN	BC		2
MCCTPBLK	B8		2
MCCTPDEV	76	80	4
MCCTSBU	78		2
MCCTSBUD	7C		3
MCCTSBUT	78		3
MCCTSLU	A8		2
MCCTSLUD	AC		3
MCCTSLUT	A8		3
MCCUCBTY	74		2
MCCVBCXZ	B4		2
MCCVBCXZ_HO	174		2
MCCVBSZB	B0		2
MCCVOLSQ	94		2
MCCVSN	6C		2

MCD—Migration Control Data Set Data Set Record

The migration control data set data set record (MCD) describes migration information for an individual data set (see Table 84). Migration control data set data set records are 520 bytes long, plus 6 times one less than the number of tape volumes that are used. For example, if 11 volumes are used, the record length is computed as follows:

```
  11 –   1 = 10
  10 ×   6 = 60
 520 +  60 = 580
```

The total length of this MCD record is 580 bytes. A maximum of 254 tape volsers can be used, so the maximum record length is 2038. The record type is D.

The key for a type D migration control data set data set record is the original data set name. An example of the key that is used with an D migration control data set data set record is:

```
FIXCDS D USER.DATA.NAME
```

Table 84 (Page 1 of 6). MCD—MCDS Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	MCDS data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	404	MCD	Data portion of the MCDS data set record.
64(40)	0(0)	CHARACTER	6	MCDVSN	Volume serial number of the first migration volume containing the data set.
70(46)	6(6)	BITSTRING	2	MCDFLGS	These 2 bytes contain the following flags:
		1...		MCDFASN	When set to 1, this is a valid migrated data set. When set to 0, either no migrate copy exists or if one exists, it is invalid.
		.1..		MCDFMIG	When set to 1, the data set is to be migrated.
		..1.		MCDFNOMG	When set to 1, the data set is prevented from migrating.
		...1		MCDFDEL	When set to 1, the data set was deleted.
		.... 1...		MCDFSDP	When set to 1, the data set is in a VSAM SDSP data set.
		.... .1..		MCDFL2	When set to 1, the data set is on a migration level 2 volume. When set to 0, the data set is on a migration level 1 volume.
		.... ..1.		MCDFNSCR	When set to 1, the data set has been recalled, but the migration copy is not yet scratched.
		1		MCDJES3	When set to 1, the record has been processed during DFSMShsm JES3 setup.
71(47)	7(7)	1...		MCDFMCO	When set to 1, an MCO record exists.
		.1..		MCDFMIGP	When set to 1, VSAM migration is in progress.
		..1.		MCDNOUPD	When set to 1, the discrete RACF profile was not updated. For data sets that are RACF protected, the RACF profile indicates the volume serial number of the volume from which the data set migrated.
		...1		MCDRACND	When set to 1, the migrated cluster is RACF indicated; it can be recalled, but not deleted.
		.... 1...		MCDFEOS	When set to 1, the data set had the erase attribute specified when the MCDFNSCR bit was set to 1.
		.... .1..		MCDFSMVL	When set to 1, space-management flags are valid.
		.... ..1.		MCDFDUMD	When set to 1, this is a dummy MCD record.
		1		MCDFR3	When set to 1, the record was created by HSM Release 3 or a release of DFSMShsm.
72(48)	8(8)	FIXED	1	MCDCOMPR	Percent of space saved if the data set is compacted.

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Table 84 (Page 2 of 6). MCD—MCDS Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
73(49)	9(9)	FIXED	1	MCDRV	DFSMShsm version, release and modification level. This field is frozen at the 1.5.0 level. The field MCD_VRM contains the release information for later releases of DFSMShsm. If the first byte of MCD_VRM is zero, then this field is valid for version and release information.
74(4A)	10(A)	BITSTRING	1	MCDOPTCD	Option code from the data set VTOC entry:
		1...		MCDFICF	When set to 1, a VSAM data set is cataloged in an ICF catalog.
		.xxx xxxx		*	Reserved.
75(4B)	11(B)	BIT(8)	1	MCD_DSCB_EATTR	Data set extended attributes from F1DSCB
		11..		MCDEATTR	'00' - Not specified '01'- NO, '10'- OPT, '11'- REQ.
		..xx xxxx		*	Reserved
75(4B)	11(B)	CHARACTER	1	*	Reserved.
76(4C)	12(C)	CHARACTER	4	MCDDLC	Date the data set was created. The date is converted into the TIME DEC macro format of *X'0cyyddds'*.
80(50)	16(10)	CHARACTER	8	MCDTSLR	Time stamp when data set was last referenced.
80(50)	16(10)	CHARACTER	4	MCDTLR	Time when the data set was last used. The time is obtained from the TIME macro in format *X'hhmmssth'*.
84(54)	20(14)	CHARACTER	4	MCDDLR	Date the data set was last referenced. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
88(58)	24(18)	CHARACTER	8	MCDTSLU	Time stamp when the VSAM data set was last updated, containing the following:
88(58)	24(18)	CHARACTER	4	MCDTLU	Time when the VSAM data set was last updated. The time is obtained from the TIME macro in format *X'hhmmssth'*.
92(5C)	28(1C)	CHARACTER	4	MCDDLU	Date the VSAM data set was last updated. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
96(60)	32(20)	CHARACTER	8	MCDTSMIG	Time stamp when the data set was migrated.
96(60)	32(20)	CHARACTER	4	MCDTMIG	Time when the data set migrated. The time is obtained from the TIME macro in format *X'hhmmssth'*.
100(64)	36(24)	CHARACTER	4	MCDDMIG	Date when the data set migrated. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
104(68)	40(28)	BITSTRING	2	MCDDSORG	Data set organization information from the data set control block.
		x...		*	Reserved.
		.1..		MCDFPSDS	When set to 1, the data set is a physical-sequential.
		..1.		MCDFDA	DA - Direct organization
		...1 11..		*	Position to PO bit
		.... ..1.		MCDFPO	PO - Partitioned organization
		..xx xxxx		*	Reserved.
104(68)	40(28)	BITSTRING	1	*	Position to VSAM bit.
105(69)	41(29)	BITSTRING	1	*	VSAM information.
		xxxx		*	Reserved.
		.... 1...		MCDFVSDS	When set to 1, the data set is a VSAM data set.
		xxx		*	Reserved.
106(6A)	42(2A)	FIXED	2	MCDBLKSZ	Maximum block size of the data set.
108(6C)	44(2C)	FIXED	1	MCDKEYLN	Key length of the data set.
109(6D)	45(2D)	BITSTRING	1	MCDRECFM	Data set record format from the DSCB.
		11..		MCDRFTYP	These flags indicate a V, U, or F format.
		..1.		MCDRFTO	When set to 1, the track overflow feature is present.
		...x xxxx		*	Reserved.
110(6E)	46(2E)	BITSTRING	1	MCDDSIND	Data set indicators from the data set VTOC entry.
		1...		MCDFLSTV	When set to 1, this is the last volume.
		.1..		MCDFRACF	When set to 1, the data set is RACF indicated.
		..x.		*	Reserved.
		...1		MCDFSCTY	When set to 1, the data set is password protected.
		.... x...		*	Reserved.
		.... .1..		MCDFWSEC	When set to 1, the data set is write password protected.
		.... ..1.		MCDFCHNG	When set to 1, the data set needed backup at the time of the migration.
		x		*	Reserved.
111(6F)	47(2F)	CHARACTER	1	MCDHID	Host ID of using host.
112(70)	48(30)	FIXED	4	MCDSIZE	Size allocation, in tracks, on the users volume.

Table 84 (Page 3 of 6). MCD—MCDS Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
116(74)	52(34)	FIXED	4	MCDSIZEB	If MCDFSIZE is set to 0, then this is the size used, in bytes, on the user's volume. If MCDFSIZE is set to 1, then this is the size used, in KB (1024 bytes), on the user's volume. Note: This field will be larger when DFSMSdss is used as a data mover (instead of DFSMShsm) because control information, required by DFSMSdss to restore the data set, is moved along with the actual user data.
120(78)	56(38)	FIXED	4	MCDCSZ	Size of the data set in 2K blocks on the migration volume.
124(7C)	60(3C)	FIXED	2	MCDNMIG	Number of times the data set has migrated since this record was created.
126(7E)	62(3E)	FIXED	2	MCDDAYS	Number of days before the data set is eligible for migration.
128(80)	64(40)	CHARACTER	6	MCDFRVSN	Volume serial number of the primary volume the data set resided on before migration, if currently migrated.
128(80)	64(40)	CHARACTER	6	MCDOVSN	Volume serial number of the primary volume where the data set was recalled.
134(86)	70(46)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCDFMCL	When set to 1, an MCL record exists.
		.1..		MCDFNOD	When set to 1, this data set caused the migration volume (MCV) record to be ineligible for the DELVOL request.
		..1.		MCDFCMCL	When set to 1, an MCL record was created when the data set migrated.
		...1		MCDFBUWM	When set to 1, the data set was backed up while it was migrated.
		.... 1...		MCDFPDSE	When set to 1, the migrated data set is a PDSE data set.
		.... .x..		*	Reserved.
		.... ..1.		MCDFDSS	When set to 1, DFSMSdss was the data mover used for migration.
		1		MCDDSRNM	When set to 1, the data set is renamed by ARECOVER.
135(87)	71(47)	CHARACTER	1	MCDMCL43	A unique character that is substituted for the 43rd character of the data set name. The resulting character string is used as the key for the MCL record.
136(88)	72(48)	CHARACTER	4	MCDCTID	Compaction table identification if the cataloged data set was compacted.
140(8C)	76(4C)	CHARACTER	4	MCDUCBTY	Device type of the primary volume the data set was on.
144(90)	80(50)	CHARACTER	8	MCDTSRES	Time stamp when data set was recalled or deleted.
144(90)	80(50)	CHARACTER	4	MCDTRES	Time the data set was recalled.
148(94)	84(54)	CHARACTER	4	MCDDRES	Date the data set was recalled. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
152(98)	88(58)	CHARACTER	4	MCDMDEVT	Device type of the migrataion volume.
152(98)	88(58)	BITSTRING	1	*	Reserved.
153(99)	89(59)	BITSTRING	1	*	Reserved.
		xxxx		*	Reserved.
		.... 1...		MCDFMVRT	When set to 1, the volume is a virtual volume.
		xxx		*	Reserved.
154(9A)	90(5A)	BITSTRING	1	*	Device type information.
		1...		MCDTPDEV	When set to 1, the volume is on a tape device.
		.x..		*	Reserved.
		..1.		MCDFMVDA	When set to 1, the volume is on DASD.
		...x xxxx		*	Reserved.
156(9C)	92(5C)	FIXED	1	MCDJDAYS	Used to change the default number of days to delay migration of the data set.
157(9D)	93(5D)	CHARACTER	3	MCDJDATE	Last date that DFSMShsm will delay migration of the data set. The format of this packed decimal field is *X'yyddds'* and the century is saved in the MCDJDATE_CC field.
160(A0)	96(60)	CHARACTER	3	MCDJVEXD	Last date that DFSMShsm will hold the volume serial numbers in MCDJVOLS. The format of this packed decimal field is *X'yyddds'* and the century is saved in the MCDJVEXD_CC field.
163(A3)	99(63)	FIXED	1	MCDPDEP	When set to 1, the volumes contained in MCDJVOLS were selected from the general pool. When set to 2, the volumes were selected from a user-defined pool.
164(A4)	100(64)	FIXED	1	MCDJCT	Number of volumes that are eligible for directed recall of the data set.
165(A5)	101(65)	CHARACTER	10(5)	MCDJVOLS	A 5-element array consisting of 10-byte fields containing information about the 5 preselected volumes to which the data set can be recalled.

Table 84 (Page 4 of 6). MCD—MCDS Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
The following two fields (10 bytes) are repeated five times. They describe the volumes to which the data set may be recalled. MCDJCT indicates the number of entries that contain valid data.					
165(A5)	101(65)	CHARACTER	6	MCDJVSN	Volume serial number of a preselected volume.
171(AB)	107(6B)	BITSTRING	4	MCDJDEVT	Device type of a preselected volume.
215(D7)	151(97)	BITSTRING	1	MCDRECAL	This byte contains the following volume selection attribute flags for recalling the data set:
		1...		MCDFDBA	When set to 0, the data set must be recalled to a volume that has the space-management technique of MIGRATE.
		.1..		MCDFRBU	This flag is valid only when MCDFDBA=1. When set to 1, the data set migrated from a volume that has the space-management technique of DELETEIFBACKEDUP.
		..1.		MCDFBDCS	When set to 1, the data set migrated from a volume for which the backup device category was specified.
		...1		MCDFBDCT	When set to 1, the data set migrated from a volume that has a backup device category of tape.
		.... 1...		MCDFAM	When set to 1, the recall volume selected by DFSMShsm must have automatic primary space management requested in the same host.
		.... .1..		MCDFAB	When set to 1, the recall volume selected by DFSMShsm must have automatic backup requested in the same host.
		xx		*	Reserved.
216(D8)	152(98)	CHARACTER	4	MCDEXPDT	Expiration date of the data set that existed when the data set migrated. (The user set this expiration date.) It is in the form of *X'ccyyddds'*: cc=00, century is 1900; cc=01, century is 2000; cc=02, century is 2100.
220(DC)	156(9C)	CHARACTER	44	MCDMCANM	Name of the migration copy of the data set that is the key of the MCA record.
264(108)	200(C8)	CHARACTER	8	MCDVSPWD	VSAM data set master password.
272(110)	208(D0)	FIXED	4	MCDFBID	Contains positioning information necessary to recall a data set from tape. For single-file format tapes: contains the block-ID of the first block of the migration copy on a migration tape. For multi-file format tapes: contains the file sequence number of the migration copy contained in a volume set that may span multiple tapes.
276(114)	212(D4)	FIXED	2	MCDNVSN	Number of additional tape volumes.
278(116)	214(D6)	FIXED	2	MCDNVSNO	Offset from MCDVSN to MCDAVSN.
280(118)	216(D8)	FIXED	4	MCDTPBLK	Total number of 16K blocks that the migration copy occupies on all volumes.
284(11C)	220(DC)	CHARACTER	4	MCDTERN	TTOC entry for the TTOC extension record of the migration copy.
288(120)	224(E0)	FIXED	2	MCDVOLSQ	Volume sequence of a 3480 tape, written in single-file format, in the volume set.
290(122)	226(E2)	BITSTRING	1	MCDFLGS2	This byte contains the following flags:
		1...		MCDFSIZE	When set to 1, MCDSIZEB is in KB (1024 bytes).
		.1..		MCDFSTRP	When set to 1, the data set was in extended format when migrated.
		..1.		MCDFPDSX	When set to 1, the data set was a Hierarchical File System (HFS) data set when migrated.
		...1		MCDFLFS	When set to 1, the dataset was a large format sequential when migrated
		.... 1...		MCDFDCMP	When set to 1, DUMMY REC used to save compaction information.
		.... .1..		MCDF_LFSMC	1= The migration copy is LFS DS
		.... ..1.		MCDFMSIZE	When set to 1, the MCDSIZEB is in megabytes
		1		MCD_FMB	When set to 1, MCD_USER_DATASIZE and MCD_COMP_DATASIZE are in megabytes
291(123)	227(E3)	FIXED	1	MCD_RECYCLE_COUNTER	Counter which indicates how many times a data set has been recycled without being recalled.
292(124)	228(E4)	CHARACTER	96	MCDSMSWA	The next 96 bytes contain SMS constructs.
292(124)	228(E4)	FIXED	2	MCDDCLEN	Length of the data class name.
294(126)	230(E6)	CHARACTER	30	MCDDCNAM	Data class name.
324(144)	260(104)	FIXED	2	MCDSCLEN	Length of the storage class name.
326(146)	262(106)	CHARACTER	30	MCDSCNAM	Storage class name.
356(164)	292(124)	FIXED	2	MCDMCLEN	Length of the management class name.
358(166)	294(126)	CHARACTER	30	MCDMCNAM	Management class name.
388(184)	324(144)	CHARACTER	8	MCDDLBU	Date the data set was last backed up (STCK format). It is only filled in for SMS data sets.
396(18C)	332(14C)	FIXED	1	MCDRECOR	VSAM data set record organization.
397(18D)	333(14D)	BITSTRING	1	MCDSMSFG	This byte contains SMS-related flags:

Table 84 (Page 5 of 6). MCD—MCDS Data Set Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		1...		MCDFSMS	When set to 1, the data set is an SMS-managed data set.
		.1..		MCDFGDG	When set to 1, the data set is a generation data set.
		..1.		MCDFROG	When set to 1, the data set is a rolled-off generation data set.
		...1		MCDKEYRG	When set to 1, the data set is a VSAM keyrange data set.
		.... 1...		MCDFMVOL	When set to 1, the data set is a multiple-volume data set.
		.... .1..		MCDFRBLK	When set to 1, the data set is a system-reblockable data set.
		.... ..1.		MCDFCOMP	When set to 1, the data set is in compressed format.
		1		MCDF_AWR	MCD updated for alter request from CATALOG.
398(18E)	334(14E)	CHARACTER	16	MCDROWNR	Resource owner name.
414(19E)	350(15E)	CHARACTER	8	MCDRDATA	Recovery data field.
422(1A6)	358(166)	CHARACTER	4	MCDSCALO	Secondary allocation information, containing the following:
422(1A6)	358(166)	CHARACTER	1	MCDSCAL1	This byte contains the following flags:
		11..		MCDALCYL	Cylinder request.
		1...		MCDALTRK	Track request.
		.1..		MCDALBLK	Block request.
		..xx xxxx		*	Reserved.
423(1A7)	359(167)	CHARACTER	3	MCDSCAL3	Secondary allocation quantity.
426(1AA)	362(16A)	CHARACTER	1	MCDJDATE_CC	Valid when MCDJES3 set, this is the high-order byte of the packed decimal date in MCDJDATE: 00 = 1900s, 01 = 2000s, 02 = 2100s.
427(1AB)	363(16B)	CHARACTER	1	MCDJVEXD_CC	Valid when MCDJES3 set, this is the high-order byte of the packed decimal date in MCDJVEXD: 00 = 1900s, 01 = 2000s, 02 = 2100s.
428(1AC)	364(16C)	FIXED	4	MCD_USER_ DATASIZE	Valid when MCDFCOMP is set to 1. This value represents, in KB (1024), the size of the data set if it were not compressed.
432(1B0)	368(170)	FIXED	4	MCD_COMP_ DATASIZE	Valid when MCDFCOMP is set to 1. This value represents, in KB (1024), the actual size of the compressed data set.
436(1B4)	372(174)	FIXED	4	MCD_VRM	The 4-byte version, release, and modification level of DFSMShsm that created this record. • Byte 1 represents the name level indicator. If this byte is zero, then this record was created by a version of DFSMShsm running at a level prior to OS/390 V2R10; refer to MCDRV. If this byte contains a X'02' or X'03', then this record was created by a version of DFSMShsm running at a level with OS/390 V2R10 or z/OS respectively; refer to bytes 2 thru 4. (A value of X'01' in byte 1 is not valid). • Byte 2 contains the version number (in binary). • Byte 3 contains the release number (in binary). • Byte 4 contains the modification level (in binary).
440(1B8)	376(178)	CHARACTER	4	MCD_CLN_DATE	Date that the MCD can be deleted by migration cleanup.
444(1BC)	380(17C)	FIXED	4	MCDLRECL	Logical record length (LRECL) in bytes for the migrated data set.
448(1C0)	384(180)	BITSTRING	1	MCDFLGS3	This byte contains the following flags:
		1...		MCDFMPTY	When set to 1, the data set was empty at the time of migration.
		.1..		MCDF_DSCBF8_MC	When set to 1, the migration copy has F8 DSCB.
		..1.		MCDF_V2R1	When set to 1, MCD record was created inz/OS V2R1 and contains the storage group value.
		...1		MCDF_MC_CLTR	When set to 1,data set management class contains class transition attributes.
		.... 1...		MCD_2TB	When set to 1, size exceeds 2TB.
		.... .1..		MCDF_ZEDC	When set to 1, the data set was zEDC compressed during migration.
		xxx		*	Reserved.
449(1C1)	385(181)	CHARACTER	4	MCD_DUMD_CRDATE	Valid when MCDFDCMP=1. Date dummy record created. Date is obtained from the time dec macro in format x'0CYYDDDS'.
453(1C5)	389(185)	FIXED	8	MCDZCOMP	Percent of space saved by zEDC compression.
454(1C6)	390(186)	CHARACTER	2	*	Reserved.
456(1C8)	392(188)	FIXED	4	MCDCSZ_HO	High order for MCDSZ.
460(1CC)	396(18C)	SIGNED	2	MCD_STGR_LENGTH	Storage group name length

Table 84 (Page 6 of 6). MCD—MCDS Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
462(1CE)	398(18E)	CHARACTER	30	MCD_STGR_NAME	Storage group name
492(1EC)	428(1AC)	CHARACTER	4	MCD_CLTR_DATE	The last class transition date, or zero.
496(1F0)	432(1B0)	CHARACTER	24	*	Reserved.
520(1F0)	456(1C8)	CHARACTER		MCDEND	End of record.

The following array exists if this migration copy resides on more than one tape volume (see Table 85). The array is addressed by the MCDNVSNO field.

Table 85. MCD—MCDS Data Set Record Array

Offsets Decimal (Hex)	Type	Length	Name	Description
0(0)	CHARACTER	6	MCDAVSN	MCDAVSN is an array that contains the volume serial numbers of additional volumes after the first one that contains the migration copy. The first volume serial number is given in the MCDVSN field.

MCD Data Area Cross-Reference

Table 86 (Page 1 of 3). MCD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCD	40		1
MCD_CLN_DATE	1B8		2
MCD_CLTR_DATE	1EC		2
MCD_COMP_DATASIZE	1B0		2
MCD_DSCB_EATTR	4B		2
MCD_DUMD_CRDATE	1C1		2
MCD_FMB	122	01	3
MCD_RECYCLE_COUNTER	123		2
MCD_STGR_LENGTH	1CC		2
MCD_STGR_NAME	1CE		2
MCD_USER_DATASIZE	1AC		2
MCD_VRM	1B4		2
MCDALBLK	1A6	40	5
MCDALCYL	1A6	C0	4
MCDALTRK	1A6	80	5
MCDBLKSZ	6A		2
MCDCOMPR	48		2
MCDCSZ	78		2
MCDCSZ_HO	1C8		2
MCDCTID	88		2
MCDDAYS	7E		2
MCDDCLEN	124		3
MCDDCNAM	126		3
MCDDLBU	184		2

Table 86 (Page 1 of 3). MCD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCDDLC	4C		2
MCDDLR	54		3
MCDDLU	5C		3
MCDDMIG	64		3
MCDDRES	94		3
MCDDSIND	6E		2
MCDDSORG	68		2
MCDDSRNM	86	01	3
MCDEATTR	4B	C0	3
MCDEND	208		2
MCDEXPDT	D8		2
MCDF_AWR	18D	01	3
MCDF_DSCBF8_MC	1C0	40	3
MCDF_LFSMC	122	04	3
MCDF_MC_CLTR	1C0	10	3
MCDF_V2R1	1C0	20	3
MCDF_2TB	1C0	08	3
MCDFAB	D7	04	3
MCDFAM	D7	08	3
MCDFASN	46	80	3
MCDFBDCS	D7	20	3
MCDFBDCT	D7	10	3
MCDFBID	110		2
MCDFBUWM	86	10	3

Table 86 (Page 2 of 3). MCD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCDFCHNG	6E	02	3
MCDFCMCL	86	20	3
MCDFCOMP	18D	02	3
MCDFDA	68	20	3
MCDFDBA	D7	80	3
MCDFDCMP	122	08	3
MCDFDEL	46	10	3
MCDFDSS	86	02	3
MCDFDUMD	47	02	3
MCDFEOS	47	08	3
MCDFGDG	18D	40	3
MCDFICF	4A	80	3
MCDFLFS	122	10	3
MCDFLGS	46		2
MCDFLGS2	122		2
MCDFLSTV	6E	80	3
MCDFL2	46	04	3
MCDFMCL	86	80	3
MCDFMCO	47	80	3
MCDFMIG	46	40	3
MCDFMIGP	47	40	3
MCDFMPTY	1C0	80	3
MCDFMSIZE	122	02	3
MCDFMVDA	9A	20	4
MCDFMVOL	18D	08	3
MCDFMVRT	99	08	4
MCDFNOD	86	40	3
MCDFNOMG	46	20	3
MCDFNSCR	46	02	3
MCDFPDSE	86	08	3
MCDFPDSX	122	20	3
MCDFPO	68	02	3
MCDFPSDS	68	40	3
MCDFRACF	6E	40	3
MCDFRBLK	18D	04	3
MCDFRBU	D7	40	3
MCDFROG	18D	20	3
MCDFRVSN	80		2
MCDFR3	47	01	3
MCDFSCTY	6E	10	3
MCDFSDP	46	08	3
MCDFSIZE	122	80	3

Table 86 (Page 2 of 3). MCD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCDFSMS	18D	80	3
MCDFSMVL	47	04	3
MCDFSTRP	122	40	3
MCDFVSDS	69	08	3
MCDFWSEC	6E	04	3
MCDHID	6F		2
MCDJCT	A4		2
MCDJDATE	9D		2
MCDJDATE_CC	1AA		2
MCDJDAYS	9C		2
MCDJDEVT	AB		3
MCDJES3	46	01	3
MCDJVEXD	A0		2
MCDJVEXD_CC	1AB		2
MCDJVOLS	A5		2
MCDJVSN	A5		3
MCDKEYLN	6C		2
MCDKEYRG	18D	10	3
MCDLRECL	1BC		2
MCDMCANM	DC		2
MCDMCLEN	164		3
MCDMCL43	87		2
MCDMCNAM	166		3
MCDMDEVT	98		2
MCDNMIG	7C		2
MCDNOUPD	47	20	3
MCDNVSN	114		2
MCDNVSNO	116		2
MCDOPTCD	4A		2
MCDOVSN	80		3
MCDPDEP	A3		2
MCDRACND	47	10	3
MCDRDATA	19E		2
MCDRECAL	D7		2
MCDRECFM	6D		2
MCDRECOR	18C		2
MCDRFTO	6D	20	3
MCDRFTYP	6D	C0	3
MCDROWNR	18E		2
MCDRV	49		2
MCDSCALO	1A6		2
MCDSCAL1	1A6		3

Table 86 (Page 3 of 3). MCD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCDSCAL3	1A7		3
MCDSCLEN	144		3
MCDSCNAM	146		3
MCDSIZE	70		2
MCDSIZEB	74		2
MCDSMSFG	18D		2
MCDSMSWA	124		2
MCDTERN	11C		2
MCDTLR	50		3
MCDTLU	58		3
MCDTMIG	60		3
MCDTPBLK	118		2
MCDTPDEV	9A	80	4
MCDTRES	90		3
MCDTSLR	50		2
MCDTSLU	58		2
MCDTSMIG	60		2
MCDTSRES	90		2
MCDUCBTY	8C		2
MCDVOLSQ	120		2
MCDVSN	40		2
MCDVSPWD	108		2

MCK—Control Data Set Key and Record Header

Each migration control data set record, backup control data set record, and offline control data set record begins with similar key and record header fields (see Table 87). The combined length of the key and record header is 64 bytes.

Table 87. MCK—Control Data Set Key and Record Header

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	44	MCK	Control data set entry key.
0	(0)	CHARACTER	1	MCKTYPE	First byte of the control data set record key. It represents the entry type for migration control data set records, backup control data set records and offline control data set records for all but 'A', 'B', 'C', and 'D' records. MIGRATION CDS ENTRY TYPES: '00'X=SYNCHRONIZATION RECORD '01'X=AUTH USER - CODE 'U' '02'X=FREESPACE LEV1 - CODE '1' '04'X=DISK - CODE 'V' '07'X=VOL ALLOC CNT - CODE 'N' '10'X=STATISTICS/CONTROL - CODE 'S' '12'X=VSAM ASSOCIATIONS - CODE 'O' BACKUP CDS ENTRY TYPES: '20'X=SYNCHRONIZATION RECORD '21'X=DVL RECORD - CODE 'Y' '22'X=DCL RECORD - CODE 'W' '23'X=FRD RECORD - CODE 'K' '25'X=FRSV RECORD - CODE 'J' '26'X=MOVE BACKUP COPIES - CODE 'M' '27'X=BACKUP MIGRATED DS - CODE 'L' '28'X=PRIMARY VOLUME ENTRY - CODE 'P' '29'X=DGN RECORD - CODE 'G' '2A'X=ABR RECORD - CODE 'Q' '2C'X=BACKUP VOLUME ENTRY - CODE 'X' '2D'X=FRTV RECORDS - CODE 'I' '2E'X=FRB RECORD - CODE 'F' '2F'X=FRVP RECORD - CODE 'H' '30'X=BCR,BVR,AND DCR RECORDS - CODE 'R' OFFLINE CDS ENTRY TYPES: '32'X=SYNCHRONIZATION RECORD '32'X=TAPE TABLE OF CONTENTS - CODE 'T' '33'X=TAPECOPY NEEDED RECORD -CODE 'E' When MCKTYPE >'40'X, see MCHTYPE
1	(1)	CHARACTER	43	MCKKEY2	Remainder of the control data set record key.
44	(2C)	CHARACTER		MCKHDR	Start of the entry header.
44	(2C)	STRUCTURE	20	MCH	Control data set record header.
44	(2C)	FIXED	2	MCHLEN	Total length of the record, including key and header fields.
46	(2E)	CHARACTER	1	MCHTYPE	Entry type for migration control data set records, backup control data set records, or offline control data set records. The MCHTYPE will equal the MCKTYPE for all but code 'A', 'B', 'C', and 'D' records. When MCKTYPE > '40'X, MCHTYPE='00'X, DATASET ENTRY - CODE 'D' MCHTYPE='11'X, VSAM INTERCEPT CODE 'A' MCHTYPE='20'X, DATASET BACKUP ENTRY - CODE 'B' MCHTYPE='24'X, BACKUP COPY ENTRY - CODE 'C'
47	(2F)	BIT(8)	1	MCHLOCK	ENTRY LOCK BYTE - NOT USED (NX)
48	(30)	CHARACTER	8	MCHTSLU	Time of the last update of the record. The time is obtained from the TIME STCK macro in the 64-bit microsecond clock format.
56	(38)	CHARACTER	8	MCHTSCR	Time of record creation. The time is obtained from the TIME STCK macro in the 64-bit microsecond clock format.
64	(40)	CHARACTER		MCHDATA	Start of variable entry data.

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MCK Data Area Cross-Reference

Table 88. MCK Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCH	2C		1
MCHDATA	40		2
MCHLEN	2C		2
MCHLOCK	2F		2
MCHTSCR	38		2
MCHTSLU	30		2
MCHTYPE	2E		2
MCK	0		1
MCKHDR	2C		2
MCKKEY2	1		2
MCKTYPE	0		2

MCL—BCDS Backup Changed Migrated Data Set Record

The backup control data set backup migrated data set record (MCL) describes a changed data set that has migrated from a primary volume that is controlled by DFSMShsm automatic backup and needs to be backed up. If you want to know which records exist for backing up migrated data sets, you can print the records by using the access method services utility and specifying the FROMKEY(X'27') and TOKEY(X'27') values. Backup control data set backup migrated data set records are 244 bytes long. The record type is L.

The key for a type L backup migrated data set record is the first 43 characters of the data set name. Under certain circumstances, DFSMShsm changes the 44th byte of the key. As a result, the key to the record might not correspond exactly with the first 43 characters of the data set name. The true 43rd character and the 44th character of the data set name are stored in the data portion of the record. An example of the key that is used with a type L backup migrated data set record is:

```
FIXCDS L USER.DATA.NAME
```

Table 89 (Page 1 of 2). MCL—BCDS Backup Migrated Data Set Record

Offsets Actual	Offsets / FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Backup control data set updated data set record key consisting of X'27' followed by the first 43 characters of the data set name. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	180	MCL	Backup control data set backup migrated data set record.
64(40)	0(0)	CHARACTER	2	MCLDSN34	The 43rd and 44th characters of the data set name to be backed up.
64(40)	0(0)	CHARACTER	1	MCLDSN43	True 43rd character of the data set name to be backed up.
65(41)	1(1)	CHARACTER	1	MCLDSN44	True 44th character of the data set name to be backed up.
66(42)	2(2)	CHARACTER	6	MCLPVSN	Volume serial number of the primary volume from which the data set migrated.
72(48)	8(8)	CHARACTER	6	MCLONVOL	Serial number of the volume that the migration copy resides on.
78(4E)	14(E)	BITSTRING	2	MCLDSORG	Data set organization bytes from the data set VTOC entry.
80(50)	16(10)	BITSTRING	1	MCLDSIND	Data set indicator byte from the data set VTOC entry, and the following flags:
		x...		*	Reserved.
		.1..		MCLFRACF	When set to 1, the data set name is RACF protected.
		..x.		*	Reserved.
		...1		MCLFSCTY	When set to 1, contains a password-protected flag.
		 xxxx		*	Reserved.
81(51)	17(11)	BITSTRING	1	MCLFLAGS	This byte contains the following flags:
		1...		MCLFBDCS	When set to 1, this data set is to be backed up to a specific category of backup device (see MCLFBDCT).
		.1..		MCLFBDCT	MCLFBDCT applies only when MCLFBDCS is set to 1. When set to 1, this data set is to be backed up only to tape. When set to 0, this data set is to be backed up only to DASD.
		..1.		MCLFONL2	When set to 1, this data set currently resides on a migration level 2 volume. When set to 0, this data set currently resides on a migration level 1 volume.
		...1		MCLFSDSP	When set to 1, this data set currently resides in a SDSP data set.
		 xxxx		*	Reserved.

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Table 89 (Page 2 of 2). MCL—BCDS Backup Migrated Data Set Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
82(52)	18(12)	CHARACTER	44	MCLMDSN	Migration data set name on the migration volume.
126(7E)	62(3E)	FIXED	2	*	Reserved.
128(80)	64(40)	CHARACTER	96	MCLSMSWA	The next 96 bytes contain SMS constructs.
128(80)	64(40)	FIXED	2	MCLDCLEN	Length of the data class name.
130(82)	66(42)	CHARACTER	30	MCLDCNAM	Data class name.
160(A0)	96(60)	FIXED	2	MCLSCLEN	Length of the storage class name.
162(A2)	98(62)	CHARACTER	30	MCLSCNAM	Storage class name.
192(C0)	128(80)	FIXED	2	MCLMCLEN	Length of the management class name.
194(C2)	130(82)	CHARACTER	30	MCLMCNAM	Management class name.
224(E0)	160(A0)	CHARACTER	8	MCLDLBU	Date that the data set was last backed up (STCK format).
232(E8)	168(A8)	BITSTRING	1	MCLSMSFG	This byte contains the following SMS-related flags:
		1...		MCLFSMS	When set to 1, the data set is an SMS-managed data set.
		.xxx xxxx		*	Reserved.
233(E9)	169(A9)	CHARACTER	3	*	Reserved.
236(EC)	172(AC)	FIXED	4(2)	*	An array of 2 reserved entries.

MCL Data Area Cross-Reference

Table 90. MCL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCL	40		1
MCLDCLEN	80		3
MCLDCNAM	82		3
MCLDLBU	E0		2
MCLDSIND	50		2
MCLDSN34	40		2
MCLDSN43	40		3
MCLDSN44	41		3
MCLDSORG	4E		2
MCLFBDCS	51	80	3
MCLFBDCT	51	40	3
MCLFLAGS	51		2
MCLFONL2	51	20	3
MCLFRACF	50	40	3
MCLFSCTY	50	10	3
MCLFSDSP	51	10	3
MCLFSMS	E8	80	3
MCLMCLEN	C0		3
MCLMCNAM	C2		3
MCLMDSN	52		2
MCLONVOL	48		2
MCLPVSN	42		2
MCLSCLEN	A0		3
MCLSCNAM	A2		3
MCLSMSFG	E8		2
MCLSMSWA	80		2

MCM—Backup Control Data Set Move Backup Version Record

The backup control data set move backup version record (MCM) describes a data set that has been backed up by the BACKDS or HBACKDS command and is currently residing on a level 1 migration volume. If you want to know which records exist for moving backup versions, you can print the records by using the access method services utility and specifying the FROMKEY X'26' and TOKEY X'26' values. Backup control data set move backup version records are 168 bytes long. The record type is M.

The key for a type M move backup version record is 43 characters of the backup version name. DFSMShsm uses all characters except the fourth character of the second qualifier, which is always a K. An example of the key that is used with an M move backup version record is:

```
FIXCDS M USER.BAC.T280112.JCL.CNTL.H4104
```

Table 91. MCM—BCDS Move Backup Version Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Backup control data set BACKDS record key, consisting of X'26' followed by 43 characters from the backup version name. All characters except the fourth character of the second qualifier are used. The fourth character of the second qualifier is always a K. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	104	MCM	Backup control data set move backup version record.
64(40)	0(0)	CHARACTER	44	MCMODSN	Data set name of the original data set.
108(6C)	44(2C)	CHARACTER	44	MCMBDSN	Data set name of the backup version.
152(98)	88(58)	CHARACTER	6	MCMONVOL	Serial number of the migration level 1 volume that the backup version currently resides on.
158(9E)	94(5E)	BITSTRING	2	MCMFLAGS	The next 2 bytes contain the following flags:
		1...		MCMFBDCS	When set to 1, this data set is to be backed up to a specific category of backup volume (see MCMFBDCT).
		.1..		MCMFBDCT	When set to 1, this data set is to be backed up only to tape. When set to 0, this data set is to be backed up only to DASD. MCMFBDCT applies only when MCMFBDCS is set to 1.
		..xx xxxx		*	Reserved.
160(A0)	96(60)	FIXED	4(2)	*	An array of 2 reserved entries.

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MCM Data Area Cross-Reference

Table 92. MCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCM	40		1
MCMBDSN	6C		2
MCMFBDCS	9E	80	3
MCMFBDCT	9E	40	3
MCMFLAGS	9E		2
MCMODSN	40		2
MCMONVOL	98		2

MCO—Migration Control Data Set VSAM Associations Record

The migration control data set VSAM associations record (MCO) describes the objects belonging to a migrated VSAM data set that is eligible for automatic migration. Migration control data set VSAM associations records are 292 bytes long, plus 216 bytes for an alternate index, if one exists. The record type is O.

The key for a type O VSAM data set record is the migrated data set name that is created by DFSMShsm when it migrates a VSAM data set. An example of the key that is used with an O data set record is:

```
FIXCDS O DFHSM.HMIG.T231510.USER.DATA.H4079
```

Table 93 (Page 1 of 2). MCO—MCDS VSAM Associations Record

Offsets Actual	Offsets / FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	VSAM associations record key. The MCO key is the same as the MCA key, except the first character is replaced by X'12'. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	*	MCO	Migration control data set VSAM associations record.
64(40)	0(0)	CHARACTER	44	MCOORGNM	Data set name of the original data set.
108(6C)	44(2C)	BITSTRING	1	MCOCTFLG	VSAM objects flags:
		1...		MCOCCAT	When set to 1, the base cluster is cataloged.
		.1..		MCOCDCAT	When set to 1, the base data object is cataloged.
		..1.		MCOCICAT	When set to 1, the base index is cataloged.
		...1		MCOCPCAT	When set to 1, the base path is cataloged.
		.... 1...		MCOGCAT	When set to 1, the AIX cluster is cataloged.
		.... .1..		MCOGDCAT	When set to 1, the AIX data object is cataloged.
		.... ..1.		MCOGICAT	When set to 1, the AIX index is cataloged.
		1		MCOGPCAT	When set to 1, the AIX path is cataloged.
109(6D)	45(2D)	BITSTRING	1	MCOAFLG	MCA-related flags:
		1...		MCOFMVOL	When set to 1, the data set is a multiple-volume VSAM data set.
		.1..		MCOCDA	When set to 1, the base data object MCA exists.
		..1.		MCOCIA	When set to 1, the base index MCA exists.
		...1		MCOCPA	When set to 1, the base path MCA exists.
		.... 1...		MCOGA	When set to 1, the AIX cluster MCA exists.
		.... .1..		MCOGDA	When set to 1, the AIX data object MCA exists.
		.... ..1.		MCOGIA	When set to 1, the AIX index MCA exists.
		1		MCOGPA	When set to 1, the AIX path MCA exists.
110(6E)	46(2E)	CHARACTER	6	MCOCDVOL	Name of the base cluster volume.
116(74)	52(34)	CHARACTER	44	MCOCDDSN	Data set name of the base data object.
160(A0)	96(60)	BITSTRING	1	MCOCDOPT	Data component options byte:
		11..		MCOCDSHR	Share options of the base data component.
		..xx xxx.		*	Reserved.
		1		MCOCDRAC	When set to 1, the base data object is RACF indicated.
161(A1)	97(61)	BITSTRING	1	MCOCRAC	Base cluster RACF indicators:
		1...		MCOCFPRC	When set to 1, the first base path is RACF indicated.
		.xxx xxxx		*	Reserved.
162(A2)	98(62)	CHARACTER	2	*	Reserved.
164(A4)	100(64)	FIXED	4	MCOCDHUR	High-use RBA for base data.
168(A8)	104(68)	FIXED	4	MCOCDHAR	High-allocation RBA for base data.
172(AC)	108(6C)	FIXED	4	*	Reserved.
176(B0)	112(70)	CHARACTER	44	MCOCIDSN	Base index data set name.
220(DC)	156(9C)	BITSTRING	1	MCOCIOPT	Index component options byte:
		11..		MCOCISHR	Share options of the base index component.
		..xx xxx.		*	Reserved.
		1		MCOCIRAC	When set to 1, the base index object is RACF indicated.
221(DD)	157(9D)	CHARACTER	3	*	Reserved.
224(E0)	160(A0)	FIXED	4	MCOCIHUR	High-use RBA for the base index.
228(E4)	164(A4)	FIXED	4	MCOCIHAR	High-allocation RBA for the base index.
232(E8)	168(A8)	FIXED	4	*	Reserved.
236(EC)	172(AC)	FIXED	2	MCOCPCT	Number of paths on the base cluster.
238(EE)	174(AE)	FIXED	2	MCOGCT	Number of AIX clusters.

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Table 93 (Page 2 of 2). MCO—MCDS VSAM Associations Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
240(F0)	176(B0)	CHARACTER	44	MCOCPTH	Name of the path on the base cluster.
284(11C)	220(DC)	FIXED	4(2)	*	An array of 2 reserved entries.
The following information is related to an alternate index cluster (AIX) for the VSAM data set:					
292(124)	228(E4)	CHARACTER	216	MCOAIX	AIX section.
292(124)	228(E4)	CHARACTER	44	MCOGDSN	Data set name of the AIX.
336(150)	272(110)	FIXED	4	*	Reserved.
340(154)	276(114)	CHARACTER	44	MCOGDDSN	Data set name of the AIX data object.
384(180)	320(140)	BITSTRING	1	MCOGDOPT	AIX data component options byte:
		11..		MCOGDSHR	Share options of the AIX data component.
		..xx xxx.		*	Reserved.
		1		MCOGDRAC	When set to 1, the AIX data object is RACF indicated.
385(181)	321(141)	BITSTRING	1	MCOGRAC	AIX cluster RACF indicators:
		1...		MCOGCRAC	When set to 1, the AIX cluster is RACF indicated.
		.1..		MCOGFPRC	When set to 1, the first AIX path is RACF indicated.
		..xx xxxx		*	Reserved.
386(182)	322(142)	CHARACTER	2	*	Reserved.
388(184)	324(144)	FIXED	4	MCOGDHUR	High-use RBA for AIX data.
392(188)	328(148)	FIXED	4	MCOGDHAR	High-allocation RBA for AIX data.
396(18C)	332(14C)	FIXED	4	*	Reserved.
400(190)	336(150)	CHARACTER	44	MCOGIDSN	Data set name of the AIX index object.
444(1BC)	380(17C)	BITSTRING	1	MCOGIOPT	AIX index component options byte:
		11..		MCOGISHR	Share options of the AIX index component.
		..xx xxx.		*	Reserved.
		1		MCOGIRAC	When set to 1, the AIX index object is RACF indicated.
445(1BD)	381(17D)	CHARACTER	3	*	Reserved.
448(1C0)	384(180)	FIXED	4	MCOGIHUR	High-used RBA for the AIX index.
452(1C4)	388(184)	FIXED	4	MCOGIHAR	High-allocation RBA for the AIX index.
456(1C8)	392(188)	FIXED	4	*	Reserved.
460(1CC)	396(18C)	FIXED	2	*	Reserved.
462(1CE)	398(18E)	FIXED	2	MCOGPCT	Number of paths on an AIX cluster.
464(1D0)	400(190)	CHARACTER	44	MCOGPTH	Path name of the AIX.

MCO Data Area Cross-Reference

Table 94 (Page 1 of 2). MCO Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCO	40		1
MCOAFLG	6D		2
MCOAIX	124		2
MCOCCAT	6C	80	3
MCOCDA	6D	40	3
MCOCDCAT	6C	40	3
MCOCDDSN	74		2
MCOCDHAR	A8		2
MCOCDHUR	A4		2
MCOCDOPT	A0		2
MCOCDRAC	A0	01	3
MCOCDSHR	A0	C0	3
MCOCDVOL	6E		2
MCOCFPRC	A1	80	3
MCOCIA	6D	20	3

Table 94 (Page 1 of 2). MCO Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCOCICAT	6C	20	3
MCOCIDSN	B0		2
MCOCIHAR	E4		2
MCOCIHUR	E0		2
MCOCIOPT	DC		2
MCOCIRAC	DC	01	3
MCOCISHR	DC	C0	3
MCOCPA	6D	10	3
MCOCPCAT	6C	10	3
MCOCPCT	EC		2
MCOCPTH	F0		2
MCOCRAC	A1		2
MCOCTFLG	6C		2
MCOFMVOL	6D	80	3
MCOGA	6D	08	3

Table 94 (Page 2 of 2). MCO Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCOGCAT	6C	08	3
MCOGCRAC	181	80	4
MCOGCT	EE		2
MCOGDA	6D	04	3
MCOGDCAT	6C	04	3
MCOGDDSN	154		3
MCOGDHAR	188		3
MCOGDHUR	184		3
MCOGDOPT	180		3
MCOGDRAC	180	01	4
MCOGDSHR	180	C0	4
MCOGDSN	124		3
MCOGFPRC	181	40	4
MCOGIA	6D	02	3
MCOGICAT	6C	02	3
MCOGIDSN	190		3
MCOGIHAR	1C4		3
MCOGIHUR	1C0		3
MCOGIOPT	1BC		3
MCOGIRAC	1BC	01	4
MCOGISHR	1BC	C0	4
MCOGPA	6D	01	3
MCOGPCAT	6C	01	3
MCOGPCT	1CE		3
MCOGPTH	1D0		3
MCOGRAC	181		3
MCOORGNM	40		2

MCP—Backup Control Data Set Eligible Volume Record

The backup control data set eligible volume record (MCP) describes a primary, nonmanaged, or DFSMShsm-owned DASD volume that has been backed up or dumped by DFSMShsm. Backup control data set eligible volume records are 2040 bytes long. The record type is P.

The key for a type P volume record is the volume serial number. An example of the key that is used with an P volume record where TSO456 is the volume serial number is:

```
FIXCDS P TSO456
```

Table 95 (Page 1 of 3). MCP—BCDS Eligible Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Backup control data set eligible volume record key, consisting of X'28', followed by the 6-byte volume serial number, and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	1976	MCP	Data portion of the BCDS eligible volume record.
64(40)	0(0)	CHARACTER	8	MCPUNIT	Unit name.
72(48)	8(8)	BITSTRING	2	MCPFLGS	The next 2 bytes contain the following flags:
		1...		MCPFPUB	When set to 1, the volume is a primary or unmanaged volume.
		.1..		MCPFLEV2	VMIGRATIONEL VOLUME NX
		..1.		MCPFAVL	LVOLUME IS AVAILABLE NX
		...1		MCPFNOAM	VOL IS NOT ELIGIBLE FOR AUTO MIG NX
		.... 1...		MCPFSDP	ON IF SDSP DEFINED ON VOLUME NX
		.... .1..		MCPFREL3	When set to 1, the MCP is in HSM Release 3 format.
		.... ..1.		MCPFPRV	When set to 1, no automatic recall is allowed to this volume unless it is in a pool.
		.... ..1.		MCPFNOAR	Alias of MCPFPRV. No automatic recall.
		1		MCPFBACK	When set to 1, automatic backup is allowed.
73(49)	9(9)	1...		MCPFCVOL	When set to 1, an OS CVOL is on the volume.
		.1..		MCPFVSAM	When set to 1, catalog owns this volume.
		..1.		MCPFVCAT	When set to 1, a catalog is on this volume.
		...1		MCPFOWND	When set to 1, DFSMShsm owns this volume.
		.... 1...		MCPFICFC	When set to 1, the volume did not contain an ICF catalog.
		.... .1..		MCPFEXTN	When set to 1, the MCP record has been extended to support the volume dump data.
		.... ..1.		MCPFSMS	When set to 1, the volume was SMS-managed when last processed by the backup or dump functions.
		1		MCPF_COPYPOOL	ON=Volume is part of a copypool.
74(4A)	10(A)	FIXED	2	*	Reserved.
76(4C)	12(C)	CHARACTER	8	MCPTSLB	Time stamp of the last backup from this volume.
76(4C)	12(C)	CHARACTER	4	MCPTSLBT	Time in packed decimal.
80(50)	16(10)	CHARACTER	4	MCPTSLBD	Date of the last backup from this volume. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
84(54)	20(14)	FIXED	4	MCPTTRK	Total number of tracks on the volume.
88(58)	24(18)	FIXED	4	MCPFTRK	Total number of free tracks on the volume.
92(5C)	28(1C)	CHARACTER	9(2)	MCPHLQS	A 2-element array of 9-byte fields containing the high-level qualifiers of VTOC and VCAT copy data sets and the length of the high-level qualifiers. The first element is for the latest VTOC and VCAT copy. The second element is for the next-latest VTOC and VCAT copy.
92(5C)	28(1C)	FIXED	1	MCPHLQL	Length of high-level qualifier.
93(5D)	29(1D)	CHARACTER	8	MCPHLQ	High-level qualifier.
110(6E)	46(2E)	CHARACTER	4	MCPUCBTY	Device type of the volume.
110(6E)	46(2E)	CHARACTER	2	*	First part of the device type.
112(70)	48(30)	CHARACTER	2	MCPDEVCH	Device characteristics.
114(72)	50(32)	CHARACTER	2	*	Reserved.
116(74)	52(34)	CHARACTER	44	MCPVCDSN	Name of the catalog that owns this volume.

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Table 95 (Page 2 of 3). MCP—BCDS Eligible Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
160(A0)	96(60)	CHARACTER	6	MCPVCVSN	Volume on which the catalog resides.
166(A6)	102(66)	CHARACTER	4(4)	*	An array of 4 entries, each consisting of the following 2 fields, starting at offset 166 (A6). The first and second entries describe the latest VTOC and VCAT data sets respectively, and the third and fourth entries describe the next-to-latest VTOC and VCAT data sets.
166(A6)	102(66)	FIXED	2	MCPVOLSQ	Volume sequence of a 3480 tape, written in single-file format, in the volume set.
168(A8)	104(68)	FIXED	2	MCPTPBLK	Total number of 16K blocks the backup version occupies on all volumes.
182(B6)	118(76)	FIXED	2	*	Reserved.
184(B8)	120(78)	FIXED	4	*	Reserved.
188(BC)	124(7C)	CHARACTER	28(4)	MCPBUI	A 4-element array consisting of 28-byte fields. The first and second elements describe the latest VTOC and VCAT data sets respectively, and the third and fourth elements describe the next-to-latest VTOC and VCAT data sets.
188(BC)	124(7C)	CHARACTER	6	MCPVTOCV	Volume serial number of old VTOC copy.
194(C2)	130(82)	CHARACTER	8	MCPVTOCS	Time stamp of the old VTOC copy.
194(C2)	130(82)	CHARACTER	4	MCPVTOCT	Time in packed decimal.
198(C6)	134(86)	CHARACTER	4	MCPVTOCD	Date the backup was done. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
202(CA)	138(8A)	CHARACTER	6	MCPNXTV	Volume serial number of the second tape that contains the backup of VTOC information when backup spans more than one tape volume.
208(D0)	144(90)	FIXED	4	MCPFBID	File sequence number for positioning to backup version of VTOC on tape.
212(D4)	148(94)	BITSTRING	1	MCPEFLGS	Contains the following BUI flags:
		1...		MCPETAPE	When set to 1, VTOC backup is on tape. When set to 0, VTOC backup is to DASD.
		.1..		MCPECDWN	When set to 1, this is the first VCAT backup and it is down level.
		..1.		MCPETSP	When set to 1, the tape security option for the VTOC and VCAT copy is password.
		...1		MCPETSD	When set to 1, the tape security option for the VTOC and VCAT copy is date.
		.... 1...		MCPETTOC	When set to 1, the TTOC extension record is valid. The TTOC extension record is recorded in MCPTERN.
		.... .1..		MCPE1FT	When set to 1, the backup volume is a 3480 tape written in single-file format.
		.... ..1.		MCPEOML1	When set to 1, the backup VTOC copy data set is on an ML1 volume.
		1		MCPEF8	When set to 1, backup VTOC copy has F8 DSCB
213(D5)	149(95)	CHARACTER	1	*	Reserved.
214(D6)	150(96)	FIXED	2	MCPTERN	TTOC extension record. The TTOC extension record is valid if MCPETTOC is set to 1.
300(12C)	236(EC)	CHARACTER	48	*	Reserved.
The following information about full volume dumps is required to recover a volume:					
348(15C)	284(11C)	FIXED	2	MCPDGNCT	Number of valid dump generations associated with this volume.
350(15E)	286(11E)	FIXED	2	*	Reserved.
352(160)	288(120)	CHARACTER	24	*	Reserved.
376(178)	312(138)	CHARACTER	14(100)	MCPDGNNM	A 100-element array of dump generation record keys. Each valid entry is a key to a DGN record that describes a dump generation of this volume.
376(178)	312(138)	CHARACTER	6	MCPDSVSN	Volume serial number of the source volume that the dump copy was created from.
382(17E)	318(13E)	CHARACTER	4	MCPDTSDT	Packed decimal time stamp (*X'hhmmssth'*) for when the dump copy was written.
386(182)	322(142)	CHARACTER	4	MCPDTSDD	Packed decimal date stamp in TIME DEC macro format (*X'0cyyddds'*) for when the dump copy was written.
1776(6F0)	1712(6B0)	CHARACTER	8	*	Reserved.
1784(6F8)	1720(6B8)	CHARACTER	20(4)	MCPEBUI	An array of four entries, each consisting of 20-byte fields. The first and second entries describe the latest VTOC and VCAT data sets, respectively. The third and fourth entries describe the next-to-latest VTOC and VCAT data sets.
1784(6F8)	1720(6B8)	FIXED	4	MCPRECCT	Count of records written to the associated data set.
1788(6FC)	1724(6BC)	FIXED	4	MCPBLKCT	Number of 2K blocks used by the VTOC copy data set.

Table 95 (Page 3 of 3). MCP—BCDS Eligible Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
1792(700)	1728(6C0)	CHARACTER	12	*	Reserved.
1864(748)	1800(708)	CHARACTER	32(5)	MCPLDCDT	An array of 5 entries consisting of 32-byte fields. An entry exists for each of the last 5 unique dump classes that this volume was dumped to. The entry contains the dump class name, the time and date of the last dump of this volume to the dump class, and the expiration date of that dump.
1864(748)	1800(708)	CHARACTER	8	MCPLDCLS	Dump class.
1872(750)	1808(710)	CHARACTER	4	MCPLDTMS	Packed decimal time stamp (*X'hhmmssth'*) for the last dump to this class.
1876(754)	1812(714)	CHARACTER	4	MCPLDDTS	Packed decimal date stamp in TIME DEC macro format (*X'0cyyddds'*) for the last dump to this class.
1880(758)	1816(718)	CHARACTER	4	MCPLDEXP	Expiration date of the last dump to this class in TIME DEC macro format *X'0cyyddds'*.
1884(75C)	1820(71C)	CHARACTER	4	MCPLDSD	Packed decimal date stamp of the start of the dump of this dump class volume.
1888(760)	1824(720)	CHARACTER	8	*	Reserved.
2024(7E8)	1960(7A8)	FIXED	4(4)	*	An array of 4 reserved entries.

MCP Data Area Cross-Reference

Table 96 (Page 1 of 2). MCP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCH	2C		1
MCK	0		1
MCP	40		1
MCPBLKCT	6FC		3
MCPBUI	BC		2
MCPDEVCH	70		3
MCPDGNCT	15C		2
MCPDGNNM	178		2
MCPDSVSN	178		3
MCPDTSDD	182		3
MCPDTSDT	17E		3
MCPEBUI	6F8		2
MCPECDWN	D4	40	4
MCPEFLGS	D4		3
MCPEF8	D4	01	4
MCPEOML1	D4	02	4
MCPETAPE	D4	80	4
MCPETSD	D4	10	4
MCPETSP	D4	20	4
MCPETTOC	D4	08	4
MCPE1FT	D4	04	4
MCPF_COPYPOOL	49	01	3
MCPFAVL	48	20	3
MCPFBACK	48	01	3

Table 96 (Page 1 of 2). MCP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCPFBID	D0		3
MCPFCVOL	49	80	3
MCPFEXTN	49	04	3
MCPFICFC	49	08	3
MCPFLEV2	48	40	3
MCPFLGS	48		2
MCPFNOAM	48	10	3
MCPFNOAR	48	02	4
MCPFOWND	49	10	3
MCPFPRV	48	02	3
MCPFPUB	48	80	3
MCPFREL3	48	04	3
MCPFSDP	48	08	3
MCPFSMS	49	02	3
MCPFTRK	58		2
MCPFVCAT	49	20	3
MCPFVSAM	49	40	3
MCPHLQ	5D		3
MCPHLQL	5C		3
MCPHLQS	5C		2
MCPLDCDT	748		2
MCPLDCLS	748		3
MCPLDDTS	754		3
MCPLDEXP	758		3

Table 96 (Page 2 of 2). MCP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCPLDSD	75C		3
MCPLDTMS	750		3
MCPNXTV	CA		3
MCPRECCT	6F8		3
MCPTERN	D6		3
MCPTPBLK	A8		3
MCPTSLB	4C		2
MCPTSLBD	50		3
MCPTSLBT	4C		3
MCPTTRK	54		2
MCPUCBTY	6E		2
MCPUNIT	40		2
MCPVCDSN	74		2
MCPVCVSN	A0		2
MCPVOLSQ	A6		3
MCPVTOCD	C6		4
MCPVTOCS	C2		3
MCPVTOCT	C2		4
MCPVTOCV	BC		3

MCR—Management Control Record

The management control record (MCR) contains DFSMShsm control information that must be maintained between DFSMShsm startups (see Table 97). It is a migration control data set data area record, and a copy also exists in the DFSMShsm work space. Management control records are 865 bytes long. The record type is S.

The key for a type S management control record is the constant MCR and the host identification in a multiple-host environment. The host identification is a 1-digit alphanumeric character. If you omit the host identification, DFSMShsm defaults to the ID of the issuing host. An example of the key that is used with an S management control record is:

```
FIXCDS S MCR2
```

Table 97 (Page 1 of 4). MCR—Management Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	865	MCR	Management control record.
0(0)		CHARACTER	44	MCRKEY	Management control record key, consisting of X'10', followed by MCR, followed by the 1-byte host identification character, and padded with blanks. (See MCK for details.)
44(2C)		CHARACTER	20	MCRHDR	Control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	681	MCRDATA	Data portion of the management control record.
64(40)	0(0)	BITSTRING	4	MCRFLAGS	The next 4 bytes contain the following DFSMShsm control flags:
		x...		*	Reserved.
		.1..		MCRFGMR	When set to 1, automatic primary space management can be restarted.
		..1.		MCRFGMF	When set to 1, automatic primary space management completed successfully for the PSM day specified by MCRGMST.
		...1		MCRFMCBU	When set to 1, migration catalog backed up successfully today.
		.... x...		*	Reserved.
		.... .1..		MCRFMCP	When set to 1, migration cleanup is in progress.
		.... ..1.		MCRFL12P	When set to 1, migration from level 1 to level 2 is running on the primary host.
		1		MCRV260	When set to 1, MCR was updated by DFHSM 2.6.0.
65(41)	1(1)	1...		MCRFRNDM	When set to 1, Recall or ABACKUP needs a volume allocated to data set migration.
		.1..		MCRFRNTC	When set to one, Recall or ABACKUP needs volume allocated to TAPECOPY.
		..1.		MCRFML2	When set to 1, migration to DASD level 2 volumes is in process.
		...1		MCRFMCF	When set to 1, migration cleanup has run today, as needed.
		.... 1...		MCRFL12F	When set to 1, level migration has run today on the primary host, as needed.
		.... .1..		MCRFGMPV	When set to 1, automatic primary space management of primary volumes has started and has not yet completed.
		.... ..1.		MCRFMCE	When set to 1, SSM will stop at MCREKEY on migration cleanup.
		1		MCRFL12E	When set to 1, SSM will stop at MCREKEY during level 1 to level 2 migration.
66(42)	2(2)	1...		MCRFSCF	When set to 1, statistics clearnup has run today, as needed.
		.1..		MCRFSCP	When set to 1, statistics cleanup is in progress.
		..1.		MCRV1J0	When set to 1, MCR updated by DFSMShsm V1J0.
67(43)	3(3)	BITSTRING	1	*	Reserved

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Table 97 (Page 2 of 4). MCR—Management Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
68(44)	4(4)	CHARACTER	4	MCRMDATE	Completion date of last automatic primary space management.
72(48)	8(8)	CHARACTER	4	MCRSCDAT	Date that automatic secondary space management last ran to completion.
76(4C)	12(C)	CHARACTER	4	MCRTDATE	Date of install of 2.3.1 and initialization of TTOC flags.
80(50)	16(10)	CHARACTER	6	MCRGMVOL	Serial number of the current volume being processed by automatic primary space management.
86(56)	22(16)	FIXED	2	MCRCLEN	Number of days in the automatic secondary space management cycle.
88(58)	24(18)	BITSTRING	4	MCRCYCLE	Automatic secondary space management cycle. Each bit (left to right) represents a day in the cycle. If a bit is set to 1, automatic secondary space management is requested for that day.
92(5C)	28(1C)	CHARACTER	4	MCRMCDAT	Date the automatic secondary space management cycle was defined. It is used to determine which day in the cycle the present day is. The date is obtained from the TIME DEC macro in the format *X'0cyyddds'*.
96(60)	32(20)	CHARACTER	6	MCRDMVL	Currently selected tape volume serial number for data set migrations.
102(66)	38(26)	CHARACTER	6	*	Reserved.
108(6C)	44(2C)	BITSTRING	8	MCR_ABACKUP	Each bit corresponds to an ABACKUP task number. When set to 1, recall needs to take away the first and only volume recently used by that ABACKUP task.
116(74)	52(34)	CHARACTER	8	*	Reserved.
124(7C)	60(3C)	FIXED	4	MCRNSPKT	Time when DFSMShsm will do the next space check for interval migration.
128(80)	64(40)	CHARACTER	4	MCRNSPKD	Date when DFSMShsm will do the next space check for interval migration.
132(84)	68(44)	FIXED	4	MCRGMST	Planned start time for automatic primary space management. This time reflects when automatic primary space management last started from the beginning.
136(88)	72(48)	CHARACTER	4	MCRGMSD	Date that corresponds to the planned start time for automatic primary space management.
140(8C)	76(4C)	FIXED	4	MCRLGMST	Actual automatic primary space management start or restart time.
144(90)	80(50)	CHARACTER	4	MCRLGMSD	Date that corresponds to the actual automatic primary space management start or restart time.
148(94)	84(54)	FIXED	4	MCRLGMET	Time when automatic primary space management successfully ended.
152(98)	88(58)	CHARACTER	4	MCRLGMED	Date when automatic primary space management successfully ended.
156(9C)	92(5C)	CHARACTER	28	*	Reserved, used in releases prior to 1.4.0.
184(B8)	120(78)	CHARACTER	44	MCRRKEY	High qualifier of the key for the control data set record last saved during automatic secondary space management.
228(E4)	164(A4)	BITSTRING	4	MCRPCYCL	Automatic primary space management cycle as defined with DEFINE command: B'1' = 'Y' days B'0' = 'N' days.
232(E8)	168(A8)	FIXED	2	MCRPCLEN	Length of automatic primary space management cycle contained in MCRPCYCL.
234(EA)	170(AA)	BITSTRING	2	MCRNWFLG	The next 2 bytes contain the following flags:
		1...		MCRFSSMP	When set to 1, automatic secondary space management is in progress.
		.1..		MCRFSSMR	When set to 1, automatic secondary space management is eligible to be restarted. (Y day in cycle).
		..1.		MCRFINTP	When set to 1, interval migration is running.
		...1		MCRFSSMC	When set to 1, automatic secondary space management completed successfully at last run.
		.... 1...		MCRF_MTSSM	When set to 1, secondary space management was or is running in multitask mode. When secondary space management is running, it is a copy of MGCF_MTSSM patchable bit, made just before secondary space management starts.
		.... .1..		MCRFODMP	When set to 1, on-demand migration is running.
		xx		*	Reserved.
235(EB)	171(AB)	BITSTRING	1	*	Reserved.
236(EC)	172(AC)	CHARACTER	4	MCRPDATE	Automatic primary space management cycle start date.

Table 97 (Page 3 of 4). MCR—Management Control Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
240(F0)	176(B0)	CHARACTER	4	MCRSTRDT	Date of the day in the cycle when automatic secondary space management last started or restarted, whether or not it completed. This is the date the early start time was on.
244(F4)	180(B4)	FIXED	4	MCRSTRTM	Planned early start time defined when automatic secondary space management functions last started or restarted, whether or not they completed.
248(F8)	184(B8)	FIXED	4	MCRSCTIM	Time of automatic secondary space management last run to completion.
252(FC)	188(BC)	CHARACTER	8(16)	MCRVMVOL	Array of target migration tape volumes selected for volume tasks and level migration tasks.
		1...		MCRFRNVM	When set to 1, Recall or ABACKUP needs a tape allocated to a volume or level migration task.
		.xxx xxxx		*	Reserved.
253(FD)	189(BD)	BITSTRING	1	*	Reserved for alignment.
254(FE)	190(BE)	CHARACTER	6	MCRVMVL	Target migration tape volume selected for volume or level migrations.
380(17C)	316(13C)	CHARACTER	44	MCREKEY	Control data set record key used as the ending point for secondary space management wrap-around processing for multitask secondary space management ML1 to ML2 movement and migration cleanup.
424(1A8)	360(168)	FIXED	4	MCRJSTOD	Earliest start time for secondary space management.
428(1AC)	364(16C)	FIXED	4	MCRJSTEN	Latest start time or ending time for secondary space management.
432(1B0)	368(170)	CHARACTER	4	MCR_PRMTD_ START_DATE	Date that the promoted host started performing secondary space management.
436(1B4)	372(174)	CHARACTER	1	MCRMMUSE	If set to Y, use ARCMMEXT exit.
437(1B5)	373(175)	BITSTRING	1	MCR_SHP_FLAGS	Used for Secondary Host Promotion.
		1...		MCRF_SSTS	When set to 1, SSM end time set.
		.xxx xxxx		*	Reserved.
438(1B6)	374(176)	CHARACTER	22	*	Reserved.
460(1CC)	396(18C)	CHARACTER	8(15)	MCRYMVOL	Array of target migration tape volumes selected for recycle tasks.
		1...		MCRFRNVY	When set to 1, Recall or ABACKUP needs tape allocated to recycle output task.
		.xxx xxxx		*	Reserved.
460(1CC)	396(18C)	BITSTRING	1	*	Reserved for alignment.
462(1CE)	398(18E)	CHARACTER	6	MCRYVOLM	Target migration tape volumes selected for recycle tasks.
580(244)	516(204)	CHARACTER	45	MCRAUDK	Key of the record to resume for the audit function.
580(244)	516(204)	CHARACTER	1	MCRAUDTP	Character type of the record.
581(245)	517(205)	CHARACTER	44	MCRAUDKY	MCR key.
625(271)	561(231)	CHARACTER	120	MCRYSVOL_ARRAY	Array of recycle source volumes needed by recall.
625(271)	561(231)	CHARACTER	6(20)	MCRYSVOL	Volume serial number of recycle source volume.
745(2E9)	681(2A9)	CHARACTER	8(15)	MCRVMVOL_SSM	Array of target migration volumes selected for secondary space management migration tasks.
		1...		MCRFRNVM_SSM	When set to 1, RECALL or ABACKUP needs the volser allocated to secondary space management migration task.
		.xxx xxxx		*	Reserved
746(2EA)	682(2AA)	BITSTRING	1	*	Reserved for alignment.
747(2EB)	683(2AB)	CHARACTER	6	MCRVMVL_SSM	Target migration tape volume selected for secondary space management migration task.

MCR Data Area Cross-Reference

Table 98. MCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCR	0		1
MCR_ABACKUP	6C		3
MCR_PRMTD_START_DATE	1B0		3
MCR_SHP_FLAGS	1B5		3
MCRAUDK	244		3
MCRAUDKY	245		4
MCRAUDTP	244		4
MCRCLEN	56		3
MCRCYCLE	58		3
MCRDATA	40		2
MCRDMVL	60		3
MCREKEY	17C		3
MCRF_MTSSM	EA	08	4
MCRF_SSTS	1B5	80	4
MCRFGMF	40	20	4
MCRFGMPV	41	04	4
MCRFGMR	40	40	4
MCRFINTP	EA	20	4
MCRFLAGS	40		3
MCRFL12E	41	01	4
MCRFL12F	41	08	4
MCRFL12P	40	02	4
MCRFMCBU	40	10	4
MCRFMCE	41	02	4
MCRFMCF	41	10	4
MCRFMCP	40	04	4
MCRFML2	41	20	4
MCRFODMP	EA	04	5
MCRFRNDM	41	80	4
MCRFRNTC	41	40	4
MCRFRNVM	FC	80	4
MCRFRNVM_SSM	2E9	80	4
MCRFRNVY	1CC	80	4
MCRFSCF	42	80	4
MCRFSCP	42	40	4
MCRFSSMC	EA	10	4
MCRFSSMP	EA	80	4
MCRFSSMR	EA	40	4
MCRGMSD	88		3
MCRGMST	84		3
MCRGMVOL	50		3

Table 98. MCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCRHDR	2C		2
MCRJSTEN	1AC		3
MCRJSTOD	1A8		3
MCRKEY	0		2
MCRLGMED	98		3
MCRLGMET	94		3
MCRLGMSD	90		3
MCRLGMST	8C		3
MCRMCDAT	5C		3
MCRMDATE	44		3
MCRMMUSE	1B4		3
MCRNSPKD	80		3
MCRNSPKT	7C		3
MCRNWFLG	EA		3
MCRPCLEN	E8		3
MCRPCYCL	E4		3
MCRPDATE	EC		3
MCRRKEY	B8		3
MCRSCDAT	48		3
MCRSCTIM	F8		3
MCRSTRDT	F0		3
MCRSTRTM	F4		3
MCRTDATE	4C		3
MCRVMVL	FE		4
MCRVMVL_SSM	2EB		4
MCRVMVOL	FC		3
MCRVMVOL_SSM	2E9		3
MCRV1J0	42	20	4
MCRV260	40	01	4
MCRYMVOL	1CC		3
MCRYSVOL	271		4
MCRYSVOL_ARRAY	271		3
MCRYVOLM	1CE		4

MCT—Backup Control Data Set Backup Volume Record

The backup control data set backup volume record (MCT) describes a volume that is used for containing backup versions (see Table 99). Backup control data set backup volume records are 196 bytes long. The record type is X.

The key for type X volume records is the volume serial number. An example of the key that is used with an X volume record with the volume serial number of TSO789 is:

```
FIXCDS X TSO789
```

Table 99 (Page 1 of 3). MCT—BCDS Backup Volume Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Backup control data set backup volume record key, consisting of X'2C', followed by the 6-byte volume serial number, and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	128	MCT	Data portion of the BCDS backup volume.
64(40)	0(0)	CHARACTER	8	MCTUNIT	Unit name.
72(48)	8(8)	CHARACTER	6	MCTEXTID	Reserved.
78(4E)	14(E)	FIXED	1	MCT_MEDIA	Media type, for example: 5 = MEDIA5 6 = MEDIA6 7 = MEDIA7 8 = MEDIA8
79(4F)	15(F)	FIXED	1	MCT_REC	Recording technology: 6=EFMT1, etc.
80(50)	16(10)	FIXED	2	*	Reserved.
82(52)	18(12)	BITSTRING	2	MCTFLGS	The next 2 bytes contain the following flags:
		1...		MCTFASN	When set to 1, the volume has been selected for backup, use either daily or spill.
		.1..		MCTFULL	When set to 1, the volume is full.
		..1.		MCTFDAY	When set to 1, the volume is a daily volume. When set to 0, the volume is a spill backup volume. Only valid if MCTFTASN is set to 1.
		...1		MCTFTASN	When set to 1, the type is assigned. The volume is available only as the backup type set by MCTFDAY.
		.... 1...		MCTFMTTC	When set to 1, the DELVOL UNASSIGN command has been processed. ADDVOL uses existing TTOC.
		.... .1..		MCTFSTDT	When set to 1, cartridge tape is standard capacity. If this field is set to 0 and MCTFECT is set to 0, DFSMShsm does not know if this tape is a standard or enhanced capacity cartridge.
		.... ..1.		MCTFECT	When set to 1, cartridge tape is enhanced capacity. If this field is set to 0 and MCTFSTDT is set to 0, DFSMShsm does not know if this tape is a standard or enhanced capacity cartridge.
		1		MCTFDALT	When set to 1, this volume has a duplexed alternate.
83(53)	19(13)	1...		MCTFWRIT	When set to 1, DFSMShsm has written on this volume.
		.1..		MCTFTSPW	When set to 1, this tape volume contains password-protected backup versions.
		..1.		MCTFTSED	When set to 1, this tape volume contains expiration-date-protected backup versions.
		...1		MCTFTSRF	When set to 1, this tape volume is RACF protected.
		.... 1...		MCTFTCN	When set to 1, volume unavailable until TAPECOPY successful.
		.... .1..		MCTF1FT	When set to 1, this is a 3480 tape volume written in single-file format.
		.... ..1.		MCTFCUCS	When set to 1, this volume contains control unit compacted data.
		1		MCTFRBLR	When set to 1, reset of read buffered log has occurred during output to this volume. Accuracy of fields captured by the RBP has been diminished.
84(54)	20(14)	BITSTRING	1	*	This byte contains the following flags:

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Table 99 (Page 2 of 3). MCT—BCDS Backup Volume Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		1...		MCTF_CXEPI	When set to 1, MCTCXEPI is valid.
		.1..		MCTF_WRERR	Write error occurred causing premature end of write operation.
		..1.		MCTF_FEOV_ DONE	When set to 1, forced end of volume completed for this volume.
		...1		MCTF_NEOV_ DONE	When set to 1, natural end of volume completed for this volume.
		.... 1...		MCTF_CMD_ MFULL	When set to 1, command markfull completed on this volume.
		.... .1..		MCTF_PCT	When set to 1, MCTPCT field is valid.
		.... ..1.		MCTF_IN_XCAP	When set to one, this is a CAPACITYMODE(EXTENDED) 3490 tape.
		1		MCTF_FORCE_TR	Record build with force tape replace.
85(55)	21(15)	CHARACTER	1	MCTCXEPI	Emulation mode when MCTF_CXEPI is set to 1.
86(56)	22(16)	FIXED	2	MCTPCT	Percentage full is written to this tape in tenths of a percent. Valid only for backup tape when flag MCTF_PCT is set to 1.
88(58)	24(18)	FIXED	4	MCTPOTC	Position on tape, in KB, in continuous bytes (includes IRG).
92(5C)	28(1C)	FIXED	4	MCTDPWTV	Amount of data, in kilobytes, physically written to a single-file tape volume if a device technology before 3590-1. Not used for 3590 or later technology.
96(60)	32(20)	FIXED	4	MCTDLWTV	Amount of data, in kilobytes, logically written to a single-file tape volume.
100(64)	36(24)	CHARACTER	8	MCTTSFB	Time stamp of the first backup to this backup volume.
100(64)	36(24)	CHARACTER	4	MCTTSFBT	Time in packed decimal.
104(68)	40(28)	CHARACTER	4	MCTTSFBD	Date of the first backup to this backup volume. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
108(6C)	44(2C)	CHARACTER	8	MCTTSLB	Time stamp of the last backup to this backup volume.
108(6C)	44(2C)	CHARACTER	4	MCTTSLBT	Time in packed decimal.
112(70)	48(30)	CHARACTER	4	MCTTSLBD	Date of the last backup to this backup volume. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
116(74)	52(34)	CHARACTER	6	MCTAVSN	Volume serial number of alternate.
122(7A)	58(3A)	FIXED	1	MCTOWN	Owning function (see MCTOWNTCB).
123(7B)	59(3B)	CHARACTER	1	MCTHID	Host owning function (see MCTOWNTCB).
124(7C)	60(3C)	FIXED	2	*	Reserved.
126(7E)	62(3E)	FIXED	2	MCTVOLSQ	Volume sequence of a 3480 tape, written in single-file format, in the volume set.
128(80)	64(40)	FIXED	4	MCTTTRK	Total number of tracks on the volume.
128(80)	64(40)	FIXED	4	MCTNTCAP	When volume is a 3590 and later tape, field equals dynamically acquired capacity.
132(84)	68(44)	FIXED	4	MCTFTRK	Number of free tracks on the volume.
136(88)	72(48)	CHARACTER	4	MCTUCBTY	Device type as indicated in the UCB.
136(88)	72(48)	BITSTRING	1	MCTMODEL	Bit string.
		xxxx xxx.		*	Reserved.
		1		MCTC3480	When set to 1, DFSMShsm is in 3480 coexistence mode.
137(89)	73(49)	BITSTRING	1	*	Bit string.
		xxxx		*	Reserved.
		.... 1...		MCTRVDEV	When set to 1, the device is a virtual unit.
		.... .1..		MCTF348X	When set to 1, the device is a 3480X unit.
		xx		*	Reserved.
138(8A)	74(4A)	BITSTRING	1	MCTDEVT	This byte contains the following flags:
		1...		MCTTPDEV	When set to 1, this backup volume is a tape volume.
		.x..		*	Reserved.
		..1.		MCTDADEV	When set to 1, this is a DASD device.
		...x xxxx		*	Reserved.
140(8C)	76(4C)	FIXED	4	MCTTRKL	Track length for DASD.
160(A0)	96(60)	FIXED	2	MCTLWM	Clean up of DASD turns off full flag if used space goes below this percent.
162(A2)	98(62)	FIXED	2	*	Reserved.
164(A4)	100(64)	FIXED	2	MCTFRAG	Current fragmentation index of volume.
166(A6)	102(66)	CHARACTER	1	MCTDEN	Tape density of the MCT volume.
167(A7)	103(67)	FIXED	1	MCTDAY	Day in the backup cycle if this is a daily backup volume assigned to a day in the cycle.
168(A8)	104(68)	FIXED	4	MCTLFBID	If tape, contains the file sequence number of the last file written to this tape.
172(AC)	108(6C)	CHARACTER	8	MCTTSLS	Time stamp of the volume last spilled.
172(AC)	108(6C)	CHARACTER	4	MCTTSLST	The time is obtained from the TIME macro in format *X'hhmmssth'*.

Table 99 (Page 3 of 3). MCT—BCDS Backup Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
176(B0)	112(70)	CHARACTER	4	MCTTSLSD	The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
180(B4)	116(74)	CHARACTER	8	MCTTSLC	Time stamp when volume was last cleaned up.
180(B4)	116(74)	CHARACTER	4	MCTTSLCT	The time is obtained from the TIME macro in format *X'hhmmssth'*.
184(B8)	120(78)	CHARACTER	4	MCTTSLCD	The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
188(BC)	124(7C)	ADDRESS	4	MCTOWNTCB	TCB owning tape volume or last used tape volume (current if ARCBTAPE ENQ is held).
192(C0)	128(80)	UNSIGNED	4	MCTPOTC_HOW	2GB KB
196(C4)	132(84)	ADDRESS		MCTEND	End of record

MCT Data Area Cross-Reference

Table 100 (Page 1 of 2). MCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCT	40		1
MCT_MEDIA	4E		1
MCT_REC	4F		1
MCTAVSN	74		2
MCTCXEPI	55		2
MCTC3480	88	01	5
MCTDADEV	8A	20	5
MCTDAY	A7		2
MCTDEN	A6		2
MCTDEVT	8A		4
MCTDLWTV	60		2
MCTDPWTV	5C		2
MCTEND	C4		2
MCTEXTID	48		1
MCTF_CMD_MFULL	54	08	3
MCTF_CXEPI	54	80	3
MCTF_FEOV_DONE	54	20	3
MCTF_FORCE_TR	54	01	3
MCTF_IN_XCAP	54	02	3
MCTF_NEOV_DONE	54	10	3
MCTF_PCT	54	20	3
MCTF_WRERR	54	40	3
MCTFASN	52	80	3
MCTFCUCS	53	02	3
MCTFDALT	52	01	3
MCTFDAY	52	20	3
MCTFECT	52	02	3
MCTFLGS	52		2

Table 100 (Page 1 of 2). MCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCTFMTTC	52	08	3
MCTFRAG	A4		2
MCTFRBLR	53	01	3
MCTFSTDT	52	04	3
MCTFTASN	52	10	3
MCTFTCN	53	08	3
MCTFTRK	84		2
MCTFTSED	53	20	3
MCTFTSPW	53	40	3
MCTFTSRF	53	10	3
MCTFULL	52	40	3
MCTFWRIT	53	80	3
MCTF1FT	53	04	3
MCTF348X	89	04	5
MCTHID	7B		2
MCTLFBID	A8		2
MCTLWM	A0		2
MCTMODEL	88		4
MCTNTCAP	80		3
MCTOWN	7A		2
MCTOWNTCB	BC		2
MCTPCT	56		2
MCTPOTC	58		2
MCTPOTC_HOW	C0		2
MCTRVDEV	89	08	5
MCTTPDEV	8A	80	5
MCTTRKL	60		3
MCTTSFB	64		2

Table 100 (Page 2 of 2). MCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCTTSFBD	68		3
MCTTSFBT	64		3
MCTTSLB	6C		2
MCTTSLBD	70		3
MCTTSLBT	6C		3
MCTTSLC	B4		2
MCTTSLCD	B8		3
MCTTSLCT	B4		3
MCTTSLS	AC		2
MCTTSLSD	B0		3
MCTTSLST	AC		3
MCTTTRK	80		2
MCTUCBTY	88		3
MCTUNIT	40		2
MCTVOLSQ	7E		2

MCU—Migration Control Data Set User Record

The migration control data set user record (MCU) describes user attributes that are related to DFSMShsm processing. Migration control data set user records are 136 bytes long. The record type is U.

The key for a type U user record is the user identification. An example of the key that is used with a U user record with the user identification of SLJ2345 is:

```
FIXCDS U SLJ2345
```

Table 101. MCU—MCDS User Record

Offsets Actual	Offsets / FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Migration control data set user record key, consisting of X'01', followed by the 7-byte user identification, and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	72	MCU	Data portion of the MCDS user record.
64(40)	0(0)	CHARACTER	6	MCUPMVSN	Volume serial number of the preferred migration volume to use.
70(46)	6(6)	BITSTRING	2	MCUFLGS	The next two bytes contain the following flags:
		1...		MCUFDBA	When set to 1, the user has space management authority.
		.1..		MCUCNTL	When set to 1, the user has authority to issue the AUTH command.
		..xx xxxx		*	Reserved.
72(48)	8(8)	FIXED	2	MCUNMDS	Number of migrated data sets.
74(4A)	10(A)	FIXED	2	MCUNMIG	Number of migrations performed for this user.
76(4C)	12(C)	FIXED	2	MCUNRES	Number of recall operations performed for this user.
78(4E)	14(E)	FIXED	2	MCUMNBC	Maximum number of backup copies per data set to maintain for this user. When set to 1, the previously defined user default is used.
80(50)	16(10)	FIXED	4	MCUMTRKS	Number of tracks used by the migrated data set.
84(54)	20(14)	FIXED	4	MCUMCTRK	Total number of tracks used.
88(58)	24(18)	FIXED	4	MCUBYTES	Number of bytes transferred for this user.
92(5C)	28(1C)	FIXED	2	MCUBFREQ	Specified backup frequency (in days).
94(5E)	30(1E)	FIXED	2	*	Reserved.
96(60)	32(20)	FIXED	4(10)	*	An array of 10 reserved entries.

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MCU Data Area Cross-Reference

Table 102. MCU Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCU	40		1
MCUBFREQ	5C		2
MCUBYTES	58		2
MCUCNTL	46	40	3
MCUFDBA	46	80	3
MCUFLGS	46		2
MCUMCTRK	54		2
MCUMNBC	4E		2
MCUMTRKS	50		2
MCUNMDS	48		2
MCUNMIG	4A		2
MCUNRES	4C		2
MCUPMVSN	40		2

MCV—Migration Control Data Set Volume Record

The migration control data set volume record (MCV) describes a primary or migration volume under DFSMShsm control. Migration control data set volume records are 316 bytes long. The record type is V.

The key for type V volume records is the volume serial number. An example of the key that is used with a V volume record with the volume serial number of TSO123 is:

```
FIXCDS V TSO123
```

Table 103 (Page 1 of 5). MCV—MCDS Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Migration control data set record key, consisting of X'04', followed by the 6-byte volume serial number, and padded with blanks. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	248	MCV	Data portion of the MCDS volume record.
64(40)	0(0)	CHARACTER	8	MCVUNIT	Unit name.
72(48)	8(8)	BITSTRING	2	MCVFLGS	The next 2 bytes contain the following flags:
		1...		MCVFPUB	When set to 1, the volume is a primary volume. When set to 0, the volume is a migration volume.
		.1..		MCVFLEV2	When set to 1, the volume is a migration level 2 volume.
		..1.		MCVFAVL	When set to 1, a migration level 2 volume is available.
		...1		MCVFCOPY	When set to 1, volume is in use by TAPECOPY.
		.... 1...		MCVFSDP	When set to 1, a VSAM small-data-set-packing data set is defined on the volume.
		.... .1..		MCVFPRV	When set to 1, no automatic recall is allowed to this volume unless the data set is a pooled data set and this volume is in its pool.
		.... .1..		MCVFNOAR	Alias for no auto recall.
		.... ..1.		MCVFDALT	When set to 1, this volume has a duplexed alternate.
		1		MCVFFULL	When set to 1, the volume is full.
73(49)	9(9)	1...		MCVFNOCM	When set to 1, the volume is not eligible for command migration.
		.1..		MCVFWRIT	When set to 1, DFSMShsm has written on this tape volume.
		..1.		MCVFEMTY	When set to 1, the tape volume is empty.
		...1		MCVFUSED	When set to 1, the tape volume is being used.
		.... 1...		MCVFUNAV	When set to 1, the tape volume is not available.
		.... .1..		MCVFSELD	When set to 1, the tape volume is currently selected.
		.... ..1.		MCVFNDLV	When set to 1, a VSAM data set has migrated to this tape volume but the TTOC does not reflect the migration copy.
		1		MCVFVLTH	For only primary volumes. When set to 1, valid thresholds exist. When set to 0, data sets will migrate by age.
74(4A)	10(A)	FIXED	2	MCVHWM	High threshold of occupancy. Percent of free space to be maintained on volume.
76(4C)	12(C)	CHARACTER	8	MCVTSLM	Time stamp at last migrate of volume.
76(4C)	12(C)	CHARACTER	4	MCVTSLMT	Time in decimal.
80(50)	16(10)	CHARACTER	4	MCVTSLMD	Date of the last space management from this volume if this is a primary or tape migration level 2 volume, or to this volume if this is a DASD migration level 2 volume. This field is not valid for level 1 volumes. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
84(54)	20(14)	FIXED	4	MCVTTRK	Total number of tracks on the volume.
84(54)	20(14)	FIXED	4	MCVNTCAP	When volume is a 3590 and later tape, field equals dynamically acquired capacity.
88(58)	24(18)	FIXED	4	MCVFTRK	Number of free tracks on the volume.
92(5C)	28(1C)	CHARACTER	24	MCVDEVTB	Device type information from device table.
92(5C)	28(1C)	CHARACTER	4	MCVUCBTY	Device type as in UCB.
92(5C)	28(1C)	CHARACTER	1	*	UCB type flags.

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Table 103 (Page 2 of 5). MCV—MCDS Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
93(5D)	29(1D)	BITSTRING	1	*	Device option flags:
		xxxx		*	Reserved.
		.... 1...		MCVRVDEV	When set to 1, the device is a virtual unit.
		.... .1..		MCVF348X	When set to 1, the device is a 3480X tape volume.
		xx		*	Reserved.
94(5E)	30(1E)	BITSTRING	1	MCVDEVT	Device type byte of UCBTYPE.
		1...		MCVTPDEV	When set to 1, the device is tape.
		.x..		*	Reserved.
		..1.		MCVDSDEV	When set to 1, the device is DASD.
		...x xxxx		*	Reserved.
95(5F)	31(1F)	BITSTRING	1	MCVDEVT2	Device type byte for 3480 tape:
		1...		MCVF3480	When set to 1, the device is a 3480 tape volume.
		.xxx xxxx		*	Reserved.
96(60)	32(20)	FIXED	4	MCVBLK	Maximum block size for the device.
100(64)	36(24)	FIXED	2	MCVNCYL	Number of cylinders. Valid only if MCVDSDEV = 1 and MCVFGT32K = 0.
102(66)	38(26)	FIXED	2	MCVNTRK	Number of tracks per cylinder.
104(68)	40(28)	FIXED	4	MCVTRKL	Maximum track length of the device.
108(6C)	44(2C)	FIXED	2	MCV2KPT	Number of 2K blocks on a track.
110(6E)	46(2E)	FIXED	2	MCVPCT	Percentage full is written to this tape in tenths of a percent. Valid only if MCVF_PCT is set to 1.
112(70)	48(30)	FIXED	4	MCVPOTC	Position on tape in kilobytes, in continuous bytes.
116(74)	52(34)	FIXED	2	MCVLWM	Migrate until percent of space allocated is no greater than this amount.
118	(76)	SIGNED	2	MCVFRAGX	VOLUME FRAGMENTATION INDEX - ENTROPY - TO BE MAINTAINED NX
120	(78)	SIGNED	2	MCVDAYS	DAYS UNUSED FOR DATASETS ON THIS VOLUME TO BE MIGRATED, MEANS USE SYSTEM VAL NX
118(76)	54(36)	FIXED	4	*	Reserved.
122(7A)	58(3A)	FIXED	2	MCVMINAG	Minimum age migrated from volume.
124(7C)	60(3C)	FIXED	2	MCVNMDS	Number of data sets processed during the most recent volume space management. Valid only if MCVDSDEV = 1 and MCVFGT32K = 0.
126(7E)	62(3E)	FIXED	2	MCVNTRKM	If MCVF64K is set to 0, then the number of tracks last migrated. If MCVF64K is set to 1, then use MCV#TRKM.
128(80)	64(40)	FIXED	2	MCVFRAG	Current fragmentation index.
130(82)	66(42)	FIXED	2	MCVDBADY	Number of days a data set on this volume must be inactive before it is eligible for data set deletion or data set retirement processing.
130(82)	66(42)	FIXED	2	MCVMIGDY	Minimum migration age of this volume.
132(84)	68(44)	BITSTRING	1	MCVTYPUS	The following flags indicate how the tape is currently being used.
		1...		MCVFMIGD	When set to 1, data set migration is using the tape.
		.1..		MCVFMIGV	When set to 1, volume migration is using the tape.
		..1.		MCVFRECL	When set to 1, recall is using the tape.
		...1		MCVFRCYS	When set to 1, recycle is using this tape as a source volume.
		.... 1...		MCVFRCYT	When set to 1, recycle is using this tape as a target volume.
		.... .1..		MCVFDBAU	When set to 1, data set deletion or data set retirement is using this tape.
		.... ..1.		MCVFAUD	When set to 1, AUDIT is using this data set.
		1		MCV_ ARECOVER	When set to 1, ARECOVER is using this data set.
133(85)	69(45)	BITSTRING	1	MCVTSEC	The following flags indicate the type of security for the tape volume.
		1...		MCVFTSPW	When set to 1, the tape contains password-protected migration data sets.
		.1..		MCVFTSED	When set to 1, the tape contains expiration-date-protected migration data sets.
		..1.		MCVFTSRF	When set to 1, the tape is RACF protected.
		...x xxxx		*	Reserved.
134(86)	70(46)	BITSTRING	1	MCV3480F	This byte contains the following flags.
		1...		MCVF1FT	When set to 1, the device is a 3480 tape written in single-file format.
		.1..		MCVDRAIN	When set to 1, the DRAIN attribute has been specified on the ADDVOL command.
		..1.		MCVFCUCS	When set to 1, the volume contains control unit compacted data.
		...1		MCVFSTDT	When set to 1, cartridge tape is standard capacity. If this field is set to 0 and MCVFECT is set to 0, DFSMShsm does not know if this tape is a standard or enhanced capacity cartridge.

Table 103 (Page 3 of 5). MCV—MCDS Volume Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		.... 1...		MCVFECT	When set to 1, cartridge tape is enhanced capacity. If this field is set to 0 and MCVFSTDT is set to 0, DFSMShsm does not know if this tape is a standard or enhanced capacity cartridge.
		.... .1..		MCVFL1OV	When set to 1, the OVERFLOW attribute was specified on an ADDVOL command for ML1 volume.
		.... ..1.		MCVFTCN	When set to 1, this volume is unavailable for selection until TAPECOPY successful.
		1		MCV_ABACKUP_LAST	When set to 1, volume is in use as the last volume of a spanning data set. Valid only if MCV_FABACKUP is set to 1.
135(87)	71(47)	FIXED	1	MCVDEN	Density of the tape.
136(88)	72(48)	FIXED	4	MCVLFBID	Contains the file sequence number of the last file successfully written on this tape.
140(8C)	76(4C)	FIXED	2	MCVVOLSQ	Volume sequence of a 3480 tape, written in single-file format, in the volume set.
142(8E)	78(4E)	FIXED	2	MCV_OHRCL_ PRIORITY	If MCVF_OHRCL_NEED is set to 1, then this field contains the priority of the highest priority MWE wanting this tape from any host.
144(90)	80(50)	CHARACTER	8	MCVLSPTS	Time stamp of the last LSPACE of this volume.
144(90)	80(50)	CHARACTER	4	MCVLSPCD	Date of the last LSPACE of this volume. The date is obtained from the TIME DEC macro in the format *X'0cyyddds'*.
144(90)	80(50)	CHARACTER	4	MCV_OHRCL_TFQ_ DATE	If MCVF_OHRCL_NEED is set to 1, then this field contains the date first queued of the highest priority MWE wanting this tape. The date is obtained from the TIME DEC macro in the format *X'0cyyddds'*.
148(94)	84(54)	CHARACTER	4	MCVLSPCT	Time in the format *X'hhmmssth'*.
148(94)	84(54)	CHARACTER	4	MCV_OHRCL_TFQ_ TIME	If MCVF_OHRCL_NEED is set to 1, then this field contains the time first queued of the highest priority MWE wanting this tape. The time is obtained from the TIME DEC macro in the format *X'hhmmssth'*.
152(98)	88(58)	CHARACTER	20	MCVMHFLG	Multiple-host volume attributes.
152(98)	88(58)	CHARACTER	1	MCVHID	Host ID if volume in use.
153(99)	89(59)	CHARACTER	1	MCVCFLG	Host volume attributes that are common.
		1...		MCVFDBA	When set to 1, not migrated but DBA or archive.
		.1..		MCVFRBU	When set to , archive if DBA is set to 1.
		..1.		MCVFBDCS	When set to 1, the backup device category is specified.
		...1		MCVFBDCT	When set to 1, the backup device category of this volume is tape.
		.... 1...		MCVFSDPI	When set to 1, the SDSP is being used for input.
		.... .1..		MCVFSDPO	When set to 1, the SDSP is being used for output.
		xx		*	Reserved.
154(9A)	90(5A)	CHARACTER	1	MCVSTK_HID	Valid if flag MCVFADSEL is set to 1. ID of host which set that flag, MCVFADSEL.
155(9B)	91(5B)	FIXED	1	*	Reserved.
156(9C)	92(5C)	CHARACTER	2(8)	MCVSMGMT	Host unique volume attributes entry. There are a maximum of 8 hosts.
The following 2 bytes are repeated eight times. They contain volume attributes for primary volumes and can be different for different hosts.					
156(9C)	92(5C)	CHARACTER	1	MCVSMHST	Host ID having these attributes.
157(9D)	93(5D)	BITSTRING	1	MCVUFLG	Host unique volume attributes.
		1...		MCVFAM	When set to 1, automatic volume space management is requested for this volume on this host.
		.1..		MCVFAB	When set to 1, automatic backup is requested for this volume on this host.
		..1.		MCVFAD	When set to 1, automatic dump is requested for this volume on this host.
		...1		MCVFOV	When set to 1, the volume was added as overflow
		 xxxx		*	Reserved.
172(AC)	108(6C)	CHARACTER	1(8)	MCVSDPHI	An 8-element array of 1-byte fields containing host IDs using the SDSP.
180(B4)	116(74)	FIXED	1	MCVRTAKN	Number of times this L2 tape has been taken away by Recall or ABACKUP from a migration or recycle output task. Valid only if MCVFLEV2, MCVTPDEV and MCVFRTTA are all set to 1.
181(B5)	117(75)	CHARACTER	1	MCVCXEPI	Emulation mode if MCVF_CXEPI is set to 1.
182(B6)	118(76)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCVFMDY	When set to 1, the minimum migration age was specified on the ADDVOL command.
		.1..		MCVFRNSD	When set to 1, input needs SDSP allocated to migration.

Table 103 (Page 4 of 5). MCV—MCDS Volume Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		..1.		MCVFCPVA	When set to 1, the matching volume attribute is being used.
		...1		MCV_FABACKUP	When set to 1, volume is in use by ABACKUP.
		.... 1...		MCVFRTTA	When set to 1, the volume has been taken away by Recall or ABACKUP.
		.... .1..		MCVF_OHRCL_NEED	When set to 1, another host, that is a host different than the one whose host ID is in MCVHID, needs the tape for recall, and this tape is currently in use by recall on this host.
		.... ..1.		MCVF_OHRCL_NOW	If MCVF_OHRCL_NEED is set to 1, then this field states that the request priority on the MWE wanting this tape is a no-wait request.
		1		MCVF_CXEPI	When set to 1, MCVCXEPI is valid.
183(B7)	119(77)	CHARACTER	1	MCV_OHRCL_ REQUESTER	If MCVF_OHRCL_NEED is set to 1, then this field contains the host ID of the host which has the highest priority MWE wanting this tape.
184(B8)	120(78)	FIXED	1	MCV_ABACKUP_TASK	Number of ABACKUP tasks using volume MCVVSN and setting the flags, MCV_FABACKUP and MCV_ABACKUP_LAST.
185(B9)	121(79)	BITSTRING	1	MCVFLGS4	This byte contains the following flags:
		1...		MCVF_FEOV_DONE	When set to 1, forced end of volume completed for this volume.
		.1..		MCVF_NEOV_DONE	When set to 1, natural end of volume completed for this volume.
		..1.		MCVF_CMD_MFULL	When set to 1, command markfull completed on this volume.
		...1		MCVFRCN	When set to 1, reconnection in process.
		.... 1...		MCVF_PCT	When set to 1, field MCVPCT contains percent full of migration tape, MCVVSN.
		.... .1..		MCVF_IN_XCAP	When set to 1, this is a CAPACITYMODE(EXTENDED) 3490 tape.
		.... ..1.		MCVFGT32K	When set to 1, field MCVCYL_GT32K contains the number of cylinders and field MCV#NMDS contains a count of data sets processed.
		1		MCVFCPBG	When set to 1, the volume is copy pool backup storage group volume.
186(BA)	122(7A)	FIXED	2	MCVDCLCT	Number of dump classes specified on the ADDVOL command.
188(BC)	124(7C)	CHARACTER	8(5)	MCVDCLAS	A 5-element array of 8-byte fields containing dump class IDs of the dump classes specified on the ADDVOL of the primary volume.
228(E4)	164(A4)	CHARACTER	8	MCVMLTMS	Time stamp for when automatic primary migration was last performed for the volume (STCK format).
236(EC)	172(AC)	CHARACTER	8	MCVBLTMS	Time stamp for when automatic backup was last performed for the volume (STCK format).
244(F4)	180(B4)	CHARACTER	8	MCVDLTMS	Time stamp for when automatic dump was last performed for the volume (STCK format).
252(FC)	188(BC)	CHARACTER	8	MCVIMTMS	Time stamp for when interval migration was last performed for the volume (STCK format).
252(FC)	188(BC)	CHARACTER	4	MCVTIMST	Timer used for migration level 1 volumes to store the time when migration released the SDSP on the volume because RECALL or ABARS needed the SDSP. This definition applies when this MCV volume record describes an L1 volume.
256(100)	192(C0)	CHARACTER	4	*	Reserved.
260(104)	196(C4)	BITSTRING	1	MCVSMSFG	This byte contains the following flags:
		1...		MCVFSMS	When set to 1, the volume is an SMS-managed volume.
		.1..		MCVFAMIP	When set to 1, automatic primary migration is in process.
		..1.		MCVFABIP	When set to 1, automatic backup is in process.
		...1		MCVFADIP	When set to 1, automatic dump is in process.
		.... 1...		MCVFRBLR	When set to 1, reset of read buffered log has occurred during output to this volume. Accuracy of fields captured by the RBL has been diminished.
		.... .1..		MCVF64K	When set to 1, tracks-last-migrated is stored in MCV#TRKM. When set to 0, tracks-last-migrated is stored in MCVNTRKM.
		.... ..1.		MCVFADSEL	When set to 1, volume has been selected as part of a group to be stacked.
		1		MCVF_WRERR	Write error occurred causing premature end of write operation.
261(105)	197(C5)	FIXED	3	MCV#TRKM	If MCVF64K is set to 1, the number of tracks last migrated.

Table 103 (Page 5 of 5). MCV—MCDS Volume Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
264(108)	200(C8)	FIXED	4	MCVDPWTV	Amount of data (in KB) physically written to a single file tape volume. Not used for 3590 or later technology.
268(10C)	204(CC)	FIXED	4	MCVDLWTV	Amount of data (in kilobytes) logically written to a single file tape volume.
272(110)	208(D0)	CHARACTER	6	MCVAVSN	Volume serial number of alternate volume.
278(116)	214(D6)	FIXED	1	MCV_MEDIA	Media type, for example: 5 = MEDIA5 6 = MEDIA6 7 = MEDIA7 8 = MEDIA8
279(117)	215(D7)	FIXED	1	MCV_REC	Recording technology: 6=EFMT1, etc.
280(118)	216(D8)	FIXED	4	MCVCYL_GT32K	Number of cylinders. Valid only if MCVDSDEV equals one and MCVFGT32K equals one.
		1		MCVFCPBG	When set to 1, the volume is copy pool backup storage group
284(11C)	220(DC)	FIXED	4	MCV#NMDS	Count of data sets processed during the last space management. Valid only if MCVDSDEV equals 1 and MCVFGT32K equals 1.
288(120)	224(E0)	CHARACTER	2	MCVFLGS5	Flag bits
		1...		MCVF_FORCE_TR	Record build with force taperepl.
		.1..		MCVF_EAV	Set to 1 if Extended Address Volume
		..1.		MCVF_SDSP_ADDVOL	When set to 1, this is the first time this ML1 volume with SDSP has been ADDVOLed; the SDSP data set has not been used before.
		...x xxxx		*	Reserved.
290(122)	226(E2)	FIXED	2	MCVFRAG_TRK_SPACE	Current fragmentation index of EAV track-managed space
292(124)	228(E4)	FIXED	2	MCVHTMT	Hi Track-Managed Threshold - percent of free space to be maintained on track-managed space of EAV
294(126)	230(E6)	FIXED	2	MCVLTMT	Low Track-Managed Threshold - Migrate until percent of space allocated on track-managed space of EAV is not greater than this amount
296(128)	232(E8)	FIXED	4	MCVFTRK_TRK_SPACE	Number of free tracks on Track-Managed Space of EAV
300(12C)	236(EC)	FIXED	4	MCV_EAV_MIGR_TRACK_NUMBER	Count of tracks last migrated from EAV
304(130)	240(F0)	FIXED	4	MCV_SDSP_FREE_CA	Space in the reclaimed SDSP CAs
308(134)	244(F4)	FIXED	4	*	Reserved
312(138)	248(F8)	FIXED	4	MCVPOTC_HOW	2G KB

MCV Data Area Cross-Reference

Table 104 (Page 1 of 3). MCV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCV	40		1
MCV_ABACKUP_LAST	86	01	3
MCV_ABACKUP_TASK	B8		2
MCV_ARECOVER	84	01	3
MCV_EAV_MIGR_TRACK_NUMBER	12C		2
MCV_FABACKUP	B6	10	3
MCV_MEDIA	116		2
MCV_OHRCL_PRIORITY	8E		2
MCV_OHRCL_REQUESTER	B7		2
MCV_OHRCL_TFQ_DATE	90		4
MCV_OHRCL_TFQ_TIME	94		2
MCV_REC	117		2

Table 104 (Page 1 of 3). MCV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCV_SDSP_FREE_CA	130		2
MCV#NMDS	11C		2
MCV#TRKM	105		2
MCVAVSN	110		2
MCVBLK	60		3
MCVBLTMS	EC		2
MCVCFLG	99		3
MCVCXEPI	B5		2
MCVCYL_GT32K	118		2
MCVDAYS	78		2
MCVDBADY	82		2
MCVDCLAS	BC		2

Table 104 (Page 2 of 3). MCV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVDCLCT	BA		2
MCVDEN	87		2
MCVDEVT	5E		4
MCVDEVTB	5C		2
MCVDEVT2	5F		4
MCVDLTMS	F4		2
MCVDLWTV	10C		2
MCVDPWTV	108		2
MCVDRAIN	86	40	3
MCVDSDEV	5E	20	5
MCVF_CMD_MFULL	B9	20	3
MCVF_CXEPI	B6	01	3
MCVF_EAV	120	40	3
MCVF_FEOV_DONE	B9	80	3
MCVF_FORCE_TR	120	80	3
MCVF_IN_XCAP	B9	04	3
MCVF_NEOV_DONE	B9	40	3
MCVF_OHRCL_NEED	B6	04	3
MCVF_OHRCL_NOW	B6	02	3
MCVF_PCT	79	08	4
MCVF_SDSP_ADDVOL	120	20	4
MCVF_WRERR	104	01	3
MCVFAB	9D	40	5
MCVFABIP	104	20	3
MCVFAD	9D	20	5
MCVFADIP	104	10	3
MCVFADSEL	104	02	3
MCVFAM	9D	80	5
MCVFAMIP	104	40	3
MCVFAUD	84	02	3
MCVFAVL	48	20	3
MCVFBDCS	99	20	4
MCVFBDCT	99	10	4
MCVFCOPY	48	10	3
MCVFCPBG	B9	01	3
MCVFCPVA	B6	20	3
MCVFCUCS	86	20	3
MCVFDALT	48	02	3
MCVFDBA	99	80	4
MCVFDBAU	84	04	3
MCVFECT	86	08	3
MCVFEMTY	49	20	3

Table 104 (Page 2 of 3). MCV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVFFULL	48	01	3
MCVFGT32K	B9	02	3
MCVFLEV2	48	40	3
MCVFLGS	48		2
MCVFLGS4	B9		2
MCVFLGS5	120		2
MCVFL1OV	86	04	3
MCVFMDY	B6	80	3
MCVFMIGD	84	80	3
MCVFMIGV	84	40	3
MCVFNDLV	49	02	3
MCVFNOAR	48	04	4
MCVFNOCM	49	80	3
MCVFOV	9D	10	5
MCVFPRV	48	04	3
MCVFPUB	48	80	3
MCVFRAG	80		2
MCVFRAG_TRK_SPACE	122		2
MCVFRAGX	76		2
MCVFRBLR	104	08	3
MCVFRBU	99	40	4
MCVFRCN	B9	10	3
MCVFRCYS	84	10	3
MCVFRCYT	84	08	3
MCVFRECL	84	20	3
MCVFRNSD	B6	40	3
MCVFRTTA	B6	08	3
MCVFSDP	48	08	3
MCVFSDPI	99	08	4
MCVFSDPO	99	04	4
MCVFSELD	49	04	3
MCVFSMS	104	80	3
MCVFSTDT	86	10	3
MCVFTCN	86	02	3
MCVFTRK	58		2
MCVFTRK_TRK_SPACE	128		2
MCVFTSED	85	40	3
MCVFTSPW	85	80	3
MCVFTSRF	85	20	3
MCVFUNAV	49	08	3
MCVFUSED	49	10	3
MCVFVLTH	49	01	3

Table 104 (Page 3 of 3). MCV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVFWRIT	49	40	3
MCVF1FT	86	80	3
MCVF348X	5D	04	5
MCVF3480	5F	80	5
MCVF64K	104	04	3
MCVHID	98		3
MCVHTMT	124		2
MCVHWM	4A		2
MCVIMTMS	FC		2
MCVLFBID	88		2
MCVLSPCD	90		3
MCVLSPCT	94		3
MCVLSPTS	90		2
MCVLTMT	126		2
MCVLWM	74		2
MCVMHFLG	98		2
MCVMIGDY	82		3
MCVMINAG	7A		2
MCVMLTMS	E4		2
MCVNCYL	64		3
MCVNMDS	7C		2
MCVNTCAP	54		3
MCVNTRK	66		3
MCVNTRKM	7E		2
MCVPCT	6E		3
MCVPOTC	70		3
MCVPOTC_HOW	138		2
MCVRTAKN	B4		2
MCVRVDEV	5D	08	5
MCVSDPHI	AC		2
MCVSMGMT	9C		3
MCVSMHST	9C		4
MCVSMSFG	104		2
MCVSTK_HID	9A		3
MCVTIMST	FC		3
MCVTPDEV	5E	80	5
MCVTRKL	68		3
MCVTSEC	85		2
MCVTSLM	4C		2
MCVTSLMD	50		3
MCVTSLMT	4C		3
MCVTTRK	54		2

Table 104 (Page 3 of 3). MCV Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTYPUS	84		2
MCVUCBTY	5C		3
MCVUFLG	9D		4
MCVUNIT	40		2
MCVVOLSQ	8C		2
MCV2KPT	6C		3
MCV3480F	86		2

MCVT—Management Communication Vector Table

The management communication vector table (MCVT) describes information that is commonly needed by the DFSMShsm modules during processing (see Table 105). It contains pointers to DFSMShsm tables and queues. This table resides in the DFSMShsm work space and is 1520 bytes long. To display the MCVT record, use the DFSMShsm command as follows:

```
DISPLAY .MCVT.+0 LENGTHS(1516)
```

Table 105 (Page 1 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	1516	MCVT	Start of MCVT.
0	(0)	BITSTRING	4	MCVTFLGS	The next 4 bytes contain the following flags:
		1...		MCVTFTST	NX (TEST MODE), ZERO FOR USERS
		.1..		MCVTFNLG	When set to 1, logging to the log data set is inhibited.
		..1.		MCVTFSLG	When set to 1, the logging task is to stop at the first opportunity.
		...1		MCVTFPLG	When set to 1, the ARCILOG task has previously been initialized.
		.... 1...		MCVTF1FT	When set to 1, 3480 tape written in single-file format.
		.... .1..		MCVTFOPB	When set to 1, the operator task is busy.
		.... ..1.		MCVTFINI	When set to 1, DFSMShsm has been started.
		1		MCVTFATL	When set to 1, a fatal error has been detected that will force DFSMShsm shutdown.
1	(1)	1...		MCVTFMTO	When set to 1, automatic volume migration is to begin.
		.1..		MCVTFHMG	When set to 1, the migration subtasks are held.
		..1.		MCVTFHRS	When set to 1, the recall subtasks are held.
		...1		MCVTFMTC	When set to 1, the automatic primary space management start window has been changed by the SETSYS command.
		.... 1...		MCVTFCDO	When set to 1, only changed non-VSAM or integrated catalog facility VSAM data sets are to be considered for incremental backup.
		.... .1..		MCVTFLSW	When set to 1, the log data sets are to be switched.
		.... ..1.		MCVTFEMG	When set to 1, DFSMShsm is in emergency mode.
		1		MCVTFSVC	When set to 1, the DFSMShsm SVC call has been made for DFSMShsm initialization.
2	(2)	1...		MCVTFHBU	When set to 1, the backup and recovery subtask is held.
		.1..		MCVTFPBU	When set to 1, backup profiles are to be created.
		..1.		MCVTFBTO	When set to 1, automatic backup is to begin.
		...1		MCVTFHLG	When set to 1, logging is held.
		.... 1...		MCVTFBTC	When set to 1, automatic backup start window has been changed by the SETSYS command.
		.... .1..		MCVTNOCI	When set to 1, data sets should not be exported by control interval.
		.... ..1.		MCVTFFTO	When set to 1, a message is always sent to the operator terminal.
		.... ..1.		MCVTFMVF	When set to 1, DFSMShsm sends messages about data sets on volumes processed by DFSMShsm to the operator console. MCVTFMVF is an alias for MCVTFFTO.
		1		MCVTFJRN	When set to 1, journaling is being done.
3	(3)	1...		MCVTFJRO	When set to 1, recovery is the option. When set to 0, speed is the journal option.
		.1..		MCVTFJCI	When set to 1, control data set journaling is inhibited because a DFSMShsm error prevents it.
		..1.		MCVTFMSP	When set to 1, the monitor space option indicates that volume space-use messages are to be sent to the operator terminal.
		...1		MCVTFMIP	When set to 1, DFSMShsm startup command messages are to be sent to the operator terminal.
		.... 1...		MCVTFREQ	When set to 1, DFSMShsm must request permission from the operator before beginning automatic functions.
		.... .1..		MCVTFNOL	When set to 1, logging function is disabled.
		.... ..1.		MCVTFDMJ	When set to 1, the journal is permanently disabled because of a journal error.
		1		MCVTFTPS	When MCVTFTST is set to 1 and this flag is set to 0, indicates DFSMShsm is running in tape simulation mode.

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Table 105 (Page 2 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
4	(4)	ADDRESS	4	MCVTQCT	Address of the DFSMShsm queue control table in the system common service area.
8	(8)	FIXED	2	MCVTCSP	Common storage area subpool number.
10	(A)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCVTFS1D	When set to 1, all DFSMShsm dumps are written to a system dump data set.
		.1..		MCVTCVBK	When set to 1, the SETSYS CDSVERSIONBACKUP command is in effect.
		..1.		MCVTCMDB	When set to 1, the BACKVOL CONTROLDATASETS command was issued.
		...1		MCVTMBKF	When set to 1, DFSMShsm is currently backing up the MCDS.
		.... 1...		MCVTBBKF	When set to 1, DFSMShsm is currently backing up the BCDS.
		.... .1..		MCVTOBKF	When set to 1, DFSMShsm is currently backing up the OCDS.
		.... ..1.		MCVTJBKF	When set to 1, DFSMShsm is currently backing up the journal data set.
		1		MCVTMRFF	When set to 1, an MHCR read failure occurred while DFSMShsm was backing up the control data sets or the journal data set.
11	(B)	BITSTRING	1	MCVTRV	DFSMShsm version, release, and modification level. This field is frozen at the 1.5.0 level. The field MCVT_VRM contains the release information for later releases of DFSMShsm. If the first byte of MCVT_VRM is 0, this field is valid.
12	(C)	ADDRESS	4	MCVTCEP	Address of the communications ECB for the operator.
16	(10)	ADDRESS	4	MCVTCIBP	Address of a chain of console command input buffer addresses.
20	(14)	ADDRESS	4	MCVTLDCB	Address of the log DCB.
24	(18)	ADDRESS	4	MCVTLBUF	Address of the log buffer control data.
28	(1C)	FIXED	2	MCVTSMDS	Small data set size definition in 2K blocks.
30	(1E)	FIXED	1	MCVTDCMP	Default percent of space savings assumed when allocating a data set that will be compacted.
31	(1F)	FIXED	1	MCVTCOMP	Percent of space savings needed to compact a data set after the initial compaction.
32	(20)	BITSTRING	4	MCVTLECB	ECB indicating when the log buffer is full.
36	(24)	ADDRESS	4	MCVTMWEH	Address of the beginning of the general management work element queue.
40	(28)	ADDRESS	4	MCVTMWET	Address of the end of the general management work element queue.
44	(2C)	BITSTRING	2	MCVTDBUG	The next 2 bytes contain the debug options:
		1...		MCVTDBMV	When set to 1, debug mode performs volume functions without moving data.
		.xxx xxxx		*	Reserved.
44	(2C)	BITSTRING	1	*	Reserved.
45	(2D)	xxxx xxx.		*	Reserved.
		1		MCVTFDMP	When set to 1, an exit abnormal end will continue abnormal-end processing.
46	(2E)	BITSTRING	2	MCVTRACE	The next 2 bytes contain the trace options:
		1...		MCVTRCAT	When set to 1, changes to the control data sets are traced in the log data set.
		.1..		MCVTFTRC	When set to 1, the problem determination aid trace function is active.
48	(30)	ADDRESS	4	MCVTECBL	Address of the ECB list for which DFSMShsm waits for work to do.
52	(34)	ADDRESS	4	MCVTOPQH	Address of the beginning of the operator management work element queue.
56	(38)	ADDRESS	4	MCVTOPQT	Address of the end of the operator management work element queue.
60	(3C)	ADDRESS	4	MCVTRSQH	Address of the beginning of the recall task management work element queue.
64	(40)	ADDRESS	4	MCVTRSQT	Address of the end of the recall task management work element queue.
68	(44)	ADDRESS	4	MCVTMGQH	Address of the beginning of the migration task management work element queue.
72	(48)	ADDRESS	4	MCVTMGQT	Address of the end of the migration task management work element queue.
76	(4C)	BITSTRING	4	MCVTOECB	Operator task ECB.
80	(50)	BITSTRING	4	*	The next 4 bytes contain the following:
80	(50)	BITSTRING	1	MCVTVSLK	When set to 1, VSAM lock is wanted.
81	(51)	BITSTRING	1	*	The following fields describe whether or not the recall attributes must match:
		1...		MCVTFRAT	When set to 1, the recall attributes do not have to match.
		.1..		MCVTFRAM	When set to 1, the automatic space management attributes do not have to match during recall.

Table 105 (Page 3 of 21). MCVT—Management Communication Vector Table

Offsets Decimal (Hex)		Type	Length	Name	Description
		..1.		MCVTFRAB	When set to 1, the automatic backup attributes do not have to match during recall.
		...1		MCVTFRAD	When set to 1, the backup device categories do not have to match during recall.
		.... 1...		MCVTFRRA	When set to 1, DFSMShsm can reblock to any DASD during recall or recovery (REBLOCKTOANY).
		.... .1..		MCVTFRRB	When set to 1, DFSMShsm can reblock during recall or recovery to a target DASD other than a 3330, 3330-1, 3350, or a 3330V when the target DASD volume is different from the source volume (REBLOCKTOBASE).
		.... ..1.		MCVTFRRU	When set to 1, DFSMShsm can reblock during recall from or recovery to any DASD when the source and target volumes are different device types (REBLOCKTOUNLIKE).
		1		MCVTFRUP	When set to 1, DFSMShsm can recall data sets to primary volumes whose recall attributes do not match the volume the data set migrated from.
82	(52)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCVTMNTS	When set to 1, no timer is set for automatic volume migration.
		.1..		MCVTTSOO	When set to 1, MSYSIN/MSYSOUT are open.
		..1.		MCVTTSOT	When set to 1, intercept driven tape recalls for interactive TSO users will be converted to NOWAIT requests.
		...1		MCVTTSOD	When set to 1, intercept driven DASD recalls for interactive TSO users will be converted to NOWAIT requests.
		.... 1...		MCVTCDSS	When set to 1, CDS backup is active.
		.... .x..		*	Reserved.
		.... ..1.		MCVTF_INIT_ BCDS	Single BCDS existed at startup.
		1		MCVTF_INIT_ OCDS	OCDS existed at startup.
83	(53)	BITSTRING	1	MCVTFDEL	Flags to control the deletion of certain types of data sets:
		1...		MCVTFGDG	When set to 1, DFSMShsm ignores the expiration date at roll-off of a generation data group.
		.1..		MCVTFPW	When set to 1, DFSMShsm allows a password-protected generation data group to migrate, and ignores the password at roll-off.
		..1.		MCVTFDLV	When set to 1, allow DELVOL of primary volume during space management.
		...1		MCVTF_FRML1BV_OK_BVOL	When set on, allow FREEVOL ML1BACKUPVERSIONS even if volume backup tasks are running.
		.... 1...		MCVTF_TC_ TIMER_SET	When set to 1, TAPECOPY is running with RECALL takeaway allowed and a timer is set. When the timer expires, this bit is turned off and TAPECOPY checks if it should fail the current TAPECOPY to allow a recall.
		.... .1..		MCVTF_TC_ TAKEAWAY	When set to 1, allow Recall to take tapes away from TAPECOPY. The time before takeaway is controlled by field MCVT_TC_TAKEAWAY_DELAY.
		.... ..1.		MCVTF_NO_RECOV_TAPE_OPT	When set to 1, do not use tape mount optimization for recovery. This allows certain recovery error conditions to be retried. These errors should be rare and only encountered on pre-R2.5.0 backup copies.
		1		MCVTF_RTTA_MARKFULL_NO	When set to 1, do not mark volumes full when taken away by recall.
84	(54)	ADDRESS	4	MCVTOMWE	Address of the management work element for the active command.
88	(58)	BITSTRING	4	MCVTMECB	Migration task ECB.
92	(5C)	ADDRESS	4	MCVTCVRT	Address of control data set volume reserve table.
96	(60)	ADDRESS	4	MCVTTRCT	Pointer to trace table, if available.
100	(64)	FIXED	4	MCVTRSDP	Serialization field for SDSP data set recalls. Contains 0 if no recall is currently being processed from an SDSP or if the new method of serializing the SDSP is used. Contains -1 when a recall is currently being processed from an SDSP.
104	(68)	FIXED	4	MCVTMRT	Maximum number of recall tasks.
108	(6C)	ADDRESS	4	MCVTRTCB	Address of the list of recall task control blocks.
112	(70)	BITSTRING	4	MCVTOABE	Operator task termination ECB.
116	(74)	BITSTRING	4	MCVTLABE	Log task termination ECB.
120	(78)	BITSTRING	4	MCVTMABE	Migration task termination ECB.
124	(7C)	BITSTRING	4	MCVTSHEC	This byte contains the DFSMShsm shutdown ECB:
		x...		*	Reserved.
		.1..		MCVTSHUT	When set to 1, DFSMShsm shutdown has been requested.
		..xx xxxx		*	Reserved.
128	(80)	ADDRESS	4	MCVTCPPL	Address of the command host parameter list.

Table 105 (Page 4 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
132	(84)	FIXED	2	MCVTCSIL	DFSMShsm inactive limit for common service area storage allocation. This limit is a percent of the specified maximum limit (see field MCVTCSHL). After this percent of the specified maximum limit has been allocated and DFSMShsm is inactive, no MWEs are added to the common storage area queue. The default is 30% usage of the maximum limit common service area.
134	(86)	FIXED	2	MCVTCSAL	DFSMShsm active limit for common service area allocation. The active limit is a percentage of the specified maximum limit (see field MCVTCSHL). The default is 90% of the specified maximum limit. After the specified percentage of common service area has been allocated and DFSMShsm is active, only batch WAIT MWEs are added to the common service area queue.
136	(88)	FIXED	2	MCVTFCNT	FAILURE COUNT IN ESTAI NX
136	(88)	FIXED	2	*	Reserved.
138	(8A)	FIXED	2	MCVTCSNL	Threshold number of management work elements to allow for each address space. When the number of NOWAIT MWEs on the common service area queue exceeds this threshold, field MWEFDNOW is set to 1 to indicate that the common service area storage area allocated to the MWE is to be released when ARCCTL copies the MWE into the address space of DFSMShsm.
140	(8C)	ADDRESS	4	MCVTMVQH	Address of the first DFSMShsm mounted volume table entry.
144	(90)	ADDRESS	4	MCVTMVQT	Address of the last DFSMShsm mounted volume table entry.
148	(94)	FIXED	4	MCVTMTOD	Earliest start time for automatic primary space management. The time is in 24-hour clock *hhmm* format.
152	(98)	FIXED	4	MCVTDAYS	Number of days a data set must be unreferenced on a level 0 volume before it migrates to a migration volume.
156	(9C)	ADDRESS	4	MCVTLTCB	Address of the log task TCB.
160	(A0)	ADDRESS	4	MCVTOTCB	Address of the operator task TCB.
164	(A4)	ADDRESS	4	MCVTMTCB	Address of the migration task TCB.
168	(A8)	ADDRESS	4	MCVTCACB	Address of the access control block in the migration control data set.
172	(AC)	FIXED	4	MCVTMBC	Maximum number of backup versions to be kept for a data set.
176	(B0)	FIXED	4	MCVTCSHL	Maximum amount of common service area storage (in bytes) to be allocated to all DFSMShsm management work elements. After the limit has been reached, no MWEs are added to the common service area queue. The default is 100K bytes.
180	(B4)	BITSTRING	4	MCVTSECB	DFSMShsm SVC communication ECB.
184	(B8)	ADDRESS	4	MCVTRLEH	Address of the beginning of the retained level element list.
188	(BC)	ADDRESS	4	MCVTRLET	Address of the end of the retained level element list.
192	(C0)	CHARACTER	7	MCVTAUID	Authorized user identification.
199	(C7)	FIXED	1	MCVTAUIL	Length of the authorized user identification.
200	(C8)	BITSTRING	4	*	Reserved flags.
200	(C8)	BITSTRING	1	MCVTMCFL	This byte contains the following migration control flags:
		1...		MCVTFMNR	When set to 1, no need to refresh MVT chain.
		.1..		MCVTFSDP	When set to 1, small data set packing can be used in migration.
		..1.		MCVTFHAM	When set to 1, automatic volume migration and secondary space management are held.
		...1		MCVTJ3WT	When set to 1, the user wants to wait for the prevent migration process (set only by the PATCH command).
		.... 1...		MCVTFINT	When set to 1, interval migration is requested.
		.... .1..		MCVTFGMR	When set to 1, automatic primary space management has been requested.
		.... ..1.		MCVTFIMR	When set to 1, interval migration is currently running.
		1		MCVTFODR	When set to 1, on-demand migration is running.
201	(C9)	BITSTRING	1	MCVTRCFL	This byte contains the following recall control flags:
		x...		*	Reserved.
		.1..		MCVTFRPV	When MCVTFRCV is set to 1 and MCVTFRPV is set to 1, non-pooled data sets can be recalled to either private or storage volumes.
		..1.		MCVTFHRX	When set to 1, recall is held for those management work elements for which the ARCRDEXT installation exit is to be taken.
		...1		MCVTF_ RCLPROC_OTHERMWE	When set to 1, recall task is processing the MWE's of other recall tasks.
		 xxxx		*	Reserved.
202	(CA)	BITSTRING	1	MCVTBCFL	This byte contains the following backup control flags:
		x...		*	Reserved.
		.1..		MCVTBFEN	When set to 1, backup is enabled. When set to 0, backup is disabled.
		..1.		MCVTFHAB	When set to 1, automatic backup is held.
		...1		MCVTBFGB	When set to 1, automatic backup is needed.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... 1...		MCVTFBTI	When set to 1, the automatic backup timer was activated.
		.... .1..		MCVTFHDSBU	When set to 1, data set backup held.
		.... ..1.		MCVTFHDSBU_ DASD	When set to 1, data set backup to DASD held.
		1		MCVTFHDSBU_ TAPE	When set to 1, data set backup to tape held.
203	(CB)	BITSTRING	1	*	This byte contains the following long-running command and compaction flags:
		1...		MCVTFHAU	When set to 1, the audit function is held.
		.1..		MCVTFHLT	When set to 1, the list function is held.
		..1.		MCVTFHRP	When set to 1, the report function is held.
		...1		MCVTFHRY	When set to 1, the recycle function is held.
		.... x...		*	Reserved.
		.... .1..		MCVTFCBD	When set to 1, the data set is eligible to be compacted when it is backed up to DASD.
		.... ..1.		MCVTFCBT	When set to 1, the data set is eligible to be compacted when it is backed up to tape.
		1		MCVTFHOP	When set to 1, the operator command queue is held.
204	(CC)	FIXED	4	MCVTELAG	Frequency in days that listing data sets are to be scratched.
208	(D0)	ADDRESS	4	MCVTSUT	Address of the space usage table (SUT).
212	(D4)	ADDRESS	4	MCVTMEND	Highest address of DFSMShsm control task.
216	(D8)	CHARACTER	4	MCVT_TRACING_FLAGS	Word for tracing flags.
216	(D8)	BITSTRING	1	*	Trace flags
		1...		MCVTAOCE	When set to 1, request ABARS OCEOV trace.
		.1..		MCVTF_PERF_ TS	When set to 1, issue timing message.
		..1.		MCVTF_ABARS_ SVC99_MSGS	Enable dynamic allocation messages for ABARS.
		...1		MCVTF_SVC99_ MSGS	Enable dynamic allocation messages for DFSMShsm (non-ABARS).
		 xxxx		*	Reserved.
217	(D9)	BITSTRING	1	MCVT_LEVELING_ FLGS	Trace flags.
		1...		MCVTF_DSBACKUP_ TRACE	When set to 1, active PDA trace for data set backup.
		.1..		MCVTF_CRQ_TRACE	When set to 1, active PDA trace for CRQ.
218	(DA)	BITSTRING	2	*	Reserved trace flags.
220	(DC)	ADDRESS	4	MCVTDLOG	Address of the activity log DCB for the DISPLAY, FIXCDS, and PATCH commands.
224	(E0)	ADDRESS	4	MCVTONTB	Address of the trap element table.
228	(E4)	FIXED	4	MCVTL1AG	Number of days that a data set must not be referenced before migration from level 1 to level 2.
232	(E8)	ADDRESS	4	MCVTL2CR	Address of the in-storage copy of the level 2 control record.
236	(EC)	FIXED	4	MCVT80MX	Maximum number of blocks that can be written to a single-file tape. This permits short tapes to be written and copied.
240	(F0)	FIXED	2	MCVTTYPT	Number of log buffers written before a TYPE=T CLOSE is issued in ARCILOG for the log data set.
242	(F2)	BITSTRING	1	MCVTTOCE	Requests a trace of Open/Close/EOV tape processing.
243	(F3)	BITSTRING	1	MCVTDOCE	Requests a trace of Open/Close/EOV DASD processing.
244	(F4)	FIXED	2	MCVTSMFI	System management facility record number or zero if no system management facility recording is being done.
246	(F6)	FIXED	2	*	Reserved.
248	(F8)	ADDRESS	4	MCVTBACB	Address of the access control block for the backup control data set.
252	(FC)	CHARACTER	7	MCVTTUID	NX FOR USER (TEST USERID)
259	(103)	FIXED	1	MCVTTUIL	NX USER (LENGTH OF TEST USERID)
252	(FC)	CHARACTER	8	*	Reserved.
260	(104)	ADDRESS	4	MCVTVSAH	Address of the beginning of the VSAM allocation queue.
264	(108)	ADDRESS	4	MCVTVSAT	Address of the end of the VSAM allocation queue.
268	(10C)	BITSTRING	4	MCVTBABE	Backup task termination ECB.
272	(110)	BITSTRING	4	MCVTBECB	Backup task work ECB.
276	(114)	ADDRESS	4	MCVTCVBP	Address of the CDSVERSIONBACKUP parameters. This pointer is non-zero if MCVTCVBK is set to 1.
280	(118)	ADDRESS	4	MCVTBTCB	Address of the backup task TCB.
284	(11C)	ADDRESS	4	MCVTBUQH	Backup management work element queue head.
288	(120)	ADDRESS	4	MCVTBUQT	Backup management work element queue end.
292	(124)	FIXED	4	MCVTBTOD	Earliest start time for automatic backup. The time is in 24-hour clock *hhmm* format.
296	(128)	CHARACTER	4	MCVTSID	System identification from the system management facility control table.
300	(12C)	FIXED	2	MCVTXLIM	Maximum extents allowed before automatic extent reduction. If the value is 0, the function is not in use.
302	(12E)	FIXED	2	MCVTNSDP	Maximum used size, in kilobytes, of a data set that may be eligible to migrate into a small data set packing.
304	(130)	FIXED	4	MCVTMTEN	Latest time of day that automatic primary space management is allowed to start. The time is in 24-hour *hhmm* format.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
308	(134)	FIXED	4	MCVTBTEN	Latest time of day that automatic backup is allowed to start. The time is in 24-hour *hhmm* format.
312	(138)	FIXED	4	MCVTBFRE	Default backup frequency in days.
316	(13C)	BITSTRING	4	MCVTRECB	Recall control task work ECB.
320	(140)	ADDRESS	4	MCVTRCTC	Address of the TCB for the recall control task.
324	(144)	BITSTRING	4	MCVTRABE	ECB for recall control task termination.
328	(148)	CHARACTER	1	MCVTHCLS	Default SYSOUT print class.
329	(149)	FIXED	1	MCVTHCPY	Default number of SYSOUT copies.
330	(14A)	FIXED	1	MCVTJ3D	Default number of days (3) from the current date that DFSMShsm will delay migration of a data set and hold volumes.
331	(14B)	FIXED	1	MCVTJ3V	Maximum number of volumes (5) that will be returned to JES3 as candidate volumes for recall. Patching MCVTJ3V to a value greater than 5 will result in a maximum number of 5 volumes returned.
332	(14C)	CHARACTER	8	MCVTHFRM	Default hard-copy special forms to be used. Blanks mean no special form.
340	(154)	ADDRESS	4	MCVTJCBP	Address of the beginning of the journal data set DCB.
344	(158)	ADDRESS	4	MCVTJEQH	Address of the beginning of the journal entry queue.
348	(15C)	ADDRESS	4	MCVTJEQT	Address of the end of the journal entry queue.
352	(160)	ADDRESS	4	MCVTVSQH	Address of the beginning of the volume statistics record queue.
356	(164)	ADDRESS	4	MCVTVSQT	Address of the end of the volume statistics record queue.
360	(168)	ADDRESS	4	MCVTDSRP	Address of the daily statistics record.
364	(16C)	ADDRESS	4	MCVTRCLG	Address of the log task recovery control block.
368	(170)	ADDRESS	4	MCVTRCOP	Address of the operator task recovery control block.
372	(174)	ADDRESS	4	MCVTRCMC	Address of the migration control task recovery control block.
376	(178)	ADDRESS	4	MCVTRCMG	Address of the volume migration recovery control block.
380	(17C)	ADDRESS	4	MCVTRCMN	Address of the data set migration recovery control block.
384	(180)	ADDRESS	4	MCVTRCRC	Address of the recall control task recovery control block.
388	(184)	ADDRESS	4	MCVTRCBU	Address of the backup control task recovery control block.
392	(188)	ADDRESS	4	MCVTRCBG	Address of the volume backup recovery control block.
396	(18C)	ADDRESS	4	MCVTRCBN	Address of the data set backup recovery control block.
400	(190)	FIXED	2	MCVTABND	Maximum number of abnormal ends to force shutdown.
402	(192)	FIXED	2	MCVTSNAP	Maximum number of snaps to force shutdown.
404	(194)	CHARACTER	3	MCVTMHF	The next 3 bytes contain the following multiple-host flags that can be shared:
		1...		MCVTSHR	When set to 1, the control data sets are being shared among multiple hosts.
		.1..		MCVTL1	When set to 1, this host is to perform level 1 functions.
		..1.		MCVTCMD	When set to 1, the DFSMShsm initialization commands in the ARCCMD*xx* member of the data set specified to DFSMShsm by the HSMPARM DD statement are being processed.
		...1		MCVTFNUR	When set to 1, global data set serialization is provided by system.
		.... 1...		MCVTSHRS	CDSSHR keyword is specified in startup procedure.
		.... .1..		MCVTSHRM	This flag is valid only when MCVTSHRS=1. 1 = shared CDS (multiple host) 0 = non-shared CDS (single host).
		.... ..1.		MCVTSSES	When set to 1, the JES2 or JES3 subsystem supported by DFSMShsm in its most recent initialization has been established.
		1		MCVTF_DROP_ ENQ	When set to 1, drop GPA/CAT enqueue in ALVOL across tape dynallocation if CDS backup is waiting for GPA/CAT (see MCVTCDSS).
405	(195)	1...		MCVTF_CDSRLS	When set to 1, record level sharing is used for control data sets.
		.1..		MCVTF_DYNKR	When set to 1, dynamic key ranges are in effect for the MCDS or the BCDS.
		..x.		*	Reserved.
		...1		MCVTF_EXPIRE_MC_99365_6	When set to 1, 99365 or 99366 in MC EXPIRE_AFTER_DATE / DAYS as a date are not 'never expire dates'.
		.... 1...		MCVTF_EXPIREDATE_NORANGECHK	When set to 1, do not check for expiration dates with day values of 000 or beyond 366.
		.... .1..		MCVTF_FORCE_RBL	ON, Use Read Buffered Log
		.... .1..		MCVTF_FORCE_RBL	When set to 1, use read buffered log.
		.... ..1.		MCVTF_ENQ_ RCYL	When set to 1, recycle enqueues on resource ARCDSN/*dsname* while an ML2 data set is being moved.
		1		MCVTF_CAPT	When set to 1, do not trace captures.
406	(196)	1...		MCVTF_ML1SELT	When set to 1, trace ML1 volume selection.
		.x..		*	Reserved.
		..1.		MCVTF_NOMIGALTSYNC	When set to 1, don't sync the alternate tape during migration
		...1		MCVTF_BUFF_ABOVE	When set to 1, get TAPEECOPY and CDS Backup buffers above the line

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Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... 1...		MCVTF_GENERIC_TCN_UNIT	When set to 1, use MVTUNIT instead of the SETSYS specified unit in the Tape Copy Needed record.
		.... .x..		*	Reserved.
		.... ..1.		MCVTF_FRTV_XTRAS	When set to 1, enable AUDIT to detect orphan and overused FRTV records.
		1		MCVTF_381A_60SEC	When set to 1, 60 seconds between dynalloc attempts in ARCALVOL
407	(197)	CHARACTER	1	MCVTHOST	Identification character uniquely identifying this DFSMShsm host.
408	(198)	ADDRESS	4	MCVTUCAT	Address of the unit control block in the MCDS.
412	(19C)	ADDRESS	4	MCVTUBAC	Address of the unit control block in the BCDS.
416	(1A0)	ADDRESS	4	MCVTUJRN	Address of the unit control block in the journal data set.
420	(1A4)	ADDRESS	4	MCVTOACB	Address of the ACB in the OCDS.
424	(1A8)	ADDRESS	4	MCVTUOFF	Address of the offline control data set unit control block.
428	(1AC)	CHARACTER	8	MCVTUNIT	Default tape unit name to be used when mounting scratch backup tapes.
436	(1B4)	CHARACTER	1	MCVTDEN	Default tape density to be used when mounting scratch backup tapes.
437	(1B5)	BITSTRING	1	MCVTPSEC	This byte contains the following tape security flags:
		1...		MCVTFTSP	When set to 1, the tape security technique is password.
		.1..		MCVTFTSD	When set to 1, the tape security technique is expiration date.
		..1.		MCVTFTSI	When set to 1, the tape security technique allows password-protected data on an expiration-date-protected tape.
		...1		MCVTFTSR	When set to 1, the tape security technique is RACF.
		.... 1...		MCVTFSRI	When set to 1, the tape security technique allows password-protected data on a RACF-protected tape. This flag is valid only if the MCVTFTSR flag is also set to 1.
		.... .1..		MCVTF_RETPD_CHG	When set to 1, do not check for repeated change.
		xx		*	Reserved.
438	(1B6)	FIXED	2	MCVTYPCT	Maximum percentage of valid data on a backup tape for it to be eligible for recycle processing.
440	(1B8)	ADDRESS	4	MCVTTCRP	TAPECOPY RCB pointer.
444	(1BC)	ADDRESS	1	*	This byte contains the following flags:
		1...		MCVTXTTC	When set to 1, extended tape table of contents (TTOC) is in use.
		.1..		MCVTF_FORCE_TREPL	When set to 1, force unmatched taperepl as define in OA11603
		..1.		MCVTF_FORCE_TR_DA	When set to 1, disastermode dont update TDSI
		...1		MCVTF_TVT_NSMS_UMATCH	When set to 1, SELMV will reject TVT NonSMS tapes if the MCV unit does not match the SETSYS unit
		.... 1...		MCVTF_MINI_SPUPD	When set to 0, migration (ARCMCTL) task initialization in progress. Startup space checks and MC1 updates not yet performed. When set to 1, migration (ARCMCTL) task initialization finished startup space checks and MC1 space updates.
		.... .1..		MCVTF_SVRERR_HANDLING	When set to 1, enable improved SMSVSAM server termination handling.
		.... ..1.		MCVTF_CTL_CLSOPNCDS	When set to 1, ARCCTL was posted to close and reopen the CDSs.
		x		*	Reserved.
445	(1BD)	FIXED	3	MCVTSYS_ OUTLM	Maximum number of lines to be written to a SYSOUT file by a DFSMShsm command. When set to 0, SYSOUT lines are not limited. Default is 2,000,000 lines.
448	(1C0)	ADDRESS	4	MCVTAATT	Address of the audit attach list.
452	(1C4)	ADDRESS	4	MCVTARCB	Address of the audit RCB.
456	(1C8)	FIXED	2	MCVTMTST	Number of minutes to wait during the mount wait time before checking for DFSMShsm shutdown. The default value is set to 5 minutes.
458	(1CA)	FIXED	2	MCVTMTWT	Number of minutes to wait for a tape mount before prompting the operator.
460	(1CC)	FIXED	2	MCVTMBVE	Maximum number of backup volume entries to permit in one BVR block.
462	(1CE)	FIXED	2	MCVTBMLR	Size in bytes of the maximum length logical record that is allowed to be written to the backup control data set.
464	(1D0)	ADDRESS	4	MCVTUUDT	Address of the user unit device table.
468	(1D4)	ADDRESS	4	MCVTTTXA	Address of the tape timer exit.
472	(1D8)	ADDRESS	4	MCVTTCBB	Address of the backup task control block structure.
476	(1DC)	FIXED	2	MCVTNABT	Number of active volume backup tasks.
478	(1DE)	FIXED	2	MCVTMBTU	Current maximum number of volume backup tasks allowed to run concurrently.
480	(1E0)	FIXED	2	MCVTMBTS	Latest maximum number of concurrent volume backup tasks specified in the SETSYS command.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
482	(1E2)	FIXED	2	MCVTIAGE	Data integrity age. In a single-host environment, this age is one day. In a multiple-host environment, this age is two days. If global data set level serialization has been provided (MCVTFNUR is set to 1), this age is zero days.
484	(1E4)	ADDRESS	4	MCVT_HOSTELEM	Pointer to the host element in QCT linked list of elements.
488	(1E8)	ADDRESS	4	MCVTASEP	Address of a list of backup task ECBs that indicate a wait for a spill volume.
492	(1EC)	ADDRESS	4	MCVTAECP	Address of a list of backup task ECBs that indicate a wait for a backup volume (tape or DASD).
496	(1F0)	ADDRESS	4	MCVTTECP	Address of a list of backup task ECBs that indicate a wait for a tape backup volume.
500	(1F4)	ADDRESS	4	MCVTDECP	Address of a list of backup task ECBs that indicate a wait for a DASD backup volume.
504	(1F8)	ADDRESS	4	MCVTDSEP	Address of a list of backup task ECBs that indicate a wait for a DASD spill volume.
508	(1FC)	ADDRESS	4	MCVTTSEP	Address of a list of backup task ECBs that indicate a wait for a tape spill volume.
512	(200)	CHARACTER	8	MCVTODS_UNIT	Name of unit type on which to allocate an OUTDATASET. Default is SYSALLDA.
520	(208)	ADDRESS	4	MCVTCBAU	Address of the TCB for the active audit task.
524	(20C)	ADDRESS	4	MCVTCBLT	Address of the TCB for the active list task.
528	(210)	ADDRESS	4	MCVTCBRP	Address of the TCB for the active report task.
532	(214)	ADDRESS	4	MCVTMXCB	Address of the migration subtask.
536	(218)	BITSTRING	4	MCVTECAU	The next 4 bytes contain the ECB that indicates completion of the audit MWE:
		x...		*	Reserved.
		.1..		MCVTFCAU	When set to 1, the audit function has completed.
		..xx xxxx		*	Reserved.
540	(21C)	BITSTRING	4	MCVTECLT	The next 4 bytes contain the ECB that indicates completion of list MWE:
		x...		*	Reserved.
		.1..		MCVTFCLT	When set to 1, the list function has completed.
		..xx xxxx		*	Reserved.
544	(220)	BITSTRING	4	MCVTECRP	The next 4 bytes contain the ECB that indicates completion of the report MWE:
		x...		*	Reserved.
		.1..		MCVTFCRP	When set to 1, the report function has completed.
		..xx xxxx		*	Reserved.
548	(224)	BITSTRING	4	*	Reserved.
552	(228)	FIXED	2	MCVTCLNR	Number of days MCD records are retained after migrated data sets are recalled or deleted.
554	(22A)	FIXED	2	MCVTCLNS	Number of days before statistics records are deleted.
556	(22C)	ADDRESS	4	MCVTEXTP	Address of the installation exit table that indicates which installation exits are to be processed.
560	(230)	BITSTRING	1	MCVTFUSB	This byte contains the following usability flags:
		1...		MCVTFUNB	When set to 1, unload virtual backup and level 2 volumes.
		.1..		MCVTFSAB	When set to 1, automatic backup of primary volumes is skipped when automatic backup is run.
		..1.		MCVTFSAT	When set to 0, set ATL tape timer. When set to 1, do not set ATL tape timer.
		...1		MCVTFSWP	When set to 1, MVS can swap DFSMShsm tasks.
		.... 1...		MCVTFNEB	When set to 1, backup cannot be enabled.
		.... .1..		MCVTFCNV	When set to 1, conversion is requested in the SETSYS command.
		.... ..1.		MCVTFNSP	When set to 1, no spill processing is requested in the SETSYS command.
		1		MCVTFNSW	When set to 1, do not allow swap of DFSMShsm primary address space.
561	(231)	BITSTRING	1	MCVTFUSL	This byte contains the following log use flags:
		1...		MCVTFCUS	When set to 1, the command activity log has been used.
		.1..		MCVTFMUS	When set to 1, the migration activity log has been used.
		..1.		MCVTFBUS	When set to 1, the backup activity log has been used.
		...1		MCVTFDUS	When set to 1, the dump activity log has been used.
		.... 1...		MCVTFSPL	When set to 1, LOGSW=YES is specified in the startup procedure.
		.... .1..		MCVTFSPS	When set to 1, STARTUP=YES is specified in the startup procedure.
		.... ..1.		MCVTFSPE	When set to 1, EMERG=YES is specified in the startup procedure.
		1		MCVTFNSW_ SHP	When set to 1, do not allow swap of DFSMShsm primary address space, set by SHP function.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
562	(232)	CHARACTER	2	MCVTCMDX	The next 2 bytes contain the *xx* used to specify the ARCCMD*xx* parameter member used.
564	(234)	ADDRESS	4	MCVTCDCB	DCB address of the command activity log.
568	(238)	ADDRESS	4	MCVTMDCB	DCB address of the migration activity log.
572	(23C)	ADDRESS	4	MCVTBDCB	DCB address of the backup activity log.
576	(240)	ADDRESS	4	MCVTYDCB	DCB address of a data set for recycle messages.
580	(244)	ADDRESS	4	MCVTTILP	NX (TAPE RE-INIT LIST PTR)
580	(244)	ADDRESS	4	*	Reserved.
584	(248)	FIXED	2	MCVTNARV	Number of primary volumes on the MVT chain that can be used in recall selection.
586	(24A)	FIXED	2	MCVTMTL2	Maximum number of virtual migration level 2 volumes that are mounted in parallel during migration cleanup. If 0, there is no limit.
588	(24C)	BITSTRING	4	*	The next 4 bytes contain the following flags:
588	(24C)	BITSTRING	1	*	This byte contains the following flags:
		xxx.		*	Reserved.
		...1		MCVTFJRP	When set to 1, journal reset pending by ARCILOG during BACKVOL CDS command.
		.... 1...		MCVTFTHC	When set to 1, SETSYS TAPEHARDWARECOMPACT has been specified. When set to 0, NOTAPEHARDWARECOMPACT has been specified.
		.... .1..		MCVTFCUC	When set to 1, DFP support for control unit compaction (TAPEHARDWARECOMPACT) is available.
		.... ..1.		MCVTFTUP	When set to 1, SETSYS TAPEUTILIZATION has been specified.
		1		MCVTFBGN	When set to 1, convert time for HSM DSN
589	(24D)	BITSTRING	1	*	Flags for CDS serialization.
		1...		MCVTFCDQ	When set to 1, global exclusive enqueue is issued.
		.1..		MCVTFCDR	When set to 1, shared reserve is issued.
		..1.		MCVTFSPQ	When set to 1, original startup procedure specified global exclusive enqueue (CDSQ).
		...1		MCVTFSPR	When set to 1, original startup procedure specified shared reserve (CDSR).
		.... 1...		MCVTFSPP	When set to 1, original startup procedure specified problem determination aid (PDA).
		xxx		*	Reserved.
592	(250)	ADDRESS	4	MCVTMTB	Address of the migration task control block.
596	(254)	CHARACTER	8	*	The next 8 bytes contain addresses of first and last level 2 DASD MVT entries:
596	(254)	ADDRESS	4	MCVTML2H	Address of the first level 2 DASD MVT entry.
600	(258)	ADDRESS	4	MCVTML2T	Address of the last level 2 DASD MVT entry.
604	(25C)	FIXED	4	MCVTRDKN	The next 4 bytes contain information on how often the MCDS key is recorded in the MCR during the automatic secondary space management. It is also used to determine how often DFSMShsm resources should be freed and reacquired when held for extended periods of time.
608	(260)	ADDRESS	4	MCVTPUUT	Address of pseudo user unit table if a user-specified user unit table does not exist.
612	(264)	FIXED	2	MCVTLC80	The default amount of data which represents 100% of a 3480/3480X tape volume. The value 216 when multiplied by 1024 equals 226 MB, which is the capacity of a 3480/3480X tape volume.
614	(266)	FIXED	1	MCVTTU80	The default value for SETSYS TAPE UTILIZATION for a 3480/3480X tape volume.
615	(267)	FIXED	1	MCVTPNUM	Maximum repoint count for 3590 after point failure.
616	(268)	ADDRESS	4	MCVTMVQS	Address of the last MVT on the MVT chain at the time DFSMShsm initialization ended.
620	(26C)	ADDRESS	4	MCVTRLES	Address of the RLE or RLE chain at the time DFSMShsm initialization ended.
624	(270)	ADDRESS	4	MCVTVACH	Address of the first in-storage volume activity count record.
628	(274)	ADDRESS	4	MCVTVACT	Address of the last in-storage volume activity count record.
632	(278)	FIXED	4	MCVTTMRT	Maximum number of tape recall tasks.
636	(27C)	FIXED	2	MCVTRTRY	Number of retries ARCRCTL will try to get a volume for recall before notifying the operator.
638	(27E)	FIXED	2	MCVTRTM1	Frequency of the retry interval, in minutes (see MCVTRTRY).
640	(280)	FIXED	2	MCVTRTM2	Delay in seconds before rescan of recall queue when waiting for the possibility of another recall to arrive that will use the same tape that is already mounted.
642	(282)	BITSTRING	1	*	Reserved
643	(283)	BITSTRING	1	MCVTFDIS	This byte contains the following disaster backup processing flags:
		x...		*	Reserved.

Table 105 (Page 10 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.1..		MCVTFCTH	When set to 1, the tape copy function is held.
		..1.		MCVTFCUH	When set to 1, the tape replace function is held.
		...x xxxx		*	Reserved.
644	(284)	BITSTRING	1	MCVTFNTN	This byte contains information about tape copy and dump functions.
		1...		MCVTFNDN	When set to 1, the dump function will generate a new form for the data set name.
		.1..		MCVTFNCN	When set to 1, the tape copy function will generate a new form for the data set name.
		..xx xxxx		*	Reserved.
645	(285)	BITSTRING	3	*	Reserved.
645	(285)	FIXED	1	MCVT_ZRNXT_ RETRIES	ARCZRNXT number of retries for logical errors.
646	(286)	BITSTRING	2	*	
		1...		MCVTF_WORM_OK	When set to 1, allow WORM tapes for all HSM functions.
		.1..		MCVTF_TPCOPY_DROP_GPACAT	When set to 1, TAPECOPY should drop ARCGPA ARCCAT periodicaly while moving data to a tape. The default is ON.
		..1.		MCVTF_HAS	When set to 1, use Hardware Assisted Search for Audit
		...1		MCVTF_MIG_ERRALT_RECYCLE	When set to 1, ERRORALTERNATE option flag for SETSYS DUPLEX(MIGRATION) command. OFF - CONTINUE, ON - RECYCLE.
		.... 1...		MCVTF_BACK_ERRALT_RECYCLE	When set to 1, ERRORALTERNATE option flag for SETSYS DUPLEX(BACKUP) command. OFF - CONTINUE, ON - RECYCLE.
		.... .x..		*	Reserved
		.... ..1.		MCVTF_PROHIBIT_LIST_DSN	When set to 1, LIST/HLIST DSN commands are prohibited.
		1		MCVTF_TPCOPY_DROP_GPACAT_STABLE	Stable copy of the patchable bit above that does not change while a tape is copied.
648	(288)	ADDRESS	4	*	Reserved.
652	(28C)	ADDRESS	4	MCVTCTCB	Pointer to TCB of ARCCTL task.
656	(290)	CHARACTER	4	MCVTJTTR	The contents of this field depends on whether the MCVTF_JRNLRG flag is on or off, as follows: • TTR0 of the last journal entry done on this host if MCVTF_JRNLRG is set to 0. • TTTR of the last journal entry done on this host if MCVTF_JRNLRG is set to 1.
660	(294)	BITSTRING	1	MCVT4FLG	This byte contains the following process control flags:
		1...		MCVTFNDF	When set to 1, do not use the DEFER parameter on the allocation request because a failure occurred previously.
		.1..		MCVTFDFP	When set to 1, the correct level of DFP is installed on this system.
		..x.		*	Reserved.
		...1		MCVTFCMD	When set to 1, DFSMShsm compacts the data set when it migrates to DASD.
		.... 1...		MCVTFCMT	When set to 1, DFSMShsm compacts the data set when it migrates to tape.
		.... .1..		MCVTFL2V	When set to 1, tape migration level 2 volumes are defined in this host.
		.... ..1.		MCVTPREL	When set to 1, support exists for DADSM partial release.
		1		MCVTFNTC	When set to 1, do not use TRTCH (COMPACT) allocation parameter because of a previous error.
661	(295)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCVTFITW	When set to 1, the dynamic allocation option for input tape volumes is to wait for a unit to become available. When set to 0, the option is NOWAIT.
		.1..		MCVTFOTW	When set to 1, the dynamic allocation option for output tape volumes is to wait for a unit to become available. When set to 0, the option is NOWAIT.
		..1.		MCVTFYTW	When set to 1, the dynamic allocation option for input and output tape volumes during recycle processing is to wait for a unit to become available. When set to 0, the option is NOWAIT.
		...x		*	Reserved.
		.... 1...		MCVTF_AUXHOST_ABARS_MSG	When set to 1, ABARS message already issued
		.... .1..		MCVTF_ZCOMPBT	When set to 1, zEDC compression when backup to tape.
		.... ..1.		MCVTF_ZCOMPMT	When set to 1, zEDC compression when migration to tape.
		xxx		*	Reserved.
662	(296)	BITSTRING	1	*	This byte contains the following flags:
		1...		MCVTFRDK	When set to 1, check whether automatic primary space management should be restarted.

Table 105 (Page 11 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.1..		MCVTFRDI	When set to 1, automatic primary space management is being restarted from the point of interruption. It is not started from the beginning.
		..1.		MCVTFQSP	When set to 1, the migration control task is being dispatched to check the space on a volume. This is done as a result of a QUERY SPACE command.
		...1		MCVTF_DISABLE_DVC	When set to 1, allow users to disable the dynamic volume change function during DFSMShsm startup. This bit is not part of PSM start/restart control flags.
		 xxxx		*	Reserved.
663	(297)	BITSTRING	1	*	Reserved.
		1...		MCVTF_ALLOW_LST_DS	When set to 1, allow volume backup to process data sets that end with '.LIST', '.OUTLIST' or '.LINKLIST'.
		.x..		*	Reserved.
		..1.		MCVTF_MQ	When set to 1, the migration queue (MQ) is active. This is a copy of the patchable flag MGCBF_MQ which can be used to disable the MQ.
		...1		MCVTF_DELVOL_WTOR	When set to 1, issue WTOR during DELVOL to allow users to cancel a DELVOL request.
		.... 1...		MCVTF_S570_SUPPRESS_RC17	When set to 1, ARC0570I RC 17 messages are suppressed.
		.... .1..		MCVTF_S570_SUPPRESS_RC36	When set to 1, ARC0570I RC 36 messages are suppressed.
		.... ..1.		MCVTF_FVV	When set to 1, FVV is in subset mode.
		1		MCVTF_IMQ	When set to 1, immediate migration is active.
664	(298)	FIXED	1	MCVTL2TS	Type of level 2 support in this host: • 0 = DASD level 2 volumes • 1 = Direct to tape environment • 2 = Tape level 2 volumes
665	(299)	FIXED	1	MCVTMTYP	SETSYS TAPEMIGRATION tape type: • 0 = Tape(ANY) • 1 = Tape(*unit*).
666	(29A)	BITSTRING	1	MCVTFMDS	Patch byte for JES3 main device scheduling (MDS):
		1...		MCVTJ25T	When set to 1, scheduling is only for tapes; DFSMShsm must be run with SETSYS JES2.
		.xxx xxxx		*	Reserved.
667	(29B)	CHARACTER	1	MCVTMDEN	Default tape density if a scratch tape is being allocated for migration.
668	(29C)	CHARACTER	8	MCVTMUNT	Default unit name if a scratch tape is being allocated for migration.
676	(2A4)	FIXED	2	MCVTL2YP	Maximum percent of valid data on a tape migration volume for the tape to be eligible for recycling.
678	(2A6)	FIXED	1	MCVTFBRA	Number of rejections of initial volumes before scratch request is issued for backup.
679	(2A7)	FIXED	1	MCVTFMRA	Number of rejections of initial volumes before scratch request is issued for migration.
680	(2A8)	ADDRESS	4	MCVTTVTP	Address of the tape migration level 2 volume table.
684	(2AC)	ADDRESS	4	MCVTDL2P	Address of the DASD migration level 2 volume table.
688	(2B0)	CHARACTER	8	MCVTBPFX	Qualifier to be prefixed to the backup version when the data set is backed up.
696	(2B8)	FIXED	2	MCVTBPFL	Length of the backup version qualifier.
698	(2BA)	CHARACTER	8	MCVTMPFX	Qualifier to be prefixed to the migration copy when the data set is migrated.
706	(2C2)	FIXED	2	MCVTMPFL	Length of the migration copy qualifier.
708	(2C4)	BITSTRING	4	*	The next 4 bytes contain the following RACF support flags:
		1...		MCVTFRAL	When set to 1, do not put RACF indicator on DFSMShsm migration copies and backup versions.
		.1..		MCVTRPRO	When set to 1, use additional RACF tape volume list profiles.
		..1.		MCVTLABL	When set to 1, RACF SECLABEL class is active.
		...x xxxx		*	Reserved.
709	(2C5)	BITSTRING	3	*	Reserved.
712	(2C8)	ADDRESS	4	MCVTGCBP	Address of recovery task control block.
716	(2CC)	ADDRESS	4	*	Reserved.
720	(2D0)	ADDRESS	4	MCVTMSRA	Migration control data set synchronization record storage area.
724	(2D4)	ADDRESS	4	MCVTBSRA	Backup control data set synchronization record storage area.
728	(2D8)	ADDRESS	4	MCVTOSRA	Offline control data set synchronization record storage area.
732	(2DC)	ADDRESS	4	MCVTBQWT	Backup queue MWE in between processing.
736	(2E0)	ADDRESS	4	MCVTCTBP	Address of the tape copy task control block.
740	(2E4)	ADDRESS	4	MCVTCDBP	Address of the tape replace task control block.
744	(2E8)	CHARACTER	8	MCVTMTUN	Unit name specified with SETSYS TAPEMIGRATION(DIRECT(TAPE (*unit*)) or SETSYS TAPEMIGRATION(ML2TAPE (TAPE (*unit*)) command.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
752	(2F0)	CHARACTER	8	MCVTBTUN	Unit name specified on the SETSYS BACKUP(TAPE(*unit*)) command.
760	(2F8)	CHARACTER	8	MCVTSTUN	Unit name specified on the SETSYS SPILL(TAPE(*unit*)) command.
768	(300)	CHARACTER	8	MCVTYBUN	Unit name specified on the SETSYS RECYCLEOUTPUT(BACKUP(*unit*)) command.
776	(308)	CHARACTER	8	MCVTYMUN	Unit name specified on the SETSYS RECYCLEOUTPUT(MIGRATION (*unit*)) command.
784	(310)	CHARACTER	1	MCVTMTDE	Density associated with unit name in MCVTMTUN.
785	(311)	CHARACTER	1	MCVTBTDE	Density associated with unit name in MCVTBTUN.
786	(312)	CHARACTER	1	MCVTSTDE	Density associated with unit name in MCVTSTUN.
787	(313)	CHARACTER	1	MCVTYBDE	Density associated with unit name in MCVTYBUN.
788	(314)	CHARACTER	1	MCVTYMDE	Density associated with unit name in MCVTYMUN.
789	(315)	FIXED	1	MCVT_RETRY	Number of retries for RECALL if tapecopy or recycle are using the tape volume.
790	(316)	FIXED	1	MCVT_TCOPY_BUF_NO	Tape copy buffer number.
791	(317)	BITSTRING	1	MCVTFBVS	This byte contains the following backup volume selection flags:
		1...		MCVTFBDA	When set to 1, volume backup processing can output to a tape or DASD backup volume.
		.1..		MCVTFBDD	When set to 1, volume backup processing can output only to a DASD backup volume.
		..1.		MCVTFBDT	When set to 1, volume backup processing can output only to a tape backup volume.
		...1		MCVTFBSA	When set to 1, spill processing can output to any type of spill backup volume.
		.... 1...		MCVTFBSD	When set to 1, spill processing can output only to a DASD spill backup volume.
		.... .1..		MCVTFBST	When set to 1, spill processing can output only to a tape spill backup volume.
		xx		*	Reserved.
792	(318)	BITSTRING	4	MCVTCTBE	The next 4 bytes contain the tape copy function completion ECB:
		x...		*	Reserved.
		.1..		MCVTCTBF	When set to 1, the tape copy function is completed.
		..xx xxxx		*	Reserved.
796	(31C)	BITSTRING	4	MCVTCDBE	The next 4 bytes contain the tape replace function ECB:
		x...		*	Reserved.
		.1..		MCVTCDBF	When set to 1, the tape replace function is completed.
		..xx xxxx		*	Reserved.
800	(320)	BITSTRING	1	*	This byte contains TAPEINPUTPROMPT and TAPEOUTPUTPROMPT settings:
		1...		MCVTMSGB	When set to 1, issue messages if backup tapes are needed for subsequent input.
		.1..		MCVTMSGD	When set to 1, issue messages if dump tapes are needed for subsequent input.
		..1.		MCVTMSGM	When set to 1, issue messages if migration tapes are needed for subsequent input.
		...1		MCVTTOPT	When set to 1, issue messages for TAPEOUTPUTPROMPT for TAPECOPY processing.
		.... 1...		MCVTF_ISSUE_MSG346	When set to 1, issue message ARC0346A in ARCTMT. Default is 0.
		xxx		*	Reserved.
801	(321)	CHARACTER	7	MCVTACTN	New activity log high-level qualifier.
808	(328)	BITSTRING	4	MCVTAWEC	Activity log control work-to-do ECB.
812	(32C)	BITSTRING	4	MCVTDECB	Dump control task work-to-do ECB.
816	(330)	BITSTRING	4	MCVTGECB	Recovery control task work-to-do ECB.
820	(334)	BITSTRING	4	MCVTATEC	Activity log control task termination ECB.
824	(338)	BITSTRING	4	MCVTDABE	Dump control task termination ECB.
828	(33C)	BITSTRING	4	MCVTGABE	Recovery control task termination ECB.
832	(340)	BITSTRING	4	MCVTAIEC	Activity log control task initialization complete ECB.
836	(344)	BITSTRING	4	MCVTTAEC	Termination activity log control task ECB.
840	(348)	BITSTRING	4	MCVTDHCL	Close dump log ECB.
844	(34C)	ADDRESS	4	MCVTRCPD	Trace output task RCB pointer.
848	(350)	ADDRESS	4	MCVTPTCB	Trace output task TCB pointer.
852	(354)	ADDRESS	4	MCVTRCAL	Address of the activity log control task RCB.
856	(358)	ADDRESS	4	MCVTRCDC	Address of the dump control task RCB.
860	(35C)	ADDRESS	4	MCVTRCGC	Address of the recovery control task RCB.
864	(360)	ADDRESS	4	MCVTRCDG	Address of the volume dump control task RCB.
868	(364)	ADDRESS	4	MCVTATCB	Address of the activity log control task TCB.
872	(368)	ADDRESS	4	MCVTDTCB	Address of the dump control task TCB.
876	(36C)	ADDRESS	4	MCVTGTCB	Address of the recovery control task TCB.
880	(370)	CHARACTER	8	MCVTALQP	Activity log work element queue pointers.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
880	(370)	ADDRESS	4	MCVTALQH	Address of the activity log work element head.
884	(374)	ADDRESS	4	MCVTALQT	Address of the activity log work element tail.
888	(378)	ADDRESS	4	MCVTDDCB	Address of the dump activity log DCB.
892	(37C)	ADDRESS	4	MCVTDSTP	Address of the dump volume selection table.
896	(380)	ADDRESS	4	MCVTDTCP	Address of the dump task control blocks.
900	(384)	ADDRESS	4	MCVTTCDG	Address of the volume dump control task TCB.
904	(388)	BITSTRING	4	MCVTPABE	Trace output control task termination ECB.
908	(38C)	FIXED	1	MCVTPDRL	PDA trace record size.
909	(38D)	FIXED	1	MCVTPDRW	Number of records in the PDA trace wrap buffer.
910	(38E)	FIXED	1	MCVTPDBF	Maximum number of blocks in the PDQ free pool.
911	(38F)	FIXED	1	MCVTVTLK	When set to a nonzero value, will bypass enqueues on a local resource to avoid contention between DADSM's and DFSMSdss's SYSVTOC and SYSZTIOT.
912	(390)	FIXED	1	MCVTBUFS	Number of buffers for QSAM-chained scheduling I/O operations.
913	(391)	FIXED	1	MCVTBUFF	Number of buffers for SAM operations for sequential data sets during migration or recall.
914	(392)	FIXED	1	MCVTNBUF	Number of input buffers from owned DASD. Used when MCVTFODB is set to 1 and MCVTBUFS is set to 0.
915	(393)	FIXED	1	MCVTOBUF	Number of output buffers to owned DASD. Used when MCVTFODB is set to 1 and MCVTBUFS is set to 0.
916	(394)	CHARACTER	4	MCVTDTOD	Earliest start time for automatic dump.
920	(398)	CHARACTER	4	MCVTDTEN	Latest start time for automatic dump.
924	(39C)	CHARACTER	4	MCVTDTSS	Time at which no more full volume dumps will be started during automatic dump.
928	(3A0)	FIXED	4	MCVTBTSS	Time at which no more volume backups will be started during automatic backup.
932	(3A4)	FIXED	4	MCVTMTSS	Time at which no more volume migration will be started during automatic primary space management.
936	(3A8)	FIXED	2	MCVTMXBV	Maximum number of backup versions based on record length of BCDS.
938	(3AA)	CHARACTER	2	MCVTSTRT	If not binary zeros, the 2-byte suffix of PARMLIB member ARCSTRxx specified for startup parameters.
940	(3AC)	ADDRESS	4	MCVT_DOMCB_PTR	Information for DOM macro of last messages sent to console (ARC0909E and ARC0911E).
944	(3B0)	FIXED	2	MCVTPFAC	Priority factor for the migration order.
946	(3B2)	FIXED	2	MCVTPRCO	Priority cutoff for the migration order.
948	(3B4)	FIXED	2	MCVTMDTS	Maximum number of dump tasks allowed to run concurrently.
950	(3B6)	FIXED	2	MCVTNADT	Number of currently active dump tasks.
952	(3B8)	FIXED	2	MCVTDUIM	Controls tracing of the dump user-interface module. When set to 1, ARCERP is called each time ARCDUUIM is called to interface between DFSMShsm and DFSMSdss. When set to 2, ARCERP is called each time ARCDUUIM is called to interface between DFSMShsm and DFSMSdss and again each time ARCDUUIM exits its interface between DFSMShsm and DFSMSdss.
954	(3BA)	FIXED	2	MCVTRUIM	Controls tracing of the restore user-interface module. When set to 1, ARCERP is called each time ARCREUIM is called to interface between DFSMShsm and DFSMSdss. When set to 2, ARCERP is called each time ARCREUIM is called to interface between DFSMShsm and DFSMSdss and again each time ARCREUIM exits its interface between DFSMShsm and DFSMSdss.
956	(3BC)	BITSTRING	1	MCVTPDFL	This byte contains problem determination function switches:
		1...		MCVTFNPD	When set to 1, the problem determination function is disabled.
		.1..		MCVTFPDH	When set to 1, the problem determination function is held.
		..1.		MCVTFSPD	When set to 1, a shutdown of the problem determination has been requested.
		...1		MCVTFPSW	When set to 1, a problem determination data set swap has been requested.
		.... 1...		MCVTFNPQ	When set to 1, trace output queuing is disallowed.
		.... .1..		MCVTFPDT	When set to 1, problem determination task has ended.
		.... ..1.		MCVT_TRACE_ STATS	When set to 1, trace statistics.
		x		*	Reserved.
957	(3BD)	FIXED	1	MCVTVBUF	Number of buffers for accessing VTOC copy data set on owned DASD. Must be nonzero to be used.
958	(3BE)	FIXED	1	MCVTFVCC_COPY_TECHNIQUE	Backup copy technique for DUMP
959	(3BF)	CHARACTER	1	MCVTCDSS_HOSTID	Host ID of host requesting ARCGPA/ARCCAT EXCL via XCF services

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Offsets Decimal	(Hex)	Type	Length	Name	Description
960	(3C0)	CHARACTER	1	MCVTLLVL	This byte contains one of the following activity logging levels: R - Reduced F - Full E - Exception only.
961	(3C1)	CHARACTER	1	MCVTLCLS	Activity log system output class.
962	(3C2)	CHARACTER	1	MCVTDIOO	Dump I/O optimization option.
963	(3C3)	BITSTRING	1	*	This byte contains the following dump invocation flags:
		1...		MCVTALLX	When set to 1, ALLEXCP option is suppressed.
		.1..		MCVTALLD	When set to 1, ALLDATA option is suppressed.
		..1.		MCVTDSSC	When set to 1, DFSMSdss compression has been selected.
		...1		MCVTFVCC	When set to 1, use concurrent copy for dump.
		.... 1...		MCVTPOAX	When set to 1, use all data for PO data set with AX cell.
		.... .1..		MCVTDVNQ	When set to 1, drop VTOC ENQ to avoid lockouts.
		.... ..1.		MCVTFVANY	SETSYS VOLCOUNT(ANY) specified.
		x		*	Reserved.
964	(3C4)	CHARACTER	6	MCVTAUDV	The volser of the volume audit is processing.
970	(3CA)	FIXED	2	MCVT_TC_TAKEAWAY_DELAY	Time in minutes before requesting tape takeaway from TAPECOPY if TAPECOPY takeaway is active.
972	(3CC)	FIXED	2	MCVT_TC_TAKEAWAY_FREQ	Time in minutes between checks by TAPECOPY for recall takeaway requests. This is only used if TAPECOPY takeaway is active.
974	(3CE)	CHARACTER	2	*	Reserved.
976	(3D0)	BITSTRING	2	*	The next 2 bytes contain the following usability flags:
		1...		MCVTSCR	When set to 1, scratch expired data sets.
		.1..		MCVTFGED	When set to 1, recover is held at the end of the data set.
		..1.		MCVTFHTR	When set to 1, the tape recovery function is held.
		...1		MCVTFHTS	When set to 1, the tape recall function is held.
		.... 1...		MCVTFHTI	When set to 1, the interactive tape recall function is held.
		.... .1..		MCVTF389	When set to 1, message ARC0389E has been issued to the operator.
		.... ..1.		MCVTFMEV	When set to 1, migration is held at end of volume.
		1		MCVTFAMV	When set to 1, automatic volume migration is held at end of volume.
977	(3D1)	1...		MCVTFBEV	When set to 1, backup is held at end of volume.
		.1..		MCVTFABV	When set to 1, automatic backup is held at end of volume.
		..1.		MCVTFGEV	When set to 1, recovery is held at end of volume.
		...1		MCVTFHDI	When set to 1, dump is held at end of data set.
		.... 1...		MCVTFADI	When set to 1, automatic dump is held at end of data set.
		.... .1..		MCVTFHDV	When set to 1, dump is held at end of volume.
		.... ..1.		MCVTFADV	When set to 1, automatic dump is held at end of volume.
		x		*	Reserved.
978	(3D2)	BITSTRING	2	*	The next 2 bytes contain erase-on-scratch, activity log, and miscellaneous indicators:
		1...		MCVTEOSS	When set to 1, erase-on-scratch is supported by the system.
		.1..		MCVTFEOS	When set to 1, erase-on-scratch support is allowed for erasure of backup versions and migration copies.
		..1.		MCVTFLDA	When set to 1, activity log type is DASD. When set to 0, activity log type is SYSOUT.
		...1		MCVTFYR2	When set to 1, DFP support for dates beyond 1999 is available on the system.
		.... 1...		MCVTFALI	When set to 1, an I/O error was detected when writing to a DASD activity log.
		.... .1..		MCVTFODB	When set to 1, optimum DASD blocking has been requested.
		.... ..1.		MCVTFSY2	When set to 1, MVS support for dates beyond 1999 is available on the system.
		1		MCVTF_MTDSR_SPECD	When set to 1, MAXDSTAPERECOVERTASKS has been specified.
979	(3D3)	1...		MCVTFMSG	When set to 1, send messages to the operator for test.
		.1..		MCVTFD23	When set to 1, DFP 2.3.0 or higher is installed.
		..1.		MCVTFESA	Set to 1 for ESA system.
		...1		MCVTFD22	Set to 1 for DFP 2.2.0 or later.
		.... 1...		MCVTFTBT	When set to 1, activate conditional trace points in multiple tape buffer code.
		.... .1..		MCVTFENT	When set to 1, message ARC0901I is issued for ARCMCTL entry and the timer has expired.
		.... ..1.		MCVTFEXP	When set to 1, message ARC0901I is issued for timer expiration when MCVTTENT=0.
		1		MCVTFSET	When set to 1, message ARC0901I is issued for timer set.
980	(3D4)	BITSTRING	2	*	The next 2 bytes contain the following volume dump and restore indicators:

Table 105 (Page 15 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		1...		MCVTFCKD	When set to 1, check if any dump-related functions need to be processed.
		.1..		MCVTFQDM	When set to 1, a dump management work element has been added to the backup queue.
		..1.		MCVTFMDT	When set to 1, the maximum number of volume dump tasks has been changed.
		...1		MCVTFSDS	When set to 1, a sufficient level of DFSMSdss is on the system to support volume dump and restore.
		.... 1...		MCVTFDTS	When set to 1, the automatic dump timer has been set to expire at the automatic dump start time.
		.... .1..		MCVTFDTE	When set to 1, the automatic dump timer that was set to expire at the automatic dump start time has activated.
		.... ..1.		MCVTFNXA	When set to 1, this system is not running at a minimum system level of MVS/XA.
		1		MCVTF32K	When set to 1, make dump tape at 32K.
981	(3D5)	BITSTRING	1	*	Reserved flags.
		1...		*	Reserved.
		.1..		MCVTF_NO_MSG30I	When set to 1, do not fail allocations when the 3590-1 generic has mixed track technology drives. Could be used while system is transitioning between different 3590 track technologies.
		..1.		MCVTF_RPEXT	When set to 1, disable validity check of MWE changes made by ARCRPEXT exit
		...1		MCVTF_NIJ_DISABLE	When set to 1, user has patched HSM to disable non-instrusive journal backup.
		.... 1...		MCVTF_ML1_EXP	When set to 1, allow more than 7800 ML1 volumes.
		.... .1..		MCVTF_ZCOMPBD	When set to 1, zEDC compression when backup to DASD.
		.... ..1.		MCVTF_ZCOMPMD	When set to 1, zEDC compression when migration to DASD.
		xxx		*	Reserved.
982	(3D6)	BITSTRING	1	MCVTVSCR	This byte contains the following flags:
		1...		MCVTF32V	When set to 1, VSCR support for DFSMShsm data movement of a VSAM data set is enabled.
		.1..		MCVTF32P	When set to 1, VSCR support for DFSMShsm data movement of a partitioned data set is enabled.
		..1.		MCVTF32S	When set to 1, VSCR support for DFSMShsm data movement of a sequential data set is enabled.
		...1		MCVTF32D	When set to 1, VSCR support for DFSMShsm data movement to a small data set packing data set is enabled.
		 xxxx		*	Reserved.
983	(3D7)	BITSTRING	1	MCVTBVR	BVR bits.
		1...		MCVTBVR1	BVR process.
		.1..		MCVTBVR2	BVR delete.
		..1.		MCVTBVR3	BVR add.
		...x xxxx		*	Reserved for BVR cleanup.
984	(3D8)	ADDRESS	4	MCVTUSR1	Used by installation exits.
988	(3DC)	ADDRESS	4	MCVTUSR2	Used by installation exits.
992	(3E0)	ADDRESS	4	MCVTUSR3	Used by installation exits.
996	(3E4)	ADDRESS	4	MCVTUSR4	Used by installation exits.
1000	(3E8)	FIXED	4	MCVTLCEC	Logical capacity of a 3490E enhanced capacity cartridge tape. Measured in 16 KB blocks.
1004	(3EC)	FIXED	4	*	Reserved.
1008	(3F0)	ADDRESS	4	MCVTDMVT	Address of the datamover support table.
1012	(3F4)	ADDRESS	4	MCVTSMQH	Address of the SMS MVT chain head.
1016	(3F8)	ADDRESS	4	MCVTSMQT	Address of the SMS MVT chain tail.
1020	(3FC)	ADDRESS	4	MCVTSAQP	Address of the SAQ area.
1024	(400)	ADDRESS	4	MCVTSP00	Address of the DFP module IGDCSP00.
1028	(404)	ADDRESS	4	MCVTMGCP	Address of the migration global control block.
1032	(408)	ADDRESS	4	MCVTBGCP	Address of the backup global control block.
1036	(40C)	ADDRESS	4	MCVTDGCP	Address of the dump global control block.
1040	(410)	ADDRESS	4	MCVTEGCP	Address of the expire backup version global control block.
1044	(414)	FIXED	4	MCVTMMTM	Minimum time between automatic primary space management processing of an SMS-managed volume (binary number in seconds).
1048	(418)	FIXED	4	MCVTMBTM	Minimum time between automatic backup processing of an SMS-managed volume (binary number in seconds).
1052	(41C)	FIXED	4	MCVTMDTM	Minimum time between automatic dump processing of an SMS-managed volume (binary number in seconds).
1056	(420)	FIXED	2	MCVTMXAD	Number of additional migration subtasks allowed by user.
1058	(422)	FIXED	2	MCVTIMTM	Minimum time, in minutes, between interval migration processing of the same SMS-managed volume.
1060	(424)	FIXED	2	MCVTDAID	Subpool number for the SMS data buffer.
1062	(426)	FIXED	2	MCVTSPID	Subpool number for the SMS message buffer.
1064	(428)	CHARACTER	8	MCVTNTUN	Unit name for the value specified with ROUTETOTAPE.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
1072	(430)	CHARACTER	1	MCVTNTDE	Density of the unit name specified with ROUTETOTAPE.
1073	(431)	BITSTRING	2	MCVTSFLG	The next 3 bytes contain the following SMS-related flags:
		1...		MCVTFSMS	When set to 1, SMS is installed.
		.1..		MCVTFMLA	When set to 1, multiple-level alias support is installed.
		.1..		MCVTFD24	When set to 1, a level of DFP higher than 2.3.0 is installed (same as MCVTFMLA above).
		..1.		MCVTNRTP	When set to 1, SETSYS TAPEMIGRATION NONE (ROUTETOTAPE) was specified.
		...1		MCVTFSRS	When set to 1, the DFP system reblockable function is available.
		.... 1...		MCVTFDSS	When set to 1, SMS support is installed on the version of DFSMSdss being used.
		.... .1..		MCVTFOEM	When set to 1, the OEM field in the data set VTOC entry is to be restored upon recall or recover. (This flag is functional only if the MCVTFD24 flag is set to 0.)
		.... ..1.		MCVTNDBU	When set to 1, the SMS DBU requirement that a backup copy exists before expiring a data set will be bypassed.
		x		*	Reserved.
1074	(432)	BITSTRING	1	MCVTXMEM	XMEMORY usage only.
		1...		MCVTFXMD	When set to 1, user patched on for dumping in cross-memory mode.
		.1..		MCVTFXMR	When set to 1, user patched on for recovering in cross-memory mode.
		..xx xxxx		*	Reserved for XMEMORY use.
1075	(433)	FIXED	1	MCVT_INVOKE_DSS_XM	Anything other than hex 'FF' means invoke ADRDSSU rather than ADRXMAIA (XM-mode)
		1...		MCVTF_INVOKE_DSS_XM_BKUP	When set to 1, DSS cross memory should be used for backup.
		.1..		MCVTF_INVOKE_DSS_XM_CDSB	When set to 1, DSS cross memory should be used for CDS backup.
		..1.		MCVTF_INVOKE_DSS_XM_DUMP	When set to 1, DSS cross memory should be used for dump.
		...1		MCVTF_INVOKE_DSS_XM_MIG	When set to 1, DSS cross memory should be used for migration.
		.... 1...		MCVTF_INVOKE_DSS_XM_REC	When set to 1, DSS cross memory should be used for recovery.
		xxx		*	Reserved
1076	(434)	FIXED	4	MCVTRERL	Read error limit as a percentage of MCVTRDKN.
1080	(438)	CHARACTER	8	MCVTTSUN	Unit name for TSO tape simulation.
1088	(440)	FIXED	4	MCVTL1SD	Space delta to cause updating of MC1 record.
1092	(444)	CHARACTER	4	MCVTOEMD	Date after which OEM data no longer exists in an installation.
1096	(448)	ADDRESS	4	MCVTABRP	Address of ABRCB.
1100	(44C)	BITSTRING	1	MCVTDFLG	Contains the following PDSE/DMV related flags:
		1...		MCVTDSLD	When set to 1, DFSMSdss needs to be loaded or reloaded.
		.1..		MCVTDS25	When set to 1, DFSMSdss 2.5.0 or higher is installed on the system.
		..1.		MCVTFDDM	When set to 1, DFSMSdss is to be used as the primary data mover.
		...1		MCVTFPDE	When set to 1, partitioned data sets extended (PDSEs) are supported by the system.
		.... 1...		MCVTFD32	When set to 1, DFP 3.2.0 or higher is installed on the system.
		xxx		*	Reserved.
1100	(44C)	BITSTRING	2	*	Reserved.
1103	(44F)	CHARACTER	1	MCVTLDIO	DFSMSdss logical data set dump I/O optimization option.
1104	(450)	ADDRESS	4	MCVTDSS@	Address of the DFSMSdss load module ADRDSSU.
1108	(454)	CHARACTER	3	MCVTDSSM	DFSMSdss message number to cause of a DFSMSdss abnormal end.
1111	(457)	CHARACTER	1	*	For alignment.
1112	(458)	CHARACTER	8	MCVTLGPC	The ARCILOG task previous work clock value, for timer exit.
1120	(460)	CHARACTER	8	MCVTLGWC	The ARCILOG task work clock value, for timer exit.
1128	(468)	FIXED	4	MCVTRPCT	The percent that primary space is increased during RECALL redrive of a VSAM dataset (see message ARC0786I).
1132	(46C)	CHARACTER	4	*	Reserved
1136	(470)	ADDRESS	4	MCVTRCMS	Address of automatic secondary space management control task RCB.
1140	(474)	BITSTRING	4	MCVTECBS	ARCMSCTL work-to-do ECB for single-task secondary space management. ARCMMCTL work-to-do ECB for multitask secondary space management.
		1...		MCVTECBS_WAIT	Wait bit.
		.1..		MCVTECBS_POST	Post bit.
		..xx xxxx		*	Reserved.
1141	(475)	BITSTRING	3	MCVTECBS_CODE	Post code.
1144	(478)	FIXED	4	MCVTSTOD	Earliest start time for secondary space management. The time is obtained from the TIME macro in format *X'hhmmssth'*.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
1148	(47C)	FIXED	4	MCVTSTEN	Latest start time or ending time for secondary space management. The time is obtained from the TIME macro in format *X'hhmmssth'*.
1152	(480)	ADDRESS	4	MCVTCCLP	Address of the current channel load.
1156	(484)	FIXED	2	MCVTLDSS	The channel path load factor for DFSMSdss as the data mover.
1158	(486)	FIXED	2	MCVTIOBO	The channel path load factor for the I/O buffer options.
1160	(488)	FIXED	4	MCVTMMTN	Minimum amount of time, in seconds, between automatic primary space management of non-SMS-managed volumes.
1164	(48C)	FIXED	4	MCVTMBTN	Minimum amount of time, in seconds, between automatic backup of non-SMS-managed volumes.
1168	(490)	FIXED	4	MCVTMDTN	Minimum amount of time, in seconds, between automatic dump of non-SMS-managed volumes.
1172	(494)	FIXED	2	*	Reserved.
1174	(496)	FIXED	2	MCVTIMTN	Minimum time, in minutes, between interval migration processing of the same non-SMS-managed volume.
1176	(498)	FIXED	2	MCVT#CHK	The number of seconds to wait between checks for input-needs-SDSP during migration to a small data set packing data set. The default is 30 seconds.
1178	(49A)	FIXED	2	MCVT#WAT	The number of seconds for migration to wait before reselecting a small data set packing data set that has been taken by a recall or other input function. The default is 120 seconds.
1180	(49C)	FIXED	2	MCVTLC90	The number of 16K blocks that will fill a 3490 tape.
1182	(49E)	FIXED	2	MCVT_AB_TAKEAWAY_DELAY	Delay (in minutes) for recall to wait before taking away an ML2 tape from ABACKUP.
1184	(4A0)	FIXED	2	MCVTMITK	Maximum number of volume interval migration tasks.
1186	(4A2)	FIXED	2	MCVTPDYN	Percent of the dynamic space of the volume for the TMM occupancy level trigger.
1188	(4A4)	FIXED	4	MCVTIBCT	Invalid block count threshold. The default is 500.
1192	(4A8)	FIXED	4	MCVTIEMT	Periodic in-storage invalidation element creation to merge with TTOC elapsed time. The default is six hours.
1196	(4AC)	FIXED	4	MCVTFIMT	When set to –1, all migration in-storage TTOC invalidation elements are merged.
1200	(4B0)	FIXED	2	MCVTODS_ PRIMARY	Primary space allocation (in tracks) for an OUTDATASET. Default is 20 tracks.
1202	(4B2)	FIXED	2	MCVTODS_ SECONDARY	Secondary space allocation (in tracks) for an OUTDATASET. Default is 50 tracks.
1204	(4B4)	FIXED	2	MCVTMMTK	Maximum number of volume migration tasks.
1206	(4B6)	FIXED	1	MCVTCMP_RATIO_MIG	Numerator of compaction ratio (with denominator of 10) to assume for hardware compaction to migration tape. Default is 25.
1207	(4B7)	FIXED	1	MCVTCMP_RATIO_BAK	Numerator of compaction ratio (with denominator of 10) to assume for hardware compaction to backup tape. Default is 25.
1208	(4B8)	FIXED	2	*	Input tape blocking factor.
1210	(4BA)	FIXED	2	*	Subpool number for tape buffers.
1212	(4BC)	FIXED	2	*	Number of output tape buffers.
1214	(4BE)	FIXED	2	*	Number of recycle I/O tape buffers.
1216	(4C0)	BITSTRING	1	MCVTCBFG	This byte contains the following channel balance flags:
		1...		MCVTSSMS	When set to 1, sequentially select SMS-managed volumes. When set to 0, channel balance select SMS-managed volumes.
		.1..		MCVTSNSM	When set to 1, sequentially select non-SMS-managed volumes. When set to 0, channel balance select non-SMS-managed volumes.
		..1.		MCVTNUCL	When set to 1, do not update MVT with channel path identifiers.
		...1		MCVTFACL	Patchable area for esoteric unit name translation for D/T3480 with no ACL.
		 xxxx		*	Reserved.
1217	(4C1)	BITSTRING	3	MCVTMFLG	The next 3 bytes contain the following flags:
		1...		MCVTSSTS	When set to 1, the ending time for automatic secondary space management has been specified.
		.1..		MCVTPSTS	When set to 1, the ending time for automatic primary space management has been specified.
		..1.		MCVTFCVB	When set to 1, command volume backup processing is active.
		...1		MCVTFSTC	When set to 1, the automatic secondary space management start window has been redefined.
		.... 1...		MCVTFDIO	When set to 1, DFSMShsm is running in a dynamic I/O environment.
		.... .1..		MCVTFPTB	When set to 1, the PARTIALTAPE(MARKFULL) parameter is in effect for backup.
		.... ..1.		MCVTFPTM	When set to 1, the PARTIALTAPE(MARKFULL) parameter is in effect for migration.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
		1		MCVTFTDB	When set to 1, the TAPEDELETION(HSMTAPE) parameter is in effect for backup. When set to 0, the TAPEDELETION(SCRATCHTAPE) parameter is in effect for backup.
1218	(4C2)	1...		MCVTFTDD	When set to 1, the TAPEDELETION(HSMTAPE) parameter is in effect for dump. When set to 0, the TAPEDELETION(SCRATCHTAPE) parameter is in effect for dump.
		.1..		MCVTFTDM	When set to 1, the TAPEDELETION(HSMTAPE) parameter is in effect for migration. When set to 0, the TAPEDELETION(SCRATCHTAPE) parameter is in effect for migration.
		..1.		MCVTFSVB	When set to 1, the SELECTVOLUME(SPECIFIC) parameter is in effect for backup. When set to 0, the SELECTVOLUME(SCRATCH) parameter is in effect for backup.
		...1		MCVTFSVD	When set to 1, the SELECTVOLUME(SPECIFIC) parameter is in effect for dump. When set to 0, the SELECTVOLUME(SCRATCH) parameter is in effect for dump.
		.... 1...		MCVTFSVM	When set to 1, the SELECTVOLUME(SPECIFIC) parameter is in effect for migration. When set to 0, the SELECTVOLUME(SCRATCH) parameter is in effect for migration.
		.... .1..		MCVTES80	When set to 1, the correct level of support for use of system esoteric SYS3480R on input for generic 3480 tapes is installed.
		.... ..1.		MCVTES8X	When set to 1, the correct level of support for use of system esoteric SYS3480XR on input for generic 3480X tapes is installed.
		1		MCVTFMIS	When set to 1, MAXINTTASKS parameter is defined.
1219	(4C3)	1...		MCVTNOES	When set to 1, JES3 SYS3480R and SYS348XR allocation redriven with device type 3480 or 3480X set on.
		.1..		MCVTFDAV	When set to 1, DISASTERMODE is in effect for RECALL and RECOVERY.
		..1.		MCVTLBTN	When set to 1, NOLIMIT is specified for a backup tape stored in a tape library.
		...1		MCVTLMTN	When set to 1, NOLIMIT is specified for a migration tape stored in a tape library.
		.... 1...		MCVTF_NO_ UPDT_MIG	When set to 1, do not update the OCDS TTOC data set entry for a single volume data set residing on a migration volume.
		.... .1..		MCVTF_ PROVX	When set to 1, link to ARCPROVX to allow data mover to be changed to DFSMShsm.
		.... ..1.		MCVTF_NOENQ_GDG	When set to 1, the generation data group enquiry will be bypassed during migration.
		1		MCVTF332	When set to 1, ARC332A will be issued with a WTOR. When set to 0, ARC332A is issued with a WTO.
1220	(4C4)	ADDRESS	4	MCVTYGCB	Address of the recycle global control block.
1224	(4C8)	BITSTRING	8	MCVTTPUT	The following 8 bytes contain TSO TPUT information.
1224	(4C8)	FIXED	4	*	Time of last TPUT enqueue.
1228	(4CC)	ADDRESS	4	*	TCB for last TPUT enqueue.
1232	(4D0)	FIXED	4	MCVTSPLM	Number of mega-bytes of tape DFSMShsm may leave unused while trying to eliminate spanning data sets.
1236	(4D4)	FIXED	2	MCVTLBTU	Tape utilization for a backup tape stored in a tape library.
1238	(4D6)	FIXED	2	MCVTLMTU	Tape utilization for a migration tape stored in a tape library.
1240	(4D8)	ADDRESS	4	MCVTC@	Anchor for MCDS data set chain when the KSDS is split (see ARCCDSB).
1244	(4DC)	ADDRESS	4	MCVTB@	Anchor for BCDS data set chain when the KSDS is split (see ARCCDSB).
1248	(4E0)	ADDRESS	4	MCVTXLST	Address of ARCEXIT - base for ARCEXITP.
1252	(4E4)	ADDRESS	4	MCVTGLAM	Address of ARCGLAMS - AMS 24-31 interface.
1256	(4E8)	ADDRESS	4	MCVTGLUE	Address of ARCGLUE - installation exit 24-31 glue.
1260	(4EC)	ADDRESS	4	MCVTCPTP	Address of ARCCPTBL, cell pool table.
1264	(4F0)	FIXED	1	MCVTMDSR	Maximum number of concurrent data set recover tasks.
1265	(4F1)	BITSTRING	1	MCVTPFLG	Flags for 1.4.0
		1...		MCVTFDTM	When set to 1, duplexing migration.
		.1..		MCVTFDTB	When set to 1, duplexing backup.
		..1.		MCVTFHRM	Hold RMM, disable EDGTVEXT.
		...x		*	Reserved
		.... 1...		MCVTF_LDRMM	If set on, reload the RMM interface EDGTVEXT.
		.... .1..		MCVTF_SERVER_ERR	Fatal RLS server error.
		.... ..1.		MCVTFGUCB	Get UCB at each space check.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
		1		MCVTF_NOCHK_DEV	When set to 1, do not check output device capacity before SETSYS TAPESPANSIZE is considered.
1266	(4F2)	BITSTRING	2	MCVTFLG1	Miscellaneous flags:
		1...		MCVTFASY	When set to 1, asynchronous SYNCDEV.
		.1..		MCVTF_MIG_ MSG300_ISSUED	When set to 1, message ARC0300 for migration duplexing already issued.
		..1.		MCVTF_BAK_MSG300_ISSUED	When set to 1, message ARC0300 for backup duplexing already issued.
		...1		MCVTF_HOSTMAIN	When set to 1, HOSTMODE=MAIN.
		.... 1...		MCVTF_HOSTAUX	When set to 1, HOSTMODE=AUX.
		.... .1..		MCVTF_SERLZOK	When set to 1, serialization started for this host is consistent with this image's other hosts.
		.... ..1.		MCVTF_1STHOST	When set to 1, this is the first host started for an z/OS image.
		1		MCVTF_RNAMEDSN	When set to 1, RNAMEDSN=YES in startup parameters.
1267	(4F3)	1...		MCVTF_MCDS	When set to one, data set name is consistent.
		.1..		MCVTF_BCDS	When set to 1, data set name is consistent.
		..1.		MCVTF_OCDS	When set to 1, data set name is consistent.
		...1		MCVTF_JRNL	When set to 1, data set name is consistent.
		.... 1...		MCVTF_AUX_ NOJES3	When set to 1, an AUX host is not allowed to specify JES3.
		.... .1..		MCVTF_TCPY_ MEDJK	When set to 1, allow TAPECOPY from MEDIA3 to MEDIA4 (J->K) if the input and output device geometries match.
		.... ..1.		MCVTF_TCPY_ CHGTECH	If standard to enhanced is okay, do not fail if output is directed to a different drive technology with the same device type.
		1		MCVTF_MIG_ERRALT_MARKFUL	ERRORALTERNATE option flag for SETSYS DUPLEX command: When 0, the ERRORALTERNATE option is set to CONTINUE When 1, the ERRORALTERNATE option is set to MARKFULL.
1268	(4F4)	ADDRESS	4	MCVTRCQH	Pointer to head of recovery MWE queue.
1272	(4F8)	ADDRESS	4	MCVTRCQT	Pointer to tail of recovery MWE queue.
1276	(4FC)	ADDRESS	4	MCVTRVQH	Pointer to head of volume recovery MWE queue.
1280	(500)	ADDRESS	4	MCVTRVQT	Pointer to tail of volume recovery MWE queue.
1284	(504)	ADDRESS	4	MCVTSGCB	Security global control block.
1288	(508)	FIXED	2	MCVT_RCLLIMIT_ TASK	Number of minutes allowed for a recall task to process recalls from a single mount of a tape before TAPERECALLLIMITS TASK checking occurs.
1290	(50A)	FIXED	2	MCVT_RCLLIMIT_ TAPE	Maximum number of minutes allowed for a recall task to process recalls from a single mount of a tape before TAPERECALLLIMITS TASK checking occurs.
1292	(50C)	FIXED	2	MCVT_RCLLIMIT_ DELAY	Number of minutes that a recall request is delayed by TAPERECALLLIMITS TASK parameter in support of across host recall take away from recall.
1294	(50E)	FIXED	1	MCVT_SRVR_WAIT	Number of times to loop while waiting for SMSVSAM server to initialize.
1295	(50F)	FIXED	1	*	Reserved.
1296	(510)	ADDRESS	4	MCVTEDG@	Pointer to RMM EDGTVEXT.
1300	(514)	ADDRESS	4	MCVTSLKT	Pointer to SMS lock for CPBAK.
1304	(518)	CHARACTER	2	MCVTHOST2	MCVTHOST||X'40'. This field is only set in z/OS V1R3 and higher.
1306	(51A)	FIXED	1(2)	*	Reserved.
1308	(51C)	ADDRESS	4	MCVT_CATCB_PTR	ARCCAT release control block pointer
1312	(520)	FIXED	4	MCVT_VOLSQ_CUTOFF	End the connected set when this volume sequence number is reached or exceeded.
1316	(524)	FIXED	4	*(8)	Reserved.
1348	(544)	ADDRESS	4	MCVT_GRSCB	Pointer to global (to this image) serialization control block.
1352	(548)	ADDRESS	4	MCVT_JGCB_ PTR	Pointer to HSMplex global control block.
1356	(54C)	FIXED	4	MCVT_STRNO	STRNO for CDSs.
1360	(550)	FIXED	4	MCVT_BUFNI	Index buffers for CDSs.
1364	(554)	FIXED	4	MCVT_BUFND	Data buffers for CDSs.
1368	(558)	BITSTRING	4	MCVTFPDA	Conditional tracing flags:
		1...		MCVTFPDA_CELLS	When set to 0, do not trace CPOOL calls (GETCELL or FREECELL).
		.1..		MCVTFPDA_COND	When set to 0, do not trace entry with COND specified.
		..1.		MCVTFPDA_REJR	When set to 0, do not trace TLOGIC with REJECT specified.
		...1		MCVTF_ZCELL_SNIF	When set to 1, scan free cell chain looking for a duplicate free.
		.... 1...		MCVTFPDA_ZSERL	When set to 0, do not trace entry and exit for module ARCZSERL.
		.... .1..		MCVTFPDA_FRCDM	ON = trace additional FLOWs for module ARCFRCDM
		.... ..1.		MCVTFPDA_DAUTO	When set to 1, trace additional FLOWs in ARCDAUTO.
		x		*	Reserved.
1368	(558)	BITSTRING	3	*	Reserved.

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Offsets Decimal	(Hex)	Type	Length	Name	Description
1372	(55C)	FIXED	2	MCVT_ABARS_PRIMARY_TRKS	DASD ACTLOG primary allocated tracks.
1374	(55E)	FIXED	2	MCVT_ABARS_SECONDARY_TRKS	DASD ACTLOG secondary allocated tracks.
1376	(560)	FIXED	4(2)	*	Reserved.
1384	(568)	FIXED	4	MCVT_VRM	Version, release, and modification level of the DFSMShsm that created this record. This field is four bytes defined as: • First byte indicates whether a level of DFSMShsm is running that is only available with z/OS. If this byte is zero, then DFSMShsm is not running at a level that is only available with z/OS; refer to MCVTRV. If this byte contains a two, then DFSMShsm is running at a level that is only available with z/OS. Refer to the next three bytes. • Byte two contains the version number (in hex). • Byte three contains the release number (in hex). • Byte four contains the modification level (in hex).
1388	(56C)	ADDRESS	4	MCVTGTRTP	Address of GTRT (recover tape resource table).
1392	(570)	ADDRESS	4	MCVTBTCRT	Address of backup tape contention resolution table.
1396	(574)	ADDRESS	4	MCVTGECBP	Pointer to recover ECB table.
1400	(578)	FIXED	2	MCVT_RCV_TC_TAKEAWAY	Minimum interval to check for takeaway.
1402	(57A)	FIXED	2	MCVT_RCV_DELAY_ITAKE	Default time an MWE can wait for immediate tape takeaway before issuing message ARC0387A.
1404	(57C)	FIXED	2	MCVT_RCV_DELAY_NTAKE	Default time an MWE can wait when no tape takeaway is allowed before issuing message ARC0387A.
1406	(57E)	FIXED	2	MCVT_RCV_TAKEAWAY_DELAY	Default time an MWE can wait when tape takeaway is allowed, but delayed.
1408	(580)	FIXED	4	MCVT_L1FRESP	Space in tracks. If the MVT free space for a ML1 DASD volume falls below this value, the volume's activity level is checked. If the space delta for the volume is greater than or equal to the value specified in the MCVT_L1SD field, the MC1 is immediately updated if in a multi-host environment.
1412	(584)	FIXED	4	MCVT_L1SD	Space delta on ML1 DASD volume that will trigger an immediate MC1 update.
1416	(588)	FIXED	4	MCVT_TTOC_MAX	Maximum number of base and extension records allowed in a TTOC.
1420	(58C)	FIXED	2	MCVT_BCDS_INDEX_ERROR	Counter for index errors attempting to access the BCDS.
1422	(58E)	FIXED	2	MCVT_OCDS_INDEX_ERROR	Counter for index errors attempting to access the OCDS.
1424	(590)	FIXED	2	MCVT_MAX_BCDS_INDEX_ERRORS_ALLOWED	Maximum number of index errors allowed accessing the BCDS.
1426	(592)	FIXED	2	MCVT_MAX_OCDS_INDEX_ERRORS_ALLOWED	Maximum number of index errors allowed accessing the OCDS.
1428	(594)	BITSTRING	2	MCVTFLG2	Miscellaneous flags.
		1...		MCVTF_MSG0063I_ISSUED_BCDS	Message ARC0063I has been issued for BCDS INDEX error resulting in functions being held.
		.1..		MCVTF_MSG0063I_ISSUED_MCDS	Message ARC0063I has been issued for MCDS INDEX error resulting in shut down processing.
		..1.		MCVTF_MSG0063I_ISSUED_OCDS	Message ARC0063I has been issued for OCDS INDEX error resulting in functions being held.
		...1		MCVTF_MSG0063I_ISSUED_BCDS_STOP_HSM	Message ARC0063I has been issued for BCDS INDEX error, indicating DFSMShsm is shutting down.
		.... 1...		MCVTF_MSG0063I_ISSUED_OCDS_STOP_HSM	Message ARC0063I has been issued for OCDS INDEX error, indicating DFSMShsm is shutting down.
		.... .1..		MCVTF_JRNL_ UCBERR	When set to 1, journal UCB error.
		.... ..1.		MCVTF_DUPLEX	When set to 1, end original tape if duplexing fails.
		1		MCVTF_JRNLRG	When set to 1, the journal is a large format data set; it can exceed 65 535 tracks in size.
1429	(595)	1...		MCVTF_PCOMP	When set to 1, prevent compaction of large data sets during migration retry and other migration processing. Including interval migration if the data set did not compact well and it received an ABENDB37 because the compacted data set size exceeded the 64K track DASD limit.
		.1..		MCVTF_DPLX_CPTY	When set to 1, ignore tape capacity when duplexing
		..1.		MCVTF_HCHECK	When set to 1, register HSM Health Checks with Health Checker
		...1		MCVTF_MIGSBTK	If set to 1, migration subtasks requested.
		.... x...		*	Reserved.

Table 105 (Page 21 of 21). MCVT—Management Communication Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... .1..		MCVTF_ENQ_GDS	When set to 1, alternate method of serializing migration of a GDS data set is used.
		.... ..1.		MCVTF_L1OV	When set to 1, at least one ML1 overflow volume has been ADDVOLed on. this host.
		1		MCVTF_GR64K_TRKS	When set to 1, prevent migration/backup of data sets < 64K tracks
1430	(596)	FIXED	1	MCVTF_EAS_ENABLE_FLG	EAS enablement flags for each data set type
		1...		MCVTF_EAS_EFSEQ	ON - Ext format seq enabled for EAS
		.1..		MCVTF_EAS_SEQ	ON - Basic, large format seq enabled for EAS
		..1.		MCVTF_EAS_PDSE	ON - PDSE enabled for EAS
		...1		MCVTF_EAS_PDS	ON - PDS enabled for EAS
		.... 1...		MCVTF_EAS_DIR	ON - BDAM enabled for EAS
		.... .1..		MCVTF_EAS_NOUSE	ON - Don't use cylinder-managed space of ML1 and Backup EAVs even if MCVTF_EAS_SEQ flag is ON
		.... ..1.		MCVTF_CLTR	ON - Class transition is enabled
		1		MCVTF_ORDER_OF_PRIORITY_ENABLE	ON - The order of priority is used 1P
1431	(597)	BITSTRING	1	*	Misc flags
		1...		MCVTF_RCLFBID	ON - TAPEDATASETORDER(FBID) for RECALL
		.1..		MCVTF_RCVFBID	ON - TAPEDATASETORDER(FBID) for RECOVER
		.... 1...		MCVTF_CRQTL_TS	ON - Add timestamp to TL
1432	(598)	FIXED	4	* (2)	Reserved.
1440	(5A0)	BITSTRING	4	MCVT_LAST_ISSUED_389	The time that message ARC0389 was last issued.
1444	(5A4)	FIXED	4	MCVT_OVERFLOW_ELIG_SIZE	Min size of DS, eligible for migration/backup to OVERFLOW volumes
1448	(5A8)	FIXED	4	MCVT_SMAX_PRIORITY_PTR	Address of SMS MVT, which has the maximum value of storage group priority 1P.
1452	(5AC)	FIXED	4	*(5)	Reserved.
1472	(5C0)	ADDRESS	4	MCVT_DVGCB_PTR	Address of Dynamic Volume global control block
1476	(5C4)	ADDRESS	4	MCVT_FRGCB_PTR	Address of fast replication global control block.
1480	(5C8)	FIXED	2	MCVTFUIM	Controls tracing of the fast replication user-interface module. When set to 1, ARCERP is called each time ARCFRUIM is entered. When set to 2, ARCERP is called each time ARCFRUIM is entered and exited.
1482	(5CA)	FIXED	1	MCVT_MTDSR	Maximum number of fast replication tape recover tasks (0-64).
1483	(5CB)	FIXED	1	MCVT_MRD_MAX_TASKS	Max tape DS Recover tasks.
1484	(5CC)	ADDRESS	4	MCVT_CPCTS_TCB	Pointer for TAPECOPY data movement task.
1488	(5D0)	ADDRESS	4	MCVT_CATBU_TCB	Pointer for ARCCATBU task.
1492	(5D4)	CHARACTER	4	MCVT_TRACEFLG	Trace flags plus
		1...		MCVTF_TRTTOC	When set to 1, enable TTOC debug traces
		.1..		MCVTF_AUDE45	When set to 1, enable AUDIT ERR45.
		..1.		MCVTF_TVT_NSA	When set to 1, tasks wait during TVT rebuild
		...1		MCVTF_MCBR_IS	When set to 1, allow MCBR insert date time
		 xxxx		*	Reserved
1496	(5D8)	FIXED	4	*(5)	Reserved.
1516	(5EC)	ADDRESS	4	*(10)	Reserved.
1516	(5EC)	ADDRESS	4	MCVT_CDSBU_TCB	Pointers for CATBE or CATBE tasks: 1-4 for the MCDS 5-8 for the BCDS 9 for the OCDS 10 for the journal.

MCVT Data Area Cross-Reference

Table 106 (Page 1 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVT	0		1
MCVT_AB_TAKEAWAY_DELAY	49E		2
MCVT_ABARS_PRIMARY_TRKS	55C		2
MCVT_ABARS_SECONDARY_TRKS	55E		2

Table 106 (Page 1 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVT_BCDS_INDEX_ERROR	58C		2
MCVT_BUFND	554		2
MCVT_BUFNI	550		2
MCVT_CATBU_TCB	5D0		2

Table 106 (Page 2 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVT_CATCB_PTR	51C		2
MCVT_CDSBU_TCB	5EC		3
MCVT_CPCTS_TCB	5CC		2
MCVT_DOMCB_PTR	3AC		2
MCVT_DVGCB_PTR	5C0		2
MCVT_FRGCB_PTR	5C4		2
MCVT_GRSCB	544		2
MCVT_HOSTELEM	1E4		2
MCVT_INVOKE_DSS_XM	433		2
MCVT_JGCB_PTR	548		2
MCVT_LAST_ISSUED_389	5A0		2
MCVT_LEVELING_FLGS	D9		3
MCVT_L1FRESP	580		2
MCVT_L1SD	584		2
MCVT_MAX_BCDS_INDEX_ERRORS_ALLOWED	590		2
MCVT_MAX_OCDS_INDEX_ERRORS_ALLOWED	592		2
MCVT_MRD_MAX_TASKS	5CB		2
MCVT_MTDSR	5CA		2
MCVT_OCDS_INDEX_ERROR	58E		2
MCVT_OVERFLOW_ELIG_SIZE	5A4		2
MCVT_RCLLIMIT_DELAY	50C		2
MCVT_RCLLIMIT_TAPE	50A		2
MCVT_RCLLIMIT_TASK	508		2
MCVT_RCV_DELAY_ITAKE	57A		2
MCVT_RCV_DELAY_NTAKE	57C		2
MCVT_RCV_TAKEAWAY_DELAY	57E		2
MCVT_RCV_TC_TAKEAWAY	578		2
MCVT_RETRY	315		2
MCVT_SMAX_PRIORITY_PTR	5A8		2
MCVT_SRVR_WAIT	50E		2
MCVT_STRNO	54C		2
MCVT_TC_TAKEAWAY_DELAY	3CA		2
MCVT_TC_TAKEAWAY_FREQ	3CC		2
MCVT_TCOPY_BUF_NO	316		2
MCVT_TRACE_STATS	3BC	02	3
MCVT_TRACEFLG	5D4		2
MCVT_TRACING_FLAGS	D8		2
MCVT_TTOC_MAX	588		2
MCVT_VOLSQ_CUTOFF	520		2
MCVT_VRM	568		2

Table 106 (Page 2 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVT_ZRNXT_RETRIES	285		3
MCVT#CHK	498		2
MCVT#WAT	49A		2
MCVTAATT	1C0		2
MCVTABND	190		2
MCVTABRP	448		2
MCVTACTN	321		2
MCVTAECP	1EC		2
MCVTAIEC	340		2
MCVTALLD	3C3	40	3
MCVTALLX	3C3	80	3
MCVTALQH	370		3
MCVTALQP	370		2
MCVTALQT	374		3
MCVTAOCE	D8	80	4
MCVTARCB	1C4		2
MCVTASEP	1E8		2
MCVTATCB	364		2
MCVTATEC	334		2
MCVTAUDV	3C4		2
MCVTAUID	C0		2
MCVTAUIL	C7		2
MCVTAWEC	328		2
MCVTB@	4DC		2
MCVTBABE	10C		2
MCVTBACB	F8		2
MCVTBBKF	A	08	3
MCVTBCFL	CA		3
MCVTBDCB	23C		2
MCVTBECB	110		2
MCVTBFEN	CA	40	4
MCVTBFGB	CA	10	4
MCVTBFRE	138		2
MCVTBGCP	408		2
MCVTBMLR	1CE		2
MCVTBPFL	2B8		2
MCVTBPFX	2B0		2
MCVTBQWT	2DC		2
MCVTBSRA	2D4		2
MCVTBTCB	118		2
MCVTBTCRT	570		2
MCVTBTDE	311		2

Table 106 (Page 3 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTBTEN	134		2
MCVTBTOD	124		2
MCVTBTSS	3A0		2
MCVTBTUN	2F0		2
MCVTBUFF	391		2
MCVTBUFS	390		2
MCVTBUQH	11C		2
MCVTBUQT	120		2
MCVTBVR	3D7		2
MCVTBVR1	3D7	80	3
MCVTBVR2	3D7	40	3
MCVTBVR3	3D7	20	3
MCVTC@	4D8		2
MCVTCACB	A8		2
MCVTCBAU	208		2
MCVTCBFG	4C0		2
MCVTCBLT	20C		2
MCVTCBRP	210		2
MCVTCCLP	480		2
MCVTCDBE	31C		2
MCVTCDBF	31C	40	3
MCVTCDBP	2E4		2
MCVTCDCB	234		2
MCVTCDSS	52	08	3
MCVTCDSS_HOSTID	3BF		2
MCVTCEP	C		2
MCVTCIBP	10		2
MCVTCLNR	228		2
MCVTCLNS	22A		2
MCVTCMD	194	20	3
MCVTCMDB	A	20	3
MCVTCMDX	232		2
MCVTCMP_RATIO_BAK	4B7		2
MCVTCMP_RATIO_MIG	4B6		2
MCVTCOMP	1F		2
MCVTCPPL	80		2
MCVTCPTP	4EC		2
MCVTCSAL	86		2
MCVTCSHL	B0		2
MCVTCSIL	84		2
MCVTCSNL	8A		2
MCVTCSP	8		2

Table 106 (Page 3 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTCSSC	3EC		2
MCVTCTBE	318		2
MCVTCTBF	318	40	3
MCVTCTBP	2E0		2
MCVTCTCB	28C		2
MCVTCVBK	A	40	3
MCVTCVBP	114		2
MCVTCVRT	5C		2
MCVTDABE	338		2
MCVTDAID	424		2
MCVTDAYS	98		2
MCVTDBMV	2C	80	3
MCVTDBUG	2C		2
MCVTDCMP	1E		2
MCVTDDCB	378		2
MCVTDECB	32C		2
MCVTDECP	1F4		2
MCVTDEN	1B4		2
MCVTDFLG	44C		2
MCVTDGCP	40C		2
MCVTDHCL	348		2
MCVTDIOO	3C2		2
MCVTDLOG	DC		2
MCVTDL2P	2AC		2
MCVTDMVT	3F0		2
MCVTDOCE	F3		2
MCVTDSEP	1F8		2
MCVTDSLD	44C	80	3
MCVTDSRP	168		2
MCVTDSS@	450		2
MCVTDSSC	3C3	20	3
MCVTDSSM	454		2
MCVTDSTP	37C		2
MCVTDS25	44C	40	3
MCVTDTCB	368		2
MCVTDTCP	380		2
MCVTDTEN	398		2
MCVTDTOD	394		2
MCVTDTSS	39C		2
MCVTDUIM	3B8		2
MCVTDVNQ	3C3	04	3
MCVTECAU	218		2

Table 106 (Page 4 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTECBL	30		2
MCVTECBS	474		2
MCVTECBS_CODE	475		3
MCVTECBS_POST	474	40	3
MCVTECBS_WAIT	474	80	3
MCVTECLT	21C		2
MCVTECRP	220		2
MCVTEDG@	510		2
MCVTEGCP	410		2
MCVTELAG	CC		2
MCVTEOSS	3D2	80	3
MCVTES8X	4C2	02	3
MCVTES80	4C2	04	3
MCVTEXTP	22C		2
MCVTF_ABARS_SVC99_MSGS	D8	20	4
MCVTF_ALLOW_LST_DS	297	80	3
MCVTF_AUDE45	5D4	40	3
MCVTF_AUX_NOJES3	4F3	08	3
MCVTF_AUXHOST_ABARS_MSG	295	08	3
MCVTF_BACK_ERRALT_RECYCLE	286	08	4
MCVTF_BAK_MSG300_ISSUED	4F2	20	3
MCVTF_BCDS	4F3	40	3
MCVTF_BUFF_ABOVE	196	10	3
MCVTF_CAPT	195	01	3
MCVTF_CDSRLS	195	80	3
MCVTF_CLTR	596	02	3
MCVTF_CRQ_TRACE	D9	40	4
MCVTF_CRQTL_TS	597	08	3
MCVTF_CTL_CLSOPNCDS	1BC	02	3
MCVTF_DELVOL_WTOR	297	10	3
MCVTF_DISABLE_DVC	296	10	3
MCVTF_DPLX_CPTY	595	40	3
MCVTF_DROP_ENQ	194	01	3
MCVTF_DSBACKUP_TRACE	D9	80	4
MCVTF_DUPLEX	594	02	3
MCVTF_DYNKR	195	40	3
MCVTF_EAS_DIR	596	08	3
MCVTF_EAS_EFSEQ	596	80	3
MCVTF_EAS_ENABLE_FLG	596		2
MCVTF_EAS_NOUSE	596	04	3
MCVTF_EAS_PDS	596	10	3
MCVTF_EAS_PDSE	596	20	3

Table 106 (Page 4 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTF_EAS_SEQ	596	40	3
MCVTF_ENQ_GDS	595	04	3
MCVTF_ENQ_RCYL	195	02	3
MCVTF_EXPIRE_MC_99365_6	195	10	3
MCVTF_EXPIREDATE_NORANGECHK	195	08	3
MCVTF_FORCE_RBL	195	04	3
MCVTF_FORCE_TR_DA	1BC	20	3
MCVTF_FORCE_TREPL	1BC	40	3
MCVTF_FRML1BV_OK_BVOL	53	10	4
MCVTF_FRTV_XTRAS	196	02	3
MCVTF_FVV	297	02	3
MCVTF_GENERIC_TCN_UNIT	196	08	3
MCVTF_GR64K_TRKS	595	01	3
MCVTF_HAS	286	20	4
MCVTF_HCHECK	595	20	3
MCVTF_HOSTAUX	4F2	08	3
MCVTF_HOSTMAIN	4F2	10	3
MCVTF_IMQ	297	01	3
MCVTF_INIT_BCDS	52	02	3
MCVTF_INIT_OCDS	52	01	3
MCVTF_INVOKE_DSS_XM_BKUP	433	80	3
MCVTF_INVOKE_DSS_XM_CDSB	433	40	3
MCVTF_INVOKE_DSS_XM_DUMP	433	20	3
MCVTF_INVOKE_DSS_XM_MIG	433	10	3
MCVTF_INVOKE_DSS_XM_REC	433	08	3
MCVTF_ISSUE_MSG346	320	08	3
MCVTF_JRNL	4F3	10	3
MCVTF_JRNL_UCBERR	594	04	3
MCVTF_JRNLRG	594	01	3
MCVTF_LDRMM	4F1	08	3
MCVTF_L1OV	595	02	3
MCVTF_MCDS	4F3	80	3
MCVTF_MIG_ERRALT_MARKFULL	4F3	01	3
MCVTF_MIG_ERRALT_RECYCLEE	286	10	4
MCVTF_MIG_MSG300_ISSUED	4F2	40	3
MCVTF_MIGSBTK	595	10	3
MCVTF_MINI_SPUPD	1BC	08	3
MCVTF_ML1_EXP	3D5	08	3
MCVTF_ML1SELT	196	80	3
MCVTF_MSG0063I_ISSUED_BCDS	594	80	3

Table 106 (Page 5 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTF_MSG0063I_ISSUED_BCDS_STOP_HSM	594	10	3
MCVTF_MSG0063I_ISSUED_MCDS	594	40	3
MCVTF_MSG0063I_ISSUED_OCDS	594	20	3
MCVTF_MSG0063I_ISSUED_OCDS_STOP_HSM	594	08	3
MCVTF_MTDSR_SPECD	3D2	01	3
MCVTF_MQ	297	20	3
MCVTF_NIJ_DISABLE	3D5	10	3
MCVTF_NO_MSG30I	3D5	40	3
MCVTF_NO_RECOV_TAPE_OPT	53	02	4
MCVTF_NO_UPDT_MIG	4C3	08	3
MCVTF_NOCHK_DEV	4F1	01	3
MCVTF_NOENQ_GDG	4C3	02	3
MCVTF_NOMIGALTSYNC	196	20	3
MCVTF_OCDS	4F3	20	3
MCVTF_ORDER_OF_PRIORITY_ENABLED	596	01	3
MCVTF_PCOMP	595	80	3
MCVTF_PERF_TS	D8	40	4
MCVTF_PROVX	4C3	04	3
MCVTF_RCLFBID	597	80	3
MCVTF_RCLPROC_OTHERMWE	C9	10	4
MCVTF_RCVFBID	597	40	3
MCVTF_RETPD_CHG	1B5	04	3
MCVTF_RNAMEDSN	4F2	01	3
MCVTF_RPEXT	3D5	20	3
MCVTF_RTTA_MARKFULL_NO	53	01	4
MCVTF_SERLZOK	4F2	04	3
MCVTF_SERVER_ERR	4F1	04	3
MCVTF_SVC99_MSGS	D8	10	4
MCVTF_SVRERR_HANDLING	1BC	04	3
MCVTF_S570_SUPPRESS_RC17	297	08	3
MCVTF_S570_SUPPRESS_RC36	297	04	3
MCVTF_TC_TAKEAWAY	53	04	4
MCVTF_TC_TIMER_SET	53	08	4
MCVTF_TCPY_CHGTECH	4F3	02	3
MCVTF_TCPY_MEDJK	4F3	04	3
MCVTF_TPCOPY_DROP_GPACAT	286	40	4
MCVTF_TPCOPY_DROP_GPACAT_STABLE	287	01	4
MCVTF_TRTTOC	5D4	80	3
MCVTF_TVT_NSMS_UMATCH	1BC	10	3
MCVTF_WORM_OK	286	80	4

Table 106 (Page 5 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTF_ZCELL_SNIF	558	10	3
MCVTF_1STHOST	4F2	02	3
MCVTF_381A_60SEC	196	01	3
MCVTFABV	3D1	40	3
MCVTFACL	4C0	10	3
MCVTFADI	3D1	08	3
MCVTFADV	3D1	02	3
MCVTFALI	3D2	08	3
MCVTFAMV	3D0	01	3
MCVTFASY	4F2	80	3
MCVTFATL	0	01	3
MCVTFBDA	317	80	3
MCVTFBDD	317	40	3
MCVTFBDT	317	20	3
MCVTFBEV	3D1	80	3
MCVTFBGN	24C	01	4
MCVTFBRA	2A6		2
MCVTFBSA	317	10	3
MCVTFBSD	317	08	3
MCVTFBST	317	04	3
MCVTFBTC	2	08	3
MCVTFBTI	CA	08	4
MCVTFBTO	2	20	3
MCVTFBUS	231	20	3
MCVTFBVS	317		2
MCVTFCAU	218	40	3
MCVTFCBD	CB	04	4
MCVTFCBT	CB	02	4
MCVTFCDO	1	08	3
MCVTFCDQ	24D	80	4
MCVTFCDR	24D	40	4
MCVTFCKD	3D4	80	3
MCVTFCLT	21C	40	3
MCVTFCMD	294	10	3
MCVTFCMT	294	08	3
MCVTFCNT	88		2
MCVTFCNV	230	04	3
MCVTFCRP	220	40	3
MCVTFCTH	283	40	3
MCVTFCUC	24C	04	4
MCVTFCUH	283	20	3
MCVTFCUS	231	80	3

Table 106 (Page 6 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTFCVB	4C1	20	3
MCVTFDAV	4C3	40	3
MCVTFDDM	44C	20	3
MCVTFDEL	53		3
MCVTFDFP	294	40	3
MCVTFDIO	4C1	08	3
MCVTFDIS	283		2
MCVTFDLV	53	20	4
MCVTFDMJ	3	02	3
MCVTFDMP	2D	01	3
MCVTFDSS	431	08	3
MCVTFDTB	4F1	40	3
MCVTFDTE	3D4	04	3
MCVTFDTM	4F1	80	3
MCVTFDTS	3D4	08	3
MCVTFDUS	231	10	3
MCVTFD22	3D3	10	3
MCVTFD23	3D3	40	3
MCVTFD24	431	40	4
MCVTFD32	44C	08	3
MCVTFEMG	1	02	3
MCVTFENT	3D3	04	3
MCVTFEOS	3D2	40	3
MCVTFESA	3D3	20	3
MCVTFEXP	3D3	02	3
MCVTFFTO	2	02	3
MCVTFGDG	53	80	4
MCVTFGED	3D0	40	3
MCVTFGEV	3D1	20	3
MCVTFGMR	C8	04	4
MCVTFGUCB	4F1	02	3
MCVTFHAB	CA	20	4
MCVTFHAM	C8	20	4
MCVTFHAU	CB	80	4
MCVTFHBU	2	80	3
MCVTFHDI	3D1	10	3
MCVTFHDSBU	CA	04	4
MCVTFHDSBU_DASD	CA	02	4
MCVTFHDSBU_TAPE	CA	01	4
MCVTFHDV	3D1	04	3
MCVTFHLG	2	10	3
MCVTFHLT	CB	40	4

Table 106 (Page 6 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTFHMG	1	40	3
MCVTFHOP	CB	01	4
MCVTFHRM	4F1	20	3
MCVTFHRP	CB	20	4
MCVTFHRS	1	20	3
MCVTFHRX	C9	20	4
MCVTFHRY	CB	10	4
MCVTFHTI	3D0	08	3
MCVTFHTR	3D0	20	3
MCVTFHTS	3D0	10	3
MCVTFIMR	C8	02	4
MCVTFIMT	4AC		2
MCVTFINI	0	02	3
MCVTFINT	C8	08	4
MCVTFITW	295	80	3
MCVTFJCI	3	40	3
MCVTFJRN	2	01	3
MCVTFJRO	3	80	3
MCVTFJRP	24C	10	4
MCVTFLDA	3D2	20	3
MCVTFLGS	0		2
MCVTFLG1	4F2		2
MCVTFLG2	594		2
MCVTFLSW	1	04	3
MCVTFL2V	294	04	3
MCVTFMDS	29A		2
MCVTFMDT	3D4	20	3
MCVTFMEV	3D0	02	3
MCVTFMIP	3	10	3
MCVTFMIS	4C2	01	3
MCVTFMLA	431	40	3
MCVTFMNR	C8	80	4
MCVTFMRA	2A7		2
MCVTFMSG	3D3	80	3
MCVTFMSP	3	20	3
MCVTFMTC	1	10	3
MCVTFMTO	1	80	3
MCVTFMUS	231	40	3
MCVTFMVF	2	02	4
MCVTFMV0	3D5	80	3
MCVTFNCN	284	40	3
MCVTFNDF	294	80	3

Table 106 (Page 7 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTFNDN	284	80	3
MCVTFNEB	230	08	3
MCVTFNLG	0	40	3
MCVTFNOL	3	04	3
MCVTFNPD	3BC	80	3
MCVTFNPQ	3BC	08	3
MCVTFNSP	230	02	3
MCVTFNSW	230	01	3
MCVTFNSW_SHP	231	01	3
MCVTFNTC	294	01	3
MCVTFNTN	284		2
MCVTFNUR	194	10	3
MCVTFNXA	3D4	02	3
MCVTFODB	3D2	04	3
MCVTFODR	C8	01	4
MCVTFOEM	431	04	3
MCVTFOPB	0	04	3
MCVTFOTW	295	40	3
MCVTFPBU	2	40	3
MCVTFPDA	558		2
MCVTFPDA_CELLS	558	80	3
MCVTFPDA_COND	558	40	3
MCVTFPDA_DAUTO	558	02	3
MCVTFPDA_FRCDM	558	04	3
MCVTFPDA_REJR	558	20	3
MCVTFPDA_ZSERL	558	08	3
MCVTFPDE	44C	10	3
MCVTFPDH	3BC	40	3
MCVTFPDT	3BC	04	3
MCVTFPLG	0	10	3
MCVTFPSW	3BC	10	3
MCVTFPTB	4C1	04	3
MCVTFPTM	4C1	02	3
MCVTFPW	53	40	4
MCVTFQDM	3D4	40	3
MCVTFQSP	296	20	3
MCVTFRAB	51	20	4
MCVTFRAD	51	10	4
MCVTFRAL	2C4	80	3
MCVTFRAM	51	40	4
MCVTFRAT	51	80	4
MCVTFRCV	C9	80	4

Table 106 (Page 7 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTFRDI	296	40	3
MCVTFRDK	296	80	3
MCVTFREQ	3	08	3
MCVTFRPV	C9	40	4
MCVTFRRA	51	08	4
MCVTFRRB	51	04	4
MCVTFRRU	51	02	4
MCVTFRUP	51	01	4
MCVTFSAB	230	40	3
MCVTFSAT	230	20	3
MCVTFSDP	C8	40	4
MCVTFSDS	3D4	10	3
MCVTFSET	3D3	01	3
MCVTFSLG	0	20	3
MCVTFSMS	431	80	3
MCVTFSPD	3BC	20	3
MCVTFSPE	231	02	3
MCVTFSPL	231	08	3
MCVTFSPP	24D	08	4
MCVTFSPQ	24D	20	4
MCVTFSPR	24D	10	4
MCVTFSPS	231	04	3
MCVTFSRI	1B5	08	3
MCVTFSRS	431	10	3
MCVTFSTC	4C1	10	3
MCVTFSVB	4C2	20	3
MCVTFSVC	1	01	3
MCVTFSVD	4C2	10	3
MCVTFSVM	4C2	08	3
MCVTFSWP	230	10	3
MCVTFSY2	3D2	02	3
MCVTFS1D	A	80	3
MCVTFTBT	3D3	08	3
MCVTFTDB	4C1	01	3
MCVTFTDD	4C2	80	3
MCVTFTDM	4C2	40	3
MCVTFTHC	24C	08	4
MCVTFTPS	3	01	3
MCVTFTRC	2E	40	3
MCVTFTSD	1B5	40	3
MCVTFTSI	1B5	20	3
MCVTFTSP	1B5	80	3

Table 106 (Page 8 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTFTSR	1B5	10	3
MCVTFTST	0	80	3
MCVTFTUP	24C	02	4
MCVTFUIM	5C8		4
MCVTFUNB	230	80	3
MCVTFUSB	230		2
MCVTFUSL	231		2
MCVTFVANY	3C3	02	3
MCVTFVCC	3C3	10	3
MCVTFVCC_COPY_TECHNIQUE	3BE		2
MCVTFXMD	432	80	4
MCVTFXMR	432	40	4
MCVTFYR2	3D2	10	3
MCVTFYTW	295	20	3
MCVTF1FT	0	08	3
MCVTF32D	3D6	10	3
MCVTF32K	3D4	01	3
MCVTF32P	3D6	40	3
MCVTF32S	3D6	20	3
MCVTF32V	3D6	80	3
MCVTF332	4C3	01	3
MCVTF389	3D0	04	3
MCVTGABE	33C		2
MCVTGCBP	2C8		2
MCVTGECB	330		2
MCVTGECBP	574		2
MCVTGLAM	4E4		2
MCVTGLUE	4E8		2
MCVTGTCB	36C		2
MCVTGTRTP	56C		2
MCVTHCLS	148		2
MCVTHCPY	149		2
MCVTHFRM	14C		2
MCVTHOST	197		2
MCVTHOST2	518		2
MCVTIAGE	1E2		2
MCVTIBCT	4A4		2
MCVTIEMT	4A8		2
MCVTIMTM	422		2
MCVTIMTN	496		2
MCVTIOBO	486		2
MCVTJBKF	A	02	3

Table 106 (Page 8 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTJCBP	154		2
MCVTJEQH	158		2
MCVTJEQT	15C		2
MCVTJTTR	290		2
MCVTJ25T	29A	80	3
MCVTJ3D	14A		2
MCVTJ3V	14B		2
MCVTJ3WT	C8	10	4
MCVTLABE	74		2
MCVTLABL	2C4	20	3
MCVTLBTN	4C3	20	3
MCVTLBTU	4D4		2
MCVTLBUF	18		2
MCVTLCEC	3E8		2
MCVTLCLS	3C1		2
MCVTLC80	264		2
MCVTLC90	49C		2
MCVTLDCB	14		2
MCVTLDIO	44F		2
MCVTLDSS	484		2
MCVTLECB	20		2
MCVTLGPC	458		2
MCVTLGWC	460		2
MCVTLLVL	3C0		2
MCVTLMTN	4C3	10	3
MCVTLMTU	4D6		2
MCVTLTCB	9C		2
MCVTL1	194	40	3
MCVTL1AG	E4		2
MCVTL1SD	440		2
MCVTL2CR	E8		2
MCVTL2TS	298		2
MCVTL2YP	2A4		2
MCVTMABE	78		2
MCVTMBC	AC		2
MCVTMBKF	A	10	3
MCVTMBTM	418		2
MCVTMBTN	48C		2
MCVTMBTS	1E0		2
MCVTMBTU	1DE		2
MCVTMBVE	1CC		2
MCVTMCFL	C8		3

Table 106 (Page 9 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTMDCB	238		2
MCVTMDEN	29B		2
MCVTMDSR	4F0		2
MCVTMDTM	41C		2
MCVTMDTN	490		2
MCVTMDTS	3B4		2
MCVTMECB	58		2
MCVTMEND	D4		2
MCVTMFLG	4C1		2
MCVTMGCP	404		2
MCVTMGQH	44		2
MCVTMGQT	48		2
MCVTMHF	194		2
MCVTMITK	4A0		2
MCVTML2H	254		3
MCVTML2T	258		3
MCVTMMTK	4B4		2
MCVTMMTM	414		2
MCVTMMTN	488		2
MCVTMNTS	52	80	3
MCVTMPFL	2C2		2
MCVTMPFX	2BA		2
MCVTMRFF	A	01	3
MCVTMRT	68		2
MCVTMSGB	320	80	3
MCVTMSGD	320	40	3
MCVTMSGM	320	20	3
MCVTMSRA	2D0		2
MCVTMTB	250		2
MCVTMTCB	A4		2
MCVTMTDE	310		2
MCVTMTEN	130		2
MCVTMTL2	24A		2
MCVTMTOD	94		2
MCVTMTSS	3A4		2
MCVTMTST	1C8		2
MCVTMTUN	2E8		2
MCVTMTWT	1CA		2
MCVTMTYP	299		2
MCVTMUNT	29C		2
MCVTMVQH	8C		2
MCVTMVQS	268		2

Table 106 (Page 9 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTMVQT	90		2
MCVTMWEH	24		2
MCVTMWET	28		2
MCVTMXAD	420		2
MCVTMXBV	3A8		2
MCVTMXCB	214		2
MCVTNABT	1DC		2
MCVTNADT	3B6		2
MCVTNARV	248		2
MCVTNBUF	392		2
MCVTNDBU	431	02	3
MCVTNOCI	2	04	3
MCVTNOES	4C3	80	3
MCVTNRTP	431	20	3
MCVTNSDP	12E		2
MCVTNTDE	430		2
MCVTNTUN	428		2
MCVTNUCL	4C0	20	3
MCVTOABE	70		2
MCVTOACB	1A4		2
MCVTOBKF	A	04	3
MCVTOBUF	393		2
MCVTODS_PRIMARY	4B0		2
MCVTODS_SECONDARY	4B2		2
MCVTODS_UNIT	200		2
MCVTOECB	4C		2
MCVTOEMD	444		2
MCVTOMWE	54		2
MCVTONTB	E0		2
MCVTOPQH	34		2
MCVTOPQT	38		2
MCVTOSRA	2D8		2
MCVTOTCB	A0		2
MCVTPABE	388		2
MCVTPDBF	38E		2
MCVTPDFL	3BC		2
MCVTPDRL	38C		2
MCVTPDRW	38D		2
MCVTPDYN	4A2		2
MCVTPFAC	3B0		2
MCVTPFLG	4F1		2
MCVTPNUM	267		2

Table 106 (Page 10 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTPOAX	3C3	08	3
MCVTPRCO	3B2		2
MCVTPREL	294	02	3
MCVTPSEC	1B5		2
MCVTPSTS	4C1	40	3
MCVTPTCB	350		2
MCVTPUUT	260		2
MCVTQCT	4		2
MCVTRABE	144		2
MCVTRACE	2E		2
MCVTRCAL	354		2
MCVTRCAT	2E	80	3
MCVTRCBG	188		2
MCVTRCBN	18C		2
MCVTRCBU	184		2
MCVTRCDC	358		2
MCVTRCDG	360		2
MCVTRCFL	C9		3
MCVTRCGC	35C		2
MCVTRCLG	16C		2
MCVTRCMC	174		2
MCVTRCMG	178		2
MCVTRCMN	17C		2
MCVTRCMS	470		2
MCVTRCOP	170		2
MCVTRCPD	34C		2
MCVTRCQH	4F4		2
MCVTRCQT	4F8		2
MCVTRCRC	180		2
MCVTRCTC	140		2
MCVTRDKN	25C		2
MCVTRECB	13C		2
MCVTRERL	434		2
MCVTRLEH	B8		2
MCVTRLES	26C		2
MCVTRLET	BC		2
MCVTRPCT	468		2
MCVTRPRO	2C4	40	3
MCVTRSDP	64		2
MCVTRSQH	3C		2
MCVTRSQT	40		2
MCVTRTCB	6C		2

Table 106 (Page 10 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTRTM1	27E		2
MCVTRTM2	280		2
MCVTRTRY	27C		2
MCVTRUIM	3BA		2
MCVTRV	B		2
MCVTRVQH	4FC		2
MCVTRVQT	500		2
MCVTSAQP	3FC		2
MCVTSCR	3D0	80	3
MCVTSECB	B4		2
MCVTSFLG	431		2
MCVTSGCB	504		2
MCVTSHEC	7C		2
MCVTSHR	194	80	3
MCVTSHRM	194	04	3
MCVTSHRS	194	08	3
MCVTSHUT	7C	40	3
MCVTSID	128		2
MCVTSLKT	514		2
MCVTSMDS	1C		2
MCVTSMFI	F4		2
MCVTSMQH	3F4		2
MCVTSMQT	3F8		2
MCVTSNAP	192		2
MCVTSNSM	4C0	40	3
MCVTSPID	426		2
MCVTSPLM	4D0		2
MCVTSP00	400		2
MCVTSSES	194	02	3
MCVTSSMS	4C0	80	3
MCVTSSTS	4C1	80	3
MCVTSTDE	312		2
MCVTSTEN	47C		2
MCVTSTOD	478		2
MCVTSTRT	3AA		2
MCVTSTUN	2F8		2
MCVTSUT	D0		2
MCVTSYS_OUTLM	1BD		2
MCVTTAEC	344		2
MCVTTCBB	1D8		2
MCVTTCDG	384		2
MCVTTCRP	1B8		2

Table 106 (Page 11 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTTECP	1F0		2
MCVTTILP	244		2
MCVTTMRT	278		2
MCVTTOCE	F2		2
MCVTTOPT	320	10	3
MCVTTPUT	4C8		2
MCVTTRCT	60		2
MCVTTSEP	1FC		2
MCVTTSOD	52	10	3
MCVTTSOO	52	40	3
MCVTTSOT	52	20	3
MCVTTSUN	438		2
MCVTTTXA	1D4		2
MCVTTUID	FC		2
MCVTTUIL	103		2
MCVTTU80	266		2
MCVTTVTP	2A8		2
MCVTTYPT	F0		2
MCVTUBAC	19C		2
MCVTUCAT	198		2
MCVTUJRN	1A0		2
MCVTUNIT	1AC		2
MCVTUOFF	1A8		2
MCVTUSR1	3D8		2
MCVTUSR2	3DC		2
MCVTUSR3	3E0		2
MCVTUSR4	3E4		2
MCVTUUDT	1D0		2
MCVTVACH	270		2
MCVTVACT	274		2
MCVTVBUF	3BD		2
MCVTVSAH	104		2
MCVTVSAT	108		2
MCVTVSCR	3D6		2
MCVTVSLK	50		3
MCVTVSQH	160		2
MCVTVSQT	164		2
MCVTVTLK	38F		2
MCVTXLIM	12C		2
MCVTXLST	4E0		2
MCVTXMEM	432		3
MCVTXTTC	1BC		2

Table 106 (Page 11 of 11). MCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCVTYBDE	313		2
MCVTYBUN	300		2
MCVTYDCB	240		2
MCVTYGCB	4C4		2
MCVTYMDE	314		2
MCVTYMUN	308		2
MCVTYPCT	1B6		2
MCVT4FLG	294		2
MCVT80MX	EC		2

MC1—Migration Level 1 Free Space Record

The migration level 1 free space record (MC1) is a record in the migration control data set that contains the free space for each available migration level 1 volume in a multiple-DFSMShsm-host environment. Migration level 1 free space records are 1012 bytes long and contain fields for 78 entries. If more entries are needed than can be stored in one physical record, another physical record is created. The key of the first continuation record is L1VOL-01. The record type is 1.

For MC1 records 00 to 99:

The key for a type 1 record is the constant L1VOL, a dash (-), and a two-character sequence number representing the record sequence. The record sequence number for the first record is 00, the number for the second record is 01, and so forth. Type 1 records are always created sequentially. An example of the key that is used with a type 1 migration level-1 free space record is:

```
FIXCDS 1 L1VOL-00
```

For MC1 records 0100 to 9999:

The key for a type 1 record is the constant L1VOL, an equal sign (=), and a four-character sequence number representing the record sequence. The record sequence numbers range from 0100 to 9999. Type 1 records are always created sequentially. An example of the key that is used with typ
1 migration level-1 free space records 0100 and up is:

```
FIXCDS 1 L1VOL=0100
```

Table 107 (Page 1 of 2). MC1—Migration Level 1 Free Space Record

Offsets Actual	Offsets / FIXCDS	Type	Length	Name	Description
0(0)			44	MCK	Migration level 1 free space record key. (See MCK for details.)
44(2C)			20	MCH	Control data set record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	948	MC1	Contains MCDS level 1 free space information.
64(40)	0(0)	FIXED	1	MC1CNT	Number of volume entries used in this physical record.
65(41)	1(1)	BITSTRING	1	MC1FLG2	This byte contains the following flags:
		1...		MC1FCONT	When set to 1, a continuation record exists.
		.xxx xxxx		*	Reserved.
66(42)	2(2)	FIXED	2	*	Reserved.
68(44)	4(4)	FIXED	4	*	Reserved.
72(48)	8(8)	FIXED	4	MC1TSLU	Time stamp of the last time this record was updated. This time is obtained from the TIME macro in the STCK 64-bit microsecond clock format.
The following field is repeated 78 times:					
76(4C)	12(C)	CHARACTER	12(78)	MC1VENT	78 arrays consisting of 12-byte fields. Contains information about the free space on migration level 1 volumes. The number of entries that actually contain data is given by the MC1CNT field.
76(4C)	12(C)	CHARACTER	6	MC1VSN	Volume serial number of this entry.
82(52)	18(12)	CHARACTER	2	*	Reserved.

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Table 107 (Page 2 of 2). MC1—Migration Level 1 Free Space Record

Offsets Actual / FIXCDS		Type	Length	Name	Description
84(54)	20(14)	FIXED	4	MC1FRESP	Number of free tracks on the volume. Tracks that are a part of a VSAM suballocated space are not considered free.

MC1 Data Area Cross-Reference

Table 108. MC1 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MC1	40		1
MC1CNT	40		2
MC1FCONT	41	80	3
MC1FLG2	41		2
MC1FRESP	54		3
MC1TSLU	48		2
MC1VENT	4C		2
MC1VSN	4C		3

MGCB—Migration Global Control Block

The Migration Global Control Block (MGCB) defines the mapping for the globally addressable (within one host), functional control block for migration. The MGCB is 364 bytes long.

The contents of the MGCB can be displayed using the DISPLAY command as follows:

```
DISPLAY .MGCB.+0 LENGTHS(364)
```

Table 109 (Page 1 of 5). MGCB—Migration Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	364	ARCMGCB	Migration global control block.
0	(0)	CHARACTER	8	MGCBID	Control block ID.
8	(8)	CHARACTER	16	MGCSMSDA	SMS data.
8	(8)	ADDRESS	4	MGCSMSLP	Address of SMS lock token for migration.
12	(C)	ADDRESS	4	MGCDMCPT	Address of default MC definition area for migration.
16	(10)	ADDRESS	4	MGCMCLSP	Address of migrations list of MCs (header record on list contains number of MC entries).
20	(14)	FIXED	4	MGCMCLSL	Length of area of migrations list of MCs (used for freeing storage of MC list).
24	(18)	ADDRESS	4	MGCVTCBP	Pointer to MGEN task TCB.
28	(1C)	ADDRESS	4	MGCDTCBP	Pointer to MDSN task TCB.
32	(20)	ADDRESS	4	MGCSTCBP	Pointer to MSCTL task TCB.
36	(24)	BITSTRING	4	MGCBFLGS	Flags for all tasks:
		1111		MGCFSTOP	Migration stop flags.
		1...		MGCFATRM	Primary space management ended prior to completion.
		.1..		MGCFQMIG	Primary space management ending time has been reached.
		..xx		*	Reserved.
		 1111		MGCSSTOP	Secondary space management functions stop flags.
		.... 1...		MGCFSTRM	Secondary space ended prior to completion.
		.... .1..		MGCFQSSP	When set to 1, secondary space management ending time has been reached.
		.... ..1.		MGCFSMSI	When set to 1, secondary space management MCDS scan interrupted due to no room in the secondary space management SMQE queues.
		1		MGCBF_MIG_ SC_STOP	When set to 1, statistics cleanup should be stopped.
37	(25)	1111		MGCFSDEV	Flags used to indicate a migration function which has been stopped because a target resource type was unavailable.
		1...		MGCFSML1	When set to 1, migration to ML1 DASD has been stopped.
		.1..		MGCFSML2	When set to 1, migration to ML2 DASD has been stopped.
		..1.		MGCFSTAP	When set to 1, migration to tape has been stopped.
		...x		*	Reserved.
		 1111		*	Byte split into nibbles.
		.... 1...		MGCF_PSM_AT	When set to 1, PSM has attempted at least once on this host.
		.... .1..		MGCF_IM_AT	When set to 1, IM has attempted at least once on this host.
		.... ..1.		MGCFMCVR	When set to 1, migration volume and in-use flags have been reset.
		1		MGCFUNAT	When set to 1, no migration to level 2 during PSM.
38	(26)	BITSTRING	1	MGCBTSVL	Trace volume processing of an SMS managed volume, X'FF' equals issue message ARC0734I for all extract list entries that are processed during the volume migration of an SMS managed volumeX'00' equals issue message ARC0734I according to SETSYS ACTLOGMSGLVL.
39	(27)	BITSTRING	1	MGCFMIG	Migration activity flags.
		1...		MGCFPSM	When set to 1, primary space management is running.
		.1..		MGCFINT	When set to 1, interval is running.
		..1.		MGCFCMD	When set to 1, command migration is running.
		...1		MGCFSTMS	When set to 1, timer has been set by ARCMSCTL to expire at SSPMGMTSTART time.
		.... 1...		MGCLSPAC	When set to 1, LSPACE has been done for this processing.
		.... .1..		MGCFDTT	When set to 1, at least one MC was found in the MC list indicating a direct to tape function.
		.... ..1.		MGCFMVT	When set to 1, SMS MVT chain has been built.

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Table 109 (Page 2 of 5). MGCB—Migration Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.		MGCF_J3_SYSDSN	When set to 1, JES3 system protecting its data sets by sending SYSDSN resource around GRS ring, not by data set reservation.
		1			
40	(28)	ADDRESS	4	MGCDCOLP	Pointer to migration level 1 data collection table ARCL1DCP.
44	(2C)	BITSTRING	1	MGCFDCOL	Run DCOLLECT flag.
45	(2D)	FIXED	1	MGCRCLR_THIS_HOST	Number of times to retry a non-SDSP recall when the resource is in use on this host. Retry interval is 1.8 minutes.
46	(2E)	FIXED	1	MGCRCLR_OTHER_HOST	Number of times to retry a non-SDSP recall when the resource is in use on another host. Retry interval is 1.8 minutes.
47	(2F)	FIXED	1	MGCRCLR_TAPE_INUSE	Number of times to retry a non-SDSP recall when the tape volume is in use by a function other than recycle or TAPECOPY. Retry interval is 1.8 minutes.
48	(30)	ADDRESS	4	MGCECBLP	Pointer to MVOL task termination ECB list.
52	(34)	FIXED	4	MGCRCDS#	Tells DFSMShsm how often to record CDS record key in control records when reading through MCDS. Defaults to 50,000.
56	(38)	ADDRESS	4	MGCBICAP	Pointer to migration in storage TTOC invalidation element chain anchors.
60	(3C)	FIXED	2	MGC#MATT	Number of currently active MVOL tasks.
62	(3E)	FIXED	2	MGCGIANT	Data set size that represents a giant data set. Value is in hundreds of tracks. Therefore, initial value is 5000 used tracks.
64	(40)	CHARACTER	32	MGCTCIEB	Migration TCIE block chain anchor.
64	(40)	CHARACTER	8	*	Reserved.
72	(48)	CHARACTER	8	*	Reserved.
80	(50)	CHARACTER	8	*	Reserved.
88	(58)	CHARACTER	8	*	Reserved.
96	(60)	FIXED	2	MGCB_INTVL	Number of minutes to be added to the prior space check time (truncated to an hour boundary) to obtain the time for the next space check.
98	(62)	FIXED	2	MGCB_INTNP	For a non-primary host, normally the number of minutes to be added to the time determined by MGCB_INTVL in the primary host, before starting interval migration. Default of 5. If set to a value more than 5, a space check is done before interval migration is considered.
100	(64)	FIXED	2	MGCBSORT	Sort threshold (SMS/AM=I).
102	(66)	FIXED	2	MGCBMGTB	Number of tape buffers for migration.
104	(68)	FIXED	2	MGCBRCTB	Number of tape buffers for recall.
106	(6A)	FIXED	1	MGCRCLR_SDSP_NUM	Number of times to retry a recall from an SDSP when the SDSP is in use by another function. Retry interval is MGCRCLR_SDSP_DELAY.
107	(6B)	FIXED	1	MGCRCLR_SDSP_DELAY	Frequency at which to retry a recall from an SDSP when the SDSP is in use by another function. Number of retries is MGCRCLR_SDSP_NUM.
108	(6C)	FIXED	2	MGCTVT_REBUILD_DELAY	Frequency at which to rebuild the TVT when a usable tape is not found. Value is in minutes.
110	(6E)	FIXED	2	MGCB_L2_PARTIALS	Desired maximum number of L2 partials (nonassociated) left after RECYCLE ML2. Valid only if MGCB_L2_NOLIMIT is off.
110	(6E)	BITSTRING	2	*	Flags:
		1...		MGCB_L2_NOLIMIT	When set to 1, NOLIMIT is specified for the maximum number of L2 partials after RECYCLE ML2.
		.xxx xxxx		*	Reserved.
112	(70)	FIXED	1	MGC_CKPOINT_DAYS	Reserved.
113	(71)	FIXED	1	MGCB_TVTSZ	Size of tape volume table, in 1K bytes.
114	(72)	BITSTRING	1	MGCBSFLG	Migration flags:
		1...		MGCF_RCN_NONE	When set to 1, RECONNECT (NONE) is specified.
		.1..		MGCF_RCN_ALL	When set to 1, RECONNECT (ALL) is specified.
		..1.		MGCF_RCN_L2ONLY	When set to 1, TAPEMIGRATION (RECONNECT (ML2DRECTEDONLY)) is specified.
		...1		MGCF_RCN_MSG_ALL	When set to 1, message ARC0734I RC45 will be issued for all reconnect failures.
		.... 1...		MGCF_RCN_MSG_NORC100	When set to 1, message ARC0734I RC45 is issued for all reconnect failures other than catalog. Reconnect flag is off.
		.... .1..		MGCF_MTSSM	When set to 1, secondary space management is in multitask mode. When set to 0, secondary space management is in single task mode.
		.... ..1.		MGCBFMST	When set to 1, a new value of MAXSSMTASKS(CLEANUP) has been placed in MGCBMTC.
		1		MGCBFMTM	When set to 1, a new value of MAXSSMTASKS (TAPEMOVEMENT) has been placed in MGCBMTM.
115	(73)	1...		MGCFSSM	When set to 1, ARCMMCTL module was called to control secondary space management in multitask mode.
		.1..		MGCFST1S	When set to 1, secondary space management MCDS scan timer set on to wake up ARCMMCTL module.

Table 109 (Page 3 of 5). MGCB—Migration Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MGCB_L12_SMQE	When set to 1, SMQE has been added to the secondary space management data movement queue.
		...1		MGCBF_SMQE_CELL_POOL	When set to 1, SMQE cell pool is allocated.
		.... 1...		MGCBF_MIG_L12_STOP	When set to 1, ML1 to ML2 movement should be stopped.
		.... .1..		MGCBF_MIG_CLN_STOP	When set to 1, migration cleanup should be stopped.
		.... ..1.		MGCBFMSP	When set to 1, MCDS scan is in progress.
		1		MGCBFMSF	When set to 1, secondary space management scan of MCDS has completed.
116	(74)	ADDRESS	4	MGCSSMLP	Address of SMS lock taken for secondary space management.
120	(78)	ADDRESS	4	MGCDSSMP	Address of default management class for secondary space management.
124	(7C)	ADDRESS	4	MGCMCSSP	Address of secondary space management list of management classes.
128	(80)	FIXED	4	MGCMCSSL	Length of SSM's array of management classes.
132	(84)	FIXED	2	MGCB_RCL_NUMTAPE	The number of tape tasks that are currently running.
134	(86)	FIXED	2	MGCB_RCL_MAXTAPE	Maximum number of tape tasks allowed to run on current host.
136	(88)	FIXED	4	MGC_RCN_CLNR	Number of days to be added to the predicted migration date.
140	(8C)	FIXED	4	MGC_RCN_MINSIZE	Minimum reconnection size in 16KB blocks.
144	(90)	FIXED	1	MGCB_ENQG	Number of minutes before releasing ARCENQG/ARCCAT resource in an RLS environment.
145	(91)	FIXED	1	*	Reserved.
146	(92)	FIXED	2	MGCB_OVERFLOW_THRESHOLD	Migration started if average percent of space allocated in OVERFLOW volums pool exceeds this value
146	(92)	FIXED	2	*	Reserved.
148	(94)	FIXED	4(5)	*	Reserved.
168	(A8)	ADDRESS	4	MGCESSMP	Pointer to MSS task termination ECB list.
172	(AC)	FIXED	2	MGC#MSSC	Number of currently attached MSS cleanup tasks.
174	(AE)	FIXED	2	MGC#MSSM	Number of currently attached MSS movement tasks.
176	(B0)	FIXED	2	MGCB_SCAN_MCD_TIMER	Time value in seconds, which is used by SCAN_MCD procedure to stop scan when secondary space management SMQE queues are full.
178	(B2)	FIXED	2	MGCB_LOCK_MCDS_TIME	Maximum time, in seconds, that multitask secondary space management will enqueue the ARCGPA/ARCCAT resource.
180	(B4)	CHARACTER	12	MGCSSMQ_MOVE_A	Secondary space management movement queue anchor.
180	(B4)	ADDRESS	4	MGCSSMQMF	Forward pointer.
184	(B8)	ADDRESS	4	MGCSSMQMB	Backward pointer.
188	(BC)	FIXED	4	MGCSSMQMN	Current number of SMQEs on secondary space management movement queue.
192	(C0)	CHARACTER	12	MGCSSMQ_CLEAN_A	Secondary space management cleanup queue anchor.
192	(C0)	ADDRESS	4	MGCSSMQCF	Forward pointer.
196	(C4)	ADDRESS	4	MGCSSMQCB	Backward pointer.
200	(C8)	FIXED	4	MGCSSMQCN	Current number of SMQEs on secondary space management cleanup queue.
204	(CC)	FIXED	4	MGCSSMQL	Sum of the SMQEs in the cleanup and data movement queues.
208	(D0)	FIXED	4	MGCBMTM	Maximum number of secondary space management TAPEMOVEMENT tasks.
212	(D4)	FIXED	4	MGCBMTT	Current maximum number of secondary space management TAPEMOVEMENT tasks.
216	(D8)	FIXED	4	MGCBMTC	Maximum number of secondary space management CLEANUP tasks.
220	(DC)	FIXED	4	MGCBMTC_C	Current maximum number of secondary space management CLEANUP tasks.
224	(E0)	FIXED	2	MGCB_SDSP_UNUSED	Maximum time in seconds an SDSP will be open but not used by secondary space management before closing the SDSP.
226	(E2)	FIXED	2	MGCB_MXSS_INTVL	Number of seconds to set the MXSS event timer. This allows MXSS to periodically check things like if an SDSP or tape volume opened is needed by a recall.
228	(E4)	FIXED	4	MGCBDCNT	Count of deleted MCD records.
232	(E8)	FIXED	4	MGCBSCNT	Count of deleted DSR and VSR records.
236	(EC)	BITSTRING	1	MGCBM535	When set to X'FF', ARC0535I message is already issued. When set to X'00', ARC0535I message is not yet issued.
237	(ED)	BITSTRING	1	MGCB_MIG_FL	Migration flags.
		1...		MGCBF_SSM_TASK_ABEND	When set to 1, at least 1 secondary space management subtask has ended abnormally.
		.1..		MGCB_ARCDSN	When set to 1, enqueue for ARCDSN (data set name) should be obtained during migration cleanup. When set to 0, enqueue for ARCDSN (data set name) should not be obtained during migration cleanup.

Table 109 (Page 4 of 5). MGCB—Migration Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MGCF_SKIP_DS_CYL_SP	ON=734I RC45 must be issued for all data sets eligible for migration but not migrated from EAV cylinder-managed space because either low volume threshold had been already reached or high volume threshold (midpoint between high volume threshold and low volume threshold for SMS EAV with AM=I) was not exceeded. OFF=No 734I should be issued.
		...1		MGCBF_SSM_MCDS_SCAN_ERR	When set to 1, an unexpected error has occurred while reading the MCDS.
		.... 1...		MGCBF_SUSPEND_MSQ_GDG	When set to 1, Suspend MSQ processing for GDS to avoid long time enqueue of GDG base name.
		.... .1..		MGCBF_SSM_HOLD_CAUGHT	ON=A HOLD command or SETSYS EMERGENCY command caused a termination at least one SSM subtask.
		.... ..1.		MGCBF_MQ	When set to 1, migration queue is enabled.
		1		MGCBF_HSM_VVDS_PROC	When set to 1, HSM VVDS/VTOC reader.
238	(EE)	BITSTRING	1(2)	FLAGS1	Reserved
		1...		MGCBF_EL_TRACE	When set to 1, selected X-List element will be traced
		.1..		MGCBF_SMINT	When set to 1, ARCSMINT module will be called from ARCMMLV1 module to invoke user exit during SSM Migration Queue processing. When set to 0, ARCSMINT module will be called from ARCMMCHK module to invoke user exit during MCD records scanning.
		..1.		MGCBF_FVV	When set to 1, FVV subset mode is enabled.
		...1		MGCBF_IMQ	When set to 1, 2nd phase migration will be processed by subsets.
		.... 1...		MGCF_MODR	When set to 1, on-demand migration is running.
		.... .1..		MGCF_ODM_IM	When set to 1, interval migration will start after on-demand migration is stopped.
		.... ..1.		MGCF_ODM_PSM	When set to 1, primary space management will start after on-demand migration is stopped.
		1		MGCF_ODM_TIM_REQ	When set to 1, timer will be set for on-demand migration flags.
239	(EF)	BITSTRING	1	FLAGS2	Migration flags.
		1...		MGCF_ODM_TIM_ST	When set to 1, on-demand migration will start by timer.
		.1..		MGCF_DISABLE_CLTR_EDM	When set to 1, disable IM/ODM to process class transition.
		..1.		MGCF_CLTR_SER_EXIT	When set to 1, user DS serialization error exits will be used.
		...1		MGCF_CLTR_SER_ERR	When set to 0, serialization error message will be suppressed.
		.... 1...		MGCBF_SUSPEND_MSQ_GDS	When set to 1, suspend MSQ processing for GDS to avoid long time enqueue of ARCENQG and the fully qualified GDS name.
		.... .xx.		*	Reserved
		1		MGCF_NO_SDWA	When set to 1, ARCMSTAI forced SHUTDOWN because it was entered with no SDWA gotten.
240	(F0)	FIXED	4	MGCB_SSM_DEL_QUEUE_PTR	Pointer to first SSM Expiration Delete MWE in the queue.
244	(F4)	FIXED	4	MGCB_SSM_DEL_QUEUE_SIZE	Max number of SSM Expiration Delete MWEs in the queue.
248	(F8)	FIXED	4	MGCB_SSM_DEL_QUEUE_COUNT	Number of SSM Expiration Delete MWE in the queue.
252	(FC)	FIXED	2	MGCB_RETRY_WT	RECALL RETRY WAIT TIME
254	(FE)	FIXED	2	MGCB_SDSP_RETRY_WT	RECALL RETRY WAIT TIME FACTOR FOR SDSP
256	(100)	FIXED	4	MGC_MQ_L	MQ Limit - Maximum number of MDQEs on MQ
260	(104)	CHARACTER	16	MGC_ENF15	ENF 15 Variables
260	(104)	ADDRESS	4	MGC_ENF15_PTR	Pointer to ARCENF15 Exit
264	(108)	CHARACTER	4	MGC_ENF15_TOKEN	ENFREQ Token
268	(10C)	FIXED	2	MGC_ENF15_ABEND_NUM	Abends number
270	(10E)	FIXED	2	MGC_ENF15_ABEND_LIM	Abends limit
272	(110)	BITSTRING	1	MGCB_ENF15_FL	ENF 15 flags
		1...		MGCF_ENF15_ACTIVE	When set to 1, ARCENF15 is activated
		.1..		MGCF_ENF15_ABEND	When set to 1, ARCENF15 abended
		..xx xxxx		*	Reserved
273	(111)	BITSTRING	3	*	Reserved
276	(114)	CHARACTER	20	MGCB_ENF72	ENF 72 variables
276	(114)	BITSTRING	2	MGCF_ENF72_FL	ENF 72 flags
		1...		MGCF_ODMY	When set to 1, SETSYS ONDEMANDMIGRATION(Y) specified. Activate ODM function.
		.1..		MGCF_ODMN	When set to 1, SETSYS ONDEMANDMIGRATION(N) specified Deactivate ODM function.
		..1.		MGCF_ENF72_INVP	When set to 1, ENF 72 exit received invalid parms
		...1		MGCF_ENF72_ABEND	When set to 1, ARCENF72 abended
		.... 1...		MGCF_ENF72P	When set to 1, ENF 72 event occurred
		.... .1..		MGCF_ENF72_ACTIVE	When set to 1, ARCENF72 activated
		.... ..1.		MGCF_ENF72_COUNT	When set to 1, ENF 72 event occurred and the volume count increased
		1		MGCF_WARN_MSG	When set to 1, ARC1901E message is issued
277	115	1...		MGCF_REISSUE_WARN_MSG	When set to 1, reissue ARC1901E

Table 109 (Page 5 of 5). MGCB—Migration Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.1..		MGCF_SETSYS_ODM	When set to 1, SETSYS ONDEMANDMIGRATION(Y) specified. When set to 0, SETSYS ONDEMANDMIGRATION(N) specified.
		..1.		MGCF_ENABLE_WARN_MSG	When set to 1, issue ARC1901I messages on console and log. When set to 0, issue ARC1901I messages to log.
		...1		MGCF_ODM_HELD	When set to 1, HOLD MIGRATION is issued when ODM is running.
		 xxxx		*	Reserved
278	(116)	BITSTRING	2	*	Reserved
280	(118)	ADDRESS	4	MGCB_ENF72_PTR	Pointer to ARCENF72 exit
284	(11C)	CHARACTER	4	MGCB_ENF72_TOKEN	ENFREQ Token
288	(120)	FIXED	2	MGCB_ENF72_ABEND_NUM	Abend number
290	(122)	FIXED	2	MGCB_ENF72_ABEND_LIM	Abends limit
292	(124)	ADDRESS	4	MGCB_TEQE_PTR	Pointer to the first TEQE
296	(128)	FIXED	4	MGC_MQ_L2	Limit to pause MQ1 creation to merge it with MQ2
300	(12C)	FIXED	4	MGC_MQ_MIN	Limit to pause MQ2 creation to merge it with MQ1
304	(130)	FIXED	4	MGC_FVV_NDSS	FVV subset DS number
308	(134)	FIXED	4	MGC_ODM_STIMERM_MCTL_ID	On-demand migration STIMERM ID for MCTL task
312	(138)	FIXED	4	MGC_ODM_T	Maximum time between ODM for volumes that are still over threshold after previous ODM processing, in second
316	(13C)	ADDRESS	4	MGC_CUR_TEQE_P	Pointer to the current TEQE selected for processing
320	(140)	FIXED	4	MGCB_VOLS_OVER_THRESHOLD_LIM	Notification limit for volumes eligible for ODM
324	(144)	FIXED	4	MGCB_VOLS_OVER_THRESHOLD_CNT	Number of volumes eligible for ODM
328	(148)	FIXED	4	MGCB_WTO_1901_ID	WTO ID for ARC1901E
332	(14C)	FIXED	1	MGCB_CTUIM	Controls tracing of the Class Transition user-interface module. 1 = Call ARCERP each time ARCCTUIM is entered. 2 = Call ARCERP each time ARCCTUIM is entered and exited. 3 = Issue ARCTRACE macro each time ARCCTUIM is entered 4 = Issue ARCTRACE macro each time ARCCTUIM is entered and exited.
333	(14D)	FIXED	1	MGCB_MX_ST_MIN	Minimum/default number of migration subtasks allowed.
334	(14E)	FIXED	2	MGCB_MX_OVR_CYL	Minimum size of a data set in cylinders before migration sub-tasking is overridden to 1 active subtask.
336	(150)	FIXED	1	MGCB_MX_ST_MAX	Maximum number of migration subtasks allowed.
337	(151)	FIXED	3	*	Reserved
340	(154)	FIXED	4	MGCB_PERCENT_OF_NOTIF_LIM	Percent of notification limit.
344	(158)	FIXED	4	MGCB_CUR_NOTIFICATION_LIM	Current notification limit for volumes eligible for on-demand migration.
348	(15C)	FIXED	4	*	Reserved

MGCB Control Block Cross-Reference

Table 110 (Page 1 of 3). EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ARCMGCB	0		1
FLAGS1	EE		3
FLAGS2	EF		3
MGC_CKPOINT_DAYS	70		2
MGC_ENF15	104		3
MGC_ENF15_ABEND_LIM	10E		5
MGC_ENF15_ABEND_NUM	10C		5
MGC_ENF15_PTR	104		5
MGC_ENF15_TOKEN	108		5
MGC_FVV_NDSS	130		3
MGC_MQ_L	100		3

Table 110 (Page 1 of 3). EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MGC_MQ_L2	128		3
MGC_MQ_MIN	12C		3
MGC_ODM_STIMERM_MCTL_ID	134		3
MGC_ODM_T	138		3
MGC_RCN_CLNR	88		2
MGC_RCN_MINSIZE	8C		2
MGC#MATT	3C		2
MGC#MSSC	AC		2
MGC#MSSM	AE		2
MGCB_ARCDSN	ED	40	3
MGCB_CTUIM	14C		2

Table 110 (Page 2 of 3). EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MGCB_CUR_NOTIFICATION_LIM	158		2
MGCB_CUR_TEQE_P	13C		3
MGCB_ENF15_FL	110		5
MGCB_ENF72	114		3
MGCB_ENF72_ABEND_LIM	122		5
MGCB_ENF72_ABEND_NUM	120		5
MGCB_ENF72_PTR	118		5
MGCB_ENF72_TOKEN	11C		5
MGCB_ENQG	90		2
MGCB_INTNP	62		2
MGCB_INTVL	60		2
MGCB_LOCK_MCDS_TIME	B2		2
MGCB_L12_SMQE	73	20	3
MGCB_L2_NOLIMIT	6E	80	4
MGCB_L2_PARTIALS	6E		2
MGCB_MIG_FL	ED		2
MGCB_MX_OVR_CYL	14E		2
MGCB_MX_ST_MAX	150		2
MGCB_MX_ST_MIN	14D		2
MGCB_MXSS_INTVL	E2		2
MGCB_OVERFLOW_THRESHOLD	92		2
MGCB_PERCENT_OF_NOTIF_LIM	154		2
MGCB_RCL_MAXTAPE	86		2
MGCB_RCL_NUMTAPE	84		2
MGCB_RETRY_WT	FC		2
MGCB_SCAN_MCD_TIMER	B0		2
MGCB_SDSP_RETRY_WT	FE		2
MGCB_SDSP_UNUSED	E0		2
MGCB_SSM_DEL_QUEUE_COUNT	F8		2
MGCB_SSM_DEL_QUEUE_PTR	F0		2
MGCB_SSM_DEL_QUEUE_SIZE	F4		2
MGCB_TEQE_PTR	124		5
MGCB_TVTSZ	71		2
MGCB_VOLS_OVER_THRESHOLD_CNT	144		3
MGCB_VOLS_OVER_THRESHOLD_LIM	140		3
MGCB_WTO_1901_ID	148		3
MGCBDCNT	E4		2
MGCBF_EL_TRACE	EE	80	5
MGCBF_FVV	EE	20	5
MGCBF_HSM_VVDS_PROC	ED	01	5
MGCBF_IMQ	EE	10	5
MGCBF_MIG_CLN_STOP	73	04	3

Table 110 (Page 2 of 3). EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MGCBF_MIG_L12_STOP	73	08	3
MGCBF_MIG_SC_STOP	24	01	4
MGCBF_MQ	ED	02	3
MGCBF_SMINT	EE	40	5
MGCBF_SMQE_CELL_POOL	73	10	3
MGCBF_SSM_HOLD_CAUGHT	ED	04	3
MGCBF_SSM_MCDS_SCAN_ERR	ED	10	3
MGCBF_SSM_TASK_ABEND	ED	80	3
MGCBF_SUSPEND_MSQ_GDG	ED	08	3
MGCBF_SUSPEND_MSQ_GDS	EF	08	3
MGCBFLGS	24		2
MGCBFMSF	73	01	3
MGCBFMSP	73	02	3
MGCBFMST	72	02	3
MGCBFMTM	72	01	3
MGCBICAP	38		2
MGCBID	0		2
MGCBMGTB	66		2
MGCBMTC	D8		2
MGCBMTC_C	DC		2
MGCBMTM	D0		2
MGCBMTT	D4		2
MGCBM535	EC		2
MGCBRCTB	68		2
MGCBSCNT	E8		2
MGCBSFLG	72		2
MGCBSORT	64		2
MGCBTSVL	26		3
MGCDCOLP	28		2
MGCDMCPT	C		3
MGCDSSMP	78		2
MGCDTCBP	1C		2
MGCECBLP	30		2
MGCESSMP	A8		2
MGCF_CLTR_SER_ERR	EF	10	3
MGCF_CLTR_SER_EXIT	EF	20	3
MGCF_DISABLE_CLTR_EDM	EF	40	3
MGCF_ENABLE_WARN_MSG	115	20	4
MGCF_ENF15_ABEND	110	40	7
MGCF_ENF15_ACTIVE	110	80	7
MGCF_ENF72_ABEND	114	10	7
MGCF_ENF72_ACTIVE	114	04	7

Table 110 (Page 3 of 3). EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MGCF_ENF72_COUNT	114	02	7
MGCF_ENF72_FL	114		5
MGCF_ENF72_INVP	114	20	7
MGCF_ENF72P	114	08	7
MGCF_IM_AT	25	04	4
MGCF_J3_SYSDSN	27	01	4
MGCBF_MODR	EE	08	5
MGCF_MTSSM	72	04	3
MGCF_NO_SDWA	EF	01	5
MGCF_ODM_HELD	115	10	4
MGCF_ODM_IM	EE	04	5
MGCF_ODM_PSM	EE	02	5
MGCF_ODM_TIM_REQ	EE	01	5
MGCF_ODM_TIM_ST	EF	80	5
MGCF_ODMN	114	40	7
MGCF_ODMY	114	80	7
MGCF_PSM_AT	25	08	4
MGCF_RCN_ALL	72	40	3
MGCF_RCN_L2ONLY	72	20	3
MGCF_RCN_MSG_ALL	72	10	3
MGCF_RCN_MSG_NORC100	72	08	3
MGCF_RCN_NONE	72	80	3
MGCF_REISSUE_WARN_MSG	115	80	7
MGCF_SETSYS_ODM	115	40	4
MGCF_SKIP_DS_CYL_SP	ED	20	3
MGCF_WARN_MSG	114	01	7
MGCFATRM	24	80	4
MGCFCMD	27	20	4
MGCFDCOL	2C		2
MGCFDTT	27	04	4
MGCFINT	27	40	4
MGCFMCVR	25	02	4
MGCFMIG	27		3
MGCFMVT	27	02	4
MGCFPSM	27	80	4
MGCFQMIG	24	40	4
MGCFQSSP	24	04	4
MGCFSDEV	25	F0	3
MGCFSML1	25	80	4
MGCFSML2	25	40	4
MGCFSMSI	24	02	4
MGCFSSM	73	80	3

Table 110 (Page 3 of 3). EGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MGCFSTAP	25	20	4
MGCFSTMS	27	10	4
MGCFSTOP	24	F0	3
MGCFSTRM	24		4
MGCFST1S	73	40	3
MGCFUNAT	25	01	4
MGCGIANT	3E		2
MGCLSPAC	27	08	4
MGCMCLSL	14		3
MGCMCLSP	10		3
MGCMCSSL	80		2
MGCMCSSP	7C		2
MGCRCDS#	34		2
MGCRCLR_OTHER_HOST	2E		2
MGCRCLR_SDSP_DELAY	6B		2
MGCRCLR_SDSP_NUM	6A		2
MGCRCLR_TAPE_INUSE	2F		2
MGCRCLR_THIS_HOST	2D		2
MGCSMSDA	8		2
MGCSMSLP	8		3
MGCSSMLP	74		2
MGCSSMQ_CLEAN_A	C0		2
MGCSSMQ_MOVE_A	B4		2
MGCSSMQCB	C4		3
MGCSSMQCF	C0		3
MGCSSMQCN	C8		3
MGCSSMQL	CC		2
MGCSSMQMB	B8		3
MGCSSMQMF	B4		3
MGCSSMQMN	BC		3
MGCSSTOP	24	0F	3
MGCSTCBP	20		2
MGCTCIEB	40		2
MGCTVT_REBUILD_DELAY	6C		2
MGCVTCBP	18		2

MHCR—Multiple-DFSMShsm-Host Control Record

The multiple-DFSMShsm-host control record (MHCR) contains space usage data about the migration control data set, backup control data set, and offline control data set (see Table 111). All the DFSMShsm hosts update this same data area record when DFSMShsm operates in a multiple-DFSMShsm-host environment. Multiple-DFSMShsm-host control records are migration control data set records and are of variable length. The record type is S.

The key for a type S multiple-DFSMShsm-host control record is the constant MHCR. An example of the key that is used with an S multiple-DFSMShsm-host control record is:

```
FIXCDS S MHCR
```

Table 111. MHCR—Multiple-DFSMShsm-Host Control Record

Offsets Actual	Offsets / FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	1116	MHCR	
0(0)		CHARACTER	44	MHCRKEY	Multiple-DFSMShsm-host control record key, consisting of X'10' followed by MHCR, and padded with blanks.
44(2C)		CHARACTER	20	MHCRMCH	Standard control data set record header.
64(40)	0(0)	CHARACTER	1052	MHCRDATA	Data portion of record.
64(40)	0(0)	FIXED	4	*	Reserved.
68(44)	4(4)	FIXED	4	*	Reserved.
72(48)	8(8)	FIXED	4	*	Reserved.
76(4C)	12(C)	CHARACTER	8	MHCRBGTS	Time stamp of the last time the MHCRNXTS field was updated.
76(4C)	12(C)	CHARACTER	4	MHCRBGND	Date portion of the time stamp. The date is in the format *X'0cyyddds'*.
80(50)	16(10)	FIXED	4	MHCRBGNT	Time portion of the time stamp. The time of day is in hundredths of seconds.
84(54)	20(14)	CHARACTER	8	MHCRENTS	Time stamp when the free space calculation last ended on the primary host.
84(54)	20(14)	CHARACTER	4	MHCRENDD	Date portion of the time stamp. The date is in the format *X'0cyyddds'*.
88(58)	24(18)	FIXED	4	MHCRENDT	Time portion of the time stamp. The time of day is in hundredths of seconds.
92(5C)	28(1C)	CHARACTER	8	MHCRNXTS	Time stamp when the free space calculation was done on the primary host.
92(5C)	28(1C)	CHARACTER	4	MHCRNXTD	Date portion of the time stamp. The date is in the format *X'0cyyddds'*.
96(60)	32(20)	FIXED	4	MHCRNXTT	Time portion of the time stamp. The time of day is in hundredths of seconds.
100(64)	36(24)	CHARACTER	244	MHCRCDSV	CDSVERSIONBACKUP parameters table.
344(158)	280(118)	CHARACTER	64	*	Reserved.
408(198)	344(158)	BITSTRING	1	MHCR_FLAGS	Flags for 1.4.0.
		1...		MHCRF_KEYS_PRESENT	When set to 1, CDS keys are in the MHCR.
		.xxx xxxx		*	Reserved.
409(199)	345(159)	FIXED	1	MHCR_MCDS_NUMBER	Count of clusters for the MCDS.
410(19A)	346(15A)	FIXED	1	MHCR_BCDS_ NUMBER	Count of clusters for the BCDS.
411(19B)	347(15B)	CHARACTER	1	*	Reserved.
412(19C)	348(15C)	CHARACTER	88	MHCR_MCDSKEYS(4)	Keys for MCDS clusters.
412(19C)	348(15C)	CHARACTER	44	MHCR_MCDS_LOWKEY	Low key for cluster.
456(1C8)	392(188)	CHARACTER	44	MHCR_MCDS_HIGHKEY	High key for cluster.
764(2FC)	700(2BC)	CHARACTER	88	MHCR_BCDSKEYS(4)	Keys for BCDS cluster.
764(2FC)	700(2BC)	CHARACTER	44	MHCR_BCDS_LOWKEY	Low key for cluster.
808(328)	744(2E8)	CHARACTER	44	MHCR_BCDS_HIGHKEY	High key for cluster.

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MHCR Data Area Cross-Reference

Table 112. MHCR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MHCR	0		1
MHCR_BCDS_HIGHKEY	328		4
MHCR_BCDS_LOWKEY	2FC		4
MHCR_BCDS_NUMBER	19A		3
MHCR_BCDSKEYS	2FC		3
MHCR_FLAGS	198		3
MHCR_MCDS_HIGHKEY	1C8		4
MHCR_MCDS_LOWKEY	19C		4
MHCR_MCDS_NUMBER	199		3
MHCR_MCDSKEYS	19C		3
MHCRBGND	4C		4
MHCRBGNT	50		4
MHCRBGTS	4C		3
MHCRCDSV	64		3
MHCRDATA	40		2
MHCRENDD	54		4
MHCRENDT	58		4
MHCRENTS	54		3
MHCRF_KEYS_PRESENT	198	80	4
MHCRKEY	0		2
MHCRMCH	2C		2
MHCRNXTD	5C		4
MHCRNXTS	5C		3
MHCRNXTT	60		4

MLOG—HSM Log Header

The HSM Log Header (MLOG) defines the format of HSM log records.

Table 113. MLOG—HSM Log Record Header

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	12	MLOG	
0	(0)	SIGNED	2	MLOGL	LENGTH OF LOG RECORD
2	(2)	UNSIGNED	1	MLOGID	LOG ID
3	(3)	BIT(8)	1	MLOGFLGS	LOG FLAGS
		1...		MLOGLD	When set to 1, log data lost before
		.1..		MLOGNJRN	When set to 1, entry is not to be journaled JRNLED
		..1.		MLOGSEQ	When set to 1, this record is in the Journal Backup Data Set
		...1		MLOGFJSM	When set to 1, entry written while ARCILOG was in temporary psuedo speed mode
		 xxxx		*	Reserved
4	(4)	CHARACTER	8	MLOGTOD	STCK TIMESTAMP
4	(4)	CHARACTER	7	*	Reserved
11	(B)	CHARACTER	1	MLOGHOST	HOST THAT WROTE THIS RECORD - ONLY THE HIGH ORDER 52 BITS OF MLOGTOD ARE USED FOR THE TIMESTAMP
12	(C)	CHARACTER	0	MLOGD	START POINT FOR LOG DATA

MLOG Data Area Cross-Reference

Table 114. MLOG Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MLOG	0		1
MLOGD	C		2
MLOGFJSM	3	10	3
MLOGFLGS	3		2
MLOGHOST	B		3
MLOGID	2		2
MLOGL	0		2
MLOGLD	3	80	3
MLOGNJRN	3	40	3
MLOGSEQ	3	20	3
MLOGTOD	4		2

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MVT—Mounted Volume Table Entry

The mounted volume table entry (MVT) describes all volumes that are mounted and used by DFSMShsm. This entry is 480 bytes long and resides in the DFSMShsm work space.

The contents of the MVT can be displayed using the DISPLAY command as follows:

```
DISPLAY .MVT.+0 LENGTHS(428)
```

Table 115 (Page 1 of 7). MVT—MCDS Volume Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	428	MVT	Mounted volume table entry.
0	(0)	ADDRESS	4	MVTFWD	Pointer to the next mounted volume table entry.
4	(4)	ADDRESS	4	MVTBWD	Pointer to the previous mounted volume table entry.
8	(8)	CHARACTER	4	MVTBID	Block identification 'MVT*'.
12	(C)	CHARACTER	180	MVTVAR	Variable part of the mounted volume table entry.
12	(C)	FIXED	4	MVTBFTRK	Free tracks on the volume before migration processing.
16	(10)	ADDRESS	4	MVTECBP	ECB TO POST FOR TAPE MOUNT TIMER.
20	(14)	FIXED	2	MVTVOLSQ	Tape volume sequence number.
22	(16)	FIXED	1	MVTVLTYP	Volume type: 1 = Primary 2 = Migration 3 = Backup 4 = Dump.
23	(17)	BITSTRING	3	MVTFLGS	The next 3 bytes contain the following volume table flags:
		1...		MVTFASN	When set to 1, the entry is in use.
		.1..		MVTHGENP	When set to 1, this volume is in the DFSMShsm general pool (only for JES3 systems).
		..1.		MVTFLS	When set to 1, a space list is wanted for this volume.
		...1		MVTF1FT	When set to 1, the mounted volume is a cartridge tape written in single-file format.
		.... 1...		MVTFUSFP	When set to 1, update the MVT free space information before selecting the target migration volume.
		.... .1..		MVTFMTWT	When set to 1, the mount wait timer is to be set.
		.... ..1.		MVTFMIG	When set to 1, migration is needed on the volume.
		1		MVTFHOLD	When set to 1, hold processing on the volume because an abnormal end occurred while processing this volume.
24	(18)	1...		MVTFNOAM	When set to 1, the volume is not eligible for automatic space management.
		.1..		MVTFLEV2	When set to 1, this is a migration level 2 volume.
		..1.		MVTFSDP	When set to 1, a VSAM data set is defined on this volume for small data set packing and is usable. See related flag MVTFSDPV.
		...1		MVTFVFUL	When set to 1, the VTOC is almost full.
		.... 1...		MVTFPRV	When set to 1, this volume is not eligible for automatic recall unless it is in a pool.
		.... 1...		MVTFNOAR	Alias for MVTFPRV.
		.... .1..		MVTFBACK	When set to 1, this volume is to be automatically backed up.
		.... ..1.		MVTFRSV	When set to 1, this volume is to be marked reserved if on when ARCALVOL called or reset reserved when ARCULVOL called.
		1		MVTFNOCM	When set to 1, this volume is not eligible for command migration.
25	(19)	1...		MVTFDBA	Space management for primary volume. When set to 1, see MVTFRBU. When set to 0, is migration.
		.1..		MVTFRBU	When set to 1 and MVTFDBA is also set to 1, the space management technique for this volume is DELETEIFBACKEDUP. When set to 0 and MVTFDBA is set to 1, the space management technique for this volume is DELETEBYAGE.
		..1.		MVTFVLTH	For primary volumes only. When set to 1, valid thresholds exist for the volume. When set to 0, migration will be by age for non-VSAM.
		...1		MVTFRVFU	When set to 1, a space check does not reset MVTFVFULL.

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Table 115 (Page 2 of 7). MVT—MCDS Volume Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... 1...		MVTDRAIN	When set to 1, the DRAIN attribute has been specified on the ADDVOL of this volume.
		.... .1..		MVTFNOPT	Indicates to ARCTOPEN that no point is required for 3480 single-file tapes, as the tape is already positioned at the FBID being requested. Reset to 0 by ARCTOPEN when a point is bypassed. Also causes ARCALTDS to turn "point during open" flags off in the JFCB. This flag is not reset by ARCALTDS.
		.... ..1.		MVTFDSR	When set to 1, the request is for a data set.
		1		MVTFVOLR	When set to 1, the request is for a volume.
26	(1A)	CHARACTER	6	MVTVSN	Volume serial number.
32	(20)	CHARACTER	8	MVTUNIT	EBCDIC unit name, for example, 3390.
40	(28)	ADDRESS	4	MVTUCBP	Address of the UCB.
44	(2C)	FIXED	4	MVTTOTSP	Total space on the volume, in tracks.
48	(30)	FIXED	4	MVTFRESP	Total free space on the volume, in tracks.
52	(34)	FIXED	2	MVTLWM	Low threshold of occupancy of a primary volume. Migration stopped when percent of space allocated is no greater.
54	(36)	FIXED	2	MVTHWM	Migration started if percent of space allocated exceeds this value.
56	(38)	CHARACTER	24	MVTDEVTB	Device type information.
56	(38)	CHARACTER	4	MVTUCBTY	Device type as in the UCB.
56	(38)	BITSTRING	1	MVTMODEL	Reserved.
		xxxx xxx.		*	Reserved.
		1		MVTC3480	When set to 1, the volume is in 3480 coexistence mode.
57	(39)	BITSTRING	2	*	Optional features of the device.
		x...		*	Reserved.
		.1..		MVTTRKOV	When set to 1, there is track overflow on the device.
		..xx		*	Reserved.
		.... 1...		MVTRVDEV	When set to 1, this is a Mass Storage System device.
		.... .1..		MVTF348X	When set to 1, this is a 3480X device.
		xx		*	Reserved.
		1...		MVTTPDEV	When set to 1, this is a tape device.
		.x..		*	Reserved.
		..1.		MVTDADEV	When set to 1, this is a DASD device.
		...x xxxx		*	Reserved.
60	(3C)	FIXED	4	MVTBLK	Maximum block size for the device.
64	(40)	FIXED	2	MVTNCYL	Number of cylinders on the device. Valid only if MVTDADEV is 1 and MVTFGT32K is 0.
66	(42)	FIXED	2	MVTNTRK	Number of tracks on each cylinder.
68	(44)	FIXED	4	MVTTRKL	Track length of the device.
72	(48)	FIXED	2	MVT2KPT	Number of 2K blocks on each track for this device.
74	(4A)	FIXED	2	MVTOBSZ	Optimum block size for 2K blocking in units of 1024.
76	(4C)	FIXED	4	MVTGBF	Guaranteed backup frequency in days (0 = NOLIMIT).
80	(50)	FIXED	2	MVTMINAG	Minimum age of data sets to migrate from the volume.
82	(52)	FIXED	2	MVTFRAG	Current fragmentation index of volume.
84	(54)	ADDRESS	4	MVTACQP	Address of the acquire chain if this is a mass storage system volume.
88	(58)	BITSTRING	2	MVTDFLGS	The next 2 bytes contain the following volume dump restore flags:
		1...		MVTFAD	When set to 1, the volume is to be automatically dumped by this host.
		.xx.		*	Reserved.
		...1		MVTFURAC	When set to 1, the volume mounted in response to a mount scratch request was already RACF protected.
		.... 1...		MVTFADVL	When set to 1, the volume mounted in response to a mount scratch request was already added to DFSMShsm.
		.... .1..		MVTFDTMT	When set to 1, the dump tape volume is mounted. When set to 0, the mount is pending.
		.... ..1.		MVTFDTWT	When set to 1, the dump tape volume has been written to.
		1		MVTFDSEL	When set to 1, the dump tape was selected by DFSMShsm.
89	(59)	1...		MVTF_ASYNC	When set to 1, ASYNC SYNCDEV.
		.1..		MVTF_ILLEGAL_WORM	When set to 1, a WORM tape was detected for a function that does not allow WORM tapes.
		..1.		MVTFAMP	When set to 1, AM=P for volume's storage group.
		...x xxxx		*	Reserved.
90	(5A)	FIXED	2	MVTRSVCT	Reserve count for the volume.
92	(5C)	BITSTRING	1	MVTFLGS5	This byte contains the following flags:
		1...		MVTFCDDV	When set to 1, the CDDID field on this tape volume contains a valid ID.
		.1..		MVTFATDS	When set to 1, the device control block addressed by MVTDCBP has been allocated.
		..1.		MVTFCUCS	When set to 1, this volume contains data compacted by the control unit.

Table 115 (Page 3 of 7). MVT—MCDS Volume Record

Offsets Decimal	Offsets (Hex)	Type	Length	Name	Description
		...1		MVTFUSED	When set to 1, SDSP was found to be in use.
		.... 1...		MVTFXSRV	When set to 1, an external service (such as IDCAMS or DFSMSdss) is writing to this tape and proper cleanup requires a USER999 abend from ARCTMT when a tape is not mounted, instead of posting the mother task to detach.
		.... .1..		MVTFTCFD	When set to 1, TAPECOPY has requested a forced deferred mount.
		.... ..1.		MVTTPLEN	When set to 1, enhanced cartridge was used in a library by TAPECOPY.
		1		MVTFRSIV	When set to 1, during reselection of an initial volume when previous initial volume was rejected. This MVT will be reused for the next selection.
93	(5D)	BITSTRING	1	MVTFLGS3	This byte contains the following flags:
		1...		MVTFLSM	When set to 1, print free-space messages.
		.1..		MVTFLSF	When set to 1, the last space check failed. Do not use volume in volume selection.
		..1.		MVTFNPDE	When set to 1, not in PDE so free space may not be needed. When set to 0, free space needed because volume was in a pool at MCTL initialization or volume added later.
		...1		MVTFTEMP	When set to 1, this MVT created or added by ARCBMDS or ARCBMBC because wasn't on MVT chain. Removed at end of execution.
		.... 1...		MVTFCNVT	When set to 1, the MIGRATE CONVERT command was specified.
		.... .1..		MVTFCD0	When set to 1, the MIGRATE CONVERT command was specified with DAYS=0.
		.... ..1.		MVTFUFSP	When set to 1, a request was made to update the free-space information in the MVT.
		1		MVTFEXPD	When set to 1, the tape expiration data has been specified.
94	(5E)	BITSTRING	1	*	This byte contains the following volume flags:
		1...		MVTF_CXEPI	When set on, MVTCXEPI is valid.
		.1..		MVTF_MSNS	When set to 1, (tape) device supports medium-sense CCW.
		..1.		MVTF_RBUF	When set to 1, (tape) device supports read-buffer CCW.
		...1		MVTFL1OV	When set to 1, volume is an overflow ML1.
		.... 1...		MVTFMIGD	When set to 1, this volume is being used by data set migration.
		.... .1..		MVTFMIGV	When set to 1, this volume is being used by volume or level migration.
		.... ..1.		MVTFRCYT	When set to 1, recycle processing is using this volume as the target volume.
		1		MVTFSDPV	When set to 1, a VSAM data set is defined on this volume for small data set packing but it may not be usable. See related flag MVTFSDP.
95	(5F)	CHARACTER	1	MVTUHST	Host identification of the host that was using this volume when DFSMShsm skipped the processing of this volume.
96	(60)	FIXED	2	MVTDBADY	Number of days a data set must be inactive before being eligible for data set deletion.
98	(62)	CHARACTER	6	MVT2VSN	Volume serial number specified with the MIGRATE CONVERT command.
104	(68)	CHARACTER	8	MVTDDN	DDNAME used to allocate the volume.
112	(70)	BITSTRING	1	MVTFLGS2	This byte contains the following flags:
		1...		MVTFDAY	For backup volume that has been selected by ARCSELBV. When set to 1, this volume is a daily volume. When set to 0, this volume is a spill volume.
		.1..		MVTFJFCB	When set to 1, the JFCB has been read for this volume.
		..1.		MVTFBDCS	When set to 1, the backup volume device category is specified.
		...1		MVTFBDCT	If MVTFBDCS is set to 1, the backup volume device category is tape.
		.... 1...		MVTFNADV	When set to 1, an allocated scratch tape needs to be added internally.
		.... .1..		MVTFSMS	When set to 1, this is an SMS-managed volume.
		.... ..1.		MVTFSMVL	When set to 1, space management flags in MVTRECAL are valid.
		1		MVTFMC1P	When set to 1, update of the MC1 record is needed for the volume.
113	(71)	BITSTRING	1	MVTRECAL	This byte contains space management composite flags for multiple-host recall volume selection. If MVTFSMVL is set to 1, then the complete byte is stored in the MCD record.
		1...		MVTRDBA	When set to 0, the volume has the space management technique of MIGRATE. When set to 1, see MVTRDBU.
		.1..		MVTRDBU	When set to 0, the space management technique for this volume is DELETEBYAGE. When set to 1, the space management technique for this volume is DELETEIFBACKEDUP.

Table 115 (Page 4 of 7). MVT—MCDS Volume Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MVTRBDCS	When set to 1, the backup device category is specified for this volume.
		...1		MVTRBDCT	When set to 1, the backup device category is tape.
		.... 1...		MVTRAM	When set to 1, some host is requested to perform automatic space management on this volume.
		.... .1..		MVTRAB	When set to 1, some host is requested to perform automatic backup on this volume.
		.... ..1.		MVTRAD	When set to 1, some host is requested to perform automatic dump on this volume.
		x		*	Reserved.
114	(72)	FIXED	1	MVTDAY	Day of the backup cycle to which this primary backup volume is assigned.
115	(73)	CHARACTER	1	MVTDEN	Tape density of this tape volume.
116	(74)	FIXED	4	MVTLFBID	File sequence number of the last data set written to this tape volume.
120	(78)	ADDRESS	4	MVTBVLST	Address of a list of tape backup volumes allocated with this backup volume.
120	(78)	ADDRESS	4	MVTAVLST	The address of a list of migration volumes allocated with this migration volume.
124	(7C)	CHARACTER	4	MVT2DEVT	Device type of the MVT2VSN volume.
128	(80)	BITSTRING	1	MVTSFLGS	This byte contains flags indicating the security of the volume:
		1...		MVTFTSPW	When set to 1, the data sets on this tape volume have been password protected.
		.1..		MVTFTSED	When set to 1, the data sets on this tape volume have been protected with an expiration date.
		..1.		MVTFTSRF	When set to 1, the tape volume has been RACF protected.
		...x xxxx		*	Reserved.
129	(81)	FIXED	1	MVTPTADJ	3480 point sector adjustment factor. Reset to 0 by ARCTOPEN regardless of whether a point is issued.
130	(82)	FIXED	2	MVTETIME	Time of the last error that occurred while this volume was being processed.
132	(84)	ADDRESS	4	MVTJFCBP	Address of the JFCB work area.
136	(88)	ADDRESS	4	MVTDCBP	Address of the DCB.
140	(8C)	CHARACTER	1	MVTCXEPI	Copy of UCBCXEPI (valid if MVTF_CXEPI is set on).
141	(8D)	CHARACTER	1	MVTF_SSMU	When set to X'00', SDSP on this volume not currently being used by a secondary space management task. When set to X'FF', SDSP on this volume is being used by a secondary space management task.
142	(8E)	FIXED	2	MVTDCLCT	Number of entries in MVTDCLSS and MVTSTACK arrays.
144	(90)	CHARACTER	8(5)	MVTDCLSS	A 5-element array consisting of 8-byte fields containing dump class IDs that are the targets of the full volume dump function during automatic dump processing.
144	(90)	CHARACTER	8	MVTDCLAS	Dump class identifier.
184	(B8)	CHARACTER	8	MVTUID	User ID of authorized requester of query space command.
184	(B8)	CHARACTER	4	*	Reserved.
188	(BC)	ADDRESS	4	MVTXPTR	Pointer to MVTXINFO.
192	(C0)	CHARACTER	7	MVTEXPDT	Tape expiration date.
199	(C7)	BITSTRING	1	MVTFLGS4	This byte contains the following flags:
		1...		MVTF_FEOV_DONE	Force EOV completed for volume.
		.1..		MVTF_NEOV_DONE	Natural EOV completed for volume.
		..1.		MVTF_CMD_MFULL	Command mark full completed.
		...1		MVTF_IN_XCAP	When set to 1, this is a CAPACITYMODE(EXTENDED) tape.
		.... 1...		MVTF_HAS	When set to 1, tape subsys is capable of HW assisted search.
		xxx		*	Reserved.
200	(C8)	FIXED	4	MVTL1SD	Free space delta for migration level 1.
204	(CC)	ADDRESS	4	MVTTTLIP	Address of the ARCTTLI data area.
208	(D0)	ADDRESS	4	MVTAMVTP	Pointer to alternate MVT in original.
212	(D4)	ADDRESS	4	MVTOMVTP	Pointer to original MVT in alternate.
216	(D8)	FIXED	1(5)	MVTSTACK	Array of STACK values for the dump classes in MVTDCLSS.
221	(DD)	CHARACTER	8	MVTSTDDN	DDNAME (or blanks) of an SDSP allocated on an ML1 volume while being serialized for dumping.
229	(E5)	CHARACTER	12	MVTXINFO	Extended console information.
229	(E5)	CHARACTER	4	MVTXCNID	Console ID.
233	(E9)	CHARACTER	8	MVTXCART	CART information.
241	(F1)	BITSTRING	1	MVTFLGS6	This byte contains the following flags:
		1...		MVTFGT32K	When set to 1, the number of cylinders in MVTCYL_GT32K. When set to 0, the number of cylinders is in MVTNCYL. Valid only if MVTDADEV equals 1.
		.1..		MVTF_ERRALT_MARKFULL	ERRORALTERNATE option flag for SETSYS DUPLEX command. 0=CONTINUE, 1=MARKFULL

Table 115 (Page 5 of 7). MVT—MCDS Volume Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MVTF_ERR_MARKFULL	When set to 1, an error occurred on alternate volume when MARKFULL option of ERRORALTERNATE is active.
		...1		MVTF_SDSP_ADDVOL	When set to 1, the SDSP data set has not been used before. This is the first time this ML1 volume with SDSP has been ADDVOLed.
		.... 1...		MVTF_SEG_FBID	When set to 1, device FBID contains segmentation info in highest 10 bits.
		xxx		*	Reserved.
242	(F2)	FIXED	1	MVT_MEDIA	Media type, for example: 5 = MEDIA5 6 = MEDIA6 7 = MEDIA7 8 = MEDIA8
243	(F3)	FIXED	1	MVT_REC	Recording technology: 6=EFMT1, etc.
244	(F4)	FIXED	4	MVTUBYMC	Number of migration tasks using the migration level 1 volume.
248	(F8)	FIXED	4	MVTTKID	Processing task ID number.
252	(FC)	ADDRESS	4	MVTISTRP	Address of in-storage TTOC records.
256	(100)	ADDRESS	4	MVTSACBP	Address of ACB of opened SDSP data set on this volume.
260	(104)	FIXED	4	MVTCHPLD	The next 4 bytes contain the load value for each channel path identifier for the running function.
264	(108)	FIXED	1(8)	MVTCHPID	Channel path ID. This field is repeated eight times for up to eight IDs defined to this volume.
272	(110)	CHARACTER	4(4)	MVTCB	Structure for DFSMShsm channel balancing selection.
272	(110)	FIXED	1	MVTVSCNT	Number of times a volume was in use.
273	(111)	BITSTRING	1	MVTCBFLG	This byte contains the following flags for channel balancing selection:
		1...		MVTFAFF	When set to 1, the volume has affinity to this host.
		.1..		MVTFVELG	When set to 1, the volume is eligible for automatic processing.
		..xx		*	Reserved.
		.... 1...		MVTFRSTR	When set to 1, the volume selection status was not reset because of automatic function restart or the volume terminated early. When set to 0, the volume selection status was reset for a new start of automatic function.
		.... .1..		MVTFETRM	When set to 1, processing was terminated early on this volume.
		xx		*	Reserved.
274	(112)	FIXED	1	MVTVSS	When set to 1, volume selected for processing on this host. When set to 2, minimum time has not elapsed on this volume for automatic function new start. When set to 3, volume was in use for maximum retries on this host. When set to 4, volume was in use for maximum retries on another host. When set to 5, read or write error for MCV. When set to 99, some other error was encountered.
275	(113)	CHARACTER	1	*	Reserved.
288	(120)	BITSTRING	2	MVTFLAGS	The next 2 bytes contain the following flags:
		1...		MVTFQVOL	When set to 1, the volume is enqueued.
		.1..		MVTFSVOL	When set to 1, the volume is serialized.
		..1.		MVTFUCCL	When set to 1, the CCL has been updated for the volume.
		...1		MVTFAMI	When set to 1, do hourly interval migration regardless of SETSYS parameters. For SMS-managed volumes only.
		.... 1...		MVTFUSDP	When set to 1, the volume was selected for SDSP use by a migration task.
		.... .1..		MVTFRNSD	When set to 1, recall needs SDSP allocation to migration task.
		.... ..1.		MVTFPIND	When set to 1, the UCB of the migration level 1 volume is pinned.
		1		MVTFNUCB	When set to 1, the device (UCB) that the volume was mounted on is deleted from the system.
289	(121)	1...		MVTFALLO	When set to 1, the volume is allocated.
		.1..		MVTFNDEQ	When set to 1, deallocation is NOT to free resources SYSZVOLS.
		..1.		MVTFSTAK	When set on, volume is "stackable" during dump (at least one eligible dump class has a STACK value more than one).
		...1		MVTFSCA	When set to 1, a storage class is assigned, thus an automated tape library device is to be allocated.
		.... 1...		MVTFLDA	When set to 1, an automated tape library device has been allocated for tape processing.
		.... .1..		MVTFNLDA	When set to 1, a non-automated tape library device has been allocated for tape processing.

Table 115 (Page 6 of 7). MVT—MCDS Volume Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
		11		MVTINLIB	Tape library volume status: 00 = input tape library status unknown. 01 = input tape not in any library. 10 = input tape is in an automated tape library data server (ATLDS). 11 = input tape is in a manual tape library data server (MTLDS).
290	(122)	BITSTRING	2	MVTXFLGS	Duplex tape flags.
		1...		MVTF_ALT	When set to 1, alternate tape of a duplex pair.
		.1..		MVTF_NALT	When set to 1, no concurrent alternate is being created; TCN is required.
		..1.		MVTF_ALT_DEALLOC	When set to 1, clean up is required for alternate.
		...1		MVTF_951	When set to 1, message ARC0951 already issued.
		.... 1...		MVTF_ALT_MTERR	When set to 1, mount error on alternate.
		.... .1..		MVTF_ALT_EOV	When set to 1, error on alternate at EOV.
		.... ..1.		MVTF_FEOV_ISSUED	When set to 1, FEOV issued or okay.
		1		MVTF_NEOV_ISSUED	When set to 1, NEOV is okay.
		1...		MVTF_ALT_FEOV_ ABEND	When set to 1, FEOV abend on alternate.
		.1..		MVTF_PREV_ORIG	When set to 1, alternate valid for previous original.
		..1.		MVTF_EOV_ABEND	When set to 1, EOV abend.
		...1		MVTF_YTDS_NEOV_ALT	When set to 1, NEOV in YTDS on ALT.
		.... 1...		MVTF_ALT_NEEDED	When set to 1, alternate needed.
		.... .1..		MVTF_RELEASE_ALT	When set to 1, release all previous alternates.
		.... ..1.		MVTF_NOMIGALTSYNC	When set to 1, don't sync alternate tape during migration.
		x		*	Reserved.
292	(124)	FIXED	4	MVTSDPTM	Migration gave up SDSP data set time stamp.
296	(128)	CHARACTER	8	MVTPTOKN	Pin token if the UCB of the migration level 1 volume is pinned.
304	(130)	BITSTRING	2	MVT_DSBKUP_FLGS	Data set backup flags:
		1...		MVTF_DS_MARKFULL	When set to 1, ARCSELBV will mark volume full.
		.1..		MVTF_DS_REUSE	When set to 1, ARCSELBV will not mark the volume full.
		..1.		MVTF_DS_PRIVAT	When set to 1, TMT was unable to mount a PRIVAT volume at EOV.
		...1		MVTF_COPYPOOL	This volume is a DASD target volume used for copy pool processing
		.... 1...		MVTF_NOCOPY	When set to 1, MVT_FRSOURCE flashed to MVTVSN in NOCOPY relationship.
		.... .1..		MVTF_EAV	ON=Extended Address Volume
		.... ..1.		MVTF_ONDEMAND_MIG	When set to 1, on-demand migration is needed on a volume.
		1		MVTF_SKIP_VOL	When set to 1, skip volume during volume selection for ODM.
305	(131)	1...		MVTF_THRESHOLD_EX	When set to 1, volume threshold is still exceeded after ODM processing.
		.1..		MVTF_ODM_ML1	When set to 1, volume has ODM migrations.
		..1.		MVTF_LSPC_ODM_ML1_DONE	When set to 1, LSPACE was done for this ODM ML1 volume.
		...1		MVTF_CHK_ODM_ELIG	When set to 1, check if volume is ODM eligible.
		 xxxx		*	Reserved.
306	(132)	FIXED	1	MVT_TASK_IDX	Index of SSM task which uses SDSP on this volume.
307	(133)	CHARACTER	1	*	Reserved.
308	(134)	FIXED	4	MVTCYL_ GT32K	Number of cylinders. Valid only if MVTDADEV equals 1 and MVTFGT32K equals 1.
312	(138)	CHARACTER	44	MVT_FRVP_KEY	Key of FRVP that corresponds to volume.
312	(138)	CHARACTER	1	*	Reserved.
313	(139)	CHARACTER	30	MVT_FRVP_CPNAME	Copy pool name.
343	(157)	CHARACTER	1	MVT_FRVP_TYPE	'P'=Prepare, 'B'=Backup.
344	(158)	FIXED	2	MVT_FRVP_VERSION	Version # for copy pool backup.
346	(15A)	CHARACTER	8	MVT_FRVP_SGNAME	Storage Group name.
354	(162)	FIXED	2	MVT_FRVP_INDEX	Odd or even # that acts as extent #.
356	(164)	CHARACTER	6	MVT_FRSOURCE	Fast replication source VOLSER.
362	(16A)	FIXED	2	MVT_FRVP_ VPI_INDEX	FRVP pair index.
364	(16C)	ADDRESS	4	MVT_CPELMP	Pointer to Global Copypool Dump Array.
368	(170)	FIXED	2	MVTLTMT	Low Track-Managed Threshold. Migration from track-managed space of EAV will be stopped when percent of space allocated is not greater
370	(172)	FIXED	2	MVTHTMT	High Track-Managed Threshold. Interval Migration will be started if percent of space allocated on track-managed space of EAV either exceeds this value for non-SMS EAV and for SMS EAV with AM¬=I or exceeds midpoint between this value and Low Track- Managed Threshold for SMS EAV with AM=I.
372	(174)	FIXED	4	MVTFRESP_TRK_SPACE	The number of free tracks on track-managed space of EAV
376	(178)	FIXED	2	MVTFRAG_TRK_SPACE	Current fragmentation index of EAV track-managed space
378	(17A)	CHARACTER	8	MVT_TCN_UNIT	Unit name for TCN generated Tape Copy
386	(182)	CHARACTER	42	*	Reserved
388	(184)	FIXED	4	MVT_951RC	Return code for ARC0951I

Table 115 (Page 7 of 7). MVT—MCDS Volume Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
392	(188)	FIXED	4	MVT_951REAS	Reason code for ARC0951I
396	(18C)	FIXED	4	MVT_SDSP_FREE	SDSP free size
400	(190)	FIXED	4	MVT_SDSP_FREE_CA	Space in the reclaimed CAs
404	(194)	FIXED	4	MVT_ENF72_COUNT	ENF 72 events counter
408	(198)	FIXED	4	MVT_ENF72_SAVED_COUNT	ENF 72 counter when ODM for the volume is not performed
412	(19C)	FIXED	2	MVT_STRGR_LENGTH	Length of storage group name.
414	(19E)	CHARACTER	30	MVT_STRGR_NAME	Storage group name.
444	(1BC)	FIXED	1	MVT_SGDPSPRI	Processing Priority: 1-100
445	(1BD)	CHARACTER	3	*	Reserved.
448	(1C0)	ADDRESS	4	MVT_FWDP_ORDER_OF_PRIORITY	Pointer to the next element in the SMS MVT chain, which should be selected for AUTOBACKUP, IM, PSM, if order of storage group priority is used.
452	(1C4)	CHARACTER	28	*	Reserved.
480	(1E0)	CHARACTER	0	MVTEND	END OF MVT

MVT Control Block Cross-Reference

Table 116 (Page 1 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVT	0		1
MVT_CPELMP	16C		2
MVT_DSBKUP_FLGS	130		2
MVT_ENF72_COUNT	194		2
MVT_ENF72_SAVED_COUNT	198		2
MVT_FRSOURCE	164		3
MVT_FRVP_CPNAME	139		3
MVT_FRVP_INDEX	162		3
MVT_FRVP_KEY	138		2
MVT_FRVP_SGNAME	15A		3
MVT_FRVP_TYPE	157		3
MVT_FRVP_VERSION	158		2
MVT_FRVP_VPI_INDEX	16A		2
MVT_FWDP_ORDER_OF_PRIORITY	1C0		2
MVT_MEDIA	F2		2
MVT_REC	F3		2
MVT_SDSP_FREE	18C		2
MVT_SDSP_FREE_CA	190		2
MVT_SGDPSPRI	1BC		2
MVT_STRGR_LENGTH	19C		2
MVT_STRGR_NAME	19E		2
MVT_TASK_IDX	132		2
MVT_TCN_UNIT	17A		2
MVT_951RC	184		2
MVT_951REAS	188		2
MVTACQP	54		3
MVTAMVTP	D0		2
MVTAVLST	78		4
MVTBFTRK	C		3
MVTBID	8		2
MVTBLK	3C		4
MVTBVLST	78		3
MVTBWD	4		2
MVTCB	110		2
MVTCBFLG	111		3
MVTCHPID	108		2
MVTCHPLD	104		2
MVTCXEPI	8C		3
MVTCYL_GT32K	134		2
MVTC3480	38	01	6

Table 116 (Page 1 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVTDADEV	3A	20	6
MVTDAY	72		3
MVTDBADY	60		3
MVTDCBP	88		3
MVTDCLAS	90		4
MVTDCLCT	8E		3
MVTDCLSS	90		3
MVTDDN	68		3
MVTDEN	73		3
MVTDEVTB	38		3
MVTDFLGS	58		3
MVTDRAIN	19	08	4
MVTECBP	10		3
MVTEND	1AC		2
MVTETIME	82		3
MVTEXPDT	C0		2
MVTF_ALT	122	80	3
MVTF_ALT_DEALLOC	122	20	3
MVTF_ALT_EOV	122	04	3
MVTF_ALT_FEOV_ABEND	123	80	3
MVTF_ALT_MTERR	122	08	3
MVTF_ALT_NEEDED	123	08	3
MVTF_ASYNC	59	80	4
MVTF_CHK_ODM_ELIG	131	10	3
MVTF_CMD_MFULL	C7	20	3
MVTF_COPYPOOL	130	10	3
MVTF_CXEPI	5E	80	4
MVTF_DS_MARKFULL	130	80	3
MVTF_DS_PRIVAT	130	20	3
MVTF_DS_REUSE	130	40	3
MVTF_EAV	130	04	3
MVTF_EOV_ABEND	123	20	3
MVTF_ERR_MARKFULL	F1	20	3
MVTF_ERRALT_MARKFULL	F1	40	3
MVTF_FEOV_DONE	C7	80	3
MVTF_FEOV_ISSUED	122	02	3
MVTF_HAS	C7	08	3
MVTF_ILLEGAL_WORM	59	40	4:
MVTF_IN_XCAP	C7	10	3
MVTF_LSPC_ODM_ML1_DONE	131	20	3

Table 116 (Page 2 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVTF_MSNS	5E	40	4
MVTF_NALT	122	40	3
MVTF_NEOV_DONE	C7	40	3
MVTF_NEOV_ISSUED	122	01	3
MVTF_NOCOPY	130	08	3
MVTF_NOMIGALTSYNC	123	02	3
MVTF_ODM_ML1	131	40	3
MVTF_ONDEMAND_MIG	130	02	3
MVTF_PREV_ORIG	123	40	3
MVTF_RBUF	5E	20	4
MVTF_RELEASE_ALT	123	04	3
MVTF_SDSP_ADDVOL	F1	10	4
MVTF_SEG_FBID	F1	08	3
MVTF_SKIP_VOL	130	01	3
MVTF_SSMU	8D		3:
MVTF_THRESHOLD_EX	131	80	3
MVTF_YTDS_NEOV_ALT	123	10	3
MVTF_951	122	10	3
MVTFAD	58	80	4
MVTFADVL	58	08	4
MVTFAFF	111	80	4
MVTFALLO	121	80	3
MVTFAMI	120	10	3
MVTFAMP	59	20	4
MVTFASN	17	80	4
MVTFATDS	5C	40	4
MVTFBACK	18	04	4
MVTFBDCS	70	20	4
MVTFBDCT	70	10	4
MVTFCDDV	5C	80	4
MVTFCD0	5D	04	4
MVTFCNVT	5D	08	4
MVTFCUCS	5C	20	4
MVTFDAY	70	80	4
MVTFDBA	19	80	4
MVTFDSEL	58	01	4
MVTFDSR	19	02	4
MVTFDTMT	58	04	4
MVTFDTWT	58	02	4
MVTFETRM	111	04	4
MVTFEXPD	5D	01	4
MVTFGT32K	F1	80	3

Table 116 (Page 2 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVTFHOLD	17	01	4
MVTFJFCB	70	40	4
MVTFLAGS	120		2
MVTFLDA	121	08	3
MVTFLEV2	18	40	4
MVTFLGS	17		3
MVTFLGS2	70		3
MVTFLGS3	5D		3
MVTFLGS4	C7		2
MVTFLGS5	5C		3
MVTFLGS6	F1		2
MVTFLS	17	20	4
MVTFLSF	5D	40	4
MVTFLSM	5D	80	4
MVTFL1OV	5E	10	4
MVTFMC1P	70	01	4
MVTFMIG	17	02	4
MVTFMIGD	5E	08	4
MVTFMIGV	5E	04	4
MVTFMTWT	17	04	4
MVTFNADV	70	08	4
MVTFNDEQ	121	40	3
MVTFNLDA	121	04	3
MVTFNOAM	18	80	4
MVTFNOAR	18	08	5
MVTFNOCM	18	01	4
MVTFNOPT	19	04	4
MVTFNPDE	5D	20	4
MVTFNUCB	120	01	3
MVTFPIND	120	02	3
MVTFPRV	18	08	4
MVTFQVOL	120	80	3
MVTFRAG	52		3
MVTFRAG_TRK_SPACE	178		2
MVTFRBU	19	40	4
MVTFRCYT	5E	02	4
MVTFRESP	30		3
MVTFRESP_TRK_SPACE	174		2
MVTFRNSD	120	04	3
MVTFRSIV	5C	01	4
MVTFRSTR	111	08	4
MVTFRSV	18	02	4

Table 116 (Page 3 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVTFRVFU	19	10	4
MVTFSCA	121	10	3
MVTFSDP	18	20	4
MVTFSDPV	5E	01	4
MVTFSMS	70	04	4
MVTFSMVL	70	02	4
MVTFSTAK	121	20	3
MVTFSVOL	120	40	3
MVTFTCFD	5C	04	4
MVTFTEMP	5D	10	4
MVTFTSED	80	40	4
MVTFTSPW	80	80	4
MVTFTSRF	80	20	4
MVTFUCCL	120	20	3
MVTFUFSP	5D	02	4
MVTFURAC	58	10	4
MVTFUSDP	120	08	3
MVTFUSED	5C	10	4
MVTFUSFP	17	08	4
MVTFVELG	111	40	4
MVTFVFUL	18	10	4
MVTFVLTH	19	20	4
MVTFVOLR	19	01	4
MVTFWD	0		2
MVTFXSRV	5C	08	4
MVTF1FT	17	10	4
MVTF348X	39	04	6
MVTGBF	4C		4
MVTHGENP	17	40	4
MVTHTMT	172		2
MVTHWM	36		3
MVTINLIB	121	03	3
MVTISTRP	FC		2
MVTJFCBP	84		3
MVTLFBID	74		3
MVTLTMT	170		2
MVTLWM	34		3
MVTL1SD	C8		2
MVTMINAG	50		3
MVTMODEL	38		5
MVTNCYL	40		4
MVTNTRK	42		4

Table 116 (Page 3 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVTOBSZ	4A		4
MVTOMVTP	D4		2
MVTPTADJ	81		3
MVTPTOKN	128		2
MVTRAB	71	04	4
MVTRAD	71	02	4
MVTRAM	71	08	4
MVTRBDCS	71	20	4
MVTRBDCT	71	10	4
MVTRDBA	71	80	4
MVTRDBU	71	40	4
MVTRECAL	71		3
MVTRSVCT	5A		3
MVTRVDEV	39	08	6
MVTSACBP	100		2
MVTSDPTM	124		2
MVTSFLGS	80		3
MVTSTACK	D8		2
MVTSTDDN	DD		2
MVTTKID	F8		2
MVTTOTSP	2C		3
MVTTPDEV	3A	80	6
MVTTPLEN	5C	02	4
MVTTRKL	44		4
MVTTRKOV	39	40	6
MVTTTLIP	CC		2
MVTUBYMC	F4		2
MVTUCBP	28		3
MVTUCBTY	38		4
MVTUHST	5F		3
MVTUID	B8		3
MVTUNIT	20		3
MVTVAR	C		2
MVTVLTYP	16		3
MVTVOLSQ	14		3
MVTVSCNT	110		3
MVTVSN	1A		3
MVTVSS	112		3
MVTXCART	E9		3
MVTXCNID	E5		3
MVTXFLGS	122		2
MVTXINFO	E5		2

Table 116 (Page 4 of 4). MVT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MVTXPTR	BC		4
MVT2DEVT	7C		3
MVT2KPT	48		4
MVT2VSN	62		3

MWE—Management Work Element

The management work element (MWE) describes a requested function to be performed by DFSMShsm (see Table 117). The MWEs are chained together in queues in the DFSMShsm work space or in the system common storage area until the appropriate DFSMShsm task processes them. The MWE is 140 bytes long, plus variable data, depending on the request type.

Table 117 (Page 1 of 6). MWE—Management Work Element

Offsets Decimal	Offsets (Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	288	MWE	Management work element.
0	(0)	CHARACTER	140	MWEHDR	Header present in all MWEs.
0	(0)	ADDRESS	4	MWEFWD	Forward pointer to next MWE.
4	(4)	ADDRESS	4	MWEBWD	Backward pointer to previous MWE.
8	(8)	CHARACTER	4	MWESPL	GETMAIN and FREEMAIN values.
8	(8)	FIXED	1	MWESPN	Subpool of this MWE.
9	(9)	ADDRESS	3	MWELEN	Length of this MWE.
12	(C)	ADDRESS	4	MWEUSER	Alternate name for this field.
12	(C)	ADDRESS	4	MWEFSR	Pointer to function statistics record if the MWE is in the DFSMShsm address space.
16	(10)	CHARACTER	8	MWETOD	Time stamp when the MWE was queued.
16	(10)	CHARACTER	4	MWETSTIM	Time in packed decimal from time SVC.
20	(14)	CHARACTER	4	MWETSDAT	Date when the MWE was queued. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
24	(18)	FIXED	1	MWEFUNC	MWE function code. The MWE function codes are also the DFSMShsm SVC function codes. Codes 0, 1, 2, and 10 are only DFSMShsm function codes and do not appear in an MWE. The following is a list of DFSMShsm SVC function codes, of which 3 through 9 and 11 and 12 are MWEFUNC codes: 0 = Return the queue control table pointer. 1 = Start up DFSMShsm. 2 = Shut down DFSMShsm. 3 = Recall a data set. 4 = Unused. 5 = Recover a data set or volume. 6 = Migrate a data set or volume. 7 = Back up a data set or volume. 8 = Read a control data set record. 9 = Process command text. 10 = Post an MWE as completed. 11 = Purge the MWE. 12 = Delete a migrated data set. 13 = Perform aggregate backup. 14 = Perform aggregate recovery 15 = Write CDS 16 = Replace CDS 17 = FRBACKUP 18 = FRRECOV 19 = FRDELETE.
25	(19)	BITSTRING	3	MWEFLGS	The next 3 bytes contain option and control flags:
		1...		MWEFVSAM	When set to 1, the recalled data set is a VSAM data set.
		.1..		MWEFNOW	When set to 1, the NOWAIT parameter has been specified.
		..1.		MWEFRECV	When set to 1, DFSMShsm has copied the MWE.
		...1		MWEFTSOR	When set to 1, this is an interactive request from TSO.
		.... 1...		MWEFVOL	When set to 1, this MWE generated from volume processing.
		.... .1..		MWEMLEV2	When set to 1, the data set is to migrate directly to L2 from public.
		.... .1..		MWEFDATE	When set to 1, the MWEDATE field contains a date.
		.... ..1.		MWEFRTYW	When set to 1, the task is waiting to obtain a volume before retrying the request.
		1		MWEFUNWT	When set to 1, the user has been notified that the MWE is waiting.
26	(1A)	1...		MWE29DU	When set to 1, the request is an IGG029DU request.
		.1..		MWEGDG	When set to 1, the request is a scratch generation data group request.
		..1.		MWEFEX0A	When set to 1, the request is an IFG0EX0A request.
		...1		MWEFPODS	When set to 1, a replacement operation requires the old data set to be purged.

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Table 117 (Page 2 of 6). MWE—Management Work Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... 1...		MWEFNOMT	When set to 1, there is no wait for a volume mount.
		.... .1..		MWEFBTOT	When set to 1, backup is total. When set to 0, backup is incremental.
		.... .1..		MWEFZREC	When set to 1, MWECTYP is for ZREC. Old bit is no longer used.
		.... ..1.		MWEFNCMP	Alternate name for MWEFKGT.
		.... ..1.		MWEFKGT	When set to 1, obtain the record that has a key greater than the specified key. When set to 0, obtain the record that has a key equal to the specified key.
		1		MWEFNCAT	When set to 1, get the next control data set record. When set to 0, get the specifically identified CDS record.
27	(1B)	1...		MWEFDAYS	When set to 1, the MWEDAYS field is valid.
		.1..		MWEFAUTH	When set to 1, the sender of the management work element is authorized.
		..1.		MWEFRSV	When set to 1, a specific volume has been requested for a recall.
		..1.		MWEFTERM	When set to 1, route the log output to the terminal for a migration request.
		...1		MWEFDONE	When set to 1, this MWE has been processed.
		.... 1...		MWEFABND	When set to 1, DFSMShsm abnormally ended processing of this MWE.
		.... .1..		MWEFOP	When set to 1, the MWE is for an operator command or authorized user.
		.... ..1.		MWEFMFRC	When set to 1, the volume mount should be forced even if the MCV shows that the volume is in use.
		1		MWEFBUSY	When set to 1, DFSMShsm is processing the MWE.
28	(1C)	CHARACTER	8	MWEUID	Callers userid
28	(1C)	CHARACTER	4	*	When caller is operator - reserved.
32	(20)	ADDRESS	4	MWEXPTR	When caller is operator - pointer to console information.
36	(24)	FIXED	4	MWERQN	DFSMShsm request number. Set by the DFSMShsm SVC.
40	(28)	ADDRESS	4	MWEASCB	Pointer to callers ASCB.
44	(2C)	BITSTRING	4	MWEECB	ECB to be posted when DFSMShsm completes a request.
		x...		*	Reserved.
		.1..		MWECOMP	When set to 1, DFSMShsm has completed a request.
		..xx xxxx		*	Reserved.
48	(30)	FIXED	4	MWERC	Return code from the request.
52	(34)	FIXED	4	MWEREAS	Reason code for errors.
56	(38)	CHARACTER	4	MWEID	MWE identifier, MWE*.
60	(3C)	CHARACTER	4	MWEABCC	System abnormal end completion code.
64	(40)	CHARACTER	8	MWEGROUP	Group name for RACF.
72	(48)	BITSTRING	1	MWELOCK	Lock byte used to synchronize between a cross-host storage post and the user WAIT option if an ATTENTION occurs during cross-host storage posting.
73	(49)	BITSTRING	2	MWEFLG2	The next 2 bytes contain the following flags:
		1...		MWEFATMP	When set to 1, processing of this MWE was attempted on this pass through the operator queue, but was not processed because another MWE for the same long-running command was being processed or the function was being held.
		.1..		MWEFBDCS	When set to 1, the backup device category is specified.
		..1.		MWEFBDCT	For MWEFUNC=7 (backup)... When set to 1, the backup device category is tape. When set to 0, the backup device category is DASD.
				MWEF_RECALL_TAKEAWAY	For MWEFUNC=2 (recall)... When set to 1, the recall caused a tape-takeaway.
		...1		MWEFSMSP	When set to 1, space management is specified on the command.
		.... 1...		MWEFDBA	When set to 1, not migrated but DBA or DBU can be done.
		.... .1..		MWEFRBU	When set to 1 and MWEFDBA is also set to 1, DBA can be done. When set to 0 and MWEFDBA is set to 1, DBA can be done.
		.... ..1.		MWEFCNVT	When set to 1, specifies that the convert function was requested if the MWE is a migration MWE, or that either a convert function or an extent reduction was done for a data set if the MWE is a recall MWE.
		1		MWEFSTCK	When set to 1, a store clock timer instruction has been issued for the MWE.
74	(4A)	1...		MWEFRDRC	When set to 1, the MCD or MCC record must be read to store in this MWE the beginning and ending tape volume serial numbers of the volumes on which the data set is backed up or migrated.

Table 117 (Page 3 of 6). MWE—Management Work Element

Offsets Decimal (Hex)		Type	Length	Name	Description
		.1..		MWEFINHB	When set to 1, this MWE is not selected during the recall queue scan.
		..1.		MWEFNATT	When set to 1, the DFSMShsm SVC does not attach the attention out module.
		...1		MWEFDNOW	When set to 1, delete this MWE from the CSA queue after it is copied to DFSMShsm address space. Used only for non-wait type MWEs. When set to 0, do not delete MWE from CSA queue after it is copied.
		.... 1...		MWEF26DU	When set to 1, delete request from IGG026DU. When set to 0, not a request from IGG26DU.
		.... .1..		MWEFWSDP	When set to 1, this recall MWE is waiting for another recall from a SDSP data set to complete.
		.... ..1.		MWEFCONS	When set to 1, a request was entered from the console.
		1		MWEFLOCW	When set to 1, wait ECB pointer MWEECBP used for wait. (Post must bespecified) When set to 0, no wait.
75	(4B)	FIXED	1	MWERCLCT	Number of times DFSMShsm tried to recall a data set while in use within the same host.
75	(4B)	FIXED	1	MWEATCTR	Alternate name for the number of times the MWE has been selected to process.
76	(4C)	CHARACTER	8	MWEJBN	Job name of the requesting job.
84	(54)	CHARACTER	4	MWERST	Reader start time of the job. Means STCKTIME in cross memory posting after DFSMShsm posts IGX24.
88	(58)	CHARACTER	4	MWERSD	Reader start date of the job. The date is obtained from the TIME DEC macro in format *X'0cyyddds'*.
92	(5C)	FIXED	1	MWERHSCT	Number of times DFSMShsm tried recalling a data set while another host was using the data set.
93	(5D)	BITSTRING	2	MWEFLG3	The next 2 bytes contain the following additional DFSMShsm flags.
		1...		MWEFNPST	When set to 1, indicates to ARCPMWE that the user should not be posted when this MWE is purged.
		.1..		MWEFTCM	When set to 1, contains the text completion message flag.
		..1.		MWEFMPUR	When set to 1, a delete with purge has been requested.
		...1		MWECANCL	When set to 1, this MWE has been canceled.
		.... 1...		MWEFTMPB	When set to 1, the user is a TMP background job.
		.... .1..		MWEFASNC	When set to 1, the MWEECB in the user's MWE is to be posted. When set to 0, the MWEECB in DFSMShsm CSA copy MWE is to be posted.
		.... ..1.		MWEFBDVT	When set to 1, the data set backup or dump version resides on tape.
		1		MWEFDBU	When set to 1, the data set request is a result of a DBU of the volume.
94	(5E)	1...		MWEFEGDG	When set to 1, roll-off processing of unexpired generation data group has been requested.
		.1..		MWEFRIWF	When set to 1, deletion of free space has been requested.
		..1.		MWEFNRD	When set to 1, ARCPRQ should not read the MCD record.
		...1		MWEFNONQ	When set to 1, processing is being done without an enqueue on the data set name.
		.... 1...		MWEFATST	When set to 1, MWE was on queue when DFSMShsm was started.
		.... .1..		MWEFNRES	When set to 1, CDS has no reserved space.
		.... ..1.		MWEFNOTP	When set to 1, tape mount optimization is not valid for this MWE. Data set is being restored.
		1		MWEF2LOC	When set to 1, the first catalog locate has been done for the data set.
95	(5F)	FIXED	1	MWEFTYP	Preserve function code for ARCFAIL.
96	(60)	ADDRESS	4	MWEECBP	ECB pointer used for local wait. Must be specified when MWEFLOCW is on.
100	(64)	BITSTRING	1	MWEDFLGS	This byte contains the following dump-restore flags:
		1...		MWEFDUMP	When set to 1 for a backup volume MWE, a full volume dump will be performed. When set to 1 for a recover MWE, a restore will be performed.
		.1..		MWEFDGEN	When set to 1, MWEGEN contains the dump generation number; otherwise it contains the backup version number.
		..1.		MWEFBGEN	When set to 1, a generation has been specified with the RECOVER command.
		...1		MWEF646I	When set to 1, message ARC0646I has been issued.
		.... 1...		MWEFAPIN	When set to 1, DFSMShsm will attempt to apply incremental volume recover after a volume restore.
		.... .1..		MWE_ADDVOL_ERR	When set to 1, an error occurred during an attempt to perform ADDVOL.

Table 117 (Page 4 of 6). MWE—Management Work Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... ..1.		MWE_VARIABLE_ RETRYS	RECALL retries for recycle and TAPECOPY.
		1		MWEF_ALTUNIT	Use alternate unit.
101	(65)	BITSTRING	1	MWEFFLGS	This byte contains the following subsequent migration flags:
		1...		MWEFFVL	When set to 1, the migration MWE resulted from a FREEVOL command.
		.1..		MWEFTLEV	When set to 1, the target level of the FREEVOL command is ML1.
		..1.		MWEFTORD	When set to 1, a target device type of tape was specified with the FREEVOL command.
		...1		MWETSPEC	When set to 1, a target device type was specified with the FREEVOL command.
		.... 1...		MWEFRTNV	When set to 1, RETAINNEWESTVERSION was specified with the FREEVOL command.
		.... .1..		MWEF_VOLUME_IN_ RECALL_ COMMAND	When set to 1, the volume was specified with the RECALL command.
		.... ..1.		MWEF_FREECSA	When set to 1, need to dequeue and FREEMAIN from CSA.
		1		MWEF_FORCML1	FORCML1 was specified on ARCHMIG macro.
102	(66)	FIXED	2	MWE89VAL	Indicates the priority of the MWE on the operator queue. On the recall or recover function queue, this field has a priority (between 0 and 100) set by the Return Priority (RP) installation exit.
104	(68)	FIXED	2	MWECINDX	Index into the command and entry point tables.
106	(6A)	BITSTRING	1	MWEFLG4	This byte contains the following flags:
		1...		MWEFEXT	When set to 1, extent reduction is required.
		.1..		MWEFSCHG	When set to 1, the change bit in the format 1 DSCB should be set.
		..1.		MWEFSDLR	When set to 1, the date-last-referenced field should be set to the date the data set contained when it was migrated.
		...1		MWEFCLBD	When set to 1, the last backup date should be reset to zero.
		.... 1...		MWEFRFCA	When set to 1, the RACF facility class is active. When set to 0, the RACF facility class is not active.
		.... .1..		MWEFRBER	When set to 1, VB/VBS (variable block / variable block spanned) reblocking error occurred.
		.... ..1.		MWEUBSAM	When set to 1, BSAM must be used for RECALL.
		1		MWEFDRTY	When set to 1, DFSMSdss is to retry last operation.
107	(6B)	BITSTRING	1	MWESMSFG	This byte contains the following SMS functional flags:
		1...		MWEFSMSD	When set to 1, the data set is to be recalled as SMS-managed, and SMS-related data was returned in MWESLIST area (used only during JES3 converter/ interpreter processing).
		.1..		MWEFRDLO	When set to 1, reissue locate request after the data set is recalled if a change in status has occurred for the data set. (For example, SMS to non-SMS and associated construct changes.)
		..1.		MWEFGDG	When set to 1, the data set is a GDG data set.
		...1		MWEFORCE	When set to 1, FORCE was specified on command.
		.... 1...		MWEFNOPW	When set to 1, password checking is not required.
		.... .1..		MWEFUCAT	When set to 1, the data set is to be uncataloged.
		.... ..1.		MWEFROG	When set to 1, the data set is a rolled-off generation data set.
		1		MWEFROGD	When set to 1, user is authorized to delete rolled-off GDS.
108	(6C)	FIXED	2	MWE_SUBPOOL_ABOVE_LINE	Subpool of this MWE.
110	(6E)	BITSTRING	2	MWEFLG6	More MWE flags.
		1...		MWEFOKNQ	This field is valid only when flag MWEFVOL is set to 1. When set to 1, SERIALIZATION(PREFERRED) specified for retrying a backup. When set to 0, SERIALIZATION(REQUIRED) specified for retrying a backup.
		.1..		MWEF_REMOTE	When set to 1, this request completed successfully on a remote system.
		..1.		MWEF_CAT	Update request from CATALOG.
		...1		MWEFINTR	When set to 1, indicates an internally generated MWE.
		.... 1...		MWEF_EXPIREDS	When set to 1, indicates that this delete data set MWE is for a scheduled to expire data set request.
		.... .1..		MWESTKID_LAST	When set to 1, this MWE is the last with identifier MWESTKID.
		.... ..1.		MWEF_DSMIG_HELD	When set to 1, command data set migration held; no target available.
		1		MWEF_RCLTAPE_DEFERRED	When set to 1, this request was deferred in favor of giving a higher priority request on another host an opportunity to take the tape. This request can only be deferred once for a given request for a tape that is not mounted.
111	(6F)	1...		MWEF_DS_NAME_CHANGED	When set 1, the data set name specified on the HRECOVER command is an alias or a filter.
		.1..		MWEF_REMOTE_HOST_PROCESSED	Processed by a remote host.

Table 117 (Page 5 of 6). MWE—Management Work Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MWEF_CRQ_PROCESSED	When set to 1, MWE resided on CRQ.
		...1		MWEF_CRQ_CANCEL	When set to 1, cancel MWE processing.
		.... 1...		MWEF_CRQ_TAPE_CHANGE	When set to 1, a change has occurred with tape volser(s).
		.... .1..		MWEF_FRB_CPOOL	When set to 1, an FRBACKUP COPYPOOL command was issued.
		.... ..1.		MWEF_RCVR_CPOOL	When set to 1, an FRRECOV COPYPOOL command was issued.
		1		MWEF_FASTREP_FMCPY	When set to 1, an FRRECOV FROMCOPY command was issued.
112	(70)	CHARACTER	12	MWEXINFO	Fields for extended 4-byte console ID support.
112	(70)	CHARACTER	4	MWEXCNID	Four-byte ID of console.
116	(74)	CHARACTER	4	MWEXCART	Console auto response token.
124	(7C)	CHARACTER	2	MWEHID	Target DFSMShsm host ID.
126	(7E)	BITSTRING	1	MWEFLG7	More MWE flags.
		1...		MWEF_ALTERPRI	When set to 1, the priority of this request was altered through the ALTERPRI command.
		.1..		MWEF_ALTERPRI_HI	This flag applies only when MWEF_ALTERPRI set to 1. When set to 1, the HIGH keyword was specified. When set to 0, the LOW keyword was specified.
		..1.		MWEFEXT_SAMEVOL	Target extent reduction recall to the same (original) volume VOLUME
		...1		MWEF_EXT	When set to 1, extent reduction is performed for a data set placed on EAV volume.
		.... 1...		MWEF_FRB_ALLOWPPRCP	When set to 1, ALLOWPPRCP specified for FRBACKUP
		.... .1..		MWEF_FRR_ALLOWPPRCP	When set to 1, ALLOWPPRCP specified for FRRECOVER
		.... ..1.		MWEF_PARTIALDUMPVER_OK	When set to 1, recovery of a partial dump version is allowed.
		1		MWEF_FRR_CP_FROMDUMP	When set to 1, MWE is part of an FRR COPYPOOL FROMDUMP request
127	(7F)	BITSTRING	1	MWEFLG8	MWE Flags
		1...		MWEF_GRVOL_PREPROCES	When set to 1, GRVOL PREPROCESSED
		.1..		MWEF_CRQ_TAPE_DELETD	When set to 1, tape(s) deleted from TL during abend cleanup (JRCLN).
		..1.		MWEF_CLTR	When set to 1, data set is class transition candidate.
		...1		MWEF_EMPTYTAPE	When set to 1, get empty tape for retry of a BACKDS command.
		.... 1...		MWEFCTKN	When set to 1, TCBTOKEN=CURRENT specified for ASYNC recall.
		.... .1..		MWEF_RECYCLE_RETRY	When set to 1, MWE has been created in case of TAKEAWAY 1P.
		.... ..1.		MWEF_RECYCLE_DUPLEX	When set to 1, MWE has been created in case of error on alternate tape 1P@UWA.
		1		MWEF_DEL_MIGGDS	When set to 1, delete request for MIG DS.
128	(80)	ADDRESS	4	MWEDAVP	Address for DAV list.
132	(84)	FIXED	1	MWE_FRB_FC_ABILITY	ALLOWPPRCP option set for FRBACKUP. 1 = NO or not specified. 2 = PMNO or YES specified. 3 = PMPREF specified. 4 = PMREQ specified.
133	(85)	FIXED	1	MWE_FRR_FC_ABILITY	ALLOWPPRCP option set for FRRECOVER. 1 = NO or not specified. 2 = PMNO or YES specified. 3 = PMPREF specified. 4 = PMREQ specified.
134	(86)	SIGNED	2	*	Reserved.
136	(88)	SIGNED	2	MWE_RECYCLE_RETRY_CNT	The # of recycle retry for the same tape 1P.
138	(8A)	BITSTRING	2	MWEFLG5	This byte contains the following flags:
		11..		MWEDAOPT	Specified DAOPTION in effect: 00 - No DAOPTION 01 - Same track DAOPTION 10 - Relative track DAOPTION 11 - Relative block DAOPTION
		..1.		MWEFHSM	When set to 1, DFSMShsm is the datamover when the BACKVOL CDS command is issued.
		...1		MWEFDSS	When set to 1, DFSMSdss is the datamover when the BACKVOL CDS command is issued.
		.... 1...		MWEFTAPE	When set to 1, BACKUPDEVICECAT(TAPE) was specified on the BACKVOL CDS command.
		.... .1..		MWEFDASD	When set to 1, BACKUPDEVICECAT(DASD) was specified on the BACKVOL CDS command.
		.... ..1.		MWEFPARA	When set to 1, BDC(TAPE(PARALLEL)) was specified on the BACKVOL CDS command.
		1		MWEFNPAR	When set to 1, BDC(TAPE(NOPARALLEL)) was specified on the BACKVOL CDS command.
139	(8B)	1...		MWEFNULL	When set to 1, NULLJOURNALONLY was specified on the BACKVOL CDS command.
		.1..		MWEFBVER	When set to 1, version specified on RECOVER command.

Table 117 (Page 6 of 6). MWE—Management Work Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MWE_INCREASE_SECSP	Increase secondary space quantity.
		...1		MWEAUDIT	When set to 1, the audit process was used to build this MWE.
		.... 1...		MWE_ACEE_PRIV	The ACEE privileged or trusted bit is set to 1.
		.... .1..		MWEF_CAT_BUT_NOT_ON_MIGRAT	When set to 1, the data set is cataloged on a L0 volume.
		....1.		MWEF_PARTIAL_ CATONL0	When set to 1, the data set is cataloged on a L0 volume and CTGHRCAL is set to 1.
		1		MWEFRRKW	When set to 1, RCVRQD keyword specified on ARCHRCOV command.
140	(8C)	CHARACTER		MWEHDRE	End of MWE header area.

As shown in Table 118, the fields MWEMCNT through MWEBUFU are present if this MWE is not for a command MWE (commands can come from the operator, HSENDCMD, and some user commands like HQUERY), but is for a functional MWE (some user commands like HMIGRATE build functional MWEs).

Table 118 (Page 1 of 2). MWE—Functional

Offsets Decimal	(Hex)	Type	Length	Name	Description
140	(8C)	FIXED	2	MWEMCNT	Number of management work elements in the request.
142	(8E)	FIXED	2	MWESEQN	Sequence number of this MWE in a multiple request.
144	(90)	FIXED	2	MWECCNT	Number of MWEs processed in the current request.
146	(92)	FIXED	2	MWEDARC	Dynamic allocation error return code.
148	(94)	CHARACTER	44	MWEDSN	Data set name.
148	(94)	CHARACTER	2	MWESGB	When set to blanks, contains a storage group name.
150	(96)	FIXED	2	MWESGL	Length of storage group name.
150	(96)	FIXED	2	MWE_CPNAME_LEN	Length of copy pool name.
152	(98)	CHARACTER	30	MWESGN	Storage group name.
152	(98)	CHARACTER	30	MWE_CPNAME	Copy pool name.
182	(B6)	FIXED	2	MWESG_IX	For storage group MWESGN, the index in the array that is contained in the queue element addressed by MWEBAKID or MWESTKID.
184	(B8)	ADDRESS	4	MWEBAKID	Identifier of the set of valid storage group from the BACKVOL command. Valid only if MWEFUNC equals 7 (backup).
188	(BC)	CHARACTER	4	*	Reserved.
192	(C0)	CHARACTER	8	MWE_ALTUNIT	Alternate unit (only used for recall and recover).
192	(C0)	CHARACTER	8	MWE_FRVP_SGNAME	Storage Group Name when FRBACKUP
200	(C8)	CHARACTER	8	MWEPW	Data set password.
208	(D0)	BITSTRING	4	MWEDEVT	Device type as in the UCB.
212	(D4)	CHARACTER	6	MWEVSN	Volume serial number.
212	(D4)	CHARACTER	6	MWETVSN	When MWEF_FASTREP_FRMCPY is set to 1, the volume serial number field is used for TOVOLUME.
218	(DA)	CHARACTER	1	MWECETYP	For return CDS information - the type of CDS entry. For BACKUP, the category of volser MWEVSN X'00' = primary V = ML1 X = backup 2 = ML2
219	(DB)	BITSTRING	1	MWEFRACF	RACF flags, the same as in the ACEEFLG1 field.
220	(DC)	FIXED	4	MWEGEN	Backup version generation number requested.
220	(DC)	CHARACTER	4	MWEDATE	Date for the RECOVER command in the TIME DEC macro format *X'0cyyddds'*, when MWEFDATE is set to 1.
220	(DC)	CHARACTER	4	MWE2DEVT	Device type of the MWE2VSN volume. From MIGRATE command or MCV.
220	(DC)	CHARACTER	4	MWE_RCLTAPE_KEY_DATE	If MWEF_RCLTAPE_DEFERRED is on, the field contains the information in the MCV_OHRCL_TFQ_DATE field.
224	(E0)	FIXED	4	MWEDAYS	DAYS parameter value from the MIGRATE, BACKVOL, or FREEVOL commands.
224	(E0)	FIXED	4	MWE_TC_TAKEAWAY_START	For RECALL when tape takeaway from TAPECOPY is active, the high order 4 bytes of the STCK format time when RECALL first needed TAPECOPY's ML2 tape.
224	(E0)	FIXED	4	MWE_AB_TAKEAWAY_START	For RECALL when ABACKUP has a needed tape in use, the high order 4 bytes of the STCK format time when RECALL needed ABACKUP's tape.
228	(E4)	CHARACTER	6	MWE2VSN	Volume serial number specified with the CONVERT parameter of the MIGRATE command.
228	(E4)	CHARACTER	6	MWESRCVL	For data set recovery, SOURCEVOL specified with FROMDUMP.

Table 118 (Page 2 of 2). MWE—Functional

Offsets Decimal	(Hex)	Type	Length	Name	Description
228	(E4)	CHARACTER	4	MWE_RCLTAPE_KEY_TIME	If MWEF_RCLTAPE_DEFERRED is on, then field contains the information in the MCV_OHRCL_TFQ_TIME field.
234	(EA)	CHARACTER	2	MWE_ORGNL_HID	Host ID that generated the request. This field is only valid for recall requests.
236	(EC)	FIXED	2	MWEDBADY	Data set deletion *days* from the MIGRATE command.
238	(EE)	CHARACTER	6	MWECVSN	Serial number of the catalog volume.
244	(F4)	BITSTRING	4	MWECDEVT	Device type of the catalog volume.
248	(F8)	ADDRESS	4	MWEPDEP	Address of the pool descriptor element.
252	(FC)	FIXED	4	MWESTAMP	Time stamp, format is the upper half of STCK output. If MWEFUNC=3 (RECALL), two minute WAIT interval time stamp. If MWEFUNC=7 (BACKUP) and MWEFVOL=1, time stamp of the time this MWE was queued for retry. When set to 0, MWE can be retried immediately.
256	(100)	FIXED	4	MWEVER	Backup copy version number requested.
260	(104)	FIXED	1	MWE_ABOPTIMIZE	When set to 1, user specified OPTIMIZE value.
261	(105)	CHARACTER	2	MWE_REMOTE_PROCESSED_HID	The remote host ID that has completed a recall request. Only valid for CRQ recall request.
263	(107)	CHARACTER	3	*	Reserved.
266	(10A)	FIXED	1	MWEVOLCNT	When set to 1, user specified VOLCOUNT(N(n)).
267	(10B)	1...		MWEFVANY	When set to 1, user specified VOLCOUNT(ANY).
		.1..		MWE_TGTGDSD	When set to 1, TGTGDS deferred.
		..1.		MWE_TGTGDSA	When set to 1, TGTGDS active.
		...1		MWE_TGTGDSR	When set to 1, TGTGDS rolled off.
		.... 1...		MWEF_FASTREP_TOVOLUME	When set to 1, this is the TOVOLUME specified for the fast replication recovery request.
		.... .1..		MWEFPIGB	MWE represents a request for a tape already mounted.
		.... ..1.		MWEFRQTC	MWE was requeued during data set recover/restore due to tape contention.
		1		MWEFRSTOR	MWE is for a data set restore from dump. Bit is only valid if the data set was requeued. See MWEFRQTC.
268	(10C)	FIXED	4	MWEFBID	File sequence number of the migrated data set on a tape migration volume.
272	(110)	CHARACTER	6	MWESTVOL	Volume serial number of the tape volume where the migrated data set begins.
278	(116)	CHARACTER	6	MWELSTVL	Volume serial number of the tape volume where the migrated data set ends.
284	(11C)	FIXED	2	MWEBUFL	Length of the buffer.
286	(11E)	FIXED	2	MWEBUFU	Amount of buffer used.
288	(120)	CHARACTER		MWE_END	End of main MWE.

As shown in Table 119, the following fields are appended to the MWE header for operator commands from the console or by the HSENDCMD command:

Table 119. MWE—Command Buffer

Offsets Decimal	(Hex)	Type	Length	Name	Description
140	(8C)	STRUCTURE	*	MWECMD	Command buffer.
140	(8C)	FIXED	2	MWECMDL	Length of the command text plus 4 bytes for control.
142	(8E)	FIXED	2	MWECMDO	Offset for TSO scan and parse.
144	(90)	CHARACTER	*	MWECMDT	Command text.

As shown in Table 120, the following fields describe the MWE CDS entry buffer:

Table 120. MWE—CDS Entry Buffer

Offsets Decimal	(Hex)	Type	Length	Name	Description
288	(120)	STRUCTURE	*	MWEBUF	CDS entry buffer.
288	(120)	CHARACTER	*	MWEBUFD	Buffer data area.

As shown in Table 121, the following fields describe the MWE preselected volume list:

Table 121. MWE—Preselected Volume List

Offsets Decimal	(Hex)	Type	Length	Name	Description
288	(120)	STRUCTURE	52	MWEVLIST	Preselected volume list.
288	(120)	FIXED	2	MWERVCT	Number of volume serial numbers returned.
290	(122)	CHARACTER	10(5)	*	An array of 5 reserved entries.
290	(122)	CHARACTER	6	MWERVSN	Volume serial number of a returned volume.
296	(128)	BITSTRING	4	MWERDEVT	Device type of a returned volume.

As shown in Table 122, the following fields describe the MWE extension for the RECOVER function:

Table 122. MWE—Extension for RECOVER

Offsets Decimal	(Hex)	Type	Length	Name	Description
288	(120)	STRUCTURE	64	MWERETR	Extension for recover backup copy requests.
288	(120)	CHARACTER	44	MWENDSN	New data set name for the backup version.
332	(14C)	CHARACTER	6	MWEFRVOL	Original volume from which the backup version was copied.
338	(152)	BITSTRING	2	MWEFREC	Flags:
		1...		MWEFVINI	Volume initiated.
		.xx.		*	Reserved.
		...1		MWEDSBU_F_WTOR	Recover extend time; WTOR needed for this MWE.
		.... 1...		MWEDSBU_F_FVOL	When set to 1, MWESTVOL is the volume serial number for which the WTOR will be issued. When set to 0, MWELSTVL is the volume serial number for which the WTOR will be issued.
		.... .1..		MWEF_BYPASS_TAKEAWAY	When set to 1, recover tape take away logic skipped.
		.... ..X.		*	Reserved
		1		MWEF_SINGLE_FQ_DS	When set to 1, a single fully-qualified data set name was specified on the FRRECOV command.
339	(153)	1...	1	MWEF_AINC_DS_RECOVER	When set to 1, MWE built on behalf of a volume request.
		.1..		MWEF_DISALL	When set to 1, volume is in DISABLE ALL status
		..xx xxxx		*	Reserved
340	(154)	CHARACTER	4	*	Reserved.
344	(158)	CHARACTER	8	MWENDSPW	Password for the new data set name.

As shown in Table 123, the following fields describe the MWE extension for DUMP, RESTORE, and FRBACKUP requests:

Table 123 (Page 1 of 2). MWE—Extension for DUMP, RESTORE, and FRBACKUP Requests

Offsets Decimal	(Hex)	Type	Length	Name	Description
288	(120)	STRUCTURE	144	MWEDUMPE	Extension for dump, restore, and FRBACKUP requests.
288	(120)	CHARACTER	64	*	Reserved.
288	(120)	CHARACTER	6	MWECLIP	Target volume if MWEFUNC=5 (RECOVER).
294	(126)	FIXED	1(5)	MWESTACK	STACK values for dump classes named in array MWEDCLSS.
299	(12B)	FIXED	1	MWEMAXSTK	Maximum of MWESTACK values.
300	(12C)	ADDRESS	4	MWESTKID	When MWEFUNC=7 (backup) and MWEFDUMP is on, denotes address of the unique set of dump classes named in array MWEDCLSS.
304	(130)	CHARACTER	48	*	Reserved.
352	(160)	CHARACTER	80	MWEDMPRE	This portion of the record contains dump and restore information.
352	(160)	FIXED	2	MWEDCLCT	Number of entries in the dump class array.
354	(162)	FIXED	2	MWE_FRVP_INDEX	FRVP pair index
356	(164)	CHARACTER	8(5)	MWEDCLSS	Dump class array.
396	(18C)	FIXED	2(5)	MWERETPD	Retention period for the dump classes in MWEDCLSS.
406	(196)	BITSTRING	1	MWEF_REQOPT	Status for copypool dump classes: When set to 1, associated dump class operation is required to complete. When set to 0, associated dump class operation is optional.
		1...		MWEF_RO1	Dump class #1
		.1..		MWEF_RO2	Dump class #2
		..1.		MWEF_RO3	Dump class #3
		...1		MWEF_RO4	Dump class #4
		.... 1...		MWEF_RO5	Dump class #5
		xxx		*	Reserved
407	(197)	CHARCTER	1	*	Reserved.
408	(198)	CHARACTER	6	MWEDVOL	Volume serial number of the dump volume.
414	(19E)	FIXED	2	MWE_FRVP_VPI_INDEX	FRVP pair index
416	(1A0)	CHARACTER	6	MWEDSTVOL	Volume serial number of tape where dump copy of data set begins. This field is only valid if the MWE was requeued due to tape contention. See MWEFRQTC and MWEFSTOR.
422	(1A6)	CHARACTER	6	MWEDLSTVL	Volume serial number of tape where dump copy of data set ends. This field is only valid if the MWE was requeued due to tape contention. See MWEFRQTC and MWEFSTOR.
428	(1AC)	BITSTRING	4	MWE_MAS_FLAGS	Flags:
		1...		MWEF_PREPARE	When set to 1, PREPARE specified on the FRBACKUP COPYPOOL command.
		.1..		MWEF_WITHDRAW	When set to 1, WITHDRAW specified on the FRBACKUP COPYPOOL command.
		..1.		MWEF_NOVTOCENQ	When set to 1, NOVTOCENQ specified on the FRBACKUP COPYPOOL command.
		...1		MWEF_TOKEN	When set to 1, TOKEN specified on the FRRECOV copy command.
		...1		MWEF_FR_VERIFY	When set to 1, VERIFY specified on the FRRECOV copy command.
		.... .1..		MWEF_FRRTNCNTRL_FREND	When set to 1, RETURNCONTROL (FASTREPLICATIONEND) was specified. When set to 0, RETURNCONTROL (DUMPEND) was specified.
		.... ..1.		MWEF_FRBDUMP	When set to 1, the FRBACKUP request specified DUMP.
		1		MWEF_FRBDUMPONLY	When set to 1, the FRBACKUP request specified DUMPONLY.
429	(1AD)	1...		MWEF_FRBFORCE	When set to 1, the FRBACKUP request specified FORCE.
		.1..		MWEF_FRBNOCOPY	When set to 1, the FRBACKUP request specified NOCOPY.
		..1.		MWEF_FRDMP_LAST_VOL	When set to 1, this is the last volume to be dumped by the FRBACKUP request.
		...1		MWEF_FRRBKUP	When set to 1, the FRBACKUP request specified FROMDASD.
		.... 1...		MWEF_FRDUMP	When set to 1, the FRBACKUP request specified FROMDUMP.
		.... .1..		MWEF_DGNFVTOC	When set to 1, the DGNFVTOC field is set to 1 in the DGN record associated with this request.
		.... ..1.		MWEF_FRBDMPCLASS	When set to 1, the FRBACKUP request specified dump classes.
		1		MWEF_FRUPD_PROCESSED	When set to 1, ARCFRUPD processed this MWE already.
		1...		MWEF_NOCPBACKUP_RC4	When set to 1, the FRRECOV request specified NOCPBACKUP.
		.1..		MWEF_PURGE_MAIN	When set to 0, do not purge this MWE at this time.
		..1.		MWEF_INC	When set to 1, FCINCREMENTAL was specified.
		...1		MWEF_INC_LAST	When set to 1, FCINCREMENTALLAST was specified.
		.... 1...		MWEF_BKUP_STGRP	When set to 1, using alternate backup storage group.
		.... .1..		MWEF_TIME	When set to 1, TIME specified

Table 123 (Page 2 of 2). MWE—Extension for DUMP, RESTORE, and FRBACKUP Requests

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... ..1.		MWEF_FRRFORCE	When set to 1, FORCE was specified on FRRECOV command
		1		MWEF_RESUME	When set to 1, RESUME was specified on FRR CP FROMDUMP command
430	(1AE)	..xx xxxx		*	Reserved.
		.... 1...		MWEF_FASTREP_DSNAME	When set to 1, DSNAME was specified on the FRRECOV command.
431	(1AF)	BITSTRING			
		1...		FRBF_FRDSR_NEWDSN	
		.1..		FRBF_FCCG	
		..1.		FRBF_INC_ALL	When set to 1, FCINCREMENTAL(ALL) is specified.
		...1		FRBF_INC_LAST_ALL	When set to 1, FCINCREMENTALLAST(ALL) is specified.
		 xxxx		*	Reserved
432	(1B0)	CHARACTER	40	MWE_CPTOKEN	Copy pool token.
472	(1D8)	CHARACTER	6	MWE_FRSOURCE	Fast replication source volume.
478	(1DE)	FIXED	1	MWE_DGNINDEX	Index to volume list.
The following fields indicate that fast replication is PREFERRED, REQUIRED, or NONE.					
479	(1DF)	FIXED	1	MWE_FRDSR_COPYMETHOD	Fast replication technique.
480	(1E0)	ADDRESS	4	MWE_CPELMP	Identifier of the CPELM element.
480	(1E0)	ADDRESS	4	MWE_CPRELP	Pointer to the CPREL element. Used when MWEF_FRR_CP_FROMDUMP is set to 1.
484	(1E4)	ADDRESS	4	MWE_FRRDGNP	Identifier of the DGN.
488	(1E8)	FIXED	4	MWE_FR_REAS	Fast replication extended reason code.
492	(1EC)	ADDRESS	4	MWE_FRDS_PTR	Pointer to the FRDS element.
492	(1EC)	ADDRESS	4	MWE_FRRELP	Pointer to the FRREL element. Used when MWEF_FRR_CP_FROMDUMP is set to 1.
492	(1EC)	ADDRESS	4	MWE_FRCGB_PTR	Pointer to the FRCGB blk. Used when FRBACKUP COPYPOOL defined with FCCG=Yes.
496	(1F0)	ADDRESS	4	MWE_DSIP	Pointer to the DSI element.
500	(1F4)	ADDRESS	4	MWE_FRDSR_DSNLIST_PTR	Identifier of the data set name list.
504	(1F8)	ADDRESS	2	MWE_FRDSR_DSNLIST_CNT	Number of entries in the data set name list.
506	(1FA)	FIXED	2	MWE_FRDSR_DSNLIST_LEN	Amount of storage obtained for the data set name list.
508	(1FC)	FIXED	4	*	Reserved.
512	(200)	CHARACTER	64	MWE_KEYLBL	RSA key label.
576	(240)	CHARACTER	8	MWE_CPBSG_NAME	Copypool Backup Storage Group name
584	(248)	CHARACTER	4	MWE_TIME	Time specified on RECOVER request

As shown in Table 124, the following fields describe the MWE extension for ABACKUP and ARECOVER requests:

Table 124 (Page 1 of 2). MWE—Extension for ABACKUP/ARECOVER Requests

Offsets Decimal	(Hex)	Type	Length	Name	Description
288	(120)	STRUCTURE	1952	MWEABARS	Extension for ABACKUP or ARECOVER requests.
288	(120)	CHARACTER	30	MWEAGNM	Aggregate group name.
318	(13E)	CHARACTER	6	*	Reserved.
324	(144)	CHARACTER	64	MWEADSNE	Allows for expansion of the data set name.
324	(144)	CHARACTER	44	MWEADSN	Data set name of the control file.
368	(170)	CHARACTER	20	*	Allows for expansion of the data set name.
388	(184)	CHARACTER	8	MWEOUID	Operator ID for RACF.
396	(18C)	CHARACTER	8	MWEAUNIT	Unit type.
404	(194)	CHARACTER	4	*	Reserved.
408	(198)	FIXED	1	MWEAVSNN	Number of volume serial numbers specified.
409	(199)	CHARACTER	3	MWE_PERCENT_UTILIZED	Percent utilized value.
412	(19C)	CHARACTER	8(15)	*	A 15-element array consisting of 8-byte fields containing volume serial numbers.
The following two fields are repeated 15 times:					
412	(19C)	CHARACTER	6	MWEAVSN	Volume serial number entries.
418	(1A2)	CHARACTER	2	*	Reserved.
532	(214)	CHARACTER	8	*	Reserved.
540	(21C)	CHARACTER	44	MWEAMNTY	Model entity name.
584	(248)	CHARACTER	20	*	Allow for expansion.
604	(25C)	CHARACTER	8	MWEATUNT	Tape data set ARECOVER unit name.
612	(264)	BITSTRING	4	MWEAFLGS	The next 4 bytes contain ABARS flags:
		1...		MWE_FABFODS	When set to 1, ABACKUP FODS is specified.
		.1..		MWE_FABMOVE	When set to 1, ABACKUP MOVE is specified.

Table 124 (Page 2 of 2). MWE—Extension for ABACKUP/ARECOVER Requests

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		MWEFVRFY	When set to 1, VERIFY is requested.
		...1		MWE_FEXECUTE	When set to 1, EXECUTE is requested.
		.... 1...		MWE_FARPREPARE	When set to 1, ARECOVER prepare.
		.... .1..		MWE_FARAGGER	When set to 1, ARECOVER aggregate.
		.... ..1.		MWE_FARDSNAME	When set to 1, ARECOVER DATASETNAME.
		1		MWE_FARVERSION	When set to 1, ARECOVER aggregate name version.
613	(265)	1...		MWE_FARDATE	When set to 1, ARECOVER aggregate name date.
		.1..		MWE_FARMIGDATA	When set to 1, ARECOVER migrated data.
		..1.		MWE_FARMDML1	When set to 1, migration level 1 data was migrated.
		...1		MWE_FARMDML2	When set to 1, migration level 2 data was migrated.
		.... 1...		MWE_FARMDSRCLEV	When set to 1, the source level data was migrated.
		.... .1..		MWE_FARNOBKMIG	When set to 1, no backed up migrated data in ARECOVER.
		.... ..1.		MWE_FARINSTRUCN	When set to 1, ARCOVER instruction.
		1		MWE_FARACTIVITY	When set to 1, ARECOVER activity.
614	(266)	1...		MWE_FARRECNEWALL	When set to 1, ARECOVER RECOVERNEWNAMEALL.
		.1..		MWE_FARRECNEWLEV	When set to 1, ARECOVER RECOVERNEWNAMELEVEL.
		..1.		MWE_FARDSCONFLCT	When set to 1, ARECOVER DATASETCONFLICT.
		...1		MWE_FARRENSRC	When set to 1, DATASETCONFLICT RENAMESOURCE.
		.... 1...		MWE_FARRENTGT	When set to 1, DATASETCONFLICT RENAMETARGET.
		.... .1..		MWE_FARBYPASS	When set to 1, DATASETCONFLICT BYPASS.
		.... ..1.		MWE_FARDSCREPL	When set to 1, DATASETCONFLICT REPLACE.
		1		MWEFREPL	When set to 1, REPLACE is requested.
615	(267)	1...		MWEFNCOM	When set to 1, MWE has not completed.
		.1..		MWEFXMIT	When set to 1, ABACKUP output transmitted by network.
		..1.		MWE_FARVOLUMES	When set to 1, VOLUMES is specified.
		...1		MWEFRSTR	When set to 1, ABACKUP command authority is restricted. When set to 0, ABACKUP command authority is comprehensive.
		.... 1...		MWE_FHOLD	When set to 1, MWE is held.
		.... .1..		MWE_FHEOD	When set to 1, MWE is held EOD.
		.... ..1.		MWE_FSTACK	When set to 1, STACK is requested. When set to 0, NOSTACK is requested.
		1		MWE_FARMD_DEFAULT	When set to 1, MIGRATEDDATA is default. ML1 used to recover migrated data.
616	(268)	BITSTRING	4	MWEAFLG2	More ABARS flags:
		1111		MWE_PROCFLGS	PROCESSONLY flags.
		1...		MWE_PROCL0	Process L0 data.
		.1..		MWE_PROCML1	Process ML1 data.
		..1.		MWE_PROCML2	Process ML2 data.
		...1		MWE_PROCUSRT	Process user tape data.
		.... 1...		MWE_FPPRC	When set to 1, skip PPRC data sets.
		.... .1..		MWE_FXRC	When set to 1, skip XRC data sets.
616	(268)	.... ..1.		MWE_FLIST_SKIPPED	When set to 1, list skipped data sets.
616	(268)	BITSTRING		MWE_FONLYDSN	ARECOVER ONLYDATASET flags:
		1		MWE_FNAMEDSN	When set to 1, a single data set was specified on the ARECOVER request (ONLYDATASET).
617	(269)	1...		MWE_FLISTDSN	When set to 1, a list of data set names was specified on the ARECOVER request (LISTOFNAMES).
617	(269)	BITSTRING	2	*	Reserved.
620	(26C)	CHARACTER	44	MWE_ABFODS_DSN	ABACKUP FODS data set name.
664	(298)	CHARACTER	4	MWE_AGG_VERSION	New AGGREGATE version number.
668	(29C)	CHARACTER	4	MWE_ARVERSION_NUM	From ARECOVER version (*nnnn*).
672	(2A0)	CHARACTER	10	MWE_ARDATE_DATECH	From ARECOVER date (*yyyy/mm/dd*).
682	(2AA)	CHARACTER	2	*	Reserved.
684	(2AC)	CHARACTER	4	MWE_ARDATE_DATE	ARECOVER date parameter value was converted to time macro format.
688	(2B0)	CHARACTER	8	MWE_ARRECNEWALL_LEVEL	High-level qualifier specified by RECOVERNEWNAMEALL.
696	(2B8)	FIXED	2	MWE_ARRECNEWLEV_NUM	Number of pairs of old and new levels (max 30).
698	(2BA)	FIXED	2	*	Reserved.
700	(2BC)	CHARACTER	8(30)	MWE_ARRECNEWLEV_OLEVEL	Array of old levels specified by RECOVERNEWNAMELEVEL.
940	(3AC)	CHARACTER	8(30)	MWE_ARRECNEWLEV_NLEVEL	Array of new levels specified by RECOVERNEWNAMELEVEL.
1180	(49C)	CHARACTER	8	MWE_ARRENSRC_LEVEL	High-level qualifier specified by DATASETCONFLICT (RENAMESOURCE).
1188	(4A4)	CHARACTER	8	MWE_ARRENTGT_LEVEL	High-level qualifier specified by DATASETCONFLICT (RENAMETARGET).
1196	(4AC)	CHARACTER	44	MWE_ONLYDSN	Data set name specified by the ONLYDATASET keyword on the ARECOVER request.
1240	(4D8)	FIXED	2	MWE_ABARCMDL	Length of ABARS command + 4 bytes (CMDL & O).
1242	(4DA)	FIXED	2	*	Reserved.
1244	(4DC)	CHARACTER	1024	MWE_ABARCMDT	Command text.
2268	(8DC)	FIXED	4(4)	*	Reserved.

As shown in Table 125 on page 228, the following fields describe the MWE extension for data set backup enhancements:

Table 125. MWE—Extension for Data Set Backup Enhancements

Offsets Decimal	(Hex)	Type	Length	Name	Description
288	(120)	STRUCTURE	48	MWEDSBU	Extension for data set backup.
288	(120)	CHARACTER	8	MWEDSBU_ID	Extension ID.
296	(128)	BITSTRING	4	MWEDSBU_FLGS1	Data set backup flags:
		1...		MWEDSBU_F_COMPLETE	When set to 1, preprocess is complete.
		.1..		MWEDSBU_F_CH_TARGET	When set to 1, switch target.
		..1.		MWEDSBU_F_TARGET_SW	When set to 1, target switched.
		...1		MWEDSBU_F_REQUED	When set to 1, MWE requeued.
		.... 1...		MWEDSBU_F_CC_PURGE	When set to 1, logical complete notification completed (purge pass 1). When set to 0, logical complete notification not completed (purge pass 1).
		.... .1..		MWEDSBU_F_CC_PREF	When set to 1, CC preferred specified.
		.... ..1.		MWEDSBU_F_CC_REQ	When set to 1, CC required specified.
		1		MWEDSBU_F_CC_STD	When set to 1, CC standard specified.
297	(129)	1...		MWEDSBU_F_CC_LE	When set to 1, CC logical end specified.
		.1..		MWEDSBU_F_CC_PE	When set to 1, CC physical end specified.
		..1.		MWEDSBU_F_CC_NOTIFY	When set to 1, post LE only.
		...1		MWEDSBU_F_TGTSPEC	When set to 1, target specified flag.
		.... 1...		MWEDSBU_F_TGTTAPE	When set to 1, target tape specified.
		.... .1..		MWEDSBU_F_TGTDASD	When set to 1, target DASD specified.
		.... ..1.		MWEDSBU_F_CCSPEC	When set to 1, CC is specified.
		1		MWEDSBU_F_CC_VIRTUAL	When set to 1, CC Virtual specified
298	(12A)	1...		MWEDSBU_F_CC_CACHE	When set to 1, CC Cashe specified
		.1..		MWEDSBU_F_NEWNAME	When set to 1, NEWNAME specified.
		..1.		MWEDSBU_F_NOSPHERE	When set to 1, SPHERE(NO) specified.
		...1		MWEDSBU_F_GVCN	When set to 1, GVCN specified and MWEDSBU_F_GVCN_Y is valid.
		.... 1...		MWEDSBU_F_GVCN_Y	This field is only valid when MWEDSBU_F_GVCN is set to 1. When set to 1, GVCN(YES) specified. When set to 0, GVCN(NO) specified.
		.... .1..		MWEDSBUF_RD_SPCD	When set to 1, RETAINDAYS is specified.
		.... ..1.		MWEDSBUF_NEVER_EXPIRE	When set to 1, backup versions never expire.
		1		MWEDSBU_FMB	When set to 1, MWEDSBU_SIZE is in megabytes.
299	(12B)	1...		MWEDSBU_F_TIME	When set to 1, time specified.
		.xxx xxxx		*	Reserved.
300	(12C)	FIXED	4	MWEDSBU_SIZE	Precheck size in Kbytes.
304	(130)	FIXED	4	MWEDSBU_DTIME	Estimated seconds for DASD backup.
308	(134)	FIXED	4	*	Reserved for DTIME expansion.
312	(138)	FIXED	4	MWEDSBU_TTIME	Estimated seconds for tape backup.
316	(13C)	FIXED	4	*	Reserved for TTIME expansion.
320	(140)	FIXED	2	MWEDSBU_RETAINDAYS	RETAINDAYS for dataset backup.
336	(150)	CHARACTER	44	MWEDSBU_NEWNAME	DATA SET NAME SPECIFIED AS NEWNAME PARAMETER
380	(17C)	CHARACTER	4	MWEDSBU_TIME	TIME SPECIFIED ON CMD
384	(180)	CHARACTER	8	MWEDSBU_NEWNAME_PW	PASSWORD FOR NEWNAME DATA SET

As shown in Table 126, the following fields describe the data set name list structure for a fast replication request:

Table 126. MWE—Data set name list structure for fast replication requests

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	48	FRDSR_DSNLIST(*)	
0	(0)	CHARACTER	44	FRDSR_DSNAME	Data set name.
44	(2C)	FIXED	2	FSDSR_DSNAME_LEN	Data set name length.
46	(2E)	BITSTRING	2	FSDSR_DSNAME_FLAGS	Flags for data set:
		1...		FRDSRF_PARTIAL_DSN	When set to 1, a partially qualified data set name was specified.
		.xxx xxxx		*	Reserved.

MWE Control Block Cross-Reference

Table 127 (Page 1 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
FRDSR_DSNAME	0		2
FRDSR_DSNAME_FLAGS	2E		2
FRDSR_DSNAME_LEN	2C		2
FRDSR_DSNLIST	0		1
FRDSRF_PARTIAL_DSN	2E	80	3
MWE	0		1
MWE_AB_TAKEAWAY_START	E0		4
MWE_ABARCMDL	4AC		2
MWE_ABARCMDT	4B0		2
MWE_ABFODS_DSN	26C		2
MWE_ABOPTIMIZE	104		2
MWE_ACEE_PRIV	8B	08	4
MWE_ADDVOL_ERR	64	04	4
MWE_AGG_VERSION	298		2
MWE_ALTUNIT	C0		2
MWE_ARDATE_DATE	2AC		2
MWE_ARDATE_DATECH	2A0		2
MWE_ARRECNEWALL_LEVEL	2B0		2
MWE_ARRECNEWLEV_NLEVEL	3AC		2
MWE_ARRECNEWLEV_NUM	2B8		2
MWE_ARRECNEWLEV_OLEVEL	2BC		2
MWE_ARRENSRC_LEVEL	49C		2
MWE_ARRENTGT_LEVEL	4A4		2
MWE_ARVERSION_NUM	29C		2
MWE_CPBSG_NAME	240		3
MWE_CPELMP	1E0		3
MWE_CPNAME	98		4
MWE_CPNAME_LEN	96		4
MWE_CPRELP	1E0		5
MWE_CPTOKEN	1B0		3
MWE_DGNINDX	1DE		3
MWE_DSIP	1F0		3
MWE_END	120		2
MWE_FABFODS	264	80	3
MWE_FABMOVE	264	40	3
MWE_FARACTIVITY	265	01	3
MWE_FARAGGR	264	04	3
MWE_FARBYPASS	266	04	3
MWE_FARDATE	265	80	3
MWE_FARDSCONFLCT	266	20	3

Table 127 (Page 1 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWE_FARDSCREPL	266	02	3
MWE_FARDSNAME	264	02	3
MWE_FARINSTRUCN	265	02	3
MWE_FARMD_DEFAULT_ML1	267	01	3
MWE_FARMDML1	265	20	3
MWE_FARMDML2	265	10	3
MWE_FARMDSRCLEV	265	08	3
MWE_FARMIGDATA	265	40	3
MWE_FARNOBKMIG	265	04	3
MWE_FARPREPARE	264	08	3
MWE_FARRECNEWALL	266	80	3
MWE_FARRECNEWLEV	266	40	3
MWE_FARRENSRC	266	10	3
MWE_FARRENTGT	266	08	3
MWE_FARVERSION	264	01	3
MWE_FARVOLUMES	267	20	3
MWE_FEXECUTE	264	10	3
MWE_FHEOD	267	04	3
MWE_FHOLD	267	08	3
MWE_FLIST_SKIPPED	268	02	3
MWE_FLISTDSN	269	80	4
MWE_FNAMEDSN	268	01	4
MWE_FONLYDSN	268	08	3
MWE_FPPRC	268	08	3
MWE_FR_REAS	1E8		3
MWE_FRB_FC_ABILITY	84		3
MWE_FRCGB_PTR	1EC		5
MWE_FRDS_PTR	1EC		3
MWE_FRDSR_COPYMETHOD	1DF		3
MWE_FRDSR_DSNLIST_CNT	1F8		3
MWE_FRDSR_DSNLIST_LEN	1FA		3
MWE_FRDSR_DSNLIST_PTR	1F4		3
MWE_FRR_FC_ABILITY	85		3
MWE_FRRDGNP	1E4		3
MWE_FRRELP	1EC		5
MWE_FRSOURCE	1D8		3
MWE_FRVP_INDEX	162		3
MWE_FRVP_SGNAME	C0		3
MWE_FRVP_VPI_INDEX	19E		3
MWE_FSTACK	267	02	3

Table 127 (Page 2 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWE_FXRC	268	04	3
MWE_INCREASE_SECSP	8B	20	4
MWE_KEYLBL	1FC		3
MWE_MAS_FLAGS	1AC		3
MWE_ONLYDSN	4AC		3
MWE_ORGNL_HID	EA		2
MWE_PERCENT_UTILIZED	199		2
MWE_PROCFLGS	268	F0	3
MWE_PROCL0	268	80	4
MWE_PROCML1	268	40	4
MWE_PROCML2	268	20	4
MWE_PROCUSRT	268	10	4
MWE_RCLTAPE_KEY_DATE	DC		5
MWE_RCLTAPE_KEY_TIME	E4		4
MWE_REMOTE_PROCESSED_HID	105		2
MWE_RECYCLE_RETRY_CNT	88		3
MWE_SUBPOOL_ABOVE_LINE	6C		3
MWE_TC_TAKEAWAY_START	E0		3
MWE_TGTGDSA	10B	20	2
MWE_TGTGDSD	10B	40	2
MWE_TGTGDSR	10B	10	2
MWE_TIME	248		3
MWE_VARIABLE_RETRYS	64	02	4
MWEABARS	120		1
MWEABCC	3C		3
MWEADSN	144		3
MWEADSNE	144		2
MWEAFLGS	264		2
MWEAFLG2	268		2
MWEAGNM	120		2
MWEAMNTY	21C		2
MWEASCB	28		3
MWEATCTR	4B		4
MWEATUNT	25C		2
MWEAUDIT	8B	10	4
MWEAUNIT	18C		2
MWEAVSN	19C		3
MWEAVSNN	198		2
MWEBAKID	B8		3
MWEBUF	120		1
MWEBUFD	120		2
MWEBUFL	11C		2

Table 127 (Page 2 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEBUFU	11E		2
MWEBWD	4		3
MWECANCL	5D	10	4
MWECCNT	90		2
MWECDEVT	F4		2
MWECETYP	DA		2
MWECINDX	68		3
MWECLIP	120		3
MWECMD	8C		1
MWECMDL	8C		2
MWECMDO	8E		2
MWECMDT	90		2
MWECOMP	2C	40	4
MWECVSN	EE		2
MWEDAOPT	8A	C0	4
MWEDARC	92		2
MWEDATE	DC		3
MWEDAVP	80		3
MWEDAYS	E0		2
MWEDBADY	EC		2
MWEDCLCT	160		3
MWEDCLSS	164		3
MWEDEVT	D0		2
MWEDFLGS	64		3
MWEDLSTVL	1A6		3
MWEDMPRE	160		2
MWEDSBU	120		1
MWEDSBU_DTIME	130		2
MWEDSBU_F_CC_CACHE	12A	80	4
MWEDSBU_F_CC_LE	129	80	3
MWEDSBU_F_CC_NOTIFY	129	20	3
MWEDSBU_F_CC_PE	129	40	3
MWEDSBU_F_CC_PREF	128	04	3
MWEDSBU_F_CC_PURGE	128	08	3
MWEDSBU_F_CC_REQ	128	02	3
MWEDSBU_F_CC_STD	128	01	3
MWEDSBU_F_CC_VIRTUAL	129	01	3
MWEDSBU_F_CCSPEC	129	02	3
MWEDSBU_F_CH_TARGET	128	40	3
MWEDSBU_F_COMPLETE	128	80	3
MWEDSBU_F_FVOL	152	08	3
MWEDSBU_F_GVCN	12A	10	4

Table 127 (Page 3 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEDSBU_F_GVCN_Y	12A	08	4
MWEDSBU_F_NEWNAME	12A	40	4
MWEDSBU_F_NOSPHERE	12A	20	4
MWEDSBU_F_REQUED	128	10	3
MWEDSBU_F_TARGET_SW	128	20	3
MWEDSBU_F_TGTDASD	129	04	3
MWEDSBU_F_TGTSPEC	129	10	3
MWEDSBU_F_TGTTAPE	129	08	3
MWEDSBU_F_TIME	12B	80	3
MWEDSBU_F_WTOR	152	10	3
MWEDSBU_FLGS1	128		2
MWEDSBU_FMB	12A	01	4
MWEDSBU_ID	120		2
MWEDSBU_NEWNAME	150		2
MWEDSBU_NEWNAME_PW	180		2
MWEDSBU_RETAINDAYS	140		2
MWEDSBU_SIZE	12C		2
MWEDSBU_TIME	17C		2
MWEDSBU_TTIME	138		2
MWEDSBUF_RD_SPCD	12A	04	4
MWEDSBUF_NEVER_EXPIR	12A	02	4
MWEDSN	94		2
MWEDSTVOL	1A0		3
MWEDUMPE	120		1
MWEDVOL	198		3
MWEECB	2C		3
MWEECBP	60		3
MWEF_AINC_DS_RECOVER	153	80	3
MWEF_ALTERPRI	7E	80	4
MWEF_ALTERPRI_HI	7E	40	4
MWEF_ALTUNIT	64	01	4
MWEF_BKUP_STGRP	1AE	08	4
MWEF_BYPASS_TAKEAWAY	152	04	3
MWEF_CAT	6E	20	4
MWEF_CAT_BUT_NOT_ON_MIGRAT	8B	04	4
MWEF_CLTR	7F	20	4
MWEF_CRQ_CANCEL	6F	10	4
MWEF_CRQ_PROCESSED	6F	20	4
MWEF_CRQ_TAPE_CHANGE	6F	08	4
MWEF_CRQ_TAPE_DELETD	7F	40	4
MWEF_DEL_MIGGDS	7F	01	4
MWEF_DGNFVTOC	1AD	04	4

Table 127 (Page 3 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEF_DISALL	153	40	3
MWEF_DS_NAME_CHANGE	6F	80	4
MWEF_DSMIG_HELD	6E	02	4
MWEF_EMPTYTAPE	7F	10	4
MWEF_EXPIREDS	6E	08	4
MWEF_EXT	7E	10	4
MWEF_FASTREP_DSNAME	1AE	08	4
MWEF_FASTREP_FMCPY	6F	01	4
MWEF_FASTREP_TOVOLUME	10B	08	2
MWEF_FCCG	1AF	40	4
MWEF_FORCML1	65	01	4
MWEF_FR_VERIFY	1AC	08	4
MWEF_FRB_ALLOWPPRCP	7E	08	4
MWEF_FRB_CPOOL	6F	04	4
MWEF_FRBDMPCLASS	1AD	02	4
MWEF_FRBDUMP	1AC	02	4
MWEF_FRBDUMPONLY	1AC	01	4
MWEF_FRBFORCE	1AD	80	4
MWEF_FRBNOCOPY	1AD	40	4
MWEF_FRDMP_LAST_VOL	1AD	20	4
MWEF_FRDSR_NEWDSN	1AF	80	4
MWEF_FRDUMP	1AD	08	4
MWEF_FREECSA	65	02	4
MWEF_FRR_ALLOWPPRCP	7E	04	4
MWEF_FRR_CP_FROMDUMP	7E	01	4
MWEF_FRRBKUP	1AD	10	4
MWEF_FRRFORCE	1AE	02	5
MWEF_FRRTNCNTRL_FREND	1AC	04	4
MWEF_FRUPD_PROCESSED	1AD	01	4
MWEF_GRVOL_PREPROCES	7F	80	4
MWEF_INC	1AE	20	4
MWEF_INC_LAST	1AE	10	4
MWEF_NOCPBACKUP_RC4	1AE	80	4
MWEF_NOVTOCENQ	1AC	20	4
MWEF_PARTIAL_CATONL0	8B	02	4
MWEF_PARTIALDUMPVER_OK	7E	02	4
MWEF_PREPARE	1AC	80	4
MWEF_PURGE_MAIN	1AE	40	4
MWEF_RCLTAPE_DEFERRED	6E	01	4
MWEF_RCVR_CPOOL	6F	02	4
MWEF_RECALL_TAKEAWAY	49	20	5
MWEF_RECYCLE_DUPLEX	7F	02	4

Table 127 (Page 4 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEF_RECYCLE_RETRY	7F	04	4
MWEF_REMOTE	6E	40	4
MWEF_REMOTE_HOST_PROCESSED	6F	40	4
MWEF_REQOPT	196		3
MWEF_RESUME	1AE	01	5
MWEF_RO1	196	80	4
MWEF_RO2	196	40	4
MWEF_RO3	196	20	4
MWEF_RO4	196	10	4
MWEF_RO5	196	08	4
MWEF_SINGLE_FQ_DS	152	01	3
MWEF_TIME	1AE	4	5
MWEF_TOKEN	1AC	10	4
MWEF_VOLUME_IN_RECALL_COMMAND	65	04	4
MWEF_WITHDRAW	1AC	40	4
MWEFABND	1B	08	4
MWEFAPIN	64	08	4
MWEFASNC	5D	04	4
MWEFATMP	49	80	4
MWEFATST	5E	08	4
MWEFAUTH	1B	40	4
MWEFBDCS	49	40	4
MWEFBDCT	49	20	4
MWEFBDVT	5D	02	4
MWEFBGEN	64	20	4
MWEFBID	10C		2
MWEFBTOT	1A	04	4
MWEFBUSY	1B	01	4
MWEFBVER	8B	40	4
MWEFCLBD	6A	10	4
MWEFCNVT	49	02	4
MWEFCONS	4A	02	4
MWEFCTKN	7F	08	4
MWEFDASD	8A	04	4
MWEFDATE	19	04	5
MWEFDAYS	1B	80	4
MWEFDBA	49	08	4
MWEFDBU	5D	01	4
MWEFDGEN	64	40	4
MWEFDNOW	4A	10	4
MWEFDONE	1B	10	4

Table 127 (Page 4 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEFDRTY	6A	01	4
MWEFDSS	8A	10	4
MWEFDUMP	64	80	4
MWEFEGDG	5E	80	4
MWEFEXT_SAMEVOL	7E	20	4
MWEFEXT	6A	80	4
MWEFEX0A	1A	20	4
MWEFFLGS	65		3
MWEFFVL	65	80	4
MWEFGDG	6B	20	4
MWEFHSM	8A	20	4
MWEFINHB	4A	40	4
MWEFINTR	6E	10	4
MWEFKGT	1A	02	5
MWEFLGS	19		3
MWEFLG2	49		3
MWEFLG3	5D		3
MWEFLG4	6A		3
MWEFLG5	8A		3
MWEFLG6	6E		3
MWEFLG7	7E		3
MWEFLG8	7F		3
MWEFLOCW	4A	01	4
MWEFMFRC	1B	02	4
MWEFMPUR	5D	20	4
MWEFMVOL	152	60	3
MWEFNATT	4A	20	4
MWEFNCAT	1A	01	4
MWEFNCMP	1A	02	4
MWEFNCOM	267	80	3
MWEFNOMT	1A	08	4
MWEFNONQ	5E	10	4
MWEFNOPW	6B	08	4
MWEFNOTP	5E	02	4
MWEFNOW	19	40	4
MWEFNPAR	8A	01	4
MWEFNPST	5D	80	4
MWEFNRD	5E	20	4
MWEFNRES	5E	04	4
MWEFNULL	8B	80	4
MWEFOKNQ	6E	80	4
MWEFOP	1B	04	4

Table 127 (Page 5 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEFORCE	6B	10	4
MWEFPARA	8A	02	4
MWEFPIGB	10B	04	2
MWEFPODS	1A	10	4
MWEFRACF	DB		2
MWEFRBER	6A	04	4
MWEFRBU	49	04	4
MWEFRDLO	6B	40	4
MWEFRDRC	4A	80	4
MWEFREC	152		2
MWEFRECV	19	20	4
MWEFREPL	266	01	3
MWEFRFCA	6A	08	4
MWEFRIWF	5E	40	4
MWEFROG	6B	02	4
MWEFROGD	6B	01	4
MWEFRQTC	10B	02	2
MWEFRRKW	8B	01	4
MWEFRSTOR	10B	01	2
MWEFRSTR	267	10	3
MWEFRSV	1B	20	4
MWEFRTNV	65	08	4
MWEFRTYW	19	02	4
MWEFRVOL	14C		2
MWEFSCHG	6A	40	4
MWEFSDLR	6A	20	4
MWEFSMSD	6B	80	4
MWEFSMSP	49	10	4
MWEFSR	C		5
MWEFSTCK	49	01	4
MWEFTAPE	8A	08	4
MWEFTCM	5D	40	4
MWEFTERM	1B	20	5
MWEFTLEV	65	40	4
MWEFTMPB	5D	08	4
MWEFTORD	65	20	4
MWEFTSOR	19	10	4
MWEFTYP	5F		3
MWEFUCAT	6B	04	4
MWEFUNC	18		3
MWEFUNWT	19	01	4
MWEFVANY	10B	80	2

Table 127 (Page 5 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWEFVINI	152	80	3
MWEFVOL	19	08	4
MWEFVRFY	264	20	3
MWEFVSAM	19	80	4
MWEFWD	0		3
MWEFWSDP	4A	04	4
MWEFXMIT	267	40	3
MWEFZREC	1A	4	5
MWEF2LOC	5E	01	4
MWEF26DU	4A	08	4
MWEF646I	64	10	4
MWEGDG	1A	40	4
MWEGEN	DC		2
MWEGROUP	40		3
MWEHDR	0		2
MWEHDRE	8C		3
MWEHID	7C		3
MWEID	38		3
MWEJBN	4C		3
MWELEN	9		4
MWELOCK	48		3
MWELSTVL	116		2
MWEMAXSTK	12B		2
MWEMCNT	8C		2
MWEMLEV2	19	04	4
MWENDSN	120		2
MWENDSPW	158		2
MWEOUID	184		2
MWEPDEP	F8		2
MWEPW	C8		2
MWERC	30		3
MWERCLCT	4B		3
MWERDEVT	128		3
MWEREAS	34		3
MWERETPD	18C		3
MWERETR	120		1
MWERHSCT	5C		3
MWERQN	24		3
MWERSD	58		3
MWERST	54		3
MWERVCT	120		2
MWERVSN	122		3

Table 127 (Page 6 of 6). MWE—Cross Reference Table

Name	Hex Offset	Hex Value	Struct Level
MWESEQN	8E		2
MWESG_IX	B6		2
MWESGB	94		2
MWESGL	96		2
MWESGN	98		2
MWESMSFG	6B		3
MWESPL	8		3
MWESPN	8		4
MWESRCVL	E4		3
MWESTACK	126		2
MWESTAMP	FC		2
MWESTKID	12C		2
MWESTKID_LAST	6E	04	4
MWESTVOL	110		2
MWETOD	10		3
MWETSDAT	14		4
MWETSPEC	65	10	4
MWETSTIM	10		4
MWETVSN	D4		3
MWEUBSAM	6A	02	4
MWEUID	1C		3
MWEUSER	C		4
MWEVER	100		2
MWEVLIST	120		1
MWEVOLCNT	10A		2
MWEVSN	D4		2
MWEXCART	74		4
MWEXCNID	70		4
MWEXINFO	70		3
MWEXPTR	20		4
MWE2DEVT	DC		4
MWE2VSN	E4		2
MWE29DU	1A	80	4
MWE89VAL	66		3

QCT—Queue Control Table

The queue control table (QCT) is the anchor element for the queue of management work elements in the system common service area and the queue of DFSMShsm hosts started in this image (see Table 128). The record is 136 bytes long and resides in subpool 245.

Table 128 (Page 1 of 2). QCT—Queue Control Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	640	QCT	Queue control table.
0	(0)	ADDRESS	4	MQCTECBP	Pointer to the MAIN host DFSMShsm ECB. Valid only if MQCTFACT equals 1.
4	(4)	BITSTRING	4	MQCTFLGS	The next 4 bytes contain the DFSMShsm status flags:
		1...		MQCTFACT	When set to 1, a (MAIN) DFSMShsm host is active.
		.1..		MQCTJES3	When set to 1, JES3 is specified.
		..x.		*	Reserved.
		...1		MQCTJ3WT	When set to 1, the user wants to wait for the prevent migration process. (Set only by patching MCVTJ3WT.)
		.... 1...		MQCTFRPV	When set to 1, recall to a private volume. When set to 0, recall to any storage volume.
		.... .1..		MQCTFHRX	When set to 1, the recall exit has ended abnormally.
		.... ..1.		MQCTNOPM	When set to 1, the user has patched MCVTJ3D to zero to not do JES3 prevent migrations.
		1		MQCTFNOL	When set to 1, all NOWAIT MWEs are to be removed from the common service area queue when ARCCTL copies them to the address space of DFSMShsm. When set to 0, look at other limiting controls.
5	(5)	1...		MQCTFAPU	When set to 1, the user entered SETSYS ACCEPTPSCBUSERID.
		.1..		MQCTJ25T	When set to 1, the JES3 main device schedule (MDS) is only for tapes.
		..1.		MQCTF_ALLOW_FC2PPRCP_VOLS	When set to 1, FCTOPPRCP is available
		...1		MQCTTSOD	When set to 1, the intercept driven DASD recalls for interactive TSO users will be converted to NOWAIT.
		.... 1...		MQCTTSOT	When set to 1, the intercept driven tape recalls for interactive TSO users will be converted to NOWAIT.
		.... .1..		MQCTF_PRESMIR	When set to 1, Preserve Mirror function for IBM Remote Pair FlashCopy is available.
		.... ..1.		MQCTF_CPFRECVR	When set to 1, the DASD FR backup indicator has been validated.
		x		*	Reserved.
5	(5)	BITSTRING	2	*	Reserved.
8	(8)	ADDRESS	4	MQCTASCB	Address of the DFSMShsm MAIN host ASCB. Valid only if MQCTFACT equals 1.
12	(C)	ADDRESS	4	MQCTMWEH	Address of the first management work element on the common service area queue.
16	(10)	ADDRESS	4	MQCTMWET	Address of the last management work element on the common service area queue.
20	(14)	FIXED	4	MQCTRQN	Next request number.
24	(18)	ADDRESS	4	MQCTVOLL	Address of the primary volume list when non-zero.
28	(1C)	CHARACTER	8	MQCTPDEQ	Next two fields for queue of pool definition elements. Must be contiguious in this order.
28	(1C)	ADDRESS	4	MQCTPOOL	Address of the first pool descriptor element when non-zero.
32	(20)	ADDRESS	4	MQCTPLT	Address of the last pool descriptor element when non-zero.
36	(24)	ADDRESS	4	MQCTMCVT	Address of the MCVT of a MAIN host. Valid only if a MAIN and only a MAIN host is active.
40	(28)	ADDRESS	4	MQCTESD	Address of the ESD of a MAIN host. Valid only if a MAIN and only a MAIN host is active.
44	(2C)	CHARACTER	4	MQCTID	QCT block identifier 'QCT*'.
48	(30)	CHARACTER	4	MQCTVRM	Version, release, and modification level of DFSMShsm levels 1.5.0 and earlier. If this field equals X'40F1F5F9', field MQCT_VRM contains the correct version, release, and modification levels.
48	(30)	CHARACTER	2	MQCTVER	DFSMShsm version number in the character format.
50	(32)	CHARACTER	1	MQCTREL	DFSMShsm release number.
51	(33)	CHARACTER	1	MQCTMOD	DFSMShsm modification number in the character format.

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Table 128 (Page 2 of 2). QCT—Queue Control Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
52	(34)	FIXED	4	MQCTCSHL	Maximum amount of common storage area storage (in bytes) to be allocated to all MWEs. After the limit has been reached, no MWEs are added to the common service area queue. The default is 102400 (100k) bytes.
56	(38)	FIXED	4	MQCTCSCU	Total of common service area currently used.
60	(3C)	FIXED	2	MQCTCSIL	DFSMShsm inactive limit for the common service area storage allocation. This limit is a percent of the specified maximum limit (see field MCVTCSHL). After the percent of the specified maximum limit has been allocated and DFSMShsm is inactive, no MWEs are added to the common service area queue. The default is 30% usage of the maximum limit common service area.
62	(3E)	FIXED	2	MQCTCSAL	DFSMShsm active limit for the common service area storage allocation. This limit is a percent of the specified maximum limit (see field MCVTCSHL). The default is 90% of the specified maximum limit. After the specified percentage of common service area has been allocated and DFSMShsm is active, only batch WAIT MWEs are added to the common service area queue.
64	(40)	FIXED	2	MQCTCSNL	Maximum number of MWEs to allow per address space. If any NOWAIT MWEs are added to the common service area queue for this address space after the maximum number has been reached, they are flagged to indicate the common service area storage allocated to the MWE is to be freed when the ARCCTL has copied the MWE into DFSMShsm address space. The default is 4 MWEs.
66	(42)	FIXED	2	MQCT_LENGTH	QCT length.
68	(44)	CHARACTER	8	MQCTT57I	Last time message ARC0057I was issued to the operator.
76	(4C)	CHARACTER	8	MQCTT58I	Last time message ARC0058I was issued to the operator.
84	(54)	CHARACTER	8	MQCTVOLP	Volume-pool table pointers.
84	(54)	ADDRESS	4	MQCTVPOL	When on, indicates the volume-pool is not empty.
88	(58)	ADDRESS	4	MQCTVPLT	Volume-pool tail address.
92	(5C)	CHARACTER	8	MQCTINTS	Job time stamp of a MAIN host. Valid only if MQCTFACT equals 1.
100	(64)	ADDRESS	4	MQCTEXTP	If nonzero, pointer to the extended QCT for the MAIN host. Valid only if MQCTFACT equals 1.
104	(68)	FIXED	4	*	Reserved.
108	(6C)	CHARACTER	4	MQCT_VRM	This field contains the 4-byte version, release, and modification level when MQCTVRM contains X'40F1F5F9'. Byte 1 represents the name level indicator. If this byte contains a X'02' or X'03', then DFSMShsm is running at a level that is available only with OS/390® or z/OS, respectively. Refer to bytes 2–4 (a value of X'01' in byte 1 is not valid). Byte 2 contains the version number, in binary. Byte 3 contains the release number, in binary. Byte 4 contains the modification level, in binary.
112	(70)	ADDRESS	4	MQCTMULP	If nonzero, pointer to block MQCT_MULT.
116	(74)	BITSTRING	1	MQCTFLGS2	Persistent Flags
		1...		MQCTF_HCHK_REGD	HSM HC exit routine has been registered
		.1..		MQCTF_ARCCAT_RLSE	When set to 1, ARCCAT release is active in a non-RLSE, non-MASH host
		..xx xxxx		*	Reserved
117	(75)	CHARACTER	7	*	Reserved
124	(7C)	FIXED	4	MQCTMSAS	Maximum ABARS tasks allowed.
128	(80)	CHARACTER	8(64)	MQCTSAS	Array for Application Backup and Recovery.
128	(80)	ADDRESS	4	MQCTMASP	Pointer to MASCB.
132	(84)	FIXED	4	*	Reserved.

As shown in Table 129, the following fields describe the QCT event control block:

Table 129. QCT—Event Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	4	MQCTECB	DFSMShsm ECB.
0	(0)	BITSTRING	1	*	This byte contains the following flags:
		1...		MQCTWAIT	DFSMShsm ECB WAIT flag.
		.1..		MQCTCOMP	DFSMShsm ECB COMPLETE flag.
		..xx xxxx		*	Reserved.
1	(1)	BITSTRING	3	*	Reserved.

As shown in Table 130, the following fields describe the QCT anchor block for host elements:

Table 130. QCT—Anchor Block for Host Elements

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	48	MQCT_MULT	Anchor block for host elements.
0	(0)	CHARACTER	8	MQCT_HANCHR	Anchor for linked list.
0	(0)	ADDRESS	4	MQCTHADR	Pointer to first element for DFSMShsm host (MAIN or AUX).
4	(4)	ADDRESS	4	MQCTTADR	Pointer to last element for DFSMShsm host (MAIN or AUX).
8	(8)	ADDRESS	4	MQCTMAIN	Zero or pointer to host element for HOSTMODE=MAIN.
12	(C)	ADDRESS	4	MQCTGRS	Pointer to global resource serialization block.
16	(10)	FIXED	2	MQCT_MULT_ LENGTH	Host element anchor block length.
18	(12)	FIXED	2	*	Reserved.
20	(14)	FIXED	4(7)	*	Reserved.

The following area represents one host that has been started in the MVS image containing the QCT base (see Table 131). This element is one of a linked list that is anchored in MQCTHADR and MQCTTADR. If this element represents an address space with HOSTMODE=MAIN that has not been shut down (MQCTHF_MAIN is ON and MQCTHF_SHUT is OFF), then field MQCTMAIN in the QCT base points to this element, and MQCTH_ECBP = MQCTECBP in the address space for MQCTH_ASCB. Once started, when the host for this element is shut down, the element is not freed, but can be reused for a subsequent started host.

Table 131 (Page 1 of 2). QCT—Host Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	112	MQCTHOST	DFSMShsm host element.
0	(0)	CHARACTER	8	MQCT_BLID	Host element ID '*QCTHST*.
8	(8)	CHARACTER	2	MQCTH_ID	Host identifier.
10	(A)	CHARACTER	2	MQCTH_HI	Host identifier AS term P
12	(C)	CHARACTER	4	MQCTH_VRM	Flag for version, release, and modification level.
16	(10)	CHARACTER	8	MQCTH_STNAME	Started task name.
24	(18)	FIXED	2	MQCTHOST_ LENGTH	Host element length.
26	(1A)	FIXED	2	MQCTH_ASID	Address space ID.
28	(1C)	ADDRESS	4	MQCTH_NEXT	Zero or pointer to the next host element in linked list.
32	(20)	ADDRESS	4	MQCTH_PREV	Zero or pointer to previous host element in linked list.
36	(24)	ADDRESS	4	MQCTH_ASCB	Pointer to ASCB for this address space (host).
40	(28)	ADDRESS	4	MQCTH_MCVT	Pointer to MCVT for this address space (host).
44	(2C)	ADDRESS	4	MQCTH_ESDP	Pointer to ESD table for this address space (host) for dump reading.
48	(30)	ADDRESS	4	MQCTH_ECBP	For this address space, the pointer to the ECB that ARCCTL waits on for work in CSA.
52	(34)	FIXED	1	MQCTH_CNTR	Number of DFSMShsm's currently started in this address space.
53	(35)	CHARACTER	3	*	Reserved.
56	(38)	CHARACTER	8	MQCTH_PDEQ	Next two fields for DS pool.
56	(38)	ADDRESS	4	MQCTH_DSPOOL	Pointer to first PDE.
60	(3C)	ADDRESS	4	MQCTH_PLT	Pointer to last PDE.
64	(40)	CHARACTER	8	MQCTH_VOLP	Pointer to volume pool for this host.
64	(40)	ADDRESS	4	MQCTH_VPOL	Pointer to head of volume pool.
68	(44)	ADDRESS	4	MQCTH_VPLT	Pointer to tail of volume pool.

Table 131 (Page 2 of 2). QCT—Host Element

Offsets Decimal	(Hex)	Type	Length	Name	Description
72	(48)	BITSTRING	4	MQCTH_FLGS	Status flags:
		1...		MQCTHF_MAIN	When set to 1, HOSTMODE=MAIN for this address space.
		.1..		MQCTHF_SHUT	When set to 1, DFSMShsm in this address space has been shut down.
		..1.		MQCTHF_JES3	When set to 1, DFSMShsm in this address space started for JES3. Valid only if MQCTHF_SSES equals 1.
		...1		MQCTHF_CDSR	When set to 1, DFSMShsm in this address space started with CDSR=Y.
		.... 1...		MQCTHF_CDSQ	When set to 1, DFSMShsm in this address space started with CDSQ=Y.
		.... .1..		MQCTHF_MCDS	When set to 1, DFSMShsm in this address space opened the MCDS.
		.... ..1.		MQCTHF_BCDS	When set to 1, DFSMShsm in this address space opened the BCDS.
		1		MQCTHF_OCDS	When set to 1, DFSMShsm in this address space opened the OCDS.
73	(49)	1...		MQCTHF_JRNL	When set to 1, DFSMShsm in this address space opened the journal.
		.1..		MQCTHF_SSES	When set to 1, DFSMShsm in this address space has established a job-entry subsystem.
		..1.		MQCTHF_ARSMGR	When set to 1, DFSMShsm in this address space has established an address space RSMGR.
		...1		MQCTHF_HOSTSD	When set to 1, this host is shutting down.
		.... 1...		MQCTHF_ RELEASED	When set to 1, this host element released for reuse.
		.... .1..		MQCTHF_SMS_CONF	When set to 1, SMS configuration changed
		.... ..1.		MQCTHF_ENF15_ABEND	When set to 1, ARCENF15 abended
		1		MQCTHF_SMS_OTHER_CHANGE	When set to 1, SMS configuration other change - not CDS activation
74	(4A)	1...		MQCTHF_ENF15_INVALID	When set to 1, ENF 15 input parameters are invalid
		.xxx xxxx		*	Reserved.
75	(4B)	BITSTRING	1	*	Reserved.
76	(4C)	FIXED	4	*	Reserved.
80	(50)	CHARACTER	8	MQCTH_INTS	Time (STCK format) this host was initiated (from ASCBINTS).
88	(58)	ADDRESS	4	MQCTH_EXTP	Pointer to QCT extension for this address space (host).
92	(5C)	CHARACTER	8	MQCTH_JOBID	Job identifier.
92	(5C)	CHARACTER	3	*	STC (JES2) or JOB (JES3).
95	(5F)	CHARACTER	5	*	Reserved.
100	(64)	SIGNED	4(3)	*	Reserved.

As shown in Table 132, the following fields describe the QCT extension for the queue control table:

Table 132 (Page 1 of 2). QCT—Extension for Queue Control Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	232	MQCTEXT	Extended QCT.
0	(0)	CHARACTER	8	MQCTEXID	Extended QCT block ID *QCTEXT*.
8	(8)	FIXED	2	MQCTRCTR	Number of DFSMShsm restarts attempted within the time interval specified in MQCTRTMR.
10	(A)	CHARACTER	8	MQCTRTMR	Timer used for tracking the number of times DFSMShsm restarted within a certain time interval.
10	(A)	CHARACTER	4	MQCTRMIN	Seconds and greater.
14	(E)	CHARACTER	4	*	Smaller than seconds.
18	(12)	CHARACTER	4	MQCTABCC	Abend code (or user code).
22	(16)	FIXED	2	MQCTALEN	Length of text on the RESTART parameter.
24	(18)	CHARACTER	126	MQCTADAT	Actual text on the RESTART parameter (maximum size of 126 bytes).
150	(96)	BITSTRING	2	MQCTEXTF	Flags.
		1...		MQCTSTOP	DFSMShsm or MVS STOP issued, or CANCEL, CANCEL with DUMP, or FORCE issued.
		.1..		MQCTABND	When set to 1, ARCCTL abended.
		..1.		MQCTTABD	When set to 1, task has abended with 878 or 80A abend code due to virtual storage outage.
		...1		MQCTF_SERVER_ERR	SMS VSAM server error.
		 xxxx		*	Reserved.
150	(96)	BITSTRING	1	*	Reserved.
152	(98)	ADDRESS	4	MQCTARMG	Address of the resource manager module ARCRSMGR.
156	(9C)	ADDRESS	4	MQCTANCP	Address of monitor anchor block.

Table 132 (Page 2 of 2). QCT—Extension for Queue Control Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
160	(A0)	FIXED	4	*	Reserved, was MQCTHMTC
164	(A4)	CHARACTER	4	MQCT_DT_MCDS	Device type the MCDS resides on. Used in IGG026DU as a D/T guaranteed to be SYSGENed.
168	(A8)	FIXED	2	MQCTEXT_ LENGTH	QCT extension length.
170	(AA)	FIXED	2	*	Reserved.
172	(AC)	FIXED	4(15)	*	Reserved.

QCT Control Block Cross-Reference

Table 133 (Page 1 of 2). QCT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MQCT_DT_MCDS	A4		2
MQCT_HANCHR	0		2
MQCT_LENGTH	42		2
MQCT_MULT	0		1
MQCT_MULT_LENGTH	10		2
MQCT_VRM	6C		2
MQCTABCC	12		2
MQCTABND	96	40	3
MQCTADAT	18		2
MQCTALEN	16		2
MQCTANCP	9C		2
MQCTARMG	98		2
MQCTASCB	8		2
MQCTCOMP	0	40	2
MQCTCSAL	3E		2
MQCTCSCU	38		2
MQCTCSHL	34		2
MQCTCSIL	3C		2
MQCTCSNL	40		2
MQCTECB	0		1
MQCTECBP	0		2
MQCTESD	28		2
MQCTEXID	0		2
MQCTEXT	0		1
MQCTEXT_LENGTH	A8		2
MQCTEXTF	96		2
MQCTEXTP	64		2
MQCTF_ALLOW_FC2PPRCP_VOLS	5	20	3
MQCTF_ARCCAT_RLSE	74	40	3
MQCTF_CPFRECVR	5	2	3
MQCTF_HCHK_REGD	74	80	3

Table 133 (Page 1 of 2). QCT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MQCTF_PRESMIR	5	4	3
MQCTF_SERVER_ERR	96	10	3
MQCTFACT	4	80	3
MQCTFAPU	5	80	3
MQCTFHRX	4	04	3
MQCTFLGS	4		2
MQCTFLGS2	74		2
MQCTFNOL	4	01	3
MQCTFRPV	4	08	3
MQCTGRS	C		2
MQCTH_ASCB	24		2
MQCTH_ASID	1A		2
MQCTH_BLID	0		2
MQCTH_CNTR	34		2
MQCTH_DSPOOL	38		3
MQCTH_ECBP	30		2
MQCTH_ESDP	2C		2
MQCTH_EXTP	58		2
MQCTH_FLGS	48		2
MQCTH_HI	A		2
MQCTH_ID	8		2
MQCTH_INTS	50		2
MQCTH_JOBID	5C		2
MQCTH_MCVT	28		2
MQCTH_NEXT	1C		2
MQCTH_PDEQ	38		2
MQCTH_PLT	3C		3
MQCTH_PREV	20		2
MQCTH_STNAME	10		2
MQCTH_VOLP	40		2
MQCTH_VPLT	44		3

Table 133 (Page 2 of 2). QCT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MQCTH_VPOL	40		3
MQCTH_VRM	C		2
MQCTHADR	0		3
MQCTHF_ARSMGR	49	20	3
MQCTHF_BCDS	48	02	3
MQCTHF_CDSQ	48	08	3
MQCTHF_CDSR	48	10	3
MQCTHF_ENF15_ABEND	49	02	5
MQCTHF_ENF15_INVALID	4A	80	5
MQCTHF_HOSTSD	49	10	3
MQCTHF_JES3	48	20	3
MQCTHF_JRNL	49	80	3
MQCTHF_MAIN	48	80	3
MQCTHF_MCDS	48	04	3
MQCTHF_OCDS	48	01	3
MQCTHF_RELEASED	49	08	3
MQCTHF_SHUT	48	40	3
MQCTHF_SMS_CONF	49	04	5
MQCTHF_SMS_OTHER_CHANGE	49	01	5
MQCTHF_SSES	49	40	3
MQCTHOST	0		1
MQCTHOST_LENGTH	18		2
MQCTID	2C		2
MQCTINTS	5C		2
MQCTJES3	4	40	3
MQCTJ25T	5	40	3
MQCTJ3WT	4	10	3
MQCTMAIN	8		2
MQCTMASP	80		3
MQCTMCVT	24		2
MQCTMOD	33		3
MQCTMSAS	7C		2
MQCTMULP	70		2
MQCTMWEH	C		2
MQCTMWET	10		2
MQCTNOPM	4	02	3
MQCTPDEQ	1C		2
MQCTPLT	20		3
MQCTPOOL	1C		3
MQCTRCTR	8		2
MQCTREL	32		3
MQCTRMIN	A		3

Table 133 (Page 2 of 2). QCT Control Block Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MQCTRQN	14		2
MQCTRTMR	A		2
MQCTSAS	80		2
MQCTSTOP	96	80	3
MQCTTABD	96	20	3
MQCTTADR	4		3
MQCTTSOD	5	10	3
MQCTTSOT	5	08	3
MQCTT57I	44		2
MQCTT58I	4C		2
MQCTVER	30		3
MQCTVOLL	18		2
MQCTVOLP	54		2
MQCTVPLT	58		3
MQCTVPOL	54		3
MQCTVRM	30		2
MQCTWAIT	0	80	2
QCT	0		1

SUT—Space Usage Table

The DFSMShsm Space Usage Table (SUT) defines space usage data for the journal data set, the migration control data set, the backup control data set and the offline control data set.

Table 134 (Page 1 of 2). SUT—Space Usage Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	176	SUT	
Entries for journal data set					
0	(0)	ADDRESS	4	SUTJDCB	Pointer to journal DCB
4	(4)	FIXED	4	SUTJPRI	Size (in tracks) of the journal primary extent
8	(8)	FIXED	4	SUTJFREQ	Typical number of records that use up 1% of total space. This is a number of records that should be written between space checks
12	(C)	FIXED	4	SUTJCNT	Number of journal records written since the most recent space check.
16	(10)	FIXED	2	SUTJTH	Threshold % of occupied total space. Used to trigger journal 'getting full' warning message.
18	(12)	FIXED	2	SUTJTCAP	Track capacity in bytes
20	(14)	UNSIGNED	4	*	Reserved
24	(18)	BITSTRING	1	SUTFLAGS	Space usage flags
		1...		SUTFJD	When set to 1, journal space monitoring is disabled
		.1..		SUTFMD	When set to 1, MCDS space monitoring is disabled
		..1.		SUTFBD	When set to 1, BCDS space monitoring is disabled
		...1		SUTFOD	When set to 1, OCDS space monitoring is disabled
		 xxxx		*	Reserved
25	(19)	CHARACTER	17	*	Reserved
42	(2A)	FIXED	2	SUTJUSED	Percent of journal used
Entries for Migration Control Data Set					
44	(2C)	SIGNED	4	*	Reserved
48	(30)	SIGNED	4	*	Reserved
52	(34)	UNSIGNED	4	*	Reserved
56	(38)	FIXED	2	SUTMFREQ	NUMBER OF MCDS RECORDS TO BE WRITTEN BETWEEN SPACE CHECKS
58	(3A)	FIXED	2	SUTMCNT	NUMBER OF MCDS RECORDS WRITTEN SINCE THE MOST RECENT SPACE CHECK.
60	(3C)	FIXED	2	SUTMTH	THRESHOLD % OF OCCUPIED SPACE. USED TO TRIGGER MCDS 'GETTING FULL' WARNING MESSAGE.
62	(3E)	FIXED	2	SUTMEXT	Number of MCDS extents monitored, however it is no longer used in any calculations.
64	(40)	UNSIGNED	4	*	Reserved
68	(44)	UNSIGNED	4	*	Reserved
72	(48)	CHARACTER	16	*	Reserved
Entries for Backup Control Data Set					
88	(58)	SIGNED	4	*	Reserved
92	(5C)	SIGNED	4	*	Reserved
96	(60)	UNSIGNED	4	*	Reserved
100	(64)	FIXED	2	SUTBFREQ	NUMBER OF BCDS RECORDS TO BE WRITTEN BETWEEN SPACE CHECKS
102	(66)	FIXED	2	SUTBCNT	NUMBER OF BCDS RECORDS WRITTEN SINCE THE MOST RECENT SPACE CHECK.
104	(68)	FIXED	2	SUTBTH	THRESHOLD % OF OCCUPIED SPACE. USED TO TRIGGER BCDS 'GETTING FULL' WARNING MESSAGE
106	(6A)	FIXED	2	SUTBEXT	Number of BCDS extents monitored, however it is no longer used in any calculations.
108	(6C)	UNSIGNED	4	*	Reserved
112	(70)	UNSIGNED	4	*	Reserved
116	(74)	CHARACTER	16	*	Reserved
Entries for Offline Control Data Set					
132	(84)	SIGNED	4	*	Reserved

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Table 134 (Page 2 of 2). SUT—Space Usage Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
136	(88)	SIGNED	4	*	Reserved
140	(8C)	UNSIGNED	4	*	Reserved
144	(90)	FIXED	2	SUTOFREQ	NUMBER OF OCDS RECORDS TO BE WRITTEN BETWEEN SPACE CHECKS
146	(92)	FIXED	2	SUTOCNT	NUMBER OF OCDS RECORDS WRITTEN SINCE THE MOST RECENT SPACE CHECK.
148	(94)	FIXED	2	SUTOTH	THRESHOLD % OF OCCUPIED SPACE. USED TO TRIGGER OCDS 'GETTING FULL' WARNING MESSAGE
150	(96)	FIXED	2	SUTOEXT	Number of OCDS extents monitored
152	(98)	UNSIGNED	4	*	Reserved
156	(9C)	UNSIGNED	4	*	Reserved
160	(A0)	CHARACTER	16	*	Reserved

SUT Data Area Cross-Reference

Table 135. SUT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
SUT	0		1
SUTBCNT	66		2
SUTBEXT	6A		2
SUTBFREQ	64		2
SUTBTH	68		2
SUTFBD	18	20	3
SUTFJD	18	80	3
SUTFLAGS	18		2
SUTFMD	18	40	3
SUTFOD	18	10	3
SUTJCNT	C		2
SUTJDCB	0		2
SUTJFREQ	8		2
SUTJPRI	4		2
SUTJTCAP	12		2
SUTJTH	10		2
SUTJUSED	2A		2
SUTMCNT	3A		2
SUTMEXT	3E		2
SUTMFREQ	38		2
SUTMTH	3C		2
SUTOCNT	92		2
SUTOEXT	96		2
SUTOFREQ	90		2
SUTOTH	94		2

TCN—Tape Copy Needed

The DFSMShsm Tape Copy Needed (TCN) record is used for duplex exception processing. It is created and then written to the OCDS when an exception condition occurs during tape duplexing that causes an internally generated TAPECOPY. This record is deleted when the TAPECOPY completes successfully, when the original tape volume is deleted, or when the original volume is recycled. The record type is E.

The key for a type E tape copy needed record is B for backup (M for migration) followed by a dash (-) and the volume serial number. Examples to display the TCN record for volume SMS001 are:

```
For a backup record:
   FIXCDS E B-SMS001

For a migration record:
   FIXCDS E M-SMS001
```

Table 136. TCN—Duplex Exception Processing Record

Offsets Actual / FIXCDS	Type	Length	Name	Description
0(0)		44	MCK	Control data set record key, consisting of the name and padded with blanks. (See MCK for details.)
44(2C)		20	MCH	Control data set record header. (See MCK for details.)
64(40)	STRUCTURE	24	TCN	TAPECOPY needed.
64(40)	CHARACTER	24	TCN_DATA	TCN record.
64(40)	FIXED	4	TCN_DATE	Date of last auto TAPECOPY.
68(44)	FIXED	4	TCN_TIME	Time of last auto TAPECOPY.
72(48)	BITSTRING	1	TCN_FLAGS	This byte contains the following flags:
	1...		TCNF_NTA	New tape architecture.
	.xxx xxxx		*	Reserved.
73(49)	BITSTRING	3	*	Reserved.
76(4C)	CHARACTER	8	TCN_UNITNAME	Unit name for alternate volume.
84(54)	CHARACTER	4	*	Reserved.

TCN Data Area Cross-Reference

Table 137. TCN Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
TCN	40		1
TCN_DATA	40		2
TCN_DATE	40		3
TCN_FLAGS	48		3
TCN_TIME	44		3
TCN_UNITNAME	4C		3
TCNF_NTA	48	80	4

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TTOC—Tape Table of Contents Record

The tape table of contents record (TTOC) is an offline control data set data area record that describes a tape volume and the data sets residing on that tape. The logical record can consist of multiple physical records; the first is called the base record and the others are called extension records. Tape table of contents records are 156 bytes long, plus 56 bytes for each data set on the volume that is described in this record. The record type is T.

The key for a type T tape table of contents record for a tape migration level-2 volume is the constant L2 followed by a dash (-), the volume serial number, a dash (-), and a four-character sequence number. An example of the key that is used with a T tape table of contents record for the migration level 2 volume TML205 is:

```
FIXCDS T L2-TML205-0000
```

Table 138 (Page 1 of 3). TTOC—Tape Table of Contents Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
0(0)		CHARACTER	44	TTCKEY	The tape table of contents record key.
0(0)		CHARACTER	1	*	Skip X'32'.
1(1)		CHARACTER	2	TTCTYPE	SP (spill), UN (unassigned), dd (day assigned), and L2 (migration level 2) of the key.
3(3)		CHARACTER	1	TTCDASH1	The dash (-) of the key.
4(4)		CHARACTER	6	TTCVSN	The volume serial number of the key.
10(A)		CHARACTER	1	TTCDASH2	The dash (-) of the key.
11(B)		CHARACTER	4	TTCCNTR	A 4-byte sequence number in character form (0000, ...).
44(2C)		CHARACTER	20	TTCHDR	Offline control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	92	TTCDATA	Data portion of the tape table of contents record.
64(40)	0(0)	CHARACTER	1	TTCHSTID	Identifier of the host currently using this tape table of contents if DFSMShsm is running in a multiple-host environment. Otherwise, X'00'.
65(41)	1(1)	BITSTRING	2	TTCFFLGS	The next two bytes contain the following flags:
		1...		TTCFFULL	When set to 1, the volume is full.
		.1..		TTCFRACF	When set to 1, the volume contains RACF protected data sets.
		..1.		TTCFURAC	When set to 1, the tape was already RACF protected when DFSMShsm attempted to protect it.
		...1		TTCFUPWD	When set to 1, the volume contains a version that came from a password-protected user data set.
		.... 1...		TTCFYMSG	When set to 1, a message has been sent stating that the volume is eligible for recycle.
		.... .1..		TTCFFAIL	When set to 1, the volume failed recycle because of a problem with the volume.
		.... ..1.		TTCFYNO1	When set to 1, the first data set on the volume spans more than four volumes.
		1		TTCFYNO2	When set to 1, the last data set on the volume spans more than four volumes.
66(42)	2(2)	1...		TTCFTSRF	When set to 1, the RACF or RACFINCLUDE security option is in effect.
		.1..		TTCCDDVL	When set to 1, the CDDID field on this tape contains a valid CDD eye-catcher.
		..1.		TTCFAIST	When set to 1, active in-storage TTOC records exist.
		...1		TTCFDAV	When set to 1, the alternate volume, at TTCIMAGT, is a disaster alternate volume.
		.... 1...		TTCFAUD	When set to 1, the MEDIACONTROLS parameter of the AUDIT command was used to alter this TTOC record.
		.... .1..		TTCFSTDT	When set to 1, the tape is a 3480, 3480X, or 3490 standard capacity tape.
		.... ..1.		TTCFECT	When set to 1, the tape is a 3490 enhanced capacity tape.

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Table 138 (Page 2 of 3). TTOC—Tape Table of Contents Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
		1		TTCFRACF_ PROTECTD	When set to 1, indicated that this tape is RACF protected.
67(43)	3(3)	CHARACTER	1	TTCHSTAI	Identifier of the host with active in-storage TTOC records.
68(44)	4(4)	CHARACTER	8	TTCUNIT	Unit name of the volume.
76(4C)	12(C)	FIXED	2	TTCNUM	Number of base and extension records required to completely describe the volume. This field is valid only in the base record.
78(4E)	14(E)	FIXED	2	TTCDSNUM	Number of data sets described by this physical record.
80(50)	16(10)	FIXED	4	TTCTBLK	Total number of blocks written on the tape. This field is valid only in the base record.
84(54)	20(14)	FIXED	4	TTCVBLK	Number of valid blocks of data on this volume. This field is valid only in the base record.
88(58)	24(18)	CHARACTER	6	TTCPREVL	Volume serial number of the preceding volume containing data belonging to the first data set on the tape.
94(5E)	30(1E)	CHARACTER	6	TTCSUCVL	Volume serial number of the following volume containing data belonging to the last data set on the tape.
100(64)	36(24)	FIXED	4	TTCLFBID	File-sequence number of the last data set successfully written on the tape. Not maintained for 3480 single-file tape.
104(68)	40(28)	FIXED	4	TTCFFBID	File-sequence number of the first data set successfully written on the tape.
108(6C)	44(2C)	CHARACTER	6	TTCIMAGT	Volume serial number of the alternate volume.
114(72)	50(32)	CHARACTER	1	TTCCXEPI	Emulated device type.
115(73)	51(33)	BITSTRING	1	*	More flags.
		1...		TTCF_CXEPI	When set to 1, TTCCXEPI is valid.
		.1..		TTCF_IN_XCAP	When set to 1, this is an extended capacity tape.
		..1.		TTCF_XTTC	When set to 1, extended TTOC.
		...1		TTCF_MARKFULL_PREMATURELY	When set to 1, tape marked full because duplexing tape error.
		.... 1...		TTCF_FORCE_DA	TAPEREPL DAVOLS with force TR.
		.... .1..		TTCF_FORCE_TR	TAPEREPL with force TAPEREPL set.
		.... ..1.		TTCF_RECYCLE_TAKEAWAY	When set to 1, takeaway occurs.
		1		TTCF_RECYCLE_RETRY_EXCEEDED	When set to 1, The max number of retries exceeded.
116(74)	52(34)	CHARACTER	8	TTC_ALTUNIT	Unit name of the alternate volume.
124(7C)	60(3C)	FIXED	4	TTC_FBID	FBID of last data set on OCDS.
128(80)	64(40)	FIXED	2	TTC_ENTRY	Relative data set number of FBID.
130(82)	66(42)	FIXED	1	TTC_MEDIA	Media type, for example: 5 = MEDIA5 6 = MEDIA6 7 = MEDIA7 8 = MEDIA8
131(83)	67(43)	FIXED	1	TTC_REC	Recording technology: 6=EFMT1, etc.
132(84)	68(44)	FIXED	4	TTCFBID_RESUME	FBID for MEDCTL resume
136(88)	72(48)	FIXED	2	TTCENTRY_RESUME	Data set entry # of FBID
138(8A)	74(4A)	FIXED	2	TTCNUM_RESUME	Count of base plus extension.
140(8C)	76(4C)	FIXED	4	TTCTBLK_RESUME	Total blocks
144(90)	80(50)	FIXED	4	TTCVBLK_RESUME	Total valid blocks
148(94)	84(54)	FIXED	4(2)	*	Reserved
The following information is repeated for each data set on the tape volume:					
156(9C)	92(5C)	CHARACTER	56	TTCENTRY	TTOC entry of each version on tape.
156(9C)	92(5C)	CHARACTER	44	TTCDSN	Data set name of a backup version or migration copy residing on the volume.
200(C8)	136(88)	FIXED	4	TTCNBLKS	Number of blocks that the data set occupies on this volume.
204(CC)	140(8C)	CHARACTER	3	TTCDLR	Date the data set was last referenced.
204(CC)	140(8C)	FIXED	1	TTCYR	Year of the last-referenced date (number of years since 1900).
205(CD)	141(8D)	FIXED	2	TTCDAY	Day of the last-referenced date.
207(CF)	143(8F)	CHARACTER	1	*	Reserved.
208(D0)	144(90)	BITSTRING	1	TTCEFLGS	This byte contains the following flags:
		1...		TTCEVSAM	When set to 1, the data set is VSAM.
		.1..		TTCEVALD	When set to 1, the data set is valid.
		..1.		TTCERACF	When set to 1, the data set is RACF protected.
		...x xxxx		*	Reserved.
209(D1)	145(91)	CHARACTER	3	TTCEXPDT	Data set expiration date.
209(D1)	145(91)	FIXED	1	TTCEYR	Year of the expiration date (number of years since 1900).

Table 138 (Page 3 of 3). TTOC—Tape Table of Contents Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
210(D2)	146(92)	FIXED	2	TTCEDAY	Day of the expiration date.

TTOC Data Area Cross-Reference

Table 139 (Page 1 of 2). TTOC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
TTC_ALTUNIT	74		3
TTC_ENTRY	80		3
TTC_FBID	7C		3
TTC_MEDIA	82		3
TTC_REC	83		3
TTCCDDVL	42	40	4
TTCCNTR	B		3
TTCCXEPI	72		3
TTCDASH1	3		3
TTCDASH2	A		3
TTCDATA	40		2
TTCDAY	CD		4
TTCDLR	CC		3
TTCDSN	9C		3
TTCDSNUM	4E		3
TTCEDAY	D2		4
TTCEFLGS	D0		3
TTCENTRY	9C		2
TTCENTRY_RESUME	88		2
TTCERACF	D0	20	4
TTCEVALD	D0	40	4
TTCEVSAM	D0	80	4
TTCEXPDT	D1		3
TTCEYR	D1		4
TTCF_CXEPI	73	80	4
TTCF_FORCE_DA	73	08	4
TTCF_FORCE_TR	73	04	4
TTCF_IN_XCAP	73	40	4
TTCF_MARKFULL_PREMATURELY	73	10	4
TTCF_RECYCLE_TAKEAWAY	73	02	4
TTCF_RECYCLE_RETRY_EXCEEDED	73	01	4
TTCF_XTTC	73	20	4
TTCFAIST	42	20	4
TTCFAUD	42	08	4

Table 139 (Page 1 of 2). TTOC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
TTCFBID_RESUME	84		3
TTCFDAV	42	10	4
TTCFECT	42	02	4
TTCFFAIL	41	04	4
TTCFFBID	68		3
TTCFFLGS	41		3
TTCFFULL	41	80	4
TTCFRACF	41	40	4
TTCFRACF_PROTECTD	42	01	4
TTCFSTDT	42	04	4
TTCFTSRF	42	80	4
TTCFUPWD	41	10	4
TTCFURAC	41	20	4
TTCFYMSG	41	08	4
TTCFYNO1	41	02	4
TTCFYNO2	41	01	4
TTCHDR	2C		2
TTCHSTAI	43		3
TTCHSTID	40		3
TTCIMAGT	6C		3
TTCKEY	0		2
TTCLFBID	64		3
TTCNBLKS	C8		3
TTCNUM	4C		3
TTCNUM_RESUME	8A		2
TTCPREVL	58		3
TTCSUCVL	5E		3
TTCTBLK	50		3
TTCTBLK_RESUME	8C		3
TTCTYPE	1		3
TTCUNIT	44		3
TTCVBLK	54		3
TTCVBLK_RESUME	90		3
TTCVSN	4		3

Table 139 (Page 2 of 2). TTOC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
TTCYR	CC		4

UTILP—DFSMShsm Data Collection Interface

This section describes the input parameter list for ARCUTIL and the field definitions for the data collection records. Information on using this interface can be found in the DFSMShsm Implementation and Customization Guide.

The following table defines the ARCUTIL parameter list:

Table 140. ARCUTIL Parameter List

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	88	UTILP	Parameter list for ARCUTIL
0	(0)	CHARACTER	8	UPID	Parameter list ID
8	(8)	FIXED	1	UPVERS	Parameter list version
9	(9)	BITSTRING	1	UPRECORD	Requested records
		1...		UPREMIGR	When set to 1, utility is to create migrated data set information records.
		.1..		UPREBACK	When set to 1, utility is to create backed up data set information records.
		..1.		UPREDASD	When set to 1, utility is to create DASD capacity planning records.
		...1		UPRETAPE	When set to 1, utility is to create tape capacity planning records.
		 xxxx		*	Reserved
10	(A)	CHARACTER	1	*	Reserved
11	(B)	BITSTRING	1	UPOPTION	Processing options
		1...		UPSPALL	When set to 1, SNAP processing is always requested.
		.1..		UPSPERR	When set to 1, SNAP processing is requested for errors.
		..xx xxxx		*	Reserved
12	(C)	ADDRESS	4	UPOUTDCB	Address of output DS DCB
16	(10)	CHARACTER	8	UPSTAMP	Time and date structure.
16	(10)	CHARACTER	4	UPHTIME	Time stamp: HHMMSSTH
20	(14)	CHARACTER	4	UPHDATE	Date stamp: YYYYDDDF
24	(18)	ADDRESS	4	UPEXITP	Address of user exit entry
28	(1C)	ADDRESS	4	UPEXAREA	Address of control area
32	(20)	CHARACTER	12	*	Reserved
44	(2C)	FIXED	4	UPNUMIGR	Number of type 'M' records
48	(30)	FIXED	4	UPNUBACK	Number of type 'B' records
52	(34)	FIXED	4	UPNUDASD	Number of type 'C' records
56	(38)	FIXED	4	UPNUTAPE	Number of type 'T' records
60	(3C)	CHARACTER	20	*	Reserved
80	(50)	FIXED	4	UPRC	Return code
84	(54)	FIXED	4	UPREAS	Reason code

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The following table defines the mapping for migrated data set information (record type 'M').

Table 141 (Page 1 of 2). ARCUTIL—Migrated Data Set Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	224	UMMDSI	Migrated data set information (defined on DCUDATA)
0	(0)	CHARACTER	44	UMDSNAM	Data set name
44	(2C)	BITSTRING	1	UMFLAG1	Information flags
		11..		UMLEVEL	Migrated level
		..1.		UMCHIND	Changed since last backup
		...1		UMSDSP	Indicates SDSP migrated data
		 xxxx		*	Reserved
45	(2D)	CHARACTER	1	UMDEVCL	Device class of migration volume
46	(2E)	CHARACTER	2	UMDSORG	Data set organization at time of migration.
48	(30)	FIXED	4	UMDSIZE	Migration copy data set size in kilobytes or megabytes.
52	(34)	CHARACTER	8	UMMDATE	Timestamp field
52	(34)	CHARACTER	4	UMTIME	Migrated time - HHMMSSTH format FORMAT
56	(38)	CHARACTER	4	UMDATE	Migrated date - YYYYDDDF format
60	(3C)	CHARACTER	96	UMCLASS	Migration class information
60	(3C)	CHARACTER	32	UMDCLAS	Migration data class information
60	(3C)	FIXED	2	UMDCLNG	Data class name length
62	(3E)	CHARACTER	30	UMDATCL	Data class name
92	(5C)	CHARACTER	32	UMSCLAS	Migration storage class information
92	(5C)	FIXED	2	UMSCLNG	Storage class name length
94	(5E)	CHARACTER	30	UMSTGCL	Storage class name
124	(7C)	CHARACTER	32	UMMCLAS	Migration management class information
124	(7C)	FIXED	2	UMMCLNG	Management class name length
126	(7E)	CHARACTER	30	UMMGTCL	Management class name
156	(9C)	BITSTRING	1	UMRECRD	Record format
157	(9D)	BITSTRING	1	UMRECOR	VSAM record organization
		1...		UMESDS	Entry-sequenced data set
		.1..		UMKSDS	Key-sequenced data set
		..1.		UMLDS	Linear data set
		...1		UMRRDS	Relative-record data set
		 xxxx		*	Reserved
158	(9E)	CHARACTER	2	UMBKLNG	Block length
160	(A0)	BITSTRING	1	UMFLAG2	Information flags
		1...		UMRACFD	RACF-indicated
		.1..		UMGDS	When set to 1, generation group data set. This field is only valid when the data set is SMS-managed.
		..1.		UMREBLK	When set to 1, data set is system-reblockable. This field is only valid when the data set is SMS-managed.
		...1		UMPDSE	When set to 1, data set is PDSE. This field is only valid when the data set is SMS-managed.
		.... 1...		UMSMSM	When set to 1, data set is SMS-managed.
		.... .1..		UMCOMPR	When set to 1, data set is compressed format.
		.... ..1.		UMLFS	When set to 1, data set is large format sequential.
		1		*	Reserved
161	(A1)	CHARACTER	1	*	Reserved
162	(A2)	FIXED	2	UMNMIG	Number of times migrated.
164	(A4)	FIXED	4	UMALLSP	Original allocated space (KB)
168	(A8)	FIXED	4	UMUSESP	Quantity of user data (KB)
172	(AC)	FIXED	4	UMRECSP	Recall space estimate (KB)
176	(B0)	CHARACTER	4	UMCREDT	Creation date - YYYYDDDF
180	(B4)	CHARACTER	4	UMEXPDT	Expiration date - YYYYDDDF
184	(B8)	CHARACTER	8	UMLBKDT	Last backup date - STCK format consistent with DCDLBKDT. This field is only valid when the data set is SMS-managed.
192	(C0)	CHARACTER	4	UMLRFDT	Last reference date - YYYYDDDF
196	(C4)	FIXED	4	UM_USER_DATASIZE	Valid when UMCOMPR set to 1. This value represents (in KB/MB) what the data size would be if it were not compressed.
200	(C8)	FIXED	4	UM_COMP_DATASIZE	Valid when UMCOMPR set to 1. This value represents (in KB/MB) the actual (compressed) data size.
204	(CC)	CHARACTER	6	UMFRVOL	The first source volser of the migrated data set.
210	(D2)	CHARACTER	4	UMLRECL	Data set LRECL
214	(D6)	BITSTRING	1	UMFLAG3	Information flag #3
		1...		UMEMPTY	ON, if data set was empty at the time of migration
		.xxx xxxx		*	Reserved
215	(D7)	BITSTRING	1	UMFLAG4	Information flag #4
		1...		UMALLSP_FMB	Mbyte flag for UMALLSP
		.1..		UMUSESP_FMB	Mbyte flag for UMUSESP
		..1.		UMRECSP_FMB	Mbyte flag for UMRECSP
		...1		UMDSIZE_FMB	Mbyte flag for UMDSIZE

Table 141 (Page 2 of 2). ARCUTIL—Migrated Data Set Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... 1...		UM_FMB	When set to 1, UM_USER_DATASIZE and UM_COMP_DATASIZE are in megabytes
		xxx		*	Reserved
216	(D8)	CHARACTER	8	*	Reserved
224	(E0)	CHARACTER	0	UMMDSIE	End of DCUMCDS

The following table defines the mapping for backup version information (record type 'B').

Table 142 (Page 1 of 2). ARCUTIL—Backup Version Information Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	204	UBBDSI	Backup data set information (defined in DCUDATA)
0	(0)	CHARACTER	44	UBDSNAM	Data set name
44	(2C)	BITSTRING	1	UBFLAG1	Information flag
		1...		UBINCAT	Cataloged when backup made
		.1..		UBNOENQ	No ENQ serialization used
		..1.		UBBWO	Backup when open.
		...1		UBNQN1	ENQ attempted, but failed
		.... 1...		UBNQN2	ENQ attempted but failed, backup retried, and ENQ failed again
		xxx		*	Reserved
45	(2D)	CHARACTER	1	UBDEVCL	Device class of backup volume.
46	(2E)	CHARACTER	2	UBDSORG	Data set organization at time of backup.
48	(30)	FIXED	4	UBDSIZE	Backup version size in kilobytes or megabytes.
52	(34)	CHARACTER	8	UBBDATE	Backup date/time
52	(34)	CHARACTER	4	UBTIME	Backup time - HHMMSSTH
56	(38)	CHARACTER	4	UBDATE	Backup date - YYYYDDDF
60	(3C)	CHARACTER	96	UBCLASS	SMS class information
60	(3C)	CHARACTER	32	UBDCLAS	Data class when backup made
60	(3C)	FIXED	2	UBDCLNG	Data class name length
62	(3E)	CHARACTER	30	UBDATCL	Data class name
92	(5C)	CHARACTER	32	UBSCLAS	Storage class when backup made
92	(5C)	FIXED	2	UBSCLNG	Storage class name length
94	(5E)	CHARACTER	30	UBSTGCL	Storage class name
124	(7C)	CHARACTER	32	UBMCLAS	Management class when backup made
124	(7C)	FIXED	2	UBMCLNG	Management class name length
126	(7E)	CHARACTER	30	UBMGTCL	Management class name
156	(9C)	BITSTRING	1	UBRECRD	Record format
157	(9D)	BITSTRING	1	UBRECOR	VSAM record organization
		1...		UBESDS	Entry-sequenced data set
		.1..		UBKSDS	Key-sequenced data set
		..1.		UBLDS	Linear data set
		...1		UBRRDS	Relative-record data set
		 xxxx		*	Reserved
158	(9E)	CHARACTER	2	UBBKLNG	Block length
160	(A0)	BITSTRING	1	UBFLAG2	Information flags
		1...		UBRACFD	RACF-indicated
		.1..		UBGDS	When set to 1, generation group data set. This field is only valid when the data set is SMS-managed.
		..1.		UBREBLK	When set to 1, data set is system-reblockable. This field is only valid when the data set is SMS-managed.
		...1		UBPDSE	When set to 1, data set is PDSE. This field is only valid when the data set is SMS-managed.
		.... 1...		UBSMSM	When set to 1, data set was SMS-managed at time of backup.
		.... .1..		UBCOMPR	When set to 1, data set is compressed format.
		.... ..1.		UBLFS	When set to 1, data set is large format sequential.
		1		UBNEWNAME	When set to 1, NEWNAME specified at time of backup.
161	(A1)	BITSRING	1	UBFLAG3	Information flags
		1...		UBNOSPHERE	When set to 1, SPHERE(NO) processed at time of backup.
		.1..		UBGVCN	When set to 1, GENVSAMCOMPNAME processed at time of backup.
		..1.		UBF_RETAIN_SPCD	1=RETAINDAYS specified
		...1		UBF_NEVER_EXP	When set to 1, this version will never expire. Only valid when UBF_RETAIN_SPCD is set to 1.
		 xxxx		*	Reserved
162	(A2)	FIXED	2	UB_RETAINDAYS	Specified RETAINDAYS value
164	(A4)	FIXED	4	UBALLSP	Original allocated space (KB)
168	(A8)	FIXED	4	UBUSESP	Quantity of user data (KB)

Table 142 (Page 2 of 2). ARCUTIL—Backup Version Information Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
172	(AC)	FIXED	4	UBRECSP	RECOVER space estimate (KB)
176	(B0)	FIXED	4	UB_USER_DATASIZE	Valid only when UBCOMPR set to 1. Represents (in KB/MB) the data size if it were not compressed.
180	(B4)	FIXED	4	UB_COMP_DATASIZE	Valid only when UBCOMPR set to 1. Represents (in KB/MB) the actual (compressed) data size.
184	(B8)	CHARACTER	6	UBFRVOL	The first source volser of the backup data.
190	(BE)	BITSTRING	1	UBFLAG4	Information flag #4
		1...		UBALLSP_FMB	Mbyte flag for alloc size
		.1..		UBUSESP_FMB	Mbyte flag for used size
		..1.		UBRECSP_FMB	Mbyte flag for recovered
		...1		UBDSIZE_FMB	Mbyte flag for backup version
		.... 1...		UB_FMB	When set to 1, UB_USER_DATASIZE and UB_COMP_DATASIZE are in megabytes
		xxx		*	Reserved.
191	(BF)	CHARACTER	13	*	Reserved
204	(CC)	CHARACTER	0	UBBDSIE	End of DCUBCDS

The following table defines the mapping for DASD Capacity Planning record (record type 'C').

Table 143. ARCUTIL—DASD Capacity Planning Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	23	UCCAPD	DASD capacity planning record (defined on DCUDATA)
0	(0)	CHARACTER	6	UCVOLSR	Volume serial number
6	(6)	CHARACTER	4	UCCOLDT	Date the statistical data was collected by HSM for the volume - YYYYDDDF
10	(A)	BITSTRING	1	UCFLAG1	Information flags
		11..		UCLEVEL	Level of volume (LO, L1)
		..xx xxxx		*	Reserved
11	(B)	CHARACTER	1	*	Reserved
12	(C)	FIXED	4	UCTOTAL	Total capacity of volume (in KB)
16	(10)	CHARACTER	7	UCOCCUP	Volume occupancy fields:
16	(10)	FIXED	1	UCTGOCC	Specified target occupancy of volume.
17	(11)	FIXED	1	UCTROCC	Specified trigger occupancy of volume.
18	(12)	FIXED	1	UCBFOCC	Occupancy of volume before processing.
19	(13)	FIXED	1	UCAFOCC	Occupancy of volume after processing (0 if not processed)
20	(14)	FIXED	1	UCNOMIG	Percentage of volume data not migrated but eligible to migrate.
21	(15)	FIXED	1	UCNINTV	Number of times interval migration was run against the volume
22	(16)	FIXED	1	UCINTVM	Numver of times target occupancy was met for the volume during interval migration.
23	(17)	CHARACTER	0	UCCAPDE	End of DCCCAPD

The following table defines the mapping for Tape Capacity Planning record (record type 'C').

Table 144. ARCUTIL—Tape Capacity Planning Record

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	16	UTCAPT	Tape capacity planning record (defined on DCUDATA)
0	(0)	CHARACTER	1	UTSTYPE	Type of tape capacity planning record.
1	(1)	CHARACTER	3	*	Reserved
4	(4)	FIXED	4	UTFULL	Number of full tape volumes.
8	(8)	FIXED	4	UTPART	Number of partial full tape volumes.
12	(C)	FIXED	4	UTEMPTY	Number of empty tape volumes
16	(10)	CHARACTER	0	UTCAPTE	End of DCTCAPT

ARCUTIL Data Area Cross-Reference

Table 145 (Page 1 of 2). ARCUTIL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
UB_COMP_DATASIZE	B4		2
UB_FMB	BE	8	3
UB_RETAINDAYS	A2		2
UB_USER_DATASIZE	B0		2
UBALLSP	A4		2
UBALLSP_FMB	BE	80	3
UBBDATE	34		2
UBBDSI	0		1
UBBDSIE	CC		2
UBBKLNG	9E		2
UBBWO	2C	20	3
UBCLASS	3C		2
UBCOMPR	A0	04	3
UBDATCL	3E		4
UBDATE	38		3
UBDCLAS	3C		3
UBDCLNG	3C		4
UBDEVCL	2D		2
UBDSIZE	30		2
UBDSIZE_FMB	BE	10	3
UBDSNAM	0		2
UBDSORG	2E		2
UBESDS	9D	80	3
UBF_NEVER_EXP	A1	10	3
UBF_RETAIN_SPCD	A1	20	3
UBFLAG1	2C		2
UBFLAG2	A0		2
UBFLAG3	A1		2
UBFLAG4	BE		2
UBFRVOL	B8		2
UBGDS	A0	40	3
UBGVCN	A1	40	3
UBINCAT	2C	80	3
UBKSDS	9D	40	3
UBLDS	9D	20	3
UBLFS	A0	02	3
UBMCLAS	7C		3
UBMCLNG	7C		4
UBMGTCL	7E		4
UBNEWNAME	A0	01	3

Table 145 (Page 1 of 2). ARCUTIL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
UBNOENQ	2C	40	3
UBNOSPHERE	A1	80	3
UBNQN1	2C	10	3
UBNQN2	2C	08	3
UBPDSE	A0	10	3
UBRACFD	A0	80	3
UBREBLK	A0	20	3
UBRECOR	9D		2
UBRECRD	9C		2
UBRECSP	AC		2
UBRECSP_FMB	BE	20	3
UBRRDS	9D	10	3
UBSCLAS	5C		3
UBSCLNG	5C		4
UBSMSM	A0	08	3
UBSTGCL	5E		4
UBTIME	34		3
UBUSESP	A8		2
UBUSESP_FMB	BE	40	3
UCAFOCC	13		3
UCBFOCC	12		3
UCCAPD	0		1
UCCAPDE	17		2
UCCOLDT	6		2
UCFLAG1	A		2
UCINTVM	16		3
UCLEVEL	A	C0	3
UCNINTV	15		3
UCNOMIG	14		3
UCOCCUP	10		2
UCTGOCC	10		3
UCTOTAL	C		2
UCTROCC	11		3
UCVOLSR	0		2
UM_COMP_DATASIZE	C8		2
UM_FMB	D7	8	3
UM_USER_DATASIZE	C4		2
UMALLSP	A4		2
UMALLSP_FMB	D7	80	3
UMBKLNG	9E		2

Table 145 (Page 2 of 2). ARCUTIL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
UMCHIND	2C	20	3
UMCLASS	3C		2
UMCOMPR	A0	04	3
UMCREDT	B0		2
UMDATCL	3E		4
UMDATE	38		3
UMDCLAS	3C		3
UMDCLNG	3C		4
UMDEVCL	2D		2
UMDSIZE	30		2
UMDSIZE_FMB	D7	10	3
UMDSNAM	0		2
UMDSORG	2E		2
UMEMPTY	D6	80	3
UMESDS	9D	80	3
UMEXPDT	B4		2
UMFLAG1	2C		2
UMFLAG2	A0		2
UMFLAG3	D6		2
UMFLAG4	D7		2
UMFRVOL	CC		2
UMGDS	A0	40	3
UMKSDS	9D	40	3
UMLBKDT	B8		2
UMLDS	9D	20	3
UMLEVEL	2C	C0	3
UMLFS	A0	02	3
UMLRECL	D2		2
UMLRFDT	C0		2
UMMCLAS	7C		3
UMMCLNG	7C		4
UMMDATE	34		2
UMMDSI	0		1
UMMDSIE	E0		2
UMMGTCL	7E		4
UMNMIG	A2		2
UMPDSE	A0	10	3
UMRACFD	A0	80	3
UMREBLK	A0	20	3
UMRECOR	9D		2
UMRECRD	9C		2
UMRECSP	AC		2

Table 145 (Page 2 of 2). ARCUTIL Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
UMRECSP_FMB	D7	20	3
UMRRDS	9D	10	3
UMSCLAS	5C		3
UMSCLNG	5C		4
UMSDSP	2C	10	3
UMSMSM	A0	08	3
UMSTGCL	5E		4
UMTIME	34		3
UMUSESP	A8		2
UMUSESP_FMB	D7	40	3
UPEXAREA	1C		2
UPEXITP	18		2
UPHDATE	14		3
UPHTIME	10		3
UPID	0		2
UPNUBACK	30		2
UPNUDASD	34		2
UPNUMIGR	2C		2
UPNUTAPE	38		2
UPOPTION	B		2
UPOUTDCB	C		2
UPRC	50		2
UPREAS	54		2
UPREBACK	9	40	3
UPRECORD	9		2
UPREDASD	9	20	3
UPREMIGR	9	80	3
UPRETAPE	9	10	3
UPSPALL	B	80	3
UPSPERR	B	40	3
UPSTAMP	10		2
UPVERS	8		2
UTCAPT	0		1
UTCAPTE	10		2
UTEMPTY	C		2
UTFULL	4		2
UTILP	0		1
UTPART	8		2
UTSTYPE	0		2

VAC—JES3 Volume Activity Count Record

The JES3 volume activity count record (VAC) exists in a JES3 system and contains counts of the number of times that a volume has been returned from DFSMShsm to a JES3 setup as a candidate for recall of a migrated data set that has not been recalled. This record is contained in the MCDS. When more volume entries are requested than can fit in one physical record, another physical record is created. The key of the first continuation record is VOLCNT-1. The record type is N.

The key for a type N volume activity count record is the constant VOLCNT followed by a dash (-) and a *n*, where *n* is a decimal number that indicates the sequence number of the record. The N record is an internal record that is used to maintain activity counts on primary volumes in a JES3 environment. An example of the key that is used with an N data set record is:

```
FIXCDS N VOLCNT-4
```

Table 146. VAC—JES3 Volume Activity Count Record

Offsets Actual / FIXCDS		Type	Length	Name	Description
0(0)	44			MCK	JES3 volume activity count record key, consisting of X'07', VOLCNT-0, and padded with blanks. (See MCK for details.)
44(2C)	20			MCH	JES3 volume activity count record header. (See MCK for details.)
64(40)	0(0)	STRUCTURE	*	MCN	JES3 volume activity count.
64(40)	0(0)	CHARACTER	4	VACDATE	Date last adjusted for jobs not run, in TIME DEC macro format *X'0cyyddds'*.
68(44)	4(4)	FIXED	2	VACNV	Number of volume entries in the record.
70(46)	6(6)	BITSTRING	1	VACFLGS	This byte contains the following flag:
		1...		VACCONT	When set to 1, a continuation record exists.
		.xxx xxxx		*	Reserved.
71(47)	7(7)	CHARACTER	5	*	Reserved.
The following field is repeated for each volume:					
76(4C)	12(C)	CHARACTER	8	VACVOLS	The next 8 bytes contain information about the volumes to which a data set can be migrated. The maximum number of entries is 117.
76(4C)	12(C)	CHARACTER	6	VACVSN	Volume serial number.
82(52)	18(12)	FIXED	2	VACCOUNT	Number of JES3 setups in progress for the volume.

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VAC Data Area Cross-Reference

Table 147. VAC Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
MCN	40		1
VACCONT	46	80	3
VACCOUNT	52		3
VACDATE	40		2
VACFLGS	46		2
VACNV	44		2
VACVOLS	4C		2
VACVSN	4C		3

VSR—Volume Statistics Record

The volume statistics record (VSR) contains information about volume activity for one day (see Table 148). There is one record per day for each volume under DFSMShsm control. Statistics are accumulated in the DFSMShsm work space and are written to the MCDS and to SMF (if the data has changed) under the following conditions:

- Whenever a daily statistics record is written
- At the end of secondary space management
- After space management has been performed on a volume

Volume statistics records are 1048 bytes long, although only 848 bytes contain data. The record type is S.

The key for a type S volume statistics record is the constant X'E5E2D9' (VSR) followed by the volume serial number, which is followed by the year and day in packed decimal format. The sign code is F. Because the date is in packed decimal format, you must specify the key in hexadecimal. An example of the key that is used for volume 123400 for its use on day 121 of 1990 with an S volume statistics record is:

```
FIXCDS S X'E5E2D9F1F2F3F4F0F090121F'
```

When the volume statistics record is written to SMF, 20 bytes of additional information are added to the front of the record. The first 18 bytes are the standard SMF record header. Byte 18 (12) is set to a binary 2 to show that this is a volume statistics record, and byte 19 (13) is reserved. All the offsets for the volume statistics record are increased by 20 (14) bytes when the record is written to SMF.

Table 148 (Page 1 of 3). VSR—Volume Statistics Record

Offsets Actual	Offsets FIXCDS	Type	Length	Name	Description
0(0)		STRUCTURE	1048	VSQ	Volume statistics queue entry. The first entry is pointed to by MCVTVSQH
0(0)		ADDRESS	4	VSRFWD	Pointer to next VSR.
4(4)		ADDRESS	4	VSRBWD	Pointer to previous VSR.
8(8)		CHARACTER	1040	VSRVSR	Space for VSR data.
0(0)		STRUCTURE	1040	VSR	Volume statistics record.
0(0)		CHARACTER	44	VSRKEY	Volume statistics record key.
0(0)		CHARACTER	1	*	X'10'.
1(1)		CHARACTER	12	VSRKEY2	Contains the rest of the key.
1(1)		CHARACTER	3	*	VSR.
4(4)		CHARACTER	6	VSRVSN	The 6-byte volume serial number of the volume.
10(A)		CHARACTER	3	VSRDATE	A 3-byte date in format *X'yyddds'*, padded with blanks.
44(2C)		CHARACTER	20	VSRHDR	Control data set record header. (See MCK for details.)
64(40)	0(0)	CHARACTER	80	VSRDATA	Data portion of the volume statistics record.
64(40)	0(0)	CHARACTER	1	VSRVTYP	Volume type: P = Primary M = Migration B = Automatic primary backup S = Spill backup O = Offline (ML2).
65(41)	1(1)	BITSTRING	1	VSRDEVT	Unit type as in the UCBTYP field.
66(42)	2(2)	FIXED	1	VSRNMIG	Number of user-initiated migrations to or from this volume.
67(43)	3(3)	FIXED	1	VSRNMIGF	Number of migrations to or from this volume that were forced by the system because of insufficient space.

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Table 148 (Page 2 of 3). VSR—Volume Statistics Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
68(44)	4(4)	FIXED	2	VSRTDS	Total number of non-VSAM data sets processed for this volume.
70(46)	6(6)	FIXED	2	VSRMINAG	Minimum age of data sets that migrated from the volume.
72(48)	8(8)	FIXED	4	VSRATRK	Total number of allocated tracks on the volume as of the last free space check prior to the creation of this VSR.
76(4C)	12(C)	FIXED	4	VSRFTRK	Total number of free tracks available for allocation for new data sets other than suballocated VSAM data sets. This value is accurate as of the last free space check prior to the creation of this VSR.
80(50)	16(10)	CHARACTER	8	VSROCCUP	Occupancy statistics. This information is only updated during primary space management.
80(50)	16(10)	FIXED	1	VSRLWM	Occupancy target.
81(51)	17(11)	FIXED	1	VSRHWM	Occupancy trigger.
82(52)	18(12)	FIXED	1	VSROBM	Occupancy before migration.
83(53)	19(13)	FIXED	1	VSROAM	Occupancy after migration.
84(54)	20(14)	FIXED	1	VSRELIG	Percent of the space on the volume that is eligible for migration but not migrated.
85(55)	21(15)	FIXED	1	VSRNINT	Number of times interval migration has processed this volume on this day. This field does not apply to ML1 volumes.
86(56)	22(16)	FIXED	1	VSRNMET	Number of times interval migration has run and successfully reached the desired target occupancy. This field does not apply to ML1 volumes.
87(57)	23(17)	FIXED	1	*	Reserved.
88(58)	24(18)	FIXED	4	VSRFRAG	Volume fragmentation entropy index.
92(5C)	28(1C)	FIXED	4	VSRTMIG	Time, in seconds, spent doing system migrations for this volume.
96(60)	32(20)	FIXED	4	*	Reserved.
100(64)	36(24)	FIXED	4	*	Reserved.
104(68)	40(28)	CHARACTER	8	VSRUNIT	Unit name.
112(70)	48(30)	BITSTRING	1	VSRFLAGS	This byte contains the following flags:
		1...		VSRFCHNG	When set to 1, the VSR has been changed since it was last written to DASD. When set to 0, the VSR has not been changed since it was last written to DASD.
		.1..		VSRFVDMP	When set to 1, a dump has been attempted on this volume.
		..1.		VSRFDMPF	When set to 1, the most recent dump attempted on this volume failed.
		...1		VSRFVRES	When set to 1, a restore has been attempted on this volume.
		.... 1...		VSRFRESF	When set to 1, the most recent restore attempted on this volume failed.
		.... .1..		VSRF_NEW_OCCUP	When set to 1, the occupancy statistics have been updated in the memory resident VSR. This field is not used in the DASD VSR.
		.... ..1.		VSRF_NEW_ELIG	When set to 1, the VSRELIG field has been updated in the memory resident VSR. This field is not used in the DASD VSR.
		1		VSRFTAGE	When set to 1, VSRTAGE4 field is used.
113(71)	49(31)	CHARACTER	3	*	Reserved.
116(74)	52(34)	FIXED	2	VSRDCOPR	Total number of dump copies requested for this volume.
118(76)	54(36)	FIXED	2	VSRDCOPF	Total number of dump copies that failed for this volume.
120(78)	56(38)	FIXED	2	VSRDSRES	Total number of data set restores requested for this volume.
122(7A)	58(3A)	FIXED	2	VSRDSREF	Total number of data set restores that failed for this volume.
124(7C)	60(3C)	FIXED	4	VSRTOTKB	The total capacity of this volume in KB (1024 bytes).
128(80)	64(40)	FIXED	4	VSRDRECN	Number of data sets reconnected.
132(84)	68(44)	FIXED	4	VSRBRECN	Number of tracks reconnected.
136(88)	72(48)	FIXED	1	VSR_FR_BACKUP_ TOTAL	Total number of fast replication backups.
137(89)	73(49)	FIXED	1	VSR_FR_BACKUP_ FAILED	Total number of failed fast replication backups.
138(8A)	74(4A)	FIXED	1	VSR_FR_RECOVER_TOTAL	Total number of fast replication recovers.
139(8B)	75(4B)	FIXED	1	VSR_FR_RECOVER_FAILED	Total number of failed fast replication recovers.
140(8C)	76(4C)	FIXED	4	*	Reserved.

Table 148 (Page 3 of 3). VSR—Volume Statistics Record

Offsets Actual	/ FIXCDS	Type	Length	Name	Description
The following information is repeated once for each of the following functions that may involve data sets on this volume: • Automatic primary to level 1 • Migration, level 1 to level 2 migration • Automatic primary to level 2 migration • Recall from level 1 to automatic primary • Recall from level 2 to automatic primary • Deletion of migrated data sets • Automatic primary backup • Spill backup • Recovery • Recycle • Data set deletion • Recycle of level 2 tape migration volumes • Delete backup versions • Class transition					
144(90)	80(50)	CHARACTER	64(14)	VSRFSTAT	A 14-element array consisting of 64-byte fields, describing function-dependent information.
144(90)	80(50)	FIXED	2	VSRNDS	Number of non-VSAM data sets processed.
146(92)	82(52)	FIXED	2	*	Reserved.
148(94)	84(54)	FIXED	4	VSRNTRKR	Number of tracks read. This field has no meaning for primary volumes.
152(98)	88(58)	FIXED	4	VSRNTRKW	Number of tracks written. This field has no meaning for primary volumes.
156(9C)	92(5C)	FIXED	4	VSRNBYTR	The next 4 bytes contain the number of bytes read (in kilobytes).
160(A0)	96(60)	FIXED	4	VSRNBYTW	The next 4 bytes contain the number of bytes written (in kilobytes).
164(A4)	100(64)	FIXED	2	VSRNDSF	Number of failing requests.
166(A6)	102(66)	FIXED	2	VSRNVOL	Number of requests initiated by commands.
168(A8)	104(68)	FIXED	2	VSRNSYS	Number of requests initiated automatically by DFSMShsm.
170(AA)	106(6A)	FIXED	2	VSRTAGE	Total age, in days, of data sets processed.
172(AC)	108(6C)	FIXED	4	VSRTTINQ	Total time, in seconds, queued before processing started on requests.
176(B0)	112(70)	FIXED	4	VSRTTINP	Total elapsed time, in seconds, to process requests.
180(B4)	116(74)	FIXED	4	VSRTTWV	Total time, in seconds, that was required to mount this volume.
184(B8)	120(78)	FIXED	4	*	Reserved.
188(BC)	124(7C)	FIXED	4	VSRTAGE4	Total age of data sets processed. VSRFTAGE is set to 1 if this field is used.
192(C0)	128(80)	CHARACTER	16	*	Reserved.

VSR Data Area Cross-Reference

Table 149. VSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
VSR	0		1
VSR_FR_BACKUP_FAILED	89		3
VSR_FR_BACKUP_TOTAL	88		3
VSR_FR_RECOVER_FAILED	8B		3
VSR_FR_RECOVER_TOTAL	8A		3
VSRATRK	48		3
VSRBRECN	84		3
VSRBWD	4		2
VSRDATA	40		2
VSRDATE	A		4
VSRDCOPF	76		3
VSRDCOPR	74		3
VSRDEVT	41		3
VSRDRECN	80		3
VSRDSREF	7A		3
VSRDSRES	78		3
VSRELIG	54		4
VSRF_NEW_ELIG	70	02	4
VSRF_NEW_OCCUP	70	04	4
VSRFCHNG	70	80	4
VSRFDMPF	70	20	4
VSRFLAGS	70		3
VSRFRAG	58		3
VSRFRESF	70	08	4
VSRFSTAT	90		2
VSRFTAGE	70	01	4
VSRFTRK	4C		3
VSRFVDMP	70	40	4
VSRFVRES	70	10	4
VSRFWD	0		2
VSRHDR	2C		2
VSRHWM	51		4
VSRKEY	0		2
VSRKEY2	1		3
VSRLWM	50		4
VSRMINAG	46		3
VSRNBYTR	9C		3
VSRNBYTW	A0		3
VSRNDS	90		3
VSRNDSF	A4		3
VSRNINT	55		4

Table 149. VSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
VSRNMET	56		4
VSRNMIG	42		3
VSRNMIGF	43		3
VSRNSYS	A8		3
VSRNTRKR	94		3
VSRNTRKW	98		3
VSRNVOL	A6		3
VSROAM	53		4
VSROBM	52		4
VSROCCUP	50		3
VSRTAGE	AA		3
VSRTAGE4	BC		3
VSRTDS	44		3
VSRTMIG	5C		3
VSRTOTKB	7C		3
VSRTTINP	B0		3
VSRTTINQ	AC		3
VSRTTWV	B4		3
VSRUNIT	68		3
VSRVSN	4		4
VSRVSR	8		2
VSRVTYP	40		3
VSQ	0		1

WABNP—Map of ABEND Information Returned to Error Processor

The map of ABEND information that is returned to the error processor (WABNP) provides information that is saved from the time of an abend in an ABARS secondary address space.

Table 150. WABNP—Map of ABEND Information Returned to Error Processor

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	CHARACTER	16	WABHEADR	Start of the header.
0	(0)	CHARACTER	8	WABID	The ID WABNP250.
8	(8)	ADDRESS	4	WABNXT@	Next block, always set to 0.
12	(C)	FIXED	4	WABAVAIL	Available space, set to zero.
16	(10)	CHARACTER	880	WABBODY	The body of the table.
16	(10)	CHARACTER	8	WABPSW	The Program Status Word at time of ABEND.
16	(10)	CHARACTER	4	WABPSW1	The 1st word of PSW.
20	(14)	CHARACTER	4	WABPSW2	The 2nd word of PSW.
24	(18)	CHARACTER	64	WABREG	The registers at ABEND.
24	(18)	FIXED	4	WABSR00	Saved register 0.
28	(1C)	FIXED	4	WABSR01	Saved register 1.
32	(20)	FIXED	4	WABSR02	Saved register 2.
36	(24)	FIXED	4	WABSR03	Saved register 3.
40	(28)	FIXED	4	WABSR04	Saved register 4.
44	(2C)	FIXED	4	WABSR05	Saved register 5.
48	(30)	FIXED	4	WABSR06	Saved register 6.
52	(34)	FIXED	4	WABSR07	Saved register 7.
56	(38)	FIXED	4	WABSR08	Saved register 8.
60	(3C)	FIXED	4	WABSR09	Saved register 9.
64	(40)	FIXED	4	WABSR10	Saved register 10.
68	(44)	FIXED	4	WABSR11	Saved register 11.
72	(48)	FIXED	4	WABSR12	Saved register 12.
76	(4C)	ADDRESS	4	WABSR13	Saved register 13 (address of the save area).
80	(50)	FIXED	4	WABSR14	Saved register 14.
84	(54)	ADDRESS	4	WABSR15	Saved register 15.
88	(58)	FIXED	4	WABEND	Registers at ABEND.
88	(58)	CHARACTER	1	*	Reserved.
89	(59)	CHARACTER	2	WABCODE	Actual code.
91	(5B)	CHARACTER	1	*	Reserved.
92	(5C)	CHARACTER	28	*	Reserved.
120	(78)	CHARACTER	8	WABTCODE	Translated ABEND code.
120	(78)	CHARACTER	2	*	Reserved.
122	(7A)	CHARACTER	3	WSYSCODE	The system ABEND code.
125	(7D)	CHARACTER	3	*	Reserved.
128	(80)	FIXED	4	WABSAVCT	Count of save areas.
132	(84)	CHARACTER	76(10)	WABSAVMP	The save areas at ABEND control block to word body.
132	(84)	ADDRESS	4	*	Reserved.
136	(88)	ADDRESS	4	WBABKSAV	Backward chain to caller.
140	(8C)	ADDRESS	4	WBAFWDSV	Forward chain to caller.
144	(90)	ADDRESS	4	WBASVR14	Register 14 (return address).
148	(94)	ADDRESS	4	WBASVR15	Register 15 (entry point address).
152	(98)	ADDRESS	4	WBASVR01	Register 1.
156	(9C)	ADDRESS	4	WBASVR02	Register 2.
160	(A0)	ADDRESS	4	WBASVR03	Register 3.
164	(A4)	ADDRESS	4	WBASVR04	Register 4.
168	(A8)	ADDRESS	4	WBASVR05	Register 5.
172	(AC)	ADDRESS	4	WBASVR06	Register 6.
176	(B0)	ADDRESS	4	WBASVR07	Register 7.
180	(B4)	ADDRESS	4	WBASVR08	Register 8.
184	(B8)	ADDRESS	4	WBASVR09	Register 9.
188	(BC)	ADDRESS	4	WBASVR10	Register 10.
192	(C0)	ADDRESS	4	WBASVR11	Register 11.
196	(C4)	ADDRESS	4	WBASVR12	Register 12.
892	(37C)	CHARACTER	4	WABFLAGS	This bit contains the following flags:
		1...		WABFSUPD	When set to 1, the user requested to suppress the dump.
		.1..		WABFNDMP	When set to 1, no dump for O/C/EOV ABEND.
		..xx xxxx		*	Reserved.
892	(37C)	BITSTRING	3	*	Reserved.

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WABNP Control Block Cross-Reference

Table 151. WABNP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WABAVAIL	C		3
WABBODY	10		2
WABCODE	59		4
WABEND	58		3
WABFLAGS	37C		3
WABFNDMP	37C	40	4
WABFSUPD	37C	80	4
WABHEADR	0		2
WABID	0		3
WABNXT@	8		3
WABPSW	10		3
WABPSW1	14		4
WABPSW2	14		4
WABREG	18		3
WABSAVCT	80		3
WABSAVMP	84		3
WABSR00	18		4
WABSR01	1C		4
WABSR02	20		4
WABSR03	24		4
WABSR04	28		4
WABSR05	2C		4
WABSR06	30		4
WABSR07	34		4
WABSR08	38		4
WABSR09	3C		4
WABSR10	40		4
WABSR11	44		4
WABSR12	48		4
WABSR13	4C		4
WABSR14	50		4
WABSR15	54		4
WABTCODE	78		3
WBABKSAV	88		4
WBAFWDSV	8C		4
WBASVR01	98		4
WBASVR02	9C		4
WBASVR03	A0		4
WBASVR04	A4		4
WBASVR05	A8		4

Table 151. WABNP Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WBASVR06	AC		4
WBASVR07	B0		4
WBASVR08	B4		4
WBASVR09	B8		4
WBASVR10	BC		4
WBASVR11	C0		4
WBASVR12	C4		4
WBASVR14	90		4
WBASVR15	94		4
WSYSCODE	7A		4

WCVT—ABARS Management Communication Vector Table

The ABARS Management Communications Vector Table (WCVT) describes information that is commonly needed by the DFSMShsm ABARS modules during processing. It contains pointers to DFSMShsm ABARS tables and queues.

Table 152 (Page 1 of 7). WCVT—ABARS Management Communications Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	1168	ARCWCVT	Start of the vector table
0	(0)	CHARACTER	16	WCVHEADR	Header info
0	(0)	CHARACTER	8	WCVID	Block ID 'WCVT310'
8	(8)	ADDRESS	4	WCVNXT@	Next block, set to
12	(C)	SIGNED	4	WCVAVAIL	Available space, set to 0
16	(10)	CHARACTER	1152	WCVBODY	Body of the vector table
16	(10)	ADDRESS	4	WCVAUTO@	Address of auto data table ARCWAUTO based here
20	(14)	ADDRESS	4	WCVABNP@	ARCWABND module interface obtained and setup by ARCWESTA
24	(18)	ADDRESS	2	WCVADRID	Secondary address space ID
26	(1A)	UNSIGNED	1	WCV_ACTINST_OPTION	Activity log/instruction =SDUMPPIFPTIONS: =RDUMPTACTIVITY log ==DDOP instruction DS not dump EITHER
27	(1B)	UNSIGNED	1	*	RESERVED
28	(1C)	ADDRESS	4	WCVWRAC@	ARCWRACF PARM LIST PTR
32	(20)	CHARACTER	672	WCVTALL	POINTERS TO CONTROL BLOCKS
32	(20)	ADDRESS	4	WCVABAK@	THE BACKUP REQUEST AS MAPPED IF THISRIS A RECOVERY.
36	(24)	ADDRESS	4	WCVAIIP@	DFDSS APPLICATION INTERFACE
40	(28)	ADDRESS	4	WCVSMSP@	ARCWSMS MODULE INTERFACE WCVAGGP@ TO WCVSMSP@
44	(2C)	ADDRESS	4	WCVARCV@	THE RECOVERY REQUEST AS MAPPED IF THISRIS A BACKUP.
48	(30)	CHARACTER	8	WCVAUID	USERID FROM MASIAUID
56	(38)	ADDRESS	4	WCVBEPL@	PARAMETER LIST FOR ARCBEEXT
60	(3C)	ADDRESS	4	WCVBLK1@	
64	(40)	ADDRESS	4	WCVBUF1@	FIRST BUFFER FOR QSAM-BSAM
68	(44)	ADDRESS	4	WCVBUF2@	SECOND BUFFER FOR QSAM-BSAM
72	(48)	ADDRESS	4	WCVBUF3@	THIRD BUFFER FOR QSAM-BSAM
76	(4C)	ADDRESS	4	WCVEDPL@	PARM LIST FOR ARCEDEXT
80	(50)	ADDRESS	4	WCVCDIO@	THE CDS REQUEST AS MAPPED BY CDIOPARM.
84	(54)	ADDRESS	4	WCVCRPL@	PARAMETER LIST FOR ARCCREXT
88	(58)	ADDRESS	4	WCVGDGP@	DEFINE GDG INTERFACE
92	(5C)	ADDRESS	4	WCVGENP@	BLOCK FOR ARCWCATF
96	(60)	ADDRESS	4	WCVMASI@	POINTS TO THE PRIMARY ADDR SPACE INTERFACE. (MASIP)
100	(64)	ADDRESS	4	WCVMEMP@	CORE MANAGER INTERFACE
104	(68)	ADDRESS	4	WCVMGIB@	MESSAGE WRITER INFO BLOCK ARCWMSGB BASED HERE
108	(6C)	ADDRESS	4	WCVM2PL@	PARAMETER LIST FOR ARCM2EXT
112	(70)	ADDRESS	4	WCVNEWP@	ADDRESS OF ARCWNEWP
116	(74)	ADDRESS	4	WCVOBTP@	ARCWOBTN MODULE INTERFACE
120	(78)	ADDRESS	4	WCVSAMP@	ADDRESS OF INTERFACE BLOCK FOR : ARCWOPEN ARCWQSAM ARCWBSAM ARCWCLOS
124	(7C)	ADDRESS	4	WCVSKPL@	PARAMETER LIST FOR ARCSKEXT
128	(80)	ADDRESS	4	WCVSV99@	
132	(84)	UNSIGNED	4	WCVTOKEN	TOKEN PASSED BY THE PRIMARY
132	(84)	ADDRESS	4	WCVMASC@	ADDRESS OF ARCMASCB
136	(88)	ADDRESS	4	WCVVSMP@	VSAM MODULE INTERFACE
140	(8C)	ADDRESS	4	WCVWBKP@	ADDRESS OF INTERFACE BLOCK FOR : ARCKBLKR ARCNDBLK
144	(90)	ADDRESS	4	WCVWMIP@	MESSAGE INTERFACE BLOCK ARCWMIP BASED HERE
148	(94)	SIGNED	4	WCV_COPY_INDEX	COPY BEING PROCESSED
152	(98)	CHARACTER	20	WCVT_COPY_ENTRY (15)	ENTRY FOR COPY RELATED INFORMATION
452	(1C4)	ADDRESS	4	WCVWNMS@	BACKUP OUTPUT FILE NAME BLK
456	(1C8)	ADDRESS	4	WCVXITP@	USER EXIT MODULE INTERFACE
COMMON CONTROL FLAGS:					
460	(1CC)	BIT(32)	4	WCVFLAGS	CONTROL FLAGS
		1...		WCVFSMS	SMS FLAG '1' SMS ACTIVE '0' SMS NOT ACTIVE
		.1..		WCVFABND	ABEND OCCURED

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Table 152 (Page 2 of 7). WCVT—ABARS Management Communications Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		..1.		WCVFDBUG	IF =1 THEN WE ARE IN DEBUG
		...1		WCVFEXDP	IF =1 THEN MASIFEXD WAS ON IN THE ARCMASIP SO WE WILL TAKE AN EXIT DUMP IF AN ABEND OCCURS IN THE USER EXIT.
		.... 1...		WCVFJES2	IIS=ONJSYSTEM
		.... .1..		WCVFJES3	IFIS1ONESYSTEM
		.... ..1.		WCVFWTOO	IF =1 MESSAGES MUST GO TO THE USER CONSOLE OR TO THE OPERATOR'S CONSOLE
		1		WCVFS1DP	IF =1 THEN MASFS1DP WAS ON IN THE ARCMASIP SO WE WILL TAKE AN EXIT DUMP IF AN ABEND OCCURS.
461	(1CD)	1...		WCVFMSG	IF =1 OUTPUT MESSAGE TO OPERATOR ALSO
		.1..		WCVFRAC	IF =1 TAPESECURITY IS RACF OR RACFINCLUDE
		..1.		WCVTF_CREATE_USER_ACEE_FAILED	When set to 1, creation of user acee failed
		...1		WCVFSRS	When set to 1, system reblock allowed
		.... 1...		WCVBEUSE	When set to 1, exit of ARCEXTBE
		.... .1..		WCVM2USE	When set to 1, exit on ARCEXTM2
		.... ..1.		WCVSKUSE	When set to 1, exit on ARCEXTSK
		1		WCVCRUSE	When set to 1, exit on ARCEXTCR
462	(1CE)	1...		WCVF_ABARSLOGMLEV_FULL	When set to 1, all DFDSS messages are to be written to the activity log
		.1..		WCV_FDASD_BLOCKING	1=OPTIMUM DASD BLOCKING REQUESTED
		..1.		WCVFTAP	'ON' - AT LEAST ONE TAPE DATA SET SELECTED
		...1		WCV_TFTUP	SETSYS TAPEUTILIZATION SPECIFIED
		.... 1...		WCVEDUSE	1=EXIT ON ARCEDEXT
		.... .1..		WCVFMUL	'ON' - AT LEAST ONE MULTI-VOLUME TAPE DS
		.... ..1.		WCVF_TAPESEC_EXPIRE	ON = SETSYS TAPESECURITY EXPIRATION OR EXPIRATIONINCLUDE
		1		WCVF_ARC6402_PHYSICAL	When set to 1, ISSUE ARC6402 AT PHYSICAL COMPLETE TIME
463	(1CF)	1...		WCVF_ADR734_ISSUED	When set to 1, MSG ADR734 WAS JUST ISSUED BY DSS
		.1..		WCVTVUSE	1=EXIT ON ARCTVEXT
		..1.		WCVF_ADR768_ISSUED	When set to 1, msg ADR768 issued during ARECOVER processing
		...1		WCVF_BLANK_MSGID_ISSUED	When set to 1, blank msg id issued after ADR768 msg (is a continuation of ADR768 msg)
		.... 1...		WCVF_WORM_TARGET	Output tape is WORM
		.... .1..		WCVF_WORM_SOURCE	Input tape is WORM
		.... ..1.		WCVF_WORMML2_FAILURE	ML2 WORM tape error
		1		WCVF_BLANK_MSGID_AFTER734	When set to 1, blank msg id issued after ADR734 msg (is a continuation of ADR734 msg)
464	(1D0)	UNSIGNED	1	WCV_TLC80	DEFAULT AMOUNT OF DATA THAT IS 100% OF A 3480/3480X TAPE VOLUME
465	(1D1)	UNSIGNED	1	WCV_TTU80	DEFAULT VALUE FOR THE SETSYS TAPEUTILIZATION PERCENTAGE FOR 3480/3480X TAPE VOLUME
466	(1D2)	CHARACTER	1	WCV_PREV_LEVEL	PREVIOUS MSG LEVEL
467	(1D3)	BIT(8)	1	WCVFLAGS_MORE	Additional control flags 16A
		1...		WCVFCBNO	When set to 1, Failure to obtain a control block
		.1..		WCVF_ENQ_INSTR	When set to 1, Instruction file enqueued
		..1.		WCVTFVANY	on=abarsvolcount(any)
		...1		WCVTFHRM	on=disable edgtvext
		.... 1...		WCVF_STACK	When set to 1, STACKING FEATURE REQUESTED
		.... .1..		WCVF_CF_FIRST_TAPE	When set to 1, STACK REQUESTED AND C FILE ON SAME VOLSER AS D FILE.
		.... ..1.		WCVF_WESTA	When set to 1, WESTA caller
		1		WCVF_ENABLE_CRD_CHECK	ON = Enable CRD check and PDA tracing code in module ARCKWRIT
468	(1D4)	CHARACTER	8	WCVRQUID	REQUEST USERID FROM REQUID IN THE MASIP
476	(1DC)	ADDRESS	4	WCVENQP@	ENQ/DEQ INTERFACE BLOCK
480	(1E0)	ADDRESS	4	WCVFNDP@	POINTER TO INTERFACE BLOCK ARCWFNDP
484	(1E4)	SIGNED	4	WCVNUMBF	NUMBER OF BUFFERS
488	(1E8)	BIT(8)	1	WCVTPDFL	TRACE FUNCTIONS FLAGS
		1...		WCVTFNPD	TRACE FUNCTION DISABLED
		.1..		WCVTFPDH	TRACE FUNCTION HELD
		..1.		WCVTFSPD	SHUTDOWN REQUESTED
		...1		WCVTFPSW	PDO DS SWAP REQUESTED
		.... 1...		WCVTFNPQ	DISALLOW TRACE OUTPUT QING
		.... .1..		WCVTFPDT	PDO TASK HAS TERMINATED
		.... ..1.		WCVF_MIGDSN_USTPDSN_BKUP	ON = Migrated and/or user tape data sets were backed up
		1		*	RESERVED

Table 152 (Page 3 of 7). WCVT—ABARS Management Communications Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
489	(1E9)	UNSIGNED	1	WCV_AB_L2RETRY	ABACKUP - # of times to retry when ML2 in use
490	(1EA)	BIT(16)	2	WCVTRACE	TRACE OPTIONS
		1...		WCVTRCAT	TRACE CDS OPTIONS
		.1..		WCVTFTRC	TRACE FUNCTION ACTIVE
		..1.		WCVTAOCE	REQUEST OCEOV TRACE
490	(1EA)	BIT(13) POS(4)	2	*	RESERVED
492	(1EC)	CHARACTER	4	WCVTSID	SOURCE SYSTEM ID
496	(1F0)	UNSIGNED	4	WCVTWPDE	ECB FOR ARCWPDO
500	(1F4)	ADDRESS	4	WCVTTRCT	ADDR OF TRACE CNTL. TABLE
504	(1F8)	UNSIGNED	1	WCVTPDRL	BLKSIZE OF TRACE WRAP BUFF
505	(1F9)	UNSIGNED	1	WCVTPDRW	# RECS IN TRACE WRAP BUFF
506	(1FA)	UNSIGNED	1	WCVTPDBF	MAX BLKS IN PDA FREE POOL
507	(1FB)	BIT(8)	1	*	
		1...		WCVF_PPRC	Skip PPRC data sets
		.1..		WCVF_XRC	Skip XRC data sets
		..1.		WCVF_LIST_SKIPPED	List skipped data sets
		...1		WCVF_RC_SKIPPED	At least one PPRC or XRC data set was skipped
		.... 1...		WCVF_SVC99_MSGS	Enable dyn alloc msgs
		.... .1..		WCVF_ALLOCDSN_BACKED_UP	ON = no data sets were backed up from the ALLOCATE list
		.... ..1.		WCVF_ACCOMDSN_BACKED_UP	ON = no data sets were backed up from the ACCOMPANY list
		1		WCVF_DSS_MOVED_NO_L0_DSNS	ON = No L0 data sets were backed up by DSS
508	(1FC)	ADDRESS	4	WCVTTCBP	ARCWPDO TCB PTR
512	(200)	ADDRESS	4	WCV_ML2DCB@	DCB ADDRESS FOR SINGLEFILE ML2 TAPE RECOVERY
516	(204)	SIGNED	4	WCVRET	RETURN CODE FOR FUNCTION
520	(208)	SIGNED	4	WCVRSN	REASON CODE FOR FUNCTION
524	(20C)	CHARACTER	4	WCV_CFDEV_TYPE	CONTROL FILE UCB DEVICE TYPE
528	(210)	CHARACTER	4	WCV_EXPDT	EXPIRATION DATE IN TIME MACRO FORMAT
532	(214)	ADDRESS	4	WCV_WTLCP@	ARCWTLCC PARM LIST PTR
536	(218)	ADDRESS	4	WCV_WALTP@	ADDRESS OF ARCWALTP
540	(21C)	ADDRESS	4	WCV_WNAMP@	ADDRESS OF ARCWCNAM
544	(220)	ADDRESS	4	WCVDEFP@	PARAM LIST FOR ARCWDEFC
548	(224)	ADDRESS	4	WCVLOCP@	ARCWLOC PARM LIST PTR
552	(228)	ADDRESS	4	WCVSLOP@	ARCWSLOC PARM LIST PTR
556	(22C)	ADDRESS	4	WCVCLCP@	ARCWCLOC PARM LIST PTR
560	(230)	ADDRESS	4	WCVCNVP@	ARCWCNVM PARM LIST PTR
564	(234)	ADDRESS	4	WCVGLOP@	ARCWGLOC PARM LIST PTR
568	(238)	ADDRESS	4	WCV26DP@	ARCW26DL PARM LIST PTR
572	(23C)	ADDRESS	4	WCVLSTP@	PARM LIST FOR ARCWLSTC
576	(240)	ADDRESS	4	WCVESD@	SAS ACCESS TABLE
580	(244)	SIGNED	4	WCV_TSPLM	NUMBER OF MEGABYTES OF TAPE HSM MAY LEAVE UNUSED TO REDUCE TAPE DATA SET SPANNING
584	(248)	ADDRESS	4	WCV_TCB_PTR	POINTER TO SAS TCB
588	(24C)	ADDRESS	4	WCVCPPL@	ADDRESS OF IKJCPPL
592	(250)	ADDRESS	4	WCVPPL@	ADDRESS OF IKJPPL
596	(254)	SIGNED	4	WCV_TSO_ECB	ECB FOR TSO IOPL
600	(258)	ADDRESS	4	WCV_TSO_IOPL@	IOPL PTR FOR TSO
604	(25C)	ADDRESS	4	WCV_TSO_LWA@	LWA PTR FOR TSO
608	(260)	ADDRESS	4	WCVMESN@	ADDR OF WMESN PARMS
612	(264)	ADDRESS	4	WCV_WNEXP@	ADDR OF ARCWNEXP
616	(268)	ADDRESS	4	WCVTTCP@	SAVE ADDRESS OF TTOC BASE RECORD
620	(26C)	ADDRESS	4	WCV_SSSA@	ADDR OF SMS INTERFACE
624	(270)	SIGNED	4	WCV_SSSALEN	LENGTH OF SMS INTER.
628	(274)	ADDRESS	4	WCVIMXP@	Addr of ARCWIMEX parms
632	(278)	ADDRESS	4	WCVIUIP@	Addr of ARCWIUIM parms
636	(27C)	SIGNED	4	WCV_DSS_WAIT	DSS WAIT TIME
640	(280)	CHARACTER	6	WCV_ABINUSE_VOL1	FIRST OR ONLY ML2 TAPE BEING ALLOCATED/DEALLOCATED BY ABACKUP
646	(286)	CHARACTER	6	WCV_ABINUSE_VOL2	LAST ML2 TAPE BEING ALLOCATED/DEALLOCATED BY ABACKUP
652	(28C)	CHARACTER	4	WCV_ABNDCODE	ABEND CODE IF WCVRET=RC35
656	(290)	UNSIGNED	4	WCVT_CPUTIME	AB/AR ELAPSED TIME
660	(294)	ADDRESS	4	WCVTEDG@	EDGTVEXT address
664	(298)	SIGNED	2	WCV_AB_L2DELAY	Number of minutes for ABACKUP to delay when ML2 in use
666	(29A)	SIGNED	2	WCV_ALLOCATE_FAIL_RETRY	Patchable field for number of second retries to attempt before ARC6083A is issued
668	(29C)	ADDRESS	4	WCVBUF4@	I/O WRKBUF-BSAM
672	(2A0)	ADDRESS	4	WCV_ML2_UCB@	UCB address of output ML2 volume
676	(2A4)	BIT(32)	4	WCVFLAG2	More control flags
		1...		WCVTXTTC	When set to 1, Extended TTOC is used

Table 152 (Page 4 of 7). WCVT—ABARS Management Communications Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.1..		WCVF_F9ATT	ON if F9 DSCB attrs lost during DSS RESTORE P1@ERA
		..1.		WCVF_EAS_EFSEQ	ON - Ext format seq enabled for EAS
		...1		WCVF_EAS_SEQ	ON - Basic, large format seq enabled for EAS
		.... 1...		WCVF_EAS_PDSE	ON - PDSE enabled for EAS
		.... .1..		WCVF_EAS_PDS	ON - PDS enabled for EAS
		.... ..1.		WCVF_EAS_DIR	ON - BDAM enabled for EAS
		1		WCVF_EAS_NOUSE	When set to 1, don't use the cylinder- managed space of ML1 EAVs even if WCVF_EAS_SEQ is ON
677	(2A5)	1...		WCVF_NOREUSE	When set to 1, Don't resuse ASIDs even if RC=0
677	(2A5)	BIT(23) POS(8)	3	*	Reserved
680	(2A8)	SIGNED	4	* (6)	Reserved
704	(2C0)	CHARACTER	0	*	FORCE WORD BOUNDARY
ABACKUP/ARECOVER FIELDS:					
704	(2C0)	CHARACTER	464	WCVABPTR	ABACKUP/ARECOVER POINTERS TO GETMAINED AREAS THAT WILL BE FREEMAINED UPON FUNCTION COM-PLETION
704	(2C0)	ADDRESS	4	WCVEXPB@	Addr of 1st ARCWEXPB
708	(2C4)	BIT(32)	4	WCVABFLG	ABACKUP/ARECOVER CONTROL FLAGS
		1...		WCVFVFAI	VERIFICATION FAILURE
		.1..		WCVFXREP	OR MORE DFDSS DATA SETS TO BE REPLACED
		..1.		WCVFXREN	OR MORE DFDSS DATA SETS TO BE RENAMED
		...1		WCVFDSS	ONE OR MORE DATA SETS TO BE PROCESSED BY DFDSS
		.... 1...		WCVFINT	ONE OR MORE DATA SETS TO BE PROCESSED BY INTERNAL IO
		.... .1..		WCVFNPRC	ONE OR MORE DATA SETS WERE NOT PROCESSED
		.... ..1.		WCVFRENL	ONE OR MORE DATA SETS WERE BYBASSED - RENAME LIMIT
		1		WCVFRSRT	RESTART DATA SET EXISTS OPERATOR'S CONSOLE
709	(2C5)	1...		WCVFD348	DEVICE
		.1..		WCVFRET	1=RETENTION PERIOD SPECIFD 0=EXPIRATION DATE
		..1.		WCVFMIG	1=BACKED UP 1+ MIGRATED DS 0=NO MIGRATED DS IN BACKP
		...1		WCVFTWOD	TWO VERSIONS OF DATA FILE GNNNNV00 AND GNNNNV01
		.... 1...		WCVFRSMT	RESTART DATASET IS EMPTY
		.... .1..		WCVFNOL0	1=ARVE RETRIEVE FAILED OR NO L0 VOLS IN POOL
		.... ..1.		WCVFALL	1=1+ DS IN ALLOCATE LIST
		1		WCVFACC	1=1+ DS IN ACCOMPANY LIST
710	(2C6)	1...		WCVFL0MT	1=LVL0 VOLUMES OUT OF SPACE
		.1..		WCVFL1MT	1=LVL1 VOLUMES OUT OF SPACE
		..1.		WCVFDSSW	1=DFDSS WARNING ISSUED
		...1		WCVFTHC	1=TAPEHARDWARECOMPACT, 0= NOTAPEHARDWARECOMPACT
		.... 1...		WCVFINSM	SPECIFIED INSTRUCTION DATA SET IS MIGRATED
		.... .1..		WCVFABTW	1=ABACKUP WAIT FOR UNT
		.... ..1.		WCVFARTW	1=ARECOVR WAIT FOR UNT
		1		WCVFD349	
711	(2C7)	1...		WCVFES80	ON = ESOTERIC SUPPORT
		.1..		WCVFES8X	ON = ESOTERIC SUPPORT AVAILABLE FOR 3480X
		..1.		WCV_HAVE_INST_DATASET	1=HAVE INST. DATA SET
		...1		WCV_HAVE_DASD_ACT_LOG	= HAVE DASD LOG
		.... 1...		WCVF_REQUEST_ACTLOG	1=INDICATES THAT THE USER REQUESTED THE ABACKUP ACTIVITY LOG
		.... .1..		WCVF_REQUEST_INST_DATASET	1=INDICATES THAT THE USER REQUESTED INSTR DATA SET
		.... ..1.		WCVF_LOG_HAS_BEEN_OPENED	ON = LOG HAS BEEN OPENED FOR THE FUNCTION.
		1		WCVF_CFILE_WRITTEN	1=CONTROL FILE HAS BEEN WRITTEN DURING ABACKUP PROCESSING.
712	(2C8)	BIT(32)	4	WCVABFLG2	ABACKUP/ARECOVER FLAGS
		1...		WCV_FUPDATE_ABR	ON - UPDATE ABR AT END OF RECOVERY
		.1..		WCV_FCRDS_FOUND	1=CRDS FOUND PRIOR TO THIS PASS OF ARECOVER
		..1.		WCV_FWRITE_CRDS	'ON' - WRITE A NEW CONFLICT RESOLUTION DATA SET
		...1		WCV_FCRDS_EXISTS	'ON' - CONFLICT RESOLUTION DATA SET EXISTS
		.... 1...		WCV_FCRDS_LIST_BUILT	'ON' - CONFLICT RESOLUTION DATA SET LIST ARCNCRDB BUILT
		.... .1..		WCVF_ML2_PERCENT_UTILIZED	1=THE PERCENT UTILIZED LIMIT HAS BEEN REACHED FOR AN ML2 VOLUME

Table 152 (Page 5 of 7). WCVT—ABARS Management Communications Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
		.... ..1.		WCVF_ML2_RECOVERY_IN_PROGRESS	1=RECOVERY TO ML2 VOLUMES IS IN PROGRESS
		1		WCVF_ML2_FINISHED	NO MORE ML2 DATA SETS TO PROCESS
713	(2C9)	1...		WCVF_ML2_DATA_SET_SPANNED	ML2 DATA SET IS BEING REBLOCKED TO TAPE, THIS INDICATOR SET IF VOLUME CHANGES AS IT IS BEING WRITTEN.
		.1..		WCV_FV310UP	'ON'- VERSION >= 3.1.0
		..1.		WCV_FSMS_DEFS	'ON'- SMS CONSTRUCT DEFINITIONS EXIST
		...1		WCVFML2D	'ON'- RECOVERY TO ML2 VOLUMES IS DISABLED
		.... 1...		WCV_FMCDAGB_AGD	'ON'- MCDAGB OBTAINED FROM MANAGEMENT CLASS NAMED IN THE AGD
		.... .1..		WCV_FMCDAGB_DEFAULT	ON - MCDAGB IS CREATED WITH DEFAULT VALUES
		.... ..1.		WCV_FMCDAGB_BASE	ON - MCDAGB OBTAINED FROM THE DEFAULT MANAGEMENT CLASS RECOVERY IS PERFORMED TO SINGLEFILE ML2 TAPE
		1		WCVF_RECOVER_SINGLEFILE	INDICATOR THAT A VOLUME WAS SPANNED AND THAT THE TTOC EXTENSIONS NEED TO BE WRITTEN
714	(2CA)	1...		WCVF_WRITE_EXTENSIONS	
		.1..		WCVF_CF_CATALOGED	CNTRL FILE IS ALREADY CATALOGED BEFORE START OF ARECOVER TASK
		..1.		WCVF_DF_CATALOGED	DSS DATA FILE IS ALREADY CATALOGED BEFORE START OF ARECOVER TASK
		...1		WCVF_INTF_CATALOGED	INTERNAL DATA FILE ALREADY CATALOGED BEFORE START OF ARECOVER
		.... 1...		WCVF_INACTF_CATALOGED	INSTR/ACTIVITY FILE ALREADY CATALOGED BEFORE START OF ARECOVER
		.... .1..		WCVF_TSO_OPEN	1=TSO MSYSIN/MSYSOUT DATA SETS OPENED
		.... ..1.		WCVF_IDS_PROCESSED	ON = INSTRUCTION DS SUCCESSFULLY PROCESSED BY DFDSS
		1		WCVF_LOG_PROCESSED	ON = ACTIVITY LOG SUCCESSFULLY PROCESSED BY DFDSS
715	(2CB)	1...		WCVF_COMP_AUTH	1=COMPREHENSIVE ARECOVER AUTHORITY
		.1..		WCVF_REST_AUTH	1=RESTRICTED ARECOVER AGNAME AUTHORITY
		..1.		WCVF_REPLACE_AUTH	1=RESTRICTED ARECOVER REPLACE AUTHORITY
		...1		WCVF_RENTGT_AUTH	1=RESTRICTED ARECOVER RENTGT AUTHORITY
		.... 1...		WCVFNOES	1=JES3 SYS3480R SYS348XR REDRIVEN WITH D/T3480 OR D/T3480X.
		.... .1..		WCVF_ML2_DATA_SET_FEOV	1= FEOV ISSUED
		.... ..1.		WCVF_ADDVOL_FAILURE	1= ADDVOL failure for Ml2 vol.
		1		WCVFD359	
716	(2CC)	SIGNED	4	WCVACCT	# ACCOMPANY DS PROCESSED
720	(2D0)	ADDRESS	4	WCVACCV@	ACCOMPANY VOLUMES
724	(2D4)	ADDRESS	4	WCVACCL@	ACCOMPANY DSNB LIST
728	(2D8)	ADDRESS	4	WCVACEX@	ACCOMPANYEXC DSNB LIST
732	(2DC)	ADDRESS	4	WCVACCG@	GENERIC FILTERED ACC LIST
736	(2E0)	ADDRESS	4	WCVFACC@	FINAL FILTERED ACC LIST
740	(2E4)	ADDRESS	4	WCVAGD@	AGGREGATE GROUP BLOCK
744	(2E8)	SIGNED	4	WCVALCT	# ALLOCATE DS PROCESSED
748	(2EC)	ADDRESS	4	WCVALOL@	ALLOCATE DSNB LIST
752	(2F0)	ADDRESS	4	WCVALEX@	ALLOCATEEXCL DSNB LIST
756	(2F4)	ADDRESS	4	WCVALLG@	GENERIC FILTERED ALL LIST
760	(2F8)	ADDRESS	4	WCVFALL@	FINAL FILTERED ALL LIST
764	(2FC)	SIGNED	4	WCV_ML2HBID	HARDWARE BLOCK ID FOR ML2 TAPE RECOVERY
768	(300)	ADDRESS	4	WCV_WNETB_PTR@	POINTER TO THE NETVIEW INTERFACE BLOCK
772	(304)	ADDRESS	4	WCV_ABR_RECORD_PTR	POINTER TO THE ABR RECORD
776	(308)	SIGNED	4	WCVCOPY	NUMBER OF COPIES
780	(30C)	ADDRESS	4	WCV_MCDAGB_PTR@	POINTER TO MCDAGB OBTAINED FROM THE MANAGEMENT CLASS
784	(310)	ADDRESS	4	WCVTLOG@	PTR TO 1ST BLOCK IN- STORAGE ACTIVITY LOG
788	(314)	ADDRESS	4	WCVDCLS@	DATA CLASS LIST
792	(318)	ADDRESS	4	WCVDSIB@	1ST DATA SET INFO BLOCK
796	(31C)	ADDRESS	4	WCVDSLT@	FIRST ENTRY IN DS INFO LIST
800	(320)	SIGNED	4	WCV_DS_BLK_ON_VOL	# BLOCKS FOR DATA SET ON A VOLUME
804	(324)	ADDRESS	4	WCV_DC_LST@	1ST ENTRY IN SORTED DATACLASS CONSTRUCT NAMES BLOCK
808	(328)	ADDRESS	4	WCV_SC_LST@	1ST ENTRY IN SORTED STORCLASS CONSTRUCT NAMES BLOCK
812	(32C)	ADDRESS	4	WCV_MC_LST@	1ST ENTRY IN SORTED MGMT CLASS CONSTRUCT NAMES BLOCK
816	(330)	SIGNED	4	WCV_ML1_COUNT	COUNT OF ML1 MIGRATED DATA SETS.
820	(334)	ADDRESS	4	WCVEXCL@	EXCLUDE LIST

Table 152 (Page 6 of 7). WCVT—ABARS Management Communications Vector Table

Offsets Decimal	(Hex)	Type	Length	Name	Description
824	(338)	ADDRESS	4	WCVFITL@	FILTERED LIST
828	(33C)	ADDRESS	4	WCVF1B@	1ST F1 DSCB BLOCK
832	(340)	ADDRESS	4	WCVGDBB@	1ST GDG BASE BLOCK
836	(344)	ADDRESS	4	WCVINCG@	OUTPUT LIST OF GENERIC INCL FILTER, WAS WCVGENF@
840	(348)	SIGNED	4	WCV_ML2_COUNT	COUNT OF ML2 MIGRATED DATA SETS.
844	(34C)	ADDRESS	4	WCVINCL@	INCLUDE DSIB LIST
848	(350)	ADDRESS	4	WCVUTAL@	USR TAPE ALLOC LIST PTR
852	(354)	ADDRESS	4	WCVIVOL@	INPUT VOLUMES
856	(358)	SIGNED	4	WCVL0CT	# L0 DATA SETS PROCESSED
860	(35C)	ADDRESS	4	WCVMCAB@	1ST MCA BLOCK
864	(360)	ADDRESS	4	WCVMCDB@	1ST MCD BLOCK
868	(364)	ADDRESS	4	WCVMCOB@	1ST MCO BLOCK
872	(368)	ADDRESS	4	WCVMCLS@	MANAGEMENT CLASS LIST
876	(36C)	SIGNED	4	WCVMGCT	# MIGRATED DS PROCESSED
880	(370)	ADDRESS	4	WCVML0B@	1ST L0 VOLUME BLOCK
884	(374)	ADDRESS	4	WCVML1B@	1ST L1 VOLUME BLOCK
888	(378)	ADDRESS	4	WCVRESB@	1ST RESTART DATA SET BLOCK
892	(37C)	ADDRESS	4	WCVLVA@	LAST VOL APPROVED BLK
896	(380)	CHARACTER	4	WCV_VERSION	VERSION NUMBER
900	(384)	ADDRESS	4	WCVML2B@	1ST ML2 VOLUME BLOCK
904	(388)	CHARACTER	8	WCV_ARML2UNT	UNIT OF ML2 SCRATCH TAP SET BY SETSYS ARECOVERML2UNIT
912	(390)	SIGNED	4	WCVF_TOTAL_ML2_PROCESSED	TOTAL NUMBER OF ML2 DATA SETS PROCESSED SUCCESSFULLY
916	(394)	SIGNED	4	WCV_TOTAL_VOLUME_CHANGES	THE TOTAL NUMBER OF TIMES THE VOLUMES WERE CHANGED IN ARCWBSAM, FOR ML2 PROCESSING
920	(398)	SIGNED	4	WCV_TOTAL_ML2_BLOCKS	TOTAL NUMBER OF 2K BLOCKS WRITTEN TO AN ML2 VOLUME
924	(39C)	SIGNED	4	WCV_NUMBER_2K_BLOCKS	NUMBER OF 2K BLOCKS USE FOR AN ML2 DATA SET
928	(3A0)	ADDRESS	4	WCVMCVP@	ADDRESS OF MCV RECORD
932	(3A4)	ADDRESS	4	WCVTTBP@	BASE TTOC POINTER
936	(3A8)	SIGNED	4	WCV_ML2_RETRY_COUNTER	ADDVOL RETRY COUNTER
940	(3AC)	ADDRESS	4	WCVSCLS@	STORAGE CLASS LIST
944	(3B0)	ADDRESS	4	WCVSELB@	SELECTION DATA SET ARRAY OF TONAMES, DCBS
948	(3B4)	ADDRESS	4	WCVTOKN@	PARSER TOKEN BLOCK
952	(3B8)	SIGNED	4	WCVCPCT	# TAPE COPY DATA SETS PROC.
956	(3BC)	ADDRESS	4	WCVOTVB@	RECOVERY OUTPUT TAPE VOLS @
960	(3C0)	ADDRESS	4	WCVCOMP@	VSAM COMPONENT NAMES LIST
964	(3C4)	SIGNED	4	WCVDCNT	COUNT OF DATA SETS FOR DSS
968	(3C8)	SIGNED	4	WCVT_DFDSS_RENAME_COUNT	NUMBER OF DFDSS DATA SETS TO RENAME
972	(3CC)	SIGNED	4	WCV_CRDS_LINE_NUM	CURRENT LINE NUMBER OF CONFLICT RESOLUTION DATA SET
976	(3D0)	ADDRESS	4	WCV_CRDS_LINE_PTR@	ADDRESS OF CURRENT LINE OF CONFLICT RESOLUTION DATA SET
980	(3D4)	ADDRESS	4	WCV_CRDS_LIST@	ADDRESS OF CONFLICT RESOLUTION BLOCK ARCNCRDB
984	(3D8)	SIGNED	4	WCV_CRDS_COUNT	COUNT OF ENTRIES WITH UNRESOLVED CONFLICTS TO WRITE TO CRDS
988	(3DC)	ADDRESS	4	WCV_CONFLICT_ACTION_LIST@	ADDRESS OF ARCNCRAB LIST OF DATA SETS REQUIRING CONFLICT RESOLUTION ACTION
992	(3E0)	ADDRESS	4	WCV_CABS@	ADDRESS OF CONSTRUCT ATTR BLOCK, STORAGE CLA
996	(3E4)	ADDRESS	4	WCV_CABM@	ADDRESS OF CONSTRUCT ATTR BLK, MANAGEMENT CL
1000	(3E8)	ADDRESS	4	WCV_CABD@	ADDRESS OF CONSTRUCT ATTR BLK, DATA CLASS
1004	(3EC)	ADDRESS	4	WCV_SMS_BUFFER@	POINTER TO THE SMS CONSTRUCT BUFFER ATTR BLOCK, DATA CLASS
1008	(3F0)	SIGNED	4	WCV_ABACKUP_L0SPACE	L0 SPACE USED DURING ABACKUP
1012	(3F4)	SIGNED	4	WCV_ABACKUP_ML1SPACE	ML1 SPACE USED DURING ABACKUP
1016	(3F8)	SIGNED	4	WCV_ABACKUP_ML2SPACE	ML2 SPACE USED DURING ABACKUP
1020	(3FC)	SIGNED	4	WCV_ABACKUP_TAPECNT	THE NUMBER OF USER TAPES
1024	(400)	SIGNED	4	WCV_ABACKUP_NUM_ACCOM_TP	THE NUMBER OF ACCOMPANY TAPES
1028	(404)	SIGNED	4	WCV_ABACKUP_TOTALSPACE	TOTAL SPACE USED DURING ABACKUP
'K' = SPACE UNIT KBYTES, 'M' = SPACE UNIT MBYTES, 'G' = SPACE UNIT GBYTES, 'T' = SPACE UNIT TBYTES					
1032	(408)	CHARACTER	4	WCV_ABACKUP_SPACE_UNITS	SPACE UNITS
1032	(408)	CHARACTER	1	WCV_FABACKUP_L0SPACE_UNITS	FOR L0
1033	(409)	CHARACTER	1	WCV_FABACKUP_ML1SPACE_UNITS	

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Offsets Decimal	(Hex)	Type	Length	Name	Description
					FOR ML1
1034	(40A)	CHARACTER	1	WCV_FABACKUP_ML2SPACE_UNITS	
					FOR ML2
1035	(40B)	CHARACTER	1	WCV_FABACKUP_TOTALSPACE_UNITS	
					TOTAL
1036	(40C)	SIGNED	4	WCVICNT	CNT OF DS FOR INTERNAL I/O
1040	(410)	SIGNED	2	WCV_IO_ERROR_THRESHOLD	ARECOVER TAPE I/O ERROR THRESH HOLD.
1042	(412)	SIGNED	2	WCV_IO_TAPE_ERROR_COUNT	ARECOVER I/O TAPE ERROR COUNT.
1044	(414)	CHARACTER	8	WCVHSMRL	DFHSM RELEASE USED DURING ABACKUP.
1052	(41C)	SIGNED	2	WCV_AB_XTRAMNTS	Count of extra ML2 mounts during ABACKUP due to Recall takeaway
1054	(41E)	BIT(16)	2	WCVABFLG3	More flags
		1...		WCV_FML2_SPANNED	ON - ML2 dsn spanned during recovery
The following flags indicate absence of the corresponding data set names list in the selection data set.					
		.1..		WCV_NO_INCL	ON - INCLUDE list not specified
		..1.		WCV_NO_ACC	ON - ACCOMPANY list not specified
		...1		WCV_NO_ALL	ON - ALLOCATE list not specified
		.... 1...		WCVF_ENCRYPT	ON - Abackup output tape encrypted.
		.... .1..		WCVF_WORM_OK	User allows use of WORM tape for nonABARs functions
		.... ..1.		WCVF_ARML2_VTS	ON - ML2 ARECOVER is targetting an IBM VTS device
		x		*	Reserved
1055	(41F)	BITSTRING	1	*	Reserved
1056	(420)	CHARACTER	7	WCVT_ACTN	ACT. LOG HIGH LVL QUAL
1063	(427)	CHARACTER	1	WCVT_HOST	HOST ID
1064	(428)	CHARACTER	30	WCV_MGMT_CLASS	MANAGEMENT CLASS NAME
1094	(446)	SIGNED	2	WCV_MGMT_LEN	MANAGEMENT CLASS LNGTH
1096	(448)	ADDRESS	4	WCVUCAB@	ADDRESS OF ARCWUCAB
1100	(44C)	ADDRESS	4	WCVALAB@	ADDRESS OF ARCWALAB
1104	(450)	CHARACTER	8	WCV_JOBNAME	REQUESTING JOB NAME
1112	(458)	CHARACTER	8	WCV_ARML2UNT_GENERIC	Generic Arecover ML2 unit
1120	(460)	ADDRESS	4	WCV_RLS_STORG@	STORAGE FOR RLS INFO
1124	(464)	UNSIGNED	2	WCV_PRIMARY_TRKS	DASD ACTIVITY LOG PRIMARY ALLOC TRKS.
1126	(466)	UNSIGNED	2	WCV_SECONDARY_TRKS	DASD ACTIVITY LOG SECONDARY ALLOC TRKS.
1128	(468)	SIGNED	4	WCV_NUMBER_2K_BLOCKS_HOLD	
					Used to hold the number of 2K blocks of a spanning ML2 data set for later calculation of D record variable MCDTPBLK
1132	(46C)	SIGNED	2	WCV_WRITE_IO_ERROR_THRESHOLD	
					ARECOVER tape write I/O error threshold
1134	(46E)	SIGNED	2	WCV_WRITE_IO_TAPE_ERROR_COUNT	
					ARECOVER write I/O tape error counter
1136	(470)	ADDRESS	4	WCV_ONLYDSN_DCB@	Address of LISTOFNAMES data set DCB
1140	(474)	CHARACTER	8	WCV_ONLYDSN_DDNAME	LISTOFNAMES DD-name
1148	(47C)	ADDRESS	4	WCVLSNB@	1st LISTOFNAMES data set names block
1152	(480)	SIGNED	4	WCVF9B@	1st F9 DSCB block
1156	(484)	SIGNED	4	* (3)	RESERVED
1168	(490)	CHARACTER	0	WCVLBPTR	FORCE WORD BOUNDARY
1168	(490)	CHARACTER	0	WCVLAST	END OF THE VECTOR TABLE FORCE SIZE OF CONTROL BLOCK

Table 153. WCVT—WCVT_COPY_ENTRY Structure

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	20	WCVT_COPY_INFO	
0	(0)	BIT(32)	4	*	
		1...		WCVF_INSLOGFILE_ERROR	ERROR PROCESSING INSTRUCTION/ACTLOG FILE
		.1..		WCVF_VOL_EXIT_ACTIVE	VOL EXIT ACTIVE
4	(4)	ADDRESS	4	WCVCVOL@	CONTROL FILE VOLUMES
8	(8)	ADDRESS	4	WCVDVOL@	DATA FILE VOLUMES
12	(C)	ADDRESS	4	WCVINSV@	INSTRUCTION FILE VOLUME
16	(10)	SIGNED	4	WCVCVCNT	CNT. FILE VOLUME COUNTE

WCVT Data Area Cross-Reference

Table 154 (Page 1 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ARCWCVT	0		1
WCV_AB_L2DELAY	298		4
WCV_AB_L2RETRY	1E9		4
WCV_AB_XTRAMNTS	41C		4
WCV_ABACKUP_L0SPACE	3F0		4
WCV_ABACKUP_ML1SPACE	3F4		4
WCV_ABACKUP_ML2SPACE	3F8		4
WCV_ABACKUP_NUM_ACCOM_TP	400		4
WCV_ABACKUP_SPACE_UNITS	408		4
WCV_ABACKUP_TAPECNT	3FC		4
WCV_ABACKUP_TOTALSPACE	404		4
WCV_ABINUSE_VOL1	280		4
WCV_ABINUSE_VOL2	286		4
WCV_ABNDCODE	28C		4
WCV_ABR_RECORD_PTR	304		4
WCV_ACTINST_OPTION	1A		3
WCV_ALLOCATE_FAIL_RETRY	29A		4
WCV_ARML2UNT	388		4
WCV_ARML2UNT_GENERIC	458		4
WCV_CABD@	3E8		4
WCV_CABM@	3E4		4
WCV_CABS@	3E0		4
WCV_CFDEV_TYPE	20C		4
WCV_CONFLICT_ACTION_LIST@	3DC		4
WCV_COPY_INDEX	94		4
WCV_CRDS_COUNT	3D8		4
WCV_CRDS_LINE_NUM	3CC		4
WCV_CRDS_LINE_PTR@	3D0		4
WCV_CRDS_LIST@	3D4		4
WCV_DC_LST@	324		4
WCV_DS_BLK_ON_VOL	320		4
WCV_DSS_WAIT	27C		4
WCV_EXPDT	210		4
WCV_FABACKUP_L0SPACE_UNITS	408		5
WCV_FABACKUP_ML1SPACE_UNITS	409		5
WCV_FABACKUP_ML2SPACE_UNITS	40A		5
WCV_FABACKUP_TOTALSPACE_UNITS	40B		5
WCV_FCRDS_EXISTS	2C8	10	5
WCV_FCRDS_FOUND	2C8	40	5

Table 154 (Page 1 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCV_FCRDS_LIST_BUILT	2C8	08	5
WCV_FDASD_BLOCKING	1CE	40	5
WCV_FMCDAGB_AGD	2C9	08	5
WCV_FMCDAGB_BASE	2C9	02	5
WCV_FMCDAGB_DEFAULT	2C9	04	5
WCV_FML2_SPANNED	41E	80	5
WCV_FSMS_DEFS	2C9	20	5
WCV_FUPDATE_ABR	2C8	80	5
WCV_FV310UP	2C9	40	5
WCV_FWRITE_CRDS	2C8	20	5
WCV_HAVE_DASD_ACT_LOG	2C7	10	5
WCV_HAVE_INST_DATASET	2C7	20	5
WCV_IO_ERROR_THRESHOLD	46C		4
WCV_IO_TAPE_ERROR_COUNT	412		4
WCV_JOBNAME	450		4
WCV_MC_LST@	32C		4
WCV_MCDAGB_PTR@	30C		4
WCV_MGMT_CLASS	428		4
WCV_MGMT_LEN	446		4
WCV_ML1_COUNT	330		4
WCV_ML2_COUNT	348		4
WCV_ML2_RETRY_COUNTER	3A8		4
WCV_ML2_UCB@	2A0		4
WCV_ML2DCB@	200		4
WCV_ML2HBID	2FC		4
WCV_NO_ACC	41E	20	5
WCV_NO_ALL	41E	10	5
WCV_NO_INCL	41E	40	5
WCV_NUMBER_2K_BLOCKS	39C		4
WCV_NUMBER_2K_BLOCKS_HOLD	468		4
WCV_ONLYDSN_DCB@	470		4
WCV_ONLYDSN_DDNAME	474		4
WCV_PREV_LEVEL	1D2		4
WCV_PRIMARY_TRKS	464		4
WCV_RLS_STORG@	460		4
WCV_SC_LST@	328		4
WCV_SECONDARY_TRKS	466		4
WCV_SMS_BUFFER@	3EC		4
WCV_SSSA@	26C		4
WCV_SSSALEN	270		4

Table 154 (Page 2 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCV_TCB_PTR	248		4
WCV_TFTUP	1CE	10	5
WCV_TLC80	1D0		4
WCV_TOTAL_ML2_BLOCKS	398		4
WCV_TOTAL_VOLUME_CHANGES	394		4
WCV_TSO_ECB	254		4
WCV_TSO_IOPL@	258		4
WCV_TSO_LWA@	25C		4
WCV_TSPLM	244		4
WCV_TTU80	1D1		4
WCV_VERSION	380		4
WCV_WALTP@	218		4
WCV_WNAMP@	21C		4
WCV_WNETB_PTR@	300		4
WCV_WNEXP@	264		4
WCV_WRITE_IO_ERROR_THRESHOLD	46C		4
WCV_WRITE_IO_TAPE_ERROR_COUNT	46E		4
WCV_WTLCP@	214		4
WCVABAK@	20		4
WCVABFLG	2C4		4
WCVABFLG2	2C8		4
WCVABFLG3	41E		4
WCVABNP@	14		3
WCVABPTR	2C0		3
WCVACCG@	2DC		4
WCVACCL@	2D4		4
WCVACCT	2CC		4
WCVACCV@	2D0		4
WCVACEX@	2D8		4
WCVADRID	18		3
WCVAGD@	2E4		4
WCVAIIP@	24		4
WCVALAB@	44C		4
WCVALCT	2E8		4
WCVALEX@	2F0		4
WCVALLG@	2F4		4
WCVALOL@	2EC		4
WCVARCV@	2C		4
WCVAUID	30		4
WCVAUTO@	10		3

Table 154 (Page 2 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCVAVAIL	C		3
WCVBEPL@	38		4
WCVBEUSE	1CD	08	5
WCVBLK1@	3C		4
WCVBODY	10		2
WCVBUF1@	40		4
WCVBUF2@	44		4
WCVBUF3@	48		4
WCVBUF4@	29C		4
WCVCDIO@	50		4
WCVCLCP@	22C		4
WCVCNVP@	230		4
WCVCOMP@	3C0		4
WCVCOPY	308		4
WCVCPCT	3B8		4
WCVCPPL@	24C		4
WCVCRPL@	54		4
WCVCRUSE	1CD	01	5
WCVCVCNT	10		2
WCVCVOL@	4		2
WCVDCLS@	314		4
WCVDCNT	3C4		4
WCVDEFP@	220		4
WCVDSIB@	318		4
WCVDSLT@	31C		4
WCVDVOL@	8		2
WCVEDPL@	4C		4
WCVEDUSE	1CE	08	5
WCVENQP@	1DC		4
WCVESD@	240		4
WCVEXCL@	334		4
WCVEXPB@	2C0		4
WCVF_ABARSLOGMLEV_FULL	1CE	80	5
WCVF_ACCOMDSN_BACKED_UP	1FB	02	5
WCVF_ADDVOL_FAILURE	2CB	02	5
WCVF_ADR734_ISSUED	1CF	80	5
WCVF_ADR768_ISSUED	1CF	20	5
WCVF_ALLOCDSN_BACKED_UP	1FB	04	5
WCVF_ARC6402_PHYSICAL	1CE	01	5
WCVF_BLANK_MSGID_AFTER	1CF	01	5
WCVF_BLANK_MSGID_ISSUED	1CF	10	5
WCVF_CF_CATALOGED	2CA	40	5

Table 154 (Page 3 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCVF_CF_FIRST_TAPE	1D3	04	5
WCVF_CFILE_WRITTEN	2C7	01	5
WCVF_COMP_AUTH	2CB	80	5
WCVF_DF_CATALOGED	2CA	20	5
WCVF_DSS_MOVED_NO_L0_DSNS	1FB	01	5
WCVF_EAS_DIR	2A4	02	5
WCVF_EAS_EFSEQ	2A4	20	5
WCVF_EAS_NOUSE	2A4	01	5
WCVF_EAS_PDS	2A4	04	5
WCVF_EAS_PDSE	2A4	08	5
WCVF_EAS_SEQ	2A4	10	5
WCVF_ENABLE_CRD_CHECK	1D3	01	5
WCVF_ENCRYPT	41E	08	5
WCVF_ENQ_INSTR	1D3	40	5
WCVF_F9ATT	2A4	40	5
WCVF_IDS_PROCESSED	2CA	02	5
WCVF_INACTF_CATALOGED	2CA	08	5
WCVF_INSLOGFILE_ERROR	0	80	3
WCVF_INTF_CATALOGED	2CA	10	5
WCVF_LIST_SKIPPED	1FB	20	5
WCVF_LOG_HAS_BEEN_OPENED	2C7	02	5
WCVF_LOG_PROCESSED	2CA	01	5
WCVF_MIGDSN_USTPDSN_BKUP	1E8	02	5
WCVF_ML2_DATA_SET_FEOV	2CB	04	5
WCVF_ML2_DATA_SET_SPANNED	2C9	80	5
WCVF_ML2_FINISHED	2C8	01	5
WCVF_ML2_PERCENT_UTILIZED	2C8	04	5
WCVF_ML2_RECOVERY_IN_PROGRESS	2C8	02	5
WCVF_NOREUSE	2A5	80	5
WCVF_PPRC	1FB	80	5
WCVF_RC_SKIPPED	1FB	10	5
WCVF_RECOVER_SINGLEFILE	2C9	01	5
WCVF_RENTGT_AUTH	2CB	10	5
WCVF_REPLACE_AUTH	2CB	20	5
WCVF_REQUEST_ACTLOG	2C7	08	5
WCVF_REQUEST_INST_DATASET	2C7	04	5
WCVF_REST_AUTH	2CB	40	5
WCVF_STACK	1D3	08	5
WCVF_SVC99_MSGS	1FB	08	5
WCVF_TAPESEC_EXPIRE	1CE	02	5
WCVF_TOTAL_ML2_PROCESSED	390		4

Table 154 (Page 3 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCVF_TSO_OPEN	2CA	04	5
WCVF_VOL_EXIT_ACTIVE	0	40	3
WCVF_WESTA	1D3	02	5
WCVF_WORM_OK	41E	04	5
WCVF_WORM_SOURCE	1CF	04	5
WCVF_WORM_TARGET	1CF	08	5
WCVF_WORMML2_FAILURE	1CF	02	5
WCVF_WRITE_EXTENSIONS	2CA	80	5
WCVF_XRC	1FB	40	5
WCVFABND	1CC	40	5
WCVFABTW	2C6	04	5
WCVFACC	2C5	01	5
WCVFACC@	2E0		4
WCVFALL	2C5	02	5
WCVFALL@	2F8		4
WCVFARTW	2C6	02	5
WCVFCBNO	1D3	80	5
WCVFDBUG	1CC	20	5
WCVFDSS	2C4	10	5
WCVFDSSW	2C6	20	5
WCVFD348	2C5	80	5
WCVFD349	2C6	01	5
WCVFD359	2CB	01	5
WCVFES8X	2C7	40	5
WCVFES80	2C7	80	5
WCVFEXDP	1CC	10	5
WCVFINSM	2C6	08	5
WCVFINT	2C4	08	5
WCVFITL@	338		4
WCVFJES2	1CC	08	5
WCVFJES3	1CC	04	5
WCVFLAGS	1CC		4
WCVFLAGS_MORE	1D3		4
WCVFLAG2	2A4		4
WCVFL0MT	2C6	80	5
WCVFL1MT	2C6	40	5
WCVFMIG	2C5	20	5
WCVFML2D	2C9	10	5
WCVFMSG	1CD	80	5
WCVFMUL	1CE	04	5
WCVFNDP@	1E0		4
WCVFNOES	2CB	08	5

Table 154 (Page 4 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCVFNOL0	2C5	04	5
WCVFNPRC	2C4	04	5
WCVFRAC	1CD	40	5
WCVFRENL	2C4	02	5
WCVFRET	2C5	40	5
WCVFRSMT	2C5	08	5
WCVFRSRT	2C4	01	5
WCVFSMS	1CC	80	5
WCVFSRS	1CD	10	5
WCVFS1DP	1CC	01	5
WCVFTAP	1CE	20	5
WCVFTHC	2C6	10	5
WCVFTWOD	2C5	10	5
WCVFVFAI	2C4	80	5
WCVFWTOO	1CC	02	5
WCVFXREN	2C4	20	5
WCVFXREP	2C4	40	5
WCVF1B@	33C		4
WCVF9B@	480		4
WCVGDBB@	340		4
WCVGDGP@	58		4
WCVGENP@	5C		4
WCVGLOP@	234		4
WCVHEADR	0		2
WCVHSMRL	414		4
WCVICNT	40C		4
WCVID	0		3
WCVIMXP@	274		4
WCVINCG@	344		4
WCVINCL@	34C		4
WCVINSV@	C		2
WCVIUIP@	278		4
WCVIVOL@	354		4
WCVLAST	490		2
WCVLBPTR	490		3
WCVLOCP@	224		4
WCVLSNB@	47C		4
WCVLSTP@	23C		4
WCVLVA@	37C		4
WCVL0CT	358		4
WCVMASC@	84		5
WCVMASI@	60		4

Table 154 (Page 4 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCVMCAB@	35C		4
WCVMCDB@	360		4
WCVMCLS@	368		4
WCVMCOB@	364		4
WCVMCVP@	3A0		4
WCVMEMP@	64		4
WCVMESN@	260		4
WCVMGCT	36C		4
WCVMGIB@	68		4
WCVML0B@	370		4
WCVML1B@	374		4
WCVML2B@	384		4
WCVM2PL@	6C		4
WCVM2USE	1CD	04	5
WCVNEWP@	70		4
WCVNUMBF	1E4		4
WCVNXT@	8		3
WCVOBTP@	74		4
WCVOTVB@	3BC		4
WCVPPL@	250		4
WCVRESB@	378		4
WCVRET	204		4
WCVRQUID	1D4		4
WCVRSN	208		4
WCVSAMP@	78		4
WCVSCLS@	3AC		4
WCVSELB@	3B0		4
WCVSKPL@	7C		4
WCVSKUSE	1CD	02	5
WCVSLOP@	228		4
WCVSMSP@	28		4
WCVSV99@	80		4
WCVT_ACTN	420		4
WCVT_COPY_ENTRY	98		4
WCVT_COPY_INFO	0		1
WCVT_CPUTIME	290		4
WCVT_DFDSS_RENAME_COUNT	3C8		4
WCVT_HOST	427		4
WCVTALL	20		3
WCVTAOCE	1EA	20	5
WCVTEDG@	294		4

Table 154 (Page 5 of 5). WCVT Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WCVTF_CREATE_USER_ACEE_FAILED	1CD	20	5
WCVTFHRM	1D3	10	5
WCVTFNPD	1E8	80	5
WCVTFNPQ	1E8	08	5
WCVTFPDH	1E8	40	5
WCVTFPDT	1E8	04	5
WCVTFPSW	1E8	10	5
WCVTFSPD	1E8	20	5
WCVTFTRC	1EA	40	5
WCVTFVANY	1D3	20	5
WCVTLOG@	310		4
WCVTOKEN	84		4
WCVTOKN@	3B4		4
WCVTPDBF	1FA		4
WCVTPDFL	1E8		4
WCVTPDRL	1F8		4
WCVTPDRW	1F9		4
WCVTRACE	1EA		4
WCVTRCAT	1EA	80	5
WCVTSID	1EC		4
WCVTTBP@	3A4		4
WCVTTCBP	1FC		4
WCVTTCP@	268		4
WCVTTRCT	1F4		4
WCVTVUSE	1CF	40	5
WCVTWPDE	1F0		4
WCVTXTTC	2A4	80	5
WCVUCAB@	448		4
WCVUTAL@	350		4
WCVVSMP@	88		4
WCVWBKP@	8C		4
WCVWMIP@	90		4
WCVWNMS@	1C4		4
WCVWRAC@	1C		3
WCVXITP@	1C8		4
WCV26DP@	238		4

WPCDD—ABACKUP/ARECOVER Pseudo CDD Parameter List

The ABACKUP/ARECOVER pseudo CDD parameter list (WPCDD) contains data set information. A pseudo CDD record is written as the first record in each migrated data set and each non-migrated tape data set that is processed by aggregate backup. ARCWPCDD is used during aggregate recovery to validate the location of the data set on the data file. ARCWPCDD contains information that is used to recover tape data sets in the same format in which they existed at the backup site. The control block is 152 bytes long.

Table 155. WPCDD—ABACKUP/ARECOVER Pseudo CDD Parameter List

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	152	WPCDD	Start of control block.
0	(0)	CHARACTER	8	WPCDDID	Parameter list identifier, ARCWPCDD.
8	(8)	FIXED	4	WPCDDLEN	Parameter list length.
12	(C)	CHARACTER	44	WPCDDDSN	Data set name.
56	(38)	CHARACTER	58	*	Reserved.
114	(72)	BITSTRING	4	WPCDDBLK	Input data set block size.
118	(76)	FIXED	2	WPCDDLRC	Input data set record length.
120	(78)	CHARACTER	1	WPCDDRCF	Input data set record format.
121	(79)	CHARACTER	3	*	Reserved.
124	(7C)	FIXED	8	*	Reserved.
132	(84)	CHARACTER	1	WPCDDFGS	This byte contains the following parameter list flags:
		1...		WPCDDFTP	When set to 1, the data set is on tape.
		.1..		WPCDDFRC	When set to 1, the data set is RACF protected.
		..xx xxxx		*	Reserved.
133	(85)	CHARACTER	3	*	Reserved.
136	(88)	FIXED	4	*	Reserved.
140	(8C)	FIXED	4	*	Reserved.
144	(90)	FIXED	4	*	Reserved.
148	(94)	FIXED	4	*	Reserved.
152	(98)	CHARACTER		WPCDDLST*	End of control block.

WPCDD Control Block Cross-Reference

Table 156. WPCDD Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WPCDD	0		1
WPCDDBLK	72		2
WPCDDDSN	C		2
WPCDDFGS	84		2
WPCDDFRC	84	40	3
WPCDDFTP	84	80	3
WPCDDID	0		2
WPCDDLEN	8		2
WPCDDLRC	76		2
WPCDDLST	98		2
WPCDDRCF	78		2

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WWFSR—ABACKUP/ARECOVER Function Statistics Record Control Block

The ABACKUP/ARECOVER function statistics record control block (WWFSR) contains the information that is used to write an FSR record to SMF at the end of ABACKUP or ARECOVER (see Table 157). The control block is 344 bytes long.

Table 157 (Page 1 of 2). WWFSR—ABACKUP/ARECOVER FSR Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	344	ARCWWFSR	Beginning of the block.
0	(0)	CHARACTER	16	WFSRHEAD	Header information.
0	(0)	CHARACTER	8	WFSRID	Block identifier.
8	(8)	ADDRESS	4	WFSRNXT@	Address of the next block or zero (0).
12	(C)	FIXED	4	WFSRAVAI	Available length in block.
16	(10)	CHARACTER	18	WFSRBODY	Standard SMS header.
16	(10)	FIXED	2	WFSRLENG	RDW record length.
18	(12)	FIXED	2	WFSRSEG	RDW segment descriptor.
20	(14)	CHARACTER	1	WFSRFLG	This byte contains the following flags that indicate the operating environment:
		xxxx x...		*	Reserved.
		.... .1..		WFSRFMVS	When set to 1, the MVS/XA operating system is active.
		.... ..1.		WFSRFVS2	When set to 1, the VS2 operating system is active.
		1		WFSRFVS1	When set to 1, the VS1 operating system is active.
21	(15)	FIXED	1	WFSRRTY	Record type.
22	(16)	CHARACTER	4	WFSRTME	Time of day that the record was written.
26	(1A)	CHARACTER	4	WFSRDTE	Date that the record was written.
30	(1E)	CHARACTER	4	WFSRSID	System ID from the installation.
34	(22)	CHARACTER	8	WFSRJBN	Name of the job that is requesting service.
42	(2A)	FIXED	4	WFSRRST	Time the reader is started to the nearest .01 second.
46	(2E)	CHARACTER	4	WFSRRSD	Date the reader is started.
50	(32)	CHARACTER	8	WFSRUID	User ID that is requesting service.
58	(3A)	FIXED	1	WFSRTYPE	DFSMShsm function type. For ABACKUP, the function type is 15; and for ARECOVER, the function type is 16.
59	(3B)	BITSTRING	1	*	Reserved.
60	(3C)	CHARACTER		WFSRDATA	Start of the function data.
60	(3C)	CHARACTER	72	WFSRMWE	Data from the management work element for the function request.
60	(3C)	CHARACTER	44	WFSRDSN	Control file data set name.
104	(68)	FIXED	4	WFSRRC	Return code from the function request.
108	(6C)	FIXED	4	WFSRREAS	Reason code from the function request.
112	(70)	CHARACTER	4	WFSRABCC	Secondary address space abnormal end code.
116	(74)	CHARACTER	8	WFSRGRP	RACF group name.
124	(7C)	CHARACTER	4	WFSRCONT	Denotes a blank or continuation of an extension FSR.
128	(80)	FIXED	4	WFSRRQN	DFSMShsm request number.
132	(84)	CHARACTER	4	WFSRDATR	Date, in TIME DEC macro format X'0cyyddds', when the user request was made.
136	(88)	CHARACTER	4	WFSRTIMR	Time of day, in packed decimal format X'hhmmssth', when the user request was made.
140	(8C)	CHARACTER	4	WFSRDATS	Date, in TIME DEC macro format X'0cyyddds', that the requested processing started.
144	(90)	CHARACTER	4	WFSRTIMS	Time of day, in packed decimal format X'hhmmssth', that the requested processing started.
148	(94)	CHARACTER	4	WFSRDATE	Date, in TIME DEC macro format X'0cyyddds', that the request was completed.
152	(98)	CHARACTER	4	WFSRTIME	Time of day, in packed decimal format X'hhmmssth', that the request was completed.
156	(9C)	BITSTRING	2	WFSRFLG2	The next 2 bytes contain the following flags for the user request:
		x...		*	Reserved.
		.1..		WFSRFTSO	When set to 1, a TSO request was issued. When set to 0, a batch request was issued.
		..x.		*	Reserved.
		...1		WFSRFWAT	When set to 1, a WAIT request was issued. When set to 0, a NOWAIT request was issued.
		.... x...		*	Reserved.
		.... .1..		WFSRFNRQ	When set to 1, NetView file transfer protocol of the files requested.
		.... ..1.		WFSR_F9ATT	When set to 1, Format 9 DSCB extended attributes were lost during DSS RESTORE

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Table 157 (Page 2 of 2). WWFSR—ABACKUP/ARECOVER FSR Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
		x		*	Reserved.
158	(9E)	FIXED	2	WFSR_ABACKUP_XTRAMNTS	Count of extra mounts of ML2 volumes by ABACKUP due to recall takeaway.
160	(A0)	CHARACTER	4	WFSRNTME	Time when the NetView file transfer protocol was initiated. In packed decimal format X'hhmmssth'.
164	(A4)	CHARACTER	4	WFSRNDTE	Date when the NetView file transfer protocol was initiated. In packed decimal format X'0Cyydds'.
168	(A8)	CHARACTER	8(5)	WFSRNODE	The NODEID of the NetView file transfer protocol, up to five.
208	(D0)	FIXED	4	WFSRNENT	Number of tape volser entries.
212	(D4)	CHARACTER	30	WFSRAGNM	Aggregate group name.
242	(F2)	CHARACTER	2	WFSRHOST	Host identifier.
244	(F4)	FIXED	4	WFSRL0CT	Number of level 0 data sets that were processed.
248	(F8)	FIXED	4	WFSRMGCT	Number of migrated data sets that were processed.
252	(FC)	FIXED	4	WFSRCPCT	Number of tape copy data sets that were processed.
256	(100)	FIXED	4	WFSRACCT	Number of accompany data sets that were processed.
260	(104)	FIXED	4	WFSRALCT	Number of allocate only data sets that were processed.
264	(108)	ADDRESS	4(6)	*	An array of 6 reserved entries.
288	(120)	FIXED	4	WFSR_ABACKUP_L0SPACE	Level 0 space was used during ABACKUP.
292	(124)	FIXED	4	WFSR_ABACKUP_ML1SPACE	Migration level 1 space was used during ABACKUP.
296	(128)	FIXED	4	WFSR_ABACKUP_ML2SPACE	Migration level 2 space was used during ABACKUP.
300	(12C)	FIXED	4	WFSR_ABACKUP_TOTALSPACE	Total space was used during ABACKUP.
304	(130)	CHARACTER	4	WFSR_ABACKUP_SPACE_UNITS	Space units.
304	(130)	CHARACTER	1	WFSR_ABACKUP_L0SPACE_UNITS	For level 0 space units.
305	(131)	CHARACTER	1	WFSR_ABACKUP_ML1SPACE_UNITS	For migration level 1 space units.
306	(132)	CHARACTER	1	WFSR_ABACKUP_ML2SPACE_UNITS	For migration level 2 space units.
307	(133)	CHARACTER	1	WFSR_ABACKUP_TOTALSPACE_UNITS	For total space units.
308	(134)	FIXED	4	WFSR_CPUTIME	ABACKUP/ARECOVER process time.
312	(138)	CHARACTER	32	WFSR_ACCOUNT_CODE	User specified account code.
344	(158)	CHARACTER		WFSRLAST	End of control block.

As shown in Table 158, the following fields describe the WWFSR tape volume entry:

Table 158. WWFSR—Tape Volume Entry

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	6	WFSRTAPE	Tape volume entry.
0	(0)	CHARACTER	6	WFSRVOLS	Tape volume serial number.

WWFSR Control Block Cross-Reference

Table 159 (Page 1 of 2). WWFSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ARCWWFSR	0		1
WFSR_ABACKUP_L0SPACE	120		2
WFSR_ABACKUP_L0SPACE_UNITS	130		3
WFSR_ABACKUP_ML1SPACE	124		2
WFSR_ABACKUP_ML1SPACE_UNITS	131		3
WFSR_ABACKUP_ML2SPACE	128		2
WFSR_ABACKUP_ML2SPACE_UNITS	132		3

Table 159 (Page 1 of 2). WWFSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WFSR_ABACKUP_SPACE_UNITS	130		2
WFSR_ABACKUP_TOTALSPACE	12C		2
WFSR_ABACKUP_TOTALSPACE_UNITS	133		3
WFSR_ABACKUP_XTRAMNTS	9E		2
WFSR_ACCOUNT_CODE	138		2
WFSR_CPUTIME	134		2
WFSR_F9ATT	9C	2	3

Table 159 (Page 2 of 2). WWFSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WFSRABCC	70		3
WFSRACCT	100		2
WFSRAGNM	D4		2
WFSRALCT	104		2
WFSRAVAI	C		3
WFSRBODY	10		2
WFSRCONT	7C		3
WFSRCPCT	FC		2
WFSRDATA	3C		2
WFSRDATE	94		2
WFSRDATR	84		2
WFSRDATS	8C		2
WFSRDSN	3C		3
WFSRDTE	1A		3
WFSRFLG	14		3
WFSRFLG2	9C		2
WFSRFMVS	14	04	4
WFSRFNRQ	9C	04	3
WFSRFTSO	9C	40	3
WFSRFVS1	14	01	4
WFSRFVS2	14	02	4
WFSRFWAT	9C	10	3
WFSRGRP	74		3
WFSRHEAD	0		2
WFSRHOST	F2		2
WFSRID	0		3
WFSRJBN	22		2
WFSRLAST	158		2
WFSRLENG	10		3
WFSRL0CT	F4		2
WFSRMGCT	F8		2
WFSRMWE	3C		2
WFSRNDTE	A4		2
WFSRNENT	D0		2
WFSRNODE	A8		2
WFSRNTME	A0		2
WFSRNXT@	8		3
WFSRRC	68		3
WFSRREAS	6C		3
WFSRRQN	80		3
WFSRRSD	2E		2
WFSRRST	2A		2

Table 159 (Page 2 of 2). WWFSR Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
WFSRRTY	15		3
WFSRSEG	12		3
WFSRSID	1E		3
WFSRTAPE	0		1
WFSRTIME	98		2
WFSRTIMR	88		2
WFSRTIMS	90		2
WFSRTME	16		3
WFSRTYPE	3A		2
WFSRUID	32		2
WFSRVOLS	0		2

WFSR2—ABACKUP/ARECOVER Function Statistics Record for RMM Reporter

The ABACKUP/ARECOVER Function Statistics Record for RMM Reporter control block (WFSR2) contains WWFSR statistical information for the RMM Reporter function.

Table 160 (Page 1 of 2). WWFSR—ABACKUP/ARECOVER FSR Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	FIXED	2	WFSR2LENG	RDW record length.
2	(2)	FIXED	2	WFSR2SEG	RDW segment descriptor.
4	(4)	CHARACTER	1	WFSR2FLG	SMF operating environment flags:
5	(5)	FIXED	1	WFSR2RTY	SMF record type.
6	(6)	CHARACTER	4	WFSR2TME	Time of day that the SMF record was written.
10	(A)	CHARACTER	4	WFSR2DTE	Date that the SMF record was written.
14	(E)	CHARACTER	4	WFSR2SID	SMF system ID from the installation.
18	(12)	CHARACTER	8	WFSR2JBN	Name of the job that is requesting service.
26	(1A)	FIXED	8	WFSR2RST	Time the reader is started. In format *X'hhmmssth'*
34	(22)	CHARACTER	8	WFSR2RSD	Date the reader is started. In format *'yyyyddd'*
42	(2A)	CHARACTER	8	WFSR2UID	User ID that is requesting service.
50	(32)	FIXED	1	WFSR2TYPE	DFSMShsm function type: 15 (x'0F') = ABACKUP 16 (x'10') = ARECOVER
51	(33)	CHARACTER	1	*	Reserved.
52	(34)	CHARACTER	44	WFSR2DSN	Control file data set name.
96	(60)	FIXED	4	WFSR2RC	Return code from the function request.
100	(64)	FIXED	4	WFSR2REAS	Reason code from the function request.
104	(68)	CHARACTER	4	WFSR2ABCC	Secondary address space abnormal end code.
108	(6C)	CHARACTER	8	WFSR2GRP	RACF group name.
116	(74)	CHARACTER	4	WFSR2CONT	Denotes a blank or "CONT" if more than 5000 volumes processed.
120	(78)	FIXED	4	WFSR2RQN	DFSMShsm request number.
124	(7C)	CHARACTER	8	WFSR2DATR	Date when the user request was made. In format *'yyyyddd'*
132	(84)	CHARACTER	4	WFSR2TIMR	Time of day when the user request was made. In format *X'hhmmssth'*
136	(88)	CHARACTER	8	WFSR2DATS	Date the requested processing started. In format *'yyyyddd'*
144	(90)	CHARACTER	4	WFSR2TIMS	Time of day the requested processing started. In format *X'hhmmssth'*
148	(94)	CHARACTER	8	WFSR2DATE	Date the request was completed. In format *'yyyyddd'*
156	(9C)	CHARACTER	4	WFSR2TIME	Time of day the request was completed. In format *X'hhmmssth'*
160	(A0)	BITSTRING	2	WFSR2FLG2	The next 2 bytes contain the following flags for the user request:
		x...		*	Reserved.
		.1..		WFSRFTSO	When set to 1, a TSO request was issued. When set to 0, a batch request was issued.
		..x.		*	Reserved.
		...1		WFSRFWAT	When set to 1, a WAIT request was issued. When set to 0, a NOWAIT request was issued.
		.... x...		*	Reserved.
		.... .1..		WFSRFNRQ	When set to 1, NetView file transfer protocol of the files requested.
		.... ..1.		WFSRF9ATT	Format 9 DSCB extended attributes for a data set were lost during DSS RESTORE
		x		*	Reserved.
162	(A2)	FIXED	2	WFSR2_ABACKUP_XTRAMNTS	Count of extra mounts of ML2 volumes by ABACKUP due to recall takeaway.
164	(A4)	CHARACTER	4	WFSR2NTME	Time when the NetView file transfer protocol was initiated. In format *X'hhmmssth'*
168	(A8)	CHARACTER	4	WFSR2NDTE	Date the NetView file transfer protocol was initiated. In format *X'0Cyydds'*.
172	(AC)	CHARACTER	40	WFSR2NODE	The NODEID of the NetView file transfer protocol, up to five.
212	(D4)	FIXED	4	WFSR2NENT	Number of tape volser entries.
216	(D8)	CHARACTER	30	WFSR2AGNM	Aggregate group name.

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Table 160 (Page 2 of 2). WWFSR—ABACKUP/ARECOVER FSR Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
246	(F6)	CHARACTER	2	WFSR2HOST	Host identifier.
248	(F8)	FIXED	4	WFSR2L0CT	Number of level 0 data sets that were processed.
252	(FC)	FIXED	4	WFSR2MGCT	Number of migrated data sets that were processed.
256	(100)	FIXED	4	WFSR2CPCT	Number of tape copy data sets that were processed.
260	(104)	FIXED	4	WFSR2ACCT	Number of accompany data sets that were processed.
264	(108)	FIXED	4	WFSR2ALCT	Number of allocate only data sets that were processed.
268	(10C)	ADDRESS	24	*	An array of 6 reserved entries.
292	(124)	FIXED	8	WFSR2_ABACKUP_L0SPACE	Level 0 space was used during ABACKUP in KB.
300	(12C)	FIXED	8	WFSR2_ABACKUP_ML1SPACE	Migration level 1 space was used during ABACKUP in KB.
308	(134)	FIXED	8	WFSR2_ABACKUP_ML2SPACE	Migration level 2 space was used during ABACKUP in KB.
316	(13C)	FIXED	8	WFSR2_ABACKUP_TOTALSPACE	Total space was used during ABACKUP in KB.
324	(144)	CHARACTER	1	WFSR2_ABACKUP_L0SPACE_UNITS	For level 0 space units.
325	(145)	CHARACTER	1	WFSR2_ABACKUP_ML1SPACE_UNITS	For migration level 1 space units.
326	(146)	CHARACTER	1	WFSR2_ABACKUP_ML2SPACE_UNITS	For migration level 2 space units.
327	(147)	CHARACTER	1	WFSR2_ABACKUP_TOTALSPACE_UNITS	For total space units.
328	(148)	FIXED	4	WFSR2CPUTIME	ABACKUP/ARECOVER process time.
332	(14C)	CHARACTER	32	WFSR2_ACCOUNT_CODE	User specified account code.
364	(16C)	CHARACTER	0	WFSR2TAPE	Tape vol entry (up to 260)
364	(16C)	CHARACTER	6	WFSR2VOLS	Volser
370	(172)	CHARACTER		WFSR2LAST	End of control block.

As shown in Table 161, the following fields describe the WFSR2 tape volume entry:

Table 161. WFSR2—Tape Volume Entry

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	6	WFSR2TAPE	Tape volume entry.
0	(0)	CHARACTER	6	WFSR2VOLS	Tape volume serial number.

WFSR2 Control Block Cross-Reference

Table 162 (Page 1 of 2). WFSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value
WFSRFNRQ	A0	04
WFSRFTSO	A0	40
WFSRFWAT	A0	10
WFSRF9ATT	A0	02
WFSR2_ABACKUP_L0SPACE_UNITS	144	
WFSR2_ABACKUP_ML1SPACE	12C	
WFSR2_ABACKUP_ML1SPACE_UNITS	145	
WFSR2_ABACKUP_ML2SPACE	134	
WFSR2_ABACKUP_ML2SPACE_UNITS	146	
WFSR2_ABACKUP_TOTALSPACE	13C	
WFSR2_ABACKUP_TOTALSPACE_UNITS	147	
WFSR2_ABACKUP_XTRAMNTS	A2	
WFSR2ABCC	68	

Table 162 (Page 1 of 2). WFSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value
WFSR2_ACCOUNT_CODE	14C	
WFSR2ACCT	104	
WFSR2AGNM	D8	
WFSR2ALCT	108	
WFSR2CONT	74	
WFSR2CPCT	100	
WFSR2CPUTIME	148	
WFSR2DATE	94	
WFSR2DATR	7C	
WFSR2DATS	88	
WFSR2DSN	34	
WFSR2DTE	A	
WFSR2FLG	4	

Table 162 (Page 2 of 2). WFSR2 Data Area Cross-Reference Table

Name	Hex Offset	Hex Value
WFSR2FLG2	A0	
WFSR2GRP	6C	
WFSR2HOST	F6	
WFSR2JBN	12	
WFSR2LENG	0	
WFSR2L0CT	F8	
WFSR2MGCT	FC	
WFSR2NDTE	A8	
WFSR2NENT	D4	
WFSR2NODE	AC	
WFSR2NTME	A4	
WFSR2RC	60	
WFSR2REAS	64	
WFSR2RQN	78	
WFSR2RSD	22	
WFSR2RST	1A	
WFSR2RTY	5	
WFSR2SEG	2	
WFSR2SID	E	
WFSR2TAPE	16C	
WFSR2TIME	9C	
WFSR2TIMR	84	
WFSR2TIMS	90	
WFSR2TME	6	
WFSR2TYPE	32	
WFSR2UID	2A	
WFSR2VOLS	16C	

YGCB—Recycle Global Control Block

The recycle global control block (YGCB) defines the mapping for a globally addressable (within a DFSMShsm host), functional control block for recycle. The YGCB is 500 bytes long.

The contents of the YGCB can be displayed using the DISPLAY command as follows:

```
DISPLAY .YGCB.+0 LENGTHS(500)
```

Table 163 (Page 1 of 4). YGCB—Recycle Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	500	ARCYGCB	Recycle Global Control block.
This section relates to variables that are initialized at Startup, but remain valid throughout many RECYCLE requests.					
0	(0)	CHARACTER	168	YGCB_STARTUP	Section that carries over.
0	(0)	CHARACTER	8	YGCB_ID	Control block ID.
8	(8)	FIXED	1	YGCB_RETAIN_INPUT_ALLOC_BACK	This field contains a static value of 0 causing the recycle function to attempt to retain the allocation of the input tape drive across multiple source volume sets. This field may be set by SETSYS RECYCLEINPUTDEALLOCFREQ to cause the input tape drive to be released and re-allocated after the recycle of 'n' volume sets where n is between 1 and 255.
9	(9)	FIXED	1	YGCB_RETAIN_INPUT_ALLOC_MIG	This field contains a static value of 0 causing the recycle function to attempt to retain the allocation of the input tape drive across multiple source volume sets. This field may be set by SETSYS RECYCLEINPUTDEALLOCFREQ to cause the input tape drive to be released and re-allocated after the recycle of 'n' volume sets where n is between 1 and 255.
10	(A)	FIXED	1	*	Reserved.
11	(B)	FIXED	1	YGCB_MAXTASKS	SETSYS MAXRECYCLETASKS with a default of two.
The following variables are associated with serialization between RECYCLE commands submitted on different hosts.					
12	(C)	CHARACTER	8	*	Reserved.
20	(14)	CHARACTER	8	YGCB_MULTIHOST_L2	RNAME for ML2 tape.
28	(1C)	CHARACTER	8	YGCB_MULTIHOST_SP	RNAME for spill.
36	(24)	CHARACTER	8	YGCB_MULTIHOST_DA	RNAME for daily.
The following variables are associated with the maximum number of data sets or megabytes written between SYNCDEV's.					
44	(2C)	UNSIGNED	4	YGCB_SYNCDEV_DSN_INTERVAL	Number of data sets to be written between SYNCDEVs.
48	(30)	UNSIGNED	4	YGCB_SYNCDEV_STOR_INTERVAL	Number of megabytes to be written between SYNCDEVs.
52	(34)	FIXED	4	YGCB_RECYCLE_DELAY	Delay in seconds before recycle retry.
56	(38)	FIXED	2	YGCB_RECYCLE_RETRY_MAX	Max. # of auto retry recycle of the same volume.
58	(3A)	FIXED	2	*	Reserved.
60	(3C)	FIXED	4	*	Reserved.
108	(6C)	FIXED	4(16)	*	Reserved.
The following variables are associated with the bar separating the immediate queue from the defer queue.					
172	(AC)	FIXED	1	YGCB_BAR_START	Bar start percentage.
173	(AD)	FIXED	1	YGCB_BAR_BASE	Do not go below base.
174	(AE)	FIXED	1	YGCB_BAR_SECONDS	Seconds between scan.
175	(AF)	FIXED	1	YGCB_BAR_RECORDS	Records between scan.
176	(B0)	FIXED	1	YGCB_BAR_IDLE	Raise when idle tasks.
177	(B1)	FIXED	1	YGCB_BAR_EMPTY	Raise when idle tasks.
178	(B2)	FIXED	1	YGCB_BAR_LOWER	N/2 lower bound 50%.
179	(B3)	FIXED	1	YGCB_BAR_UPPER	N upper bound +50%.

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Table 163 (Page 2 of 4). YGCB—Recycle Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
180	(B4)	FIXED	1	YGCB_BAR_R1	Bar reduction.
181	(B5)	FIXED	1	YGCB_BAR_R2	50% bar division.
182	(B6)	FIXED	1	YGCB_BAR_R3	25% bar division.
183	(B7)	FIXED	1	*	Reserved.
The following variables are associated with serialization of the immediate queue between subtasks.					
184	(B8)	CHARACTER	8	YGCB_IMMED_QNAME	QNAME to serialize immediate YQE queue.
192	(C0)	CHARACTER	8	YGCB_IMMED_RNAME	RNAME to serialize immediate YQE queue.
200	(C8)	BITSTRING	4	YGCB_PATCH_FLAGS	Patchable flags.
		1...		YGCB_ISSUE_ALL_MSGS	When set to 1, issue all the messages.
		.1..		YGCB_SINGLE_BUFFER	When set to 1, issue check immediately after write. The customer can patch this bit and it is valid across multiple recycle commands.
		..1.		YGCB_LOCK_REUSE	When set to 1, Reuse Table is locked. Averages will not be updated.
		...1		YGCB_REUSE_STABLE	When set to 1, Reuse Table has been stabilized by a previous RECYCLE.
		.... 1...		YGCB_TRACE_NO_IO	When set to 1, suppress all PDA I/O traces in YTDS.
		.... .1..		YGCB_TRACE_ALL_IO	When set to 1, present all PDA I/O traces in YTDS.
		.... ..1.		YGCB_BYPASS_ALT_SYNC	When set to 1, the alternate tape SYNCDEV will be bypassed.
		1		YGCBF_RECYCLE_RETRY	When set to 1, automatically generate recycle retry after takeaway.
200	(C8)	BITSTRING	3	*	Reserved.
204	(CC)	FIXED	1	YGCB_LO_WRITTEN	Percent value from 1 to 100 that represents the lower bound range to check as valid and then written as a secondary check.
205	(CD)	FIXED	1	YGCB_HI_WRITTEN	Percent value from 1 to 100 that represents the higher bound range to check as valid and then written as a secondary check.
206	(CE)	FIXED	1	YGCB_ARCGPA	Number of minutes before releasing ARCGPA/ARCCAT in multi-host environment.
207	(CF)	FIXED	1	YGCB_SCAN_MCDS	Number of times DFSMShsm scans the MCDS looking for a MCD record.
The following two fields are for serialization of the recycle activity log. ARCENQL is the local (system) equivalent of the ARCENQG global (systems) qname.					
208	(D0)	CHARACTER	8	YGCB_LOCAL_QNAME	QNAME for local system serialization.
216	(D8)	CHARACTER	8	YGCB_LOCAL_RECYC_LOG	RNAME for local recycle activity log.
224	(E0)	FIXED	4	*	Reserved.
228	(E4)	FIXED	4	*	Reserved.
This section relates to variables for a single RECYCLE request and are cleared in ARCCPOP for each request. The following variables are associated with ARCCPRCY.					
232	(E8)	CHARACTER	104	YGCB_CPRCY	CPRCY related variables.
232	(E8)	BITSTRING	4	YGCB_CPRCY_FLAGS	Flags for ARCRCYMT.
		1...		YGCB_SINGLE_VOLUME	When set to 1, the RECYCLE command was to recycle a single volume set.
		.1..		YGCB_APPENDED	When set to 1, deferred queue has been appended to immediate.
		..1.		YGCB_FORCE	When set to 1, FORCE specified on recycle command.
		...1		YGCB_EXECUTE	When set to 1, the RECYCLE command specified EXECUTE parameter.
		.... 1...		YGCB_OUTDATASET	When set to 1, the RECYCLE command specified an OUTDATASET (dsname) parameter for output.
		.... .1..		YGCB_ELIGIBLE_FOUND	When set to 1, at least one tape met criteria.
		.... ..1.		YGCB_VERIFY	When set to 1, the RECYCLE command specified VERIFY parameter.
		1		YGCB_TAPELIST	When set to 1, the RECYCLE command specified TAPELIST parameter.
233	(E9)	1...		YGCB_TL_TOTAL	When set to 1, TAPELIST() had TOTAL() specified.
		.1..		YGCB_TPREFIX	When set to 1, TAPELIST() had PREFIX() specified.
		..1.		YGCBF_CP_ABEND	When set to 1, CPRCY was detached because CP abended.
		...1		YGCBF_ONE_BUFFER	Number of buffers for ARCYTDS to use CP for this recycle command. If set to one, then use only one buffer.
		.... 1...		YGCBF_BYPASS_CHECKFIRST	When set to 1, CHECKFIRST(N) specified for RECYCLE. When set to 0, CHECKFIRST(Y) was specified or implied.
		.... .1..		YGCB_YDSE_CELL_POOL	When set to 1, YDSE cellpool has been allocated.
		.... ..1.		YGCB_PRINT_ABEND	When set to 1, ABEND occurs in ARCPRINT during recycle processing
		x		*	Reserved.
234	(EA)	BITSTRING	1	*	Reserved.

Table 163 (Page 3 of 4). YGCB—Recycle Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
235	(EB)	BITSTRING	1	YGCB_MSG824_ISSUED	When set to 'FF'x, a recycle task has issued ARC0824I.
236	(EC)	ADDRESS	4	YGCB_CPRCY_RCBP	Address of RCB for ARCCPRCY task.
240	(F0)	ADDRESS	4	YGCB_CPRCY_TCBP	Address of TCB for ARCCPRCY task.
244	(F4)	ADDRESS	4	YGCB_MWEP	Address of MWE for RECYCLE command.
248	(F8)	BITSTRING	4	YGCB_CPRCY_TERM_ECB	Termination ECB for the ARCCPRCY task.
		x...		*	Reserved.
		.1..		YGCB_CPRCY_TERM_ECB_POSTED	ARCCPRCY complete flag (ECB posted).
		..xx xxxx		*	Reserved.
252	(FC)	FIXED	4	YGCB_NET_LIMIT	LIMIT specified.
256	(100)	FIXED	4	YGCB_INPUT_FREED	Number tapes freed.
260	(104)	FIXED	4	YGCB_OUTPUT_USED	Number tapes used.
264	(108)	FIXED	2	YGCB_PCT_VALID	Maximum percent of valid data needed for a tape volume to be eligible for recycle. Either specified on command, or defaulted to SETSYS value.
266	(10A)	FIXED	1	YGCB_PCT_BACK	Percent for backup tapes.
267	(10B)	FIXED	1	YGCB_PCT_MIGR	Percent for ML2 tapes.
268	(10C)	FIXED	4	YGCB_CPRCY_RC	ARCCPRCY return code.
272	(110)	FIXED	4	YGCB_CPRCY_REAS	ARCCPRCY reason code.
276	(114)	CHARACTER	1	YGCB_PASS	M=migration recycle pass, B=backup recycle pass.
277	(115)	FIXED	1	*	Reserved.
278	(116)	FIXED	2	YGCB_L2_PARTIALS	Maximum count of nonassociated L2 partials after RECYCLE ML2. Propagated from MGCB.
278	(116)	BITSTRING	2	*	Flags.
		1...		YGCB_L2_NOLIMIT	When set on, no limit on L2 partials after RECYCLE ML2.
		.xxx xxxx		*	Reserved.
The following variables are for the YQE queues:					
280	(118)	FIXED	4	YGCB_IMMED_NUM	Number of YQE elements on immediate YQE queue.
284	(11C)	ADDRESS	4	YGCB_IMMED_YQE_HEAD	Pointer to the head of the immediate YQE queue.
288	(120)	ADDRESS	4	YGCB_IMMED_YQE_TAIL	Pointer to the tail of the immediate YQE queue.
292	(124)	FIXED	4	YGCB_DEFER_NUM	Number of YQE elements on deferred YQE queue.
296	(128)	ADDRESS	4	YGCB_DEFER_YQE_HEAD	Pointer to the head of the deferred YQE queue.
300	(12C)	ADDRESS	4	YGCB_DEFER_YQE_TAIL	Pointer to the tail of the deferred YQE queue.
304	(130)	FIXED	4	*	Reserved.
The following variables are for TAPELIST/VERIFY:					
308	(134)	ADDRESS	4	YGCB_TAPE_DSNPTR	Pointer to dsname structure from tapelist_prefix.
312	(138)	ADDRESS	4	YGCB_TAPE_DCBPTR	Pointer to DCB for output of TAPELIST or VERIFY.
316	(13C)	FIXED	2	YGCB_GROUPS	Count of pull groups passed to ARCYLIST.
318	(13E)	FIXED	1	YGCB_LINES_IN_GROUP	Number of printed lines for current pull group.
319	(13F)	FIXED	1	YGCB_LINES_ON_PAGE	Number of printed lines on current page.
320	(140)	FIXED	4	YGCB_PULL_NUM	Number of YQE elements on pull-group YQE queue.
324	(144)	ADDRESS	4	YGCB_PULL_YQE_HEAD	Pointer to the head of the pull-group YQE queue.
328	(148)	ADDRESS	4	YGCB_PULL_YQE_TAIL	Pointer to the tail of the pull-group YQE queue.
332	(14C)	FIXED	2	YGCB_PULL_SIZE	Specified maximum number of tapes in a pull group.
334	(14E)	FIXED	2	YGCB_PULL_TOTAL	Specified total tapes for all pull groups. Valid only if YGCB_TL_TOTAL is set to 1.
336	(150)	CHARACTER	60	YGCB_RCYMT	Section that gets cleared.
The following variables are associated with ARCRCYMT:					
336	(150)	ADDRESS	4	YGCB_RCYMT_TCBP	TCB pointer for ARCRCYMT.
340	(154)	BITSTRING	4	YGCB_RCYMT_SETSYS_ECB	Work-to-do ECB for the ARCRCYMT task.
344	(158)	BITSTRING	4	YGCB_RCYMT_IMMED_ECB	Work-to-do ECB for the ARCRCYMT task.
348	(15C)	BITSTRING	4	YGCB_RCYMT_DEFER_ECB	Work-to-do ECB for the ARCRCYMT task.
352	(160)	BITSTRING	4	YGCB_RCYMT_TERM_ECB	Task terminated ECB for the ARCRCYMT task.
356	(164)	FIXED	4	YGCB_RCYMT_RC	Return code for ACCRCYMT.
360	(168)	FIXED	4	YGCB_RCYMT_REAS	Reason code for ACCRCYMT.
364	(16C)	FIXED	4	*	Reserved.
368	(170)	FIXED	4	*	Reserved.
372	(174)	FIXED	4	*	Reserved.
376	(178)	FIXED	4	*	Reserved.
380	(17C)	FIXED	4	*	Reserved.
384	(180)	FIXED	4	YGCB_PARTIAL_NUM	Number of YQE elements on partial-tape queue.
388	(184)	ADDRESS	4	YGCB_PARTIAL_YQE_HEAD	Pointer to the head of the partial-tape queue.
392	(188)	ADDRESS	4	YGCB_PARTIAL_YQE_TAIL	Pointer to the tail of the partial-tape queue.
The following variables are associated with ARCRCYVS					

Table 163 (Page 4 of 4). YGCB—Recycle Global Control Block

Offsets Decimal	(Hex)	Type	Length	Name	Description
396	(18C)	CHARACTER	96	YGCB_RCYVS	Section that gets cleared.
396	(18C)	FIXED	1	YGCB_CURR_NUM_RCYVS_TASKS	Number of ARCRCYVS tasks currently attached.
397	(18D)	FIXED	1	YGCB_RCYVS_IDLE_TASKS	Number of ARCRCYVS tasks currently idle.
398	(18E)	FIXED	2	YGCB_BTAPE_TAKEAWAY_CHECK	Maximum number of seconds before next takeaway check.
400	(190)	ADDRESS	4(15)	YGCB_YTCBP	Address of the YTCB control block for an instance of ARCRCYVS.
460	(1CC)	FIXED	4	*	Reserved.
464	(1D0)	FIXED	4	*	Reserved.
468	(1D4)	FIXED	4	*	Reserved.
472	(1D8)	FIXED	4	*	Reserved.
476	(1DC)	FIXED	4	*	Reserved.
480	(1E0)	FIXED	4	*	Reserved.
484	(1E4)	FIXED	4	*	Reserved.
488	(1E8)	FIXED	4	*	Reserved.

The reuse section is preloaded on first call to ARCZPVLD for various tape technologies. These will then be replaced with rolling averages during RECYCLE EXECUTE. Customers can patch their own values for each technology and set YGCB_LOCK_REUSE to prevent rolling average updates. The following list identifies the tape technology associated with each table entry. Note that the entry number is the same for each table (migration and backup):

1. 3480, 3480X, or 3490 standard
2. 3490 enhanced
3. 3590 standard
4. 3590 enhanced
5. 3590–E1 standard
6. 3590–E1 enhanced

492	(1EC)	CHARACTER	128	YGCB_REUSE	Reuse capacity.
492	(1EC)	FIXED	4(16)	YGCB_REUSE_L2	Reuse capacity for migration tapes.
556	(22C)	FIXED	4(16)	YGCB_REUSE_BU	Reuse capacity for backup tapes.
620	(26C)	CHARACTER	8	YGCB_END	Reserved.
620	(26C)	CHARACTER	8	YGCB_ENDID	Control block end.

The following fields describe the YGCB tape list data set name (see Table 164):

Table 164. YGCB—Tape List Data Set Name

Offsets Decimal	(Hex)	Type	Length	Name	Description
0	(0)	STRUCTURE	46	YGCB_TAPELIST_DSN	Tape list dsname built from tapelist_prefix. Valid only if YGCB_TAPE_DSNPTR not 0.
0	(0)	FIXED	2	YGCB_DSNL	Length of dsname.
2	(2)	CHARACTER	44	YGCB_TLDSN	Dsname itself.

YGCB Control Block Cross-Reference

Table 165 (Page 1 of 2). YGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
ARCYGCB	0		1
YGCB_APPENDED	E8	40	4
YGCB_ARCGPA	CE		3
YGCB_BAR_BASE	AD		3
YGCB_BAR_EMPTY	B1		3
YGCB_BAR_IDLE	B0		3
YGCB_BAR_LOWER	B2		3
YGCB_BAR_RECORDS	AF		3
YGCB_BAR_R1	B4		3
YGCB_BAR_R2	B5		3
YGCB_BAR_R3	B6		3
YGCB_BAR_SECONDS	AE		3
YGCB_BAR_START	AC		3
YGCB_BAR_UPPER	B3		3
YGCB_BTAPE_TAKEAWAY_CHECK	18E		3
YGCB_BYPASS_ALT_SYNC	C8	02	4
YGCB_CPRCY	E8		2
YGCB_CPRCY_FLAGS	E8		3
YGCB_CPRCY_RC	10C		3
YGCB_CPRCY_RCBP	EC		3
YGCB_CPRCY_REAS	110		3
YGCB_CPRCY_TCBP	F0		3
YGCB_CPRCY_TERM_ECB	F8		3
YGCB_CPRCY_TERM_ECB_POSTED	F8	40	4
YGCB_CURR_NUM_RCYVS_TASKS	18C		3
YGCB_DEFER_NUM	124		3
YGCB_DEFER_YQE_HEAD	128		3
YGCB_DEFER_YQE_TAIL	12C		3
YGCB_DSNL	0		2
YGCB_ELIGIBLE_FOUND	E8	04	4
YGCB_END	26C		2
YGCB_ENDID	26C		3
YGCB_EXECUTE	E8	10	4
YGCB_FORCE	E8	20	4
YGCB_GROUPS	13C		3
YGCB_HI_WRITTEN	CD		3
YGCB_ID	0		3
YGCB_IMMED_NUM	118		3
YGCB_IMMED_QNAME	B8		3
YGCB_IMMED_RNAME	C0		3

Table 165 (Page 1 of 2). YGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
YGCB_IMMED_YQE_HEAD	11C		3
YGCB_IMMED_YQE_TAIL	120		3
YGCB_INPUT_FREED	100		3
YGCB_ISSUE_ALL_MSGS	C8	80	4
YGCB_LINES_IN_GROUP	13E		3
YGCB_LINES_ON_PAGE	13F		3
YGCB_LO_WRITTEN	CC		3
YGCB_LOCAL_QNAME	D0		3
YGCB_LOCAL_RECYC_LOG	D8		3
YGCB_LOCK_REUSE	C8	20	4
YGCB_L2_NOLIMIT	116	80	5
YGCB_L2_PARTIALS	116		3
YGCB_MAXTASKS	B		3
YGCB_MSG824_ISSUED	EB		4
YGCB_MULTIHOST_DA	24		3
YGCB_MULTIHOST_L2	14		3
YGCB_MULTIHOST_SP	1C		3
YGCB_MWEP	F4		3
YGCB_NET_LIMIT	FC		3
YGCB_OUTDATASET	E8	08	4
YGCB_OUTPUT_USED	104		3
YGCB_PARTIAL_NUM	180		3
YGCB_PARTIAL_YQE_HEAD	184		3
YGCB_PARTIAL_YQE_TAIL	188		3
YGCB_PASS	114		3
YGCB_PATCH_FLAGS	C8		3
YGCB_PCT_BACK	10A		3
YGCB_PCT_MIGR	10B		3
YGCB_PCT_VALID	108		3
YGCB_PRINT_ABEND	E9	02	4
YGCB_PULL_NUM	140		3
YGCB_PULL_SIZE	14C		3
YGCB_PULL_TOTAL	14E		3
YGCB_PULL_YQE_HEAD	144		3
YGCB_PULL_YQE_TAIL	148		3
YGCB_RCYMT	150		2
YGCB_RCYMT_DEFER_ECB	15C		3
YGCB_RCYMT_IMMED_ECB	158		3
YGCB_RCYMT_RC	164		3
YGCB_RCYMT_REAS	168		3

Table 165 (Page 2 of 2). YGCB Data Area Cross-Reference Table

Name	Hex Offset	Hex Value	Struct Level
YGCB_RCYMT_SETSYS_ECB	154		3
YGCB_RCYMT_TCBP	150		3
YGCB_RCYMT_TERM_ECB	160		3
YGCB_RCYVS	18C		2
YGCB_RCYVS_IDLE_TASKS	18D		3
YGCB_RECYCLE_DELAY	34		3
YGCB_RECYCLE_RETRY_MAX	38		3
YGCB_RETAIN_INPUT_ALLOC_BACK	8		3
YGCB_RETAIN_INPUT_ALLOC_MIG	9		3
YGCB_REUSE	1EC		2
YGCB_REUSE_BU	22C		3
YGCB_REUSE_L2	1EC		3
YGCB_REUSE_STABLE	C8	10	4
YGCB_SCAN_MCDS	CF		3
YGCB_SINGLE_BUFFER	C8	40	4
YGCB_SINGLE_VOLUME	E8	80	4
YGCB_STARTUP	0		2
YGCB_SYNCDEV_DSN_INTERVAL	2C		3
YGCB_SYNCDEV_STOR_INTERVAL	30		3
YGCB_TAPE_DCBPTR	138		3
YGCB_TAPE_DSNPTR	134		3
YGCB_TAPELIST	E8	01	4
YGCB_TAPELIST_DSN	0		1
YGCB_TL_TOTAL	E9	80	4
YGCB_TLDSN	2		2
YGCB_TPREFIX	E9	40	4
YGCB_TRACE_ALL_IO	C8	04	4
YGCB_TRACE_NO_IO	C8	08	4
YGCB_VERIFY	E8	02	4
YGCB_YDSE_CELL_POOL	E9	04	4
YGCB_YTCBP	190		3
YGCBF_BYPASS_CHECKFIRST	E9	08	4
YGCBF_CP_ABEND	E9	20	4
YGCBF_ONE_BUFFER	E9	10	4
YGCBF_RECYCLE_RETRY	C8	01	4

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