

[illegible]

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RRRRRRRR	MM	MM	222222	FFFFFFFF	MM	MM	TTTTTTTT	BBBBBBBB	KK	KK	TTTTTTTT
RR	RR	MMMM	22	FF	MMMM	TTTT	BB	BB	KK	KK	TT
RR	RR	MMMM	22	FF	MMMM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22	FF	MM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22	FF	MM	TT	BB	BB	KK	KK	TT
RRRRRRRR	MM	MM	22	FFFFFFFF	MM	MM	TTTT	BBBBBBBB	KKKKKK		TT
RRRRRRRR	MM	MM	22	FFFFFFFF	MM	MM	TTTT	BBBBBBBB	KKKKKK		TT
RR	RR	MM	22	FF	MM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22	FF	MM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22	FF	MM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22	FF	MM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22222222	FF	MM	TT	BB	BB	KK	KK	TT
RR	RR	MM	22222222	FF	MM	TT	BB	BB	KK	KK	TT

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LL	IIIIII	SSSSSSSS
LL	IIIIII	SSSSSSSS
LL	II	SS
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LL	II	SS
LL	II	SSSSSS
LL	II	SSSSSS
LL	II	SS
LL	II	SS
LL	II	SS
LL	II	SS
LLLLLLLLLL	IIIIII	SSSSSSSS
LLLLLLLLLL	IIIIII	SSSSSSSS

(2) 71
(3) 95

DECLARATIONS
RMSFMT_BKT2 - RELATIVE FILE BUCKET FORMAT ROUTINE

```
0000 1          $BEGIN RM2FMTBKT,000,RMSRMS2,<RELATIVE-SPECIFIC EXTEND>
0000 2
0000 3 *****
0000 4 *
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0000 20 *  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0000 21 *  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 22 *
0000 23 *
0000 24 *****
0000 25
0000 26 ++
0000 27 FACILITY: RMS32
0000 28
0000 29 ABSTRACT:
0000 30 Routine to perform RELATIVE file organization specific
0000 31 EXTEND processing, that is, the formatting of the data buckets
0000 32 by writing them with zeroes.
0000 33
0000 34 ENVIRONMENT:
0000 35 STAR processor running STARLET EXEC.
0000 36
0000 37 AUTHOR: L F Laverdure,          CREATION DATE: 1-Dec-1977
0000 38
0000 39 MODIFIED BY:
0000 40
0000 41 V03-003 KBT0133          Keith B. Thompson          20-Aug-1982
0000 42 Reorganize psects
0000 43
0000 44 V03-002 KBT0115          Keith B. Thompson          6-Aug-1982
0000 45 Remove ref. to set_sifb_ptr
0000 46
0000 47 V03-001 KBT0096          Keith B. Thompson          13-Jul-1982
0000 48 Clean up psects
0000 49
0000 50 V02-007 CDS0002          C Saether                  9-Jan-1982
0000 51 Fix code that depends on exact page size buffer.
0000 52
0000 53 V02-006 CDS00001         C. Saether                  28-Aug-1981
0000 54 Don't actually lock EBK when doing formatting, only
0000 55 get a buffer.
0000 56
0000 57 V02-005 PSK00001         Paulina S. Knibbe          24-Jul-1981
```


0000 58 :
0000 59 :
0000 60 :
0000 61 :
0000 62 :
0000 63 :
0000 64 :
0000 65 :
0000 66 :
0000 67 :--
0000 68 :
0000 69 :

Fix some broken branches caused by integrating
Prologue three changes.

V02-004 REFORMAT Frederick E. Deen, Jr. 28-Jul-1980
This code was reformatted to adhere to RMS standards

V003 RAN0003 R A Newell 9-Nov-1978
File sharing code enhancements


```
0000 71      .SBTTL DECLARATIONS
0000 72
0000 73 :
0000 74 : INCLUDE FILES:
0000 75 :
0000 76
0000 77 :
0000 78 : MACROS:
0000 79 :
0000 80
0000 81      $BDBDEF
0000 82      $CSHDEF
0000 83      $IFBDEF
0000 84      $RMSDEF
0000 85
0000 86 :
0000 87 : EQUATED SYMBOLS:
0000 88 :
0000 89
0000 90 :
0000 91 : OWN STORAGE:
0000 92 :
0000 93
```



```
0000 95      .SBTTL  RM$FMT_BKT2 - RELATIVE FILE BUCKET FORMAT ROUTINE
0000 96
0000 97      :++
0000 98      : RM$FMT_BKT2 - Relative File bucket format routine
0000 99
0000 100     : This module causes the blocks of a new extent of a RELATIVE file
0000 101     : to be written with zeroes.
0000 102
0000 103     : CALLING SEQUENCE:
0000 104
0000 105     :         BSBW      RM$FMT_BKT2
0000 106
0000 107     : INPUT PARAMETERS:
0000 108
0000 109     :         R11      IMPURE AREA address
0000 110     :         R10      IFAB address
0000 111     :         R9       IRAB/IFAB address
0000 112     :         R8       RAB/FAB address
0000 113     :         R6       END VBN of EXTENT +1
0000 114     :         R1       First VBN of EXTENT
0000 115
0000 116     : IMPLICIT INPUTS:
0000 117
0000 118     :         It is assumed that the PROLOG is locked.
0000 119     :         If IFB$L_EBK is less than R1, zeroing will start with VBN IFB$L_EBK.
0000 120
0000 121     : OUTPUT PARAMETERS:
0000 122
0000 123     :         R0          STATUS
0000 124     :         R1-R5,AP   Destroyed
0000 125
0000 126     : IMPLICIT OUTPUTS:
0000 127
0000 128     :         None
0000 129
0000 130     : COMPLETION CODES:
0000 131
0000 132     :         Standard RMS.
0000 133
0000 134     : SIDE EFFECTS:
0000 135
0000 136     :         None
0000 137
0000 138     :--
0000 139
```



```
0000 141
0000 142
0000 143 : Get a buffer to zero the EXTENT.
0000 144 : NOTE: By asking for a 1-byte buffer will get minimum of 1 block
0000 145 : (will actually get an entire bucket).
0000 146
0000 147
0000 148 RM$FMT_BKT2::
51 74 AA D1 0000 149 CMPL IFB$L_EBK(R10),R1 ; EOF < start of extent?
51 74 AA D0 0004 150 BGEQU 5$ ; branch if not
51 51 DD 0006 151 MOVL IFB$L_EBK(R10),R1 ; yes - start zeroing with EBK
000C 152 5$: PUSH R1 ; save starting VBN on stack.
000C 153 $CACHE VBN=#0,SIZE=#1,- ; get a buffer for formatting.
000C 154 FLAGS=<LOCK,NOREAD>,ERR=ERREX
50 1C A4 8ED0 001A 155 POPL BDB$L_VBN(R4) ; store start VBN in BDB
50 16 A4 3C 001E 156 MOVZWL BDB$W_SIZE(R4),R0 ; get buffer length
50 01FF 8F AA 0022 157 BICW2 #^X1FF, R0 ; only use full pages
7E 50 17 9C 0027 158 ROTL #23,R0,-(SP) ; get # of blocks in buffer
14 A4 50 B0 002B 159 MOVW R0,BDB$W_NUMB(R4) ; use entire buffer for zeroing
65 50 00 6E 00 2C 0031 160 PUSH R4 ; save BDB address
30 BA 0037 161 MOVC5 #0,(SP),#0,R0,(R5) ; zero the buffer
0039 162 POPR #^M<R4,R5> ; restore BDB addr & # blocks
0039 163
0039 164 :
0039 165 : Loop writing a buffer-full of zeroes each time thru.
0039 166 :
0039 167
7E 55 1C A4 C1 0039 168 10$: ADDL3 BDB$L_VBN(R4),R5,-(SP) ; compute END VBN + 1 of blocks
003E 169 ; to be zeroed this write
56 6E D1 003E 170 CMPL (SP),R6 ; past end of extent?
0C 1B 0041 171 BLEQU 20$ ; branch if not
50 56 1C A4 C3 0043 172 SUBL3 BDB$L_VBN(R4),R6,R0 ; compute # blks for last xfer
14 A4 0200 8F 50 A5 0048 173 MULW3 R0,#5T2,BDB$W_NUMB(R4) ; and make into # bytes
FFAE' 30 004F 174 20$: BSBW RM$SEQWTBD ; go write the blocks
1C A4 8E D0 0052 175 MOVL (SP)+,BDB$L_VBN(R4) ; set start VBN for next xfer
11 50 E9 0056 176 BLBC R0,ERRXFR ; branch if write failed
56 1C A4 D1 0059 177 CMPL BDB$L_VBN(R4),R6 ; all done?
DA 1F 005D 178 BLSSU 10$ ; branch if not
005F 179
005F 180 :
005F 181 : All set, release the buffer and return to caller.
005F 182 :
005F 183
1C A4 D4 005F 184 RLS: CLRL BDB$L_VBN(R4) ; Zero VBN field again.
FF9B' 30 0062 185 BSBW RM$RLNERR ; Release buffer.
05 0065 186 RSB ; Return.
0066 187
5E 04 C0 0066 188 ERREX: ADDL2 #4,SP ; Clean start VBN off stack.
05 0069 189 RSB ; And return.
006A 190
006A 191 :
006A 192 : An error occurred on the WRITE to the file.
006A 193 : Release the buffer and return.
006A 194 :
006A 195
006A 196 ERRXFR:
50 DD 006A 197 PUSH R0 ; Save error code.
```


RM2FMTBKT
V04-000

RELATIVE-SPECIFIC EXTEND
RMSFMT_BKT2 - RELATIVE FILE BUCKET FORMA

E 4

16-SEP-1984 01:03:05
5-SEP-1984 16:24:04

VAX/VMS Macro V04-00
[RMS.SRC]RM2FMTBKT.MAR;1

Page 6
(5)

F1 10 006C 198
01 BA 006E 199
05 0070 200
0071 201
0071 202
0071 203

BSBB RLS
POPR #^M<R0>
RSB
.
END

; Clean up, release the buffer.
; restore status

RM2C
V04-

RM2FMTBKT
Symbol table

RELATIVE-SPECIFIC EXTEND

F 4

16-SEP-1984 01:03:05 VAX/VMS Macro V04-00
5-SEP-1984 16:24:04 [RMS.SRC]RM2FMTBKT.MAR;1

Page 7
(5)

\$\$PSECT_EP	=	00000000		
\$\$TMP	=	00000005		
\$\$RMSTEST	=	0000001A		
\$\$RMS_PBUGCHK	=	00000010		
\$\$RMS_TBUGCHK	=	00000008		
\$\$RMS_UMODE	=	00000004		
BDB\$\$_VBN	=	0000001C		
BDB\$\$_NUMB	=	00000014		
BDB\$\$_SIZE	=	00000016		
CSH\$\$_LOCK	=	00000001		
CSH\$\$_NOBUFFER	=	00000008		
CSH\$\$_NOREAD	=	00000004		
ERREX		00000066	R	01
ERRXFR		0000006A	R	01
IFB\$\$_EBK	=	00000074		
RLS		0000005F	R	01
RM\$CACHE		*****	X	01
RM\$FMT_BKT2		00000000	RG	01
RM\$RLNERR		*****	X	01
RM\$SEQWTBD		*****	X	01

+-----+
! Psect synopsis !
+-----+

PSECT name	Allocation	PSECT No.	Attributes														
. ABS .	00000000 (0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE				
RM\$RMS2	00000071 (113.)	01 (1.)	PIC	USR	CON	REL	GBL	NOSHR	EXE	RD	NOWRT	NOVEC	BYTE				
\$AB\$\$	00000000 (0.)	02 (2.)	NOPIC	USR	CON	ABS	LCL	NOSHR	EXE	RD	WRT	NOVEC	BYTE				

+-----+
! Performance indicators !
+-----+

Phase	Page faults	CPU Time	Elapsed Time
Initialization	30	00:00:00.06	00:00:01.39
Command processing	110	00:00:00.64	00:00:04.98
Pass 1	214	00:00:04.65	00:00:15.12
Symbol table sort	0	00:00:00.49	00:00:01.00
Pass 2	51	00:00:00.96	00:00:02.26
Symbol table output	5	00:00:00.05	00:00:00.07
Psect synopsis output	2	00:00:00.02	00:00:00.03
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	414	00:00:06.88	00:00:24.90

The working set limit was 1200 pages.
24557 bytes (48 pages) of virtual memory were used to buffer the intermediate code.
There were 30 pages of symbol table space allocated to hold 462 non-local and 3 local symbols.
203 source lines were read in Pass 1, producing 13 object records in Pass 2.
15 pages of virtual memory were used to define 14 macros.

+-----+
! Macro library statistics !
+-----+

Macro library name	Macros defined
-----	-----
\$255\$DUA28:[RMS.OBJ]RMS.MLB;1	7
\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
\$255\$DUA28:[SYSLIB]STARLET.MLB;2	3
TOTALS (all libraries)	10

568 GETS were required to define 10 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:RM2FMTBKT/OBJ=OBJ\$:RM2FMTBKT MSRC\$:RM2FMTBKT/UPDATE=(ENH\$:RM2FMTBKT)+EXECML\$/LIB+LIB\$:RMS/LIB

0323

AH-BT13A-SE
 VAX/VMS V4.0

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