

RRRRRRRRRRRR		MMM		MMM	SSSSSSSSSSSS	
RRRRRRRRRRRR		MMM		MMM	SSSSSSSSSSSS	
RRRRRRRRRRRR		MMM		MMM	SSSSSSSSSSSS	
RRR	RRR	MMMMMM	MMMMMM	SSS		
RRR	RRR	MMMMMM	MMMMMM	SSS		
RRR	RRR	MMMMMM	MMMMMM	SSS		
RRR	RRR	MMM	MMM	MMM	SSS	
RRR	RRR	MMM	MMM	MMM	SSS	
RRR	RRR	MMM	MMM	MMM	SSS	
RRRRRRRRRRRR		MMM		MMM	SSSSSSSSSS	
RRRRRRRRRRRR		MMM		MMM	SSSSSSSSSS	
RRRRRRRRRRRR		MMM		MMM	SSSSSSSSSS	
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM		SSS
RRR	RRR	MMM		MMM	SSSSSSSSSSSS	
RRR	RRR	MMM		MMM	SSSSSSSSSSSS	
RRR	RRR	MMM		MMM	SSSSSSSSSSSS	

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LL          IIIII
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LL          II
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LL          II
LL          II
LL          II
LL          II
LL          II
LLLLLLLLLL IIIII
LLLLLLLLLL IIIII
SSSSSSSS
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SSSSSS
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```


RM2OPEN
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DECLARATIONS
RM\$OPEN2 - PROCESS RELATIVE FILE PROLOG

```
0000 1 $BEGIN RM2OPEN,000,RM$RMS2,<RELATIVE SPECIFIC OPEN>
0000 2
0000 3 :
0000 4 :*****
0000 5 :*
0000 6 :* COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0000 22 :* SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 23 :*
0000 24 :*
0000 25 :*****
0000 26 :
```



```
0000 28 :++
0000 29 :
0000 30 : Facility: RMS32
0000 31 :
0000 32 : Abstract:
0000 33 :     this module provides the organization-specific
0000 34 :     open processing for relative files.
0000 35 :
0000 36 : Environment:
0000 37 :     star processor running starlet exec.
0000 38 :
0000 39 : Author: L F Laverdure,      creation date: 10-OCT-1977
0000 40 :
0000 41 : Modified By:
0000 42 :
0000 43 :     V03-007 RAS0284      Ron Schaefer      30-Mar-1984
0000 44 :     Fix STV value on error paths for RMS$_RPL and RMS$_WPL errors.
0000 45 :
0000 46 :     V03-006 DAS0001      David Solomon      25-Mar-1984
0000 47 :     Fix broken branches to RM$COPRTN.
0000 48 :
0000 49 :     V03-005 RAS0265      Ron Schaefer      9-Mar-1984
0000 50 :     Bump IFB$_AVLCL to count the BDB & buffer we allocate.
0000 51 :
0000 52 :     V03-004 KBT0475      Keith B. Thompson  26-Jan-1983
0000 53 :     Remove check for ppf open.
0000 54 :
0000 55 :     V03-003 KBT0463      Keith B. Thompson  13-Jan-1983
0000 56 :     Allocate a bdb and buffer to read in prologue
0000 57 :
0000 58 :     V03-002 KBT0130      Keith B. Thompson  20-Aug-1982
0000 59 :     Reorganize psect
0000 60 :
0000 61 :     V03-001 KBT0112      Keith B. Thompson  6-Aug-1982
0000 62 :     Remove ref to upd_sifb_eof
0000 63 :
0000 64 :     V02-013 CDS0002      C Saether          5-Feb-1982
0000 65 :     Back out V02-012. GBC is now a record attribute.
0000 66 :
0000 67 :     V02-012 CDS0001      C Saether          3-Jan-1982
0000 68 :     Return GBC field from prologue to FAB.
0000 69 :     Fix comment fields.
0000 70 :
0000 71 :     V02-011 REFORMAT      Keith B. Thompson  29-Jul-1980
0000 72 :
0000 73 : --
0000 74 :
0000 75 :
```



```

0000 77      .SBTTL DECLARATIONS
0000 78
0000 79 :
0000 80 : Include Files:
0000 81 :
0000 82 :
0000 83 :
0000 84 : Macros:
0000 85 :
0000 86
0000 87      $BDBDEF
0000 88      $FABDEF
0000 89      $IFBDEF
0000 90      $PLGDEF
0000 91      $RMSDEF
0000 92
0000 93 :
0000 94 : Equated Symbols:
0000 95 :
0000 96 :
0000 97 :
0000 98 : Own Storage:
0000 99 :
0000 100

```



```
0000 102      .SBTTL RMS$OPEN2 - PROCESS RELATIVE FILE PROLOG
0000 103
0000 104      :++
0000 105      :
0000 106      RMS$OPEN2 -
0000 107
0000 108      this routine performs the file open functions that are
0000 109      specific to the relative file organization, including:
0000 110
0000 111      1 - verify inter-process record locking not specified
0000 112           since not yet implemented
0000 113      2 - reading in the prolog and setting the ebk,dvbn,
0000 114           and mrn ifab fields based upon its contents.
0000 115      3 - setting the mrn fab field.
0000 116
0000 117      Calling sequence:
0000 118
0000 119      entered via case branch from RMS$OPEN. returns by
0000 120      jumping to RMS$OPRTN.
0000 121
0000 122      Input Parameters:
0000 123
0000 124      R11      impure area address
0000 125      R9       ifab address
0000 126      R8       fab address
0000 127
0000 128      Implicit Inputs:
0000 129
0000 130      the contents of the ifab
0000 131
0000 132      Output Parameters:
0000 133
0000 134      R0        status code
0000 135      R10       ifab addr
0000 136      R1-R5,AP destroyed
0000 137
0000 138      Implicit Outputs:
0000 139
0000 140      various fields in the ifab and fab are initialized.
0000 141
0000 142      Completion Codes:
0000 143
0000 144      standard rms, in particular suc,plg,shr,rpl, and ver.
0000 145
0000 146      Side Effects:
0000 147
0000 148      may wait quite some time for prolog to become
0000 149      free initially. leaves prolog locked.
0000 150
0000 151      --
0000 152
0000 153      RMS$OPEN2::
5E A9 95 0000 154      TSTB      IFB$B_BKS(R9)      ; make sure bks non-zero
5D 13 0003 155      BEQL      ERRIFA      ; if yes, is error
10 93 0005 156      BITB      #FAB$C_REL,-      ; really relative?
50 A9 0007 157      IFB$B_RFMORG(R9)
51 13 0009 158      BEQL      EXIT      ; aha - a bogus seq file posing
```



```
000B 159 ; as relative for sharing
000B 160 :
000B 161 : if bio access, then prolog read is not required.
000B 162 :
000B 163 :
49 22 A9 05 E0 000B 164 BBS #IFB$V_BIO,- ; leave successfully
000D 165 IFB$B_FAC(R9),SEXIT
0010 166
0010 167 :
0010 168 : read and process prolog
0010 169 :
0010 170 :
55 5A 59 D0 0010 171 MOVL R9,R10 ; set ifab addr
0200 8F 3C 0013 172 MOVZWL #512,R5 ; ask for one block to read prologue
FFE5' 30 0018 173 BSBW RMSALDBUF ; allocate bdb and buffer
3E 50 E9 001B 174 BLBC R0,EXIT ; get out on error
0084 C9 B6 001E 175 INCW IFB$W_AVLCL(R9) ; count BDB & buffer
0022 176 $CACHE VBN=#T,- ; read the prolog
0022 177 SIZE=#512,- ; (R5=buffer addr)
0022 178 FLAGS=LOCK,-
0022 179 ERR=ERRRPL
FFCA' 30 0033 180 BSBW RMSCHKSUM ; validate its checksum
23 50 E9 0036 181 BLBC R0,EXIT ; get out on error
74 A5 B1 0039 182 CMPW PLG$W_VER NO(R5),- ; supported version?
01 003C 183 #PLG$C_VER_NO
52 12 003D 184 BNEQ ERRPLV ; branch if not
003F 185
003F 186 :
003F 187 : set up ifab values
003F 188 :
003F 189 :
70 A5 D0 003F 190 MOVL PLG$L_EOF(R5),- ; copy eof vbn
74 A9 0042 191 IFB$L_EBK(R9)
68 A5 3C 0044 192 MOVZWL PLG$W_DVBN(R5),- ; copy vbn of first data bucket
00B0 C9 0047 193 IFB$L_DVBN(R9)
6C A5 D0 004A 194 MOVL PLG$L_MRN(R5),- ; copy max. record number
00AC C9 004D 195 IFB$L_MRN(R9)
5C A9 B4 0050 196 CLRW IFB$W_FFB(R9) ; set blk offset=0
0053 197
0053 198 :
0053 199 : set mrn, gbc in fab
0053 200 :
0053 201 :
00AC C9 D0 0053 202 SET: MOVL IFB$L_MRN(R9),- ; set mrn
38 A8 0057 203 FAB$L_MRN(R8)
0059 204 SEXIT: RMSSUC ; show success
00000000'EF 17 005C 205 EXIT: JMP RM$COPRTN ; & rejoin common open code
0062 206 ; note: the bdb will
0062 207 ; be released there
```



```
0062 209
0062 210 ;
0062 211 ; handle errors
0062 212 ;
0062 213 ;
0062 214 ERRIFA:
OC A8 0001841C 8F D0 0062 215 MOVL #RMS$_BKS,FAB$_STV(R8) ; set secondary error info
006A 216 RMSERR IFA ; illegal file attributes
1A 11 006F 217 BRB ERRXIT
0071 218
0071 219 ERRORG:
13 11 0071 220 RMSERR ORG ; trying to open a ppf
0076 221 BRB ERRXIT
0078 222
0078 223 ERRRPL:
OC A8 D5 0078 224 TSTL FAB$_STV(R8) ; do we have an stv?
09 12 007B 225 BNEQ 10$ ; okay use it
OC A8 50 00001000 8F C9 007D 226 BISL3 #^X1000,R0,FAB$_STV(R8) ; else set the RMS error there
0086 227 10$: RMSERR RPL ; prolog read error
008B 228
008B 229 ;
008B 230 ; (stv has ss error code)
008B 231 ;
008B 232
00000000'EF 17 008B 233 ERRXIT: JMP RM$COPRTN ; go clean up
0091 234
0091 235
0091 236 ERRPLV:
F3 11 0091 237 RMSERR PLV ; unsupported prolog version
0096 238 BRB ERRXIT
0098 239
0098 240 .END
```


RM2OPEN
Symbol table

RELATIVE SPECIFIC OPEN

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5-SEP-1984 16:24:10 [RMS.SRC]RM2OPEN.MAR;1

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\$\$PSECT_EP	= 00000000		
\$\$TMP	= 00000001		
\$\$RMSTEST	= 0000001A		
\$\$RMS_PBUGCHK	= 00000010		
\$\$RMS_TBUGCHK	= 00000008		
\$\$RMS_UMODE	= 00000004		
CSH\$M_LOCK	= 00000001		
CSH\$M_NOBUFFER	= 00000008		
ERRIFA	00000062	R	01
ERRORG	00000071	R	01
ERRPLV	00000091	R	01
ERRRPL	00000078	R	01
ERRXIT	0000008B	R	01
EXIT	0000005C	R	01
FAB\$C_REL	= 00000010		
FAB\$L_MRN	= 00000038		
FAB\$L_STV	= 0000000C		
IFB\$B_BKS	= 00000005E		
IFB\$B_FAC	= 00000022		
IFB\$B_RFMORG	= 00000050		
IFB\$L_DVBN	= 000000B0		
IFB\$L_EBK	= 00000074		
IFB\$L_MRN	= 000000AC		
IFB\$V_BIO	= 00000005		
IFB\$W_AVLCL	= 00000084		
IFB\$W_FFB	= 0000005C		
PLG\$C_VER_NO	= 00000001		
PLG\$L_EOF	= 00000070		
PLG\$L_MRN	= 0000006C		
PLG\$W_DVBN	= 00000068		
PLG\$W_VER_NO	= 00000074		
RM\$ALDBUF	*****	X	01
RM\$CACHE	*****	X	01
RM\$CHKSUM	*****	X	01
RM\$COPRTN	*****	X	01
RM\$OPEN2	00000000	RG	01
RM\$BKS	= 0001841C		
RM\$IFA	= 0001C124		
RM\$ORG	= 0001860C		
RM\$PLV	= 0001872C		
RM\$RPL	= 0001C104		
SET	00000053	R	01
SEXIT	00000059	R	01

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

PSECT name

Allocation

PSECT No.

Attributes

PSECT name	Allocation		PSECT No.	Attributes													
. ABS .	00000000	(0.)	00 (0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE			
RM\$RMS2	00000098	(152.)	01 (1.)	PIC	USR	CON	REL	GBL	NOSHR	EXE	RD	NOWRT	NOVEC	BYTE			
\$ABSS	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	32	00:00:00.08	00:00:00.59
Command processing	131	00:00:00.78	00:00:03.23
Pass 1	241	00:00:06.47	00:00:18.76
Symbol table sort	0	00:00:00.72	00:00:00.78
Pass 2	55	00:00:01.27	00:00:03.42
Symbol table output	5	00:00:00.07	00:00:00.14
Psect synopsis output	2	00:00:00.03	00:00:00.24
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	468	00:00:09.44	00:00:27.17

The working set limit was 1350 pages.
34621 bytes (68 pages) of virtual memory were used to buffer the intermediate code.
There were 40 pages of symbol table space allocated to hold 664 non-local and 1 local symbols.
240 source lines were read in Pass 1, producing 13 object records in Pass 2.
20 pages of virtual memory were used to define 19 macros.

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

Macro library name	Macros defined
-----	-----
_\$255\$DUA28:[RMS.OBJ]RMS.MLB;1	12
-\$255\$DUA28:[SYS.OBJ]LIB.MLB;1	0
-\$255\$DUA28:[SYSLIB]STARLET.MLB;2	3
TOTALS (all libraries)	15

794 GETS were required to define 15 macros.

There were no errors, warnings or information messages.

MACRO/LIS=LIS\$:RM2OPEN/OBJ=OBJ\$:RM2OPEN MSRC\$:RM2OPEN/UPDATE=(ENH\$:RM2OPEN)+EXECML\$/LIB+LIB\$:RMS/LIB

0323

AH-BT13A-SE
 VAX/VMS V4.0

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