


```

RRRRRRRR      MM      MM      SSSSSSSS      000000      FFFFFFFFFF      IIIIII      NN      NN      DDDDDDDD
RRRRRRRR      MM      MM      SSSSSSSS      000000      FFFFFFFFFF      IIIIII      NN      NN      DDDDDDDD
RR      RR      MMMM      MMMM      SS      00      00      FF      II      NN      NN      DD      DD
RR      RR      MMMM      MMMM      SS      00      00      FF      II      NN      NN      DD      DD
RR      RR      MM      MM      SS      00      0000      FF      II      NNNN      NN      DD      DD
RR      RR      MM      MM      SS      00      0000      FF      II      NNNN      NN      DD      DD
RRRRRRRR      MM      MM      SSSSSS      00      00      00      FFFFFFFF      II      NN      NN      DD      DD
RRRRRRRR      MM      MM      SSSSSS      00      00      00      FFFFFFFF      II      NN      NN      DD      DD
RR      RR      MM      MM      SS      0000      00      FF      II      NN      NNNN      DD      DD
RR      RR      MM      MM      SS      0000      00      FF      II      NN      NNNN      DD      DD
RR      RR      MM      MM      SS      00      00      FF      II      NN      NN      DD      DD
RR      RR      MM      MM      SS      00      00      FF      II      NN      NN      DD      DD
RR      RR      MM      MM      SSSSSSSS      000000      FF      IIIIII      NN      NN      DDDDDDDD
RR      RR      MM      MM      SSSSSSSS      000000      FF      IIIIII      NN      NN      DDDDDDDD

```

```

LL      IIIIII      SSSSSSSS
LL      IIIIII      SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLLLL      IIIIII      SSSSSSSS
LLLLLLLLLLLL      IIIIII      SSSSSSSS

```

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(3) 86

DECLARATIONS
RMS\$FIND - COMMON \$FIND SETUP AND DISPATCH ROUTINE

```

0000 1          $BEGIN RMSOFIND,000,RM$RMS,<DISPATCH FOR FIND OPERATION>
0000 2
0000 3
0000 4 :*****
0000 5 :*
0000 6 :*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
0000 7 :*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.
0000 8 :*  ALL RIGHTS RESERVED.
0000 9 :*
0000 10 :*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED
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0000 14 :*  OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY
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0000 16 :*
0000 17 :*  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE
0000 18 :*  AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT
0000 19 :*  CORPORATION.
0000 20 :*
0000 21 :*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0000 22 :*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0000 23 :*
0000 24 :*
0000 25 :*****
0000 26
0000 27 :++
0000 28 : Facility: rms32
0000 29
0000 30 : Abstract:
0000 31 :           this routine is the highest level control
0000 32 :           routine to perform the $find function.
0000 33 :
0000 34 :
0000 35 :
0000 36 : Environment:
0000 37 :           star processor running starlet exec.
0000 38 :
0000 39 : Author:    L F Laverdure,   creation date: 3-FEB-1977
0000 40 :
0000 41 : Modified By:
0000 42 :
0000 43 :           V03-004 KPL0003      Peter Lieberwirth      26-Jul-1983
0000 44 :           Identify RJR=FIN if this is AT journaling.
0000 45 :
0000 46 :           V03-003 KPL0002      Peter Lieberwirth      24-Jul-1983
0000 47 :           If AT journaling, get info from RAB describing user's request.
0000 48 :
0000 49 :           V03-002 KPL0001      Peter Lieberwirth      27-May-1983
0000 50 :           Insulate the case branch from truncation errors.
0000 51 :
0000 52 :           V03-001 KBT0182      Keith B. Thompson      23-Aug-1982
0000 53 :           Reorganize psects
0000 54 :
0000 55 :           V005  REFORMAT      Ken Henderson      30-JUL-1980      7:38
0000 56 :           the code was reformatted
0000 57 :

```

RMSOFIND
V04-000

DISPATCH FOR FIND OPERATION

I 15

16-SEP-1984 01:18:57 VAX/VMS Macro V04-00
5-SEP-1984 16:24:58 [RMS.SRC]RMSOFIND.MAR;1

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(1)

RM
VC

0000 58 :--
0000 59 :
0000 60


```

0000 86          .SBTTL  RMSS$FIND - COMMON $FIND SETUP AND DISPATCH ROUTINE
0000 87
0000 88      :++
0000 89      : RMSS$FIND
0000 90
0000 91      : this routine performs common rab function setup followed
0000 92      : by dispatch to organization-dependent $find code
0000 93
0000 94      : Calling sequence:
0000 95
0000 96          entered from exec as a result of user's calling sys$find
0000 97          (e.g., by using the $find macro)
0000 98
0000 99      : Input Parameters:
0000 100
0000 101          ap      user's argument list addr
0000 102
0000 103      : Implicit Inputs:
0000 104
0000 105          the contents of the rab and related irab and ifab.
0000 106
0000 107      : Output Parameters:
0000 108
0000 109          r1      destroyed
0000 110          r0      status code
0000 111
0000 112      : Implicit Outputs:
0000 113
0000 114          various fields of the rab are filled in to reflect
0000 115          the status of the $find operation. (see rms functional
0000 116          spec for a complete list.)
0000 117
0000 118          the irab is similarly updated.
0000 119
0000 120          a completion ast is queued if specified in the user arglist.
0000 121
0000 122      : Completion Codes:
0000 123
0000 124          standard rms (see functional spec for list).
0000 125
0000 126      : Side Effects:
0000 127
0000 128          none
0000 129
0000 130      :--
0000 131
0000 132          $ENTRY  RMSS$FIND
0000 133          $STPT  FIND
0000 134          $RABSET FAC=IFB$V_GET          : do common setup
0000 135
0000 136      :
0000 137      : returns to user on error
0000 138      :
0000 139
0000 140          SSB      #IRB$V_FIND,(R9)      : flag this as a find
0000 141
0000 142      :
  
```

```
09 00A0 CA 04 E1 000E 143 ; If AT journaling, get some information from RAB.
      51 OB DO 000E 144 ;
      00000000'EF 16 0014 145 BBC #IFBSV AT,IFBSB_JNLFLG(R10),5$ ; skip if not AT jnlng
      00000000'EF 16 0017 146 MOVL #RJR$ FIND,R1 ; input for AT_COM_RAB
      00000000'EF 16 0017 147 JSB RMSAT_COM_RAB ; get RAB data into RJR
      001D 148 5$:
      001D 149
      001D 150 ;
      001D 151 ; dispatch to org-dependent code
      001D 152 ;
      001D 153
      001D 154 CASE TYPE=B, SRC=IFBSB_ORGCASE(R10),-
      001D 155 DISPLIST=<10$, 20$, 30$> ; seq, rel, idx routines
      0028 156
      00000008 0028 157 .IF NE $$RMS$TEST&$$RMS_TBUGCHK
      FFDS' 31 0028 158 BRW RMS$ERRORG
      0028 159 .ENDC
      0028 160
      00000000'EF 17 0028 161 10$: JMP RMS$FIND1 ; sequential
      00000000'EF 17 0031 162 20$: JMP RMS$FIND2 ; relative
      00000000'EF 17 0037 163 30$: JMP RMS$FIND3 ; ISAM file
      003D 164
      003D 165 .END
```


RMSOFIND
Symbol table

DISPATCH FOR FIND OPERATION

M 15

16-SEP-1984 01:18:57 VAX/VMS Macro V04-00
5-SEP-1984 16:24:58 [RMS.SRC]RMSOFIND.MAR;1

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```

$$PSECT_EP      = 00000000
$$RMSTEST      = 0000001A
$$RMS_PBUGCHK  = 00000010
$$RMS_TBUGCHK  = 00000008
$$RMS_UMODE    = 00000004
IFBSB_JNLFLG   = 000000A0
IFBSB_ORGCASE  = 00000023
IFBSV_AT       = 00000004
IFBSV_GET      = 00000001
IRBSV_FIND     = 00000029
PIOA_TRACE     ***** X 01
RJRS_FIND      = 0000000B
RMSAT_COM_RAB  ***** X 01
RMSERRORG     ***** X 01
RMSFIND1       ***** X 01
RMSFIND2       ***** X 01
RMSFIND3       ***** X 01
RMSRSET        ***** X 01
RMS$FIND       = FFFFFFFE RG 01
TPTSL_FIND    ***** 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
RMSRMS	0000003D (61.)	01 (1.)	PIC USR CON REL GBL NOSHR EXE RD NOWRT NOVEC BYTE
\$ABS\$	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	29	00:00:00.07	00:00:00.87
Command processing	107	00:00:00.70	00:00:05.42
Pass 1	219	00:00:05.34	00:00:15.02
Symbol table sort	0	00:00:00.77	00:00:01.17
Pass 2	43	00:00:00.96	00:00:02.27
Symbol table output	4	00:00:00.05	00:00:00.07
Psect synopsis output	2	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	406	00:00:07.92	00:00:24.85

The working set limit was 1350 pages.
27386 bytes (54 pages) of virtual memory were used to buffer the intermediate code.
There were 30 pages of symbol table space allocated to hold 550 non-local and 7 local symbols.
165 source lines were read in Pass 1, producing 13 object records in Pass 2.
17 pages of virtual memory were used to define 16 macros.

