```
UUU          UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP
UUU          UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP
UUU          UUU  EEEEEEEEEEEEEEE  TTTTTTTTTTTTTTT  PPPPPPPPPPPP
UUU          UUU  EEE                    TTT         PPP          PPP
UUU          UUU  EEE                    TTT         PPP          PPP
UUU          UUU  EEE                    TTT         PPP          PPP
UUU          UUU  EEE                    TTT         PPP          PPP
UUU          UUU  EEE                    TTT         PPP          PPP
UUU          UUU  EEE                    TTT         PPP          PPP
UUU          UUU  EEEEEEEEEEEE           TTT         PPPPPPPPPPPP
UUU          UUU  EEEEEEEEEEEE           TTT         PPPPPPPPPPPP
UUU          UUU  EEEEEEEEEEEE           TTT         PPPPPPPPPPPP
UUU          UUU  EEE                    TTT         PPP
UUU          UUU  EEE                    TTT         PPP
UUU          UUU  EEE                    TTT         PPP
UUU          UUU  EEE                    TTT         PPP
UUU          UUU  EEE                    TTT         PPP
UUU          UUU  EEE                    TTT         PPP
UUU          UUU  EEE                    TTT         PPP
UUUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT         PPP
UUUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT         PPP
UUUUUUUUUUUUUUUU  EEEEEEEEEEEEEEE        TTT         PPP
```

```
RRRRRRRR    MM      MM    SSSSSSSS  TTTTTTTTTT  EEEEEEEEEE    SSSSSSSS  TTTTTTTTTT    666666
RRRRRRRR    MM      MM    SSSSSSSS  TTTTTTTTTT  EEEEEEEEEE    SSSSSSSS  TTTTTTTTTT    666666
RR      RR  MMMM  MMMM  SS              TT      EE          SS              TT      66
RR      RR  MMMM  MMMM  SS              TT      EE          SS              TT      66
RR      RR  MM  MM  MM  SS              TT      EE          SS              TT      66
RR      RR  MM  MM  MM  SS              TT      EE          SS              TT      66
RRRRRRRR    MM      MM    SSSSSS        TT      EEEEEEEE      SSSSSS        TT      66666666
RRRRRRRR    MM      MM    SSSSSS        TT      EEEEEEEE      SSSSSS        TT      66666666
RR  RR      MM      MM          SS      TT      EE                  SS      TT      66      66
RR  RR      MM      MM          SS      TT      EE                  SS      TT      66      66
RR    RR    MM      MM          SS      TT      EE                  SS      TT      66      66      ....
RR    RR    MM      MM          SS      TT      EE                  SS      TT      66      66      ....
RR      RR  MM      MM  SSSSSSSS        TT      EEEEEEEEEE  SSSSSSSS        TT        666666        ....
RR      RR  MM      MM  SSSSSSSS        TT      EEEEEEEEEE  SSSSSSSS        TT        666666        ....

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
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
0000     71          $BEGIN  RMSTEST6,007,__RMSTEST,<TEST MAGTAPE>,<GBL,LONG>
0000     72
0000     73
0000     74          .ENABL  DBG
0000     75
0000     76
0000     77          $DEVDEF
0000     78          .NLIST  MEB
0000     79
0000     80 ;
0000     81 ;  macros:
0000     82 ;
0000     83
0000     84          .MACRO  BUFF NAM,SIZE
0000     85 NAM'BUF::
0000     86          .BLKB   SIZE
0000     87          NAM'BSZ==SIZE
0000     88          .ENDM   BUFF
0000     89
0000     90
0000     91          .MACRO  TYPE STRING, ?L
0000     92          STORE   <STRING>
0000     93          BLBC    VERBOSITY,L
0000     94          MOVL    #$$.TMPX,CMDORAB+RAB$L_RBF
0000     95          MOVW    #$$.TMPX1,CMDORAB+RAB$W_RSZ
0000     96          $PUT    RAB=CMDORAB,ERR=REPORT_ERROR
0000     97          BSBW    ERR
0000     98 L:
0000     99          .ENDM   TYPE
0000    100
0000    101
0000    102          .MACRO  WTTYPE STRING
0000    103          $WAIT   RAB=CMDORAB
0000    104          TYPE    <STRING>
0000    105          .ENDM   WTTYPE
0000    106
0000    107
0000    108          .MACRO  STORE STRING,PRE
0000    109          .SAVE
0000    110          .PSECT  __$RMSNAM
0000    111          $$.TMPX=.
0000    112          PRE                                     ; store any carriage control info
0000    113          .ASCII  %STRING%
0000    114          $$.TMPX1=.-$$.TMPX
0000    115          .RESTORE
0000    116          .ENDM   STORE
```

```
0000   118
0000   119
0000   120          .MACRO  BEGIN TSTNAM
0000   121          STORE   <TSTNAM>
0000   122          MOVL    #$$.TMPX,BEG_DESCR+4    ; addr
0000   123          MOVL    #$$.TMPX1,BEG_DESCR     ; len
0000   124          BSBW    BEGPUT
0000   125          .ENDM   BEGIN
0000   126          .MACRO  FINISH TSTNAM
0000   127          STORE   <TSTNAM>
0000   128          MOVL    #$$.TMPX,FIN_DESCR+4    ; addr
0000   129          MOVL    #$$.TMPX1,FIN_DESCR     ; len
0000   130          BSBW    FINPUT
0000   131          .ENDM   FINISH
0000   132          .MACRO  FIELD FLDNAM
0000   133          STORE   <FLDNAM>
0000   134          MOVL    #$$.TMPX,FLD_DESCR+4    ; addr
0000   135          MOVL    #$$.TMPX1,FLD_DESCR     ; len
0000   136          BSBW    FLDPUT
0000   137          .ENDM   FIELD
0000   138          .MACRO  MBPT, ?L
0000   139          BLBC    VERBOSITY,L
0000   140          BPT
0000   141 L:
0000   142          .ENDM   MBPT
0000   143
0000   144
```

```
                00000000   146          .PSECT   RMSTEST,GBL,LONG
                    0000   147          .ALIGN  LONG
                    0000   148 T6START::
                    0000   149 MTAFAB: $FAB    DNM=<TST$MTA:.FIL;1>,fns=fnsize
                    0050   150 MTARAB: $RAB    RHB=RHBBUF,UBF=IOBUF,FAB=MTAFAB
                    0094   151          BUFF    IO,512.
          00000000  0294   152 BUF:    .LONG   0                       ; key for random lookup
                    0298   153
                    0298   154 ;
                    0298   155 ;  file names for various files
                    0298   156 ;
                    0298   157
                    0298   158 MTVAR_FNM:
   52 41 56 54 4D   0298   159          .ASCII  \MTVAR\
          00000005  029D   160          FNSIZE=.-MTVAR_FNM
                    029D   161 MTFIX_FNM:
   58 49 46 54 4D   029D   162          .ASCII  \MTFIX\
                    02A2   163 MTVFC_FNM:
   43 46 56 54 4D   02A2   164          .ASCII  \MTVFC\
                    02A7   165 MTST1_FNM:
   31 54 53 54 4D   02A7   166          .ASCII  \MTST1\
                    02AC   167 NONFIL_FNM:
   58 49 46 46 4E   02AC   168          .ASCII  \NFFIX\
```

```
                        02B1   170
                        02B1   171 ;
                        02B1   172 ;
                        02B1   173 ; this is a test program to test out the use of magtapes through rms-32
                        02B1   174 ; it exercises the basic functionality
                        02B1   175 ;
                        02B1   176
                        02B1   177 TST$MTA::
                   0FFC 02B1   178         .WORD   ^M<R2,R3,R4,R5,R6,R7,R8,R9,R10,R11>
                        02B3   179
                        02B3   180 ;
                        02B3   181 ; create 3 files on the tape - with different record formats, and fill them
                        02B3   182 ;
                        02B3   183
                        02B3   184         BEGIN   <MAGTAPE TESTS>
                        02C8   185
                        02C8   186 ;
                        02C8   187 ; the 1st file -- rfm=fix
                        02C8   188 ;
                        02C8   189
              59 FD84 CF DE 02C8   190         MOVAL   MTARAB,R9
                        02CD   191         $FAB_STORE      FAB=MTAFAB,RFM=FIX,MRS=#50,FNA=MTFIX_FNM,-
                        02CD   192         FOP=<RWO,SUP>,RAT=<CR,BLK>,FAC=PUT
                        02EF   193         $RAB_STORE      RAB=R9,RSZ=#50,RBF=IOBUF
                        02F9   194
                        02F9   195 ;
                        02F9   196 ; create a file and close it in order to discover if the device is mounted foreign
                        02F9   197 ;
                        02F9   198
                        02F9   199         $CREATE FAB=MTAFAB,ERR=REPORT_ERROR
                FCF3'   30 030A   200         BSBW    ERR
                07B2    30 030D   201         BSBW    CLOSE_MT
     04 FD2B CF   18    E0 0310   202         BBS     #DEV$V_FOR,FAB$L_DEV+MTAFAB,5$
                0005    30 0316   203         BSBW    STRMT
                        04 0319   204         RET
                051E    30 031A   205 5$:     BSBW    NON_FILE
                        04 031D   206         RET
                        031E   207 STRMT:
                        031E   208         TYPE    <CREATE 3 TEST FILES ON TAPE>
              56   32    D0 034D   209         MOVL    #50,R6                  ; alternate record size
                0758    30 0350   210         BSBW    DO_PUT
                        0353   211
                        0353   212 ;
                        0353   213 ;  now the 2nd file w/ rfm = var
                        0353   214 ;
                        0353   215
                        0353   216         $FAB_STORE      FAB=MTAFAB,FNA=MTVAR_FNM,RFM=VAR,MRS=#0,BLS=#512,-
                        0353   217         FOP=<POS,SUP>
        04 40 A0    05  E1 0373   218         BBC     #DEV$V_SQD,FAB$L_DEV(R0),10$; branch if not magtape
           1E A0    08  8A 0378   219         BICB2   #FAB$M_BLK,FAB$B_RAT(R0); verify blk defaulting
                        037C   220 10$:     $RAB_STORE      RAB=R9,RSZ=#79  ; primary length
              56   3B    9A 0382   221         MOVZBL  #59,R6                  ; alternate size
                0723    30 0385   222         BSBW    DO_PUT
                        0388   223
                        0388   224 ;
                        0388   225 ;  now the 3rd file w/ rfm = vfc
                        0388   226 ;
```

```
                     0388   227
                     0388   228          $FAB_STORE      FAB=MTAFAB,FNA=MTVFC_FNM,RFM=VFC,BLS=#1024,-
                     0388   229          FOP=<POS,RWC,SUP>,FSZ=#4
                     03A9   230          $RAB_STORE      RAB=R9,RSZ=#75  ; primary size
56   37   D0         03AF   231          MOVL    #55,R6                  ; alternate size
   06F6   30         03B2   232          BSBW    DO_PUT
```

```
                                03B5    234
                                03B5    235 ;++
                                03B5    236 ;
                                03B5    237 ;  reread 3 created files and verify their contents
                                03B5    238 ;
                                03B5    239 ;--
                                03B5    240
                                03B5    241          TYPE    <RE-READ FILES CREATED IN STEP 1>
                                03E4    242          $RAB_STORE      RAB=R9,ROP=<LOC>
                                03EC    243          $FAB_STORE      FAB=MTAFAB,FNA=MTFIX_FNM,FOP=#0,-
                                03EC    244          RAT=#0,ORG=REL,FAC=<GET,BRO>
                    072F    30  0406    245          BSBW    OPEN_MT
          01    FC12 CF     91  0409    246          CMPB    MTAFAB+FAB$B_RFM,#FAB$C_FIX; is it fixed rfm?
                      15    13  040E    247          BEQL    RMT1
                                0410    248          FIELD   <RFM (NOT = FIXED)>
        1E FC16 CF    05    E1  0425    249 RMT1:    BBC     #DEV$V_SQD,FAB$L_DEV+MTAFAB,RMT2; skip test if disk
    0800 8F     FC0D CF     B1  042B    250          CMPW    MTAFAB+FAB$W_BLS,#2048  ; is block size right?
                      15    13  0432    251          BEQL    RMT2
                                0434    252          FIELD   <BLS>
          32    FBE9 CF     B1  0449    253 RMT2:    CMPW    MTAFAB+FAB$W_MRS,#0     ; is record size right?
                      15    13  044E    254          BEQL    RMT3
                                0450    255          FIELD   <MRS>
                    0738    30  0465    256 RMT3:    BSBW    READ_MT                 ; read and verify records
                         32 32  0468    257          .BYTE   50,50
                    081A    30  046A    258          BSBW    EOF_CLOSE               ; check eof and close
                                046D    259
                                046D    260 ;
                                046D    261 ;  2nd file
                                046D    262 ;
                                046D    263
                                046D    264          $FAB_STORE      FAB=MTAFAB,FNA=MTVAR_FNM,RAT=#0,ORG=REL
                    06B6    30  047F    265          BSBW    OPEN_MT
          02    FB99 CF     91  0482    266          CMPB    MTAFAB+FAB$B_RFM,#FAB$C_VAR
                      15    13  0487    267          BEQL    RMT4
                                0489    268          FIELD   <RFM (NOT = VAR)>
    0200 8F     FB9A CF     B1  049E    269 RMT4:    CMPW    MTAFAB+FAB$W_BLS,#512   ; is block size correct?
                      15    13  04A5    270          BEQL    RMT5
                                04A7    271          FIELD   <BLS>
                FB76 CF     B5  04BC    272 RMT5:    TSTW    MTAFAB+FAB$W_MRS        ; is max record size right?
                      15    13  04C0    273          BEQL    RMT6
                                04C2    274          FIELD   <MRS>
                    06C1    30  04D7    275 RMT6:    BSBW    READ_MT_VAR             ; read & verify records
                    07AA    30  04DA    276          BSBW    EOF_CLOSE
                                04DD    277
                                04DD    278 ;
                                04DD    279 ;  3rd file
                                04DD    280 ;
                                04DD    281
                                04DD    282          $FAB_STORE      FAB=MTAFAB,FNA=MTVFC_FNM,RAT=#0,ORG=REL
                    0646    30  04EF    283          BSBW    OPEN_MT
          03    FB29 CF     91  04F2    284          CMPB    FAB$B_RFM+MTAFAB,#FAB$C_VFC; right record format?
                      15    13  04F7    285          BEQL    RMT7
                                04F9    286          FIELD   <RFM (NOT = VFC)>
        1E FB2D CF    05    E1  050E    287 RMT7:    BBC     #DEV$V_SQD,FAB$L_DEV+MTAFAB,RMT8; skip test if disk
    0400 8F     FB24 CF     B1  0514    288          CMPW    MTAFAB+FAB$W_BLS,#1024  ; right block size?
                      15    13  051B    289          BEQL    RMT8
                                051D    290          FIELD   <BLS>
```

```
FB00 CF   B5  0532   291 RMT8:   TSTW    MTAFAB+FAB$W_MRS        ; mrs ok?
     15   13  0536   292         BEQL    RMT9
                0538   293         FIELD   <MRS>
   0650   30  054D   294 RMT9:   BSBW    READ_MT
       37 4B  0550   295         .BYTE   75,55
   0732   30  0552   296         BSBW    EOF_CLOSE
```

```
                     0555   298
                     0555   299 ;++
                     0555   300 ;
                     0555   301 ;  re-open mtvar.fil and test spacing and rewind
                     0555   302 ;
                     0555   303 ;--
                     0555   304
                     0555   305          TYPE    <PERFORM SPACING AND REWIND TESTS>
                     0584   306          $FAB_STORE      FAB=MTAFAB,FNA=MTVAR_FNM
          05A6   30  058F   307          BSBW    OPEN_MT
                     0592   308          $RAB_STORE      RAB=R9,BKT=#16  ; space count
                     0596   309          $SPACE  R9
          06F3   30  059F   310          BSBW    CHKEOF1                 ; verify at eof
                     05A2   311          $RAB_STORE      R9,BKT=#16
                     05A6   312          $SPACE  R9                      ; space forward at eof
          06E3   30  05AF   313          BSBW    CHKEOF1                 ; verify still at eof
                     05B2   314          $RAB_STORE      R9,BKT=#-16     ; backspace count
                     05BA   315          $SPACE  R9
          06DF   30  05C3   316          BSBW    CHKBOF                  ; verify at start of file
                     05C6   317          $RAB_STORE      R9,BKT=#8
                     05CA   318          $SPACE  RAB=R9,ERR=REPORT_ERROR
          FA24'  30  05D9   319          BSBW    ERR
                     05DC   320          $RAB_STORE      R9,BKT=#0       ; count = 0
                     05DF   321          $SPACE  RAB=R9,ERR=REPORT_ERROR
          FA0F'  30  05EE   322          BSBW    ERR
                     05F1   323          $RAB_STORE      R9,BKT=#-4
                     05F9   324          $SPACE  RAB=R9,ERR=REPORT_ERROR
          F9F5'  30  0608   325          BSBW    ERR
                     060B   326
                     060B   327 ;
                     060B   328 ;  read records from block 4 thru end of file, verifying goodness
                     060B   329 ;
                     060B   330
    57    39   9A  060B   331          MOVZBL  #^A/!/+24,R7            ; starting rec #
      0592     30  060E   332          BSBW    LOOP1                   ; verify records
         3B 4F     0611   333          .BYTE   79,59
                     0613   334          $RAB_STORE      R9,BKT=#-100
                     061B   335          $SPACE  R9
          067E   30  0624   336          BSBW    CHKBOF                  ; verify at start
          0571   30  0627   337          BSBW    READ_MT_VAR
                     062A   338          $REWIND RAB=R9,ERR=REPORT_ERROR
          F9C4'  30  0639   339          BSBW    ERR
          055C   30  063C   340          BSBW    READ_MT_VAR
          0645   30  063F   341          BSBW    EOF_CLOSE
```

```
                                0642    343
                                0642    344 ;++
                                0642    345 ;
                                0642    346 ;  test of "create if" and $nxtvol
                                0642    347 ;
                                0642    348 ;--
                                0642    349
                                0642    350         TYPE    <PERFORM "CREATE IF", $TRUNCATE  AND $NXTVOL TESTS>
                                0671    351         $FAB_STORE      FAB=MTAFAB,FAC=PUT,FNA=MTST1_FNM,-
                                0671    352         FOP=CIF,RFM=VAR
                                068C    353         $ERASE  FAB=R0                  ; erase in case disk file
                         0475   30      0695    354         BSBW    CREATE_MT
00000000'8F     F96C CF         D1      0698    355         CMPL    MTAFAB+FAB$L_STS,#RMS$_CREATED
                           18   13      06A1    356         BEQL    RMT11
                                06A3    357         FIELD   <STS (EXPECTED "RMS$_CREATED")>
                       F945'    30      06B8    358         BSBW    ERR
                                06BB    359 RMT11:  $RAB_STORE      RAB=R9,RBF=IOBUF,RSZ=#50
                  04 A9    02   88      06C5    360         BISB2   #RAB$M_TPT,RAB$L_ROP(R9); allow put not at eof
                                06C9    361         $PUT    RAB=R9,ERR=REPORT_ERROR
                       F925'    30      06D8    362         BSBW    ERR
                       03E4     30      06DB    363         BSBW    CLOSE_MT
                                06DE    364
                                06DE    365 ;
                                06DE    366 ;  now re-open file just created above and overwrite record
                                06DE    367 ;
                                06DE    368
                                06DE    369         $FAB_STORE      FAB=MTAFAB,FAC=<GET,PUT,TRN>,FOP=<CIF,NEF>
                         041B   30      06EF    370         BSBW    CREATE_MT
00000000'8F     F912 CF         D1      06F2    371         CMPL    MTAFAB+FAB$L_STS,#RMS$_NORMAL
                           18   13      06FB    372         BEQL    RMT12
                                06FD    373         FIELD   <STS (EXPECTED "NORMAL")>
                       F8EB'    30      0712    374         BSBW    ERR
                                0715    375 RMT12:  $RAB_STORE      RAB=R9,RBF=IOBUF,RSZ=#79
                  56    3B    D0      0721    376         MOVL    #59,R6                  ; alternate rec size
                       03B0     30      0724    377         BSBW    PUTRECS
                                0727    378
                                0727    379 ;
                                0727    380 ;       test truncate
                                0727    381 ;
                                0727    382
                       03AD     30      0727    383         BSBW    PUTRECS                 ; write 2nd half of file
                                072A    384         $REWIND RAB=R9,ERR=REPORT_ERROR
                       F8C4'    30      0739    385         BSBW    ERR
                       045C     30      073C    386         BSBW    READ_MT_VAR             ; read 1st half of file
                                073F    387         $GET    RAB=R9,ERR=REPORT_ERROR ; need to advance the current
                       F8AF'    30      074E    388         BSBW    ERR                     ; record pointer before truncate
                                0751    389         $TRUNCATE       RAB=R9,ERR=REPORT_ERROR
                       F89D'    30      0760    390         BSBW    ERR                     ; truncate 2nd half of file
                       0526     30      0763    391         BSBW    CHKEOF                  ; check for eof
                                0766    392         $RAB_STORE      RAB=R9,RBF=IOBUF,RSZ=#79
                  56    3B    D0      0772    393         MOVL    #59,R6
                       035F     30      0775    394         BSBW    PUTRECS                 ; re-put 2nd half
                                0778    395         $REWIND RAB=R9,ERR=REPORT_ERROR
                       F876'    30      0787    396         BSBW    ERR
                       040E     30      078A    397         BSBW    READ_MT_VAR             ; read 1st half
                       040B     30      078D    398         BSBW    READ_MT_VAR             ; read 2nd half, verifying
                       04F9     30      0790    399         BSBW    CHKEOF                  ; check for eof again
```

```
                     0793    400          $REWIND RAB=R9,ERR=REPORT_ERROR
          F85B'   30 07A2    401          BSBW    ERR
          03F3    30 07A5    402          BSBW    READ_MT_VAR              ; read 1st half
                     07A8    403          $GET    RAB=R9,ERR=REPORT_ERROR ; need to advance the current
          F846'   30 07B7    404          BSBW    ERR                      ; record pointer before truncate
                     07BA    405          $TRUNCATE       RAB=R9,ERR=REPORT_ERROR; trunc 2nd half
          F834'   30 07C9    406          BSBW    ERR                      ; leave file as before
 19 F86F CF    05   E1 07CC    407          BBC     #DEV$V_SQD,FAB$L_DEV+MTAFAB,20$; branch if not really mt
  12 00000000'EF    E9 07D2    408          BLBC    VERBOSITY,20$            ; branch if not interactive
                     07D9    409          $NXTVOL RAB=R9,ERR=REPORT_ERROR
          F815'   30 07E8    410          BSBW    ERR
                     07EB    411 20$:     $RAB_STORE      RAB=R9,RBF=IOBUF,RSZ=#79
       56    3B   D0 07F7    412          MOVL    #59,R6
          02DA    30 07FA    413          BSBW    PUTRECS
                     07FD    414          $REWIND RAB=R9,ERR=REPORT_ERROR
          F7F1'   30 080C    415          BSBW    ERR
          0389    30 080F    416          BSBW    READ_MT_VAR              ; read recs from rel vol 1
          0386    30 0812    417          BSBW    READ_MT_VAR              ; read recs form rel vol 2
                     0815    418          $FAB_STORE      FAB=MTAFAB,FOP=<RWC>; cause volume set rewind
          0462    30 0822    419          BSBW    EOF_CLOSE
                     0825    420          FINISH  <MAGTAPE TESTS>
                     083A    421
                  05 083A    422          RSB
```

```
                                083B    424
                                083B    425 ;++
                                083B    426 ; non-file structured tests
                                083B    427 ;--
                                083B    428
                                083B    429 ;
                                083B    430 ; first write out a fix length 512 byte record file
                                083B    431 ; note:  set tst$mta to disk if non_file structured disk test wanted.
                                083B    432 ; mount/fo dev /rec=512/blo=512
                                083B    433 ;
                                083B    434
                                083B    435 NON_FILE:
                                083B    436         TYPE    <NON_FILE STRUCTURE CREATE TEST>
     59    F7E2 CF    DE        086A    437         MOVAL   MTARAB,R9
                                086F    438         $FAB_STORE      FAB=MTAFAB,RFM=FIX,MRS=#512,FNA=NONFIL_FNM,-
                                086F    439         RAT=#0,FAC=PUT,BLS=#512
                                0891    440         $RAB_STORE      RAB=R9,RSZ=#512,RBF=IOBUF
56    00000200 8F    D0        089D    441         MOVL    #512,R6
            0204    30        08A4    442         BSBW    DO_PUT
                                08A7    443
                                08A7    444 ;
                                08A7    445 ; now open file and check attributes
                                08A7    446 ;
                                08A7    447
                                08A7    448         $RAB_STORE      RAB=R9,ROP=<LOC>
                                08AF    449         $FAB_STORE      FAB=MTAFAB,FNA=NONFIL_FNM,FOP=#0,RAT=#0,-
                                08AF    450         FAC=<GET,BRO>
            0270    30        08C5    451         BSBW    OPEN_MT
                                08C8    452         $REWIND RAB=R9,ERR=REPORT_ERROR
            F726'   30        08D7    453         BSBW    ERR
            01E5    30        08DA    454         BSBW    CLOSE_MT
50    00000000'8F    D0        08DD    455         MOVL    #MTAFAB,R0
            0251    30        08E4    456         BSBW    OPEN_MT
     01    F734 CF    91        08E7    457         CMPB    MTAFAB+FAB$B_RFM,#FAB$C_FIX
               15    13        08EC    458         BEQL    NF10
                                08EE    459         FIELD   <RFM(NOT FIXED)>
  1E F738 CF    05    E1        0903    460 NF10:   BBC     #DEV$V_SQD,FAB$L_DEV+MTAFAB,NF20
0200 8F    F72F CF    B1        0909    461         CMPW    MTAFAB+FAB$W_BLS,#512
               15    13        0910    462         BEQL    NF20
                                0912    463         FIELD   <BLS>
0200 8F    F70B CF    B1        0927    464 NF20:   CMPW    MTAFAB+FAB$W_MRS,#512
               15    13        092E    465         BEQL    NF30
                                0930    466         FIELD   <MRS>
  03 F6F6 CF    05    E0        0945    467 NF30:   BBS     #DEV$V_SQD,FAB$L_DEV+MTAFAB,NF35
            0089    31        094B    468         BRW     NF40
                                094E    469 NF35:   TYPE    <NON-FILE STRUCTURED MT TESTS>
                                097D    470         $RAB_STORE      RAB=R9,BKT=#10
                                0981    471         $SPACE  RAB=R9,ERR=REPORT_ERROR
            F66D'   30        0990    472         BSBW    ERR
                                0993    473
                                0993    474 ;
                                0993    475 ; read records from block 11 thru end
                                0993    476 ;
                                0993    477
     57    2B    9A            0993    478         MOVZBL  #^A/!/ + 10,R7
            020A    30        0996    479         BSBW    LOOP1
                00 00         0999    480         .BYTE   0,0
```

```
                                 099B   481          $RAB_STORE      RAB=R9,BKT=#-10
                                 09A3   482          $SPACE  RAB=R9,ERR=REPORT_ERROR
                          F64B'  30     09B2   483          BSBW    ERR
                       57 71 8F  9A     09B5   484          MOVZBL  #^X71,R7
                          01E7   30     09B9   485          BSBW    LOOP1
                             00  00     09BC   486          .BYTE   0,0
                          02C6   30     09BE   487          BSBW    EOF_CLOSE
                                 09C1   488          FINISH  <NON-FILE STRUCTURED MT TESTS>
                                 05     09D6   489          RSB
                                 09D7   490
                                 09D7   491 ;
                                 09D7   492 ; non-file structured random disk test
                                 09D7   493 ;
                                 09D7   494
                                 09D7   495 NF40:    TYPE    <NON_FILE STRUCTURED RANDOM DISK TEST>
                                 0A06   496
                                 0A06   497 ;
                                 0A06   498 ; now open for keyed access
                                 0A06   499 ;
                                 0A06   500
                                 0A06   501          $RAB_STORE      RAB=R9,ROP=<LOC>,RAC=<KEY>,KBF=BUF
                    F877 CF   01 9A     0A18   502          MOVZBL  #1,BUF
                          0034   30     0A1D   503          BSBW    CHECK_ONE
                 F86E CF   59 8F  9A     0A20   504          MOVZBL  #89,BOF
                          002B   30     0A26   505          BSBW    CHECK_ONE
                    F866 CF   19 9A     0A29   506          MOVZBL  #25,BOF
                                 0A2E   507
                          0023   30     0A2E   508 NF50:    BSBW    CHECK_ONE
          F3 F85A CF   00000059 8F  F3     0A31   509          AOBLEQ  #89,BOF,NF50
                          0084   30     0A3B   510          BSBW    CLOSE_MT
                                 0A3E   511          FINISH  <NON-FILE STRUCTURE DISK TESTS>
                                 05     0A53   512          RSB
                                 0A54   513
                                 0A54   514 ;
                                 0A54   515 ; check one disk record
                                 0A54   516 ;
                                 0A54   517
                                 0A54   518 CHECK_ONE:
                                 0A54   519          $GET    RAB=R9,ERR=REPORT_ERROR
                          F59A'  30     0A63   520          BSBW    ERR
                       50   21 9A     0A66   521          MOVZBL  #^A/!/,R0
                    50 F827 CF  C0     0A69   522          ADDL2   BUF,R0
                 22 A9 0200 8F  B1     0A6E   523          CMPW    #512,RAB$W_RSZ(R9)
                          15   13     0A74   524          BEQL    ONE10
                                 0A76   525          FIELD   <RSZ>
6E 00 50 28 B9 22 A9      2D     0A8B   526 ONE10:  CMPC5   RAB$W_RSZ(R9),@RAB$L_RBF(R9),R0,-
                                 0A93   527          #0,(SP)
                          15   13     0A93   528          BEQL    ONE20
                                 0A95   529          FIELD   <RECORD>
                                 05     0AAA   530 ONE20:  RSB
```

```
                        0AAB   532
                        0AAB   533 ;++
                        0AAB   534 ;
                        0AAB   535 ;  subroutines to do the nitty-gritties of the magtape tests
                        0AAB   536 ;
                        0AAB   537 ;--
                        0AAB   538 ;
                        0AAB   539 ;       routine to create a magtape test file
                        0AAB   540 ;
                        0AAB   541 ;       r9 points to the rab
                        0AAB   542 ;       rab$w_rsz(r9) contains the size of the records to be output
                        0AAB   543 ;       r6 is the alternate size of the records to be output
                        0AAB   544 ;       r7 will be destroyed
                        0AAB   545 ;       r0 has fab address
                        0AAB   546 ;
                        0AAB   547 ;--
                        0AAB   548
                        0AAB   549 DO_PUT:
005F   30               0AAB   550         BSBW    CREATE_MT
  27   10               0AAE   551         BSBB    PUTRECS                 ; create the records
                        0AB0   552         $DISCONNECT     RAB=R9,ERR=REPORT_ERROR
F53E'  30               0ABF   553         BSBW    ERR
                        0AC2   554 CLOSE_MT:
                        0AC2   555         $CLOSE  FAB=MTAFAB,ERR=REPORT_ERROR
F52A'  30               0AD3   556         BSBW    ERR
       05               0AD6   557         RSB
                        0AD7   558
                        0AD7   559 ;
                        0AD7   560 ;  subroutine to actually put the records in the file
                        0AD7   561 ;
                        0AD7   562
                        0AD7   563 PUTRECS:
                  57    21   D0  0AD7   564         MOVL    #^A/!/,R7               ; starting character
                        0ADA   565 LOOP:                                ; loop to put  records out
F5B1 CF   22 A9   57    6E   00  2C  0ADA   566         MOVC5   #0,(SP),R7,RAB$W_RSZ(R9),IOBUF; fill iobuf w/ characters
                 2C B9  57    D0  0AE3   567         MOVL    R7,@RAB$L_RHB(R9)       ; fill in header
                        0AE7   568         $PUT    RAB=R9,ERR=REPORT_ERROR
                    F507'  30  0AF6   569         BSBW    ERR
                 50   22 A9   B0  0AF9   570         MOVW    RAB$W_RSZ(R9),R0        ; swap rec lengths
                 22 A9   56   B0  0AFD   571         MOVW    R6,RAB$W_RSZ(R9)
                    56   50   D0  0B01   572         MOVL    R0,R6
          CE 57  0000007B 8F   F2  0B04   573         AOBLSS  #^X7B,R7,LOOP
                               05  0B0C   574         RSB
```

```
                                0B0D    576
                                0B0D    577 ;
                                0B0D    578 ;  routine to create a file
                                0B0D    579 ;
                                0B0D    580
                                0B0D    581 CREATE_MT:
                                0B0D    582             $CREATE FAB=MTAFAB.ERR=REPORT_ERROR
                     F4DF'  30  0B1E    583             BSBW    ERR
                 F4DF  CF   D4  0B21    584             CLRL    FAB$L_FOP+MTAFAB
                                0B25    585             $CONNECT        RAB=R9,ERR=REPORT_ERROR
                     F4C9'  30  0B34    586             BSBW    ERR
                            05  0B37    587             RSB
                                0B38    588
                                0B38    589
                                0B38    590 ;
                                0B38    591 ;  routine to open a mt file
                                0B38    592 ;
                                0B38    593
                                0B38    594 OPEN_MT:
                                0B38    595             $OPEN   FAB=R0,ERR=REPORT_ERROR
                     F4B6'  30  0B47    596             BSBW    ERR
                                0B4A    597             $CONNECT        RAB=R9,ERR=REPORT_ERROR
                     F4A4'  30  0B59    598             BSBW    ERR
          00     F4BD  CF   91  0B5C    599             CMPB    MTAFAB+FAB$B_ORG,#FAB$C_SEQ
                        15   13  0B61    600             BEQL    OPN1
                                0B63    601             FIELD   <ORG (NOT SEQUENTIAL)>
    1C F4C3  CF    18   E0  0B78    602 OPN1:   BBS     #DEV$V_FOR,FAB$L_DEV+MTAFAB,OPN2; branch if foreign test
       F49B  CF    02   93  0B7E    603             BITB    #FAB$M_CR,MTAFAB+FAB$B_RAT
                        15   12  0B83    604             BNEQ    OPN2
                                0B85    605             FIELD   <RAT (CR NOT SET)>
                            05  0B9A    606 OPN2:   RSB
```

```
                                0B9B    608
                                0B9B    609 ;
                                0B9B    610 ;  read and check magtape file
                                0B9B    611 ;
                                0B9B    612
                                0B9B    613 READ_MT_VAR:
                          03    10  0B9B    614         BSBB    READ_MT
                            3B  4F  0B9D    615         .BYTE   79,59
                                05  0B9F    616         RSB
                                0BA0    617
                                0BA0    618 READ_MT:
                       57       21  0BA0    619         MOVL    #^A/!/,R7                       ; starting character
                                0BA3    620 LOOP1:
                    51    3C    A9  0BA3    621         MOVL    RAB$L_FAB(R9),R1                ; Get the FAB address
                    1F    A1    01  91  0BA7    622         CMPB    #FAB$C_FIX,FAB$B_RFM(R1) ; See if file is fixed
                                0B  12  0BAB    623         BNEQ    10$                             ; If not then skip next test
                57  0000005E    8F  D1  0BAD    624         CMPL    #^A/^/,R7                       ; otherwise is the record of carret's
                                02  12  0BB4    625         BNEQ    10$                             ; Not carrets then continue
                                57  D6  0BB6    626         INCL    R7                              ; Skip that record
                                0BB8    627 10$:
                                0BB8    628         $GET    RAB=R9,ERR=REPORT_ERROR
                         F436'  30  0BC7    629         BSBW    ERR
            00000094'8F    28  A9  D1  0BCA    630         CMPL    RAB$L_RBF(R9),#IOBUF
                                1D  12  0BD2    631         BNEQ    LP1                             ; branch if locate mode worked
                                0BD4    632         FIELD   <RBF (INDICATES MOVE MODE)>
                                0BE9    633         MBPT
                    50    00    BE  9A  0BF1    634 LP1:    MOVZBL  @(SP),R0                        ; get expected size
                                08  12  0BF5    635         BNEQ    5$
                  50    0200    8F  3C  0BF7    636         MOVZWL  #512,R0
                              000A  31  0BFC    637         BRW     10$
                            07  57  E8  0BFF    638 5$:     BLBS    R7,10$                          ; branch unless alternate
                        50      6E  D0  0C02    639         MOVL    (SP),R0
                      56    01    A0  9A  0C05    640         MOVZBL  1(R0),R0                        ; get alternate record size
                      22    A9    50  B1  0C09    641 10$:    CMPW    R0,RAB$W_RSZ(R9)                ; size right?
                                1D  13  0C0D    642         BEQL    LP2                             ; branch if right
                                0C0F    643         FIELD   <RSZ>
                                0C24    644         MBPT
28 B9       50      57      6E  00  2D  0C2C    645 LP2:    CMPC5   #0,(SP),R7,R0,@RAB$L_RBF(R9); record contents ok?
                                1D  13  0C33    646         BEQL    LP3                             ; branch if yes
                                0C35    647         FIELD   <RBF (BAD RECORD CONTENTS)>
                                0C4A    648         MBPT
                  03    F3C9    CF  91  0C52    649 LP3:    CMPB    MTAFAB+FAB$B_RFM,#FAB$C_VFC
                                23  12  0C57    650         BNEQ    LP4                             ; branch if not vfc rfm
                    57    2C    B9  D1  0C59    651         CMPL    @RAB$L_RHB(R9),R7               ; rhb contents ok?
                                1D  13  0C5D    652         BEQL    LP4
                                0C5F    653         FIELD   <RHB>
                                0C74    654         MBPT
        FF20    57      01    7A  8F  9D  0C7C    655 LP4:    ACBB    #^X7A,#1,R7,LOOP1
                            6E  02  C0  0C83    656         ADDL2   #2,(SP)                         ; bump past args
                                05  0C86    657         RSB
```

```
                                0C87    659
                                0C87    660 ;
                                0C87    661 ;  subroutine to check for at eof and close mt file
                                0C87    662 ;
                                0C87    663
                                0C87    664 EOF_CLOSE:
                     03   10    0C87    665          BSBB    CHKEOF
                   FE36   31    0C89    666          BRW     CLOSE_MT
                                0C8C    667
                                0C8C    668
                                0C8C    669 ;
                                0C8C    670 ;  subroutine to check for at eof
                                0C8C    671 ;
                                0C8C    672
                                0C8C    673 CHKEOF: $GET    R9                          ; expect eof
                                0C95    674 CHKEOF1:
00000000'8F      50   D1        0C95    675          CMPL    R0,#RMS$_EOF
                     06   13    0C9C    676          BEQL    CK5
                5A   59   D0    0C9E    677          MOVL    R9,R10
                   F35C' 30      0CA1    678          BSBW    EOFPUT                      ; give error mesg's
                         05      0CA4    679 CK5:     RSB
                                0CA5    680
                                0CA5    681
                                0CA5    682 ;
                                0CA5    683 ;  subroutine to check for error code = rms$_bof
                                0CA5    684 ;
                                0CA5    685
00000000'8F      50   D1        0CA5    686 CHKBOF: CMPL    R0,#RMS$_BOF
                     1E   13    0CAC    687          BEQL    CKBEND
                5A   59   D0    0CAE    688          MOVL    R9,R10
                   F34C' 30      0CB1    689          BSBW    REPORT_ERR
                                0CB4    690          FIELD   <STS (EXPECTED RMS$_BOF)>
                   F334' 30      0CC9    691          BSBW    ERR
                         05      0CCC    692 CKBEND: RSB
                                0CCD    693
                                0CCD    694
                                0CCD    695          .END
```

```
$$.PSECT_EP                     =  00000000
$$.TAB                          =  00000050 R   D   01
$$.TABEND                       =  00000094 R   D   01
$$.TMP                          =  00010000     D
$$.TMP1                         =  00000001     D
$$.TMP2                         =  00000059
$$.TMPX                         =  0000022A R   D   04
$$.TMPX1                        =  00000017     D
$$RMSTEST                       =  0000001E
$$RMS_PBUGCHK                   =  00000010
$$RMS_TBUGCHK                   =  00000008
$$RMS_UMODE                     =  00000004
..AFLG                          =  00000000     D
..FLG                           =  00000002     D
..MOD                           =  00000001     D
..N                             =  00000001
..TYP                           =  00000003     D
.LEN                            =  00000004     D
BEGPUT                             ********   X   01
BEG_DESCR                          ********   X   01
BUF                                00000294 R   D   01
CHECK_ONE                          00000A54 R   D   01
CHKBOF                             00000CA5 R   D   01
CHKEOF                             00000C8C R   D   01
CHKEOF1                            00000C95 R   D   01
CK5                                00000CA4 R   D   01
CKBEND                             00000CCC R   D   01
CLOSE_MT                           00000AC2 R   D   01
CMDORAB                            ********   X   01
CREATE_MT                          00000B0D R   D   01
DEV$V_FOR                       =  00000018     D
DEV$V_SQD                       =  00000005     D
DO_PUT                             00000AAB R   D   01
EOFPUT                             ********   X   01
EOF_CLOSE                          00000C87 R   D   01
ERR                                ********   X   01
FAB$B_DNS                       =  00000035     D
FAB$B_FAC                       =  00000016     D
FAB$B_FSZ                       =  0000003F     D
FAB$B_ORG                       =  0000001D     D
FAB$B_RAT                       =  0000001E     D
FAB$B_RFM                       =  0000001F     D
FAB$C_BID                       =  00000003     D
FAB$C_BLN                       =  00000050     D
FAB$C_FIX                       =  00000001     D
FAB$C_REL                       =  00000010     D
FAB$C_SEQ                       =  00000000     D
FAB$C_VAR                       =  00000002     D
FAB$C_VFC                       =  00000003     D
FAB$L_ALQ                       =  00000010     D
FAB$L_DEV                       =  00000040     D
FAB$L_DNA                       =  00000030     D
FAB$L_FNA                       =  0000002C     D
FAB$L_FOP                       =  00000004     D
FAB$L_STS                       =  00000008     D
FAB$M_BLK                       =  00000008     D
FAB$M_CR                        =  00000002     D
FAB$V_BLK                       =  00000003     D
FAB$V_BRO                       =  00000006     D
FAB$V_CHAN_MODE                 =  00000002     D
FAB$V_CIF                       =  00000019     D
FAB$V_CR                        =  00000001     D
FAB$V_FILE_MODE                 =  00000004     D
FAB$V_GET                       =  00000001     D
FAB$V_LNM_MODE                  =  00000000     D
FAB$V_NEF                       =  0000000A     D
FAB$V_POS                       =  00000008     D
FAB$V_PUT                       =  00000000     D
FAB$V_RWC                       =  0000000B     D
FAB$V_RWO                       =  00000007     D
FAB$V_SUP                       =  00000002     D
FAB$V_TRN                       =  00000004     D
FAB$W_BLS                       =  0000003C     D
FAB$W_GBC                       =  00000048     D
FAB$W_MRS                       =  00000036     D
FINPUT                             ********   X   01
FIN_DESCR                          ********   X   01
FLDPUT                             ********   X   01
FLD_DESCR                          ********   X   01
FNSIZE                          =  00000005     D
IOBSZ                           =  00000200   G D
IOBUF                              00000094 RG  D   01
LOOP                               00000ADA R   D   01
LOOP1                              00000BA3 R   D   01
LP1                                00000BF1 R   D   01
LP2                                00000C2C R   D   01
LP3                                00000C52 R   D   01
LP4                                00000C7C R   D   01
MTAFAB                             00000000 R   D   01
MTARAB                             00000050 R   D   01
MTFIX_FNM                          0000029D R   D   01
MTST1_FNM                          000002A7 R   D   01
MTVAR_FNM                          00000298 R   D   01
MTVFC_FNM                          000002A2 R   D   01
NF10                               00000903 R   D   01
NF20                               00000927 R   D   01
NF30                               00000945 R   D   01
NF35                               0000094E R   D   01
NF40                               000009D7 R   D   01
NF50                               00000A2E R   D   01
NONFIL_FNM                         000002AC R   D   01
NON_FILE                           0000083B R   D   01
ONE10                              00000A8B R   D   01
ONE20                              00000AAA R   D   01
OPEN_MT                            00000B38 R   D   01
OPN1                               00000B78 R   D   01
OPN2                               00000B9A R   D   01
PUTRECS                            00000AD7 R   D   01
RAB$B_RAC                       =  0000001E     D
RAB$C_BID                       =  00000001     D
RAB$C_BLN                       =  00000044     D
RAB$C_KEY                       =  00000001     D
RAB$C_SEQ                       =  00000000     D
RAB$L_BKT                       =  00000038     D
```

Symbol table

```
RAB$L_CTX                       = 00000018     D
RAB$L_FAB                       = 0000003C     D
RAB$L_KBF                       = 00000030     D
RAB$L_RBF                       = 00000028     D
RAB$L_RHB                       = 0000002C     D
RAB$L_ROP                       = 00000004     D
RAB$M_TPT                       = 00000002     D
RAB$V_LOC                       = 00000010     D
RAB$W_RSZ                       = 00000022     D
READ_MT                           00000BA0 R   D   01
READ_MT_VAR                       00000B9B R   D   01
REPORT_ERR                        ********       X   01
REPORT_ERROR                      ********       X   01
RHBBUF                            ********       X   01
RMS$_BOF                          ********       X   01
RMS$_CREATED                      ********       X   01
RMS$_EOF                          ********       X   01
RMS$_NORMAL                       ********       X   01
RMT1                              00000425 R   D   01
RMT11                             000006BB R   D   01
RMT12                             00000715 R   D   01
RMT2                              00000449 R   D   01
RMT3                              00000465 R   D   01
RMT4                              0000049E R   D   01
RMT5                              000004BC R   D   01
RMT6                              000004D7 R   D   01
RMT7                              0000050E R   D   01
RMT8                              00000532 R   D   01
RMT9                              0000054D R   D   01
STRMT                             0000031E R   D   01
SYS$CLOSE                         ********     GX   01
SYS$CONNECT                       ********     GX   01
SYS$CREATE                        ********     GX   01
SYS$DISCONNECT                    ********     GX   01
SYS$ERASE                         ********     GX   01
SYS$GET                           ********     GX   01
SYS$NXTVOL                        ********     GX   01
SYS$OPEN                          ********     GX   01
SYS$PUT                           ********     GX   01
SYS$REWIND                        ********     GX   01
SYS$SPACE                         ********     GX   01
SYS$TRUNCATE                      ********     GX   01
T6START                           00000000 RG  D   01
TST$MTA                           000002B1 RG  D   01
VERBOSITY                         ********       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
  RMSTEST                       00000CCD  (  3277.)  01 (  1.)  NOPIC   USR   CON   REL   GBL NOSHR   EXE   RD    WRT NOVEC LONG
$ABS$                           00000000  (     0.)  02 (  2.)  NOPIC   USR   CON   ABS   LCL NOSHR   EXE   RD    WRT NOVEC BYTE
$RMSNAM                         0000000E  (    14.)  03 (  3.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD    WRT NOVEC BYTE
__$RMSNAM                       00000241  (   577.)  04 (  4.)  NOPIC   USR   CON   REL   LCL NOSHR   EXE   RD    WRT NOVEC BYTE
```

Performance indicators

Phase	Page faults	CPU Time	Elapsed Time
Initialization	29	00:00:00.08	00:00:00.52
Command processing	105	00:00:00.56	00:00:03.36
Pass 1	431	00:00:25.02	00:00:54.87
Symbol table sort	0	00:00:00.56	00:00:01.23
Pass 2	141	00:00:04.74	00:00:12.35
Symbol table output	20	00:00:00.15	00:00:00.35
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	730	00:00:31.15	00:01:12.72

The working set limit was 1500 pages.
115188 bytes (225 pages) of virtual memory were used to buffer the intermediate code.
There were 30 pages of symbol table space allocated to hold 479 non-local and 17 local symbols.
695 source lines were read in Pass 1, producing 50 object records in Pass 2.
68 pages of virtual memory were used to define 50 macros.

Macro library statistics

Macro library name	Macros defined
_255DUA28:[SYS.OBJ]LIB.MLB;1	0
_255DUA28:[SYSLIB]STARLET.MLB;2	37
TOTALS (all libraries)	37

945 GETS were required to define 37 macros.

There were no errors, warnings or information messages.

```
MACRO/LIS=LIS$:RMSTEST6/OBJ=OBJ$:RMSTEST6 MSRC$:RMSTEST6/UPDATE=(ENH$:RMSTEST6)+EXECML$/LIB
```

0409 AH-BT13A-SE
VAX/VMS V4.0

DIGITAL EQUIPMENT CORPORATION
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RMSTEST4
LIS

RMSTEST7
LIS

RMSTEST8
LIS

RMSTESTR
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