D 14

```
MMM         MMM      AAAAAAAAA      IIIIIIIII     LLL
MMM         MMM      AAAAAAAAA      IIIIIIIII     LLL
MMM         MMM      AAAAAAAAA      IIIIIIIII     LLL
MMMMMM   MMMMMM   AAA         AAA      III        LLL
MMMMMM   MMMMMM   AAA         AAA      III        LLL
MMMMMM   MMMMMM   AAA         AAA      III        LLL
MMM   MMM   MMM   AAA         AAA      III        LLL
MMM   MMM   MMM   AAA         AAA      III        LLL
MMM   MMM   MMM   AAA         AAA      III        LLL
MMM         MMM   AAA         AAA      III        LLL
MMM         MMM   AAA         AAA      III        LLL
MMM         MMM   AAA         AAA      III        LLL
MMM         MMM   AAAAAAAAAAAAAAA      III        LLL
MMM         MMM   AAAAAAAAAAAAAAA      III        LLL
MMM         MMM   AAAAAAAAAAAAAAA      III        LLL
MMM         MMM   AAA         AAA      III        LLL
MMM         MMM   AAA         AAA      III        LLL
MMM         MMM   AAA         AAA      III        LLL
MMM         MMM   AAA         AAA   IIIIIIIII     LLLLLLLLLLLLLLL
MMM         MMM   AAA         AAA   IIIIIIIII     LLLLLLLLLLLLLLL
MMM         MMM   AAA         AAA   IIIIIIIII     LLLLLLLLLLLLLLL
```

FILEID**MSGSUBS

```
MM      MM    SSSSSSSS    GGGGGGGG    SSSSSSSS  UU      UU  BBBBBBBB      SSSSSSSS
MM      MM    SSSSSSSS    GGGGGGGG    SSSSSSSS  UU      UU  BBBBBBBB      SSSSSSSS
MMMM  MMMM  SS          GG          SS          UU      UU  BB      BB  SS
MMMM  MMMM  SS          GG          SS          UU      UU  BB      BB  SS
MM  MM  MM  SS          GG          SS          UU      UU  BB      BB  SS
MM  MM  MM  SS          GG          SS          UU      UU  BB      BB  SS
MM      MM    SSSSSS    GG            SSSSSS    UU      UU  BBBBBBBB      SSSSSS
MM      MM    SSSSSS    GG            SSSSSS    UU      UU  BBBBBBBB      SSSSSS
MM      MM          SS  GG  GGGGGG          SS  UU      UU  BB      BB          SS
MM      MM          SS  GG  GGGGGG          SS  UU      UU  BB      BB          SS
MM      MM          SS  GG      GG          SS  UU      UU  BB      BB          SS    ....
MM      MM          SS  GG      GG          SS  UU      UU  BB      BB          SS    ....
MM      MM  SSSSSSSS      GGGGGG    SSSSSSSS    UUUUUUUUUU  BBBBBBBB    SSSSSSSS      ....
MM      MM  SSSSSSSS      GGGGGG    SSSSSSSS    UUUUUUUUUU  BBBBBBBB    SSSSSSSS      ....

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
```

```
0 MODULE MAIL$MSGSUBS( %TITLE 'MAIL MESSAGE SUBROUTINES'
0                 IDENT = 'V04-000' ) =
1 BEGIN
1
1 !
1 !****************************************************************************
1 !*                                                                          *
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1 !*                                                                          *
1 !*                                                                          *
1 !****************************************************************************
1 !
1
1 !++
1 ! FACILITY:     VAX/VMS MAIL UTILITY
1 !
1 ! ABSTRACT:     Subroutines to read and write message files.
1 !
1 ! ENVIRONMENT:  NATIVE/USER MODE
1 !
1 ! AUTHOR: Len Kawell, CREATION DATE: 07-NOV-1979
1 !
1 ! MODIFIED BY:
1 !
1 !       V03-018 BLS0263         Benn Schreiber          5-FEB-1984
1 !               Make routines called by LIB$RENAME global.
1 !
1 !       V03-017 BLS0255         Benn Schreiber          28-Dec-1983
1 !               New global flags.
1 !
1 !       V03-016 BLS0250         Benn Schreiber          9-Dec-1983
1 !               Don't allow multiple versions of MAIL.MAI to have
1 !               mixed file organizations.
1 !
1 !       V03-015 BLS0252         Benn Schreiber          9-Dec-1983
1 !               Look at correct bit for noautopurge.
1 !
1 !       V03-014 BLS0246         Benn Schreiber          28-Nov-1983
1 !               Remove some own storage to shrink image
1 !
1 !       V03-013 BLS0229         Benn Schreiber          16-Jul-1983
```

```
1 !               Rename old mail file after conversion.
1 !
1 !       V03-012 BLS0227         Benn Schreiber          29-Jun-1983
1 !               Call MAIL$CLR_DIR_FLAG to clear directory display context
1 !               when closing mail file.
1 !
1 !       V03-011 BLS0225         Benn Schreiber          17-Jun-1983
1 !               Enable DFW if MAIL$B_DFW is set.  Use UTIL$GETFILENAME
1 !               for retrieving file specs from fabs.
1 !
1 !       V03-010 BLS0222         Benn Schreiber          15-May-1983
1 !               Small corrections.
1 !
1 !       V03-009 BLS0221         Benn Schreiber           5-May-1983
1 !               Correct SYSPRV handling
1 !
1 !       V03-008 BLS0214         Benn Schreiber          27-Mar-1983
1 !               Modify new message handling.  Correct nam block
1 !               usage error in open_new_file
1 !
1 !       V03-007 BLS0211         Benn Schreiber          13-Mar-1983
1 !               Extensive rework for ISAM mail files
1 !
1 !       V03-006 BLS0197         Benn Schreiber           9-Dec-1982
1 !               Implement SET PERSONAL_NAME command.
1 !
1 !       V03-005 BLS0191         Benn Schreiber          27-Oct-1982
1 !               Use system default MBC.  Check errors in MAIL$SEND_MSG
1 !               better.  Do not write <FF><From: name> from the message
1 !               text.  This is a new message marker.
1 !
1 !       V03-004 BLS0189         Benn Schreiber          19-Oct-1982
1 !               Clean up file data initialization.  Interlock the
1 !               DELETE mail function with the READ function, so that
1 !               a mail message that has not been read cannot be deleted.
1 !
1 !       V03-003 BLS0188         Benn Schreiber           4-Oct-1982
1 !               Correct problem in directory listing with hyphenated
1 !               names
1 !
1 !       V03-002 BLS0184         Benn Schreiber          20-Aug-1982
1 !               Delete old MAIL.TMP's when starting up.  This prevents
1 !               aborting the sending of a message and having some old
1 !               garbage being sent.  Correct error in info_msg which
1 !               caused accvio if no date on "from" line.
1 !
1 !       V03-001 BLS0177         Benn Schreiber          21-Jun-1982
1 !               Add MAIL$Q_MSG_FNM descriptor which describes the
1 !               filename part of the message file file spec.
1 !--
```

```
!
! TABLE OF CONTENTS:
!
!
! INCLUDE FILES:
!
        LIBRARY 'SYS$LIBRARY:STARLET';
        REQUIRE 'SRC$:MAILREQ';
        LIBRARY 'LIB$:MAIL.DEF';

LITERAL
        LEAVE_SEQ = 0;                              !0 >> convert to isam

FORWARD ROUTINE
        MAIL$CLOSE_FILE: NOVALUE,                   ! Close current message file
        MAIL$REWIND_MSG,                            ! Rewind current message
        OPEN_NEWFILE;                               ! Open new messages file
!
! MACROS:
!
MACRO
        RECSIZ(RECPTR) =                            ! Get message record size
                (RECPTR)<0,RECSIZ_SIZ * 8>%;

MACRO   MSGDELIM(RECPTR) =                          ! Check for message delimiter
                ((.RECSIZ(RECPTR) EQL 1)
                AND (CH$RCHAR(RECPTR + RECSIZ_SIZ) EQL FF)
                AND (.RECSIZ(RECPTR + RECSIZ_SIZ + 1) GTRU %CHARCOUNT('From'))
                AND (.(RECPTR + 2*RECSIZ_SIZ + 1) EQL 'From'))%;

MACRO   NEWMSGFLAG(MSGPTR) =                        ! Get new message flag address
                (LOCAL  PTR;
                PTR = MSGPTR + RECSIZ_SIZ + .RECSIZ(MSGPTR); ! Skip delimiter
                .PTR + RECSIZ_SIZ + .RECSIZ(.PTR) - 1)%; ! Addr of last char

!
! EQUATED SYMBOLS:
!
LITERAL
        FROM_SIZ        = %CHARCOUNT('From: '),     ! Size of from delimiter
        TO_SIZ          = %CHARCOUNT('To: '),       ! Size of "to" delimeter
        MAXRECSIZ       = 255,                      ! Maximum message record size
        RECSIZ_SIZ      = 1,                        ! Message buffer record size
        SUBJ_SIZ        = %CHARCOUNT('Subj: ');     ! Size of subject delimiter


MACRO
        DEFFILENAM      = 'MAIL'%,                  ! Default message file name
        DEFFILETYP      = '.MAI'%;                  ! Default message file type
!
! EXTERNAL REFERENCES:
!
EXTERNAL
        MAIL$GL_FLAGS : $BBLOCK,                    ! Mail control flags
        MAIL$SD_NEWMAIL : $BBLOCK,                  ! Descriptor for 'NEWMAIL'
        MAIL$L_CURMSG : REF $BBLOCK,                ! Descriptor of current ISAM msg
        MAIL$L_SYSMAIBUF: REF $BBLOCK,              ! Pointer to VMSMAIL record
```

```
                MAIL$L_USRSYSBUF : REF $BBLOCK,         ! User's vmsmail record
                MAIL$B_DFW : BYTE,                      ! True if FOP=DFW
                MAIL$Q_TMPFILE_DESC: $BBLOCK,           ! Descriptor for MAIL.TMP
                MAIL$Q_USERNAME:BLOCK[,BYTE],           ! User's name descriptor
                                                        !   descriptor
                MAIL$Q_MAILDEF : $BBLOCK;               ! 'dev:[dir]mail.mai'

EXTERNAL ROUTINE
                MAIL$CLR_DIR_FLAG,                      ! Clear directory display flags
                MAIL$COPY_MSGS,                         ! Copy msgs into ISAM folder
                MAIL$DESELECT_MSGS,                     ! Delete in-memory index
                MAIL$EMPTY_WASTEBASKET,                 ! Delete msgs in wastebasket
                MAIL$GET_INPUT,                         ! Read from the terminal
                MAIL$GETMSG,                            ! Get message text
                MAIL$ISAM_INIT,                         ! Init ISAM data
                MAIL$UPDATE_I_MSG,                      ! Update ISAM message record
                MAIL$UP_PRIV,                           ! Raise privileges
                MAIL$DOWN_PRIV,                         ! lower privileges
                LIB$FILE_SCAN,                          ! Perform wild-card file scan
                LIB$FID_TO_NAME,                        ! Convert fid to name
                LIB$FREE_VM,                            ! Free virtual memory
                LIB$GET_VM,                             ! Get virtual memory
                LIB$RENAME_FILE,                        ! Rename a file
                STR$COPY_DX,                            ! String copy
                STR$FREET_DX,                           ! Deallocate dynamic string
                OTS$SCOPY_R_DX,                         ! String copy
                UTIL$GETFILENAME,                       ! Get file spec for fab
                UTIL$REPORT_IO_ERROR;                   ! Report I/O error
!
! OWN STORAGE:
!
OWN
                EXITSTATUS:     LONG,                   ! Exit status
                EXITBLOCK:      VECTOR[4]               ! Exit handler control block
                                INITIAL(0,              !  Forward link
                                        MAIL$CLOSE_FILE,!  Routine address
                                        1,              !  Argument count
                                        EXITSTATUS),    !  Location to receive status
                MODIFIED:       LONG;                   ! Buffer modified flag

!
! Current message file being read RMS blocks
!
OWN
                DYN_DESC : DYN_DESC_DECL,               !Dynamic descriptor
                RD_RSNAM_BUF:   REF VECTOR[,BYTE],      ! Resultant name string buf
                RD_ESNAM_BUF:   REF VECTOR[,BYTE],      ! Expanded name string buffer
                RD_ESNAM_DESC:  DYN_DESC_DECL,          ! Expanded name string desc
                RD_NAM:                                 ! Name block
                        $NAM_DECL,
                RD_FAB:                                 ! File access block
                        $FAB_DECL,
                RD_RAB:                                 ! Record access block
                        $RAB_DECL;

GLOBAL BIND
        MAIL$T_RD_RAB = RD_RAB,
```

```
	MAIL$Q_RD_DESC = RD_ESNAM_DESC;
!
! Current message buffer parameters
!
OWN
	MSG_BUF_ASIZ:	LONG,			! Message buffer size allocated
	MSG_BUF_ADR:	LONG,			! Message buffer address
	MSG_BUF_SIZ:	LONG,			! Message buffer size
	MSG_ADR:	LONG;			! Message address

GLOBAL BIND
	MAIL$L_MSGBUFSIZ = MSG_BUF_SIZ;		! Make available externally
GLOBAL
	MAIL$L_RECBUF : REF $BBLOCK,		! Pointer to isam buffer
	MAIL$Q_MSG_FILE: DYN_DESC_DECL,		! Message file name desc
	MAIL$Q_MSG_FNM: BLOCK[8,BYTE],		! Message file filename descr.
	MAIL$L_MSG_STS: LONG			! Message status
			INITIAL(MAIL$_NOTREADIN),
	MAIL$L_MSG_NUM: LONG,			! Message number
	MAIL$W_MSG_RSIZ:WORD,			! Message record size
	MAIL$L_MSG_RADR:LONG;			! Message record address
!
! Send/File message RMS blocks
!
GLOBAL BIND
	MAIL$Q_MSGTYPE = DESCRIPTOR(DEFFILETYP),! Default mail message filetype
	MAIL$Q_MSGNAME = DESCRIPTOR(DEFFILENAM):! Default mail message filename
			BLOCK[,BYTE];
!
! Define shared messages for MAIL
!
$SHR_MSGDEF(MAIL,126,LOCAL,
	(RENAMED,SUCCESS),
	(SEARCHFAIL,ERROR),
	(OPENIN,ERROR),
	(READERR,ERROR),
	(WRITEERR,ERROR),
	(CLOSEOUT,ERROR));
```

```
1 GLOBAL ROUTINE MAIL$FIND_MSG(MSGNUM,NEW_FILE) =
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine finds the specified message and sets the current message
1 !       pointers to describe it.
1 !
1 ! INPUTS:
1 !
1 !       MSGNUM = Relative message number desired.
1 !              = Zero if next message is desired.
1 !       NEW_FILE = true if new file just opened.  Need not be specified
1 !                        if false.
1 !
1 ! OUTPUTS:
1 !
1 !       MAIL$L_MSG_NUM = Current message number.
1 !       MAIL$L_MSG_ADR = Address of first record in message.
1 !       MAIL$L_MSG_STS = Status of current message.
1 !
1 !       All failures are signalled as well as returned.
1 !--
2 BEGIN
2 BUILTIN
2     ACTUALCOUNT;
2
2 LOCAL
2       SRCH_MSGNUM,                            ! Messge number to search for
2       POINTER;                                ! Message buffer pointer
2
2 MAIL$GL_FLAGS[MAIF_V_READ_FL] = 0;
2 IF ACTUALCOUNT() GEQU 2
2     THEN IF .NEW_FILE
2       AND .MSGNUM EQL 0
3     THEN BEGIN
3       MAIL$L_MSG_STS = STS$K_SUCCESS;
3       MAIL$REWIND_MSG();
3       RETURN TRUE
2       END;
2 !
2 ! If specified message number is zero, then searching for next message,
2 ! else, searching for specified message number.
2 !
2 SRCH_MSGNUM = (IF .MSGNUM EQL 0 THEN (.MAIL$L_MSG_NUM + 1) ELSE .MSGNUM);
2 IF .MAIL$L_MSG_NUM EQL 0
2     THEN MAIL$L_MSG_NUM = 1;
2 !
2 ! Check that a message file is open and there are messages in the file.
2 !
2 IF .MSG_BUF_ADR EQL 0
2 THEN
2       (SIGNAL (MAIL$_NOTREADIN); RETURN MAIL$_NOTREADIN);
2 IF .MSG_BUF_SIZ EQL 0
2 THEN
2       (SIGNAL (MAIL$_NOMOREMSG); RETURN MAIL$_NOMOREMSG);
2 !
2 ! If the specified message number is less than the current message number
```

```
2 ! or there is no current message, then set the message file pointers to
2 ! the beginning of the buffer, so the message search will start over again.
2 !
3 IF (.SRCH_MSGNUM LSSU .MAIL$L_MSG_NUM)            ! If number less than current
3 OR (.MSG_ADR EQL 0)                               ! or, no current message
3 THEN    BEGIN
3         MAIL$L_MSG_NUM = 1;                       ! Re-init current number
3         MSG_ADR = .MSG_BUF_ADR;                   ! Re-init current pointer
2         END;
2 !
2 ! Search through the messages until the relative message number equals
2 ! the specified message number or the end of the buffer is reached.
2 !
2 POINTER = .MSG_ADR;                               ! Start at current message
3 UNTIL (.MAIL$L_MSG_NUM GEQU .SRCH_MSGNUM)
4 OR    ((POINTER = .POINTER + .RECSIZ(.POINTER) + RECSIZ_SIZ)
3         GEQU (.MSG_BUF_ADR + .MSG_BUF_SIZ))
3 DO      BEGIN
4         IF MSGDELIM(.POINTER)                     ! If message delimiter
4         THEN    BEGIN                             ! then, found new message
4                 MSG_ADR = .POINTER;
4                 MAIL$L_MSG_NUM = .MAIL$L_MSG_NUM + 1;
3                 END;
2         END;
2 !
2 ! Set the current reccord context to the first text record in the message.
2 !
2 MAIL$L_MSG_RADR = .MSG_ADR + 2*RECSIZ_SIZ + .RECSIZ(.MSG_ADR); ! Skip delimiter
2 MAIL$W_MSG_RSIZ = .RECSIZ(.MAIL$L_MSG_RADR - RECSIZ_SIZ);
2 !
2 ! If the next message was requested and no more were found, return "no more".
2 !
3 IF (.MSGNUM EQL 0) AND (.MAIL$L_MSG_NUM LSSU .SRCH_MSGNUM)
2 THEN
2         MAIL$L_MSG_STS = MAIL$_NOMOREMSG
2 ELSE
2         MAIL$L_MSG_STS = STS$K_SUCCESS;
2 RETURN .MAIL$L_MSG_STS
1 END;

                                          .TITLE  MAIL$MSGSUBS MAIL MESSAGE SUBROUTINES
                                          .IDENT  \V04-000\

                                          .PSECT  $CODE$,NOWRT,2

     49 41 4D 2E  00000 P.AAB:            .ASCII  \.MAI\                               ;
        00000004  00004 P.AAA:            .LONG   4                                    ;
        00000000' 00008                   .ADDRESS P.AAB                               ;
     4C 49 41 4D  0000C P.AAD:            .ASCII  \MAIL\                               ;
        00000004  00010 P.AAC:            .LONG   4                                    ;
        00000000' 00014                   .ADDRESS P.AAD                               ;

                                          .PSECT  $OWN$,NOEXE,2

                  00000 EXITSTATUS:
                                          .BLKB   4
```

```
00000000  00004 EXITBLOCK:
                        .LONG   0                                        ;
00000000V 00008         .ADDRESS MAIL$CLOSE_FILE                         ;
00000001  0000C         .LONG   1                                        ;
00000000' 00010         .ADDRESS EXITSTATUS                              ;
          00014 MODIFIED:
                        .BLKB   4
      00# 00018 DYN_DESC:
                        .BYTE   0[2]                                     ;
  02  0E  0001A         .BYTE   14, 2                                    ;
          0001C         .BLKB   4
          00020 RD_RSNAM_BUF:
                        .BLKB   4
          00024 RD_ESNAM_BUF:
                        .BLKB   4
      00# 00028 RD_ESNAM_DESC:
                        .BYTE   0[2]                                     ;
  02  0E  0002A         .BYTE   14, 2                                    ;
          0002C         .BLKB   4
          00030 RD_NAM: .BLKB   96
          00090 RD_FAB: .BLKB   80
          000E0 RD_RAB: .BLKB   68
          00124 MSG_BUF_ASIZ:
                        .BLKB   4
          00128 MSG_BUF_ADR:
                        .BLKB   4
          0012C MSG_BUF_SIZ:
                        .BLKB   4
          00130 MSG_ADR:.BLKB   4

                        .PSECT  $GLOBAL$,NOEXE,2

          00000 MAIL$L_RECBUF::
                        .BLKB   4
      00# 00004 MAIL$Q_MSG_FILE::
                        .BYTE   0[2]                                     ;
  02  0E  00006         .BYTE   14, 2                                    ;
          00008         .BLKB   4
          0000C MAIL$Q_MSG_FNM::
                        .BLKB   8
007E8022  00014 MAIL$L_MSG_STS::
                        .LONG   8290338                                  ;
          00018 MAIL$L_MSG_NUM::
                        .BLKB   4
          0001C MAIL$W_MSG_RSIZ::
                        .BLKB   2
          0001E         .BLKB   2
          00020 MAIL$L_MSG_RADR::
                        .BLKB   4

                MAIL$T_RD_RAB==       RD_RAB
                MAIL$Q_RD_DESC==      RD_ESNAM_DESC
                MAIL$L_MSGBUFSIZ==    MSG_BUF_SIZ
                MAIL$Q_MSGTYPE==      P.AAA
                MAIL$Q_MSGNAME==      P.AAC
                        .EXTRN  MAIL$GL_FLAGS, MAIL$SD_NEWMAIL
                        .EXTRN  MAIL$L_CURMSG, MAIL$L_SYSMAIBUF
```

```
                                                .EXTRN  MAIL$L_USRSYSBUF
                                                .EXTRN  MAIL$B_DFW, MAIL$Q_TMPFILE_DESC
                                                .EXTRN  MAIL$Q_USERNAME
                                                .EXTRN  MAIL$Q_MAILDEF, MAIL$CLR_DIR_FLAG
                                                .EXTRN  MAIL$COPY_MSGS, MAIL$DESELECT_MSGS
                                                .EXTRN  MAIL$EMPTY_WASTEBASKET
                                                .EXTRN  MAIL$GET_INPUT, MAIL$GETMSG
                                                .EXTRN  MAIL$ISAM_INIT, MAIL$UPDATE_I_MSG
                                                .EXTRN  MAIL$UP_PRIV, MAIL$DOWN_PRIV
                                                .EXTRN  LIB$FILE_SCAN, LIB$FID_TO_NAME
                                                .EXTRN  LIB$FREE_VM, LIB$GET_VM
                                                .EXTRN  LIB$RENAME_FILE
                                                .EXTRN  STR$COPY_DX, STR$FREE1_DX
                                                .EXTRN  OTS$SCOPY_R_DX, UTIL$GETFILENAME
                                                .EXTRN  UTIL$REPORT_IO_ERROR

                                                .PSECT  $CODE$,NOWRT,2

                           007C 00000           .ENTRY  MAIL$FIND_MSG, Save R2,R3,R4,R5,R6      ; 0405
            56 00000000G  00  9E 00002          MOVAB   LIB$SIGNAL, R6                          ;
            55 00000000'  00  9E 00009          MOVAB   MSG_ADR, R5                             ;
            54 00000000'  00  9E 00010          MOVAB   MAIL$L_MSG_NUM, R4                      ;
   00000000G  00       40  8F  8A 00017         BICB2   #64, MAIL$GL_FLAGS                      ; 0435
              02           6C  91 0001F         CMPB    (AP), #2                                ; 0436
                           18  1F 00022         BLSSU   1$                                      ;
              14       08  AC  E9 00024         BLBC    NEW_FILE, 1$                            ; 0437
                       04  AC  D5 00028         TSTL    MSGNUM                                  ; 0438
                           0F  12 0002B         BNEQ    1$                                      ;
           FC A4           01  D0 0002D         MOVL    #1, MAIL$L_MSG_STS                      ; 0440
   00000000V  00           00  FB 00031         CALLS   #0, MAIL$REWIND_MSG                     ; 0441
              50           01  D0 00038         MOVL    #1, R0                                  ; 0442
                           04  0003B            RET                                             ;
                           53  D4 0003C 1$:     CLRL    R3                                      ; 0448
                       04  AC  D5 0003E         TSTL    MSGNUM                                  ;
                           08  12 00041         BNEQ    2$                                      ;
                           53  D6 00043         INCL    R3                                      ;
      52      64           01  C1 00045         ADDL3   #1, MAIL$L_MSG_NUM, SRCH_MSGNUM         ;
                           04  11 00049         BRB     3$                                      ;
              52       04  AC  D0 0004B 2$:     MOVL    MSGNUM, SRCH_MSGNUM                     ;
                           64  D5 0004F 3$:     TSTL    MAIL$L_MSG_NUM                          ; 0449
                           03  12 00051         BNEQ    4$                                      ;
              64           01  D0 00053         MOVL    #1, MAIL$L_MSG_NUM                      ; 0450
                       F8  A5  D5 00056 4$:     TSTL    MSG_BUF_ADR                             ; 0454
                           11  12 00059         BNEQ    5$                                      ;
                 007E8022  8F  DD 0005B         PUSHL   #8290338                                ; 0456
              66           01  FB 00061         CALLS   #1, LIB$SIGNAL                          ;
              50 007E8022  8F  D0 00064         MOVL    #8290338, R0                            ;
                           04  0006B            RET                                             ;
                       FC  A5  D5 0006C 5$:     TSTL    MSG_BUF_SIZ                             ; 0457
                           11  12 0006F         BNEQ    6$                                      ;
                 007E8042  8F  DD 00071         PUSHL   #8290370                                ; 0459
              66           01  FB 00077         CALLS   #1, LIB$SIGNAL                          ;
              50 007E8042  8F  D0 0007A         MOVL    #8290370, R0                            ;
                           04  00081            RET                                             ;
              64           52  D1 00082 6$:     CMPL    SRCH_MSGNUM, MAIL$L_MSG_NUM             ; 0465
                           04  1F 00085         BLSSU   7$                                      ;
                           65  D5 00087         TSTL    MSG_ADR                                 ; 0466
```

```
                                        07  12 00089          BNEQ    8$                                        ;
                        64              01  D0 0008B 7$:      MOVL    #1, MAIL$L_MSG_NUM                        ; 0468
                        65        F8    A5  D0 0008E          MOVL    MSG_BUF_ADR, MSG_ADR                      ; 0469
                        50              65  D0 00092 8$:      MOVL    MSG_ADR, POINTER                          ; 0475
                        52              64  D1 00095 9$:      CMPL    MAIL$L_MSG_NUM, SRCH_MSGNUM               ; 0476
                                        35  1E 00098          BGEQU   10$                                       ;
                        51              60  9A 0009A          MOVZBL  (POINTER), R1                             ; 0477
                        50      01 A140     9E 0009D          MOVAB   1(R1)[POINTER], POINTER                   ;
       51       F8      A5        FC    A5  C1 000A2          ADDL3   MSG_BUF_SIZ, MSG_BUF_ADR, R1              ; 0478
                        51              50  D1 000A8          CMPL    POINTER, R1                               ;
                                        22  1E 000AB          BGEQU   10$                                       ;
                        01              60  91 000AD          CMPB    (POINTER), #1                             ; 0480
                                        E3  12 000B0          BNEQ    9$                                        ;
                        0C        01    A0  91 000B2          CMPB    1(POINTER), #12                           ;
                                        DD  12 000B6          BNEQ    9$                                        ;
                        04        02    A0  91 000B8          CMPB    2(POINTER), #4                            ;
                                        D7  1B 000BC          BLEQU   9$                                        ;
         6D6F7246       8F        03    A0  D1 000BE          CMPL    3(POINTER), #1836020294                   ;
                                        CD  12 000C6          BNEQ    9$                                        ;
                        65              50  D0 000C8          MOVL    POINTER, MSG_ADR                          ; 0482
                                        64  D6 000CB          INCL    MAIL$L_MSG_NUM                            ; 0483
                                        C6  11 000CD          BRB     9$                                        ; 0476
                        50              65  D0 000CF 10$:     MOVL    MSG_ADR, R0                               ; 0489
                        51              60  9A 000D2          MOVZBL  (R0), R1                                  ;
                08      A4      02 A140     9E 000D5          MOVAB   2(R1)[R0], MAIL$L_MSG_RADR                ;
                        50        08    A4  D0 000DB          MOVL    MAIL$L_MSG_RADR, R0                       ; 0490
                04      A4        FF    A0  9B 000DF          MOVZBW  -1(R0), MAIL$W_MSG_RSIZ                   ;
                        0F              53  E9 000E4          BLBC    R3, 11$                                   ; 0494
                        52              64  D1 000E7          CMPL    MAIL$L_MSG_NUM, SRCH_MSGNUM               ;
                                        0A  1E 000EA          BGEQU   11$                                       ;
                FC      A4 007E8042     8F  D0 000EC          MOVL    #8290370, MAIL$L_MSG_STS                  ; 0496
                                        04  11 000F4          BRB     12$                                       ;
                FC      A4              01  D0 000F6 11$:     MOVL    #1, MAIL$L_MSG_STS                        ; 0498
                        50        FC    A4  D0 000FA 12$:     MOVL    MAIL$L_MSG_STS, R0                        ; 0499
                                            04 000FE          RET                                               ; 0500

; Routine Size:  255 bytes,    Routine Base:  $CODE$ + 0018

;  358         0501  1
```

```
;  360     0502  1 GLOBAL ROUTINE MAIL$GET_MSG =
;  361     0503  1 !++
;  362     0504  1 ! FUNCTIONAL DESCRIPTION:
;  363     0505  1 !
;  364     0506  1 !       This routine finds the next record in the current message and sets
;  365     0507  1 !       the size and address parameters to describe it.
;  366     0508  1 !
;  367     0509  1 ! INPUTS:
;  368     0510  1 !
;  369     0511  1 !       MAIL$W_MSG_RSIZ = Current message record size.
;  370     0512  1 !       MAIL$L_MSG_RADR = Current message record address.
;  371     0513  1 !
;  372     0514  1 ! OUTPUTS:
;  373     0515  1 !
;  374     0516  1 !       MAIL$W_MSG_RSIZ = Next message record size.
;  375     0517  1 !       MAIL$L_MSG_RADR = Next message record address.
;  376     0518  1 !       MAIL$L_MSG_STS = STS$K_SUCCESS if another record exists.
;  377     0519  1 !                      = Zero if no more records in message.
;  378     0520  1 !--
;  379     0521  2 BEGIN
;  380     0522  2 !
;  381     0523  2 ! Set pointer and size to next record, unless next record is past
;  382     0524  2 ! the end of the buffer or is another message delimiter.
;  383     0525  2 !
;  384     0526  2 MAIL$L_MSG_RADR = .MAIL$L_MSG_RADR + .MAIL$W_MSG_RSIZ + RECSIZ_SIZ;
;  385     0527  3 IF .MAIL$L_MSG_RADR GTRU (.MSG_BUF_ADR + .MSG_BUF_SIZ)
;  386     0528  3 OR MSGDELIM(.MAIL$L_MSG_RADR - RECSIZ_SIZ)
;  387     0529  2 THEN
;  388     0530  2         MAIL$L_MSG_STS = 0
;  389     0531  3 ELSE    BEGIN
;  390     0532  3         MAIL$W_MSG_RSIZ = .RECSIZ(.MAIL$L_MSG_RADR - RECSIZ_SIZ);
;  391     0533  3         MAIL$L_MSG_STS = STS$K_SUCCESS;
;  392     0534  2         END;
;  393     0535  2 RETURN .MAIL$L_MSG_STS
;  394     0536  1 END;


                                      0004 00000        .ENTRY  MAIL$GET_MSG, Save R2                  ; 0502
           52 00000000'    00     9E 00002        MOVAB   MAIL$L_MSG_RADR, R2                    ;
           50        FC    A2     3C 00009        MOVZWL  MAIL$W_MSG_RSIZ, R0                    ; 0526
           50              62     C0 0000D        ADDL2   MAIL$L_MSG_RADR, R0                    ;
           62        01    A0     9E 00010        MOVAB   1(R0), MAIL$L_MSG_RADR                 ;
           51              62     D0 00014        MOVL    MAIL$L_MSG_RADR, R1                    ; 0527
 50 00000000'    00 00000000'    00     C1 00017        ADDL3   MSG_BUF_SIZ, MSG_BUF_ADR, R0           ;
           50              51     D1 00023        CMPL    R1, R0                                 ;
                           1F     1A 00026        BGTRU   1$                                     ;
           50        FF    A1     9E 00028        MOVAB   -1(R1), R0                             ; 0528
           01              60     91 0002C        CMPB    (R0), #1                               ;
                           1B     12 0002F        BNEQ    2$                                     ;
           0C        01    A0     91 00031        CMPB    1(R0), #12                             ;
                           15     12 00035        BNEQ    2$                                     ;
           04        02    A0     91 00037        CMPB    2(R0), #4                              ;
                           0F     1B 0003B        BLEQU   2$                                     ;
 6D6F7246  8F        03    A0     D1 0003D        CMPL    3(R0), #1836020294                     ;
```

```
                                   05  12 00045          BNEQ    2$                                                       ;
                          F4       A2  D4 00047 1$:      CLRL    MAIL$L_MSG_STS                                           ; 0530
                                   09  11 0004A          BRB     3$                                                       ;
              FC     A2   FF       A1  9B 0004C 2$:      MOVZBW  -1(R1), MAIL$W_MSG_RSIZ                                  ; 0532
              F4     A2            01  D0 00051          MOVL    #1, MAIL$L_MSG_STS                                       ; 0533
                     50   F4       A2  D0 00055 3$:      MOVL    MAIL$L_MSG_STS, R0                                       ; 0535
                                   04 00059              RET                                                              ; 0536

; Routine Size:  90 bytes,    Routine Base:  $CODE$ + 0117


;  395          0537  1
```

```
;  397     0538  1 GLOBAL ROUTINE MAIL$REWIND_MSG =
;  398     0539  1 !++
;  399     0540  1 ! FUNCTIONAL DESCRIPTION:
;  400     0541  1 !
;  401     0542  1 !        This routine "rewinds" the current message by resetting the current
;  402     0543  1 !        record pointers to the first text record in the message.
;  403     0544  1 !
;  404     0545  1 ! INPUTS:
;  405     0546  1 !
;  406     0547  1 !        MSG_ADR = Address of first record in current message.
;  407     0548  1 !
;  408     0549  1 ! OUTPUTS:
;  409     0550  1 !
;  410     0551  1 !        MAIL$W_MSG_RSIZ = Size of first text record in current message.
;  411     0552  1 !        MAIL$L_MSG_RADR = Address of first text record in current message.
;  412     0553  1 !--
;  413     0554  2 BEGIN
;  414     0555  3 IF (NOT .MAIL$L_MSG_STS AND .MAIL$L_MSG_STS NEQ 0)
;  415     0556  2 OR .MSG_ADR EQL 0
;  416     0557  2 THEN
;  417     0558  2        RETURN MAIL$_NOTREADIN;
;  418     0559  2 MAIL$L_MSG_RADR = .MSG_ADR + 2*RECSIZ_SIZ + .RECSIZ(.MSG_ADR); ! Skip delimiter
;  419     0560  2 MAIL$W_MSG_RSIZ = .RECSIZ(.MAIL$L_MSG_RADR - RECSIZ_SIZ);
;  420     0561  2 MAIL$L_MSG_STS = STS$K_SUCCESS;
;  421     0562  2 RETURN TRUE;
;  422     0563  1 END;


                                  000C 00000        .ENTRY  MAIL$REWIND_MSG, Save R2,R3                    ; 0538
          53 00000000'      00  9E 00002        MOVAB   MSG_ADR, R3                                        ;
          52 00000000'      00  9E 00009        MOVAB   MAIL$L_MSG_STS, R2                                 ;
          50                62  D0 00010        MOVL    MAIL$L_MSG_STS, R0                                 ; 0555
          02                50  E8 00013        BLBS    R0, 1$                                             ;
                            04  12 00016        BNEQ    2$                                                 ;
                            63  D5 00018 1$:    TSTL    MSG_ADR                                            ; 0556
                            08  12 0001A        BNEQ    3$                                                 ;
          50 007E8022       8F  D0 0001C 2$:    MOVL    #8290338, R0                                       ; 0558
                                04 00023        RET                                                        ;
          51                63  D0 00024 3$:    MOVL    MSG_ADR, R1                                        ; 0559
          50                61  9A 00027        MOVZBL  (R1), R0                                           ;
   0C     A2         02 A041    9E 0002A        MOVAB   2(R0)[R1], MAIL$L_MSG_RADR                         ;
          50         0C     A2  D0 00030        MOVL    MAIL$L_MSG_RADR, R0                                ; 0560
   08     A2         FF     A0  9B 00034        MOVZBW  -1(R0), MAIL$W_MSG_RSIZ                            ;
          62                01  D0 00039        MOVL    #1, MAIL$L_MSG_STS                                 ; 0561
          50                01  D0 0003C        MOVL    #1, R0                                             ; 0562
                                04 0003F        RET                                                        ; 0563

; Routine Size:  64 bytes,    Routine Base:  $CODE$ + 0171


;  423     0564  1
```

```
  1 GLOBAL ROUTINE MAIL$INFO_MSG(SENDER,SUBJ,DATE,TO_DESC, MESSAGE_SIZE) =
  1 !++
  1 ! FUNCTIONAL DESCRIPTION:
  1 !
  1 !       This routine is called to get the sender, date/time, subject,
  1 !       and size of the current message.
  1 !
  1 ! INPUTS:
  1 !
  1 !       SENDER = Address of descriptor of buffer to receive message sender.
  1 !       SUBJ = Address of descriptor of buffer to receive message subject.
  1 !       DATE = Optional address of descriptor of buffer to receive date/time
  1 !               of message.
  1 !       TO_DESC = Optional address of descriptor for "to" list
  1 !       MESSAGE_SIZE = Optional address of longword to return message size
  1 !               (in bytes)
  1 !
  1 ! OUTPUTS:
  1 !
  1 !       Message info copied to buffers.
  1 !--
  2 BEGIN
  2 BUILTIN
  2         NULLPARAMETER,
  2         ACTUALCOUNT;                                    ! Argument count
  2 LOCAL
  2         MSGADDR,
  2         POINTER_1,                                      ! String pointer
  2         POINTER_2,
  2         POINTER_3;
  2
P 2 IF_ERR( MAIL$REWIND_MSG();,                             ! Rewind the message
  2         RETURN .STATUS);
  2 !
  2 ! Get the sender of the current message
  2 !
  2 POINTER_1 = 0;
  2 IF .MAIL$W_MSG_RSIZ GTRU FROM_SIZ
  2 THEN
  2         POINTER_1 = CH$FIND_CH(.MAIL$W_MSG_RSIZ - FROM_SIZ,  ! Find end of name
  2                         .MAIL$L_MSG_RADR + FROM_SIZ,
  2                         ' ');
  2         IF NOT CH$FAIL(.POINTER_1)
  2         THEN
  2                 OTS$SCOPY_R_DX( .POINTER_1 - (.MAIL$L_MSG_RADR + FROM_SIZ),
  2                         .MAIL$L_MSG_RADR + FROM_SIZ,
  2                         .SENDER)
  2         ELSE
  2                 OTS$SCOPY_R_DX( 0,0,.SENDER);
  2 !
  2 ! Get date of current message
  2 !
  2 IF NOT NULLPARAMETER(3)
  3 THEN    BEGIN
  3         IF .POINTER_1 EQL 0
  3             THEN POINTER_1 = .MAIL$L_MSG_RADR + .MAIL$W_MSG_RSIZ;
  3         POINTER_2 = CH$FIND_CH(                         !Look for double quotes
```

```
3                               .MAIL$W_MSG_RSIZ-(.POINTER_1-.MAIL$L_MSG_RADR),
3                               .POINTER_1+1,'"');
3               IF NOT CH$FAIL(.POINTER_2)
4               THEN BEGIN
4                   POINTER_3 = CH$FIND_CH(
4                               .MAIL$W_MSG_RSIZ-(.POINTER_2-.MAIL$L_MSG_RADR),
4                               .POINTER_2+1,'"');
4                   IF NOT CH$FAIL(.POINTER_3)
4                       THEN POINTER_1 = .POINTER_3;
3                   END;
3               POINTER_2 = CH$FIND_CH(                         ! Find date
3                               .MAIL$W_MSG_RSIZ-(.POINTER_1-.MAIL$L_MSG_RADR),
3                               .POINTER_1 + 1,
3                               '-');
3               IF NOT CH$FAIL(.POINTER_2)
3               THEN
3                       OTS$SCOPY_R_DX( .MAIL$W_MSG_RSIZ-
3                                       (.POINTER_2 - .MAIL$L_MSG_RADR - 2),
3                                       .POINTER_2 - 2,
3                                       .DATE)
3               ELSE
3                       OTS$SCOPY_R_DX( 0,0,.DATE);
2               END;
2 !
2 ! Get the "to" list
2 !
2 IF MAIL$GET_MSG()
2     THEN IF NOT NULLPARAMETER(4)
2         THEN OTS$SCOPY_R_DX(.MAIL$W_MSG_RSIZ - TO_SIZ,
2                         .MAIL$L_MSG_RADR + TO_SIZ,
2                         .TO_DESC);
2 !
2 ! Get subject, if there is one, of the current message
2 !
2 IF MAIL$GET_MSG()
2 THEN
2               IF .MAIL$W_MSG_RSIZ GTRU SUBJ_SIZ
2               AND .(.MAIL$L_MSG_RADR) EQL 'Subj'
2               THEN
2                       OTS$SCOPY_R_DX( .MAIL$W_MSG_RSIZ - FROM_SIZ,
2                                       .MAIL$L_MSG_RADR + FROM_SIZ,
2                                       .SUBJ)
2               ELSE
2                       OTS$SCOPY_R_DX( 0,0,.SUBJ);
2 !
2 ! If requested, count bytes in message
2 !
2 IF NOT NULLPARAMETER(5)
3 THEN BEGIN
3       MSGADDR = .MSG_ADR;
3       MSGADDR = .MSGADDR + .RECSIZ(.MSGADDR) + RECSIZ_SIZ; !Skip From line
4       WHILE (.MSGADDR LEQU (.MSG_BUF_ADR + .MSG_BUF_SIZ))
4           AND NOT MSGDELIM(.MSGADDR)
3           DO MSGADDR = .MSGADDR + .RECSIZ(.MSGADDR) + RECSIZ_SIZ;
3       .MESSAGE_SIZE = .MSGADDR - .MSG_ADR;
2       END;
2 RETURN TRUE
```

```
;  539         0679  1 END;



                                       03FC 00000             .ENTRY  MAIL$INFO_MSG, Save R2,R3,R4,R5,R6,R7,R8,R9  ; 0565
                    59       FF60  CF  9E 00002               MOVAB   MAIL$GET_MSG, R9                             ;
                    58  00000000'  00  9E 00007               MOVAB   MSG_ADR, R8                                  ;
                    57  00000000G  00  9E 0000E               MOVAB   OTS$SCOPY_R_DX, R7                           ;
                    56  00000000'  00  9E 00015               MOVAB   MAIL$L_MSG_RADR, R6                          ;
              5A    A9             00  FB 0001C               CALLS   #0, MAIL$REWIND_MSG                          ; 0597
                    01             50  E8 00020               BLBS    STATUS, 1$                                   ;
                                   04     00023               RET                                                  ;
                                   53  D4 00024 1$:           CLRL    POINTER_1                                    ; 0601
                    50         FC  A6  3C 00026               MOVZWL  MAIL$W_MSG_RSIZ, R0                          ; 0602
                    06             50  B1 0002A               CMPW    R0, #6                                       ;
                    12             1B     0002D               BLEQU   3$                                           ;
                    50             06  C2 0002F               SUBL2   #6, R0                                       ; 0604
                    51             66  D0 00032               MOVL    MAIL$L_MSG_RADR, R1                          ; 0605
        06    A1    50             20  3A 00035               LOCC    #32, R0, 6(R1)                               ; 0604
                                   02  12 0003A               BNEQ    2$                                           ;
                                   51  D4 0003C               CLRL    R1                                           ;
                    53             51  D0 0003E 2$:           MOVL    R1, POINTER_1                                ;
                                   52  D4 00041 3$:           CLRL    R2                                           ; 0607
                                   53  D5 00043               TSTL    POINTER_1                                    ;
                                   04  12 00045               BNEQ    4$                                           ;
                                   52  D6 00047               INCL    R2                                           ;
                                   0F  11 00049               BRB     5$                                           ;
                               04  AC  DD 0004B 4$:           PUSHL   SENDER                                       ; 0611
              50    66             06  C1 0004E               ADDL3   #6, MAIL$L_MSG_RADR, R0                      ; 0610
                                   50  DD 00052               PUSHL   R0                                           ;
              7E    53             50  C3 00054               SUBL3   R0, POINTER_1, -(SP)                         ; 0609
                                   05  11 00058               BRB     6$                                           ;
                               04  AC  DD 0005A 5$:           PUSHL   SENDER                                       ; 0613
                                   7E  7C 0005D               CLRQ    -(SP)                                        ;
                    67             03  FB 0005F 6$:           CALLS   #3, OTS$SCOPY_R_DX                           ;
                    03             6C  91 00062               CMPB    (AP), #3                                     ; 0617
                                   72  1F 00065               BLSSU   14$                                          ;
                               0C  AC  D5 00067               TSTL    12(AP)                                       ;
                                   6D  13 0006A               BEQL    14$                                          ;
                    07             52  E9 0006C               BLBC    R2, 7$                                       ; 0619
                    53         FC  A6  3C 0006F               MOVZWL  MAIL$W_MSG_RSIZ, POINTER_1                   ; 0620
                    53             66  C0 00073               ADDL2   MAIL$L_MSG_RADR, POINTER_1                   ;
                    55         FC  A6  3C 00076 7$:           MOVZWL  MAIL$W_MSG_RSIZ, R5                          ; 0622
                    54             66  D0 0007A               MOVL    MAIL$L_MSG_RADR, R4                          ;
              50    54             53  C3 0007D               SUBL3   POINTER_1, R4, R0                            ;
                    50             55  C0 00081               ADDL2   R5, R0                                       ;
        01    A3    50             22  3A 00084               LOCC    #34, R0, 1(POINTER_1)                        ; 0621
                                   02  12 00089               BNEQ    8$                                           ;
                                   51  D4 0008B               CLRL    R1                                           ;
                    52             51  D0 0008D 8$:           MOVL    R1, POINTER_2                                ;
                                   17  13 00090               BEQL    10$                                          ; 0624
              50    54             52  C3 00092               SUBL3   POINTER_2, R4, R0                            ; 0627
                    50             55  C0 00096               ADDL2   R5, R0                                       ;
        01    A2    50             22  3A 00099               LOCC    #34, R0, 1(POINTER_2)                        ; 0626
                                   02  12 0009E               BNEQ    9$                                           ;
```

```
                             51  D4 000A0       CLRL    R1                                  ;
                             51  D5 000A2 9$:   TSTL    POINTER_3                           ; 0629
                             03  13 000A4       BEQL    10$                                 ;
              53             51  D0 000A6       MOVL    POINTER_3, POINTER_1                ; 0630
        50    54             53  C3 000A9 10$:  SUBL3   POINTER_1, R4, R0                   ; 0633
              50             55  C0 000AD       ADDL2   R5, R0                              ;
   01   A3    50             2D  3A 000B0       LOCC    #45, R0, 1(POINTER_1)               ; 0632
                             02  12 000B5       BNEQ    11$                                 ;
                             51  D4 000B7       CLRL    R1                                  ;
              52             51  D0 000B9 11$:  MOVL    R1, POINTER_2                       ;
                             13  13 000BC       BEQL    12$                                 ; 0636
                        0C   AC  DD 000BE       PUSHL   DATE                                ; 0641
                        FE   A2  9F 000C1       PUSHAB  -2(POINTER_2)                       ; 0640
        51    52             54  C3 000C4       SUBL3   R4, POINTER_2, R1                   ; 0639
        50    55             51  C3 000C8       SUBL3   R1, R5, R0                          ;
                        02   A0  9F 000CC       PUSHAB  2(R0)                               ; 0638
                             05  11 000CF       BRB     13$                                 ;
                        0C   AC  DD 000D1 12$:  PUSHL   DATE                                ; 0643
                             7E  7C 000D4       CLRQ    -(SP)                               ;
              67             03  FB 000D6 13$:  CALLS   #3, OTS$SCOPY_R_DX                  ;
              69             00  FB 000D9 14$:  CALLS   #0, MAIL$GET_MSG                    ; 0648
              1B             50  E9 000DC       BLBC    R0, 15$                             ;
              04             6C  91 000DF       CMPB    (AP), #4                            ; 0649
                             16  1F 000E2       BLSSU   15$                                 ;
                        10   AC  D5 000E4       TSTL    16(AP)                              ;
                             11  13 000E7       BEQL    15$                                 ;
                        10   AC  DD 000E9       PUSHL   TO_DESC                             ; 0652
        7E    66             04  C1 000EC       ADDL3   #4, MAIL$L_MSG_RADR, -(SP)          ; 0651
              7E        FC   A6  3C 000F0       MOVZWL  MAIL$W_MSG_RSIZ, -(SP)              ; 0650
              6E             04  C2 000F4       SUBL2   #4, (SP)                            ;
              67             03  FB 000F7       CALLS   #3, OTS$SCOPY_R_DX                  ;
              69             00  FB 000FA 15$:  CALLS   #0, MAIL$GET_MSG                    ; 0656
              29             50  E9 000FD       BLBC    R0, 18$                             ;
              50        FC   A6  3C 00100       MOVZWL  MAIL$W_MSG_RSIZ, R0                 ; 0658
              06             50  B1 00104       CMPW    R0, #6                              ;
                             18  1B 00107       BLEQU   16$                                 ;
              51             66  D0 00109       MOVL    MAIL$L_MSG_RADR, R1                 ; 0659
      6A627553  8F           61  D1 0010C       CMPL    (R1), #1784837459                   ;
                             0C  12 00113       BNEQ    16$                                 ;
                        08   AC  DD 00115       PUSHL   SUBJ                                ; 0663
        7E    66             06  C1 00118       ADDL3   #6, MAIL$L_MSG_RADR, -(SP)          ; 0662
                        FA   A0  9F 0011C       PUSHAB  -6(R0)                              ; 0661
                             05  11 0011F       BRB     17$                                 ;
                        08   AC  DD 00121 16$:  PUSHL   SUBJ                                ; 0665
                             7E  7C 00124       CLRQ    -(SP)                               ;
              67             03  FB 00126 17$:  CALLS   #3, OTS$SCOPY_R_DX                  ;
              05             6C  91 00129 18$:  CMPB    (AP), #5                            ; 0669
                             48  1F 0012C       BLSSU   22$                                 ;
                        14   AC  D5 0012E       TSTL    20(AP)                              ;
                             43  13 00131       BEQL    22$                                 ;
              53             68  D0 00133       MOVL    MSG_ADR, R3                         ; 0671
              50             53  D0 00136       MOVL    R3, MSGADDR                         ;
              51             60  9A 00139       MOVZBL  (MSGADDR), R1                       ; 0672
              50      01   A140  9E 0013C       MOVAB   1(R1)[MSGADDR], MSGADDR             ;
        52    F8  A8        FC   A8  C1 00141       ADDL3   MSG_BUF_SIZ, MSG_BUF_ADR, R2        ; 0673
              52             50  D1 00147 19$:  CMPL    MSGADDR, R2                         ;
                             25  1A 0014A       BGTRU   21$                                 ;
```

```
                        01              60  91 0014C        CMPB    (MSGADDR), #1                    ; 0674
                                        16  12 0014F        BNEQ    20$                              ;
                        0C        01    A0  91 00151        CMPB    1(MSGADDR), #12                  ;
                                        10  12 00155        BNEQ    20$                              ;
                        04        02    A0  91 00157        CMPB    2(MSGADDR), #4                   ;
                                        0A  1B 0015B        BLEQU   20$                              ;
              6D6F7246  8F        03    A0  D1 0015D        CMPL    3(MSGADDR), #1836020294          ;
                                        0A  13 00165        BEQL    21$                              ;
                        51              60  9A 00167 20$:   MOVZBL  (MSGADDR), R1                    ; 0675
                        50        01  A140  9E 0016A        MOVAB   1(R1)[MSGADDR], MSGADDR          ;
                                        D6  11 0016F        BRB     19$                              ;
         14   BC        50              53  C3 00171 21$:   SUBL3   R3, MSGADDR, @MESSAGE_SIZE       ; 0676
                        50              01  D0 00176 22$:   MOVL    #1, R0                           ; 0678
                                            04 00179        RET                                      ; 0679

; Routine Size:  378 bytes,    Routine Base:  $CODE$ + 01B1

;  540          0680  1
```

```
;   542        0681   1 GLOBAL ROUTINE MAIL$TEST_SUBJ =
;   543        0682   1 !++
;   544        0683   1 ! FUNCTIONAL DESCRIPTION:
;   545        0684   1 !
;   546        0685   1 !       This routine tests if the SUBJ: line of the message is present
;   547        0686   1 !
;   548        0687   1 ! ROUTINE VALUE:
;   549        0688   1 !
;   550        0689   1 !       True if SUBJ: line present, false if not.
;   551        0690   1 !
;   552        0691   1 !--
;   553        0692   2 BEGIN
;   554        0693   2
;   555        0694   2 LOCAL
;   556        0695   2         STATUS,
;   557        0696   2         DESC_1 : $BBLOCK[8],
;   558        0697   2         DESC_2 : $BBLOCK[8];
;   559        0698   2
;   560        0699   2 INIT_DDESC(DESC_1);
;   561        0700   2 INIT_DDESC(DESC_2);
;   562        0701   2
;   563        0702   2 MAIL$INFO_MSG(DESC_1,DESC_2);
;   564        0703   2
;   565        0704   2 STATUS = .DESC_2[DSC$W_LENGTH] NEQ 0;
;   566        0705   2 STR$FREE1_DX(DESC_1);
;   567        0706   2 STR$FREE1_DX(DESC_2);
;   568        0707   2
;   569        0708   2 MAIL$REWIND_MSG();
;   570        0709   2
;   571        0710   2 RETURN .STATUS
;   572        0711   1 END;



                                  000C 00000       .ENTRY  MAIL$TEST_SUBJ, Save R2,R3       ; 0681
              53 00000000G    00  9E 00002         MOVAB   STR$FREE1_DX, R3                 ;
              5E              0C  C2 00009         SUBL2   #12, SP                          ;
      04      AE 020E0000     8F  D0 0000C         MOVL    #34471936, DESC_1                ; 0699
                       08     AE  D4 00014         CLRL    DESC_1+4                         ;
                 020E0000     8F  DD 00017         PUSHL   #34471936                        ; 0700
                       04     AE  D4 0001D         CLRL    DESC_2+4                         ;
                              5E  DD 00020         PUSHL   SP                               ; 0702
                       0C     AE  9F 00022         PUSHAB  DESC_1                           ;
    FE5C      CF              02  FB 00025         CALLS   #2, MAIL$INFO_MSG                ;
                              50  D4 0002A         CLRL    R0                               ; 0704
                              6E  B5 0002C         TSTW    DESC_2                           ;
                              02  13 0002E         BEQL    1$                               ;
                              50  D6 00030         INCL    R0                               ;
              52              50  D0 00032  1$:    MOVL    R0, STATUS                       ;
                       08     AE  9F 00035         PUSHAB  DESC_1                           ; 0705
              63              01  FB 00038         CALLS   #1, STR$FREE1_DX                 ;
                              5E  DD 0003B         PUSHL   SP                               ; 0706
              63              01  FB 0003D         CALLS   #1, STR$FREE1_DX                 ;
    FE01      CF              00  FB 00040         CALLS   #0, MAIL$REWIND_MSG              ; 0708
              50              52  D0 00045         MOVL    STATUS, R0                       ; 0710
```

```
                                04 00048        RET                                             ; 0711

; Routine Size:  73 bytes,    Routine Base:  $CODE$ + 032B
```

```
0712  1 GLOBAL ROUTINE MAIL$TEST_SEQ_NEW =
0713  1 !++
0714  1 ! FUNCTIONAL DESCRIPTION:
0715  1 !
0716  1 !       Test if the current sequential message is a new message
0717  1 !--
0718  2 BEGIN
0719  2
0720  2 IF CH$RCHAR(NEWMSGFLAG(.MSG_ADR)) EQL '*'
0721  2     THEN RETURN TRUE
0722  2     ELSE RETURN FALSE
0723  1 END;


                              0000 00000          .ENTRY  MAIL$TEST_SEQ_NEW, Save nothing       ; 0712
            50 00000000'   00  D0 00002          MOVL    MSG_ADR, R0                           ; 0720
            51             60  9A 00009          MOVZBL  (R0), R1                              ;
            50        01 A140  9E 0000C          MOVAB   1(R1)[R0], PTR                        ;
            51             60  9A 00011          MOVZBL  (PTR), R1                             ;
            2A           6140  91 00014          CMPB    (R1)[PTR], #42                        ;
                           04  12 00018          BNEQ    1$                                    ;
            50             01  D0 0001A          MOVL    #1, R0                                ; 0722
                               04 0001D          RET                                           ;
                           50  D4 0001E 1$:      CLRL    R0                                    ;
                               04 00020          RET                                           ; 0723

; Routine Size:  33 bytes,    Routine Base:  $CODE$ + 0374
```

```
1 GLOBAL ROUTINE MAIL$NEW_MSG =
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine is called to test if the current message is a "new"
1 !       (previously unread) message.  If it is, the new flag in the message
1 !       is cleared.
1 !
1 ! INPUTS:
1 !
1 !       MSG_ADR = Address of first record in current message.
1 !
1 ! OUTPUTS:
1 !
1 !       STS$K_SUCCESS if message is new.
1 !       STS$K_ERROR if message is not new.
1 !--
2 BEGIN
2 LOCAL
2       RECBUFFER : $BBLOCK[$BYTEOFFSET(MFR_T_DATA)+8],
2       RECDESC : VECTOR[2,LONG],
2       PTR;                                        ! Buffer pointer
2
2 IF .MAIL$GL_FLAGS[MAIF_V_ISAM]
3 THEN BEGIN
3     IF .MAIL$L_CURMSG[MMB_V_NEWMSG]
4     THEN BEGIN
4       !
4       ! Update record in file to show it's been read
4       !
4       BIND
4           RECDATIM = RECBUFFER[MFR_Q_DATIM] : VECTOR[2,LONG],
4           MFR = MAIL$L_CURMSG[MMB_T_HDREC] : $BBLOCK,
4           MMH = MFR + $BYTEOFFSET(MFR_T_DATA): $BBLOCK;
4
4       MMH[MMH_V_NEWMSG] = FALSE;
4       MAIL$L_CURMSG[MMB_V_NEWMSG] = FALSE;
4       !
4       ! Only set key to MAIL if it was NEWMAIL
4       !
4       IF CH$EQL(.MFR[MFR_B_FILKEYLEN],MFR[MFR_T_FILEKEY],
4                   .MAIL$SD_NEWMAIL[DSC$W_LENGTH],
4                   .MAIL$SD_NEWMAIL[DSC$A_POINTER])
5       THEN BEGIN
5           MFR[MFR_B_FILKEYLEN] = %CHARCOUNT('MAIL');
5           CH$COPY(%CHARCOUNT('MAIL'),UPLIT(%ASCII 'MAIL'),0,
5                   MFR_S_FILEKEY,MFR[MFR_T_FILEKEY]);
4           END;
4       MAIL$UPDATE_I_MSG();
4       RETURN TRUE
4       END
3     ELSE RETURN FALSE
3     END
3 ELSE BEGIN
3     IF CH$RCHAR(PTR = NEWMSGFLAG(.MSG_ADR)) EQL '*'          ! If "new" flag
4     THEN BEGIN
4       CH$WCHAR(' ',.PTR);                              ! Clear text flag
```

```
;  644          0781  4              MODIFIED = 1;                                          ! Set modified flag
;  645          0782  4              RETURN TRUE                                            ! Return record is new
;  646          0783  4              END
;  647          0784  3          ELSE
;  648          0785  3              RETURN FALSE                                           ! Return not "new"
;  649          0786  2          END;
;  650          0787  1  END;


                                                        00395           .BLKB   3
                                     4C  49  41  4D     00398 P.AAE:    .ASCII  \MAIL\                                              ;


                                                   003C 00000           .ENTRY  MAIL$NEW_MSG, Save R2,R3,R4,R5                      ; 0724
                                 5E        C0   AE   9E 00002           MOVAB   -64(SP), SP                                         ;
                                 44 00000000G   00   E9 00006           BLBC    MAIL$GL_FLAGS, 2$                                   ; 0747
                                 50 00000000G   00   D0 0000D           MOVL    MAIL$L_CURMSG, R0                                   ; 0749
                                 61        0A   A0   E9 00014           BLBC    10(R0), 4$                                          ;
                                 54        47   A0   9E 00018           MOVAB   71(R0), R4                                          ; 0756
                            30   A4             01   8A 0001C           BICB2   #1, 48(R4)                                          ; 0759
                            0A   A0             01   8A 00020           BICB2   #1, 10(R0)                                          ; 0760
                                 51        08   A4   9A 00024           MOVZBL  8(R4), R1                                           ; 0764
                                 50 00000000G   00   D0 00028           MOVL    MAIL$SD_NEWMAIL+4, R0                               ; 0766
00000000G  00          00        09        A4   51   2D 0002F           CMPC5   R1, 9(R4), #0, MAIL$SD_NEWMAIL, (R0)                ; 0764
                                                60      00039                                                                       ;
                                                0C   12 0003A           BNEQ    1$                                                  ;
                            08   A4             04   90 0003C           MOVB    #4, 8(R4)                                           ; 0768
          27           00        B8        AF   04   2C 00040           MOVC5   #4, P.AAE, #0, #39, 9(R4)                           ; 0770
                                      09        A4      00046                                                                       ;
                      00000000G  00             00   FB 00048 1$:       CALLS   #0, MAIL$UPDATE_I_MSG                               ; 0772
                                                24   11 0004F           BRB     3$                                                  ; 0773
                                 50 00000000'   00   D0 00051 2$:       MOVL    MSG_ADR, R0                                         ; 0778
                                 51             60   9A 00058           MOVZBL  (R0), R1                                            ;
                                 50        01 A140   9E 0005B           MOVAB   1(R1)[R0], PTR                                      ;
                                 51             60   9A 00060           MOVZBL  (PTR), R1                                           ;
                                 50             51   C0 00063           ADDL2   R1, PTR                                             ;
                                 2A             60   91 00066           CMPB    (PTR), #42                                          ;
                                 0E             12      00069           BNEQ    4$                                                  ;
                                 60             20   90 0006B           MOVB    #32, (PTR)                                          ; 0780
                      00000000'  00             01   D0 0006E           MOVL    #1, MODIFIED                                        ; 0781
                                 50             01   D0 00075 3$:       MOVL    #1, R0                                              ; 0782
                                                04      00078           RET                                                         ;
                                           50   D4      00079 4$:       CLRL    R0                                                  ; 0787
                                                04      0007B           RET                                                         ;

; Routine Size:  124 bytes,    Routine Base:  $CODE$ + 039C


;  651          0788  1
```

```
GLOBAL ROUTINE MAIL$DELETE_MSG =
!++
! FUNCTIONAL DESCRIPTION:
!
!       This routine is called to delete the current message from the message
!       buffer and, ultimately, from the message file.
!
! INPUTS:
!
!       MSG_ADR = Address of first record in current message.
!
! OUTPUTS:
!
!       Current message removed from the message buffer.
!--
BEGIN
LOCAL
        TEXT_LEFT,                                      ! Size of text left
        FROM_PTR,                                       ! Move from text pointer
        TO_PTR,                                         ! Move to text pointer
        MOVE_SIZ;                                       ! Size of text moving

IF_ERR(MAIL$REWIND_MSG();,RETURN .STATUS);             ! Rewind the message
IF NOT .MAIL$GL_FLAGS[MAIF_V_READ_FL]
    THEN RETURN MAIL$_NOTREADIN;
MODIFIED = 1;                                           ! Set modified flag
WHILE MAIL$GET_MSG() DO 1;                              ! Find end of message

TEXT_LEFT = (.MSG_BUF_ADR + .MSG_BUF_SIZ) -            ! Compute text left after msg
                (.MAIL$L_MSG_RADR - RECSIZ_SIZ);
FROM_PTR = .MAIL$L_MSG_RADR - RECSIZ_SIZ;              ! Get address to move from
TO_PTR = .MSG_ADR;                                      ! Get address to move to
DO      BEGIN
        MOVE_SIZ = MIN(.TEXT_LEFT,65535);               ! Compute max that can be moved
        CH$MOVE(.MOVE_SIZ,.FROM_PTR,.TO_PTR);           ! Move text
        TO_PTR = .TO_PTR + .MOVE_SIZ;                   ! Compute new to pointer
        FROM_PTR = .FROM_PTR + .MOVE_SIZ;               ! Compute new from pointer
        TEXT_LEFT = .TEXT_LEFT - .MOVE_SIZ;             ! Compute amount left now
        END
UNTIL .TEXT_LEFT EQL 0;                                 ! Continue until all moved

MSG_BUF_SIZ = .MSG_BUF_SIZ -                            ! Compute new size of text
                ((.MAIL$L_MSG_RADR - RECSIZ_SIZ) - .MSG_ADR);

MAIL$GL_FLAGS[MAIF_V_READ_FL] = 0;
IF .MSG_ADR LSSU (.MSG_BUF_ADR + .MSG_BUF_SIZ)          ! If not past end of buffer
THEN
        MAIL$REWIND_MSG()                               ! Rewind new current message
ELSE
        MSG_ADR = MAIL$L_MSG_STS = 0;                   ! Else, end of file
RETURN STS$K_SUCCESS
END;
```

```
                                  0FFC 00000          .ENTRY  MAIL$DELETE_MSG, Save R2,R3,R4,R5,R6,R7,R8,-; 0789
                                                              R9,R10,R11                                   ;
                  5E          04    C2 00002          SUBL2   #4, SP                                       ;
         FD4F     CF          00    FB 00005          CALLS   #0, MAIL$REWIND_MSG                          ; 0811
                  01          50    E8 0000A          BLBS    STATUS, 1$                                   ;
                                    04 0000D          RET                                                  ;
   08 00000000G   00          06    E0 0000E 1$:      BBS     #6, MAIL$GL_FLAGS, 2$                        ; 0812
                  50 007E8022 8F    D0 00016          MOVL    #8290338, R0                                 ; 0813
                                    04 0001D          RET                                                  ;
      00000000'   00          01    D0 0001E 2$:      MOVL    #1, MODIFIED                                 ; 0814
         FCD5     CF          00    FB 00025 3$:      CALLS   #0, MAIL$GET_MSG                             ; 0815
                  F8          50    E8 0002A          BLBS    R0, 3$                                       ;
                  5A 00000000' 00   D0 0002D          MOVL    MSG_BUF_ADR, R10                             ; 0817
                  50 00000000' 00   D0 00034          MOVL    MSG_BUF_SIZ, R0                              ;
                  50          5A    C0 0003B          ADDL2   R10, R0                                      ;
                  59 00000000' 00   D0 0003E          MOVL    MAIL$L_MSG_RADR, R9                          ; 0818
                  50          59    C2 00045          SUBL2   R9, R0                                       ;
                  56       01 A0    9E 00048          MOVAB   1(R0), TEXT_LEFT                             ; 0817
                  57       FF A9    9E 0004C          MOVAB   -1(R9), FROM_PTR                             ; 0819
                  6E 00000000' 00   D0 00050          MOVL    MSG_ADR, (SP)                                ; 0820
                  5B          6E    D0 00057          MOVL    (SP), TO_PTR                                 ;
                  50          56    D0 0005A 4$:      MOVL    TEXT_LEFT, R0                                ; 0822
      0000FFFF    8F          50    D1 0005D          CMPL    R0, #65535                                   ;
                              05    15 00064          BLEQ    5$                                           ;
                  50     FFFF 8F    3C 00066          MOVZWL  #65535, R0                                   ;
                  58          50    D0 0006B 5$:      MOVL    R0, MOVE_SIZ                                 ;
   6B             67          58    28 0006E          MOVC3   MOVE_SIZ, (FROM_PTR), (TO_PTR)               ; 0823
                  5B          58    C0 00072          ADDL2   MOVE_SIZ, TO_PTR                             ; 0824
                  57          58    C0 00075          ADDL2   MOVE_SIZ, FROM_PTR                           ; 0825
                  56          58    C2 00078          SUBL2   MOVE_SIZ, TEXT_LEFT                          ; 0826
                              DD    12 0007B          BNEQ    4$                                           ; 0828
   50             6E          59    C3 0007D          SUBL3   R9, (SP), R0                                 ; 0831
                  50 00000000' 00   C0 00081          ADDL2   MSG_BUF_SIZ, R0                              ;
      00000000'   00       01 A0    9E 00088          MOVAB   1(R0), MSG_BUF_SIZ                           ; 0830
      00000000G   00       40 8F    8A 00090          BICB2   #64, MAIL$GL_FLAGS                           ; 0833
   50             5A 00000000' 00   C1 00098          ADDL3   MSG_BUF_SIZ, R10, R0                         ; 0834
                  50          6E    D1 000A0          CMPL    (SP), R0                                     ;
                              07    1E 000A3          BGEQU   6$                                           ;
         FCAF     CF          00    FB 000A5          CALLS   #0, MAIL$REWIND_MSG                          ; 0836
                              0C    11 000AA          BRB     7$                                           ;
                     00000000' 00   D4 000AC 6$:      CLRL    MAIL$L_MSG_STS                               ; 0838
                     00000000' 00   D4 000B2          CLRL    MSG_ADR                                      ;
   50                         01    D0 000B8 7$:      MOVL    #1, R0                                       ; 0839
                                    04 000BB          RET                                                  ; 0840

; Routine Size:  188 bytes,    Routine Base:  $CODE$ + 0418
```

```
1 ROUTINE TELL_CVTFILE (DESC) =
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       Signal that a message file is being converted to an ISAM file
1 !
1 !--
1 SIGNAL(MAIL$_CVTFILE,2,MAIL$Q_RD_DESC,.DESC);


                                     0000 00000 TELL_CVTFILE:
                                                     .WORD   Save nothing                          ; 0841
                          04     AC  DD 00002        PUSHL   DESC                                  ; 0848
                   00000000'     00  9F 00005        PUSHAB  MAIL$Q_RD_DESC                        ;
                          02         DD 0000B        PUSHL   #2                                    ;
                   007EBE93      8F  DD 0000D        PUSHL   #8306323                              ;
         00000000G  00           04  FB 00013        CALLS   #4, LIB$SIGNAL                        ;
                                     04 0001A        RET                                           ;

; Routine Size:  27 bytes,    Routine Base:  $CODE$ + 04D4
```

```
1 GLOBAL ROUTINE MAIL$CLOSE_FILE : NOVALUE =
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine closes the current message file.  If any messages were
1 !       deleted, all the un-deleted messages are first copied, contiguously,
1 !       to the message file, thus truncating the file.  The message buffer
1 !       is then deallocated.
1 !
1 ! INPUTS:
1 !
1 !       MSG_BUF_ASIZ = Size of allocated message buffer.
1 !       MSG_BUF_ADR = Starting address of message buffer.
1 !       MSG_BUF_SIZ = Size of messages in message buffer.
1 !
1 ! OUTPUTS:
1 !
1 !       Messages copied to message file, message file truncated and closed,
1 !       message buffer deallocated, message file context initialized.
1 !
1 !       All failures are signalled.
1 !--
2 BEGIN
2 LOCAL
2       PTR,                            ! Message buffer pointer
2       SIZ,                            ! Message buffer size
2       STATUS;                         ! Routine status
2 !
2 ! If no file open, just return
2 !
2 IF .RD_FAB[FAB$W_IFI] EQL 0 THEN RETURN;
2
2 IF .MAIL$GL_FLAGS[MAIF_V_ISAM]
3 THEN BEGIN
3     IF NOT .MAIL$L_USRSYSBUF[VMD_V_NOAUTOPURGE]
3         THEN MAIL$EMPTY_WASTEBASKET();
3     MAIL$DESELECT_MSGS();
3     END
3 ELSE BEGIN
3 !
3 ! If there are messages left, rewind the message file and copy the
3 ! messages to it.  If none left, mark the file for deletion.
3 !
3 IF .MODIFIED THEN
3 IF .MSG_BUF_SIZ NEQ 0                         ! If text left
4 THEN    BEGIN
4       $DCLEXH(DESBLK = EXITBLOCK);            ! Re-declare if interrupted
4       $WAIT(RAB = RD_RAB);                    ! Wait for all quiet
4       STATUS = $REWIND(RAB = RD_RAB);
4       PTR = .MSG_BUF_ADR;
4       SIZ = .MSG_BUF_SIZ;
4       WHILE .SIZ GTR 0 AND .STATUS
5       DO      BEGIN
5               RD_RAB[RAB$L_RBF] = .PTR + RECSIZ_SIZ;
5               RD_RAB[RAB$W_RSZ] = .RECSIZ(.PTR);
5               SIZ = .SIZ - .RECSIZ(.PTR)- RECSIZ_SIZ;
5               PTR = .PTR + .RECSIZ(.PTR)+ RECSIZ_SIZ;
```

```
;  772          0906  5                 STATUS = $PUT(RAB = RD_RAB,ERR=UTIL$REPORT_IO_ERROR);
;  773          0907  4                 END;
;  774          0908  4         END
;  775          0909  3 ELSE
;  776          0910  3         RD_FAB[FAB$V_DLT] = 1;                                  ! Set to delete
;  777          0911  3 LIB$FREE_VM(MSG_BUF_ASIZ,MSG_BUF_ADR);                          ! Deallocate buffer
;  778          0912  2 END;
;  779          0913  2 !
;  780          0914  2 ! Close the message file
;  781          0915  2 !
;  782          0916  2 MAIL$UP_PRIV(1^$BITPOSITION(PRV$V_SYSPRV),0);                   ! Enable system priv
;  783        P 0917  2 IF_ERR($CLOSE(FAB = RD_FAB);,                                   ! Close the file
;  784          0918  2         SIGNAL (.STATUS));                                      ! possibly deleting it
;  785          0919  2 MAIL$DOWN_PRIV();
;  786          0920  2 $CANEXH(DESBLK = EXITBLOCK);                                    ! Cancel exit handler
;  787          0921  2 !
;  788          0922  2 ! Re-initialize all the message file context
;  789          0923  2 !
;  790          0924  2 MAIL$CLR_DIR_FLAG();                                    !Clear directory display flags
;  791          0925  2 MODIFIED = 0;
;  792          0926  2 MSG_BUF_ASIZ = 0;
;  793          0927  2 MSG_BUF_SIZ = 0;
;  794          0928  2 MSG_BUF_ADR = 0;
;  795          0929  2 MSG_ADR = 0;
;  796          0930  2 MAIL$L_MSG_NUM = 0;
;  797          0931  2 MAIL$W_MSG_RSIZ = 0;
;  798          0932  2 MAIL$L_MSG_RADR = 0;
;  799          0933  2 MAIL$L_MSG_STS = MAIL$_NOTREADIN;
;  800          0934  2 MAIL$GL_FLAGS[MAIF_V_ISAM] = 0;
;  801          0935  2 MAIL$GL_FLAGS[MAIF_V_FILOPN] = 0;
;  802          0936  2 MAIL$GL_FLAGS[MAIF_V_DFMSG] = 0;
;  803          0937  1 END;


                                                        .EXTRN  SYS$DCLEXH, SYS$WAIT
                                                        .EXTRN  SYS$REWIND, SYS$PUT
                                                        .EXTRN  SYS$CLOSE, SYS$CANEXH

                             00FC 00000                 .ENTRY  MAIL$CLOSE_FILE, Save R2,R3,R4,R5,R6,R7          ; 0849
              57 00000000G  00  9E 00002                MOVAB   MAIL$GL_FLAGS, R7                                ;
              56 00000000'  00  9E 00009                MOVAB   MAIL$L_MSG_NUM, R6                               ;
              55 00000000'  00  9E 00010                MOVAB   MSG_BUF_SIZ, R5                                  ;
                      FF66  C5  B5 00017                TSTW    RD_FAB+2                                         ; 0879
                            01  12 0001B                BNEQ    1$                                               ;
                                04 0001D                RET                                                      ;
              1C            67  E9 0001E 1$:            BLBC    MAIL$GL_FLAGS, 3$                                ; 0881
              50 00000000G  00  D0 00021                MOVL    MAIL$L_USRSYSBUF, R0                             ; 0883
        07       1F         A0  02  E0 00028            BBS     #2, 31(R0), 2$                                   ;
      00000000G  00             00  FB 0002D            CALLS   #0, MAIL$EMPTY_WASTEBASKET                       ; 0884
      00000000G  00             00  FB 00034 2$:        CALLS   #0, MAIL$DESELECT_MSGS                           ; 0885
                                74  11 0003B            BRB     7$                                               ; 0881
              62       FEE8     C5  E9 0003D 3$:        BLBC    MODIFIED, 6$                                     ; 0892
                                65  D5 00042            TSTL    MSG_BUF_SIZ                                      ; 0893
                                58  13 00044            BEQL    5$                                               ;
                       FED8     C5  9F 00046            PUSHAB  EXITBLOCK                                        ; 0895
      00000000G  00             01  FB 0004A            CALLS   #1, SYS$DCLEXH                                   ;
```

```
                                B4    A5    9F 00051          PUSHAB  RD_RAB                          ; 0896
              00000000G   00          01    FB 00054          CALLS   #1, SYS$WAIT                    ;
                                B4    A5    9F 0005B          PUSHAB  RD_RAB                          ; 0897
              00000000G   00          01    FB 0005E          CALLS   #1, SYS$REWIND                  ;
                          53    FC    A5    D0 00065          MOVL    MSG_BUF_ADR, PTR                ; 0898
                          52          65    D0 00069          MOVL    MSG_BUF_SIZ, SIZ                ; 0899
                                      52    D5 0006C  4$:     TSTL    SIZ                             ; 0900
                                      34    15 0006E          BLEQ    6$                              ;
                          31          50    E9 00070          BLBC    STATUS, 6$                      ;
                    DC    A5    01    A3    9E 00073          MOVAB   1(R3), RD_RAB+40                ; 0902
                          51          63    9A 00078          MOVZBL  (PTR), R1                       ; 0903
                    D6    A5          51    B0 0007B          MOVW    R1, RD_RAB+34                   ;
           54             52          51    C3 0007F          SUBL3   R1, SIZ, R4                     ; 0904
                          52    FF    A4    9E 00083          MOVAB   -1(R4), SIZ                     ;
                          53    01  A143    9E 00087          MOVAB   1(R1)[PTR], PTR                 ; 0905
                          00000000G   00    9F 0008C          PUSHAB  UTIL$REPORT_IO_ERROR            ; 0906
                                B4    A5    9F 00092          PUSHAB  RD_RAB                          ;
              00000000G   00          02    FB 00095          CALLS   #2, SYS$PUT                     ;
                                      CE    11 0009C          BRB     4$                              ; 0900
                 FF69     C5    80    8F    88 0009E  5$:     BISB2   #128, RD_FAB+5                  ; 0910
                                FC    A5    9F 000A4  6$:     PUSHAB  MSG_BUF_ADR                     ; 0911
                                F8    A5    9F 000A7          PUSHAB  MSG_BUF_ASIZ                    ;
              00000000G   00          02    FB 000AA          CALLS   #2, LIB$FREE_VM                 ;
                                      7E    D4 000B1  7$:     CLRL    -(SP)                           ; 0916
                          10000000    8F    DD 000B3          PUSHL   #268435456                      ;
              00000000G   00          02    FB 000B9          CALLS   #2, MAIL$UP_PRIV                ;
                              FF64    C5    9F 000C0          PUSHAB  RD_FAB                          ; 0918
              00000000G   00          01    FB 000C4          CALLS   #1, SYS$CLOSE                   ;
                          09          50    E8 000CB          BLBS    STATUS, 8$                      ;
                                      50    DD 000CE          PUSHL   STATUS                          ;
              00000000G   00          01    FB 000D0          CALLS   #1, LIB$SIGNAL                  ;
              00000000G   00          00    FB 000D7  8$:     CALLS   #0, MAIL$DOWN_PRIV              ; 0919
                              FED8    C5    9F 000DE          PUSHAB  EXITBLOCK                       ; 0920
              00000000G   00          01    FB 000E2          CALLS   #1, SYS$CANEXH                  ;
              00000000G   00          00    FB 000E9          CALLS   #0, MAIL$CLR_DIR_FLAG           ; 0924
                              FEE8    C5    D4 000F0          CLRL    MODIFIED                        ; 0925
                                      65    7C 000F4          CLRQ    MSG_BUF_SIZ                     ; 0927
                                F8    A5    7C 000F6          CLRQ    MSG_BUF_ASIZ                    ; 0926
                                      66    D4 000F9          CLRL    MAIL$L_MSG_NUM                  ; 0930
                                04    A6    B4 000FB          CLRW    MAIL$W_MSG_RSIZ                 ; 0931
                                08    A6    D4 000FE          CLRL    MAIL$L_MSG_RADR                 ; 0932
                    FC    A6 007E8022    8F    D0 00101          MOVL    #8290338, MAIL$L_MSG_STS        ; 0933
                          67      1801    8F    AA 00109          BICW2   #6145, MAIL$GL_FLAGS            ; 0936
                                      04 0010E                 RET                                     ; 0937

; Routine Size:  271 bytes,    Routine Base:  $CODE$ + 04EF
```

```
  1 ROUTINE OPEN_MAIL_FILE (SIGNAL_FLAG,RE_OPEN) =
  1 !++
  1 ! FUNCTIONAL DESCRIPTION:
  1 !
  1 !       This routine opens the mail file
  1 !
  1 ! Assumes RD_FAB initialized to open the file
  1 !--
  2 BEGIN
  2
  2 LOCAL
  2     DESC : VECTOR[2,LONG],
  2     STATUS;
  2
  2 MAIL$GL_FLAGS[MAIF_V_ISAM] = 0;
  2 DESC[0] = DESC[1] = 0;
  2 STATUS = $OPEN(FAB = RD_FAB);
  2 CH$MOVE(DSC$C_S_BLN,UTIL$GETFILENAME(RD_FAB),DESC);
  2 STR$COPY_DX(RD_ESNAM_DESC,DESC);
  2 IF NOT .STATUS
  3 THEN BEGIN
  3     IF .STATUS EQL RMS$_SHR
  4     THEN BEGIN
  4         RD_FAB[FAB$B_FAC] = FAB$M_GET OR FAB$M_PUT OR FAB$M_TRN;
  4         RD_FAB[FAB$L_FOP] = FAB$M_TEF OR FAB$M_SQO;
  4         RD_FAB[FAB$B_SHR] = 0;
  4         RD_RAB[RAB$B_RAC] = RAB$C_SEQ;
  4         RD_RAB[RAB$L_ROP] = RAB$M_RAH OR RAB$M_WBH OR RAB$M_TPT;
  4         IF NOT .RE_OPEN
  4             THEN RETURN TRUE;
P 4         IF_ERR($OPEN(FAB=RD_FAB);,
P 4                 IF .SIGNAL_FLAG
P 4                 THEN UTIL$REPORT_IO_ERROR(RD_FAB);
  4                 RETURN .STATUS);
  4         END
  3         ELSE RETURN UTIL$REPORT_IO_ERROR(RD_FAB);
  2     END;
  2 IF .RD_FAB[FAB$B_ORG] EQL FAB$C_IDX
  3 THEN BEGIN
  3     MAIL$GL_FLAGS[MAIF_V_ISAM] = 1;                      !Flag ISAM file
  3     IF .MAIL$L_RECBUF EQL 0
P 3         THEN IF_ERR(LIB$GET_VM(%REF(MFR_C_MAXLEN),MAIL$L_RECBUF);,
P 3                 IF .SIGNAL_FLAG THEN SIGNAL(.STATUS);
  3                 RETURN .STATUS);
  3
  3     RD_RAB[RAB$L_UBF] = .MAIL$L_RECBUF;
  2     END;
  2
P 2 IF_ERR($CONNECT(RAB=RD_RAB);,
P 2         IF .SIGNAL_FLAG
P 2             THEN UTIL$REPORT_IO_ERROR(RD_RAB);
P 2         $CLOSE(FAB=RD_FAB);
  2         RETURN .STATUS);
  2
  2 IF .MAIL$GL_FLAGS[MAIF_V_ISAM]
  2     THEN MAIL$ISAM_INIT();
  2
```

```
;  862          0995  2 RETURN TRUE
;  863          0996  1 END;


                                                          .EXTRN  SYS$OPEN, SYS$CONNECT

                                      OFFC 00000 OPEN_MAIL_FILE:
                                                          .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ; 0938
              5B 00000000G   00   9E 00002                MOVAB   SYS$OPEN, R11                                  ;
              5A 00000000G   00   9E 00009                MOVAB   MAIL$GL_FLAGS, R10                             ;
              59 00000000'   00   9E 00010                MOVAB   MAIL$L_RECBUF, R9                              ;
              58 00000000G   00   9E 00017                MOVAB   UTIL$REPORT_IO_ERROR, R8                       ;
              57 00000000'   00   9E 0001E                MOVAB   RD_FAB, R7                                     ;
              5E             0C   C2 00025                SUBL2   #12, SP                                        ;
              6A             01   8A 00028                BICB2   #1, MAIL$GL_FLAGS                              ; 0952
                      04     AE   7C 0002B                CLRQ    DESC                                           ; 0953
                             57   DD 0002E                PUSHL   R7                                             ; 0954
              6B             01   FB 00030                CALLS   #1, SYS$OPEN                                   ;
              56             50   D0 00033                MOVL    R0, STATUS                                     ;
                             57   DD 00036                PUSHL   R7                                             ; 0955
      00000000G  00          01   FB 00038                CALLS   #1, UTIL$GETFILENAME                           ;
   04     AE     60          08   28 0003F                MOVC3   #8, (R0), DESC                                 ;
                      04     AE   9F 00044                PUSHAB  DESC                                           ; 0956
                      98     A7   9F 00047                PUSHAB  RD_ESNAM_DESC                                  ;
      00000000G  00          02   FB 0004A                CALLS   #2, STR$COPY_DX                                ;
                 41          56   E8 00051                BLBS    STATUS, 3$                                     ; 0957
      000186B4   8F          56   D1 00054                CMPL    STATUS, #100020                                ; 0959
                 32          12   0005B                   BNEQ    2$                                             ;
            04   A7 10000040 8F   D0 0005D                MOVL    #268435520, RD_FAB+4                           ; 0962
            16   A7          13   B0 00065                MOVW    #19, RD_FAB+22                                 ; 0961
                      6E     A7   94 00069                CLRB    RD_RAB+30                                      ; 0964
            54   A7     0602 8F   3C 0006C                MOVZWL  #1538, RD_RAB+4                                ; 0965
            03          08   AC   E8 00072                BLBS    RE_OPEN, 1$                                    ; 0966
                      0085   31   00076                   BRW     9$                                             ;
                             57   DD 00079 1$:            PUSHL   R7                                             ; 0971
              6B             01   FB 0007B                CALLS   #1, SYS$OPEN                                   ;
              52             50   D0 0007E                MOVL    R0, STATUS                                     ;
              11             52   E8 00081                BLBS    STATUS, 3$                                     ;
              68      04     AC   E9 00084                BLBC    SIGNAL_FLAG, 7$                                ;
                             57   DD 00088                PUSHL   R7                                             ;
              68             01   FB 0008A                CALLS   #1, UTIL$REPORT_IO_ERROR                       ;
                             61   11 0008D                BRB     7$                                             ;
                             57   DD 0008F 2$:            PUSHL   R7                                             ; 0973
              68             01   FB 00091                CALLS   #1, UTIL$REPORT_IO_ERROR                       ;
                                  04 00094                RET                                                    ;
              20      1D     A7   91 00095 3$:            CMPB    RD_FAB+29, #32                                 ; 0975
                             32   12 00099                BNEQ    5$                                             ;
              6A             01   88 0009B                BISB2   #1, MAIL$GL_FLAGS                              ; 0977
                             69   D5 0009E                TSTL    MAIL$L_RECBUF                                  ; 0978
                             27   12 000A0                BNEQ    4$                                             ;
                             59   DD 000A2                PUSHL   R9                                             ; 0981
            04   AE     0800 8F   3C 000A4                MOVZWL  #2048, 4(SP)                                   ;
                      04     AE   9F 000AA                PUSHAB  4(SP)                                          ;
      00000000G  00          02   FB 000AD                CALLS   #2, LIB$GET_VM                                 ;
                 52          50   D0 000B4                MOVL    R0, STATUS                                     ;
                 0F          52   E8 000B7                BLBS    STATUS, 4$                                     ;
```

```
             32      04    AC  E9 000BA        BLBC    SIGNAL_FLAG, 7$                 ;
                           52  DD 000BE        PUSHL   STATUS                          ;
      00000000G  00        01  FB 000C0        CALLS   #1, LIB$SIGNAL                  ;
                           27  11 000C7        BRB     7$                              ;
         74  A7            69  D0 000C9 4$:    MOVL    MAIL$L_RECBUF, RD_RAB+36        ; 0983
                     50    A7  9F 000CD 5$:    PUSHAB  RD_RAB                          ; 0990
      00000000G  00        01  FB 000D0        CALLS   #1, SYS$CONNECT                 ;
                 52        50  D0 000D7        MOVL    R0, STATUS                      ;
                 17        52  E8 000DA        BLBS    STATUS, 8$                      ;
                 06  04    AC  E9 000DD        BLBC    SIGNAL_FLAG, 6$                 ;
                     50    A7  9F 000E1        PUSHAB  RD_RAB                          ;
                 68        01  FB 000E4        CALLS   #1, UTIL$REPORT_IO_ERROR        ;
                           57  DD 000E7 6$:    PUSHL   R7                              ;
      00000000G  00        01  FB 000E9        CALLS   #1, SYS$CLOSE                   ;
                 50        52  D0 000F0 7$:    MOVL    STATUS, R0                      ;
                               04 000F3        RET                                     ;
                 07        6A  E9 000F4 8$:    BLBC    MAIL$GL_FLAGS, 9$               ; 0992
      00000000G  00        00  FB 000F7        CALLS   #0, MAIL$ISAM_INIT              ; 0993
                 50        01  D0 000FE 9$:    MOVL    #1, R0                          ; 0995
                               04 00101        RET                                     ; 0996

; Routine Size:  258 bytes,    Routine Base:  $CODE$ + 05FE
```

```
1 GLOBAL ROUTINE MAIL$RENAME_SUCCESS (OLD_SPEC,NEW_SPEC) =
1 !++
1 ! FUNCTIONAL DESCRIPTION:
1 !
1 !       This routine is called by LIB$RENAME_FILE on a successful RENAME
1 !--
2 BEGIN
2
2 MAP
2     OLD_SPEC : REF $BBLOCK;
2
2 SIGNAL(MAIL$_RENAMED,2,.OLD_SPEC,.NEW_SPEC);
2
2 RETURN TRUE
1 END;
```

```
                                0000 00000      .ENTRY  MAIL$RENAME_SUCCESS, Save nothing    ; 0997
            7E        04     AC   7D 00002      MOVQ    OLD_SPEC, -(SP)                      ; 1008
                             02   DD 00006      PUSHL   #2                                   ;
                  007E12A1   8F   DD 00008      PUSHL   #8262305                             ;
      00000000G   00         04   FB 0000E      CALLS   #4, LIB$SIGNAL                       ;
                  50         01   D0 00015      MOVL    #1, R0                               ; 1010
                                  04 00018      RET                                          ; 1011
```

; Routine Size: 25 bytes,   Routine Base: $CODE$ + 0700

```
;  881      1012  1 GLOBAL ROUTINE MAIL$RENAME_ERROR (OLD_SPEC,NEW_SPEC,RMSSTS,RMSSTV,ERROR_SOURCE) =
;  882      1013  1 !++
;  883      1014  1 ! FUNCTIONAL DESCRIPTION:
;  884      1015  1 !
;  885      1016  1 !       Error routine called by LIB$RENAME_FILE on an error
;  886      1017  1 !--
;  887      1018  2 BEGIN
;  888      1019  2 MAP
;  889      1020  2     RMSSTS : REF VECTOR[,LONG],
;  890      1021  2     RMSSTV : REF VECTOR[,LONG];
;  891      1022  2
;  892      1023  2 CASE .ERROR_SOURCE FROM 0 TO 2
;  893      1024  2 OF SET
;  894      1025  2
;  895      1026  2 [0] :                                         !Error searching for old_file
;  896      1027  2 !    IF .RMSSTS[0] EQL RMS$_FNF
;  897      1028  2 !       THEN RETURN TRUE
;  898      1029  2 !       ELSE
;  899      1030  2         SIGNAL(MAIL$_SEARCHFAIL,1,.OLD_SPEC,
;  900      1031  2                                 .RMSSTS[0],.RMSSTV[0]);
;  901      1032  2
;  902      1033  2 [1,2] :                                       !Error parsing new file
;  903      1034  2     SIGNAL(MAIL$_SEARCHFAIL,1,.NEW_SPEC,.RMSSTS[0],.RMSSTV[0]);
;  904      1035  2 TES;
;  905      1036  2
;  906      1037  2 RETURN TRUE
;  907      1038  1 END;


                                     0000 00000          .ENTRY  MAIL$RENAME_ERROR, Save nothing          ; 1012
        02          00         14  AC  CF 00002          CASEL   ERROR_SOURCE, #0, #2                     ; 1023
      0011        0011           0006     00007 1$:      .WORD   2$-1$,-                                  ;
                                                                 3$-1$,-                                  ;
                                                                 3$-1$                                    ;
                               10  BC  DD 0000D 2$:      PUSHL   @RMSSTV                                  ; 1031
                               0C  BC  DD 00010          PUSHL   @RMSSTS                                  ;
                               04  AC  DD 00013          PUSHL   OLD_SPEC                                 ; 1030
                                   09  11 00016          BRB     4$                                       ;
                               10  BC  DD 00018 3$:      PUSHL   @RMSSTV                                  ; 1034
                               0C  BC  DD 0001B          PUSHL   @RMSSTS                                  ;
                               08  AC  DD 0001E          PUSHL   NEW_SPEC                                 ;
                                   01  DD 00021 4$:      PUSHL   #1                                       ;
                      007E123A     8F  DD 00023          PUSHL   #8262202                                 ;
             00000000G  00         05  FB 00029          CALLS   #5, LIB$SIGNAL                           ;
                        50         01  D0 00030          MOVL    #1, R0                                   ; 1037
                                       04 00033          RET                                              ; 1038

; Routine Size:  52 bytes,    Routine Base:  $CODE$ + 0719
```

```
    1 GLOBAL ROUTINE MAIL$OPEN_FILE(FILE_DESC) =
    1 !++
    1 ! FUNCTIONAL DESCRIPTION:
    1 !
    1 !        This routine opens the named message file and reads it into the
    1 !        message buffer.
    1 !
    1 ! INPUTS:
    1 !
    1 !        FILE_DESC = Descriptor of file to open. if 0, default mail file opened
    1 !        MAIL$T_MAILDEF = User's default device/directory string
    1 !
    1 ! OUTPUTS:
    1 !
    1 !        MSG_BUF_ASIZ = Size of allocated message buffer.
    1 !        MSG_BUF_SIZ = Size of text in message buffer.
    1 !        MSG_BUF_ADR = Address of text in message buffer.
    1 !        MSG_ADR = Address of first new message in buffer.
    1 !        MAIL$Q_MSG_FILE = Message file name desc.
    1 !        MAIL$L_MSG_NUM = Current message number.
    1 !
    1 !        All failures are signalled as well as returned.
    1 !--
    2 BEGIN
    2
    2 MAP
    2        FILE_DESC : REF $BBLOCK;
    2
    2 LOCAL
    2        DESC : VECTOR[2,LONG],
    2        DESC_1 : VECTOR[2,LONG],
    2        NEW_FORMAT,                          ! File is ISAM
    2        PREV_REC,                            ! Previous record address
    2        SPACE_LEFT,                          ! Space left in buffer
    2        STATUS;                              ! Routine status
    2
    2 IF .RD_RSNAM_BUF EQL 0
P   2     THEN IF_ERR(LIB$GET_VM(%REF(NAM$C_MAXRSS),RD_RSNAM_BUF);,
    2             RETURN SIGNAL(.STATUS));
    2 IF .RD_ESNAM_BUF EQL 0
P   2     THEN IF_ERR(LIB$GET_VM(%REF(NAM$C_MAXRSS),RD_ESNAM_BUF);,
    2             RETURN SIGNAL(.STATUS));
    2 !
    2 ! Close any currently open file and zero all context.
    2 !
    2 MAIL$CLOSE_FILE();
    2 !
    2 ! Initialize RMS data structures
    2 !
P   2 $FAB_INIT(FAB=RD_FAB,
P   2        FNS=.FILE_DESC[DSC$W_LENGTH],
P   2        FNA=.FILE_DESC[DSC$A_POINTER],
P   2        DNS = .MAIL$Q_MAILDEF[DSC$W_LENGTH],
P   2        DNA = .MAIL$Q_MAILDEF[DSC$A_POINTER],
P   2        CTX = MAIL$_OPENIN,
P   2        FAC=(DEL,GET,PUT,UPD),
P   2        SHR=(DEL,GET,PUT,UPD),
```

```
        NAM=RD_NAM);

RD_FAB[FAB$V_DFW] = .MAIL$B_DFW;

$NAM_INIT(NAM=RD_NAM,
        RSS=NAM$C_MAXRSS,
        RSA=.RD_RSNAM_BUF,
        ESS=NAM$C_MAXRSS,
        ESA=.RD_ESNAM_BUF);

$RAB_INIT(RAB=RD_RAB,
        FAB=RD_FAB,
        CTX=MAIL$_OPENIN,
        RAC=KEY,
        USZ=MFR_C_MAXLEN);

IF .FILE_DESC[DSC$W_LENGTH] EQL 0
    OR CH$EQL(.FILE_DESC[DSC$W_LENGTH],.FILE_DESC[DSC$A_POINTER],
            .MAIL$Q_MSGNAME[DSC$W_LENGTH],.MAIL$Q_MSGNAME[DSC$A_POINTER],0)
THEN BEGIN
!
! Open the new message file.  Call routine to concatenate new msgs together
! if sequential file.  if isam file, always just open.
!
        STR$COPY_DX(MAIL$Q_MSG_FILE,MAIL$Q_MSGNAME);
        RD_FAB[FAB$B_FNS] = .MAIL$Q_MSGNAME[DSC$W_LENGTH];
        RD_FAB[FAB$L_FNA] = .MAIL$Q_MSGNAME[DSC$A_POINTER];
        STATUS = OPEN_NEWFILE();
        IF .STATUS EQL RMS$_FNF                         ! If file not found
        THEN    BEGIN
                SIGNAL(MAIL$_NOMSGS);                   ! Signal no messages
                RETURN MAIL$_NOMSGS                     ! Return
                END
        ELSE IF NOT .STATUS
            THEN RETURN .STATUS;
        MAIL$GL_FLAGS[MAIF_V_DFMSG] = 1;
        END
ELSE BEGIN
        STR$COPY_DX(MAIL$Q_MSG_FILE,.FILE_DESC);
        STATUS = OPEN_MAIL_FILE(1,1);
        IF NOT .STATUS THEN RETURN .STATUS;
        END;
MAIL$Q_MSG_FNM[DSC$W_LENGTH] = .RD_NAM[NAM$B_NAME];
MAIL$Q_MSG_FNM[DSC$A_POINTER] = .RD_NAM[NAM$L_NAME];

IF NOT .MAIL$GL_FLAGS[MAIF_V_ISAM]              !Isam handled differently, thanks
THEN BEGIN
!
! Allocate a buffer to read-in the message text
!
IF .RD_FAB[FAB$L_ALQ] EQL 0                             ! Return if file empty
THEN
        (SIGNAL(MAIL$_NOMSGS); $CLOSE(FAB=RD_FAB); RETURN MAIL$_NOMSGS);
MSG_BUF_ASIZ = .RD_FAB[FAB$L_ALQ] * 512;               ! Compute size in bytes
IF_ERR( LIB$GET_VM(MSG_BUF_ASIZ,MSG_BUF_ADR);,
        SIGNAL(.STATUS);
        $CLOSE(FAB = RD_FAB);
```

```
                RETURN .STATUS);
        !
        ! Read all the text records from the file into the message buffer
        !
        SPACE_LEFT = .MSG_BUF_ASIZ;
        PREV_REC = .MSG_BUF_ADR; .PREV_REC = 0;
        RD_RAB[RAB$L_UBF] = .MSG_BUF_ADR + RECSIZ_SIZ;
        RD_RAB[RAB$W_USZ] = MIN(.SPACE_LEFT - RECSIZ_SIZ,MAXRECSIZ);
        RD_RAB[RAB$L_CTX] = MAIL$_READERR;
        WHILE (STATUS = $GET(RAB = RD_RAB,ERR=UTIL$REPORT_IO_ERROR))
        AND   (.SPACE_LEFT GTR 0)
        DO      BEGIN
                RECSIZ(.RD_RAB[RAB$L_UBF] - RECSIZ_SIZ) = .RD_RAB[RAB$W_RSZ];
                !
                ! If first new message, save address of message
                !
                IF MSGDELIM(.PREV_REC)
                THEN
                        IF .MSG_ADR EQL 0
                        THEN    BEGIN
                                MAIL$L_MSG_NUM = .MAIL$L_MSG_NUM + 1;
                                IF CH$RCHAR(NEWMSGFLAG(.PREV_REC)) EQL '*'
                                THEN
                                        MSG_ADR = .PREV_REC;
                                END;
                PREV_REC = .RD_RAB[RAB$L_RBF] - RECSIZ_SIZ;
                !
                ! Compute space left and address for next record
                !
                SPACE_LEFT = .SPACE_LEFT - .RD_RAB[RAB$W_RSZ] - RECSIZ_SIZ;
                MSG_BUF_SIZ = .MSG_BUF_SIZ + .RD_RAB[RAB$W_RSZ] + RECSIZ_SIZ;
                RD_RAB[RAB$L_UBF] = .RD_RAB[RAB$L_UBF] +
                                .RD_RAB[RAB$W_RSZ] + RECSIZ_SIZ;
                RD_RAB[RAB$W_USZ] = MIN(.SPACE_LEFT - RECSIZ_SIZ,MAXRECSIZ);
                END;
        IF .STATUS NEQ RMS$_EOF
        THEN    BEGIN
                MAIL$CLOSE_FILE();
                RETURN .STATUS;
                END;
        !
        ! If no new messages found, set current message to first message.  Also, if
        ! this is the new message file, clear the user's new message flag.
        !
        IF .MSG_ADR EQL 0                                       ! If no new messages,
        THEN    BEGIN
                MSG_ADR = .MSG_BUF_ADR;                         ! Position to first one
                MAIL$L_MSG_NUM = 1;
                END;
L       %IF NOT LEAVE_SEQ
        %THEN
                IF .MAIL$GL_FLAGS[MAIF_V_DFMSG]
                THEN BEGIN
                    DESC[0] = .RD_NAM[NAM$B_NAME];
                    DESC[1] = .RD_NAM[NAM$L_NAME];
                    DESC_1[0] = .RD_NAM[NAM$B_RSL] - .RD_NAM[NAM$B_VER];
                    DESC_1[1] = .RD_NAM[NAM$L_RSA];
```

```
; 1080      1210 4                 MAIL$COPY_MSGS(DESC_1,DESC,(MCR_M_NIL OR MCR_M_ALL),TELL_CVTFILE);
; 1081      1211 4                 MAIL$CLOSE_FILE();              !Close the sequential file
; 1082      1212 4                 LIB$RENAME_FILE(MAIL$Q_RD_DESC,     !Rename the old sequential file
; 1083      1213 4                         $DESCRIPTOR('.OLD'),0,0,0,
; 1084      1214 4                         MAIL$RENAME_SUCCESS,MAIL$RENAME_ERROR);
; 1085      1215 4                 MAIL$GET_INPUT(DYN_DESC,MAIL$GETMSG(MAIL$_RETCONT));
; 1086      1216 4                 RETURN MAIL$OPEN_FILE(.FILE_DESC);  !and open the isam version
; 1087      1217 3                 END;
; 1088      1218 3 %FI
; 1089      1219 2 END;                                                  !Sequential mail file
; 1090      1220 2 MAIL$GL_FLAGS[MAIF_V_FILOPN] = 1;                     !Flag file open for business
; 1091      1221 2 RETURN TRUE
; 1092      1222 1 END;


                                   44  4C  4F  2E  0074D P.AAG:   .ASCII  \.OLD\                                        ;
                                                   00751          .BLKB   3
                                         00000004  00754 P.AAF:   .LONG   4                                             ;
                                         00000000' 00758          .ADDRESS P.AAG                                        ;

                                                         $RMS_PTR=        RD_FAB
                                                         $RMS_PTR=        RD_NAM
                                                         $RMS_PTR=        RD_RAB
                                                                  .EXTRN  SYS$GET

                                              0FFC 00000          .ENTRY  MAIL$OPEN_FILE, Save R2,R3,R4,R5,R6,R7,R8,-  ; 1039
                                                                          R9,R10,R11                                    ;
                         5B 00000000G  00  9E 00002          MOVAB   LIB$SIGNAL, R11                               ;
                         5A 00000000'  00  9E 00009          MOVAB   MAIL$Q_MSG_FILE, R10                          ;
                         59      FD7F  CF  9E 00010          MOVAB   MAIL$CLOSE_FILE, R9                           ;
                         58 00000000'  00  9E 00015          MOVAB   $RMS_PTR, R8                                  ;
                         5E            14  C2 0001C          SUBL2   #20, SP                                       ;
                                 90    A8  D5 0001F          TSTL    RD_RSNAM_BUF                                  ; 1075
                                 15    12 00022              BNEQ    1$                                            ;
                                 90    A8  9F 00024          PUSHAB  RD_RSNAM_BUF                                  ; 1077
                  04     AE      FF    8F  9A 00027          MOVZBL  #255, 4(SP)                                   ;
                                 04    AE  9F 0002C          PUSHAB  4(SP)                                         ;
           00000000G     00      02    FB 0002F              CALLS   #2, LIB$GET_VM                                ;
                         1A      50    E9 00036              BLBC    STATUS, 2$                                    ;
                                 94    A8  D5 00039 1$:      TSTL    RD_ESNAM_BUF                                  ; 1078
                                 1B    12 0003C              BNEQ    3$                                            ;
                                 94    A8  9F 0003E          PUSHAB  RD_ESNAM_BUF                                  ; 1080
                  04     AE      FF    8F  9A 00041          MOVZBL  #255, 4(SP)                                   ;
                                 04    AE  9F 00046          PUSHAB  4(SP)                                         ;
           00000000G     00      02    FB 00049              CALLS   #2, LIB$GET_VM                                ;
                         06      50    E8 00050              BLBS    STATUS, 3$                                    ;
                                 50    DD 00053 2$:          PUSHL   STATUS                                        ;
                         6B      01    FB 00055              CALLS   #1, LIB$SIGNAL                                ;
                                       04 00058              RET                                                   ;
                         69      00    FB 00059 3$:          CALLS   #0, MAIL$CLOSE_FILE                           ; 1084
  0050    8F       00    6E      00    2C 0005C              MOVC5   #0, (SP), #0, #80, $RMS_PTR                   ; 1096
                                 68       00063                                                                    ;
                         68    5003    8F  B0 00064          MOVW    #20483, $RMS_PTR                              ;
                  16     A8    0F0F    8F  B0 00069          MOVW    #3855, $RMS_PTR+22                            ;
                  18     A8 007E109A   8F  D0 0006F          MOVL    #8261786, $RMS_PTR+24                         ;
                  1F     A8      02    90 00077              MOVB    #2, $RMS_PTR+31                               ;
```

```
                          28   A8          A0   A8  9E 0007B       MOVAB   RD_NAM, $RMS_PTR+40                              ;
                          56               04   AC  D0 00080       MOVL    FILE_DESC, R6                                    ;
                          2C   A8          04   A6  D0 00084       MOVL    4(R6), $RMS_PTR+44                               ;
                          30   A8   00000000G   00  D0 00089       MOVL    MAIL$Q_MAILDEF+4, $RMS_PTR+48                    ;
                          34   A8               66  90 00091       MOVB    (R6), $RMS_PTR+52                                ;
                          35   A8   00000000G   00  90 00095       MOVB    MAIL$Q_MAILDEF, $RMS_PTR+53                      ;
   04     A8         01   05   00000000G        00  F0 0009D       INSV    MAIL$B_DFW, #5, #1, RD_FAB+4                     ; 1098
 0060     8F         00   6E                    00  2C 000A7       MOVC5   #0, (SP), #0, #96, $RMS_PTR                      ; 1104
                                       A0       A8     000AE                                                                  ;
                          A0   A8        6002   8F  B0 000B0       MOVW    #24578, $RMS_PTR                                 ;
                          A2   A8          01   8E  8E 000B6       MNEGB   #1, $RMS_PTR+2                                   ;
                          A4   A8          90   A8  D0 000BA       MOVL    RD_RSNAM_BUF, $RMS_PTR+4                         ;
                          AA   A8          01   8E  8E 000BF       MNEGB   #1, $RMS_PTR+10                                  ;
                          AC   A8          94   A8  D0 000C3       MOVL    RD_ESNAM_BUF, $RMS_PTR+12                        ;
 0044     8F         00   6E                    00  2C 000C8       MOVC5   #0, (SP), #0, #68, $RMS_PTR                      ; 1110
                                       50       A8     000CF                                                                  ;
                          50   A8        4401   8F  B0 000D1       MOVW    #17409, $RMS_PTR                                 ;
                          68   A8    007E109A   8F  D0 000D7       MOVL    #8261786, $RMS_PTR+24                            ;
                          6E   A8               01  90 000DF       MOVB    #1, $RMS_PTR+30                                  ;
                          70   A8        0800   8F  B0 000E3       MOVW    #2048, $RMS_PTR+32                               ;
                        008C   C8               68  9E 000E9       MOVAB   RD_FAB, $RMS_PTR+60                              ;
                                                66  B5 000EE       TSTW    (R6)                                             ; 1112
                                                10  13 000F0       BEQL    4$                                               ;
                          50             F7C2   CF  D0 000F2       MOVL    MAIL$Q_MSGNAME+4, R0                             ; 1114
 F7B5     CF         00   04               B6   66  2D 000F7       CMPC5   (R6), @4(R6), #0, MAIL$Q_MSGNAME, (R0)           ; 1113
                                                60     000FF                                                                  ;
                                                43  12 00100       BNEQ    6$                                               ;
                                         F7AE   CF  9F 00102 4$:   PUSHAB  MAIL$Q_MSGNAME                                   ; 1120
                                                5A  DD 00106       PUSHL   R10                                              ;
                   00000000G   00               02  FB 00108       CALLS   #2, STR$COPY_DX                                  ;
                          34   A8        F7A1   CF  90 0010F       MOVB    MAIL$Q_MSGNAME, RD_FAB+52                        ; 1121
                          2C   A8        F79F   CF  D0 00115       MOVL    MAIL$Q_MSGNAME+4, RD_FAB+44                      ; 1122
                   00000000V   00               00  FB 0011B       CALLS   #0, OPEN_NEWFILE                                 ; 1123
                               57               50  D0 00122       MOVL    R0, STATUS                                       ;
                   00018292    8F               57  D1 00125       CMPL    STATUS, #98962                                   ; 1124
                                                0B  12 0012C       BNEQ    5$                                               ;
                                     007E804A   8F  DD 0012E       PUSHL   #8290378                                         ; 1126
                                       6B       01  FB 00134       CALLS   #1, LIB$SIGNAL                                   ;
                                                54  11 00137       BRB     10$                                              ; 1127
                               20               57  E9 00139 5$:   BLBC    STATUS, 7$                                       ; 1129
                   00000000G   00               10  88 0013C       BISB2   #16, MAIL$GL_FLAGS+1                             ; 1131
                                                1D  11 00143       BRB     8$                                               ; 1112
                                                56  DD 00145 6$:   PUSHL   R6                                               ; 1134
                                                5A  DD 00147       PUSHL   R10                                              ;
                   00000000G   00               02  FB 00149       CALLS   #2, STR$COPY_DX                                  ;
                                                01  DD 00150       PUSHL   #1                                               ; 1135
                                                01  DD 00152       PUSHL   #1                                               ;
                        010F   C9               02  FB 00154       CALLS   #2, OPEN_MAIL_FILE                               ;
                               57               50  D0 00159       MOVL    R0, STATUS                                       ;
                               03               57  E8 0015C 7$:   BLBS    STATUS, 8$                                       ; 1136
                                         0138   31     0015F       BRW     19$                                              ;
                          08   AA          DB   A8  9B 00162 8$:   MOVZBW  RD_NAM+59, MAIL$Q_MSG_FNM                        ; 1138
                          0C   AA          EC   A8  D0 00167       MOVL    RD_NAM+76, MAIL$Q_MSG_FNM+4                      ; 1139
                               03   00000000G   00  E9 0016C       BLBC    MAIL$GL_FLAGS, 9$                                ; 1141
                                         01AD   31     00173       BRW     22$                                              ;
                                       10       A8  D5 00176 9$:   TSTL    RD_FAB+16                                        ; 1146
                                                1A  12 00179       BNEQ    11$                                              ;
```

```
                     007E804A  8F  DD 0017B      PUSHL   #8290378                                ; 1148
                 6B            01  FB 00181      CALLS   #1, LIB$SIGNAL                          ;
                               58  DD 00184      PUSHL   R8                                      ;
           00000000G 00        01  FB 00186      CALLS   #1, SYS$CLOSE                           ;
                 50  007E804A  8F  D0 0018D 10$: MOVL    #8290378, R0                            ;
                               04  00194         RET                                             ;
  0094   C8      10  A8        09  78 00195 11$: ASHL    #9, RD_FAB+16, MSG_BUF_ASIZ             ; 1149
                     0098      C8  9F 0019C      PUSHAB  MSG_BUF_ADR                             ; 1153
                     0094      C8  9F 001A0      PUSHAB  MSG_BUF_ASIZ                            ;
           00000000G 00        02  FB 001A4      CALLS   #2, LIB$GET_VM                          ;
                 52            50  D0 001AB      MOVL    R0, STATUS                              ;
                 12            52  E8 001AE      BLBS    STATUS, 12$                             ;
                               52  DD 001B1      PUSHL   STATUS                                  ;
                 6B            01  FB 001B3      CALLS   #1, LIB$SIGNAL                          ;
                               58  DD 001B6      PUSHL   R8                                      ;
           00000000G 00        01  FB 001B8      CALLS   #1, SYS$CLOSE                           ;
                 50            52  D0 001BF      MOVL    STATUS, R0                              ;
                               04  001C2         RET                                             ;
                 52  0094      C8  D0 001C3 12$: MOVL    MSG_BUF_ASIZ, SPACE_LEFT                ; 1157
                 50  0098      C8  D0 001C8      MOVL    MSG_BUF_ADR, R0                         ; 1158
                 53            50  D0 001CD      MOVL    R0, PREV_REC                            ;
                               63  D4 001D0      CLRL    (PREV_REC)                              ;
              74 A8      01    A0  9E 001D2      MOVAB   1(R0), RD_RAB+36                        ; 1159
                 50      FF    A2  9E 001D7      MOVAB   -1(R2), R0                              ; 1160
           000000FF 8F         50  D1 001DB      CMPL    R0, #255                                ;
                 04            15  001E2         BLEQ    13$                                     ;
                 50      FF    8F  9A 001E4      MOVZBL  #255, R0                                ;
              70 A8            50  B0 001E8 13$: MOVW    R0, RD_RAB+32                           ;
              68 A8  007E10B2  8F  D0 001EC      MOVL    #8261810, RD_RAB+24                     ; 1161
                    00000000G  00  9F 001F4 14$: PUSHAB  UTIL$REPORT_IO_ERROR                    ; 1162
                         50    A8  9F 001FA      PUSHAB  RD_RAB                                  ;
           00000000G 00        02  FB 001FD      CALLS   #2, SYS$GET                             ;
                 57            50  D0 00204      MOVL    R0, STATUS                              ;
                 03            57  E8 00207      BLBS    STATUS, 15$                             ;
                         0081  31  0020A         BRW     18$                                     ;
                               52  D5 0020D 15$: TSTL    SPACE_LEFT                              ; 1163
                               7D  15 0020F      BLEQ    18$                                     ;
                 54      74    A8  D0 00211      MOVL    RD_RAB+36, R4                           ; 1165
                 51      72    A8  3C 00215      MOVZWL  RD_RAB+34, R1                           ;
              FF A4            51  90 00219      MOVB    R1, -1(R4)                              ;
                 50            63  9A 0021D      MOVZBL  (PREV_REC), R0                          ; 1169
                 01            50  91 00220      CMPB    R0, #1                                  ;
                 32            12  00223         BNEQ    16$                                     ;
                 0C      01    A3  91 00225      CMPB    1(PREV_REC), #12                        ;
                 2C            12  00229         BNEQ    16$                                     ;
                 04      02    A3  91 0022B      CMPB    2(PREV_REC), #4                         ;
                 26            1B  0022F         BLEQU   16$                                     ;
           6D6F7246 8F   03    A3  D1 00231      CMPL    3(PREV_REC), #1836020294                ;
                 1C            12  00239         BNEQ    16$                                     ;
                         00A0  C8  D5 0023B      TSTL    MSG_ADR                                 ; 1171
                 16            12  0023F         BNEQ    16$                                     ;
                         14    AA  D6 00241      INCL    MAIL$L_MSG_NUM                          ; 1173
                 50      01  A043  9E 00244      MOVAB   1(R0)[PREV_REC], PTR                    ; 1174
                 55            60  9A 00249      MOVZBL  (PTR), R5                               ;
                 2A          6540  91 0024C      CMPB    (R5)[PTR], #42                          ;
                 05            12  00250         BNEQ    16$                                     ;
        00A0 C8                53  D0 00252      MOVL    PREV_REC, MSG_ADR                       ; 1176
```

```
        53      78  A8               01  C3 00257 16$:   SUBL3   #1, RD_RAB+40, PREV_REC            ; 1178
        50          52               51  C3 0025C        SUBL3   R1, SPACE_LEFT, R0                 ; 1182
                    52         FF    A0  9E 00260        MOVAB   -1(R0), SPACE_LEFT                 ;
                    50       009C    C8  D0 00264        MOVL    MSG_BUF_SIZ, R0                    ; 1183
              009C  C8         01  A140  9E 00269        MOVAB   1(R1)[R0], MSG_BUF_SIZ             ;
                74  A8         01  A144  9E 00270        MOVAB   1(R1)[R4], RD_RAB+36               ; 1185
                    50         FF    A2  9E 00276        MOVAB   -1(R2), R0                         ; 1186
          000000FF  8F               50  D1 0027A        CMPL    R0, #255                           ;
                                     04  15 00281        BLEQ    17$                                ;
                    50         FF    8F  9A 00283        MOVZBL  #255, R0                           ;
                70  A8               50  B0 00287 17$:   MOVW    R0, RD_RAB+32                      ;
                             FF66    31  0028B           BRW     14$                                ; 1162
          0001827A  8F               57  D1 0028E 18$:   CMPL    STATUS, #98938                     ; 1188
                                     07  13 00295        BEQL    20$                                ;
                    69               00  FB 00297        CALLS   #0, MAIL$CLOSE_FILE                ; 1190
                    50               57  D0 0029A 19$:   MOVL    STATUS, R0                         ; 1191
                                     04  0029D           RET                                        ;
                             00A0    C8  D5 0029E 20$:   TSTL    MSG_ADR                            ; 1197
                                     0B  12 002A2        BNEQ    21$                                ;
              00A0  C8       0098    C8  D0 002A4        MOVL    MSG_BUF_ADR, MSG_ADR               ; 1199
                14  AA               01  D0 002AB        MOVL    #1, MAIL[$L_MSG_NUM                ; 1200
       6C 00000000G 00               04  E1 002AF 21$:   BBC     #4, MAIL$GL_FLAGS+1, 22$           ; 1204
                0C  AE         DB    A8  9A 002B7        MOVZBL  RD_NAM+59, DESC                    ; 1206
                10  AE         EC    A8  D0 002BC        MOVL    RD_NAM+76, DESC+4                  ; 1207
                    50         A3    A8  9A 002C1        MOVZBL  RD_NAM+3, R0                       ; 1208
                    51         DD    A8  9A 002C5        MOVZBL  RD_NAM+61, R1                      ;
     04   AE        50               51  C3 002C9        SUBL3   R1, R0, DESC_1                     ;
                08  AE         A4    A8  D0 002CE        MOVL    RD_NAM+4, DESC_1+4                 ; 1209
                               E5    A9  9F 002D3        PUSHAB  TELL_CVTFILE                       ; 1210
                                     0A  DD 002D6        PUSHL   #10                                ;
                               14    AE  9F 002D8        PUSHAB  DESC                               ;
                               10    AE  9F 002DB        PUSHAB  DESC_1                             ;
        00000000G   00               04  FB 002DE        CALLS   #4, MAIL$COPY_MSGS                 ;
                    69               00  FB 002E5        CALLS   #0, MAIL$CLOSE_FILE                ; 1211
                             022A    C9  9F 002E8        PUSHAB  MAIL$RENAME_ERROR                  ; 1212
                             0211    C9  9F 002EC        PUSHAB  MAIL$RENAME_SUCCESS                ;
                                     7E  7C 002F0        CLRQ    -(SP)                              ;
                                     7E  D4 002F2        CLRL    -(SP)                              ;
                             FD00    CF  9F 002F4        PUSHAB  P.AAF                              ; 1213
                               98    A8  9F 002F8        PUSHAB  MAIL$Q_RD_DESC                     ; 1212
        00000000G   00               07  FB 002FB        CALLS   #7, LIB$RENAME_FILE                ;
                          007EDF08   8F  DD 00302        PUSHL   #8314632                           ; 1215
        00000000G   00               01  FB 00308        CALLS   #1, MAIL$GETMSG                    ;
                                     50  DD 0030F        PUSHL   R0                                 ;
                               88    A8  9F 00311        PUSHAB  DYN_DESC                           ;
        00000000G   00               02  FB 00314        CALLS   #2, MAIL$GET_INPUT                 ;
                                     56  DD 0031B        PUSHL   R6                                 ; 1216
              026D  C9               01  FB 0031D        CALLS   #1, MAIL$OPEN_FILE                 ;
                                     04  00322           RET                                        ;
        00000000G   00               08  88 00323 22$:   BISB2   #8, MAIL$GL_FLAGS+1                ; 1220
                    50               01  D0 0032A        MOVL    #1, R0                             ; 1221
                                     04  0032D           RET                                        ; 1222

; Routine Size:  814 bytes,    Routine Base:  $CODE$ + 075C


; 1093          1223  1
```

```
ROUTINE OPEN_NEWFILE =
!++
! FUNCTIONAL DESCRIPTION:
!
!       This routine is called to open the new mail message file by first
!       concatenating all the new mail message files into one file.  This
!       is because there is no file sharing, and if the new mail message
!       file is in use, the mail that is being sent must be put in a different
!       file.  This routine copies all the extra files into one file.
!
! INPUTS:
!
!       RD_FAB[FAB$B_DNS] and RD_FAB[FAB$L_DNA] set to user's default
!       directory specification.
!
! OUTPUTS:
!
!       RD_FAB is open and RD_RAB is connected to the file.
!--
BEGIN
LITERAL
        FIDS = 64;                                      ! Allow 64 file ID's
STRUCTURE
        FIDVECTOR[FIDNUM,FIDFIELD;N] =                  ! FID vector
                [N*6] (FIDVECTOR+((FIDNUM-1)*6)+(FIDFIELD*2)) <0,16,0>;
LOCAL
        STATUS,                                         ! Routine status
        DESC:           VECTOR[2,LONG],
        FID:            FIDVECTOR[FIDS],                ! Message file ID's
        CUR_FID:        LONG,                           ! Current ID
        FAB:            BLOCK[FAB$C_BLN,BYTE],          ! Temporary FAB
        RAB:            BLOCK[RAB$C_BLN,BYTE],          ! Temporary RAB
        NAM:            $BBLOCK[NAM$C_BLN],             ! Temporary NAM
        NAMRSS:         $BBLOCK[NAM$C_MAXRSS],
        NAMESS:         $BBLOCK[NAM$C_MAXRSS],
        BUFF:           BLOCK[MAIL$K_INBUFFSZ,BYTE];    ! Temporary I/O buffer

STATUS = OPEN_MAIL_FILE(0,0);
IF NOT .STATUS
    THEN RETURN .STATUS;
IF .MAIL$GL_FLAGS[MAIF_V_ISAM]
    THEN RETURN TRUE;

$NAM_INIT(NAM=RD_NAM,
        RSS=NAM$C_MAXRSS,
        RSA=.RD_RSNAM_BUF,
        ESS=NAM$C_MAXRSS,
        ESA=.RD_ESNAM_BUF);

!
! Find all the newmail message files.
!
CUR_FID = 0;                                            ! Init file ID index
RD_FAB[FAB$B_FNS] = %CHARCOUNT(DEFFILENAM,DEFFILETYP,';*');
RD_FAB[FAB$L_FNA] = UPLIT BYTE(DEFFILENAM,DEFFILETYP,';*');
IF_ERR( $PARSE(FAB = RD_FAB);,RETURN .STATUS);  ! Parse the file name
!
```

```
! Search for all the files and save the file IDs
!
WHILE (STATUS = $SEARCH(FAB = RD_FAB)) AND (.CUR_FID LSS FIDS)
DO      BEGIN
        STR$COPY_DX(MAIL$Q_RD_DESC,UTIL$GETFILENAME(RD_FAB)); !So we get oldest
        CUR_FID = .CUR_FID + 1;
        FID[.CUR_FID,0] = .RD_NAM[NAM$W_FID_NUM];
        FID[.CUR_FID,1] = .RD_NAM[NAM$W_FID_SEQ];
        FID[.CUR_FID,2] = .RD_NAM[NAM$W_FID_RVN];
        END;
IF NOT .STATUS AND (.STATUS NEQ RMS$_NMF) THEN RETURN .STATUS;
!
! Open the oldest file (the last one found).
!
RD_NAM[NAM$W_FID_NUM] = .FID[.CUR_FID,0];                     ! Set file ID
RD_NAM[NAM$W_FID_SEQ] = .FID[.CUR_FID,1];
RD_NAM[NAM$W_FID_RVN] = .FID[.CUR_FID,2];
RD_FAB[FAB$V_NAM] = 1;                                        ! Open by file ID
STATUS = $OPEN(FAB = RD_FAB);                                 ! Open file
RD_FAB[FAB$V_NAM] = 0;                                        ! Clear open by file ID
IF NOT .STATUS THEN RETURN .STATUS;                           ! Check open status
IF .RD_FAB[FAB$B_ORG] NEQ FAB$C_SEQ
    THEN ($CLOSE(FAB=RD_FAB);
          RETURN SIGNAL(MAIL$_FILECONFUSED,1,MAIL$Q_RD_DESC));
MAIL$GL_FLAGS[MAIF_V_FILOPN] = 1;
CUR_FID = .CUR_FID - 1;                                       ! Decrement file ID count
RD_RAB[RAB$V_EOF] = 1;                                        ! Set to end-of-file
STATUS = $CONNECT(RAB = RD_RAB);                              ! Connect stream
IF NOT .STATUS
    THEN ($CLOSE(FAB=RD_FAB); RETURN .STATUS);
RD_RAB[RAB$V_EOF] = 0;                                        ! Clear EOF flag

!
! If there are any more files, open them and append their contents to the
! end of the last file.
!
IF .CUR_FID GTR 0
THEN    BEGIN
        $FAB_INIT(      FAB=FAB,                              ! Create a FAB
                        FAC=GET,                              !  GET access only
                        FOP=<SQO,                             !  Sequential only
                            NAM>,                             !  Open by NAM block
                        NAM=NAM);                             !  NAM block addr
        $RAB_INIT(      RAB=RAB,                              ! Create a RAB
                        FAB=FAB,                              !  FAB address
                        ROP=<RAH,                             !  Read-ahead
                            LOC>,                             !  Locate mode
                        UBF=BUFF,                             !  Record buffer addr
                        USZ=MAIL$K_INBUFFSZ);                 !  Record buffer size
        CH$MOVE(NAM$C_BLN,RD_NAM,NAM);
        NAM[NAM$L_RSA] = NAMRSS;
        NAM[NAM$L_ESA] = NAMESS;
        CH$MOVE(.RD_NAM[NAM$B_RSL],.RD_NAM[NAM$L_RSA],NAMRSS);
        CH$MOVE(.RD_NAM[NAM$B_ESL],.RD_NAM[NAM$L_ESA],NAMESS);
        !
        ! Open the next file
        !
```

```
4            DO      BEGIN
4                    NAM[NAM$W_FID_NUM] = .FID[.CUR_FID,0]; ! Set file ID
4                    NAM[NAM$W_FID_SEQ] = .FID[.CUR_FID,1];
4                    NAM[NAM$W_FID_RVN] = .FID[.CUR_FID,2];
4                    IF_ERR($OPEN(FAB = FAB); $CLOSE(FAB = RD_FAB); RETURN .STATUS);
4                    IF .FAB[FAB$B_ORG] NEQ FAB$C_SEQ
5                        THEN BEGIN
5                               LOCAL DEV_DESC : VECTOR[2,LONG],
5                                     FILE_DESC : DYN_DESC_DECL;
5
5                               $CLOSE(FAB=FAB);
5                               $CLOSE(FAB=RD_FAB);
5                               DEV_DESC[0] = .NAM[NAM$B_DEV];
5                               DEV_DESC[1] = .NAM[NAM$L_DEV];
5                               LIB$FID_TO_NAME(DEV_DESC,FID[.CUR_FID,0],FILE_DESC);
5                               SIGNAL(MAIL$_FILECONFUSED,1,
6                                      (IF .FILE_DESC[DSC$W_LENGTH] NEQ 0
6                                               THEN FILE_DESC
5                                               ELSE UTIL$GETFILENAME(FAB)));
5                               STR$FREE1_DX(FILE_DESC);
5                               RETURN MAIL$_FILECONFUSED;
4                               END;
4                    $CONNECT(RAB = RAB);
4                    RD_FAB[FAB$L_ALQ] = .FAB[FAB$L_ALQ] +    ! Add file's size
4                                         .RD_FAB[FAB$L_ALQ];
4                    !
4                    ! Append all the records to the end of the file
4                    !
5                    WHILE STATUS = $GET(RAB = RAB)
5                    DO      BEGIN
5                            RD_RAB[RAB$W_RSZ] = .RAB[RAB$W_RSZ];
5                            RD_RAB[RAB$L_RBF] = .RAB[RAB$L_RBF];
5                            STATUS = $PUT(RAB = RD_RAB);
5                            IF NOT .STATUS THEN EXITLOOP;
4                            END;
4
4                    IF .STATUS NEQ RMS$_EOF                     ! Check for failure
4                    THEN ($CLOSE(FAB = FAB); $CLOSE(FAB = RD_FAB) ;RETURN .STATUS);
4                    $FLUSH(RAB = RD_RAB);                       ! Force disk update
4                    FAB[FAB$V_DLT] = 1;                         ! Delete other file
4                    MAIL$UP_PRIV(1^$BITPOSITION(PRV$V_SYSPRV),0); ! Enable system priv
4                    $CLOSE(FAB = FAB);                          ! Close and delete
4                    MAIL$DOWN_PRIV();                           ! Disable system uic
4                    FAB[FAB$V_DLT] = 0;
4                    END
3            WHILE (CUR_FID = .CUR_FID - 1) GTR 0;               ! Open all files
2            END;
2    $REWIND(RAB = RD_RAB);                                      ! Rewind message file
2    RETURN TRUE
1    END;


                4C  49  41  4D   00A8A P.AAH:   .ASCII  \MAIL\         ;
                49  41  4D  2E   00A8E          .ASCII  \.MAI\         ;
                        2A  3B   00A92          .ASCII  \;*\           ;
```

```
                                                 $RMS_PTR=          RD_NAM
                                                          .EXTRN    SYS$PARSE, SYS$SEARCH
                                                          .EXTRN    SYS$FLUSH

                                      0FFC 00000 OPEN_NEWFILE:
                                                          .WORD     Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11        ; 1224
                  5B 00000000G  00  9E 00002              MOVAB     SYS$OPEN, R11                               ;
                  5A 00000000G  00  9E 00009              MOVAB     UTIL$GETFILENAME, R10                       ;
                  59 00000000G  00  9E 00010              MOVAB     SYS$CLOSE, R9                               ;
                  58 00000000'  00  9E 00017              MOVAB     RD_FAB, R8                                  ;
                  5E      F974  CE  9E 0001E              MOVAB     -1676(SP), SP                               ;
                            7E  7C 00023                  CLRQ      -(SP)                                       ; 1261
           FB40   CF        02  FB 00025                  CALLS     #2, OPEN_MAIL_FILE                          ;
                  57        50  D0 0002A                  MOVL      R0, STATUS                                  ;
                  03        57  E8 0002D                  BLBS      STATUS, 1$                                  ; 1262
                          0296  31 00030                  BRW       19$                                         ;
                  03 00000000G  00  E9 00033 1$:          BLBC      MAIL$GL_FLAGS, 2$                           ; 1264
                          02D5  31 0003A                  BRW       23$                                         ;
 0060   8F      00          6E  00  2C 0003D 2$:          MOVC5     #0, (SP), #0, #96, $RMS_PTR                 ; 1271
                        A0  A8     00044                                                                        ;
            A0  A8   6002   8F  B0 00046                  MOVW      #24578, $RMS_PTR                            ;
            A2  A8          01  8E 0004C                  MNEGB     #1, $RMS_PTR+2                              ;
            A4  A8     90   A8  D0 00050                  MOVL      RD_RSNAM_BUF, $RMS_PTR+4                    ;
            AA  A8          01  8E 00055                  MNEGB     #1, $RMS_PTR+10                             ;
            AC  A8     94   A8  D0 00059                  MOVL      RD_ESNAM_BUF, $RMS_PTR+12                   ;
                            56  D4 0005E                  CLRL      CUR_FID                                     ; 1276
            34  A8          0A  90 00060                  MOVB      #10, RD_FAB+52                              ; 1277
            2C  A8     8F   AF  9E 00064                  MOVAB     P.AAH, RD_FAB+44                            ; 1278
                            58  DD 00069                  PUSHL     R8                                          ; 1279
       00000000G  00        01  FB 0006B                  CALLS     #1, SYS$PARSE                               ;
                  01        50  E8 00072                  BLBS      STATUS, 3$                                  ;
                                04 00075                  RET                                                   ;
                            58  DD 00076 3$:              PUSHL     R8                                          ; 1283
       00000000G  00        01  FB 00078                  CALLS     #1, SYS$SEARCH                              ;
                  57        50  D0 0007F                  MOVL      R0, STATUS                                  ;
                  3C        57  E9 00082                  BLBC      STATUS, 5$                                  ;
                  3F        56  D1 00085                  CMPL      CUR_FID, #63                                ;
                  34        14     00088                  BGTR      4$                                          ;
                            58  DD 0008A                  PUSHL     R8                                          ; 1285
                  6A        01  FB 0008C                  CALLS     #1, UTIL$GETFILENAME                        ;
                            50  DD 0008F                  PUSHL     R0                                          ;
                       98   A8  9F 00091                  PUSHAB    MAIL$Q_RD_DESC                              ;
       00000000G  00        02  FB 00094                  CALLS     #2, STR$COPY_DX                             ;
                            56  D6 0009B                  INCL      CUR_FID                                     ; 1286
          50      56        06  C5 0009D                  MULL3     #6, CUR_FID, R0                             ; 1287
                  FE72    CD40  9F 000A1                  PUSHAB    FID-6[R0]                                   ;
                  9E        C4  A8  B0 000A6              MOVW      RD_NAM+36, @(SP)+                           ;
                  FE74    CD40  9F 000AA                  PUSHAB    FID-4[R0]                                   ; 1288
                  9E        C6  A8  B0 000AF              MOVW      RD_NAM+38, @(SP)+                           ;
                  FE76    CD40  9F 000B3                  PUSHAB    FID-2[R0]                                   ; 1289
                  9E        C8  A8  B0 000B8              MOVW      RD_NAM+40, @(SP)+                           ;
                            B8  11 000BC                  BRB       3$                                          ; 1283
                  0C        57  E8 000BE 4$:              BLBS      STATUS, 7$                                  ; 1291
       000182CA   8F        57  D1 000C1 5$:              CMPL      STATUS, #99018                              ;
                            03  13 000C8                  BEQL      7$                                          ;
                          01FC  31 000CA 6$:              BRW       19$                                         ;
          50      56        06  C5 000CD 7$:              MULL3     #6, CUR_FID, R0                             ; 1295
```

```
                                    FE72 CD40  9F 000D1        PUSHAB  FID-6[R0]                          ;
                      C4   A8             9E  B0 000D6        MOVW    @(SP)+, RD_NAM+36                  ;
                                    FE74 CD40  9F 000DA        PUSHAB  FID-4[R0]                          ; 1296
                      C6   A8             9E  B0 000DF        MOVW    @(SP)+, RD_NAM+38                  ;
                                    FE76 CD40  9F 000E3        PUSHAB  FID-2[R0]                          ; 1297
                      C8   A8             9E  B0 000E8        MOVW    @(SP)+, RD_NAM+40                  ;
                      07   A8             01  88 000EC        BISB2   #1, RD_FAB+7                       ; 1298
                                          58  DD 000F0        PUSHL   R8                                 ; 1299
                           6B             01  FB 000F2        CALLS   #1, SYS$OPEN                       ;
                           57             50  D0 000F5        MOVL    R0, STATUS                         ;
                      07   A8             01  8A 000F8        BICB2   #1, RD_FAB+7                       ; 1300
                           CB             57  E9 000FC        BLBC    STATUS, 6$                         ; 1301
                                    1D    A8  95 000FF        TSTB    RD_FAB+29                          ; 1302
                                          18  13 00102        BEQL    8$                                 ;
                                          58  DD 00104        PUSHL   R8                                 ; 1303
                           69             01  FB 00106        CALLS   #1, SYS$CLOSE                      ;
                                    98    A8  9F 00109        PUSHAB  MAIL$Q_RD_DESC                     ; 1304
                                          01  DD 0010C        PUSHL   #1                                 ;
                              007E8122    8F  DD 0010E        PUSHL   #8290594                           ;
                 00000000G 00             03  FB 00114        CALLS   #3, LIB$SIGNAL                     ;
                                              04 0011B        RET                                        ;
                 00000000G 00             08  88 0011C 8$:    BISB2   #8, MAIL$GL_FLAGS+1                ; 1305
                                          56  D7 00123        DECL    CUR_FID                            ; 1306
                      55   A8             01  88 00125        BISB2   #1, RD_RAB+5                       ; 1307
                                    50    A8  9F 00129        PUSHAB  RD_RAB                             ; 1308
                 00000000G 00             01  FB 0012C        CALLS   #1, SYS$CONNECT                    ;
                           57             50  D0 00133        MOVL    R0, STATUS                         ;
                           03             57  E8 00136        BLBS    STATUS, 9$                         ; 1309
                                        0188  31 00139        BRW     18$                                ;
                      55   A8             01  8A 0013C 9$:    BICB2   #1, RD_RAB+5                       ; 1311
                                          56  D5 00140        TSTL    CUR_FID                            ; 1317
                                          03  14 00142        BGTR    10$                                ;
                                        01C1  31 00144        BRW     22$                                ;
  0050   8F          00        6E         00  2C 00147 10$:   MOVC5   #0, (SP), #0, #80, $RMS_PTR        ; 1323
                               FE28       CD     0014E                                                   ;
                 FE28   CD     5003       8F  B0 00151        MOVW    #20483, $RMS_PTR                   ;
                 FE2C   CD 01000040       8F  D0 00158        MOVL    #16777280, $RMS_PTR+4              ;
                 FE3E   CD                02  90 00161        MOVB    #2, $RMS_PTR+22                    ;
                 FE47   CD                02  90 00166        MOVB    #2, $RMS_PTR+31                    ;
                 FE50   CD     FD84       CD  9E 0016B        MOVAB   NAM, $RMS_PTR+40                   ;
  0044   8F          00        6E         00  2C 00172        MOVC5   #0, (SP), #0, #68, $RMS_PTR        ; 1329
                               FDE4       CD     00179                                                   ;
                 FDE4   CD     4401       8F  B0 0017C        MOVW    #17409, $RMS_PTR                   ;
                 FDE8   CD 00010200       8F  D0 00183        MOVL    #66048, $RMS_PTR+4                 ;
                 FE04   CD     0200       8F  B0 0018C        MOVW    #512, $RMS_PTR+32                  ;
                 FE08   CD       10       AE  9E 00193        MOVAB   BUFF, $RMS_PTR+36                  ;
                 FE20   CD     FE28       CD  9E 00199        MOVAB   FAB, $RMS_PTR+60                   ;
          FD84   CD      A0    A8     0060    8F  28 001A0        MOVC3   #96, RD_NAM, NAM                   ; 1330
                 FD88   CD     0310       CE  9E 001A9        MOVAB   NAMRSS, NAM+4                      ; 1331
                 FD90   CD     0210       CE  9E 001B0        MOVAB   NAMESS, NAM+12                     ; 1332
                        51       A3       A8  9A 001B7        MOVZBL  RD_NAM+3, R1                       ; 1333
                        50       A4       A8  D0 001BB        MOVL    RD_NAM+4, R0                       ;
          0310   CE     60                51  28 001BF        MOVC3   R1, (R0), NAMRSS                   ;
                        51       AB       A8  9A 001C5        MOVZBL  RD_NAM+11, R1                      ; 1334
                        50       AC       A8  D0 001C9        MOVL    RD_NAM+12, R0                      ;
          0210   CE     60                51  28 001CD        MOVC3   R1, (R0), NAMESS                   ;
                 52     56                06  C5 001D3 11$:   MULL3   #6, CUR_FID, R2                    ; 1339
```

```
                FE72 CD42   9F 001D7          PUSHAB  FID-6[R2]                      ;
   FDA8  CD            9E   B0 001DC          MOVW    @(SP)+, NAM+36                 ;
                FE74 CD42   9F 001E1          PUSHAB  FID-4[R2]                      ; 1340
   FDAA  CD            9E   B0 001E6          MOVW    @(SP)+, NAM+38                 ;
                FE76 CD42   9F 001EB          PUSHAB  FID-2[R2]                      ; 1341
   FDAC  CD            9E   B0 001F0          MOVW    @(SP)+, NAM+40                 ;
                FE28   CD   9F 001F5          PUSHAB  FAB                            ; 1342
         6B            01   FB 001F9          CALLS   #1, SYS$OPEN                   ;
         53            50   D0 001FC          MOVL    R0, STATUS                     ;
         09            53   E8 001FF          BLBS    STATUS, 12$                    ;
                       58   DD 00202          PUSHL   R8                             ;
         69            01   FB 00204          CALLS   #1, SYS$CLOSE                  ;
         50            53   D0 00207          MOVL    STATUS, R0                     ;
                            04 0020A          RET                                    ;
                FE45   CD   95 0020B  12$:    TSTB    FAB+29                         ; 1343
                       65   13 0020F          BEQL    15$                            ;
         6E  020E0000  8F   D0 00211          MOVL    #34471936, FILE_DESC           ; 1346
                  04   AE   D4 00218          CLRL    FILE_DESC+4                    ; 1347
                FE28   CD   9F 0021B          PUSHAB  FAB                            ; 1348
         69            01   FB 0021F          CALLS   #1, SYS$CLOSE                  ;
                       58   DD 00222          PUSHL   R8                             ; 1349
         69            01   FB 00224          CALLS   #1, SYS$CLOSE                  ;
   08    AE     FDBD   CD   9A 00227          MOVZBL  NAM+57, DEV_DESC               ; 1350
   0C    AE     FDC8   CD   D0 0022D          MOVL    NAM+68, DEV_DESC+4             ; 1351
                       5E   DD 00233          PUSHL   SP                             ; 1352
                FE72 CD42   9F 00235          PUSHAB  FID-6[R2]                      ;
                  10   AE   9F 0023A          PUSHAB  DEV_DESC                       ;
 00000000G  00         03   FB 0023D          CALLS   #3, LIB$FID_TO_NAME            ;
                       6E   B5 00244          TSTW    FILE_DESC                      ; 1354
                       05   13 00246          BEQL    13$                            ;
         50            6E   9E 00248          MOVAB   FILE_DESC, R0                  ;
                       07   11 0024B          BRB     14$                            ;
                FE28   CD   9F 0024D  13$:    PUSHAB  FAB                            ; 1356
         6A            01   FB 00251          CALLS   #1, UTIL$GETFILENAME           ;
                       50   DD 00254  14$:    PUSHL   R0                             ;
                       01   DD 00256          PUSHL   #1                             ; 1353
            007E8122   8F   DD 00258          PUSHL   #8290594                       ;
 00000000G  00         03   FB 0025E          CALLS   #3, LIB$SIGNAL                 ;
                       5E   DD 00265          PUSHL   SP                             ; 1357
 00000000G  00         01   FB 00267          CALLS   #1, STR$FREE1_DX               ;
         50 007E8122   8F   D0 0026E          MOVL    #8290594, R0                   ; 1358
                            04 00275          RET                                    ;
                FDE4   CD   9F 00276  15$:    PUSHAB  RAB                            ; 1360
 00000000G  00         01   FB 0027A          CALLS   #1, SYS$CONNECT                ;
   10    A8     FE38   CD   C0 00281          ADDL2   FAB+16, RD_FAB+16              ; 1362
                FDE4   CD   9F 00287  16$:    PUSHAB  RAB                            ; 1366
 00000000G  00         01   FB 0028B          CALLS   #1, SYS$GET                    ;
         57            50   D0 00292          MOVL    R0, STATUS                     ;
         1C            57   E9 00295          BLBC    STATUS, 17$                    ;
   72    A8     FE06   CD   B0 00298          MOVW    RAB+34, RD_RAB+34              ; 1368
   78    A8     FE0C   CD   D0 0029E          MOVL    RAB+40, RD_RAB+40              ; 1369
                  50   A8   9F 002A4          PUSHAB  RD_RAB                         ; 1370
 00000000G  00         01   FB 002A7          CALLS   #1, SYS$PUT                    ;
         57            50   D0 002AE          MOVL    R0, STATUS                     ;
         D3            57   E8 002B1          BLBS    STATUS, 16$                    ; 1371
 0001827A   8F         57   D1 002B4  17$:    CMPL    STATUS, #98938                 ; 1374
                       10   13 002BB          BEQL    20$                            ;
```

```
                     FE28   CD   9F 002BD          PUSHAB  FAB                                   ; 1375
            69               01   FB 002C1          CALLS   #1, SYS$CLOSE                         ;
                             58   DD 002C4 18$:     PUSHL   R8                                    ;
            69               01   FB 002C6          CALLS   #1, SYS$CLOSE                         ;
            50               57   D0 002C9 19$:     MOVL    STATUS, R0                            ;
                                  04 002CC          RET                                           ;
                       50   A8   9F 002CD 20$:     PUSHAB  RD_RAB                                ; 1376
     00000000G  00               01   FB 002D0          CALLS   #1, SYS$FLUSH                         ;
          FE2D  CD         80   8F   88 002D7          BISB2   #128, FAB+5                           ; 1377
                             7E   D4 002DD          CLRL    -(SP)                                 ; 1378
                 10000000   8F   DD 002DF          PUSHL   #268435456                            ;
     00000000G  00               02   FB 002E5          CALLS   #2, MAIL$UP_PRIV                      ;
                     FE28   CD   9F 002EC          PUSHAB  FAB                                   ; 1379
            69               01   FB 002F0          CALLS   #1, SYS$CLOSE                         ;
     00000000G  00               00   FB 002F3          CALLS   #0, MAIL$DOWN_PRIV                    ; 1380
          FE2D  CD         80   8F   8A 002FA          BICB2   #128, FAB+5                           ; 1381
            02               56   F5 00300          SOBGTR  CUR_FID, 21$                          ; 1383
                             03   11 00303          BRB     22$                                   ;
                     FECB   31 00305 21$:          BRW     11$                                   ;
                       50   A8   9F 00308 22$:     PUSHAB  RD_RAB                                ; 1385
     00000000G  00               01   FB 0030B          CALLS   #1, SYS$REWIND                        ;
            50               01   D0 00312 23$:     MOVL    #1, R0                                ; 1386
                                  04 00315          RET                                           ; 1387

; Routine Size:  790 bytes,    Routine Base:  $CODE$ + 0A94
```

```
; 1260      1388  1 ROUTINE DELFILE (FAB) =
; 1261      1389  2 BEGIN
; 1262      1390  2 !++
; 1263      1391  2 ! FUNCTIONAL DESCRIPTION:
; 1264      1392  2 !
; 1265      1393  2 !       This action routine is called by LIB$FILE_SCAN for each file which
; 1266      1394  2 !       satisfies the file specification match.  The file is deleted
; 1267      1395  2 !
; 1268      1396  2 !--
; 1269      1397  2 MAP
; 1270      1398  2     FAB : REF $BBLOCK;
; 1271      1399  2
; 1272      1400  2 LOCAL
; 1273      1401  2     STATUS;
; 1274      1402  2
; 1275      1403  2 STATUS = $ERASE(FAB=.FAB);
; 1276      1404  2
; 1277      1405  2 RETURN .STATUS
; 1278      1406  1 END;


                                                  .EXTRN  SYS$ERASE

                                0000 00000 DELFILE:.WORD   Save nothing                ; 1388
                          04    AC  DD 00002        PUSHL   FAB                         ; 1403
          00000000G  00         01  FB 00005        CALLS   #1, SYS$ERASE               ;
                                    04 0000C        RET                                 ; 1406

; Routine Size:  13 bytes,    Routine Base:  $CODE$ + 0DAA
```

```
  1 GLOBAL ROUTINE MAIL$DEL_TMPF : NOVALUE =
  2 BEGIN
  2 !++
  2 ! FUNCTIONAL DESCRIPTION:
  2 !
  2 !       This routine deletes all the MAIL.TMP files that may be in
  2 !       the user's login directory.  This is done to prevent inadventantly
  2 !       sending an old message when a quit is done from the editor.
  2 !
  2 !--
  2
  2 LOCAL
  2     FAB : $FAB_DECL,
  2     NAM : $NAM_DECL,
  2     RSBUF : $BBLOCK[NAM$C_MAXRSS],
  2     ESBUF : $BBLOCK[NAM$C_MAXRSS];
  2
P 2 $FAB_INIT(FAB=FAB,
P 2         NAM=NAM,
P 2         FNS=.MAIL$Q_TMPFILE_DESC[DSC$W_LENGTH],
P 2         FNA=.MAIL$Q_TMPFILE_DESC[DSC$A_POINTER],
P 2         DNS=%CHARCOUNT(';*'),
  2         DNA=UPLIT(%ASCII ';*'));
  2
P 2 $NAM_INIT(NAM=NAM,
P 2         ESS=NAM$C_MAXRSS,
P 2         ESA=ESBUF,
P 2         RSS=NAM$C_MAXRSS,
  2         RSA=RSBUF);
  2
  2 LIB$FILE_SCAN(FAB,DELFILE,0);
  2 RETURN;
  1 END;


                                        00DB7          .BLKB    1
                     00 00 2A 3B        00DB8 P.AAI:   .ASCII   \;*\<0><0>                              ;


                               007C     00000          .ENTRY   MAIL$DEL_TMPF, Save R2,R3,R4,R5,R6      ; 1407
                56       F7  AF  9E     00002          MOVAB    P.AAI, R6                               ;
                5E     FD50  CE  9E     00006          MOVAB    -688(SP), SP                            ;
 0050  8F    00  6E          00  2C     0000B          MOVC5    #0, (SP), #0, #80, $RMS_PTR             ; 1429
                         B0  AD         00012                                                           ;
          B0  AD       5003  8F  B0     00014          MOVW     #20483, $RMS_PTR                        ;
          C6  AD             02  90     0001A          MOVB     #2, $RMS_PTR+22                         ;
          CF  AD             02  90     0001E          MOVB     #2, $RMS_PTR+31                         ;
          D8  AD       FF50  CD  9E     00022          MOVAB    NAM, $RMS_PTR+40                        ;
          DC  AD  00000000G  00  D0     00028          MOVL     MAIL$Q_TMPFILE_DESC+4, $RMS_PTR+44      ;
          E0  AD             66  9E     00030          MOVAB    P.AAI, $RMS_PTR+48                      ;
          E4  AD  00000000G  00  90     00034          MOVB     MAIL$Q_TMPFILE_DESC, $RMS_PTR+52        ;
          E5  AD             02  90     0003C          MOVB     #2, $RMS_PTR+53                         ;
 0060  8F    00  6E          00  2C     00040          MOVC5    #0, (SP), #0, #96, $RMS_PTR             ; 1435
                       FF50  CD         00047                                                           ;
        FF50  CD       6002  8F  B0     0004A          MOVW     #24578, $RMS_PTR                        ;
```

```
          FF52  CD           01  8E 00051      MNEGB   #1, $RMS_PTR+2                  ;
          FF54  CD    0100   CE  9E 00056      MOVAB   RSBUF, $RMS_PTR+4               ;
          FF5A  CD           01  8E 0005D      MNEGB   #1, $RMS_PTR+10                 ;
          FF5C  CD           6E  9E 00062      MOVAB   ESBUF, $RMS_PTR+12              ;
                             7E  D4 00067      CLRL    -(SP)                           ; 1437
                        82   AF  9F 00069      PUSHAB  DELFILE                         ;
                        B0   AD  9F 0006C      PUSHAB  FAB                             ;
     00000000G  00           03  FB 0006F      CALLS   #3, LIB$FILE_SCAN               ;
                                 04 00076      RET                                     ; 1439

; Routine Size:  119 bytes,    Routine Base:  $CODE$ + 0DBC
```

```
; 1314          1440  1 END
; 1315          1441  0 ELUDOM

                                                  .EXTRN  LIB$SIGNAL
```

;   PSECT SUMMARY

Name	Bytes	Attributes
OWN	308	NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
$GLOBAL$	36	NOVEC, WRT, RD ,NOEXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
$CODE$	3635	NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

;   Library Statistics

File	-------- Symbols -------- Total	Loaded	Percent	Pages Mapped	Processing Time
_255DUA28:[SYSLIB]STARLET.L32;1	9776	148	1	581	00:00.7
_255DUA28:[MAIL.OBJ]MAILDEF.L32;1	457	22	4	26	00:00.2

;   COMMAND QUALIFIERS

```
;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:MSGSUBS/OBJ=OBJ$:MSGSUBS MSRC$:MSGSUBS/UPDATE=(ENH$:MSGSUBS)

; Size:            3574 code + 405 data bytes
; Run Time:           00:41.3
; Elapsed Time:       02:43.2
; Lines/CPU Min:       2092
; Lexemes/CPU-Min: 40214
; Memory Used:  298 pages
; Compilation Complete
```

MAILMSG
LIS

MAILCMDS
LIS

NOTIFY
LIS

MSGSUBS
LIS

NETSUBS
LIS