

```

MMM          MMM          AAAAAAAAAA          IIIIIIIIIII          LLL
MMM          MMM          AAAAAAAAAA          IIIIIIIIIII          LLL
MMM          MMM          AAAAAAAAAA          IIIIIIIIIII          LLL
MMMMMMMM    MMMMMMM    AAA          AAA          III          LLL
MMMMMMMM    MMMMMMM    AAA          AAA          III          LLL
MMMMMMMM    MMMMMMM    AAA          AAA          III          LLL
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          AAA          AAA          III          LLL
MMM          MMM          AAA          AAA          III          LLL
MMM          MMM          AAAAAAAAAAAAAAAAAA          III          LLL
MMM          MMM          AAAAAAAAAAAAAAAAAA          III          LLL
MMM          MMM          AAAAAAAAAAAAAAAAAA          III          LLL
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          AAA          AAA          IIIIIIIIIII          LLLLLLLLLLLLLLLLLL
MMM          MMM          AAA          AAA          IIIIIIIIIII          LLLLLLLLLLLLLLLLLL
MMM          MMM          AAA          AAA          IIIIIIIIIII          LLLLLLLLLLLLLLLLLL

```

MA
VO

:

```

LL                      IIIIII                      SSSSSSSSS
LL                      IIIIII                      SSSSSSSSS
LL                      II                      SS
LL                      II                      SS
LL                      II                      SS
LL                      II                      SS
LL                      II                      SSSSSSS
LL                      II                      SSSSSSS
LL                      II                      SS
LL                      II                      SS
LL                      II                      SS
LL                      II                      SS
LLLLLLLLLLLL           IIIIII                      SSSSSSSSS
LLLLLLLLLLLL           IIIIII                      SSSSSSSSS

```



```
1 0001 0 MODULE MAIL$SYSMAI( %TITLE 'OPEN/READ/WRITE SYS$SYSTEM:VMSMAIL.DAT'
2 0002 0 IDENT = 'V04-000' ) =
3 0003 1 BEGIN
4 0004 1
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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25 0025 1 *
26 0026 1 *
27 0027 1 *****
28 0028 1
29 0029 1
30 0030 1 ++
31 0031 1 FACILITY: VAX/VMS MAIL UTILITY
32 0032 1
33 0033 1 ABSTRACT: This module contains routines that deal with the
34 0034 1 VMS MAIL data file, SYS$SYSTEM:VMSMAIL.DAT
35 0035 1
36 0036 1 ENVIRONMENT: NATIVE/USER MODE
37 0037 1
38 0038 1 AUTHOR: Benn Schreiber, CREATION DATE: 13-Dec-1982
39 0039 1
40 0040 1 MODIFIED BY:
41 0041 1
42 0042 1 V03-008 ROP0033 Robert Posniak 09-Aug-1984
43 0043 1 Make sure locally allocated XABs are disconnected
44 0044 1 from global FABs.
45 0045 1
46 0046 1 V03-007 BLS0255 Benn Schreiber 28-Dec-1983
47 0047 1 New global flags
48 0048 1
49 0049 1 V03-006 BLS0246 Benn Schreiber 7-Nov-1983
50 0050 1 Move new mail count into SYS$SYSTEM:VMSMAIL.DAT
51 0051 1
52 0052 1 V03-005 BLS0225 Benn Schreiber 17-Jun-1983
53 0053 1 Break up file spec into fns='VMSMAIL', dns='SYS$SYSTEM:.DAT',
54 0054 1 so that a system logical name for VMSMAIL can be used.
55 0055 1
56 0056 1 V03-004 BLS0221 Benn Schreiber 5-May-1983
57 0057 1 Correct SYSPRV handling
```

MAIL\$SYSMAI
V04-000

OPEN/READ/WRITE SYS\$SYSTEM:VMSMAIL.DAT

N 14
16-Sep-1984 01:23:17
14-Sep-1984 12:42:35

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]SYSMAI.B32;1
Page 2 (1)

: 58
: 59
: 60
: 61
: 62
: 63
: 64

0058 1 !
0059 1 !
0060 1 !
0061 1 !
0062 1 !
0063 1 !
0064 1 !--

V03-003 BLS0220 Benn Schreiber 30-Apr-1983
Add MAIL\$GET_DEV_DIR

V03-002 BLS0213 Benn Schreiber 21-Mar-1983
Don't report open error if just reading VMSMAIL


```

66      0065 1  |
67      0066 1  | TABLE OF CONTENTS
68      0067 1  |
69      0068 1  | LIBRARY 'SYS$LIBRARY:LIB';
70      0069 1  | REQUIRE 'SRC$MAILREQ';
71      0215 1  | LIBRARY 'LIB$MAILDEF';
72      0216 1  |
73      0217 1  | GLOBAL
74      0218 1  |     MAIL$SYSMAIBUF: REF $BBLOCK,      | Pointer to VMSMAIL.DAT buffer
75      0219 1  |     MAIL$USRSYSBUF: REF $BBLOCK,      | Pointer to this user's
76      0220 1  |                                     | vmsmail record
77      0221 1  |     MAIL$SYSMAIFAB: $FAB_DECL,        | FAB for I/O
78      0222 1  |     MAIL$SYSMAIRAB: $RAB_DECL;        | and a RAB
79      0223 1  |
80      0224 1  |
81      0225 1  | BIND
82      0226 1  |     VMSMAIL_DESC = $DESCRIPTOR('VMSMAIL') : $BBLOCK,
83      0227 1  |     SYSEXE_DESC = $DESCRIPTOR('SYS$SYSTEM:.DAT') : $BBLOCK;
84      0228 1  |
85      0229 1  | OWN
86      0230 1  |     SYSMAIESS: $BBLOCK[NAM$C_MAXRSS], | ESS for VMSMAIL
87      0231 1  |     SYSMAINAM: $NAM_DECL;             | NAM block for VMSMAIL
88      0232 1  |
89      0233 1  | EXTERNAL
90      0234 1  |     MAIL$UAF_BUFF : REF $BBLOCK,      | UAF buffer
91      0235 1  |     MAIL$Q_USERNAME: $BBLOCK,         | String descriptor of username
92      0236 1  |     MAIL$GL_FLAGS : $BBLOCK;          | Control flags
93      0237 1  |
94      0238 1  | EXTERNAL ROUTINE
95      0239 1  |     LIB$GET_VM: ADDRESSING_MODE(GENERAL), | Allocate virtual memory
96      0240 1  |     MAIL$GET_USER,                    | Get UAF record
97      0241 1  |     MAIL$UP_PRIV,                     | Raise privileges
98      0242 1  |     MAIL$DOWN_PRIV,                   | and drop them
99      0243 1  |     STR$APPEND,                        | String append
100     0244 1  |     STR$COPY DX,                       | String copy
101     0245 1  |     UTIL$REPORT_IO_ERROR;              | Report I/O error
102     0246 1  |
103     0247 1  | | Define shared messages
104     0248 1  | |
105     P 0249 1  | $SHR_MSGDEF(MAIL,126,LOCAL,
106     P 0250 1  |     (READERR,WARNING),
107     P 0251 1  |     (WRITEERR,WARNING),
108     0252 1  |     (OPENOUT,WARNING));
```



```
110 0253 1 GLOBAL ROUTINE MAIL$UPDATE_SYSMAI_REC (RECBUF) =
111 0254 1 ++
112 0255 1 FUNCTIONAL DESCRIPTION:
113 0256 1
114 0257 1 Write/update a new record in VMSMAIL for a user
115 0258 1
116 0259 1 Inputs:
117 0260 1
118 0261 1 RECBUF = Address of record to write/update
119 0262 1
120 0263 1 --
121 0264 2 BEGIN
122 0265 2 MAP
123 0266 2 RECBUF : REF $BBLOCK;
124 0267 2
125 0268 2 LOCAL
126 0269 2 STATUS;
127 0270 2
128 0271 2 MAIL$T_SYSMAIRAB[RAB$W_RSZ] = VMD C LENGTH + .RECBUF[VMD B FWDLNG]
129 0272 2 + .RECBUF[VMD B FNMLNG] + .RECBUF[VMD B DIRLNG];
130 0273 2 MAIL$T_SYSMAIRAB[RAB$L_RBF] = .RECBUF;
131 0274 2 MAIL$T_SYSMAIRAB[RAB$V_UIF] = 1;
132 0275 2 MAIL$T_SYSMAIRAB[RAB$L_KBF] = .MAIL$T_SYSMAIRAB[RAB$L_RBF];
133 0276 2 MAIL$T_SYSMAIRAB[RAB$L_CTX] = MAIL$ WRITEERR;
134 0277 2 STATUS = $PUT(RAB=MAIL$T_SYSMAIRAB,ERR=UTIL$REPORT_IO_ERROR);
135 0278 2 MAIL$T_SYSMAIRAB[RAB$V_UIF] = 0;
136 0279 2 IF .STATUS
137 0280 2 THEN STATUS = $FLUSH(RAB=MAIL$T_SYSMAIRAB,ERR=UTIL$REPORT_IO_ERROR);
138 0281 2
139 0282 2 If this is the user's record, save the latest copy
140 0283 2
141 0284 2 IF .STATUS
142 0285 2 AND CH$EQL(VMD C USERNAME,RECBUF[VMD T USERNAME],
143 0286 2 VMD C USERNAME,MAIL$L_USR$SYSBUF[VMD T_USERNAME],%C' ')
144 0287 2 THEN CH$MOVE(.MAIL$T_SYSMAIRAB[RAB$W_RSZ],
145 0288 2 .MAIL$T_SYSMAIRAB[RAB$L_RBF],
146 0289 2 .MAIL$L_USR$SYSBUF);
147 0290 2
148 0291 2 RETURN .STATUS
149 0292 1 END;
```

```
.TITLE MAIL$SYSMAI OPEN/READ/WRITE SYS$SYSTEM:VMSMAIL.
.IDENT \V04-000\
.PSECT $CODE$,NOWRT,2
4C 49 41 4D 53 4D 56 00000 P.AAB: .ASCII \VMSMAIL\
00007 .BLKB 1
00000007 00008 P.AAA: .LONG 7
00000000 0000C .ADDRESS P.AAB
54 41 44 2E 3A 4D 45 54 53 59 53 24 53 59 53 00010 P.AAD: .ASCII \SYS$SYSTEM:.DAT\
0001F .BLKB 1
0000000F 00020 P.AAC: .LONG 15
00000000 00024 .ADDRESS P.AAD
```


.PSECT \$OWNS\$,NOEXE,2

00000 SYSMAIESS:

.BLKB 255

000FF .BLKB 1

00100 SYSMAINAM:

.BLKB 96

.PSECT \$GLOBAL\$,NOEXE,2

00000 MAIL\$_SYSMAIBUF::

.BLKB 4

00004 MAIL\$_USRSYSBUF::

.BLKB 4

00008 MAIL\$_SYSMAIFAB::

.BLKB 80

00058 MAIL\$_SYSMAIRAB::

.BLKB 68

VMSMAIL_DESC=

P.AAA

SYSEXEC_DESC=

P.AAC

.EXTRN MAIL\$_UAF_BUFF

.EXTRN MAIL\$_USERNAME

.EXTRN MAIL\$_GC_FLAGS, LIB\$GET_VM

.EXTRN MAIL\$_GET_USER, MAIL\$_PRIV

.EXTRN MAIL\$_DOWN_PRIV, STR\$APPEND

.EXTRN STR\$_COPY_DX, UTIL\$_REPORT_IO_ERROR

.EXTRN SY\$_PUT, SY\$_FLUSH

.PSECT \$CODE\$,NOWRT,2

01FC 00000

.ENTRY MAIL\$UPDATE_SYSMAI_REC, Save R2,R3,R4,R5,-

R6,R7,R8

MOVAB UTIL\$_REPORT_IO_ERROR, R8

MOVAB MAIL\$_SYSMAIRAB+40, R7

MOVL RECBUF, R2

MOVZBL 67(R2), R0

MOVZBL 66(R2), R1

ADDL2 R1, R0

MOVZBL 65(R2), R1

MOVAB 68(R1)[R0], R3

MOVW R3, MAIL\$_SYSMAIRAB+34

MOVL R2, MAIL\$_SYSMAIRAB+40

BISB2 #16, MAIL\$_SYSMAIRAB+4

MOVL MAIL\$_SYSMAIRAB+40, MAIL\$_SYSMAIRAB+48

MOVL #8261840, MAIL\$_SYSMAIRAB+24

PUSHL R8

PUSHAB MAIL\$_SYSMAIRAB

CALLS #2, SY\$_PUT

MOVL R0, STATUS

BICB2 #16, MAIL\$_SYSMAIRAB+4

BLBC STATUS, 1\$

PUSHL R8

PUSHAB MAIL\$_SYSMAIRAB

CALLS #2, SY\$_FLUSH

MOVL R0, STATUS

BLBC STATUS, 1\$

	58	00000000G	00	9E	00002
	57	00000000'	00	9E	00009
	52	04	AC	DO	00010
	50	43	A2	9A	00014
	51	42	A2	9A	00018
	50		51	CO	0001C
	51	41	A2	9A	0001F
	53	44	A140	9E	00023
FA	A7		53	BO	00028
	67		52	DO	0002C
DC	A7		10	88	0002F
08	A7		67	DO	00033
FO	A7	007E10D0	8F	DO	00037
			58	DD	0003F
		D8	A7	9F	00041
00000000G	00		02	FB	00044
	56		50	DO	0004B
DC	A7		10	8A	0004E
	28		56	E9	00052
			58	DD	00055
		D8	A7	9F	00057
00000000G	00		02	FB	0005A
	56		50	DO	00061
	16		56	E9	00064

: 0253

: 0271

: 0272

: 0273

: 0274

: 0275

: 0276

: 0277

: 0278

: 0279

: 0280

: 0284

MAIL\$SYSMAI
V04-000

OPEN/READ/WRITE SYSS\$SYSTEM:VMSMAIL.DAT

E 15
16-Sep-1984 01:23:17
14-Sep-1984 12:42:35

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]SYSMAI.B32;1
Page 6
(3)

60	50	84	A7	D0	00067	MOVL	MAIL\$L_USRSYSBUF, R0	:	0286
	62		1F	29	0006B	CMPC3	#31, (R2), (R0)	:	
			0C	12	0006F	BNEQ	1\$	:	
	51		67	D0	00071	MOVL	MAIL\$T_SYSMAIRAB+40, R1	:	0288
	50	84	A7	D0	00074	MOVL	MAIL\$T_USRSYSBUF, R0	:	0289
60	61	FA	A7	28	00078	MOVC3	MAIL\$T_SYSMAIRAB+34, (R1), (R0)	:	
	50		56	D0	0007D	MOVL	STATUS, R0	:	0291
			04	00080	1\$: RET			:	0292

; Routine Size: 129 bytes, Routine Base: \$CODE\$ + 0028


```
151 0293 1 GLOBAL ROUTINE MAIL$OPEN_SYSMAI =
152 0294 2 BEGIN
153 0295 2 ++
154 0296 2 FUNCTIONAL DESCRIPTION:
155 0297 2
156 0298 2 Open SYSS$SYSTEM:VMSMAIL.DAT for update.
157 0299 2
158 0300 2 INPUTS:
159 0301 2
160 0302 2 Static FAB/RAB
161 0303 2
162 0304 2 OUTPUTS:
163 0305 2
164 0306 2 file opened.
165 0307 2 Buffer allocated, pointed to by MAIL$L_SYSMAIBUF
166 0308 2
167 0309 2 ROUTINE VALUE:
168 0310 2
169 0311 2 success if file opened
170 0312 2 fail if not
171 0313 2
172 0314 2 --
173 0315 2
174 0316 2 LOCAL
175 0317 2 STATUS,
176 0318 2 XABPRO: $XABPRO_DECL,
177 0319 2 XABKEY0: $XABKEY0_DECL;
178 0320 2
179 0321 2 Allocate a buffer to read/write from
180 0322 2
181 0323 2 IF .MAIL$L_SYSMAIBUF EQL 0
182 P 0324 2 THEN IF_ERR(LIB$GET_VM(%REF(VMD C LENGTH+3*NAM$C_MAXRSS),
183 P 0325 2 MAIL$L_SYSMAIBUF);,
184 0326 2 SIGNAL(.STATUS); RETURN TRUE);
185 0327 2 IF .MAIL$L_USR$SYSBUF EQL 0
186 P 0328 2 THEN IF_ERR(LIB$GET_VM(%REF(VMD C LENGTH+3*NAM$C_MAXRSS),
187 P 0329 2 MAIL$L_USR$SYSBUF);,
188 0330 2 SIGNAL(.STATUS); RETURN TRUE);
189 0331 2
190 0332 2 Initialize RMS data structures
191 0333 2
192 P 0334 2 $FAB_INIT(FAB=MAIL$T_SYSMAIFAB,
193 P 0335 2 FAC=(GET,PUT,DEL,UPD),
194 P 0336 2 FOP=(CIF,CBT),
195 P 0337 2 FNS=.VMSMAIL_DESC[DSC$W_LENGTH],
196 P 0338 2 FNA=.VMSMAIL_DESC[DSC$A_POINTER],
197 P 0339 2 DNS=.SYSEXE_DESC[DSC$W_LENGTH],
198 P 0340 2 DNA=.SYSEXE_DESC[DSC$A_POINTER],
199 P 0341 2 SHR=(GET,PUT,DEL,UPD),
200 P 0342 2 CTX=MAIL$_OPENOUT,
201 P 0343 2 ORG=IDX, !Indexed
202 P 0344 2 RFM=VAR, !Variable length records
203 P 0345 2 ALQ=10,
204 0346 2 DEQ=10);
205 0347 2
206 0348 2 MAIL$T_SYSMAIFAB[FAB$V_LNM_MODE] = PSL$C_EXEC;
207 0349 2
```



```
208 P 0350 2 $NAM_INIT(NAM=SYSMAINAM,  
209 P 0351 2 ESS=NAM$C_MAXRSS,  
210 P 0352 2 ESA=SYSMAI$ESS,  
211 P 0353 2 RSS=NAM$C_MAXRSS,  
212 0354 2 RSA=SYSMAI$ESS);  
213 0355 2  
214 0356 2  
215 P 0357 2 $XABPRO_INIT(XAB=XABPRO,  
216 P 0358 2 PRO=(RWE,RWE), !Owner and system access only  
217 P 0359 2 UIC=(1,4), !Owner is [1,4]  
218 0360 2 NXT=XAB$KEY0);  
219 0361 2  
220 P 0362 2 $XABKEY_INIT(XAB=XABKEY0,  
221 P 0363 2 KREF=0,  
222 P 0364 2 POS0=0,  
223 P 0365 2 SIZE=VMD_C_USERNAME, !Username is first 31 bytes  
224 0366 2 NXT=0);  
225 0367 2  
226 0368 2 MAIL$T_SYSM$IFAB[FAB$L_XAB] = XABPRO; !Point FAB to the XAB chain  
227 0369 2  
228 0370 2 ! Open (or create) the file  
229 0371 2  
230 0372 2 MAIL$UP_PRIV(1*$BITPOSITION(PRV$V_SYSPRV),0);  
231 0373 2 STATUS = $CREATE(FAB=MAIL$T_SYSM$IFAB,ERR=UTIL$REPORT_IO_ERROR);  
232 0374 2 MAIL$DOWN_PRIV();  
233 0375 2  
234 0376 2 IF NOT .STATUS  
235 0377 2 THEN RETURN .STATUS;  
236 0378 2  
237 P 0379 2 $RAB_INIT(RAB=MAIL$T_SYSM$AIRAB,  
238 P 0380 2 RAC=KEY,  
239 P 0381 2 ROP=(RLK,NLK),  
240 P 0382 2 KRF=0,  
241 P 0383 2 KSZ=VMD_C_USERNAME,  
242 P 0384 2 KBF=.MAIL$T_SYSM$IBUF,  
243 P 0385 2 CTX=MAIL$ OPENOUT,  
244 P 0386 2 FAB=MAIL$T_SYSM$IFAB,  
245 P 0387 2 RBF=.MAIL$T_SYSM$IBUF,  
246 P 0388 2 USZ=VMD_C_LENGTH+3*NAM$C_MAXRSS,  
247 0389 2 UBF=.MAIL$T_SYSM$IBUF);  
248 0390 2  
249 0391 2 STATUS = $CONNECT(RAB=MAIL$T_SYSM$AIRAB);  
250 0392 2 IF NOT .STATUS  
251 0393 2 AND NOT (IF .STATUS EQL RMS$ CRMP  
252 0394 2 THEN STATUS = (MAIL$T_SYSM$IFAB[FAB$W_GBC] = 0;  
253 0395 2 $CONNECT(RAB=MAIL$T_SYSM$AIRAB))  
254 0396 2 ELSE FALSE)  
255 0397 2 THEN BEGIN  
256 0398 2 UTIL$REPORT IO ERROR(MAIL$T_SYSM$IFAB);  
257 0399 2 $CLOSE(FAB=MAIL$T_SYSM$IFAB);  
258 0400 2 RETURN TRUE  
259 0401 2 END;  
260 0402 2 MAIL$T_SYSM$AIRAB[RAB$L_CTX] = MAIL$ READERR;  
261 0403 2 MAIL$T_SYSM$IFAB[FAB$L_XAB] = 0;  
262 0404 2  
263 0405 2 ! Read the user record if it exists  
264 0406 2
```



```

265      0407 2 IF NOT .MAIL$GL_FLAGS[MAIF_V_NETJOB]
266      0408 3 THEN BEGIN
267      0409 3     CH$COPY(.MAIL$Q_USERNAME[DSC$W_LENGTH],.MAIL$Q_USERNAME[DSC$A_POINTER],
268      0410 3         ' ',VMD_C_USERNAME,MAIL$L_USR$SYSBUF[VMD_T_USERNAME]);
269      0411 3
270      0412 3     ! Read the record. If it doesn't exist, then initialize the buffer
271      0413 3     and write out the record for this user.
272      0414 3
273      0415 3     MAIL$T_SYSM$AIRAB[RAB$L_KBF] = .MAIL$L_USR$SYSBUF;
274      0416 4     IF NOT $GET(RAB=MAIL$T_SYSM$AIRAB)
275      0417 4     THEN BEGIN
276      0418 4         IF .MAIL$T_SYSM$AIRAB[RAB$L_STS] NEQ RMSS$RNF
277      0419 4         THEN RETURN UTIL$REPORT IO ERROR(MAI[$T_SYSM$AIRAB]);
278      0420 4         CH$FILL(0,VMD_C_LENGTH+NAM$C_MAXRSS-$BYTEOFFSET(VMD_W_FLAGS),
279      0421 4             MAIL$L_USR$SYSBUF[VMD_W_FLAGS]);
280      0422 4         MAIL$UPDATE_SYSM$REC(.MAIL$L_USR$SYSBUF);
281      0423 4     END
282      0424 3     ELSE CH$MOVE(.MAIL$T_SYSM$AIRAB[RAB$W_RSZ],           !Copy/save this user
283      0425 3         .MAIL$T_SYSM$AIRAB[RAB$L_RBF],
284      0426 3         .MAIL$L_USR$SYSBUF);
285      0427 2 END;
286      0428 2
287      0429 2 RETURN TRUE
288      0430 1 END;

```

\$RMS_PTR=	MAIL\$T_SY\$MAIFAB	
\$RMS_PTR=	SY\$MAINAM	
\$RMS_PTR=	MAIL\$T_SY\$MAIRAB	
.EXTRN	SY\$CREATE, SY\$CONNECT	
.EXTRN	SY\$CLOSE, SY\$GET	
.ENTRY	MAIL\$OPEN_SY\$MAI, Save R2,R3,R4,R5,R6,R7,-	0293
	R8,R9,R10,R11	:
MOVAB	LIB\$GET_VM, R11	:
MOVAB	UTIL\$REPORT_IO_ERROR, R10	:
MOVAB	VMSMAIL_DESC+4, R9	:
MOVAB	\$RMS_PTR, R8	:
MOVAB	\$RMS_PTR, R7	:
MOVAB	-168(SP), SP	:
TSTL	MAIL\$L_SY\$MAIBUF	0323
BNEQ	1\$	:
PUSHAB	MAIL\$L_SY\$MAIBUF	0326
MOVZWL	#833, 4(SP)	:
PUSHAB	4(SP)	:
CALLS	#2, LIB\$GET_VM	:
BLBC	STATUS, 2\$	:
1\$: TSTL	MAIL\$L_USR\$SYSBUF	0327
BNEQ	3\$	:
PUSHAB	MAIL\$L_USR\$SYSBUF	0330
MOVZWL	#833, 4(SP)	:
PUSHAB	4(SP)	:
CALLS	#2, LIB\$GET_VM	:
BLBS	STATUS, 3\$	:
2\$: PUSHL	STATUS	:
CALLS	#1, LIB\$SIGNAL	:

0050	8F	00	6E	01C0	31	0005F	BRW	9\$		
				00	2C	00062	MOVCS	#0, (SP), #0, #80, \$RMS_PTR	0346	
				67		00069				
			67	5003	8F	B0	0006A	MOVW	#20483, \$RMS_PTR	
		04	A7	02200000	8F	D0	0006F	MOVL	#35651584, \$RMS_PTR+4	
		10	A7		0A	D0	00077	MOVL	#10, \$RMS_PTR+16	
		14	A7	0F0F000A	8F	D0	0007B	MOVL	#252641290, \$RMS_PTR+20	
		18	A7	007E10A0	8F	D0	00083	MOVL	#8261792, \$RMS_PTR+24	
		1D	A7		20	90	0008B	MOVB	#32, \$RMS_PTR+29	
		1F	A7		02	90	0008F	MOVB	#2, \$RMS_PTR+31	
		2C	A7		69	D0	00093	MOVL	VMSMAIL_DESC+4, \$RMS_PTR+44	
		30	A7	18	A9	D0	00097	MOVL	SYSEXE_DESC+4, \$RMS_PTR+48	
		34	A7	FC	A9	90	0009C	MOVB	VMSMAIL_DESC, \$RMS_PTR+52	
		35	A7	14	A9	90	000A1	MOVB	SYSEXE_DESC, \$RMS_PTR+53	
4A	A7	02	00		01	F0	000A6	INSV	#1, #0, #2, MAILST_SYMAIFAB+74	0348
0060	8F	00	6E		00	2C	000AC	MOVCS	#0, (SP), #0, #96, \$RMS_PTR	0354
					68		000B3			
			68	6002	8F	B0	000B4	MOVW	#24578, \$RMS_PTR	
		02	A8		01	8E	000B9	MNEGB	#1, \$RMS_PTR+2	
		04	A8	FF00	C8	9E	000BD	MOVAB	SYMAIESS, \$RMS_PTR+4	
		0A	A8		01	8E	000C3	MNEGB	#1, \$RMS_PTR+10	
		0C	A8	FF00	C8	9E	000C7	MOVAB	SYMAIESS, \$RMS_PTR+12	
0058	8F	00	6E		00	2C	000CD	MOVCS	#0, (SP), #0, #88, \$RMS_PTR	0360
					AE		000D4			
			50	5813	8F	B0	000D6	MOVW	#22547, \$RMS_PTR	
			54	04	AE	9E	000DC	MOVAB	XABKEY0, \$RMS_PTR+4	
			58	88	8F	99	000E1	CVTBW	#-120, \$RMS_PTR+8	
			5C	00010004	8F	D0	000E6	MOVL	#65540, \$RMS_PTR+12	
004C	8F	00	6E		00	2C	000EE	MOVCS	#0, (SP), #0, #76, \$RMS_PTR	0366
					AE		000F5			
			04	4C15	8F	B0	000F7	MOVW	#19477, \$RMS_PTR	
				17	AE	94	000FD	CLRB	\$RMS_PTR+19	
			32		1F	90	00100	MOVB	#31, \$RMS_PTR+46	
			24	50	AE	9E	00104	MOVAB	XABPRO, MAILST_SYMAIFAB+36	0368
					7E	D4	00109	CLRL	-(SP)	0372
				10000000	8F	DD	0010B	PUSHL	#268435456	
		00000000G	00		02	FB	00111	CALLS	#2, MAIL\$UP_PRIV	
				0480	8F	BB	00118	PUSHR	#^M<R7,R10>	0373
		00000000G	00		02	FB	0011C	CALLS	#2, SYSS\$CREATE	
			56		50	D0	00123	MOVL	R0, STATUS	
		00000000G	00		00	FB	00126	CALLS	#0, MAIL\$DOWN_PRIV	0374
			04		56	E8	0012D	BLBS	STATUS, 4\$	0376
			50		56	D0	00130	MOVL	STATUS, R0	0377
					04		00133	RET		
0044	8F	00	6E		00	2C	00134	MOVCS	#0, (SP), #0, #68, \$RMS_PTR	0389
					A7		0013B			
			50	50	8F	B0	0013D	MOVW	#17409, \$RMS_PTR	
			54	4401	8F	D0	00143	MOVL	#1572864, \$RMS_PTR+4	
			68	00180000	8F	D0	0014B	MOVL	#8261792, \$RMS_PTR+24	
			6E	007E10A0	01	90	00153	MOVB	#1, \$RMS_PTR+30	
			70	0341	8F	B0	00157	MOVW	#833, \$RMS_PTR+32	
				F8	A7	D0	0015D	MOVL	MAIL\$L_SYMAIBUF, R0	
			74		50	D0	00161	MOVL	R0, \$RMS_PTR+36	
			78		50	D0	00165	MOVL	R0, \$RMS_PTR+40	
			0080		50	D0	00169	MOVL	R0, \$RMS_PTR+48	
			0084		1F	90	0016E	MOVB	#31, \$RMS_PTR+52	
			008C		67	9E	00173	MOVAB	MAILST_SYMAIFAB, \$RMS_PTR+60	

MAIL\$SYSMAI
V04-000

OPEN/READ/WRITE SYS\$SYSTEM:VMSMAIL.DAT

J 15
16-Sep-1984 01:23:17
14-Sep-1984 12:42:35

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]SYSMAI.B32;1

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			50	A7	9F	00178	PUSHAB	MAIL\$T_SYSMAIRAB	:	0391
	00000000G	00		01	FB	0017B	CALLS	#1, SYS\$CONNECT	:	
		56		50	D0	00182	MOVL	R0, STATUS	:	
		2C		56	E8	00185	BLBS	STATUS, 6\$	:	0392
	0001C14C	8F		56	D1	00188	CMPL	STATUS, #115020	:	0393
				13	12	0018F	BNEQ	5\$	:	
			48	A7	B4	00191	CLRW	MAIL\$T_SYSMAIFAB+72	:	0394
			50	A7	9F	00194	PUSHAB	MAIL\$T_SYSMAIRAB	:	0395
	00000000G	00		01	FB	00197	CALLS	#1, SYS\$CONNECT	:	
		56		50	D0	0019E	MOVL	R0, STATUS	:	
		10		56	E8	001A1	BLBS	STATUS, 6\$	:	
				57	DD	001A4	PUSHL	R7	:	0398
		6A		01	FB	001A6	CALLS	#1, UTIL\$REPORT_IO_ERROR	:	
				57	DD	001A9	PUSHL	R7	:	0399
	00000000G	00		01	FB	001AB	CALLS	#1, SYS\$CLOSE	:	
				6E	11	001B2	BRB	9\$	:	0400
	68	A7	007E10B0	8F	D0	001B4	MOVL	#8261808, MAIL\$T_SYSMAIRAB+24	:	0402
			24	A7	D4	001BC	CLRL	MAIL\$T_SYSMAIFAB+36	:	0403
5B	00000000G	00		01	E0	001BF	RRB	#1, MAIL\$GL_FLAGS, 9\$	:	0407
		50	00000000G	00	D0	001C7	MOVL	MAIL\$Q_USERNAME+4, R0	:	0409
		56	FC	A7	D0	001CE	MOVL	MAIL\$Q_USR\$SYSBUF, R6	:	0410
1F	20	60	00000000G	00	2C	001D2	MOVC5	MAIL\$Q_USERNAME, (R0), #32, #31, (R6)	:	
				66		001DB			:	
	0080	C7		56	D0	001DC	MOVL	R6, MAIL\$T_SYSMAIRAB+48	:	0415
			50	A7	9F	001E1	PUSHAB	MAIL\$T_SYSMAIRAB	:	0416
	00000000G	00		01	FB	001E4	CALLS	#1, SYS\$GET	:	
		27		50	E8	001EB	BLBS	R0, 8\$	:	
	000182B2	8F		58	A7	001EE	CMPL	MAIL\$T_SYSMAIRAB+8, #98994	:	0418
				07	13	001F6	BEQL	7\$	:	
			50	A7	9F	001F8	PUSHAB	MAIL\$T_SYSMAIRAB	:	0419
		6A		01	FB	001FB	CALLS	#1, UTIL\$REPORT_IO_ERROR	:	
					04	001FE	RET		:	
		56	FC	A7	D0	001FF	MOVL	MAIL\$Q_USR\$SYSBUF, R6	:	0421
0124	8F	00		00	2C	00203	MOVC5	#0, (SP), #0, #292, 31(R6)	:	
			1F	A6		0020A			:	
				56	DD	0020C	PUSHL	R6	:	0422
	FD6C	CF		01	FB	0020E	CALLS	#1, MAIL\$UPDATE_SYSMAI_REC	:	
				0D	11	00213	BRB	9\$	:	0416
		51	78	A7	D0	00215	MOVL	MAIL\$T_SYSMAIRAB+40, R1	:	0425
		50	FC	A7	D0	00219	MOVL	MAIL\$Q_USR\$SYSBUF, R0	:	0426
	60	61	72	A7	28	0021D	MOVC3	MAIL\$T_SYSMAIRAB+34, (R1), (R0)	:	
		50		01	D0	00222	MOVL	#1, R0	:	0429
				04	00225		RET		:	0430

; Routine Size: 550 bytes, Routine Base: \$CODE\$ + 00A9


```

290 0431 1 GLOBAL ROUTINE MAIL$CHECK_FORW(NAME_DESC,DATA_BUFFER) =
291 0432 2 BEGIN
292 0433 2 ++
293 0434 2 FUNCTIONAL DESCRIPTION:
294 0435 2
295 0436 2 This routine checks if the named user has forwarding enabled
296 0437 2 in SYS$SYSTEM:VMSMAIL.DAT
297 0438 2
298 0439 2 INPUTS:
299 0440 2
300 0441 2 NAME_DESC = Address of string descriptor for user name
301 0442 2 DATA_BUFFER = Address of a buffer to read record in to (If not given,
302 0443 2 MAIL$L_SYSMAIBUF will be used.
303 0444 2
304 0445 2 OUTPUTS:
305 0446 2
306 0447 2 If found, the buffer pointed to by DATA_BUFFER contains
307 0448 2 the record.
308 0449 2
309 0450 2 ROUTINE VALUE:
310 0451 2
311 0452 2 True if name is forwarded
312 0453 2 False if not
313 0454 2 --
314 0455 2 BUILTIN
315 0456 2 NULLPARAMETER;
316 0457 2
317 0458 2 MAP
318 0459 2 NAME_DESC : REF $BBLOCK,
319 0460 2 DATA_BUFFER : REF $BBLOCK;
320 0461 2
321 0462 2 LOCAL
322 0463 2 BUFPTR : REF $BBLOCK,
323 0464 2 STATUS;
324 0465 2
325 0466 2 IF NOT NULLPARAMETER(2)
326 0467 2 THEN BUFPTR = .DATA_BUFFER
327 0468 2 ELSE BUFPTR = .MAIL$L_SYSMAIBUF;
328 0469 2 CH$COPY(.NAME_DESC[DSC$W_LENGTH],.NAME_DESC[DSC$A_POINTER],
329 0470 2 ,VMD_T_USERNAME,.BUFPTR);
330 0471 2 MAIL$T_SYMAIRAB[RAB$L_OBF] = .BUFPTR;
331 0472 2 MAIL$T_SYMAIRAB[RAB$L_KBF] = BUFPTR[VMD_T_USERNAME];
332 0473 2 MAIL$T_SYMAIRAB[RAB$V_NLK] = TRUE;
333 0474 3 IF NOT $GET(RAB=MAIL$T_SYMAIRAB)
334 0475 2 THEN RETURN 0;
335 0476 2
336 0477 2 RETURN (.BUFPTR[VMD_B_FWDLNG] NEQ 0);
337 0478 2
338 0479 1 END;
```

```

57 00000000' 00FC 00000
02 00 9E 00002
6C 91 00009
```

```

.ENTRY MAIL$CHECK_FORW, Save R2,R3,R4,R5,R6,R7
MOVAB MAIL$L_SYSMAIBUF, R7
CMPB (AP), #2
```

```

: 0431
:
: 0466
```


MAIL\$SYSMAI
V04-000

OPEN/READ/WRITE SYS\$SYSTEM:VMSMAIL.DAT

L 15
16-Sep-1984 01:23:17
14-Sep-1984 12:42:35

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DISK\$VMSMASTER:[MAIL.SRC]SYSMAI.B32;1

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				08	0B	1F	0000C	BLSSU	1\$		
					AC	D5	0000E	TSTL	8(AP)		
					06	13	00011	BEQL	1\$		
			56	08	AC	D0	00013	MOVL	DATA_BUFFER, BUFPTR		0467
					03	11	00017	BRB	2\$		
			56		67	D0	00019	MOVL	MAIL\$SYSMAIBUF, BUFPTR		0468
			50	04	AC	D0	0001C	MOVL	NAME_DESC, R0		0469
1F	20				60	2C	00020	MOVCS	(R0), @4(R0), #32, #31, (BUFPTR)		0470
					66		00026				
			7C		56	D0	00027	MOVL	BUFPTR, MAIL\$SYSMAIRAB+36		0471
			0088		56	D0	0002B	MOVL	BUFPTR, MAIL\$SYSMAIRAB+48		0472
			5E		10	88	00030	BISB2	#16, MAIL\$SYSMAIRAB+6		0473
					A7	9F	00034	PUSHAB	MAIL\$SYSMAIRAB		0474
			00000000G		01	FB	00037	CALLS	#1, SYS\$GET		
					50	E9	0003E	BLBC	R0, 3\$		
					50	D4	00041	CLRL	R0		0477
				43	A6	95	00043	TSTB	67(BUFPTR)		
					05	13	00046	BEQL	4\$		
					50	D6	00048	INCL	R0		
						04	0004A	RET			
					50	D4	0004B	CLRL	R0		0479
						04	0004D	RET			

; Routine Size: 78 bytes, Routine Base: \$CODE\$ + 02CF

```

: 340      0480 1 GLOBAL ROUTINE MAIL$GET_SYSMAI_REC(NAME_DESC,RECBUF) =
: 341      0481 1 ++
: 342      0482 1 FUNCTIONAL DESCRIPTION:
: 343      0483 1
: 344      0484 1 Read the record from VMSMAIL.DAT for the named user
: 345      0485 1
: 346      0486 1 INPUTS:
: 347      0487 1
: 348      0488 1 NAME_DESC = Address of descriptor for username
: 349      0489 1 RECBUF = Address of buffer to return record in
: 350      0490 1
: 351      0491 1 --
: 352      0492 2 BEGIN
: 353      0493 2 LOCAL
: 354      0494 2 STATUS;
: 355      0495 2 MAP
: 356      0496 2 NAME_DESC : REF $BBLOCK,
: 357      0497 2 RECBUF : REF $BBLOCK;
: 358      0498 2
: 359      0499 2 CH$COPY(.NAME_DESC[DSC$W_LENGTH],.NAME_DESC[DSC$A_POINTER],
: 360      0500 2 ,VMD_T_USERNAME,.RECBUF);
: 361      0501 2 MAIL$T_SYSMAIRAB[RAB$L_OBF] = .RECBUF;
: 362      0502 2 MAIL$T_SYSMAIRAB[RAB$L_KBF] = RECBUF[VMD_T_USERNAME];
: 363      0503 2 MAIL$T_SYSMAIRAB[RAB$V_NLK] = TRUE;
: 364      0504 2 STATUS = $GET(RAB=MAIL$T_SYSMAIRAB);
: 365      0505 2
: 366      0506 2 RETURN .STATUS
: 367      0507 1 END;
```

```

                                007C 00000
                                56 00000000' 00 9E 00002
                                50 04 AC D0 00009
1F      20      04      B0      60 2C 0000D
                                08 BC 00013
                                66 08 AC D0 00015
                                0C A6 AC D0 00019
                                E2 A6 10 88 0001E
                                DC A6 9F 00022
                                00000000G 00 01 FB 00025
                                04 0002C
```

```

.ENTRY MAIL$GET_SYSMAI_REC, Save R2,R3,R4,R5,R6      : 0480
MOVAB MAIL$T_SYSMAIRAB+36, R6                        :
MOVL NAME_DESC, R0                                   : 0499
MOVC5 (R0), @4(R0), #32, #31, @RECBUF                : 0500
:
MOVL RECBUF, MAIL$T_SYSMAIRAB+36                     : 0501
MOVL RECBUF, MAIL$T_SYSMAIRAB+48                     : 0502
BISB2 #16, MAIL$T_SYSMAIRAB+6                        : 0503
PUSHAB MAIL$T_SYSMAIRAB                             : 0504
CALLS #1, SYS$GET                                     :
RET                                                    : 0507
```

; Routine Size: 45 bytes, Routine Base: \$CODE\$ + 031D


```
369 0508 1 GLOBAL ROUTINE MAIL$GETLK_SYSMAI_REC (NAME_DESC, RECDISC) =
370 0509 1 ++
371 0510 1 FUNCTIONAL DESCRIPTION:
372 0511 1
373 0512 1 Read and lock the designated record in VMSMAIL
374 0513 1
375 0514 1
376 0515 1 INPUTS:
377 0516 1
378 0517 1 NAME_DESC = Address of descriptor for username
379 0518 1 RECDISC = Address of descriptor to return record descriptor in
380 0519 1
381 0520 1 --
382 0521 2 BEGIN
383 0522 2 MAP
384 0523 2 NAME_DESC : REF $BLOCK,
385 0524 2 RECDISC : REF VECTOR[,LONG];
386 0525 2
387 0526 2 LOCAL
388 0527 2 COUNTER,
389 0528 2 STATUS;
390 0529 2
391 0530 2 LITERAL
392 0531 2 RETRY_RLK = 10, ! number of retries for a locked record
393 0532 2 SLEEP_RLK = 75; ! ms to sleep before retrying
394 0533 2
395 0534 2 BIND
396 0535 2 WAKEDELTA = UPLIT LONG(-10*1000*SLEEP_RLK,-1);
397 0536 2
398 0537 2 CH$COPY(.NAME_DESC[DSC$W_LENGTH],.NAME_DESC[DSC$A_POINTER],
399 0538 2 ,VMD_T_USERNAME,.MAIL$SYSMAIBUF);
400 0539 2 MAIL$SYSMAIRAB[RAB$L_OBF] = .MAIL$SYSMAIBUF;
401 0540 2 MAIL$SYSMAIRAB[RAB$L_KBF] = MAIL$SYSMAIBUF[VMD_T_USERNAME];
402 0541 2 MAIL$SYSMAIRAB[RAB$V_NLK] = FALSE;
403 0542 2 COUNTER = RETRY_RLK;
404 0543 2 WHILE ((STATUS = $GET(RAB=MAIL$SYSMAIRAB)) EQL RMSS_RLK)
405 0544 2 AND ((COUNTER = .COUNTER - 1) GEQ 0)
406 0545 2 DO IF $SCHDWK(DAYTIM = WAKEDELTA) THEN $HIBER;
407 0546 2
408 0547 2 IF NOT .STATUS
409 0548 2 THEN RETURN .STATUS;
410 0549 2
411 0550 2 RECDISC[0] = .MAIL$SYSMAIRAB[RAB$W_RSZ];
412 0551 2 RECDISC[1] = .MAIL$SYSMAIRAB[RAB$L_RBF];
413 0552 2
414 0553 2 RETURN .STATUS
415 0554 1 END;
```

```
0034A .BLKB 2
FFFFFFF FFF48E50 0034C P.AAE: .LONG -750000, -1
```

```
WAKEDELTA= P.AAE
.EXTRN SYSS$SCHDWK, SYSS$HIBER
```

```
00FC 00000 .ENTRY MAIL$GETLK_SYSMAI_REC, Save R2,R3,R4,R5,R6,-; 0508
```


1F	20	04	57	00000000'	00	9E	00002	MOVAB	R7		
			50	04	AC	D0	00009	MOVL	MAIL\$ SYSMAIBUF, R7		0537
			56		67	D0	0000D	MOVL	NAME DESC, R0		0538
			B0		60	2C	00010	MOVCS	MAIL\$ SYSMAIBUF, R6		
					66		00016		(R0), #4(R0), #32, #31, (R6)		
		7C	A7		56	D0	00017	MOVL	R6, MAIL\$T-SYSMAIRAB+36		0539
		0088	C7		56	D0	0001B	MOVL	R6, MAIL\$T-SYSMAIRAB+48		0540
		5E	A7		10	8A	00020	BICB2	#16, MAIL\$T-SYSMAIRAB+6		0541
			53		0A	D0	00024	MOVL	#10, COUNTER		0542
				58	A7	9F	00027	PUSHAB	MAIL\$T-SYSMAIRAB		0543
		00000000G	00		01	FB	0002A	CALLS	#1, SYS\$GET		
			52		50	D0	00031	MOVL	R0, STATUS		
		000182AA	8F		52	D1	00034	CMPL	STATUS, #98986		
					1E	12	0003B	BNEQ	2\$		
					53	D7	0003D	DECL	COUNTER		0544
					1A	19	0003F	BLSS	2\$		
				B2	7E	D4	00041	CLRL	-(SP)		0545
					AF	9F	00043	PUSHAB	WAKEDELTA		
					7E	7C	00046	CLRL	-(SP)		
		00000000G	00		04	FB	00048	CALLS	#4, SYS\$SCHOK		
			D5		50	E9	0004F	BLBC	R0, 1\$		
		00000000G	00		00	FB	00052	CALLS	#0, SYS\$HIBER		
					CC	11	00059	BRB	1\$		
			0E		52	E9	0005B	BLBC	STATUS, 3\$		0547
			50	08	AC	D0	0005E	MOVL	RECDESC, R0		0550
			60	7A	A7	3C	00062	MOVZWL	MAIL\$T-SYSMAIRAB+34, (R0)		
		04	A0	0080	C7	D0	00066	MOVL	MAIL\$T-SYSMAIRAB+40, 4(R0)		0551
			50		52	D0	0006C	MOVL	STATUS, R0		0553
					04	0006F		RET			0554

; Routine Size: 112 bytes, Routine Base: \$CODE\$ + 0354


```
: 417 0555 1 GLOBAL ROUTINE MAIL$GET_DEVDIR(USERDESC,DEVDIRDESC) =
: 418 0556 1 ++
: 419 0557 1 FUNCTIONAL DESCRIPTION:
: 420 0558 1
: 421 0559 1 This routine gets the device/directory descriptor for USERNAME
: 422 0560 1 and returns it in DEVDIRDESC via STR$COPY.
: 423 0561 1
: 424 0562 1 --
: 425 0563 2 BEGIN
: 426 0564 2 MAP
: 427 0565 2 USERDESC : REF $BBLOCK,
: 428 0566 2 DEVDIRDESC : REF $BBLOCK;
: 429 0567 2
: 430 0568 2 LOCAL
: 431 0569 2 STATUS,
: 432 0570 2 DIRBUF : $BBLOCK[NAM$C_MAXRSS],
: 433 0571 2 PTR : REF VECTOR[BYTE],
: 434 0572 2 DESC : VECTOR[2, LONG],
: 435 0573 2 SYSMAIBUF : $BBLOCK[VMD_C_LENGTH+3*NAM$C_MAXRSS];
: 436 0574 2
: 437 0575 2 PTR = DIRBUF;
: 438 0576 3 IF NOT (STATUS = MAIL$GET_USER(.USERDESC))
: 439 0577 2 THEN RETURN .STATUS
: 440 0578 3 ELSE BEGIN
: 441 0579 3 PTR = CH$MOVE(. (MAIL$T_UAF_BUFF[UAF$T_DEFDEV])<CS_COUNT>,
: 442 0580 3 (MAIL$T_UAF_BUFF[UAF$T_DEFDEV])<CS_STRING>,
: 443 0581 3 DIRBUF);
: 444 0582 3 PTR = CH$MOVE(. (MAIL$T_UAF_BUFF[UAF$T_DEFDIR])<CS_COUNT>,
: 445 0583 3 (MAIL$T_UAF_BUFF[UAF$T_DEFDIR])<CS_STRING>,.PTR);
: 446 0584 2 END;
: 447 0585 2 IF MAIL$GET_SYSMAI_REC(.USERDESC,SYSMAIBUF)
: 448 0586 2 AND .SYSMAIBUF[VMD_B_DIRLNG] NEQ 0
: 449 0587 2 THEN PTR = CH$MOVE(.SYSMAIBUF[VMD_B_DIRLNG]-1,
: 450 0588 2 SYSMAIBUF[VMD_T_FWDNAM]+.SYSMAIBUF[VMD_B_FWDLNG]+
: 451 0589 2 .SYSMAIBUF[VMD_B_FNMLNG]+1,.PTR-T);
: 452 0590 2
: 453 0591 2 IF .((MAIL$T_UAF_BUFF[UAF$T_DEFDIR])<CS_STRING>)<0,8> EQL %C'[
: 454 0592 2 THEN PTR[-1] = %C']';
: 455 0593 2 ELSE PTR[-1] = %C']>';
: 456 0594 2 DESC[0] = .PTR - DIRBUF;
: 457 0595 2 DESC[1] = DIRBUF;
: 458 0596 2 STR$COPY_DX(.DEVDIRDESC,DESC);
: 459 0597 2
: 460 0598 2 RETURN TRUE
: 461 0599 1 END;
```

```
00000000G 00 00FC 00000
57 00000000G 00 9E 00002
5E FBB4 CE 9E 00009
53 FF00 CD 9E 0000E
04 AC DD 00013
00000000G 00 01 FB 00016
7C 50 E9 0001D
```

```
.ENTRY MAIL$GET_DEVDIR, Save R2,R3,R4,R5,R6,R7
MOVAB MAIL$T_UAF_BUFF, R7
MOVAB -1100(SP), -SP
MOVAB DIRBUF, PTR
PUSHL USERDESC
CALLS #1, MAIL$GET_USER
BLBC STATUS, 4$
```

```
: 0555
:
: 0575
: 0576
:
```


			56		67	D0	00020		MOVL	MAIL\$T_UAF_BUFF, R6	:	0579
			50	74	A6	9A	00023		MOVZBL	116(R6), R0	:	
FF00	CD	75	A6		50	28	00027		MOVCL	R0, 117(R6), DIRBUF	:	
			50	0094	C6	9A	0002E		MOVZBL	148(R6), R0	:	0582
	63	0095	C6		50	28	00033		MOVCL	R0, 149(R6), (PTR)	:	0583
					5E	DD	00039		PUSHL	SP	:	0585
				04	AC	DD	0003B		PUSHL	USERDESC	:	
		FF16	CF		02	FB	0003E		CALLS	#2, MAIL\$GET_SYSMAI_REC	:	
			1D		50	E9	00043		BLBC	R0, 1\$	:	
				41	AE	95	00046		TSTB	SYSMAIBUF+65	:	0586
					18	13	00049		BEQL	1\$	:	
			51	41	AE	9A	0004B		MOVZBL	SYSMAIBUF+65, R1	:	0587
					51	D7	0004F		DECL	R1	:	
			50	43	AE	9A	00051		MOVZBL	SYSMAIBUF+67, R0	:	0589
			52	42	AE	9A	00055		MOVZBL	SYSMAIBUF+66, R2	:	
			50		52	C0	00059		ADDL2	R2, R0	:	
FF	A3	45	AE40		51	28	0005C		MOVCL	R1, SYSMAIBUF+69[R0], -1(PTR)	:	
			50		67	D0	00063	1\$:	MOVL	MAIL\$T_UAF_BUFF, R0	:	0591
		5B	8F	0095	C0	91	00066		CMPB	149(R0), #91	:	
					07	12	0006C		BNEQ	2\$	:	
		FF	A3	5D	8F	90	0006E		MOVB	#93, -1(PTR)	:	0592
					04	11	00073		BRB	3\$	:	
		FF	A3		3E	90	00075	2\$:	MOVB	#62, -1(PTR)	:	0593
			50	FF00	CD	9E	00079	3\$:	MOVAB	DIRBUF, R0	:	0594
FEF8	CD		53		50	C3	0007E		SUBL3	R0, PTR, DESC	:	
		FEFC	CD	FF00	CD	9E	00084		MOVAB	DIRBUF, DESC+4	:	0595
				FEF8	CD	9F	0008B		PUSHAB	DESC	:	0596
				08	AC	DD	0008F		PUSHL	DEVDIRDESC	:	
		00000000G	00		02	FB	00092		CALLS	#2, STR\$COPY_DX	:	
			50		01	D0	00099		MOVL	#1, R0	:	0598
					04	00	0009C	4\$:	RET		:	0599

; Routine Size: 157 bytes, Routine Base: \$CODE\$ + 03C4


```
: 463      0600 1 GLOBAL ROUTINE MAIL$GET_NEWMAIL(USERDESC,COUNT) =
: 464      0601 1 ++
: 465      0602 1 FUNCTIONAL DESCRIPTION:
: 466      0603 1
: 467      0604 1 Return the new mail count from VMSMAIL
: 468      0605 1
: 469      0606 1 --
: 470      0607 2 BEGIN
: 471      0608 2
: 472      0609 2 LOCAL
: 473      0610 2   PTR : REF $BBLOCK,
: 474      0611 2   SYSMAIBUF : $BBLOCK[VMD_C_LENGTH+3*NAM$C_MAXRSS];
: 475      0612 2
: 476      0613 2 .COUNT = 0;
: 477 P 0614 2 IF_ERR(MAIL$GET_SYSMAI_REC(.USERDESC,SYSMAIBUF);,
: 478      0615 2   RETURN TRUE);
: 479      0616 2
: 480      0617 2 .COUNT = .SYSMAIBUF[VMD_W_MAIL];
: 481      0618 2
: 482      0619 2 RETURN TRUE
: 483      0620 1 END;
```

				0000 00000	.ENTRY MAIL\$GET_NEWMAIL, Save nothing	: 0600
	5E	FCBC	CE	9E 00002	MOVAB -836(SP), SP	: 0613
		08	BC	D4 00007	CLRL @COUNT	: 0615
			5E	DD 0000A	PUSHL SP	
		04	AC	DD 0000C	PUSHL USERDESC	
FEA8	CF		02	FB 0000F	CALLS #2, MAIL\$GET_SYSMAI_REC	
	05		50	E9 00014	BLBC STATUS, 1\$	
08	BC	21	AE	3C 00017	MOVZWL SYSMAIBUF+33, @COUNT	: 0617
	50		01	D0 0001C	MOVL #1, R0	: 0619
			04	0001F	RET	: 0620

; Routine Size: 32 bytes, Routine Base: \$CODE\$ + 0461


```

: 485 0621 1 GLOBAL ROUTINE MAIL$INCR_NEWMAIL(USERDESC,COUNT) =
: 486 0622 1 ++
: 487 0623 1 FUNCTIONAL DESCRIPTION:
: 488 0624 1
: 489 0625 1 Increment the new mail count of the specified user
: 490 0626 1
: 491 0627 1 Inputs:
: 492 0628 1
: 493 0629 1 Userdesc = address of descriptor of user to update
: 494 0630 1 COUNT = (optional) address of value to set the count to
: 495 0631 1
: 496 0632 1 --
: 497 0633 2 BEGIN
: 498 0634 2 BUILTIN
: 499 0635 2 ACTUALCOUNT;
: 500 0636 2
: 501 0637 2 MAP
: 502 0638 2 USERDESC : REF $BBLOCK;
: 503 0639 2
: 504 0640 2 LOCAL
: 505 0641 2 PTR : REF $BBLOCK,
: 506 0642 2 SYSMAIBUF : $BBLOCK[VMD_C_LENGTH],
: 507 0643 2 DESC : VECTOR[2, LONG];
: 508 0644 2
: 509 0645 3 RETURN (IF MAIL$GETLK_SYSMAL_REC(.USERDESC, DESC)
: 510 0646 4 THEN BEGIN
: 511 0647 4 PTR = .DESC[1];
: 512 0648 4 IF ACTUALCOUNT() LSSU 2
: 513 0649 4 THEN PTR[VMD_W_MAIL] = .PTR[VMD_W_MAIL] + 1
: 514 0650 4 ELSE PTR[VMD_W_MAIL] = .COUNT;
: 515 0651 4 MAIL$UPDATE_SYSMAL_REC(.DESC[1])
: 516 0652 4 END
: 517 0653 4 ELSE BEGIN
: 518 0654 4 CH$FILL(0, VMD_C_LENGTH, SYSMAIBUF);
: 519 0655 4 CH$COPY(.USERDESC[DSC$W_LENGTH], .USERDESC[DSC$A_POINTER],
: 520 0656 4 , VMD_C_USERNAME, SYSMAIBUF);
: 521 0657 5 SYSMAIBUF[VMD_W_MAIL] = (IF ACTUALCOUNT() LSSU 2
: 522 0658 5 THEN 1
: 523 0659 4 ELSE .COUNT);
: 524 0660 4 MAIL$UPDATE_SYSMAL_REC(SYSMAIBUF)
: 525 0661 3 END)
: 526 0662 1 END;
```

			007C 00000	.ENTRY MAIL\$INCR_NEWMAIL, Save R2,R3,R4,R5,R6	: 0621
	5E	B4	AE 9E 00002	MOVAB -76(SP), SP	: 0645
			5E DD 00006	PUSHL SP	:
	56	04	AC D0 00008	MOVL USERDESC, R6	:
			56 DD 0000C	PUSHL R6	:
FECO	CF		02 FB 0000E	CALLS #2, MAIL\$GETLK_SYSMAL_REC	:
	18		50 E9 00013	BLBC R0, 3\$	:
	50	04	AE D0 00016	MOVL DESC+4, PTR	: 0647
	02		6C 91 0001A	CMPB (AP), #2	: 0648
			05 1E 0001D	BGEQU 1\$	:

MAIL\$SYSMAI
V04-000

OPEN/READ/WRITE SYS\$SYSTEM:VMSMAIL.DAT

G 16
16-Sep-1984 01:23:17
14-Sep-1984 12:42:35

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DISK\$VMSMASTER:[MAIL.SRC]SYSMAI.B32;1 Page 21
(10)

				21	A0	B6	0001F		INCW	33(PTR)	:	0649	
				05	11	00022			BRB	2\$	:		
	21	A0		08	AC	B0	00024	1\$:	MOVW	COUNT, 33(PTR)	:	0650	
				04	AE	DD	00029	2\$:	PUSHL	DESC+4	:	0651	
					26	11	0002C		BRB	6\$	:		
0044	8F	00	6E		00	2C	0002E	3\$:	MOVCS	#0, (SP), #0, #68, SYSMAIBUF	:	0654	
				08	AE		00035				:		
	1F	20	04	B6	66	2C	00037		MOVCS	(R6), @4(R6), #32, #31, SYSMAIBUF	:	0655	
				08	AE		0003D				:		
			02		6C	91	0003F		CMPB	(AP), #2	:	0657	
					05	1E	00042		BGEQU	4\$	:		
			50		01	D0	00044		MOVL	#1, R0	:		
					04	11	00047		BRB	5\$	:		
			50		08	AC	D0	00049	4\$:	MOVL	COUNT, R0	:	0659
		29	AE		50	B0	0004D	5\$:	MOVW	R0, SYSMAIBUF+33	:	0657	
				08	AE	9F	00051		PUSHAB	SYSMAIBUF	:	0660	
FB4E	CF				01	FB	00054	6\$:	CALLS	#1, MAIL\$UPDATE_SYSMAI_REC	:		
					04	00059			RET		:	0662	

; Routine Size: 90 bytes, Routine Base: \$CODE\$ + 0481


```
: 528 0663 1 GLOBAL ROUTINE MAIL$DECR_NEWMAIL(USERDESC) =  
: 529 0664 1 ++  
: 530 0665 1 FUNCTIONAL DESCRIPTION:  
: 531 0666 1 |  
: 532 0667 1 |         Decrement the new mail count  
: 533 0668 1 |  
: 534 0669 1 |--  
: 535 0670 2 BEGIN  
: 536 0671 2  
: 537 0672 2 MAP  
: 538 0673 2     USERDESC : REF $BBLOCK;  
: 539 0674 2  
: 540 0675 2 LOCAL  
: 541 0676 2     PTR : REF $BBLOCK,  
: 542 0677 2     RECDesc : VECTOR[2, LONG];  
: 543 0678 2  
: 544 0679 2 IF MAIL$GETLK_SYSM$AI_REC(.USERDESC, RECDesc)  
: 545 0680 3 THEN BEGIN  
: 546 0681 3     PTR = .RECDesc[1];  
: 547 0682 3     IF .PTR[VMD W MAIL] GTRU 0  
: 548 0683 3         THEN PTR[VMD W MAIL] = .PTR[VMD W MAIL] - 1;  
: 549 0684 3     MAIL$UPDATE_SYSM$AI_REC(.RECDesc[1])  
: 550 0685 2     END;  
: 551 0686 2  
: 552 0687 2 RETURN TRUE  
: 553 0688 1 END;
```

			0000 00000	.ENTRY	MAIL\$DECR_NEWMAIL, Save nothing	: 0663
	5E		08 C2 00002	SUBL2	#8, SP	: 0679
			5E DD 00005	PUSHL	SP	
		04	AC DD 00007	PUSHL	USERDESC	
FE6A	CF		02 FB 0000A	CALLS	#2, MAIL\$GETLK_SYSM\$AI_REC	
	14		50 E9 0000F	BLBC	R0, 2\$	
	50	04	AE D0 00012	MOVL	RECDesc+4, PTR	: 0681
		21	A0 B5 00016	TSTW	33(PTR)	: 0682
			03 13 00019	BEQL	1\$	
		21	A0 B7 0001B	DECW	33(PTR)	: 0683
		04	AE DD 0001E 1\$:	PUSHL	RECDesc+4	: 0684
FB27	CF		01 FB 00021	CALLS	#1, MAIL\$UPDATE_SYSM\$AI_REC	
	50		01 D0 00026 2\$:	MOVL	#1, R0	: 0687
			04 00029	RET		: 0688

; Routine Size: 42 bytes, Routine Base: \$CODE\$ + 04DB

MAIL\$SYSMAI
V04-000

OPEN/READ/WRITE SYSS\$SYSTEM:VMSMAIL.DAT

I 16
16-Sep-1984 01:23:17
14-Sep-1984 12:42:35

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DISK\$VMSMASTER:[MAIL.SRC]SYSMAI.B32;1 Page 23
(12)

: 555
: 556
0689 1 END
0690 0 ELUDOM

.EXTRN LIB\$SIGNAL

PSECT SUMMARY

Name	Bytes	Attributes
\$GLOBALS	156	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$CODE\$	1285	NOVEC, NOWRT, RD, EXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$OWNS	352	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)

Library Statistics

File	----- Total	Symbols Loaded	----- Percent	Pages Mapped	Processing Time
\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	180	0	1000	00:01.4
\$255\$DUA28:[MAIL.OBJ]MAILDEF.L32;1	457	10	2	26	00:00.4

COMMAND QUALIFIERS

BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LISS\$:SYSMAI/OBJ=OBJ\$:SYSMAI MSRC\$:SYSMAI/UPDATE=(ENH\$:SYSMAI)

: Size: 1235 code + 558 data bytes
: Run Time: 00:19.9
: Elapsed Time: 01:22.9
: Lines/CPU Min: 2081
: Lexemes/CPU-Min: 47453
: Memory Used: 236 pages
: Compilation Complete

0231 AH-BT13A-SE
VAX/VMS V4.0

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