


```

NN      NN      000000      TTTTTTTTTT      IIIIII      FFFFFFFF      YY      YY
NN      NN      000000      TTTTTTTTTT      IIIIII      FFFFFFFF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NNNN     NN      00      00      TT      II      FF      YY      YY
NNNN     NN      00      00      TT      II      FF      YY      YY
NN  NN   NN      00      00      TT      II      FFFFFFFF      YY      YY
NN  NN   NN      00      00      TT      II      FFFFFFFF      YY      YY
NN      NNNN     00      00      TT      II      FF      YY      YY
NN      NNNN     00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      00      00      TT      II      FF      YY      YY
NN      NN      000000      TT      IIIIII      FF      YY      YY
NN      NN      000000      TT      IIIIII      FF      YY      YY

```

```

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

```

```

1 0001 0 MODULE MAIL$NOTIFY( %TITLE 'NOTIFY LOGGED ON USER OF NEW MAIL'
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 *
9 0009 1 * DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS. *
10 0010 1 * ALL RIGHTS RESERVED. *
11 0011 1 *
12 0012 1 * THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
13 0013 1 * ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
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15 0015 1 * COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
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18 0018 1 *
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20 0020 1 * AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
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23 0023 1 * DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
24 0024 1 * SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL. *
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: Notify logged on user that new mail exists
34 0034 1
35 0035 1 ENVIRONMENT: NATIVE/USER MODE
36 0036 1
37 0037 1 AUTHOR: Len Kawell, CREATION DATE: 21-APR-1978
38 0038 1
39 0039 1 MODIFIED BY:
40 0040 1
41 0041 1 V03-007 BLS0255 Benn Schreiber 28-Dec-1983
42 0042 1 Print time in message if enabled in system flags
43 0043 1
44 0044 1 V03-006 BLS0241 Benn Schreiber 26-Sep-1983
45 0045 1 Enable cluster $BRKTHRU.
46 0046 1
47 0047 1 V03-005 BLS0229 Benn Schreiber 16-Jul-1983
48 0048 1 Set CARCON in $BRKTHRU. Set broadcast class to MAIL
49 0049 1
50 0050 1 V03-004 BLS0224 Benn Schreiber 2-Jun-1983
51 0051 1 Use new $BRKTHRU service
52 0052 1
53 0053 1 V03-003 BLS0211 Benn Schreiber 13-Mar-1983
54 0054 1 Raise/drop OPER/WORLD privs around this routine. Pass
55 0055 1 in as an argument the sender's name.
56 0056 1
57 0057 1 V03-002 BLS0197 Benn Schreiber 9-Dec-1982

```

MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

B 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

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DISK\$VMSMASTER:[MAIL.SRC]NOTIFY.B32; Page 2
(1)

```

: 58      0058 1 :      Use MAIL$Q_FULLUSER to get personal name
: 59      0059 1 :
: 60      0060 1 :      V03-001 BLS0177      Benn Schreiber      21-Jun-1982
: 61      0061 1 :      Use symbolic values for username length. Tell node name if
: 62      0062 1 :      translation for SYSSNODE exists.
: 63      0063 1 :--
```

```
65 0064 1 |
66 0065 1 | TABLE OF CONTENTS:
67 0066 1 |
68 0067 1 |
69 0068 1 |
70 0069 1 | INCLUDE FILES:
71 0070 1 |
72 0071 1 |     LIBRARY 'SYSS$LIBRARY:LIB';
73 0072 1 |     REQUIRE 'SRC$:MAILREQ';
74 0218 1 |     LIBRARY 'LIB$:MAILDEF';
75 0219 1 |
76 0220 1 | MACROS:
77 0221 1 |
78 0222 1 |
79 0223 1 |
80 0224 1 | EQUATED SYMBOLS:
81 0225 1 |
82 0226 1 | LITERAL
83 0227 1 |     BELL      = 7;                ! ASCII bell
84 0228 1 |
85 0229 1 | EXTERNAL ROUTINE
86 0230 1 |     MAIL$GETMSG,                !Get message text
87 0231 1 |     MAIL$UP_PRIV,              !Raise privileges
88 0232 1 |     MAIL$DOWN_PRIV;            ! and lower them
89 0233 1 |
90 0234 1 | OWN STORAGE:
91 0235 1 |
92 0236 1 | BIND
93 0237 1 |     BELL_STR = UPLIT(BYTE(1,7));  ! ASCII BELL
94 0238 1 |
95 0239 1 | EXTERNAL REFERENCES:
96 0240 1 |
97 0241 1 | EXTERNAL
98 0242 1 |     MAIL$GL_SYSFLAGS : $BBLOCK,  ! System control flags
99 0243 1 |     MAIL$Q_SYSNODE : $BBLOCK;    ! Translation of SYS$NODE
```

```
101 0244 1 GLOBAL ROUTINE MAIL$NOTIFY(USERNAME, FROMDESC) : NOVALUE =
102 0245 1
103 0246 1 +-+
104 0247 1 FUNCTIONAL DESCRIPTION:
105 0248 1     Loops through all the processes on the system, and if a process's
106 0249 1     user name matches the specified username, and the process is an
107 0250 1     interactive process, a new mail message is broadcast to the terminal.
108 0251 1
109 0252 1 INPUTS:
110 0253 1
111 0254 1     USERNAME = Address of username descriptor.
112 0255 1
113 0256 1     FROMDESC = Sender's username descriptor.
114 0257 1
115 0258 1 OUTPUTS:
116 0259 1
117 0260 1     New mail message broadcast to user's terminal, if logged on.
118 0261 1 --
119 0262 2 BEGIN
120 0263 2 LOCAL
121 0264 2     MSG_BUFF:      VECTOR[MAIL$K_INBUFFSZ], ! Message buffer
122 0265 2     MSG_BUFF_DESC: $BBLOCK[8],           ! Message buffer descriptor
123 0266 2     DTIM,
124 0267 2     CLU_FLAG,
125 0268 2     STATUS;           ! Routine status
126 0269 2
127 0270 2 DTIM = .MAIL$GL_SYSFLAGS[SYSF_V_NOTIFY_TIME];
128 0271 2 MSG_BUFF_DESC[DSCSW_LENGTH] = .MAIL$K_INBUFFSZ; ! Create message buffer desc
129 0272 2 MSG_BUFF_DESC[DSCSA_POINTER] = MSG_BUFF; !
130 0273 2 IF .MAIL$Q_SYSNODE[DSCSW_LENGTH] NEQ 0
131 P 0274 2     THEN $FAO(MAIL$GETMSG((IF .DTIM THEN MAIL$NOTIFY30
132 P 0275 2     ELSE MAIL$_NOTIFY10)),
133 P 0276 2     MSG_BUFF_DESC,
134 P 0277 2     MSG_BUFF_DESC,
135 P 0278 2     BELC_STR, MAIL$Q_SYSNODE,
136 0279 3     .FROMDESC, 0)
137 P 0280 2     ELSE $FAO(MAIL$GETMSG((IF .DTIM THEN MAIL$NOTIFY40
138 P 0281 2     ELSE MAIL$_NOTIFY20)),
139 P 0282 2     MSG_BUFF_DESC,
140 P 0283 2     MSG_BUFF_DESC,
141 0284 2     BELC_STR, .FROMDESC, 0);
142 0285 2
143 0286 2 CLU_FLAG = 0;
144 0287 2 IF .MAIL$GL_SYSFLAGS[SYSF_V_CLU_BRKTHRU]
145 0288 2     THEN CLU_FLAG = BRK$M_CLUSTER;
146 0289 2
147 0290 3 MAIL$UP_PRIV((1^$BITPOSITION(PRV$V_WORLD) ! Enable needed privileges
148 0291 2     OR 1^$BITPOSITION(PRV$V_OPER)), 0);
149 0292 2
150 0293 2 ! Send the message
151 0294 2
152 P 0295 2 $BRKTHRUW(MSGBUF=MSG_BUFF_DESC,
153 P 0296 2     SENDTO=.USERNAME,
154 P 0297 2     SNTYP=BRK$C_USERNAME,
155 P 0298 2     REQID=BRK$C_MAIL,
156 P 0299 2     FLAGS=.CLU_FLAG,
157 P 0300 2     CARCON=%C'-',
```

: 158
: 159
: 160
: 161
0301 2 TIMEOUT=10);
0302 2
0303 2 MAIL\$DOWN_PRIV();
0304 1 END;

'Disable privs as needed

.TITLE MAIL\$NOTIFY NOTIFY LOGGED ON USER OF NEW MAIL
.IDENT \V04-000\

.PSECT \$CODE\$,NOWRT,2

07 01 00000 P.AAA: .BYTE 1, 7

BELL_STR= P.AAA
.EXTRN MAIL\$GETMSG, MAIL\$UP_PRIV,
.EXTRN MAIL\$DOWN_PRIV, MAIL\$GL_SYSFLAGS
.EXTRN MAIL\$Q_SYSNODE, SYSS\$FAO
.EXTRN SYSS\$BRKTHRU

50

67

04

57	00000000G	00	9E	00002	.ENTRY	MAIL\$NOTIFY, Save R2,R3,R4,R5,R6,R7	0244
56	00000000G	00	9E	00009	MOVAB	MAIL\$GL_SYSFLAGS, R7	
55	00000000G	00	9E	00010	MOVAB	SYSS\$FAO, R6	
54	E4	AF	9E	00017	MOVAB	MAIL\$GETMSG, R5	
53	00000000G	00	9E	0001B	MOVAB	BELL_STR, R4	
5E	F7F8	CE	9E	00022	MOVAB	MAIL\$Q_SYSNODE, R3	
01		02	EF	00027	MOVAB	-2056(SP), SP	
6E	0200	8F	B0	0002C	EXTZV	#2, #1, MAIL\$GL_SYSFLAGS, DTIM	0270
AE	08	AE	9E	00031	MOVW	#512, MSG_BUFF_DESC	0271
		63	B5	00036	MOVAB	MSG_BUFF, MSG_BUFF_DESC+4	0272
		2A	13	00038	TSTW	MAIL\$Q_SYSNODE	0273
		7E	D4	0003A	BEQL	3\$	
	08	AC	DD	0003C	CLRL	-(SP)	0279
		53	DD	0003F	PUSHL	FROMDESC	
		54	DD	00041	PUSHL	R3	
	10	AE	9F	00043	PUSHL	R4	
	14	AE	9F	00046	PUSHAB	MSG_BUFF_DESC	
08		50	E9	00049	PUSHAB	MSG_BUFF_DESC	
	007EDF80	8F	DD	0004C	BLBC	DTIM, 1\$	
		06	11	00052	PUSHL	#8314752	
	007EDE28	8F	DD	00054	BRB	2\$	
65		01	FB	0005A	PUSHL	#8314408	
		50	DD	0005D	CALLS	#1, MAIL\$GETMSG	
66		07	FB	0005F	PUSHL	R0	
		26	11	00062	CALLS	#7, SYSS\$FAO	
		7E	D4	00064	BRB	6\$	
	08	AC	DD	00066	CLRL	-(SP)	0284
		54	DD	00069	PUSHL	FROMDESC	
	0C	AE	9F	0006B	PUSHL	R4	
	10	AE	9F	0006E	PUSHAB	MSG_BUFF_DESC	
08		50	E9	00071	PUSHAB	MSG_BUFF_DESC	
	007EDF88	8F	DD	00074	BLBC	DTIM, 1\$	
		06	11	0007A	PUSHL	#8314760	
	007EDE30	8F	DD	0007C	BRB	5\$	
65		01	FB	00082	PUSHL	#8314416	
		50	DD	00085	CALLS	#1, MAIL\$GETMSG	
66		06	FB	00087	PUSHL	R0	
					CALLS	#6, SYSS\$FAO	

MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

F 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

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

05	67		52	D4	0008A	6\$:	CLRL	CLU_FLAG	:	0286
	52	0800	01	E1	0008C		BBC	#1_MAIL\$GL_SYSFLAGS, 7\$:	0287
			8F	3C	00090		MOVZWL	#2048, CLU_FLAG	:	0288
			7E	D4	00095	7\$:	CLRL	-(SP)	:	0290
00000000G	00	00050000	8F	DD	00097		PUSHL	#327680	:	
			02	FB	0009D		CALLS	#2, MAIL\$UP_PRIV	:	
			7E	7C	000A4		CLRQ	-(SP)	:	0301
			0A	DD	000A6		PUSHL	#10	:	
			02	DD	000A8		PUSHL	#2	:	
			52	DD	000AA		PUSHL	CLU_FLAG	:	
			20	DD	000AC		PUSHL	#32	:	
	7E		02	7D	000AE		MOVQ	#2, -(SP)	:	
		04	AC	DD	000B1		PUSHL	USERNAME	:	
		24	AE	9F	000B4		PUSHAB	MSG_BUFF_DESC	:	
			7E	D4	000B7		CLRL	-(SP)	:	
00000000G	00		0B	FB	000B9		CALLS	#11, SYSSBRKTHRU	:	0303
00000000G	00		00	FB	000C0		CALLS	#0, MAIL\$DOWN_PRIV	:	0304
			04	000C7			RET		:	

: Routine Size: 200 bytes, Routine Base: \$CODE\$ + 0002

MAIL\$NOTIFY
V04-000

NOTIFY LOGGED ON USER OF NEW MAIL

G 1
16-Sep-1984 01:13:46
14-Sep-1984 12:42:29

VAX-11 Bliss-32 V4.0-742
DISK\$VMSMASTER:[MAIL.SRC]NOTIFY.B32;1 Page 7 (4)

: 163 0305 1 END
: 164 0306 0 ELUDOM

PSECT SUMMARY

Name Bytes Attributes
\$CODE\$ 202 NOVEC,NOWRT, PD, EXE,NOSHR, LCL, REL, CON,NOPI,ALIGN(2)

Library Statistics

File	Total	Symbols Loaded	Percent	Pages Mapped	Processing Time
_\$255\$DUA28:[SYSLIB]LIB.L32;1	18619	20	0	1000	00:01.4
_\$255\$DUA28:[MAIL.OBJ]MAILDEF.L32;1	457	6	1	26	00:00.4

COMMAND QUALIFIERS

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

: Size: 200 code + 2 data bytes
: Run Time: 00:04.9
: Elapsed Time: 00:19.2
: Lines/CPU Min: 3777
: Lexemes/CPU-Min: 17641
: Memory Used: 87 pages
: Compilation Complete

0000	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030	0031	0032	0033	0034	0035	0036	0037	0038	0039	0040	0041	0042	0043	0044	0045	0046	0047	0048	0049	0050	0051	0052	0053	0054	0055	0056	0057	0058	0059	0060	0061	0062	0063	0064	0065	0066	0067	0068	0069	0070	0071	0072	0073	0074	0075	0076	0077	0078	0079	0080	0081	0082	0083	0084	0085	0086	0087	0088	0089	0090	0091	0092	0093	0094	0095	0096	0097	0098	0099
0100	0101	0102	0103	0104	0105	0106	0107	0108	0109	0110	0111	0112	0113	0114	0115	0116	0117	0118	0119	0120	0121	0122	0123	0124	0125	0126	0127	0128	0129	0130	0131	0132	0133	0134	0135	0136	0137	0138	0139	0140	0141	0142	0143	0144	0145	0146	0147	0148	0149	0150	0151	0152	0153	0154	0155	0156	0157	0158	0159	0160	0161	0162	0163	0164	0165	0166	0167	0168	0169	0170	0171	0172	0173	0174	0175	0176	0177	0178	0179	0180	0181	0182	0183	0184	0185	0186	0187	0188	0189	0190	0191	0192	0193	0194	0195	0196	0197	0198	0199
0200	0201	0202	0203	0204	0205	0206	0207	0208	0209	0210	0211	0212	0213	0214	0215	0216	0217	0218	0219	0220	0221	0222	0223	0224	0225	0226	0227	0228	0229	0230	0231	0232	0233	0234	0235	0236	0237	0238	0239	0240	0241	0242	0243	0244	0245	0246	0247	0248	0249	0250	0251	0252	0253	0254	0255	0256	0257	0258	0259	0260	0261	0262	0263	0264	0265	0266	0267	0268	0269	0270	0271	0272	0273	0274	0275	0276	0277	0278	0279	0280	0281	0282	0283	0284	0285	0286	0287	0288	0289	0290	0291	0292	0293	0294	0295	0296	0297	0298	0299
0300	0301	0302	0303	0304	0305	0306	0307	0308	0309	0310	0311	0312	0313	0314	0315	0316	0317	0318	0319	0320	0321	0322	0323	0324	0325	0326	0327	0328	0329	0330	0331	0332	0333	0334	0335	0336	0337	0338	0339	0340	0341	0342	0343	0344	0345	0346	0347	0348	0349	0350	0351	0352	0353	0354	0355	0356	0357	0358	0359	0360	0361	0362	0363	0364	0365	0366	0367	0368	0369	0370	0371	0372	0373	0374	0375	0376	0377	0378	0379	0380	0381	0382	0383	0384	0385	0386	0387	0388	0389	0390	0391	0392	0393	0394	0395	0396	0397	0398	0399
0400	0401	0402	0403	0404	0405	0406	0407	0408	0409	0410	0411	0412	0413	0414	0415	0416	0417	0418	0419	0420	0421	0422	0423	0424	0425	0426	0427	0428	0429	0430	0431	0432	0433	0434	0435	0436	0437	0438	0439	0440	0441	0442	0443	0444	0445	0446	0447	0448	0449	0450	0451	0452	0453	0454	0455	0456	0457	0458	0459	0460	0461	0462	0463	0464	0465	0466	0467	0468	0469	0470	0471	0472	0473	0474	0475	0476	0477	0478	0479	0480	0481	0482	0483	0484	0485	0486	0487	0488	0489	0490	0491	0492	0493	0494	0495	0496	0497	0498	0499
0500	0501	0502	0503	0504	0505	0506	0507	0508	0509	0510	0511	0512	0513	0514	0515	0516	0517	0518	0519	0520	0521	0522	0523	0524	0525	0526	0527	0528	0529	0530	0531	0532	0533	0534	0535	0536	0537	0538	0539	0540	0541	0542	0543	0544	0545	0546	0547	0548	0549	0550	0551	0552	0553	0554	0555	0556	0557	0558	0559	0560	0561	0562	0563	0564	0565	0566	0567	0568	0569	0570	0571	0572	0573	0574	0575	0576	0577	0578	0579	0580	0581	0582	0583	0584	0585	0586	0587	0588	0589	0590	0591	0592	0593	0594	0595	0596	0597	0598	0599
0600	0601	0602	0603	0604	0605	0606	0607	0608	0609	0610	0611	0612	0613	0614	0615	0616	0617	0618	0619	0620	0621	0622	0623	0624	0625	0626	0627	0628	0629	0630	0631	0632	0633	0634	0635	0636	0637	0638	0639	0640	0641	0642	0643	0644	0645	0646	0647	0648	0649	0650	0651	0652	0653	0654	0655	0656	0657	0658	0659	0660	0661	0662	0663	0664	0665	0666	0667	0668	0669	0670	0671	0672	0673	0674	0675	0676	0677	0678	0679	0680	0681	0682	0683	0684	0685	0686	0687	0688	0689	0690	0691	0692	0693	0694	0695	0696	0697	0698	0699
0700	0701	0702	0703	0704	0705	0706	0707	0708	0709	0710	0711	0712	0713	0714	0715	0716	0717	0718	0719	0720	0721	0722	0723	0724	0725	0726	0727	0728	0729	0730	0731	0732	0733	0734	0735	0736	0737	0738	0739	0740	0741	0742	0743	0744	0745	0746	0747	0748	0749	0750	0751	0752	0753	0754	0755	0756	0757	0758	0759	0760	0761	0762	0763	0764	0765	0766	0767	0768	0769	0770	0771	0772	0773	0774	0775	0776	0777	0778	0779	0780	0781	0782	0783	0784	0785	0786	0787	0788	0789	0790	0791	0792	0793	0794	0795	0796	0797	0798	0799
0800	0801	0802	0803	0804	0805	0806	0807	0808	0809	0810	0811	0812	0813	0814	0815	0816	0817	0818	0819	0820	0821	0822	0823	0824	0825	0826	0827	0828	0829	0830	0831	0832	0833	0834	0835	0836	0837	0838	0839	0840	0841	0842	0843	0844	0845	0846	0847	0848	0849	0850	0851	0852	0853	0854	0855	0856	0857	0858	0859	0860	0861	0862	0863	0864	0865	0866	0867	0868	0869	0870	0871	0872	0873	0874	0875	0876	0877	0878	0879	0880	0881	0882	0883	0884	0885	0886	0887	0888	0889	0890	0891	0892	0893	0894	0895	0896	0897	0898	0899
0900	0901	0902	0903	0904	0905	0906	0907	0908	0909	0910	0911	0912	0913	0914	0915	0916	0917	0918	0919	0920	0921	0922	0923	0924	0925	0926	0927	0928	0929	0930	0931	0932	0933	0934	0935	0936	0937	0938	0939	0940	0941	0942	0943	0944	0945	0946	0947	0948	0949	0950	0951	0952	0953	0954	0955	0956	0957	0958	0959	0960	0961	0962	0963	0964	0965	0966	0967	0968	0969	0970	0971	0972	0973	0974	0975	0976	0977	0978	0979	0980	0981	0982	0983	0984	0985	0986	0987	0988	0989	0990	0991	0992	0993	0994	0995	0996	0997	0998	0999

READ
LIS

SENDMSG
LIS

PRINT
LIS

SET
LIS

SPAWNCD
LIS

MANAGE

ALFMINT
LIS

SYSMAT
LIS

SHOW
LIS