

[illegible]

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

```

```
1 0001 0 MODULE OPC$OPCOMMAIN (
2 0002 0 LANGUAGE (BLISS32),
3 0003 0 IDENT = 'V04-000',
4 0004 0 MAIN = OPCOM_MAIN
5 0005 0 ) =
6 0006 0
7 0007 0 *****
8 0008 0 *
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27 0027 0 *
28 0028 0 *****
29 0029 0
30 0030 0 ++
31 0031 0 FACILITY:
32 0032 0
33 0033 0 OPCOM
34 0034 0
35 0035 0 ABSTRACT:
36 0036 0
37 0037 0 This module contains the top leve logic for OPCOM, the
38 0038 0 OperatOr COmunication Manager. OPCOM will provide the
39 0039 0 interface between a user and an operator on the system.
40 0040 0 Specifically, this module contains the routines responsible
41 0041 0 for starting OPCOM in an orderly manner, receiving requests
42 0042 0 and dispatching them to the proper handler, and for the
43 0043 0 orderly shutdown of OPCOM.
44 0044 0
45 0045 0 Environment:
46 0046 0
47 0047 0 VAX/VMS operating system.
48 0048 0
49 0049 0 Author:
50 0050 0
51 0051 0 Steven T. Jeffreys
52 0052 0
53 0053 0 Creation date:
54 0054 0
55 0055 0 March 10, 1981
56 0056 0
57 0057 0 Revision history:
```



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58 0058 0
59 0059 0
60 0060 0
61 0061 0
62 0062 0
63 0063 0
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66 0066 0
67 0067 0
68 0068 0
69 0069 0
70 0070 0
71 0071 0
72 0072 0
73 0073 0
74 0074 0
75 0075 0
76 0076 0
77 0077 0
78 0078 0
79 0079 0
80 0080 0
81 0081 0
82 0082 0
83 0083 0
84 0084 0
85 0085 0
86 0086 0
87 0087 0
88 0088 0
89 0089 0
90 0090 0
91 0091 1 BEGIN
92 0092 1
93 0093 1 LIBRARY 'SYSS$LIBRARY:LIB.L32';
94 0094 1 LIBRARY 'LIB$:OPCOMLIB';
95 0095 1
96 0096 1

```

V03-006 CWH3006 CW Hobbs 25-Jul-1984
Remove DEBUG routines to save disk space on kit.

V03-005 CWH3169 CW Hobbs 5-May-1984
Second pass for cluster-wide OPCOM:
- Add RC25, RDRX, TU81 and MAYA microcode messages
- Add conditional assembly code for OPC\$INCREASE_STRESS and
OPC\$CHECK_POOL functions

V03-004 CWH3004 CW Hobbs 22-Sep-1983
Make dump conditional on a logical name OPCSDUMP_MAILBOX.

V03-003 CWH3003 CW Hobbs 16-Sep-1983
Add CLUMBX (connection manager) message dispatch.

V03-002 CWH3002 CW Hobbs 30-Jul-1983
Various and sundry things to make OPCOM distributed
across the cluster.

V03-001 RLRV3A1 Robert L. Rappaport 5-Apr-1982
Added MSG\$_UDA50MVER and MSG\$_DUPUNITNO.

V02-003 STJ0156 Steven T. Jeffreys 05-Feb-1982
Added two new mount verification messages to the
dispatcher table; MVCOMPLETE and MVABORTED.

V02-002 STJ0066 Steven T. Jeffreys 14-Jul-1981
Changed function dispatcher to recognize the mount
verification messages.

--

! Start of OPCOMMAIN

```

98      0097 1 GLOBAL ROUTINE OPCOM_MAIN : NOVALUE =
99      0098 1
100     0099 1 ++
101     0100 1 Functional description:
102     0101 1
103     0102 1 This is the main routine for OPCOM. When OPCOM is
104     0103 1 started, control is transferred here. The main routine
105     0104 1 will call a special initialization routine to set things
106     0105 1 up, and then enter its main loop, servicing requests as
107     0106 1 they arrive.
108     0107 1
109     0108 1 Input:
110     0109 1
111     0110 1 None.
112     0111 1
113     0112 1 Implicit Input:
114     0113 1
115     0114 1 None.
116     0115 1
117     0116 1 Output:
118     0117 1
119     0118 1 None.
120     0119 1
121     0120 1 Implicit output:
122     0121 1
123     0122 1 None.
124     0123 1
125     0124 1 Side effects:
126     0125 1
127     0126 1 None.
128     0127 1
129     0128 1 Routine value:
130     0129 1
131     0130 1 None.
132     0131 1 --
133     0132 1
134     0133 2 BEGIN ! Start of OPCOM_MAIN
135     0134 2
136     0135 2 MACRO
137     0136 2
138     0137 2 MSGTYPE = 0,0,16,0%, ! Message type code
139     0138 2 RQSTCODE = 38,0,8,0%, ! Request type code
140     0139 2 CLM_CODE = 39,0,8,0%, ! Request type code for cluster message
141     0140 2
142     0141 2 GLOBAL
143     0142 2
144     0143 2 FINISHED : LONG INITIAL (FALSE); ! Boolean used for loop control
145     0144 2
146     0145 2 EXTERNAL ROUTINE
147     0146 2 DUMP_LOG_FILE, ! Make a formatted dump in the log file
148     0147 2 SHARE_FAO_BUFFER, ! Run something through $FAO
149     0148 2 OPCOM_INIT : NOVALUE, ! OPCOM initialization
150     0149 2 TIME_STAMP : NOVALUE, ! Does periodic timestamp
151     0150 2 WRITE_LOG_FILE, ! Write random string to the log file
152     0151 2
153     0152 2 ! Various message handlers for old format messages.
154     0153 2
```

```
155 0154 2 UNKNOWN_HANDLER : NOVALUE, : Unknown message type handler
156 0155 2 CLUMBX_HANDLER : NOVALUE, : Cluster mailbox messages (special format)
157 0156 2 DEVICE_HANDLER : NOVALUE, : Device online/offline messages (special format)
158 0157 2 TERM_HANDLER : NOVALUE, : Enable operator message handler
159 0158 2 LOG_HANDLER : NOVALUE, : Init logfile message handler
160 0159 2 RQST_HANDLER : NOVALUE, : Request handler
161 0160 2 RPLY_HANDLER : NOVALUE, : Reply handler
162 0161 2 CNCL_HANDLER : NOVALUE, : Cancel handler
163 0162 2 STS_HANDLER : NOVALUE, : Status handler
164 0163 2 SECO_HANDLER : NOVALUE, : Security message handler
165 0164 2
166 0165 2 : The following are message handlers for the new format messages.
167 0166 2
168 0167 2 OPENABLE_HANDLER : NOVALUE, : Operator enable handler
169 0168 2 LOGFILE_HANDLER : NOVALUE, : Logfile control handler
170 0169 2 REQUEST_HANDLER : NOVALUE, : Request handler
171 0170 2 REPLY_HANDLER : NOVALUE, : Reply handler
172 0171 2 CANCEL_HANDLER : NOVALUE, : Cancel handler
173 0172 2 STATUS_HANDLER : NOVALUE, : Status handler
174 0173 2 SHUTDOWN_HANDLER : NOVALUE, : Shutdown handler
175 0174 2 SECURITY_HANDLER : NOVALUE, : Security handler
176 0175 2 ! DEBUG_HANDLER : NOVALUE, : Debug handler, comment out when not needed
177 0176 2 ! CLUSMSG_HANDLER : NOVALUE, : Cluster message handler
178 0177 2
179 0178 2 EXTERNAL
180 0179 2
181 0180 2 GLOBAL_STATUS : BITVECTOR, : Global status bits
182 0181 2 OPER_MBX_CHAN : WORD; : Operator mailbox channel
183 0182 2
184 0183 2 LOCAL
185 0184 2
186 0185 2 RDB : $ref_block, : RDB control structure
187 0186 2 IOSB : $bblock [8], : I/O status block
188 0187 2 REQUEST_BUFFER : $bblock [OPCSK_MAXREAD], : Request receive buffer
189 0188 2 REQUEST_DESC : $desc_block, : Request buffer descriptor
190 0189 2 STATUS : LONG;
191 0190 2
192 0191 2 : Perform the necessary initialization.
193 0192 2
194 0193 2 OPCOM_INIT ();
195 0194 2
196 0195 2
197 0196 2 : Initialize the request buffer descriptor.
198 0197 2
199 0198 2
200 0199 2 REQUEST_DESC [DSC$B_DTYPE] = 0;
201 0200 2 REQUEST_DESC [DSC$B_CLASS] = 0;
202 0201 2 REQUEST_DESC [DSC$A_POINTER] = REQUEST_BUFFER;
203 0202 2
204 0203 2 : Enter the main loop.
205 0204 2
206 0205 2
207 0206 2 WHILE NOT .FINISHED DO
208 0207 2 BEGIN
209 0208 2 : If a timestamp is pending and OPCOM is not busy with
210 0209 2 : a request, then do the timestamp.
211 0210 2
```



```
212 0211 !
213 0212 GLOBAL STATUS [GBLSTS_K_BUSY] = FALSE; ! OPCOM is not busy
214 0213 IF .GLOBAL_STATUS [GBLSTS_K_TIMESTAMP_PENDING]
215 0214 THEN
216 0215     TIME_STAMP ();
217 0216
218 0217 !
219 0218 ! Issue a read request to the operator mailbox.
220 0219
221 0220 IF NOT (STATUS = $QIOW(FUNC = IOS$ READVBLK,
222 0221     CHAN = .OPER_MBX_CHAN,
223 0222     IOSB = IOSB,
224 0223     EFN = EFN_K_MAILBOX,
225 0224     P1 = REQUEST_BUFFER,
226 0225     P2 = OPC$K_MAXREAD
227 0226     ))
228 0227 THEN
229 0228     $signal_stop (.STATUS);
230 0229
231 0230 !
232 0231 ! Check the status of the read.
233 0232
234 0233 IF NOT (STATUS = .IOSB [0,0,16,0])
235 0234 THEN
236 0235     IF .STATUS NEQ SS$_ENDOFFILE ! A COPY to _MBA2: will produce this
237 0236     THEN
238 0237         $signal_stop (.STATUS);
239 0238
240 0239 !
241 0240 ! Since OPCOM now has a request to service, set the GBLSTS_K_BUSY bit.
242 0241 ! This serves as an interlock to prevent the asynchronous
243 0242 ! timestamp function from going off at an inappropriate time.
244 0243
245 0244 GLOBAL_STATUS [GBLSTS_K_BUSY] = TRUE;
246 0245
247 0246 !
248 0247 ! Set the request buffer length in the descriptor.
249 0248
250 0249 REQUEST_DESC [DSC$_LENGTH] = .IOSB [2,0,16,0];
251 0250
252 0251 !
253 0252 ! For debugging, write the message into the log file, and flush
254 0253
255 0254 BEGIN
256 0255 LOCAL
257 0256     lcl_buf : $bvector [16],
258 0257     out_dsc : VECTOR [2, LONG];
259 0258     out_dsc [0] = 16;
260 0259     out_dsc [1] = lcl_buf;
261 0260 IF $strnlog (lognam=%ASCII 'OPC$DUMP_MAILBOX', rsllen=out_dsc, rslbuf=out_dsc) EQL ss$_normal
262 0261 THEN
263 0262     DUMP_LOG_FILE (REQUEST_DESC, %ASCII 'Record received in mailbox');
264 0263
265 0264 END;
266 0265
267 0266 !
268 0267 ! For debugging, check the cluster configuration at every mailbox read. To put additional
! stress on the system, request acks from every node if the configuration has changed. Make
```

```
! all this noise switchable by defining the logical name OPC$INCREASE_STRESS (presence of
! the name is significant, not its value).
! Only include if /VARIANT specified
%IF %VARIANT GTR 0
%THEN
BEGIN
LOCAL          lcl_buf : $bvector [16], out_dsc : VECTOR [2, LONG];
EXTERNAL       lcl_csid, nod_head : vector [2, long];
EXTERNAL ROUTINE clusutil_configure, clusmsg_ack_please;
out_dsc [0] = 16; out_dsc [1] = lcl_buf;
IF $strnlog (lognam=%ASCII 'OPC$INCREASE_STRESS', rslten=out_dsc, rslbuf=out_dsc) EQL ss$_normal
THEN
BEGIN
IF clusutil_configure ()
THEN
BEGIN
LOCAL          nod : $ref_bblock;
nod = .nod_head [0];
WHILE .nod NEQ nod_head [0]
DO
BEGIN
IF .nod [nod_l_node_csid] NEQ .lcl_csid
THEN
BEGIN
nod [nod_v_ack_pend] = false;
CLUSMSG_ACK_PLEASE (.nod);
END;
nod = .nod [nod_l_flink];
END;
END;
END;
END;
%FI
! End of conditionally compiled message codes.

! For debugging, check pool for corruption. N.B. this puts a severe load on the system at IPL 11!
! Only include if /VARIANT specified
%IF %VARIANT GTR 0
%THEN
BEGIN
LOCAL          lcl_buf : $bvector [16], out_dsc : VECTOR [2, LONG];
out_dsc [0] = 16; out_dsc [1] = lcl_buf;
IF $strnlog (lognam=%ASCII 'OPC$CHECK_POOL', rslten=out_dsc, rslbuf=out_dsc) EQL ss$_normal
THEN
BEGIN
LOCAL
arglist : VECTOR [2, LONG];
EXTERNAL ROUTINE
monitor_pool;
arglist [0] = 1;
arglist [1] = %X'1111';
$CMKRNL (routin=monitor_pool, arglist=arglist);
END;
END;
%FI
! End of conditionally compiled debugging code.

!
```


Dispatch the request to the proper handler. Some messages do not come through \$SNDOPR, and require special treatment. For example, device on/offline messages are sent via a call to EX\$SNDEVMSG, and are in a different format from most of the other known message types.

SELECTONEU .REQUEST_BUFFER [MSGTYPE] OF

```
SET
[MSG$_CLUMBX] : CLUMBX_HANDLER (REQUEST_DESC);
[MSG$_DEVOFFLIN] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_DEVONLIN] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_DEVOFFLINX] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_WRONGVOL] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_DEVWRTLCK] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_MVCOMPLETE] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_MVABORTED] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_UDA50MVER] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_DUPUNITNO] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_TM78MVER] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_RC25MVER] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_RDRXMVER] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_TU81MVER] : DEVICE_HANDLER (REQUEST_DESC);
[MSG$_MAYAMVER] : DEVICE_HANDLER (REQUEST_DESC);
```

[MSG\$_OPRQST] : BEGIN

Dispatch the request to the proper handler.

CASE .REQUEST_BUFFER [RQSTCODE]

FROM 0 TO OPCS_X_REQUEST_END_MARK-1 OF

SET

The following request types are in the old format.

```
[OPCS_RQ_TERME] : TERME_HANDLER (REQUEST_DESC);
[OPCS_RQ_LOGI] : LOGI_HANDLER (REQUEST_DESC);
[OPCS_RQ_RQST] : RQST_HANDLER (REQUEST_DESC);
[OPCS_RQ_REPLY] : RPLY_HANDLER (REQUEST_DESC);
[OPCS_RQ_CANCEL] : CNCL_HANDLER (REQUEST_DESC);
[OPCS_RQ_STATUS] : STS_HANDLER (REQUEST_DESC);
[OPCS_RQ_SECURITY] : SECD_HANDLER (REQUEST_DESC);
```

The following request types are in the new format.

```
[OPCS_X_OPRENABLE] : OPRENABLE_HANDLER (REQUEST_DESC);
[OPCS_X_LOGFILE] : LOGFILE_HANDLER (REQUEST_DESC);
[OPCS_X_REQUEST] : REQUEST_HANDLER (REQUEST_DESC);
[OPCS_X_REPLY] : REPLY_HANDLER (REQUEST_DESC);
[OPCS_X_CANCEL] : CANCEL_HANDLER (REQUEST_DESC);
[OPCS_X_STATUS] : STATUS_HANDLER (REQUEST_DESC);
[OPCS_X_SHUTDOWN] : SHUTDOWN_HANDLER (REQUEST_DESC);
[OPCS_X_SECURITY] : SECURITY_HANDLER (REQUEST_DESC);
```

Debug handler, comment out when not necessary

! [OPCS_X_DEBUG] : DEBUG_HANDLER (REQUEST_DESC);

Requests for cluster-related messages.

```
! End of OPCOM_MAIN
```

```

.TITLE OPC$OPCOMMAIN
.IDENT \V04-000\

.PSECT $PLIT$,NOWRT,NOEXE,2

4F 42 4C 49 41 4D 5F 50 4D 55 44 24 43 50 4F 00000 P.AAB: .ASCII \OPC$DUMP_MAILBOX\
                                     58 0000F
                                     010E0010 00010 P.AAA: .LONG 17694736
                                     000000000' 00014 .ADDRESS P.AAB
64 65 76 69 65 63 65 72 20 64 72 6F 63 65 52 00018 P.AAD: .ASCII \Record received in mailbox\<0><0>
    00 00 78 6F 62 6C 69 61 6D 20 6E 69 20 00027
                                     010E001A 00034 P.AAC: .LONG 17694746
                                     000000000' 00038 .ADDRESS P.AAD

.PSECT $GLOBAL$,NOEXE,2

00000000 00000 FINISHED::
.LONG 0

.EXTRN DUMP_LOG_FILE, SHARE_FAO_BUFFER
.EXTRN OPCOM_INIT, TIME_STAMP
.EXTRN WRITE_LOG_FILE, UNKNOWN_HANDLER
.EXTRN CLUMBX_HANDLER, DEVICE_HANDLER
.EXTRN TERME_HANDLER, LOGI_HANDLER
.EXTRN RQST_HANDLER, RPLY_HANDLER
.EXTRN CNCL_HANDLER, STS_HANDLER
.EXTRN SECU_HANDLER, OPRENABLE_HANDLER
.EXTRN LOGFILE_HANDLER
.EXTRN REQUEST_HANDLER
.EXTRN REPLY_HANDLER, CANCEL_HANDLER
.EXTRN STATUS_HANDLER, SHUTDOWN_HANDLER
.EXTRN SECURITY_HANDLER
.EXTRN CLUSMSG_HANDLER
.EXTRN GLOBAL_STATUS, OPER_MBX_CHAN
.EXTRN SYS$QIOW, LIB$STOP
.EXTRN SYS$TRNLOG

.PSECT $CODE$,NOWRT,2

```


			001C	00000	.ENTRY	OPCOM MAIN, Save R2,R3,R4	: 0097
	54	0000G	CF	9E	MOVAB	GLOBAL STATUS, R4	:
	5E	F5D8	CE	9E	MOVAB	-2600(SP), SP	:
	CF		00	FB	CALLS	#0, OPCOM_INIT	: 0194
		1A	AE	B4	CLRW	REQUEST_DESC+2	: 0199
	1C	20	AE	9E	MOVAB	REQUEST_BUFFER, REQUEST_DESC+4	: 0201
	01	0000	CF	E9	BLBC	FINISHED, 2\$	: 0206
				04	RET		:
	64	40	8F	8A	BICB2	#64, GLOBAL STATUS	: 0212
05	64		05	E1	BBC	#5, GLOBAL STATUS, 3\$	: 0213
	0000G		00	FB	CALLS	#0, TIME_STAMP	: 0215
			7E	7C	CLRW	-(SP)	: 0226
			7E	7C	CLRW	-(SP)	:
	7E	0A00	8F	3C	MOVZWL	#2560, -(SP)	:
		34	AE	9F	PUSHAB	REQUEST_BUFFER	:
			7E	7C	CLRW	-(SP)	:
		F8	AD	9F	PUSHAB	IOSB	:
			31	DD	PUSHL	#49	:
	7E	0000G	CF	3C	MOVZWL	OPER_MBX_CHAN, -(SP)	:
			03	DD	PUSHL	#3	:
	00000000G	00	0C	FB	CALLS	#12, SYSSQIOW	:
		53	50	D0	MOVL	R0, STATUS	:
		10	53	E9	BLBC	STATUS, 4\$	:
		53	F8	AD	MOVZWL	IOSB, STATUS	: 0233
		13	53	E8	BLBS	STATUS, 5\$	:
	00000870	8F	53	D1	CMPL	STATUS, #2160	: 0235
			0A	13	BEQL	5\$	:
			53	DD	PUSHL	STATUS	: 0237
	00000000G	00	01	FB	CALLS	#1, LIB\$STOP	:
				04	RET		:
		40	8F	88	BISB2	#64, GLOBAL STATUS	: 0244
	18	FA	AD	B0	MOVW	IOSB+2, REQUEST_DESC	: 0249
			10	D0	MOVL	#16, OUT_DSC	: 0258
	04	08	AE	9E	MOVAB	LCL BUF, -OUT_DSC+4	: 0259
			7E	7C	CLRW	-(SP)	: 0260
			7E	D4	CLRL	-(SP)	:
		0C	AE	9F	PUSHAB	OUT_DSC	:
		10	AE	9F	PUSHAB	OUT_DSC	:
		0000	CF	9F	PUSHAB	P.AXA	:
	00000000G	00	06	FB	CALLS	#6, SYSS\$TRNLOG	:
		01	50	D1	CMPL	R0, #1	:
			0C	12	BNEQ	6\$	:
		0000	CF	9F	PUSHAB	P.AAC	: 0262
		1C	AE	9F	PUSHAB	REQUEST_DESC	:
	0000G	CF	02	FB	CALLS	#2, DUMP LOG FILE	:
		52	AE	3C	MOVZWL	REQUEST_BUFFER, R2	: 0329
	0059	8F	52	B1	CMPL	R2, #89	: 0331
			0A	12	BNEQ	7\$	:
		18	AE	9F	PUSHAB	REQUEST_DESC	:
	0000G	CF	01	FB	CALLS	#1, CLUMBX_HANDLER	:
			66	11	BRB	9\$	:
		05	52	B1	CMPL	R2, #5	: 0332
			59	13	BEQL	8\$	:
		07	52	B1	CMPL	R2, #7	: 0333
			54	13	BEQL	8\$	:
	0050	8F	52	B1	CMPL	R2, #80	: 0334

			4D	13	000C8	BEQL	8\$				
0051	8F		52	B1	000CA	CMPW	R2, #81			0335	
			46	13	000CF	BEQL	8\$				
0052	8F		52	B1	000D1	CMPW	R2, #82			0336	
			3F	13	000D6	BEQL	8\$				
0054	8F		52	B1	000D8	CMPW	R2, #84			0337	
			38	13	000DD	BEQL	8\$				
0055	8F		52	B1	000DF	CMPW	R2, #85			0338	
			31	13	000E4	BEQL	8\$				
0057	8F		52	B1	000E6	CMPW	R2, #87			0339	
			2A	13	000EB	BEQL	8\$				
0058	8F		52	B1	000ED	CMPW	R2, #88			0340	
			23	13	000F2	BEQL	8\$				
005A	8F		52	B1	000F4	CMPW	R2, #90			0341	
			1C	13	000F9	BEQL	8\$				
005D	8F		52	B1	000FB	CMPW	R2, #93			0342	
			15	13	00100	BEQL	8\$				
005E	8F		52	B1	00102	CMPW	R2, #94			0343	
			0E	13	00107	BEQL	8\$				
005F	8F		52	B1	00109	CMPW	R2, #95			0344	
			07	13	0010E	BEQL	8\$				
0060	8F		52	B1	00110	CMPW	R2, #96			0345	
			0A	12	00115	BNEQ	10\$				
		18	AE	9F	00117	PUSHAB	REQUEST_DESC				
0000G	CF		01	FB	0011A	CALLS	#1, DEVICE_HANDLER				
			7D	11	0011F	BRB	20\$				
	08		52	B1	00121	CMPW	R2, #8			0347	
			31	12	00124	BNEQ	12\$				
		15	46	AE	8F	CASEB	REQUEST_BUFFER+38, #0, #21			0351	
0043		00			00126	.WORD	34\$-11\$,-				
006B		002F	00CF		0012B		13\$-11\$,-				
007F		0057	004D		00133		14\$-11\$,-				
00A7		00CF	00CF		0013B		15\$-11\$,-				
00C5		0093	0089		00143		16\$-11\$,-				
		00CF	00B1		0014B		17\$-11\$,-				
		00CF	00CF		00153		18\$-11\$,-				
							19\$-11\$,-				
							34\$-11\$,-				
							34\$-11\$,-				
							21\$-11\$,-				
							22\$-11\$,-				
							23\$-11\$,-				
							24\$-11\$,-				
							25\$-11\$,-				
							26\$-11\$,-				
							28\$-11\$,-				
							34\$-11\$,-				
							30\$-11\$,-				
							32\$-11\$,-				
							34\$-11\$,-				
							34\$-11\$				
							34\$			0386	
			00A0	31	00157	BRW	34\$			0357	
			18	AE	9F	PUSHAB	REQUEST_DESC				
0000G	CF		01	FB	0015A	CALLS	#1, TERM_HANDLER				
			76	11	00162	BRB	27\$				
			18	AE	9F	PUSHAB	REQUEST_DESC			0358	
0000G	CF		01	FB	00167	CALLS	#1, LOG_HANDLER				

		18	76	11	0016C	15\$:	BRB	29\$			
0000G	CF		AE	9F	0016E		PUSHAB	REQUEST_DESC			0359
			01	FB	00171		CALLS	#1, RQST_HANDLER			
		18	76	11	00176	16\$:	BRB	31\$			
0000G	CF		AE	9F	00178		PUSHAB	REQUEST_DESC			0360
			01	FB	0017B		CALLS	#1, RPLY_HANDLER			
		18	76	11	00180	17\$:	BRB	33\$			
0000G	CF		AE	9F	00182		PUSHAB	REQUEST_DESC			0361
			01	FB	00185		CALLS	#1, CNCL_HANDLER			
		18	76	11	0018A	18\$:	BRB	35\$			
0000G	CF		AE	9F	0018C		PUSHAB	REQUEST_DESC			0362
			01	FB	0018F		CALLS	#1, STS_HANDLER			
		18	6C	11	00194	19\$:	BRB	35\$			
0000G	CF		AE	9F	00196		PUSHAB	REQUEST_DESC			0363
			01	FB	00199		CALLS	#1, SECD_HANDLER			
		18	62	11	0019E	20\$:	BRB	35\$			
0000G	CF		AE	9F	001A0	21\$:	PUSHAB	REQUEST_DESC			0367
			01	FB	001A3		CALLS	#1, OPRENABLE_HANDLER			
		18	58	11	001A8	22\$:	BRB	35\$			
0000G	CF		AE	9F	001AA		PUSHAB	REQUEST_DESC			0368
			01	FB	001AD		CALLS	#1, LOGFILE_HANDLER			
		18	4E	11	001B2	23\$:	BRB	35\$			
0000G	CF		AE	9F	001B4		PUSHAB	REQUEST_DESC			0369
			01	FB	001B7		CALLS	#1, REQUEST_HANDLER			
		18	44	11	001BC	24\$:	BRB	35\$			
0000G	CF		AE	9F	001BE		PUSHAB	REQUEST_DESC			0370
			01	FB	001C1		CALLS	#1, REPLY_HANDLER			
		18	3A	11	001C6	25\$:	BRB	35\$			
0000G	CF		AE	9F	001C8		PUSHAB	REQUEST_DESC			0371
			01	FB	001CB		CALLS	#1, CANCEL_HANDLER			
		18	30	11	001D0	26\$:	BRB	35\$			
0000G	CF		AE	9F	001D2		PUSHAB	REQUEST_DESC			0372
			01	FB	001D5		CALLS	#1, STATUS_HANDLER			
		18	26	11	001DA	27\$:	BRB	35\$			
0000G	CF		AE	9F	001DC	28\$:	PUSHAB	REQUEST_DESC			0373
			01	FB	001DF		CALLS	#1, SHUTDOWN_HANDLER			
		18	1C	11	001E4	29\$:	BRB	35\$			
0000G	CF		AE	9F	001E6	30\$:	PUSHAB	REQUEST_DESC			0374
			01	FB	001E9		CALLS	#1, SECURITY_HANDLER			
		18	12	11	001EE	31\$:	BRB	35\$			
0000G	CF		AE	9F	001F0	32\$:	PUSHAB	REQUEST_DESC			0382
			01	FB	001F3		CALLS	#1, CLUSMSG_HANDLER			
		18	08	11	001F8	33\$:	BRB	35\$			0329
0000G	CF		AE	9F	001FA	34\$:	PUSHAB	REQUEST_DESC			0394
			01	FB	001FD		CALLS	#1, UNKNOWN_HANDLER			
			FE14	31	00202	35\$:	BRW	1\$			0206
			04	00205		RET					0398

; Routine Size: 518 bytes, Routine Base: \$CODE\$ + 0000

: 400 0399 1
: 401 0400 1 END
: 402 0401 0 ELUDOM

! End of OPCOMMAIN

PSECT SUMMARY

Name	Bytes	Attributes
\$GLOBALS	4	NOVEC, WRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$PLITS	60	NOVEC, NOWRT, RD, NOEXE, NOSHR, LCL, REL, CON, NOPIC, ALIGN(2)
\$CODES	518	NOVEC, NOWRT, RD, EXE, 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	36	0	1000	00:01.8
\$255\$DUA28:[OPCOM.OBJ]OPCOMLIB.L32;1	633	20	3	43	00:00.9

COMMAND QUALIFIERS

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

: Size: 518 code + 64 data bytes
: Run Time: 00:12.6
: Elapsed Time: 00:35.0
: Lines/CPU Min: 1906
: Lexemes/CPU-Min: 11576
: Memory Used: 180 pages
: Compilation Complete

0290 AH-BT13A-SE
VAX/VMS V4.0

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