

Sym

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000000000  PPPPPPPPPPP  CCCCCCCCCCCCC  000000000  MMM      MMM
000000000  PPPPPPPPPPP  CCCCCCCCCCCCC  000000000  MMM      MMM
000000000  PPPPPPPPPPP  CCCCCCCCCCCCC  000000000  MMM      MMM
000      000  PPP      PPP  CCC      000      000  MMMMMM  MMMMMM
000      000  PPP      PPP  CCC      000      000  MMMMMM  MMMMMM
000      000  PPP      PPP  CCC      000      000  MMMMMM  MMMMMM
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000      000  PPP      PPP  CCC      000      000  MMM      MMM
000      000  PPP      PPP  CCC      000      000  MMM      MMM
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000      000  PPP      PPP  CCC      000      000  MMM      MMM
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000000000  PPP      CCCCCCCCCCCCC  000000000  MMM      MMM
000000000  PPP      CCCCCCCCCCCCC  000000000  MMM      MMM
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CCCCCCCC  AAAAAA  NN      NN      CLCCCCCC  EEEEEEEEE  LL
CCCCCCCC  AAAAAA  NN      NN      CCCCCCCC  EEEEEEEEE  LL
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CC         AA      AA  NN      NN      CC         EE          LL
CC         AA      AA  NNNN     NN      CC         EE          LL
CC         AA      AA  NNNN     NN      CC         EE          LL
CC         AA      AA  NN      NN      CC         EEEEEEEEE  LL
CC         AA      AA  NN      NN      CC         EEEEEEEEE  LL
CC         AAAAAAAAAA NN      NNNN     CC         EE          LL
CC         AAAAAAAAAA NN      NNNN     CC         EE          LL
CC         AA      AA  NN      NN      CC         EE          LL
CC         AA      AA  NN      NN      CC         EE          LL
CCCCCCCC  AA      AA  NN      NN      CCCCCCCC  EEEEEEEEE  LLLLLLLLLL
CCCCCCCC  AA      AA  NN      NN      CCCCCCCC  EEEEEEEEE  LLLLLLLLLL

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LL         IIIIII  SSSSSSSS
LL         IIIIII  SSSSSSSS
LL         II      SS
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LL         II      SSSSSS
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LLLLLLLLLL IIIIII  SSSSSSSS
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```

0001 0 MODULE OPCSANCEL (
0002 0
0003 0     LANGUAGE (BLISS32),
0004 0     IDENT = 'V04-000'
0005 0 ) =
0006 0
0007 0 *****
0008 0 *
0009 0 *   COPYRIGHT (c) 1978, 1980, 1982, 1984 BY
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0023 0 *   CORPORATION.
0024 0 *
0025 0 *   DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS
0026 0 *   SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.
0027 0 *
0028 0 *****
0029 0 ++
0030 0 FACILITY:
0031 0
0032 0     OPCOM
0033 0
0034 0 ABSTRACT:
0035 0
0036 0     This module contains the specialized logic to service
0037 0     a particular type of request sent by a user to OPCOM.
0038 0
0039 0 Environment:
0040 0
0041 0     VAX/VMS operating system.
0042 0
0043 0 Author:
0044 0
0045 0     Steven T. Jeffreys
0046 0
0047 0 Creation date:
0048 0
0049 0     March 10, 1981
0050 0
0051 0 Revision history:
0052 0
0053 0     V03-001 CWH3001          CW Hobbs          30-Jul-1983
0054 0     Various and sundry things to make OPCOM distributed
0055 0     across the cluster.
0056 0
0057 0     V02-002 STJ0117       Steven T. Jeffreys    05-Sep-1981

```

```

58 0058 0 |
59 0059 0 |
60 0060 0 |
61 0061 0 |
62 0062 0 |
63 0063 0 |
64 0064 0 |
65 0065 1 BEGIN | Start of CANCEL
66 0066 1 |
67 0067 1 LIBRARY 'SYS$LIBRARY:LIB.L32';
68 0068 1 LIBRARY 'LIB$:OPCOMLIB';
69 0069 1 |
70 0070 1 FORWARD ROUTINE
71 0071 1 CANCEL_HANDLER : NOVALUE,
72 0072 1 CANCEL_CLM_HANDLER : NOVALUE;
73 0073 1 |
74 0074 1 BUILTIN
75 0075 1 INSQUE, | Insert entry onto a queue
76 0076 1 REMQUE; | Remove entry from a queue
77 0077 1 |
78 0078 1 EXTERNAL ROUTINE
79 0079 1 CHECK_REQUEST, | Common sanity checks
80 0080 1 CLUSMSG_CONV_CLM_RQCB, | Convert cluster message to RQCB
81 0081 1 CLUSMSG_RQCB_SEND, | Send RQCB to remote nodes
82 0082 1 DEALLOCATE_RQCB : NOVALUE, | Dispose of an RQCB
83 0083 1 DUMP_LOG_FILE, | Format the message into the log file
84 0084 1 FORMAT_MESSAGE, | Format a message
85 0085 1 LOG_MESSAGE, | Write a message to a logfile
86 0086 1 NOTIFY_LISTED_OPERATORS, | Just like it says
87 0087 1 SEND_REPLY; | Send a reply to the requestor
88 0088 1 |
89 0089 1 EXTERNAL
90 0090 1 OCD_VECTOR : VECTOR; | OCD list headers
91 0091 1 |
92 0092 1 EXTERNAL LITERAL
93 0093 1 MAX_SCOPE, | Maximum scope value
94 0094 1 MIN_SCOPE; | Minimum scope value

```

Added support for alternate cancellation message.  
This message indicates that the request was satisfied,  
and canceled by the requestor.

--

! Start of CANCEL

! Insert entry onto a queue  
! Remove entry from a queue

! Common sanity checks  
! Convert cluster message to RQCB  
! Send RQCB to remote nodes  
! Dispose of an RQCB  
! Format the message into the log file  
! Format a message  
! Write a message to a logfile  
! Just like it says  
! Send a reply to the requestor

! OCD list headers

! Maximum scope value  
! Minimum scope value

```

: 96 0095 1 GLOBAL ROUTINE CANCEL_HANDLER (BUFFER_DESC) : NOVALUE =
: 97 0096 1
: 98 0097 1 |++
: 99 0098 1 | Functional description:
100 0099 1 |
101 0100 1 |     This routine is the handler for all CANCEL messages received by OPCOM.
102 0101 1 |
103 0102 1 |
104 0103 1 | Input:
105 0104 1 |
106 0105 1 |     BUFFER_DESC : The address of a quadword buffer descriptor that
107 0106 1 |     describes the buffer containing the message.
108 0107 1 |
109 0108 1 | Implicit Input:
110 0109 1 |
111 0110 1 |     None.
112 0111 1 |
113 0112 1 | Output:
114 0113 1 |
115 0114 1 |     None.
116 0115 1 |
117 0116 1 | Implicit output:
118 0117 1 |
119 0118 1 |     Some accounting data will be updated
120 0119 1 |     to reflect the receipt of the message.
121 0120 1 |
122 0121 1 | Side effects:
123 0122 1 |
124 0123 1 |     None.
125 0124 1 |
126 0125 1 | Routine value:
127 0126 1 |
128 0127 1 |     None.
129 0128 1 | --
130 0129 1 |
131 0130 2 BEGIN                               ! Start of CANCEL_HANDLER
132 0131 2
133 0132 2 MAP
134 0133 2     BUFFER_DESC      : $ref_bblock;
135 0134 2
136 0135 2 LOCAL
137 0136 2
138 0137 2     MESSAGE_VECTOR  : VECTOR [5, LONG],      ! Message info
139 0138 2     RQCB           : $ref_bblock,          ! RQCB data structure
140 0139 2     MCB           : $ref_bblock,          ! MCB data structure
141 0140 2     OCD           : $ref_bblock,          ! OCD data structure
142 0141 2     RQST_RQCB    : $ref_bblock,          ! Request RQCB
143 0142 2     OCD_COUNT   : LONG,                  ! Count of OCD in an OCD list
144 0143 2     OCD_INDEX   : LONG,                  ! Index into OCD_VECTOR
145 0144 2     RQST_COUNT  : LONG,                  ! Count of requests in a list
146 0145 2     MESSAGE     : LONG,                  ! Message code
147 0146 2     FOUND       : LONG,                  ! Boolean
148 0147 2     STATUS      : LONG;
149 0148 2
150 0149 2 |
151 0150 2 |     Check request for minimum amount of data.
152 0151 2 |

```

```

153 0152 3 IF .BUFFER_DESC [DSC$W_LENGTH] LSS (OPCS$K_COMHDRSIZ + OPCS$K_CANCEL_MIN_SIZE)
154 0153 3 THEN
155 0154 3 RETURN;
156 0155 3
157 0156 3 : Do some sanity checking.
158 0157 3
159 0158 3 IF NOT CHECK_REQUEST (.BUFFER_DESC, RQCB)
160 0159 3 THEN
161 0160 3 RETURN;
162 0161 3
163 0162 3 : Check for a reply mailbox. If none specified, then ignore the
164 0163 3 : cancelation message, as it would be impossible to locate the correct
165 0164 3 : request without it.
166 0165 3
167 0166 3 IF .RQCB [RQCB_W_REPLYMBX] EQL 0
168 0167 3 THEN
169 0168 3 RETURN;
170 0169 3
171 0170 3 : See if the requestor is issuing this request on another's behalf.
172 0171 3 : If so, and the requestor does not have the privilege to do so,
173 0172 3 : then dismiss the request.
174 0173 3
175 0174 3 IF .RQCB [RQCB_L_SENDERUIC] NEQ .RQCB [RQCB_L_UIC]
176 0175 3 THEN
177 0176 3 IF (NOT .Sbblock [RQCB [RQCB_L_PRIVMASK1], PRV$V_OPER])
178 0177 3 THEN
179 0178 3 IF NOT ((.Sbblock [RQCB [RQCB_L_SENDERUIC], 2,0,16,0] EQL .Sbblock [RQCB [RQCB_L_UIC], 2,0,16,0]) AN
180 0179 3 (.Sbblock [RQCB [RQCB_L_PRIVMASK1], PRV$V_GROUP]))
181 0180 3 THEN
182 0181 3 BEGIN
183 0182 3 MESSAGE_VECTOR [0] = OPCS$_ILLRQST;
184 0183 3 MESSAGE_VECTOR [1] = 0;
185 0184 3 FORMAT MESSAGE (.RQCB, MESSAGE_VECTOR);
186 0185 3 SEND REPLY (.RQCB);
187 0186 3 DEALLOCATE_RQCB (.RQCB);
188 0187 3 RETURN;
189 0188 3 END;
190 0189 3
191 0190 3 : Locate the request in the database. The entire database must be
192 0191 3 : searched, as the responsibility for the request may have been bounced
193 0192 3 : around by the operators, and the request may not be in an obvious place.
194 0193 3 : When the search is done, RQST_RQCB will contain the address of the
195 0194 3 : original request RQCB if it was found.
196 0195 3
197 0196 3 FOUND = FALSE;
198 0197 3 OCD_INDEX = MAX_SCOPE;
199 0198 3 WHILE (NOT .FOUND) AND (.OCD_INDEX GEQ MIN_SCOPE) DO
200 0199 3 BEGIN
201 0200 3
202 0201 3 : Scan the OCD list for each class of operator
203 0202 3
204 0203 3 OCD = .OCD_VECTOR [(OCD_INDEX - 1) * 2]; ! Get first OCD address
205 0204 3 OCD_COUNT = .OCD_VECTOR [(OCD_INDEX - 1) * 2 + 1]; ! Get # of OCDs in the list
206 0205 3 WHILE (NOT .FOUND) AND (.OCD_COUNT GTR 0) DO
207 0206 3 BEGIN
208 0207 3
209 0208 3 : Scan the request list for each OCD.

```

```

210 0209 4 !
211 0210 4 RQST_COUNT = .OCD [OCD_W_RQSTCOUNT]; ! Get # of requests in list
212 0211 4 RQST_RQCB = .OCD [OCD_L_RQSTFLINK]; ! Get first RQST_RQCB address
213 0212 4 WHILE (NOT .FOUND) AND (.RQST_COUNT GTR 0) DO
214 0213 5 BEGIN
215 0214 5 !
216 0215 5 ! Check the reply mailbox and the requestid for equality.
217 0216 5 !
218 0217 6 IF (.RQCB [RQCB_W_REPLYMBX] EQL .RQST_RQCB [RQCB_W_REPLYMBX])
219 0218 6 AND (.RQCB [RQCB_L_RQSTID] EQL .RQST_RQCB [RQCB_L_RQSTID])
220 0219 5 THEN
221 0220 6 BEGIN ! This is it.
222 0221 6 FOUND = TRUE; ! Note that we found it
223 0222 6 RQCB [RQCB_L_OCD] = .OCD; ! Save OCD address
224 0223 6 END
225 0224 5 ELSE
226 0225 6 BEGIN ! Not found. Try the next RQCB
227 0226 6 RQST_COUNT = .RQST_COUNT - 1; ! Decrement request count
228 0227 6 RQST_RQCB = .RQST_RQCB [RQCB_L_FLINK]; ! Get address of next RQCB
229 0228 5 END;
230 0229 4 END;
231 0230 4 OCD_COUNT = .OCD_COUNT - 1; ! Decrement OCD count
232 0231 4 OCD = .OCD [OCD_L_FLINK]; ! Get address of next OCD
233 0232 3 END;
234 0233 3 OCD_INDEX = .OCD_INDEX - 1; ! Try next operator class
235 0234 2 END;
236 0235 2 !
237 0236 2 ! Finish up.
238 0237 2 !
239 0238 2 IF NOT .FOUND
240 0239 2 THEN
241 0240 3 BEGIN
242 0241 3 !
243 0242 3 ! Get set to tell the requestor the bad news.
244 0243 3 !
245 0244 3 MESSAGE_VECTOR [0] = OPCS_NOSUCHRQST;
246 0245 3 MESSAGE_VECTOR [1] = 0;
247 0246 3 FORMAT_MESSAGE (.RQCB, MESSAGE_VECTOR);
248 0247 3 END
249 0248 2 ELSE
250 0249 3 BEGIN
251 0250 3 !
252 0251 3 ! Inform all interested operators that the request is canceled.
253 0252 3 ! Log the cancelation notice, and remove the request from the data base.
254 0253 3 !
255 0254 3 MESSAGE_VECTOR [0] = OPCS_RQSTCAN; ! Set message code
256 0255 3 IF .%bblock [RQCB [RQCB_L_RQ_OPTIONS], OPCS_V_RQSTDONE]
257 0256 3 THEN
258 0257 3 MESSAGE_VECTOR [0] = OPCS_RQSTDONE; ! Set alternate status code
259 0258 3 MESSAGE_VECTOR [1] = 0; ! Set # of message arguments
260 0259 3 MESSAGE_VECTOR [2] = .RQST_RQCB [RQCB_L_RQSTNUM]; ! Set message argument
261 0260 3 DEALLOCATE RQCB (.RQCB); ! Dispose of the request control block
262 0261 3 REMQUE (.RQST_RQCB, RQCB); ! Remove the request from the database
263 0262 3 OCD = .RQST_RQCB [RQCB_L_OCD]; ! Get the OCD address
264 0263 3 OCD [OCD_W_RQSTCOUNT] = .OCD [OCD_W_RQSTCOUNT] - 1;
265 0264 3 FORMAT_MESSAGE (.RQCB, MESSAGE_VECTOR);
266 0265 3 !

```

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: 267      0266 3      ! Send it to everyone else in the cluster. Inform all interested operators that the
: 268      0267 3      ! request is canceled. Log the cancelation notice.
: 269      0268 3
: 270      0269 3      CLUSMSG RQCB SEND (-1, CLM, CANCEL, .RQCB);
: 271      0270 3      NOTIFY LISTED_OPERATORS (.RQCB); ! Notify the interested operators
: 272      0271 3      LOG MESSAGE (.RQCB); ! Log the event
: 273      0272 2
: 274      0273 2      !
: 275      0274 2      ! Send the message to the requestor.
: 276      0275 2
: 277      0276 2      SEND_REPLY (.RQCB);
: 278      0277 2      DEALLOCATE_RQCB (.RQCB);
: 279      0278 2
: 280      0279 1      END; ! End of CANCEL_HANDLER

```

```

.TITLE OPCS_CANCEL
.IDENT \V04-000\

.EXTRN CHECK_REQUEST, CLUSMSG_CONV_CLM_RQCB
.EXTRN CLUSMSG_RQCB_SEND
.EXTRN DEALLOCATE_RQCB
.EXTRN DUMP_LOG_FILE, FORMAT_MESSAGE
.EXTRN LOG_MESSAGE, NOTIFY_LISTED_OPERATORS
.EXTRN SEND_REPLY, OCD_VECTOR
.EXTRN MAX_SCOPE, MIN_SCOPE

```

.PSECT \$CODE\$,NOWRT,2

			01FC 0000	.ENTRY	CANCEL_HANDLER, Save R2,R3,R4,R5,R6,R7,R8	: 0095
	58	0000G	CF 9E 00002	MOVAB	FORMAT_MESSAGE, R8	
	5E		18 C2 00007	SUBL2	#24, SP	
	3F	04	BC B1 0000A	CMPW	@BUFFER_DESC, #63	: 0152
			01 1A 0000E	BGTRU	1\$	
			04 00010	RET		
			5E DD 00011	PUSHL	SP	: 0158
		04	AC DD 00013	PUSHL	BUFFER_DESC	
	0000G	CF	02 7B 00016	CALLS	#2, CHECK_REQUEST	
		01	50 E8 0001B	BLBS	R0, 2\$	
			04 0001E	RET		
	52		6E D0 0001F	MOVL	RQCB, R2	: 0166
		2E	A2 B5 00022	TSTW	46(R2)	
			01 12 00025	BNEQ	3\$	
			04 00027	RET		
	51	38	A2 9E 00028	MOVAB	56(R2), R1	: 0174
	50	68	A2 9E 0002C	MOVAB	104(R2), R0	
	60		61 D1 00030	CMPW	(R1), (R0)	
			2F 13 00033	BEQL	5\$	
2A	32	A2	02 E0 00035	BBS	#2, 50(R2), 5\$	: 0176
	02	A0	02 A1 B1 0003A	CMPW	2(R1), 2(R0)	: 0178
			04 12 0003F	BNEQ	4\$	
	1F	31	A2 E8 00041	BLBS	49(R2), 5\$	: 0179
	04	AE 0005807C	8F D0 00045	MOVL	#360572, MESSAGE_VECTOR	: 0182
		08	AE D4 0004D	CLRL	MESSAGE_VECTOR+4	: 0183
		04	AE 9F 00050	PUSHAB	MESSAGE_VECTOR	: 0184
			52 DD 00053	PUSHL	R2	
	68		02 FB 00055	CALLS	#2, FORMAT_MESSAGE	



0000G	CF		52	DD	00058		PUSHL	R2		0185
			01	FB	0005A		CALLS	#1, SEND_REPLY		
			52	DD	0005F		PUSHL	R2		0186
			00D5	31	00061		BRW	16\$		
			55	D4	00064	5\$:	CLRL	FOUND		0196
	50	00000000G	8F	D0	00066		MOVL	#MAX_SCOPE, OCD_INDEX		0197
	70		55	E8	0006D	6\$:	BLBS	FOUND, 13\$		0198
00000000G	8F		50	D1	00070		CMPL	OCD_INDEX, #MIN_SCOPE		
			4F	19	00077		BLSS	12\$		
51	50		01	78	00079		ASHL	#1, OCD_INDEX, R1		0203
	53	0000GCF	41	D0	0007D		MOVL	OCD_VECTOR-8[R1], OCD		
	57	0000GCF	41	D0	00083		MOVL	OCD_VECTOR-4[R1], OCD_COUNT		0204
	38		55	E8	00089	7\$:	BLBS	FOUND, 11\$		0205
			57	D5	0008C		TSTL	OCD_COUNT		
			34	15	0008E		BLEQ	11\$		
	56	3A	A3	3C	00090		MOVZWL	58(OCD), RQST_COUNT		0210
	54	3C	A3	D0	00094		MOVL	60(OCD), RQST_RQCB		0211
	22		55	E8	00098	8\$:	BLBS	FOUND, 10\$		0212
			56	D5	0009B		TSTL	RQST_COUNT		
			1E	15	0009D		BLEQ	10\$		
2E	A4	2E	A2	B1	0009F		CMPL	46(R2), 46(RQST_RQCB)		0217
			10	12	000A4		BNEQ	9\$		
64	A4	64	A2	D1	000A6		CMPL	100(R2), 100(RQST_RQCB)		0218
			09	12	000AB		BNEQ	9\$		
	55		01	D0	000AD		MOVL	#1, FOUND		0221
24	A2		53	D0	000B0		MOVL	OCD, 36(R2)		0222
			E2	11	000B4		BRB	8\$		0217
			56	D7	000B6	9\$:	DECL	RQST_COUNT		0226
	54		64	D0	000B8		MOVL	(RQST_RQCB), RQST_RQCB		0227
			DB	11	000BB		BRB	8\$		0212
			57	D7	000BD	10\$:	DECL	OCD_COUNT		0230
	53		63	D0	000BF		MOVL	(OCD), OCD		0231
			C5	11	000C2		BRB	7\$		0205
			50	D7	000C4	11\$:	DECL	OCD_INDEX		0233
			A5	11	000C6		BRB	6\$		0198
	15		55	E8	000C8	12\$:	BLBS	FOUND, 13\$		0238
04	AE	00058044	8F	D0	000CB		MOVL	#360516, MESSAGE_VECTOR		0244
		08	AE	D4	000D3		CLRL	MESSAGE_VECTOR+4		0245
		04	AE	9F	000D6		PUSHAB	MESSAGE_VECTOR		0246
			52	DD	000D9		PUSHL	R2		
	68		02	FB	000DB		CALLS	#2, FORMAT_MESSAGE		
			50	11	000DE		BRB	15\$		0238
04	AE	00058084	8F	D0	000E0	13\$:	MOVL	#360580, MESSAGE_VECTOR		0254
	08	58	A2	E9	000E8		BLBC	88(R2), 14\$		0255
04	AE	000581DB	8F	D0	000EC		MOVL	#360925, MESSAGE_VECTOR		0257
		08	AE	D4	000F4	14\$:	CLRL	MESSAGE_VECTOR+4		0258
0C	AE	70	A4	D0	000F7		MOVL	112(RQST_RQCB), MESSAGE_VECTOR+8		0259
			52	DD	000FC		PUSHL	R2		0260
0000G	CF		01	FB	000FE		CALLS	#1, DEALLOCATE_RQCB		
	6E		64	0F	00103		REMQUE	(RQST_RQCB), RQCB		0261
	53		A4	D0	00106		MOVL	36(RQST_RQCB), OCD		0262
		24	A4	D0	00106		MOVL	36(RQST_RQCB), OCD		
		3A	A3	B7	0010A		DECV	58(OCD)		0263
		04	AE	9F	0010D		PUSHAB	MESSAGE_VECTOR		0264
		04	AE	DD	00110		PUSHL	RQCB		
	68		02	FB	00113		CALLS	#2, FORMAT_MESSAGE		
			6E	DD	00116		PUSHL	RQCB		0269
			03	DD	00118		PUSHL	#3		

OPC\$CANCEL  
V04-000

I 1  
16-Sep-1984 01:17:58  
14-Sep-1984 12:50:36

VAX-11 Bliss-32 V4.0-742  
DISK\$VM\$MASTER:[OPCOM.SRC]CANCEL.B32;1 Page 8  
(2)

0000G	7E	01	CE	0011A	MNEGL	#1, -(SP)	:
	CF	03	FB	0011D	CALLS	#3, CLUSMSG_RQCB_SEND	:
		6E	DD	00122	PUSHL	RQCB	: 0270
0000G	CF	01	FB	00124	CALLS	#1, NOTIFY_LISTED_OPERATORS	:
		6E	DD	00129	PUSHL	RQCB	: 0271
0000G	CF	01	FB	0012B	CALLS	#1, LOG_MESSAGE	:
		6E	DD	00130	PUSHL	RQCB	: 15\$: 0276
0000G	CF	01	FB	00132	CALLS	#1, SEND_REPLY	:
		6E	DD	00137	PUSHL	RQCB	: 0277
0000G	CF	01	FB	00139	CALLS	#1, DEALLOCATE_RQCB	:
		04	0013E	RET			: 0279

; Routine Size: 319 bytes, Routine Base: \$CODE\$ + 0000

```

282 0280 1 GLOBAL ROUTINE CANCEL_CLM_HANDLER (BUFFER_DESC : $ref_bblock, CLM : $ref_bblock, LEN) : NOVALUE =
283 0281 1
284 0282 1 |**
285 0283 1 | Functional description:
286 0284 1 |
287 0285 1 |     This routine is the handler for all CANCEL messages received by OPCOM from other nodes.
288 0286 1 |
289 0287 1 | Input:
290 0288 1 |
291 0289 1 |     BUFFER_DESC - pointer to message from remote node, including $SENDPR header
292 0290 1 |     CLM - pointer to CLMRQCB structure
293 0291 1 |     LEN - length of LEN
294 0292 1 |
295 0293 1 | Implicit Input:
296 0294 1 |
297 0295 1 |     None.
298 0296 1 |
299 0297 1 | Output:
300 0298 1 |
301 0299 1 |     None.
302 0300 1 |
303 0301 1 | Implicit output:
304 0302 1 |
305 0303 1 |     Some accounting data will be updated
306 0304 1 |     to reflect the receipt of the message.
307 0305 1 |
308 0306 1 | Side effects:
309 0307 1 |
310 0308 1 |     None.
311 0309 1 |
312 0310 1 | Routine value:
313 0311 1 |
314 0312 1 |     None.
315 0313 1 | --
316 0314 1 |
317 0315 1 |
318 0316 2 BEGIN                                ! Start of CANCEL_CLM_HANDLER
319 0317 2
320 0318 2 LOCAL
321 0319 2     RQCB                : $ref_bblock,      ! RQCB data structure
322 0320 2     MCB                : $ref_bblock,      ! MCB data structure
323 0321 2     OCD                : $ref_bblock,      ! OCD data structure
324 0322 2     RQST_RQCB         : $ref_bblock,      ! Request RQCB
325 0323 2     OCD_COUNT         : LONG,              ! Count of OCD in an OCD list
326 0324 2     OCD_INDEX        : LONG,              ! Index into OCD_VECTOR
327 0325 2     RQST_COUNT       : LONG,              ! Count of requests in a list
328 0326 2     MESSAGE          : LONG,              ! Message code
329 0327 2     FOUND            : LONG,              ! Boolean
330 0328 2     STATUS             : LONG;
331 0329 2
332 0330 2 |
333 0331 2 | Check the version number of the message. If the message is from any other version,
334 0332 2 | simply ignore it.
335 0333 2 |
336 0334 2 IF .CLM [CLM_B_DS_VERSION] NEQ CLMRQCB_K_DS_VERSION
337 0335 2 THEN
338 0336 2     RETURN DUMP_LOG_FILE (.BUFFER_DESC, %ASCII 'CLM_CANCEL mismatch');

```

```

339 0337 2 |
340 0338 2 | Allocate an RQCB and convert the message RQCB into the new RQCB
341 0339 2 |
342 0340 2 | IF NOT CLUSMSG_CONV_CLM_RQCB (.CLM, RQCB)
343 0341 2 | THEN
344 0342 2 |     RETURN DUMP_LOG_FILE (.BUFFER_DESC, ascid_INVALIDRQCB);
345 0343 2 |
346 0344 2 | Locate the request in the database. The entire database must be
347 0345 2 | searched, as the responsibility for the request may have been bounced
348 0346 2 | around by the operators, and the request may not be in an obvious place.
349 0347 2 | When the search is done, RQST_RQCB will contain the address of the
350 0348 2 | original request RQCB if it was found.
351 0349 2 |
352 0350 2 | FOUND = FALSE;
353 0351 2 | OCD_INDEX = MAX_SCOPE;
354 0352 2 | WHILE (NOT .FOUND) AND (.OCD_INDEX GEQ MIN_SCOPE) DO
355 0353 3 |     BEGIN
356 0354 3 |         Scan the OCD list for each class of operator
357 0355 3 |
358 0356 3 |         OCD = .OCD_VECTOR [(OCD_INDEX - 1) * 2];           ! Get first OCD address
359 0357 3 |         OCD_COUNT = .OCD_VECTOR [(OCD_INDEX - 1) * 2 + 1]; ! Get # of OCDs in the list
360 0358 3 |         WHILE (NOT .FOUND) AND (.OCD_COUNT GTR 0) DO
361 0359 4 |             BEGIN
362 0360 4 |                 Scan the request list for each OCD.
363 0361 4 |
364 0362 4 |                 RQST_COUNT = .OCD [OCD_W_RQSTCOUNT];       ! Get # of requests in list
365 0363 4 |                 RQST_RQCB = .OCD [OCD_L_RQSTFLINK];         ! Get first RQST_RQCB address
366 0364 4 |                 WHILE (NOT .FOUND) AND (.RQST_COUNT GTR 0) DO
367 0365 4 |                     BEGIN
368 0366 5 |                         Check the reply mailbox and the requestid for equality.
369 0367 5 |
370 0368 5 |                         IF (.RQCB [RQCB_W_REPLYMBX] EQL .RQST_RQCB [RQCB_W_REPLYMBX])
371 0369 5 |                         AND (.RQCB [RQCB_L_RQSTID] EQL .RQST_RQCB [RQCB_L_RQSTID])
372 0370 5 |                         THEN
373 0371 6 |                             BEGIN
374 0372 6 |                                 FOUND = TRUE;
375 0373 5 |                                 RQCB [RQCB_L_OCD] = .OCD;
376 0374 6 |                                 END
377 0375 6 |                             ! This is it.
378 0376 6 |                             ! Note that we found it
379 0377 6 |                             ! Save OCD address
380 0378 5 |                         ELSE
381 0379 5 |                             BEGIN
382 0380 6 |                                 RQST_COUNT = .RQST_COUNT - 1;
383 0381 6 |                                 RQST_RQCB = .RQST_RQCB [RQCB_L_FLINK];
384 0382 5 |                                 END;
385 0383 4 |                             ! Not found. Try the next RQCB
386 0384 4 |                             ! Decrement request count
387 0385 4 |                             ! Get address of next RQCB
388 0386 3 |                         END;
389 0387 3 |                     OCD_COUNT = .OCD_COUNT - 1;
390 0388 2 |                     ! Decrement OCD count
391 0389 2 |                     OCD = .OCD [OCD_L_FLINK];
392 0390 2 |                     ! Get address of next OCD
393 0391 2 |                     END;
394 0392 2 |                 OCD_INDEX = .OCD_INDEX - 1;
395 0393 2 |                 ! Try next operator class
396 0394 2 |             END;
397 0395 2 |         END;
398 0396 2 |     END;
399 0397 2 |
400 0398 2 | Finish up.
401 0399 2 |
402 0400 2 | IF NOT .FOUND
403 0401 2 | THEN

```

```

: 396      0394      3 BEGIN
: 397      0395      3
: 398      0396      3     Should not be here
: 399      0397      3
: 400      0398      3 DUMP_LOG_FILE (.BUFFER_DESC, %ASCID 'request to cancel not found');
: 401      0399      3 END
: 402      0400      3 ELSE
: 403      0401      3 BEGIN
: 404      0402      3
: 405      0403      3     Inform all interested operators that the request is canceled.
: 406      0404      3     Log the cancelation notice, and release the RQCB from the remote node.
: 407      0405      3
: 408      0406      3 NOTIFY_LISTED_OPERATORS (.RQCB);           ! Notify the interested operators
: 409      0407      3 LOG MESSAGE (.RQCB);                   ! Log the event
: 410      0408      3 DEALLOCATE_RQCB (.RQCB);
: 411      0409      3
: 412      0410      3     Remove the request from the data base.
: 413      0411      3
: 414      0412      3 REMOVE (.RQST_RQCB, RQCB);           ! Remove the request from the database
: 415      0413      3 OCD = .RQST_RQCB [RQCB_L_OCD];       ! Get the OCD address
: 416      0414      3 OCD [OCD_W_RQSTCOUNT] = .OCD [OCD_W_RQSTCOUNT] - 1;
: 417      0415      3 END;
: 418      0416      3
: 419      0417      3     Get rid of the RQCB
: 420      0418      3
: 421      0419      3 DEALLOCATE_RQCB (.RQCB);
: 422      0420      3
: 423      0421      3 END;

```

! End of CANCEL\_CLM\_HANDLER

```

: 73 69 6D 20 4C 45 43 4E 41 43 5F 5F 4D 4C 43 0000 P.AAB: .ASCII \CLM__CANCEL mismatch\
: 68 63 74 61 6D 0000F
: 010E0014 00014 P.AAA: .LONG 17694740
: 00000000' 00018 .ADDRESS P.AAB
: 63 6E 61 63 20 6F 74 20 74 73 65 75 71 65 72 0001C P.AAD: .ASCII \request to cancel not found\<0>
: 00 64 6E 75 6F 66 20 74 6F 6E 20 6C 65 0002B
: 010E001B 00038 P.AAC: .LONG 17694747
: 00000000' 0003C .ADDRESS P.AAD

: .EXTRN ASCID_INVALIDRQCB
: .PSECT $CODE$,NOWRT,2
: .ENTRY CANCEL_CLM_HANDLER, Save R2,R3,R4,R5,R6,R7 : 0280
:   SUBL2 #4, SP
:   MOVL CLM, R2 : 0334
:   CMPB 2(R2), #2
:   BEQL 1$
:   PUSHAB P.AAA : 0336
:   BRB 2$
:   PUSHR #*M<R2, SP> : 0340
:   CALLS #2, CLUSMSG_CONV_CLM_RQCB
:   BLBS R0, 3$
:   PUSHAB ASCID_INVALIDRQCB : 0342

```

0000G	CF		04	AC	DD	00025	2\$:	PUSHL	BUFFER_DESC	:	
				02	FB	00028		CALLS	#2, DUMP_LOG_FILE	:	
					04	0002D		RET		:	
				55	D4	0002E	3\$:	CLRL	FOUND	:	0350
	50	00000000G		8F	DO	00030		MOVL	#MAX_SCOPE, OCD_INDEX	:	0351
	53			6E	DO	00037		MOVL	RQCB, R3	:	0371
	69			55	EB	0003A	4\$:	BLBS	FOUND, 11\$	:	0352
	00000000G			50	D1	0003D		CML	OCD_INDEX, #MIN_SCOPE	:	
				4F	19	00044		BLSS	10\$	:	
51	50			01	78	00046		ASHL	#1, OCD_INDEX, R1	:	0357
	52			41	DO	0004A		MOVL	OCD_VECTOR-8[R1], OCD	:	
	57			41	DO	00050		MOVL	OCD_VECTOR-4[R1], OCD_COUNT	:	0358
	38			55	EB	00056	5\$:	BLBS	FOUND, 9\$	:	0359
				57	D5	00059		TSTL	OCD_COUNT	:	
				34	15	0005B		BLEQ	9\$	:	
	56			3A	A2	3C	0005D	MOVZWL	58(OCD), RQST_COUNT	:	0364
	54			3C	A2	DO	00061	MOVL	60(OCD), RQST_RQCB	:	0365
	22			55	EB	00065	6\$:	BLBS	FOUND, 8\$	:	0366
				56	D5	00068		TSTL	RQST_COUNT	:	
				1E	15	0006A		BLEQ	8\$	:	
	2E	A4		2E	A3	B1	0006C	CMPL	46(R3), 46(RQST_RQCB)	:	0371
				10	12	00071		BNEQ	7\$	:	
	64	A4		64	A3	D1	00073	CMPL	100(R3), 100(RQST_RQCB)	:	0372
				09	12	00078		BNEQ	7\$	:	
				01	DO	0007A		MOVL	#1, FOUND	:	0375
	24	A3		52	DO	0007D		MOVL	OCD, 36(R3)	:	0376
				E2	11	00081		BRB	6\$	:	0371
				56	D7	00083	7\$:	DECL	RQST_COUNT	:	0380
	54			64	DO	00085		MOVL	(RQST_RQCB), RQST_RQCB	:	0381
				DB	11	00088		BRB	6\$	:	0366
				57	D7	0008A	8\$:	DECL	OCD_COUNT	:	0384
				62	DO	0008C		MOVL	(OCD), OCD	:	0385
				C5	11	0008F		BRB	5\$	:	0359
				50	D7	00091	9\$:	DECL	OCD_INDEX	:	0387
				A5	11	00093		BRB	4\$	:	0352
				55	EB	00095	10\$:	BLBS	FOUND, 11\$	:	0392
				CF	9F	00098		PUSHAB	P.AAC	:	0398
				04	AC	DD	0009C	PUSHL	BUFFER_DESC	:	
	0000G	CF		02	FB	0009F		CALLS	#2, DUMP_LOG_FILE	:	
				1F	11	000A4		BRB	12\$	:	0392
				53	DD	000A6	11\$:	PUSHL	R3	:	0406
	0000G	CF		01	FB	000A8		CALLS	#1, NOTIFY_LISTED_OPERATORS	:	
				53	DD	000AD		PUSHL	R3	:	0407
	0000G	CF		01	FB	000AF		CALLS	#1, LOG_MESSAGE	:	
				53	DD	000B4		PUSHL	R3	:	0408
	0000G	CF		01	FB	000B6		CALLS	#1, DEALLOCATE_RQCB	:	
				6E	OF	000BB		REMQUE	(RQST_RQCB), RQCB	:	0412
				52	A4	DO	000BE	MOVL	36(RQST_RQCB), OCD	:	0413
				3A	A2	B7	000C2	DECW	58(OCD)	:	0414
				6E	DD	000C5	12\$:	PUSHL	RQCB	:	0419
	0000G	CF		01	FB	000C7		CALLS	#1, DEALLOCATE_RQCB	:	
				04	000CC			RET		:	0421

; Routine Size: 205 bytes, Routine Base: \$CODE\$ + 013F

OPC\$CANCEL  
V04-000

N 1  
16-Sep-1984 01:17:58  
14-Sep-1984 12:50:36

VAX-11 Bliss-32 V4.0-742  
DISK\$VM\$MASTER:[OPCOM.SRC]CANCEL.B32;1 (4) Page 13

: 425 0422 1 END  
: 426 0423 0 ELUDOM

! End of CANCEL

PSECT SUMMARY

Name	Bytes	Attributes
\$CODE\$	524	NOVEC,NOWRT, RD, EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)
\$PLI\$	64	NOVEC,NOWRT, 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	8	0	1000	00:01.8
\$255\$DUA28:[OPCOM.OBJ]OPCOMLIB.L32;1	633	22	3	43	00:00.9

COMMAND QUALIFIERS

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

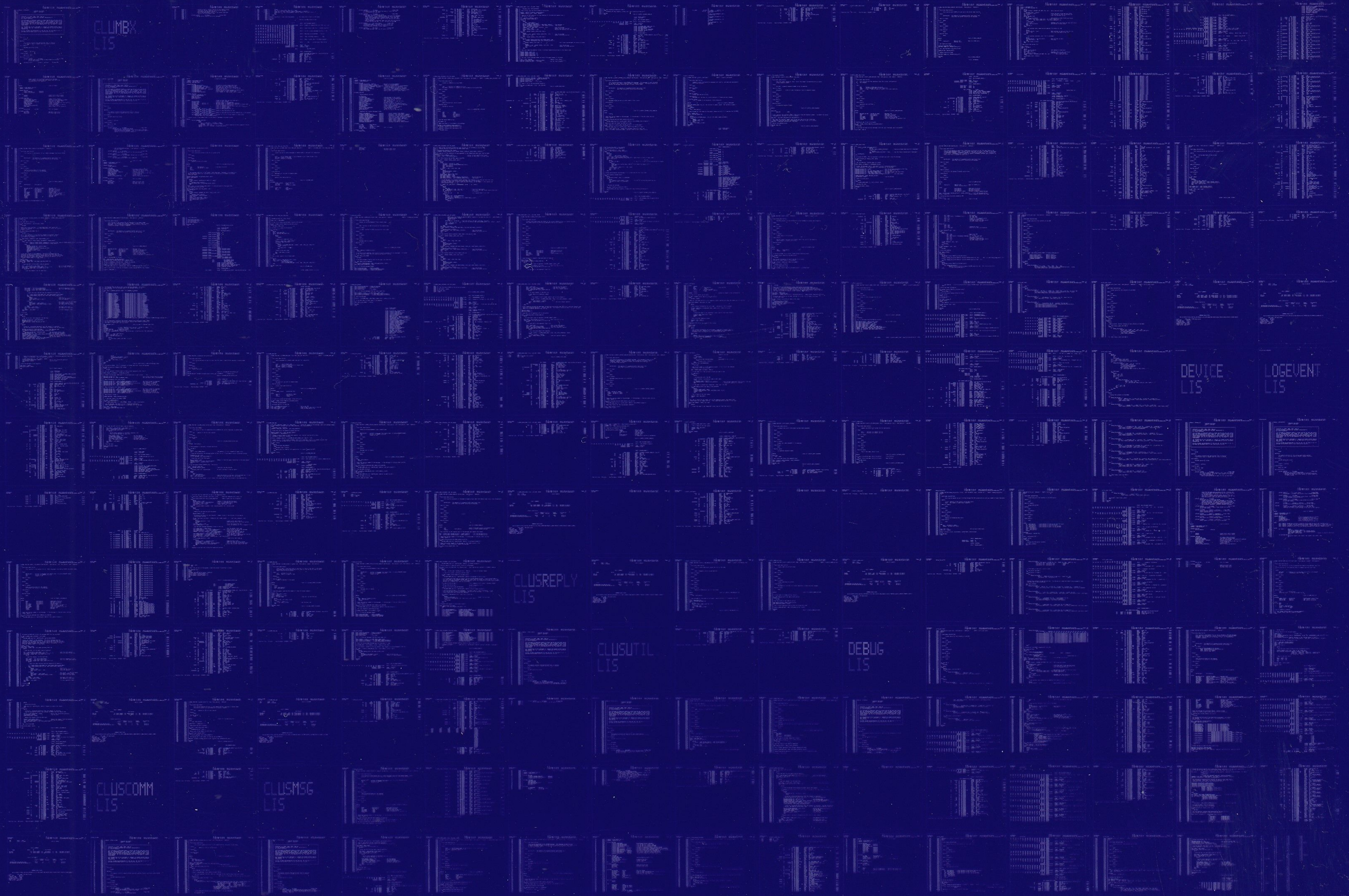
: Size: 524 code + 64 data bytes  
: Run Time: 00:13.2  
: Elapsed Time: 00:47.0  
: Lines/CPU Min: 1930  
: Lexemes/CPU-Min: 1300  
: Memory Used: 132 pa  
: Compilation Complete

This image displays a grid of 160 VAX/VMS terminal screens, arranged in 10 rows and 16 columns. Each screen shows a different system utility or diagnostic tool. The most prominent titles visible on the screens include:

- NPARSE LIS**: Located in the top row, 5th column.
- OPCOM**: Located in the second row, 5th column.
- OPCOMLIB B32**: Located in the fourth row, 7th and 8th columns.
- ALLOCATE LIS**: Located in the fourth row, 9th column.
- OPCOMDEF SDL**: Located in the sixth row, 7th and 8th columns.
- OPCOM MAP**: Located in the eighth row, 5th column.
- OPCOMDEF TMP SDL**: Located in the eighth row, 7th and 8th columns.
- CANCEL LIS**: Located in the tenth row, 9th column.

Other visible titles and content include 'REQUEST MAP', 'REPLY MAP', 'NMLXFER LIS', 'NMLV2STA LIS', 'NMLZERO LIS', 'NPARSER', 'OPCRASH MAP', and various command-line interfaces with status indicators and data listings. The screens are densely packed with text, representing a comprehensive set of system management and diagnostic utilities.





DEVICE LIS  
LOGEVENT LIS

CLUSREPLY LIS

CLUSUTIL LIS

DEBUG LIS

CLUSCOMM LIS

CLUSMSG LIS