



```
CCCCCCCC 000000 BBBB8888 111111 000000 EEEEEEEEEE XX XX CCCCCCCC EEEEEEEEEE
CCCCCCCC 000000 000000 88888888 111111 000000 000000 EEEEEEEEEE XX XX CC CCCCCCCC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CC 00 00 BB BB 11 00 00 EE XX XX CC CC EEEEEEEEEE
CCCCCCCC 000000 BBBB8888 111111 000000 000000 EEEEEEEEEE XX XX CCCCCCCC EEEEEEEEEE
CCCCCCCC 000000 000000 88888888 111111 000000 000000 EEEEEEEEEE XX XX CC CCCCCCCC EEEEEEEEEE
LL 111111 SSSSSSSS
LL 111111 SSSSSSSS
LL 11 SS
LL 11 SS
LL 11 SS
LL 11 SS
LL 11 SSSSSS
LL 11 SSSSSS
LL 11 SS
LL 11 SS
LL 11 SS
LL 11 SS
LLLLLLLLLLLL 111111 SSSSSSSS
LLLLLLLLLLLL 111111 SSSSSSSS
```

```

1 0001 0 MODULE COB$IOEXCEPTION(
2 0002 0 IDENT = '1-039' ! file:COBIOEXCE.B32 EDIT:BM1039
3 0003 0 ) =
4 0004 1 BEGIN
5 0005 1
6 0006 1 *****
7 0007 1 *
8 0008 1 * COPYRIGHT (c) 1978, 1980, 1982, 1984 BY *
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28 0028 1
29 0029 1 **
30 0030 1 FACILITY: COBOL SUPPORT
31 0031 1
32 0032 1 ABSTRACT:
33 0033 1
34 0034 1 This procedure is called to process a wide variety of I/O
35 0035 1 exceptions. Depending on the nature of the exception, it sets the
36 0036 1 file status variable, causes USE procedures to be invoked and
37 0037 1 signals errors.
38 0038 1
39 0039 1
40 0040 1 ENVIRONMENT: Vax-11 User Mode
41 0041 1
42 0042 1 AUTHOR: MLJ , CREATION DATE: 02-MAY-1979
43 0043 1
44 0044 1 MODIFIED BY:
45 0045 1
46 0046 1 1-001 - Original. MLJ 02-MAY-1979
47 0047 1 1-002 - Added boilerplate and comments. RKR 22-AUG-1979
48 0048 1 1-003 - Redesigned control tables to allow additional checking on
49 0049 1 status of state variables -- option file errors and repeated
50 0050 1 EOF error mechanisms. RKR 10-SEPT-1979
51 0051 1 1-004 - Added additional statuses (RMSS FAB and RMSS RAB) to control
52 0052 1 tables and delete explicit checks for "FNO" flag.
53 0053 1 RKR 12-SEPT-79
54 0054 1 1-005 - Complete revamp of action codes in control table RKR 13-SEPT-79
55 0055 1 1-006 - Added FAC error codes to READ S S and READ R S control tables
56 0056 1 RKR 18-SEPT-79
57 0057 1 1-007 - Fetch COBDEF from RTLIN rather than LIB$. RKR 18-SEPT-79

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- 58 0058 1 1-008 - Add COB\$K\_EXC\_CLORS to SET. RKR 18-SEP-79
- 59 0059 1 1-009 - Fix encoding and decoding of error messages. RKR 19-SEPT-79
- 60 0060 1
- 61 0061 1 1-010 - Add logic to discriminate between COB\$\_REASMMIN, COB\$\_WRISMAMIN, and COB\$\_REWSMAMIN.
- 62 0062 1 RKR 25-SEPT-79
- 63 0063 1 1-011 - Added diagnostic for unexpected situation in which a RMS
- 64 0064 1 success code is encountered. RKR 26-SEPT-79
- 65 0065 1 1-012 - Change symbolic name of LIBRARY file. RKR 1-OCT-79
- 66 0066 1 1-013 - Make it use COB\$\$\$INVOKE\_USE instead of COB\$INVOKE\_USE
- 67 0067 1 RKR 1-OCT-79
- 68 0068 1 1-014 - Stop outputting the COB\$\_NO\_USEPRO error message since it
- 69 0069 1 contains no information which is not also contained in
- 70 0070 1 the subsequent more specific message.
- 71 0071 1 Add entry to CLOSE\_T to try to catch a CLOSE REEL operation
- 72 0072 1 to an inappropriate device. If operation is close and error
- 73 0073 1 status is RMSS\_IOP, SUCCEED with FILESTAT of '00'.
- 74 0074 1 RKR 1-OCT-79
- 75 0075 1 1-015 - Add special case for COB\$K\_EXC\_ORG. RKR 04-OCT-79
- 76 0076 1 1-016 - Use max and mins from REQUIRE file, add new table and new
- 77 0077 1 state for CLOSE REEL, cosmetic changes, bugchecks at
- 78 0078 1 empty [INRANGE] statements.
- 79 0079 1 RKR 20-OCT-79
- 80 0080 1 1-017 - Cosmetic changes. 21-OCT-79
- 81 0081 1 1-018 - Rearrange statuses for tables CLOSE\_T and CLOSEREEL\_S\_S\_T.
- 82 0082 1 RKR 29-OCT-79
- 83 0083 1 1-019 - Add comments. RKR 05-NOV-79
- 84 0084 1 1-020 - Change resulting file status and action codes for
- 85 0085 1 RMSS\_OK\_RLK for read actions. RKR 08-NOV-79
- 86 0086 1 1-021 - Change some table entries dealing with creating of
- 87 0087 1 duplicate keys. RKR 11-NOV-79
- 88 0088 1 1-022 - Added comments and made cosmetic changes. LB 3-MAR-81
- 89 0089 1 1-023 - Changed code that checked the value of FP; if zero, a call
- 90 0090 1 is now made to SIGNAL\_STOP indicating a fatal internal error.
- 91 0091 1 Also, code was taken out that checked if the current handler
- 92 0092 1 was COB\$HANDLER; this is not a catch-all check since a user
- 93 0093 1 can establish his/her own error handler. Also, added more
- 94 0094 1 comments. LB 05-MAR-81
- 95 0095 1 1-024 - Replaced arbitrary signalling values for USE procedure code
- 96 0096 1 with appropriate symbol names now defined in COBMSGDEF.
- 97 0097 1 Added corresponding entries in the EXTERNAL LITERAL
- 98 0098 1 declarations for this module. LB 24-MAR-81
- 99 0099 1 1-025 - Changed external literal for no use procedure on open mode entry
- 100 0100 1 and added an external literal for lost handler for file specific
- 101 0101 1 entry to correspond with changes made to COBMSG.MDL. Changed
- 102 0102 1 calls to LIB\$SIGNAL to use SIGNAL for consistency reasons.
- 103 0103 1 Optimized code by encasing calls to SIGNAL\_STOP in BEGIN-END
- 104 0104 1 blocks. Changed the calls to SIGNAL to now take an FAO
- 105 0105 1 parameter (as is syntactically correct) even though the
- 106 0106 1 parameter that is getting passed to the handler is not an
- 107 0107 1 FAO parameter (note that the !+ directive in the error message
- 108 0108 1 text will ignore it). LB 16-APR-81
- 109 0109 1 1-026 - Deleted the external literals COB\$\_LSTHNDLOP and COB\$\_LSTHNDLFL
- 110 0110 1 and added COB\$\_LSTHNDUSE. This was done as a result of a change
- 111 0111 1 made in COBOL regarding the scoping rules for USE procedures.
- 112 0112 1 Changed code in the area of loading up the resultant string
- 113 0113 1 descriptor to facilitate the added functionality of RMS special
- 114 0114 1 registers within COBOL. The code now loads the actual string from

115	0115	1	
116	0116	1	
117	0117	1	
118	0118	1	
119	0119	1	
120	0120	1	
121	0121	1	
122	0122	1	
123	0123	1	
124	0124	1	
125	0125	1	
126	0126	1	1-027 -
127	0127	1	
128	0128	1	
129	0129	1	
130	0130	1	
131	0131	1	
132	0132	1	
133	0133	1	1-028 -
134	0134	1	
135	0135	1	
136	0136	1	1-029 -
137	0137	1	
138	0138	1	
139	0139	1	1-030 -
140	0140	1	
141	0141	1	
142	0142	1	
143	0143	1	1-031 -
144	0144	1	
145	0145	1	
146	0146	1	1-032 -
147	0147	1	
148	0148	1	
149	0149	1	
150	0150	1	1-033 -
151	0151	1	
152	0152	1	
153	0153	1	1-034 -
154	0154	1	
155	0155	1	1-035 -
156	0156	1	1-036 -
157	0157	1	
158	0158	1	1-037 -
159	0159	1	
160	0160	1	
161	0161	1	
162	0162	1	
163	0163	1	1-038 -
164	0164	1	
165	0165	1	
166	0166	1	
167	0167	1	
168	0168	1	
169	0169	1	
170	0170	1	1-039 -
171	0171	1	

the FAB into the resultant string area within the NAM block in the case where the name block string length and extended string length equal zero. Changed code that searched for USE procedures. A single condition is now signalled in the case where there are applicable USE procedures (but cannot be seen within this level of code) and an additional parameter is included in the signal (it now takes the entry point of a file specific USE procedure or 0 if none as well as the entry point of an open mode specific USE procedure or 0 if none). Also, the final action code was removed from each of the separate blocks of search code for USE procedures and moved to a single place outside of those blocks of code. LB 21-APR-81.

1-027 - Added code in success status checkout code for reads, which will take care of an unreported bug that exists in both the V1.0 and V2.0 versions of the COBOL compiler. The code now further checks if the RMS\_STS code indicates a file that (soft) record locked. If so, it sets the FILESTAT to 90 (instead of 0) and sets the ACTION to CONTINUE (instead of SUCCEED). Also caused the read entries in THE table for RMSS\_OK\_RLK to be removed. LB 30-APR-81.

1-028 - Added code following the call to COB\$\$INVOKE USE to check the ACTION code. This code was added as a result of the current code falling through into code that would signal an error. LB 14-MAY-81

1-029 - Added a check before calling SIGNAL for ensuring that OPEN\_MD\_ADDR and FILE\_ADDR are not equal to zero (making sure that USE procedures do indeed exist before signalling). LB 29-JUN-81.

1-030 - Added COB\$ KEYNOTMAT. Also, moved setting of ERR MSG\_NUM slightly to allow BLISS to do more omega motion. Use PLIT\_TABLE, and remove case statement to access correct action table. Rename PLITs consistently. Use common action tables. PDG 24-JUL-81

1-031 - Added support for manual record locking.  
Error messages: COB\$K\_RECNOTLOC and COB\$K\_UNLUNOFIL  
UNL T table AND modification to PLIT\_TABLE bh 28-jul-81

1-032 - Added code to move the COBOL condition value to RAB[RMSS STS/STV] if the error is a non-RMS error (alternately, an error that is detected by compiled code). This allows the RMS-STV values to be meaningful within a USE procedure. PDG 7-AUG-81.

1-033 - Corrected the action code associated with RECNOTLOC to be SUCCEED, and changed the file status to '00'.  
PDG 18-Aug-1981.

1-034 - Added support for UNLOCK in non-automatic record locking mode.  
BH 29-Oct-1981.

1-035 - Added LIB\$STOP as external routine. LB 30-NOV-81

1-036 - Changed UNL T table entries for the RMS ISI and RAB codes from GOTO to ABORT. LB 1-DEC-81

1-037 - Changed REA\_R\_R, DEL\_R\_R, REW\_R\_R, STA\_R\_S table entries to include RMSS\_MRN. Error is treated the same as RMSS\_RNF. Did NOT Remove equates of Indexed and Relative table for REA\_?\_R, DEL\_?\_R, REW\_?\_R, STA\_?\_S because MRN is not applicable to indexed files and the condition should not occur; so we save table size. bh 10-AUG-82

1-038 - Add ANSI74 argument and some ANSI74 code (change file status 13, 15, and 16 to file status 10). Without the ANSI74 argument there is no change to the file status values (13, 15, and 16). This allows VAX-11 COBOL Version 2 and Version 3 compatibility. With the ANSI74 argument file status values 13, 15, and 16 are all changed to 10. This allows VAX-11 COBOL to pass Validation with no file status errors. CR 5-OCT-82

1-039 - Added error handling for previous IO was NOT successful READ for DELETE and START statements. Added error COB\$REAMP\_D\_R. Updated

COB\$IOEXCEPTION  
1-039

M 8  
16-Sep-1984 00:09:47 VAX-11 Bliss-32 V4.0-742  
14-Sep-1984 12:10:48 [COBRTL.SRC]COBIOEXCE.B32;1

Page 4  
(1)

```
: 172      0172  1  !      COB$K_EXC_MAXM to 7 (also comments). Added COB$K_EXC_PIO code.  
: 173      0173  1  !  
: 174      0174  1  !--  
: 175      0175  1  
: 176      0176  1  !<BLF/PAGE> -BH 1-SEP-83
```

```

178 0177 1 !+
179 0178 1 ! SWITCHES
180 0179 1 !-
181 0180 1
182 0181 1 SWITCHES ADDRESSING_MODE (EXTERNAL = GENERAL, NONEXTERNAL = WORD_RELATIVE);
183 0182 1
184 0183 1 !+
185 0184 1 ! LINKAGES
186 0185 1 ! NONE
187 0186 1 !-
188 0187 1
189 0188 1 !++
190 0189 1 ! TABLE OF CONTENTS:
191 0190 1 !-
192 0191 1
193 0192 1 FORWARD ROUTINE
194 0193 1 COB$IOEXCEPTION ;
195 0194 1
196 0195 1 !+
197 0196 1 ! INCLUDE FILES
198 0197 1 !-
199 0198 1
200 0199 1 REQUIRE 'RTLIN:COBDEF'; ! COBOL specific RTL macros and literals
201 0641 1 REQUIRE 'RTLIN:RTLPSECT' ; ! Macros for defining psects
202 0736 1 LIBRARY 'RTLSTARLE'; ! RTL routines
203 0737 1
204 0738 1 !+
205 0739 1 ! MACROS
206 0740 1 !-
207 0741 1
208 0742 1 MACRO
209 0743 1
210 0744 1 !+
211 0745 1 ! Field definitions for table.
212 0746 1 !-
213 0747 1
214 0748 1 TAB_STATUS= 0.0.32.0 % ! RMS status code (or 0)
215 0749 1 TAB_FILESTAT= 4.0.16.0 % ! COBOL file status
216 0750 1 TAB_ACTION= 6.0.8.0 % ! Type of recovery action
217 0751 1 TAB_ERR_NO= 7.0.8.0 % ! COB$ facility error number
218 0752 1 TAB_TST_STATE= 8.0.8.0 % ! Optional state to test
219 0753 1 TAB_SET_STATE= 9.0.8.0 % ! Optional state to set
220 0754 1
221 0755 1 !+
222 0756 1 ! Macro to make table entries.
223 0757 1 !-
224 0758 1
225 M 0759 1 Z[A,B,C,D,E,F]=
226 0760 1 LONG(A), WORD(B), BYTE(C), BYTE((D-COB$NO_USEPRO)^-3), BYTE(E), BYTE(F) %;
227 0761 1
228 0762 1 !+
229 0763 1 ! EQUATED SYMBOLS
230 0764 1 !-
231 0765 1
232 0766 1 LITERAL
233 0767 1
234 0768 1 MIN_STATE = 0, ! Minimum state variable

```

```

235 0769 1
236 0770 1
237 0771 1
238 0772 1
239 0773 1
240 0774 1
241 0775 1
242 0776 1
243 0777 1
244 0778 1
245 0779 1
246 0780 1
247 0781 1
248 0782 1
249 0783 1
250 0784 1
251 0785 1
252 0786 1
253 0787 1
254 0788 1
255 0789 1
256 0790 1
257 0791 1
258 0792 1
259 0793 1
260 0794 1
261 0795 1
262 0796 1
263 0797 1
264 0798 1
265 0799 1
266 0800 1
267 0801 1
268 0802 1
269 0803 1
270 0804 1
271 0805 1
272 0806 1
273 0807 1
274 0808 1
275 0809 1
276 0810 1
277 0811 1
278 0812 1
279 0813 1
280 0814 1
281 0815 1
282 0816 1
283 0817 1
284 0818 1

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```

NULL = 0 .           ! No special action
OPTF = 1 .           ! Optional file
OFNP = 2 .           ! Optional file not present (OPEN couldn't find)
NNVR = 3 .           ! No next valid record (already seen EOF)

MAX_STATE = 3.      ! Maximum state variable

!+
! Size of table entry.
!-

TAB_S_ENTRY= 10.

!+
! Values of ACTION.           Resulting behavior
!-

ABORT= 0.
!+
! If an applicable USE procedure is present,
! then invoke the USE procedure followed by
! continuing at the "next statement" (i.e.
! RETURN 0;
! Otherwise, LIBSTOP with appropriate error
! signal.

GOTO= 1.
!+
! If an exception label is present, goto
! exception label;
! Otherwise handle like class ABORT.

CONTINUE= 2.
!+
! If an applicable USE procedure is present,
! then invoke USE procedure followed by
! continuing "immediately" (i.e. RETURN 1);
! Otherwise, continue "immediately"
! (i.e. RETURN 1)

SUCCEED= 3;
!+
! The COBOL I/O statement is successful in
! every respect. Therefore, continue
! "immediately" (i.e. RETURN 1) after updating
! file status variable (if present).
!-

```



```

286 0819 1  !+
287 0820 1  ! PSECT DECLARATIONS:
288 0821 1  !-
289 0822 1
290 0823 1  DECLARE_PSECTS (COB) ;           ! Declare psects for COB$ facility
291 0824 1
292 0825 1  !+
293 0826 1  ! EXTERNAL REFERENCES
294 0827 1  !-
295 0828 1
296 0829 1  EXTERNAL ROUTINE
297 0830 1      LIB$STOP:NOVALUE,           ! Signal fatal error
298 0831 1      COB$HANDLER:              ! COBOL exception handler
299 0832 1      COB$$INVOKE_USE:'NOVALUE;  ! Invoke USE procedure
300 0833 1
301 0834 1  EXTERNAL LITERAL
302 0835 1      COB$_NO_USEPRO,           ! No USE procedure available for error on file !AS
303 0836 1      COB$_ERRON_FIL,          ! Error on file !AS
304 0837 1      COB$_OPTMISOPE,         ! Optional file !AS missing on OPEN
305 0838 1      COB$_FILALRLOC,         ! File !AS is already locked
306 0839 1      COB$_FILALROPE,         ! File !AS is already open
307 0840 1      COB$_FILCLOLOC,        ! File !AS is closed with LOCK
308 0841 1      COB$_NO_SPACE,          ! No filespace on device for file !AS
309 0842 1      COB$_FI[NOTFOU,        ! File !AS not found on OPEN
310 0843 1      COB$_OPTMISCLO,        ! Optional file !AS missing on CLOSE
311 0844 1      COB$_FILALRCLO,        ! File !AS already closed
312 0845 1      COB$_NO_NEXLOG,        ! No next logical record on file !AS
313 0846 1      COB$_OPTMISREA,        ! Optional file !AS missing on READ
314 0847 1      COB$_NO_NEXVAL,        ! No next valid record on file !AS
315 0848 1      COB$_RECLOCREA,        ! Record on file !AS is already locked (READ attempt)
316 0849 1      COB$_RECLOC OK,        ! Record on file !AS already locked, but ok
317 0850 1      COB$_REAUNOFIL,        ! Attempting READ on unopened file !AS
318 0851 1      COB$_REAINCOPE,        ! READ on file !AS incompatible with OPEN mode
319 0852 1      COB$_WRIBEYBOU,        ! Attempting WRITE beyond boundaries of file !AS
320 0853 1      COB$_WRIUNOFIL,        ! Attempting WRITE on unopened file !AS
321 0854 1      COB$_WRIINCOPE,        ! WRITE on file !AS incompatible with OPEN mode
322 0855 1      COB$_REWNO R S,        ! Attempting REWRITE on file !AS with no previous READ or START
323 0856 1      COB$_REWUNOFIL,        ! Attempting REWRITE on unopened file !AS
324 0857 1      COB$_REWINCOPE,        ! REWRITE on file !AS incompatible with OPEN mode
325 0858 1      COB$_RECNOTEXI,        ! Record does not exist on file !AS
326 0859 1      COB$_OPTMISSTA,        ! Optional file !AS missing on START
327 0860 1      COB$_RECLOCSTA,        ! Record on file !AS is already locked (START attempt)
328 0861 1      COB$_STAUNOFIL,        ! Attempting START on unopened file !AS
329 0862 1      COB$_STAINCOPE,        ! START on file !AS incompatible with OPEN mode
330 0863 1      COB$_RECLOCWRI,        ! Record on file !AS is already locked (WRITE attempt)
331 0864 1      COB$_RECLOCDEL,        ! Record on file !AS is already locked (DELETE attempt)
332 0865 1      COB$_DELNO R S,        ! Attempting DELETE on file !AS without previous READ or START
333 0866 1      COB$_DELUNOFIL,        ! Attempting DELETE on unopened file !AS
334 0867 1      COB$_DELINCOPE,        ! DELETE on file !AS incompatible with OPEN mode
335 0868 1      COB$_RECLOCREW,        ! Record on file !AS is already locked (REWRITE attempt)
336 0869 1      COB$_WRIDUPKEY,        ! Attempting WRITE of duplicate key in file !AS
337 0870 1      COB$_WRICREDUP,        ! WRITE created an allowed duplicate alternate key on file !AS
338 0871 1      COB$_WRINOTASC,        ! Attempting to WRITE non-ascending ISAM key on file !AS
339 0872 1      COB$_WRIDUPALT,        ! Attempting to WRITE duplicate alternate key on file !AS
340 0873 1      COB$_REWCREDUP,        ! REWRITE created an allowed duplicate alternate key on file !AS
341 0874 1      COB$_PRIKEYCHA,        ! Primary record key on file !AS changed between READ and REWRITE
342 0875 1      COB$_REWDISDUP,        ! Attempting to REWRITE disallowed duplicate key on file !AS

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..	343	0876	1	COB\$_WRIDISDUP,	!	Attempting to WRITE disallowed duplicate key on file !AS
..	344	0877	1	COB\$_REASMAMIN,	!	Attempting READ of variable length smaller than minimum allowed from file !AS
..	345	0878	1	COB\$_WRISMAMIN,	!	Attempting WRITE of variable length smaller than minimum allowed to file !AS
..	346	0879	1	COB\$_REWSMAMIN,	!	Attempting REWRITE of variable length smaller than minimum allowed to file !AS
..	347	0880	1	COB\$_ORGNOTMAT,	!	Attempting to open file whose organization does
..	348	0881	1			not match access mode
..	349	0882	1	COB\$_INVARG,	!	Invalid arguments
..	350	0883	1	COB\$_LSTHNDUSE,	!	Lost handler for a USE procedure - environment corrupted !2(+)
..	351	0884	1	COB\$_KEYNOTMAT,	!	Attempting to open indexed file with keys whose description
..	352	0885	1			does not match those expected
..	353	0886	1	COB\$_RECNOTLOC,	!	Record not locked in file !AS (UNLOCK attempt)
..	354	0887	1	COB\$_UNLUNOFIL,	!	Attempting UNLOCK on unopened file !AS
..	355	0888	1	COB\$_UNLNO_CUR,	!	Attempting UNLOCK on file !AS with no current record
..	356	0889	1	COB\$_REAMP_D R,	!	READ must precede DELETE or REWRITE in sequential access mode
..	357	0890	1	OTSS\$_FATINTERR;	!	Condition value
..	358	0891	1			
..	359	0892	1			

361 0893 1  
362 0894 1  
363 0895 1  
364 0896 1  
365 0897 1  
366 0898 1  
367 0899 1  
368 0900 1  
369 0901 1  
370 0902 1  
371 0903 1  
372 0904 1  
373 0905 1  
374 0906 1  
375 0907 1  
376 0908 1  
377 0909 1  
378 0910 1  
379 0911 1  
380 0912 1  
381 0913 1  
382 0914 1  
383 0915 1  
384 0916 1  
385 0917 1  
386 0918 1  
387 0919 1  
388 P 0920 1  
389 P 0921 1  
390 P 0922 1  
391 P 0923 1  
392 P 0924 1  
393 0925 1  
394 0926 1  
395 P 0927 1  
396 P 0928 1  
397 P 0929 1  
398 P 0930 1  
399 0931 1  
400 0932 1  
401 P 0933 1  
402 P 0934 1  
403 P 0935 1  
404 P 0936 1  
405 P 0937 1  
406 P 0938 1  
407 0939 1  
408 0940 1  
409 P 0941 1  
410 P 0942 1  
411 P 0943 1  
412 P 0944 1  
413 P 0945 1  
414 P 0946 1  
415 P 0947 1  
416 P 0948 1  
417 0949 1

The following table contains the logic which drives a large portion of this program. During a table look-up, a match is found first on the RMS status code and on the State-to-test field. When a match is found, the State-to-set is set if non-zero, the file status becomes the file status returned to the users file status variable. Action code controls the flow through the code and the error message is the one signalled if the user has not provided a USE procedure to deal with the problem.

Each table must end with an entry that has a 0 for the RMS status code. This forms a default termination for the table lookup.

If the action code is SUCCEED, the Associated Error Message in the table is academic since it is never signaled.

The following tables contain information as follows:

RMS status code	File Status	ACTION code	Associated Error msg	State to test	State to set
-----------------	-------------	-------------	----------------------	---------------	--------------

BIND

```

BASE = UPLIT(REP 0 OF (0)),
OPE_T = UPLIT BYTE(Z(
  RMSS_FUL, '95', ABORT, COB$_NO_SPACE, 0, 0,
  RMSS_FNF, '05', CONTINUE, COB$_OPTMISOPE, OPTF, OFNP,
  RMSS_FNF, '97', ABORT, COB$_FILNOTFOU, 0, 0,
  RMSS_FLK, '91', ABORT, COB$_FILALRLOC, 0, 0,
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),
CLO_T = UPLIT BYTE(Z(
  RMSS_IFI, '00', SUCCEED, COB$_OPTMISCLO, OFNP, 0,
  RMSS_IFI, '94', ABORT, COB$_FILALRCLO, 0, 0,
  RMSS_FAB, '94', ABORT, COB$_FILALRCLO, 0, 0,
  0, '98', ABORT, COB$_ERRON_FIL, 0, 0)),
CLR_S S T = UPLIT BYTE(Z(
  RMSS_ISI, '00', SUCCEED, COB$_OPTMISCLO, OFNP, 0,
  RMSS_ISI, '94', ABORT, COB$_FILALRCLO, 0, 0,
  RMSS_RAB, '94', ABORT, COB$_FILALRCLO, 0, 0,
  RMSS_IOP, '00', SUCCEED, COB$_NO_USEPRO, 0, 0,
  RMSS_EOF, '00', SUCCEED, COB$_NO_USEPRO, 0, 0,
  0, '98', ABORT, COB$_ERRON_FIL, 0, 0)),
REA_S S T = UPLIT BYTE(Z(
  RMSS_EOF, '16', GOTO, COB$_NO_NEXVAL, NNVR, 0,
  RMSS_EOF, '13', GOTO, COB$_NO_NEXLOG, 0, NNVR,
  RMSS_RLK, '92', ABORT, COB$_RECLOCREA, 0, 0,
  RMSS_ISI, '15', GOTO, COB$_OPTMISREA, OFNP, 0,
  RMSS_ISI, '94', ABORT, COB$_REAUNOFIL, 0, 0,
  RMSS_RAB, '94', ABORT, COB$_REAUNOFIL, 0, 0,
  RMSS_FAC, '94', ABORT, COB$_REAINCOPE, 0, 0,
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),
  
```

```
418 0950 1  
419 0951 1  
420 0952 1  
421 0953 1  
422 0954 1  
423 0955 1  
424 0956 1  
425 0957 1  
426 0958 1  
427 0959 1  
428 0960 1  
429 0961 1  
430 P 0962 1  
431 P 0963 1  
432 P 0964 1  
433 P 0965 1  
434 P 0966 1  
435 P 0967 1  
436 P 0968 1  
437 P 0969 1  
438 P 0970 1  
439 P 0971 1  
440 0972 1  
441 0973 1  
442 0974 1  
443 0975 1  
444 0976 1  
445 0977 1  
446 0978 1  
447 0979 1  
448 0980 1  
449 0981 1  
450 0982 1  
451 0983 1  
452 0984 1  
453 P 0985 1  
454 P 0986 1  
455 P 0987 1  
456 P 0988 1  
457 P 0989 1  
458 P 0990 1  
459 P 0991 1  
460 0992 1  
461 0993 1  
462 P 0994 1  
463 P 0995 1  
464 P 0996 1  
465 P 0997 1  
466 P 0998 1  
467 0999 1  
468 1000 1  
469 P 1001 1  
470 P 1002 1  
471 P 1003 1  
472 P 1004 1  
473 P 1005 1  
474 P 1006 1
```

```
REA_R_S_T = REA_S_S_T  
REA_R_S_T = UPLIT BYTE(Z(  
  RMS$ EOF, '16', GOTO, COB$_NO_NEXVAL, NNVR, 0,  
  RMS$ EOF, '13', GOTO, COB$_NO_NEXLOG, 0, NNVR,  
  RMS$ RLK, '92', ABORT, COB$_RECLOCREA, 0, 0,  
  RMS$ ISI, '15', GOTO, COB$_OPTMISREA, OFNP, 0,  
  RMS$ ISI, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ RAB, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ FAC, '94', ABORT, COB$_REAINCOPE, 0, 0,  
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),  
  
REA_R_R_T = UPLIT BYTE(Z(  
  RMS$ RNF, '23', GOTO, COB$_RECNOTEXI, 0, 0,  
  RMS$ MRN, '23', GOTO, COB$_RECNOTEXI, 0, 0,  
  RMS$ KEY, '23', GOTO, COB$_RECNOTEXI, 0, 0,  
  RMS$ KBF, '23', GOTO, COB$_ERRON_FIL, 0, 0,  
  RMS$ RLK, '92', ABORT, COB$_RECLOCREA, 0, 0,  
  RMS$ ISI, '25', GOTO, COB$_OPTMISREA, OFNP, 0,  
  RMS$ ISI, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ RAB, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ FAC, '94', ABORT, COB$_REAINCOPE, 0, 0,  
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),  
  
REA_I_S_T = REA_S_S_T  
REA_I_S_T = UPLIT BYTE(Z(  
  RMS$ EOF, '16', GOTO, COB$_NO_NEXVAL, NNVR, 0,  
  RMS$ EOF, '13', GOTO, COB$_NO_NEXLOG, 0, NNVR,  
  RMS$ RLK, '92', ABORT, COB$_RECLOCREA, 0, 0,  
  RMS$ ISI, '15', GOTO, COB$_OPTMISREA, OFNP, 0,  
  RMS$ ISI, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ RAB, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ FAC, '94', ABORT, COB$_REAINCOPE, 0, 0,  
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),  
  
REA_I_R_T = UPLIT BYTE(Z(  
  RMS$ RNF, '23', GOTO, COB$_RECNOTEXI, 0, 0,  
  RMS$ RLK, '92', ABORT, COB$_RECLOCREA, 0, 0,  
  RMS$ ISI, '25', GOTO, COB$_OPTMISREA, OFNP, 0,  
  RMS$ ISI, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ RAB, '94', ABORT, COB$_REAUNOFIL, 0, 0,  
  RMS$ FAC, '94', ABORT, COB$_REAINCOPE, 0, 0,  
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),  
  
WRI_S_S_T = UPLIT BYTE(Z(  
  RMS$ FUL, '34', ABORT, COB$_WRIBEYBOU, 0, 0,  
  RMS$ ISI, '94', ABORT, COB$_WRIUNOFIL, 0, 0,  
  RMS$ RAB, '94', ABORT, COB$_WRIUNOFIL, 0, 0,  
  RMS$ FAC, '94', ABORT, COB$_WRIINCOPE, 0, 0,  
  0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),  
  
WRI_R_S_T = UPLIT BYTE(Z(  
  RMS$ FUL, '24', GOTO, COB$_WRIBEYBOU, 0, 0,  
  RMS$ RLK, '92', ABORT, COB$_RECLOCWRI, 0, 0,  
  RMS$ ISI, '94', ABORT, COB$_WRIUNOFIL, 0, 0,  
  RMS$ RAB, '94', ABORT, COB$_WRIUNOFIL, 0, 0,  
  RMS$ FAC, '94', ABORT, COB$_WRIINCOPE, 0, 0,
```

```
475      1007 1      0,      '30',  ABORT,  COB$_ERRON_FIL,  0,  0)),
476      1008 1
477      P 1009 1      WRI_R R T = UPLIT BYTE(Z(
478      P 1010 1      RMS$ REX,   '22',  GOTO,  COB$_WRIDUPKEY,  0,  0,
479      P 1011 1      RMS$ FUL,   '24',  GOTO,  COB$_WRIBEYBOU,  0,  0,
480      P 1012 1      RMS$ KEY,   '24',  GOTO,  COB$_WRIBEYBOU,  0,  0,
481      P 1013 1      RMS$ RLK,   '92',  ABORT,  COB$_RECLOCWRI,  0,  0,
482      P 1014 1      RMS$ ISI,   '94',  ABORT,  COB$_WRIUNOFIL,  0,  0,
483      P 1015 1      RMS$ RAB,   '94',  ABORT,  COB$_WRIUNOFIL,  0,  0,
484      P 1016 1      RMS$ FAC,   '94',  ABORT,  COB$_WRIINCOPE,  0,  0,
485      1017 1      0,      '30',  ABORT,  COB$_ERRON_FIL,  0,  0)),
486      1018 1
487      P 1019 1      WRI_I S T = UPLIT BYTE(Z(
488      P 1020 1      RMS$ OK DUP, '02',  CONTINUE, COB$_WRICREDUP,  0,  0,
489      P 1021 1      RMS$ SEQ,   '21',  GOTO,  COB$_WRINOTASC,  0,  0,
490      P 1022 1      RMS$ DUP,   '22',  GOTO,  COB$_WRIDISDUP,  0,  0,
491      P 1023 1      RMS$ FUL,   '24',  GOTO,  COB$_WRIBEYBOU,  0,  0,
492      P 1024 1      RMS$ RLK,   '92',  ABORT,  COB$_RECLOCWRI,  0,  0,
493      P 1025 1      RMS$ ISI,   '94',  ABORT,  COB$_WRIUNOFIL,  0,  0,
494      P 1026 1      RMS$ RAB,   '94',  ABORT,  COB$_WRIUNOFIL,  0,  0,
495      P 1027 1      RMS$ FAC,   '94',  ABORT,  COB$_WRIINCOPE,  0,  0,
496      1028 1      0,      '30',  ABORT,  COB$_ERRON_FIL,  0,  0)),
497      1029 1
498      P 1030 1      WRI_I R T = UPLIT BYTE(Z(
499      P 1031 1      RMS$ OK DUP, '02',  CONTINUE, COB$_WRICREDUP,  0,  0,
500      P 1032 1      RMS$ DUP,   '22',  GOTO,  COB$_WRIDISDUP,  0,  0,
501      P 1033 1      RMS$ REX,   '22',  GOTO,  COB$_WRIDISDUP,  0,  0,
502      P 1034 1      RMS$ FUL,   '24',  GOTO,  COB$_WRIBEYBOU,  0,  0,
503      P 1035 1      RMS$ RLK,   '92',  ABORT,  COB$_RECLOCWRI,  0,  0,
504      P 1036 1      RMS$ ISI,   '94',  ABORT,  COB$_WRIUNOFIL,  0,  0,
505      P 1037 1      RMS$ RAB,   '94',  ABORT,  COB$_WRIUNOFIL,  0,  0,
506      P 1038 1      RMS$ FAC,   '94',  ABORT,  COB$_WRIINCOPE,  0,  0,
507      1039 1      0,      '30',  ABORT,  COB$_ERRON_FIL,  0,  0)),
508      1040 1
509      P 1041 1      DEL_R S T = UPLIT BYTE(Z(
510      P 1042 1      RMS$ RLK,   '92',  ABORT,  COB$_RECLOCDEL,  0,  0,
511      P 1043 1      RMS$ CUR,   '93',  ABORT,  COB$_DELNO R S,  0,  0,
512      P 1044 1      RMS$ ISI,   '94',  ABORT,  COB$_DELUNOFIL,  0,  0,
513      P 1045 1      RMS$ RAB,   '94',  ABORT,  COB$_DELUNOFIL,  0,  0,
514      P 1046 1      RMS$ FAC,   '94',  ABORT,  COB$_DELINCOPE,  0,  0,
515      1047 1      0,      '30',  ABORT,  COB$_ERRON_FIL,  0,  0)),
516      1048 1
517      P 1049 1      DEL_R R T = UPLIT BYTE(Z(
518      P 1050 1      RMS$ RNF,   '23',  GOTO,  COB$_RECNOTEXI,  0,  0,
519      P 1051 1      RMS$ MRN,   '23',  GOTO,  COB$_RECNOTEXI,  0,  0,
520      P 1052 1      RMS$ RLK,   '92',  ABORT,  COB$_RECLOCDEL,  0,  0,
521      P 1053 1      RMS$ ISI,   '94',  ABORT,  COB$_DELUNOFIL,  0,  0,
522      P 1054 1      RMS$ RAB,   '94',  ABORT,  COB$_DELUNOFIL,  0,  0,
523      P 1055 1      RMS$ FAC,   '94',  ABORT,  COB$_DELINCOPE,  0,  0,
524      1056 1      0,      '30',  ABORT,  COB$_ERRON_FIL,  0,  0)),
525      1057 1
526      1058 1      DEL_I S T - DEL R S T
527      1059 1      DEL_I S T = UPLIT BYTE(Z(
528      1060 1      RMS$ RLK,   '92',  ABORT,  COB$_RECLOCDEL,  0,  0,
529      1061 1      RMS$ CUR,   '93',  ABORT,  COB$_DELNO R S,  0,  0,
530      1062 1      RMS$ ISI,   '94',  ABORT,  COB$_DELUNOFIL,  0,  0,
531      1063 1      RMS$ RAB,   '94',  ABORT,  COB$_DELUNOFIL,  0,  0,
```

```
532 1064 1 1 0. RMSS_FAC, '94', ABORT, COB$_DELINCOPE, 0, 0
533 1065 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
534 1066 1
535 1067 1 DEL_I R T = DEL R R T
536 1068 1 DEL_I R T = UPLIT BYTE(Z(
537 1069 1 1 RMSS_RNF, '23', GOTO, COB$_RECNOTEXI, 0, 0
538 1070 1 1 RMSS_MRN, '23', GOTO, COB$_RECNOTEXI, 0, 0
539 1071 1 1 RMSS_RLK, '92', ABORT, COB$_RECLOCDEL, 0, 0
540 1072 1 1 RMSS_ISI, '94', ABORT, COB$_DELUNOFIL, 0, 0
541 1073 1 1 RMSS_RAB, '94', ABORT, COB$_DELUNOFIL, 0, 0
542 1074 1 1 RMSS_FAC, '94', ABORT, COB$_DELINCOPE, 0, 0
543 1075 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
544 1076 1
545 P 1077 1 REW_S S T = UPLIT BYTE(Z(
546 P 1078 1 1 RMSS_CUR, '93', ABORT, COB$_REWNO R S, 0, 0
547 P 1079 1 1 RMSS_ISI, '94', ABORT, COB$_REWUNOFIL, 0, 0
548 P 1080 1 1 RMSS_RAB, '94', ABORT, COB$_REWUNOFIL, 0, 0
549 P 1081 1 1 RMSS_FAC, '94', ABORT, COB$_REWINCOPE, 0, 0
550 1082 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
551 1083 1
552 P 1084 1 REW_R S T = UPLIT BYTE(Z(
553 P 1085 1 1 RMSS_RLK, '92', ABORT, COB$_RECLOCREW, 0, 0
554 P 1086 1 1 RMSS_CUR, '93', ABORT, COB$_REWNO R S, 0, 0
555 P 1087 1 1 RMSS_ISI, '94', ABORT, COB$_REWUNOFIL, 0, 0
556 P 1088 1 1 RMSS_RAB, '94', ABORT, COB$_REWUNOFIL, 0, 0
557 P 1089 1 1 RMSS_FAC, '94', ABORT, COB$_REWINCOPE, 0, 0
558 1090 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
559 1091 1
560 P 1092 1 REW_R R T = UPLIT BYTE(Z(
561 P 1093 1 1 RMSS_RNF, '23', GOTO, COB$_RECNOTEXI, 0, 0
562 P 1094 1 1 RMSS_MRN, '23', GOTO, COB$_RECNOTEXI, 0, 0
563 P 1095 1 1 RMSS_RLK, '92', ABORT, COB$_RECLOCREW, 0, 0
564 P 1096 1 1 RMSS_ISI, '94', ABORT, COB$_REWUNOFIL, 0, 0
565 P 1097 1 1 RMSS_RAB, '94', ABORT, COB$_REWUNOFIL, 0, 0
566 P 1098 1 1 RMSS_FAC, '94', ABORT, COB$_REWINCOPE, 0, 0
567 1099 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
568 1100 1
569 P 1101 1 REW_I S T = UPLIT BYTE(Z(
570 P 1102 1 1 RMSS_OK DUP, '02', CONTINUE, COB$_REWCREDUP, 0, 0
571 P 1103 1 1 RMSS_CHG, '21', GOTO, COB$_PRIKEYCHA, 0, 0
572 P 1104 1 1 RMSS_DUP, '22', GOTO, COB$_REWDISDUP, 0, 0
573 P 1105 1 1 RMSS_RLK, '92', ABORT, COB$_RECLOCREW, 0, 0
574 P 1106 1 1 RMSS_CUR, '93', ABORT, COB$_REWNO R S, 0, 0
575 P 1107 1 1 RMSS_ISI, '94', ABORT, COB$_REWUNOFIL, 0, 0
576 P 1108 1 1 RMSS_RAB, '94', ABORT, COB$_REWUNOFIL, 0, 0
577 P 1109 1 1 RMSS_FAC, '94', ABORT, COB$_REWINCOPE, 0, 0
578 1110 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
579 1111 1
580 P 1112 1 REW_I R T = UPLIT BYTE(Z(
581 P 1113 1 1 RMSS_OK DUP, '02', CONTINUE, COB$_REWCREDUP, 0, 0
582 P 1114 1 1 RMSS_DUP, '22', GOTO, COB$_REWDISDUP, 0, 0
583 P 1115 1 1 RMSS_RNF, '23', GOTO, COB$_RECNOTEXI, 0, 0
584 P 1116 1 1 RMSS_RLK, '92', ABORT, COB$_RECLOCREW, 0, 0
585 P 1117 1 1 RMSS_ISI, '94', ABORT, COB$_REWUNOFIL, 0, 0
586 P 1118 1 1 RMSS_RAB, '94', ABORT, COB$_REWUNOFIL, 0, 0
587 P 1119 1 1 RMSS_FAC, '94', ABORT, COB$_REWINCOPE, 0, 0
588 1120 1 1 0. '30', ABORT, COB$_ERRON_FIL, 0, 0)),
```

```
589      1121 1
590      P 1122 1      STA_R S T = UPLIT BYTE(Z(
591      P 1123 1      RMS$_RNF, '23', GOTO, COB$_RECNOTEXI, 0, NNVR,
592      P 1124 1      RMS$_MRN, '23', GOTO, COB$_RECNOTEXI, 0, NNVR,
593      P 1125 1      RMS$_ISI, '25', GOTO, COB$_OPTMISSTA, OFNP, 0,
594      P 1126 1      RMS$_ISI, '94', ABORT, COB$_STAUNOFIL, 0, 0,
595      P 1127 1      RMS$_RAB, '94', ABORT, COB$_STAUNOFIL, 0, 0,
596      P 1128 1      RMS$_RLK, '92', ABORT, COB$_RECLOCSTA, 0, 0,
597      P 1129 1      RMS$_FAC, '94', ABORT, COB$_STAINCOPE, 0, 0,
598      1130 1      0, '30', ABORT, COB$_ERRON_FIL, 0, 0)),
599      1131 1
600      1132 1      STA_I S T = STA_R S T
601      1133 1      STA_I S T = UPLIT BYTE(Z(
602      1134 1      RMS$_RNF, '23', GOTO, COB$_RECNOTEXI, 0, NNVR,
603      1135 1      RMS$_MRN, '23', GOTO, COB$_RECNOTEXI, 0, NNVR,
604      1136 1      RMS$_ISI, '25', GOTO, COB$_OPTMISSTA, OFNP, 0,
605      1137 1      RMS$_ISI, '94', ABORT, COB$_STAUNOFIL, 0, 0,
606      1138 1      RMS$_RAB, '94', ABORT, COB$_STAUNOFIL, 0, 0,
607      1139 1      RMS$_RLK, '92', ABORT, COB$_RECLOCSTA, 0, 0,
608      1140 1      RMS$_FAC, '94', ABORT, COB$_STAINCOPE, 0, 0,
609      1141 1      0, '30', ABORT, COB$_ERRON_FIL, 0, 0));
610      1142 1
611      P 1143 1      UNL_T = UPLIT BYTE(Z(
612      P 1144 1      RMS$_RNL, '00', SUCCEED, COB$_RECNOTLOC, 0, 0,
613      P 1145 1      RMS$_ISI, '94', ABORT, COB$_UNLUNOFIL, 0, 0,
614      P 1146 1      RMS$_RAB, '94', ABORT, COB$_UNLUNOFIL, 0, 0,
615      P 1147 1      RMS$_CUR, '93', ABORT, COB$_UNLNO_CUR, 0, 0,
616      1148 1      0, '30', ABORT, COB$_ERRON_FIL, 0, 0));
```

618	1149	1	↑		
619	1150	1		The following table is indexed by an I/O statement type to yield the address	
620	1151	1		(relative to BASE) of the appropriate action table. Negative values are used	
621	1152	1		to indicate an error condition (COB\$_INVARG).	
622	1153	1			
623	1154	1		BIND	
624	1155	1		PLIT TABLE = UPLIT WORD(	
625	1156	1		OPE_T - BASE,	COB\$K_EXC_OPESS= 1,
626	1157	1		-1,	2
627	1158	1		OPE_T - BASE,	COB\$K_EXC_OPERS= 3,
628	1159	1		OPE_T - BASE,	COB\$K_EXC_OPERR= 4,
629	1160	1		OPE_T - BASE,	COB\$K_EXC_OPEIS= 5,
630	1161	1		OPE_T - BASE,	COB\$K_EXC_OPEIR= 6,
631	1162	1		CLO_T - BASE,	COB\$K_EXC_CLOSS= 7,
632	1163	1		-1,	8
633	1164	1		CLO_T - BASE,	COB\$K_EXC_CLORS= 9,
634	1165	1		CLO_T - BASE,	COB\$K_EXC_CLORR=10,
635	1166	1		CLO_T - BASE,	COB\$K_EXC_CLOIS=11,
636	1167	1		CLO_T - BASE,	COB\$K_EXC_CLOIR=12,
637	1168	1		REA_S_S_T - BASE,	COB\$K_EXC_REASS=13,
638	1169	1		-1,	14
639	1170	1		REA_R_S_T - BASE,	COB\$K_EXC_REARS=15,
640	1171	1		REA_R_R_T - BASE,	COB\$K_EXC_REARR=16,
641	1172	1		REA_I_S_T - BASE,	COB\$K_EXC_REAIS=17,
642	1173	1		REA_I_R_T - BASE,	COB\$K_EXC_REAIR=18,
643	1174	1		WRI_S_S_T - BASE,	COB\$K_EXC_WRISS=19,
644	1175	1		-1,	20
645	1176	1		WRI_R_S_T - BASE,	COB\$K_EXC_WRIRS=21,
646	1177	1		WRI_R_R_T - BASE,	COB\$K_EXC_WRIRR=22,
647	1178	1		WRI_I_S_T - BASE,	COB\$K_EXC_WRIIS=23,
648	1179	1		WRI_I_R_T - BASE,	COB\$K_EXC_WRIIR=24,
649	1180	1		REW_S_S_T - BASE,	COB\$K_EXC_REWSS=25,
650	1181	1		-1,	26
651	1182	1		REW_R_S_T - BASE,	COB\$K_EXC_REWRS=27,
652	1183	1		REW_R_R_T - BASE,	COB\$K_EXC_REWRR=28,
653	1184	1		REW_I_S_T - BASE,	COB\$K_EXC_REWIS=29,
654	1185	1		REW_I_R_T - BASE,	COB\$K_EXC_REWIR=30,
655	1186	1		-1,	COB\$K_EXC_DELSS=31,
656	1187	1		-1,	32
657	1188	1		DEL_R_S_T - BASE,	COB\$K_EXC_DELRS=33,
658	1189	1		DEL_R_R_T - BASE,	COB\$K_EXC_DELRR=34,
659	1190	1		DEL_I_S_T - BASE,	COB\$K_EXC_DELIS=35,
660	1191	1		DEL_I_R_T - BASE,	COB\$K_EXC_DELIR=36,
661	1192	1		-1,	37
662	1193	1		-1,	38
663	1194	1		STA_R_S_T - BASE,	COB\$K_EXC_STARS=39,
664	1195	1		-1,	40
665	1196	1		STA_I_S_T - BASE,	COB\$K_EXC_STAIS=41,
666	1197	1		-1,	42
667	1198	1		CLR_S_S_T - BASE,	COB\$K_EXC_CLRSS=43,
668	1199	1		UNL_T - BASE,	COB\$K_EXC_UNLCK=44,
669	1200	1		) - 2: VECTOR[WORD];	

!??? Is this used?



```

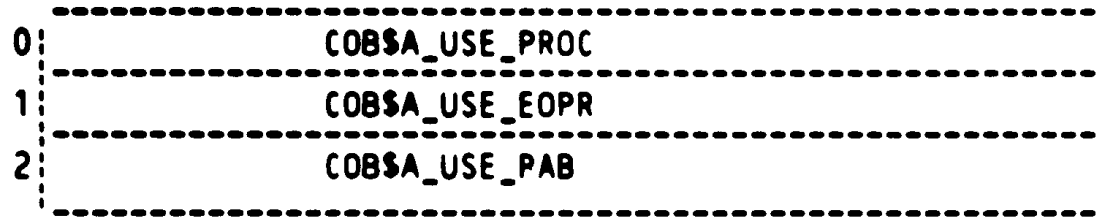
: 671      1201  1 GLOBAL ROUTINE COB$IOEXCEPTION (
: 672      1202  1
: 673      1203  1     FLAGS,           ! Type of I/O statement and type of exception
: 674      1204  1     RAB,             ! Address of associated RAB
: 675      1205  1     EXCLAB,          ! Exception transfer label (optional)
: 676      1206  1     STATUS,          ! Address of file status variable (optional)
: 677      1207  1     ANSI74,         ! If true use ANSI 74 file status values (optional)
: 678      1208  1
: 679      1209  1           ) =
: 680      1210  1
: 681      1211  1 !++
: 682      1212  1
: 683      1213  1     FUNCTIONAL DESCRIPTION:
: 684      1214  1
: 685      1215  1           This procedure is called to process a wide variety of I/O
: 686      1216  1     exceptions. Depending on the nature of the exception, it sets the
: 687      1217  1     file status variable, causes USE procedures to be invoked and
: 688      1218  1     signals errors.
: 689      1219  1
: 690      1220  1     FORMAL PARAMETERS:
: 691      1221  1
: 692      1222  1     FLAGS.rl.v      - Type of I/O statement and type of exception
: 693      1223  1     RAB.ra.v        - Address of RAB
: 694      1224  1     EXCLAB.jzi.v   - Exception transfer label (optional)
: 695      1225  1     STATUS.ra.r     - Address of file status variable (optional)
: 696      1226  1     ANSI74.rlu.v   - If true use ANSI 74 file status values (optional)
: 697      1227  1
: 698      1228  1
: 699      1229  1     IMPLICIT INPUTS:
: 700      1230  1
: 701      1231  1         NONE
: 702      1232  1
: 703      1233  1     IMPLICIT OUTPUTS:
: 704      1234  1
: 705      1235  1         NONE
: 706      1236  1
: 707      1237  1     ROUTINE VALUE:
: 708      1238  1     COMPLETION CODES:
: 709      1239  1
: 710      1240  1         Value TRUE if SUCCEED, FALSE if other.
: 711      1241  1
: 712      1242  1     SIDE EFFECTS:
: 713      1243  1
: 714      1244  1         NONE
: 715      1245  1
: 716      1246  1 !--

```



766 1294 1  
767 1295 1  
768 1296 1  
769 1297 1  
770 1298 1  
771 1299 1  
772 1300 1  
773 1301 1  
774 1302 1  
775 1303 1  
776 1304 1  
777 1305 1  
778 1306 1  
779 1307 1  
780 1308 1  
781 1309 1  
782 1310 1  
783 1311 1  
784 1312 1  
785 1313 1  
786 1314 1  
787 1315 1  
788 1316 1

The structure of the USE entries appears as follows:



where

- COB\$A\_USE\_PROC - Address of the USE procedure.
- COB\$A\_USE\_EOPR - Address of end of perform range block.  
It is a pointer to the end of perform range block for the USE procedure if the entry was defined in this program or 0 if it was defined in a containing program.
- COB\$A\_USE\_RAB - Address of RAB (only in file entries).

```

790      1317 2 BEGIN
791      1318 2 MAP
792      1319 2   FLAGS:      BLOCK[,BYTE],      ! I/O statement and error type
793      1320 2   RAB:        REF BLOCK[,BYTE];    ! Address of RAB
794      1321 2
795      1322 2
796      1323 2 LOCAL
797      1324 2   FAB:        REF BLOCK[,BYTE],      ! Address of FAB
798      1325 2   NAM:        REF BLOCK[,BYTE],      ! Address of NAM block-used to
799      1326 2                                     ! communicate optional filename
800      1327 2                                     ! related information.
801      1328 2   TABLE:     REF BLOCK[,BYTE],      ! Pointer to status decode table entry
802      1329 2   PMS_STS,      ! STS value from FAB or RAB
803      1330 2   RMS_STV,      ! STV value from FAB or RAB
804      1331 2   FILESTAT,    ! COBOL file status
805      1332 2   ACTION,      ! Recovery action
806      1333 2   SFP:         REF BLOCK[,BYTE],      ! Saved FP
807      1334 2   USE:         REF BLOCK[,BYTE],      ! Pointer to USE list
808      1335 2   USEENT:      REF BLOCK[,BYTE],      ! Pointer to USE list entry
809      1336 2   ERR_MSG_NUM,  ! Longword COB$ error number
810      1337 2   FILE_ADDR,   ! Stored entry point to file specific USE procedure
811      1338 2   OPEN_MD_ADDR, ! Stored entry point to open mode specific USE procedure
812      1339 2   RSADESC:    VECTOR[2];           ! Descriptor for RSA (resultant string area)
813      1340 2
814      1341 2 BUILTIN
815      1342 2   ACTUALCOUNT,
816      1343 2   FP;
817      1344 2
818      1345 2 MAP
819      1346 2   FP:         REF BLOCK[,BYTE];
820      1347 2
821      1348 2
822      1349 2
823      1350 2
824      1351 2 !+
825      1352 2 ! Ensure that the FLAGS and RAB arguments are present.
826      1353 2 !-
827      1354 2
828      1355 2 IF ACTUALCOUNT() LSS 2      !\Error if FLAGS and RAB
829      1356 2 THEN                          !/arguments are missing
830      1357 2   BEGIN
831      1358 2     SIGNAL_STOP(OTSS_FATINTERR);
832      1359 2     RETURN 0;
833      1360 2   END;
834      1361 2 IF .RAB EQL 0
835      1362 2 THEN
836      1363 2   BEGIN
837      1364 2     SIGNAL_STOP(OTSS_FATINTERR);      ! Error if RAB addr = 0
838      1365 2     RETURN 0;
839      1366 2   END;
840      1367 2 FAB = .RAB[RAB$L_FAB];      ! Fetch FAB address
841      1368 2 IF .FAB EQL 0
842      1369 2 THEN
843      1370 2   BEGIN
844      1371 2     SIGNAL_STOP(OTSS_FATINTERR);      ! Error if FAB addr = 0
845      1372 2     RETURN 0;
846      1373 2   END;

```

```

847 1374 NAM = .FAB[FAB$$_NAM];           ! Fetch addr of NAM block
848 1375 IF .NAM EQL 0
849 1376 THEN
850 1377 BEGIN
851 1378 SIGNAL_STOP(OTSS$_FATINTERR);     ! Error if addr of NAM block = 0
852 1379 RETURN 0;
853 1380 END;
854 1381
855 1382
856 1383
857 1384
858 1385
859 1386
860 1387 FILE_ADDR = 0;
861 1388 OPEN_MD_ADDR = 0;
862 1389
863 1390
864 1391
865 1392
866 1393
867 1394
868 1395
869 1396
870 1397
871 1398
872 1399
873 1400
874 1401
875 1402
876 1403
877 1404
878 1405
879 1406
880 1407
881 1408
882 1409
883 1410
884 1411
885 1412
886 1413
887 1414
888 1415
889 1416
890 1417
891 1418
892 1419
893 1420
894 1421
895 1422
896 1423
897 1424
898 1425
899 1426
900 1427
901 1428
902 1429
903 1430

```

Initialize the temporary storage to be used later  
 when searching for a USE procedure.

Fetch the address and length of the resultant string area  
 as defined in the NAM block. If the length field is zero,  
 then fetch the extended string length field. If that too  
 is a zero length, then just use the FAB file name string  
 name and string length.

Fetch addr of resultant string area  
 Fetch resultant string size

Fetch extended string length

Fetch file name string size

Copy the string found in the FAB into the resultant  
 string area. By doing this, COBOL will just map a special  
 register to this area for obtaining the resultant name  
 string.

CH\$MOVE (.FAB[FAB\$\_FNS],.FAB[FAB\$\_FNA],.NAM[NAM\$\_RSA]);  
 END;

Case on the error type. Note that COB\$K\_EXC\_MINM  
 and COB\$K\_EXC\_MAXM are the minimum (0) and maximum (7)  
 values to be used for case statements involving error  
 types.

CASE .FLAGS[COB\$\_EXC\_ERROR] FROM COB\$K\_EXC\_MINM TO COB\$K\_EXC\_MAXM OF  
 SET

[OUTRANGE]:  
 BEGIN ! Invalid value

```

904 1431 3
905 1432 3
906 1433 3
907 1434 3
908 1435 3
909 1436 3
910 1437 3
911 1438 3
912 1439 3
913 1440 3
914 1441 3
915 1442 3
916 1443 3
917 1444 4
918 1445 4
919 1446 4
920 1447 5
921 1448 5
922 1449 5
923 1450 4
924 1451 4
925 1452 4
926 1453 4
927 1454 4
928 1455 4
929 1456 4
930 1457 4
931 1458 4
932 1459 3
933 1460 4
934 1461 4
935 1462 4
936 1463 5
937 1464 5
938 1465 5
939 1466 4
940 1467 4
941 1468 4
942 1469 3
943 1470 3
944 1471 3
945 1472 3
946 1473 3
947 1474 3
948 1475 3
949 1476 3
950 1477 3
951 1478 3
952 1479 3
953 1480 3
954 1481 3
955 1482 3
956 1483 4
957 1484 4
958 1485 4
959 1486 4
960 1487 4

```

```

SIGNAL_STOP(COB$_INVARG);
RETURN_0;
END;

[COB$_K_EXC_RAB, COB$_K_EXC_FAB]:           ! RMS RAB/FAB error
BEGIN
  !+
  !- RMS error. Pick up the appropriate STS and STV.
  IF .FLAGS[COB$_W_EXC_ERROR] EQL COB$_K_EXC_RAB ! Check specifically for RAB error
  THEN
    BEGIN
      IF .RAB[RAB$_L_STS] EQL 0           !\If status of RAB = 0
      THEN                                ! then signal as a
      BEGIN                                !/fatal internal error.
        SIGNAL_STOP(OTSS$_FATINTERR);
        RETURN_0;
      END;
      RMS_STS = .RAB[RAB$_L_STS];         ! Load status code from RAB
      RMS_STV = .RAB[RAB$_L_STV];         ! Load status value from RAB
    END;
  !+
  !- Here we know that we have a FAB error.
  ELSE
    BEGIN
      IF .FAB[FAB$_L_STS] EQL 0           !\If status of FAB = 0,
      THEN                                ! then signal a
      BEGIN                                !/fatal internal error.
        SIGNAL_STOP(OTSS$_FATINTERR);
        RETURN_0;
      END;
      RMS_STS = .FAB[FAB$_L_STS];         ! Load status code from FAB
      RMS_STV = .FAB[FAB$_L_STV];         ! Load status value from FAB
    END;
  !+
  !- Map the STS value into the appropriate COBOL file status.
  ! First, determine the lookup table to be used from the statement
  ! type parameter. Note that this must not be done by indexing a
  ! table of addresses because of the need for this routine to be
  ! position-independent.
  IF .RMS_STS
  THEN
    BEGIN
      ! Success cases -- are not
      ! found by table look-up.
    !+
    !- Perform a CASE on the I/O stmt type. Note that

```

```

: 961      1488  4
: 962      1489  4
: 963      1490  4
: 964      1491  4
: 965      1492  4
: 966      1493  4
: 967      1494  4
: 968      1495  4
: 969      1496  4
: 970      1497  4
: 971      1498  4
: 972      1499  4
: 973      1500  4
: 974      1501  5
: 975      1502  5
: 976      1503  5
: 977      1504  5
: 978      1505  5
: 979      1506  5
: 980      1507  5
: 981      1508  5
: 982      1509  5
: 983      1510  5
: 984      1511  5
: 985      1512  5
: 986      1513  5
: 987      1514  5
: 988      1515  5
: 989      1516  5
: 990      1517  5
: 991      1518  6
: 992      1519  6
: 993      1520  6
: 994      1521  6
: 995      1522  5
: 996      1523  6
: 997      1524  6
: 998      1525  6
: 999      1526  5
:1000     1527  4
:1001     1528  4
:1002     1529  4
:1003     1530  4
:1004     1531  4
:1005     1532  5
:1006     1533  5
:1007     1534  5
:1008     1535  5
:1009     1536  5
:1010     1537  5
:1011     1538  5
:1012     1539  5
:1013     1540  5
:1014     1541  6
:1015     1542  6
:1016     1543  6
:1017     1544  6

```

```

: COB$K_EXC_MINS and COB$K_EXC_MAX$ indicate the
: minimum (T) and maximum (44) values for CASE
: values for I/O statement types.

```

```

CASE .FLAG$[COB$W_EXC_STMT]
FROM COB$K_EXC_MINS TO COB$K_EXC_MAX$ OF
SET

```

```

[COB$K_EXC_REASS,
COB$K_EXC_REARS,
COB$K_EXC_REARR,
COB$K_EXC_REAIS,
COB$K_EXC_REAIR]:

```

```

BEGIN

```

```

+
: Successful read, reset NNVR (no next valid
: record) - meaning EOF has been detected.
-

```

```

RAB[COB$V_CTX_NNVR] = 0;

```

```

+
: If the RMS_STS is for a soft record lock,
: then the FILESTAT should be set to 90 with
: an ACTION code of CONTINUE.
-

```

```

IF .RMS_STS EQL RMS$_OK_RLK OR .RMS_STS EQL RMS$_OK_RRL

```

```

THEN

```

```

BEGIN

```

```

FILESTAT = '90';
ACTION = CONTINUE;
END

```

```

ELSE

```

```

BEGIN

```

```

FILESTAT = '00';
ACTION = SUCCEED;
END;

```

```

END

```

```

[COB$K_EXC_WRIIS,
COB$K_EXC_WRIIR,
COB$K_EXC_REWIS,
COB$K_EXC_REWIR]:

```

```

BEGIN

```

```

+
: Successful write or rewrite on indexed
: sequential file.
-

```

```

IF .RMS_STS EQL RMS$_OK_DUP

```

```

THEN

```

```

BEGIN

```

```

FILESTAT = '02';
ACTION = CONTINUE;
END

```

```

: 1018 1545 5
: 1019 1546 6
: 1020 1547 6
: 1021 1548 6
: 1022 1549 6
: 1023 1550 4
: 1024 1551 4
: 1025 1552 5
: 1026 1553 5
: 1027 1554 5
: 1028 1555 4
: 1029 1556 4
: 1030 1557 4
: 1031 1558 4
: 1032 1559 4
: 1033 1560 4
: 1034 1561 4
: 1035 1562 4
: 1036 1563 4
: 1037 1564 4
: 1038 1565 3
: 1039 1566 4
: 1040 1567 4
: 1041 1568 4
: 1042 1569 4
: 1043 1570 4
: 1044 1571 4
: 1045 1572 4
: 1046 1573 4
: 1047 1574 5
: 1048 1575 6
: 1049 1576 6
: 1050 1577 5
: 1051 1578 5
: 1052 1579 5
: 1053 1580 5
: 1054 1581 5
: 1055 1582 4
: 1056 1583 5
: 1057 1584 5
: 1058 1585 5
: 1059 1586 4
: 1060 1587 4
: 1061 1588 4
: 1062 1589 4
: 1063 1590 4
: 1064 1591 4
: 1065 1592 4
: 1066 1593 4
: 1067 1594 4
: 1068 1595 4
: 1069 1596 4
: 1070 1597 4
: 1071 1598 4
: 1072 1599 4
: 1073 1600 4
: 1074 1601 4

```

```

ELSE
  BEGIN
    FILESTAT = '00' ;
    ACTION = SUCCEED ;
  END
END ;
[INRANGE, OVRANGE]:      ! Unexpected success code
BEGIN
  SIGNAL_STOP (COBS_INVARG) ; !\Signal an error due to
  RETURN 0;                !/invalid success code
END;
TES ;
END

```

```

+ This section of code deals with the error cases for RMS
+ RAB/FAB errors, where we know that the LSB of RMS_STS
+ (status code) is zero.
-

```

```

ELSE
  BEGIN
    + Perform a CASE on I/O statement type. Note that
    + COBSK_EXC_MINS and COBSK_EXC_MAXS refers to the
    + minimum (T) and maximum (44) CASE values that
    + pertain to I/O statement types.
    IF BEGIN
      IF (.FLAGS[COBSW_EXC_STMT] LSS COBSK_EXC_MINS OR
        .FLAGS[COBSW_EXC_STMT] GTR COBSK_EXC_MAXS)
      THEN
        1
      ELSE
        (TABLE = .PLIT_TABLE[.FLAGS[COBSW_EXC_STMT]]) LSS 0
      END
    THEN
      BEGIN
        SIGNAL_STOP(COBS_INVARG); ! Invalid error code
        RETURN 0;
      END;

    + Depending on the type of error that was found,
    + load the appropriate table addresses into "TABLE"
    + which is the pointer to the status decode table
    + entry.
    TABLE = BASE + .TABLE;

    + Find the appropriate entry. Since every table ends with a 0
    + there must be one. Note that [TAB_STATUS] will contain a
    + RMS status code or a zero.
    -

```



```

: 1075      1602  4
: 1076      1603  5
: 1077      1604  4
: 1078      1605  4
: 1079      1606  4
: 1080      1607  4
: 1081      1608  4
: 1082      1609  4
: 1083      1610  4
: 1084      1611  4
: 1085      1612  4
: 1086      1613  4
: 1087      1614  5
: 1088      1615  5
: 1089      1616  5
: 1090      1617  5
: 1091      1618  5
: 1092      1619  5
: 1093      1620  5
: 1094      1621  5
: 1095      1622  5
: 1096      1623  5
: 1097      1624  5
: 1098      1625  4
: 1099      1626  4
: 1100      1627  4
: 1101      1628  4
: 1102      1629  4
: 1103      1630  4
: 1104      1631  4
: 1105      1632  4
: 1106      1633  5
: 1107      1634  5
: 1108      1635  4
: 1109      1636  4
: 1110      1637  4
: 1111      1638  4
: 1112      1639  4
: 1113      1640  4
: 1114      1641  4
: 1115      1642  4
: 1116      1643  4
: 1117      1644  4
: 1118      1645  4
: 1119      1646  4
: 1120      1647  4
: 1121      1648  4
: 1122      1649  4
: 1123      1650  4
: 1124      1651  4
: 1125      1652  4
: 1126      1653  4
: 1127      1654  4
: 1128      1655  4
: 1129      1656  5
: 1130      1657  5
: 1131      1658  5

```

```

UNTIL
  (.TABLE[TAB_STATUS] EQL 0 OR .TABLE[TAB_STATUS] EQL .RMS_STS)
AND
  !+
  ! If the test-state field of this entry is non-zero,
  ! we must perform a further check to determine if the
  ! entry we have selected is the one we want.  If the
  ! variable indicated by the test-state setting is not
  ! set, we advance the table pointer to the next entry.
  -
  (CASE .TABLE[TAB_TST_STATE] FROM MIN_STATE TO MAX_STATE OF
  SET
    [NULL]:                ! No special action
    [OPTF]:                ! If set, then an optional file
      .RAB[COBSV_CTX_OPT];
    [OFNP]:                !\If set, then optional
      .RAB[COBSV_CTX_OFNP]; !/file not present
    [NNVR]:                !\If set, then no next
      .RAB[COBSV_CTX_NNVR]; !/valid record (EOF detected)
  TES)
DO
  !+
  ! Incr the address of the table to point to the
  ! next table entry if the TAB_TST_STATE field of
  ! the entry was not set.
  -
  BEGIN
  TABLE = .TABLE + TAB_S_ENTRY;
  END;
  !+
  ! Extract the file status code, action code and
  ! error message number for this error situation.
  -
  FILESTAT = .TABLE[TAB_FILESTAT];          ! Load COBOL file status
  !+
  ! 1-038 code.
  ! If fifth parameter present then change the file status
  ! values of 13, 15, and 16 to 10.  This change affects three
  ! table entries, REA_S_S_T, REA_R_S_T, and REA_I_S_T.  At this
  ! time it was not necessary to check that the change was made
  ! on these three entries, but perhaps in the future this
  ! additional check will be needed.
  -
  IF ACTUALCOUNT() GEQ 5 THEN
    IF .ANSI74 THEN
      IF (.FILESTAT EQL '13' OR
        .FILESTAT EQL '15' OR
        .FILESTAT EQL '16')

```

```

: 1132 1659 4
: 1133 1660 4
: 1134 1661 4
: 1135 1662 4
: 1136 1663 4
: 1137 1664 4
: 1138 1665 4
: 1139 1666 4
: 1140 1667 4
: 1141 1668 4
: 1142 1669 4
: 1143 1670 4
: 1144 1671 4
: 1145 1672 4
: 1146 1673 4
: 1147 1674 4
: 1148 1675 4
: 1149 1676 4
: 1150 1677 4
: 1151 1678 4
: 1152 1679 4
: 1153 1680 4
: 1154 1681 4
: 1155 1682 4
: 1156 1683 4
: 1157 1684 4
: 1158 1685 4
: 1159 1686 4
: 1160 1687 4
: 1161 1688 4
: 1162 1689 4
: 1163 1690 4
: 1164 1691 4
: 1165 1692 4
: 1166 1693 4
: 1167 1694 4
: 1168 1695 4
: 1169 1696 4
: 1170 1697 4
: 1171 1698 4
: 1172 1699 4
: 1173 1700 4
: 1174 1701 4
: 1175 1702 4
: 1176 1703 4
: 1177 1704 4
: 1178 1705 4
: 1179 1706 4
: 1180 1707 4
: 1181 1708 4
: 1182 1709 4
: 1183 1710 4
: 1184 1711 4
: 1185 1712 4
: 1186 1713 4
: 1187 1714 4
: 1188 1715 4

```

```

THEN FILESTAT = '10';

ACTION = .TABLE[TAB_ACTION]; ! Load type of recovery action
ERR_MSG_NUM = (.TAB[E[ TAB_ERR_NO]^3) + COB$NO_USEPRO;

!+
! Check to see if we need to set some state bit in
! conjunction with this error situation -- signaled
! by a non-zero entry in .TABLE[TAB_SET_STATE]
!-

CASE .TABLE[TAB_SET_STATE] FROM MIN_STATE TO MAX_STATE OF
  SET
  [NULL]: ! Null clause
    0;
  [OPTF]: ! Null clause
    0;
  [OFNP]: !\Set state in COBOL file
    RAB[COB$V_CTX_OFNF] = 1 ; ! context area indicating
    !/optional file not present
  [NNVR]: !\Set state in COBOL file
    RAB[COB$V_CTX_NNVR] = 1 ; ! context area indicating
    !/NNVR (EOF detected).
  TES;
END;

END;

!+
! Additional error types.
!-

[COB$K_EXC_FLK]:
BEGIN

!+
! Compiled code detected an OPEN directed to a file closed
! WITH LOCK.
!-

ERR_MSG_NUM = COB$_FILCLOLOC ;
RMS_STS = 0; !\Init RMS status code and
RMS_STV = 0; !/status value from FAB/RAB to zero
FILESTAT = '94';
ACTION = ABORT;
RAB[RAB$L_STS] = .ERR_MSG_NUM;
RAB[RAB$L_STV] = 0;
END;

[COB$K_EXC_OPN]:
BEGIN

!+
! Compiled code detected an OPEN directed to a file
! already open.
!-

```

```

: 1189 1716
: 1190 1717
: 1191 1718
: 1192 1719
: 1193 1720
: 1194 1721
: 1195 1722
: 1196 1723
: 1197 1724
: 1198 1725
: 1199 1726
: 1200 1727
: 1201 1728
: 1202 1729
: 1203 1730
: 1204 1731
: 1205 1732
: 1206 1733
: 1207 1734
: 1208 1735
: 1209 1736
: 1210 1737
: 1211 1738
: 1212 1739
: 1213 1740
: 1214 1741
: 1215 1742
: 1216 1743
: 1217 1744
: 1218 1745
: 1219 1746
: 1220 1747
: 1221 1748
: 1222 1749
: 1223 1750
: 1224 1751
: 1225 1752
: 1226 1753
: 1227 1754
: 1228 1755
: 1229 1756
: 1230 1757
: 1231 1758
: 1232 1759
: 1233 1760
: 1234 1761
: 1235 1762
: 1236 1763
: 1237 1764
: 1238 1765
: 1239 1766
: 1240 1767
: 1241 1768
: 1242 1769
: 1243 1770
: 1244 1771
: 1245 1772

```

```

!-
ERR_MSG_NUM = COB$_FILALROPE ;
RMS_STS = 0;                !\Set RMS status code and
RMS_STV = 0;                !/status value from FAB/RAB to zero
FILESTAT = '94';
ACTION = ABORT;
RAB[RAB$_STS] = .ERR_MSG_NUM;
RAB[RAB$_STV] = 0;
END;

[COB$_K_EXC_ORG]:
BEGIN

!+
! Compiled code detected an OPEN to a file whose organization
! does not match the access mode specified in OPEN
!-

ERR_MSG_NUM = COB$_ORGNOTMAT ;
RMS_STS = 0;                !\Set RMS status code and
RMS_STV = 0;                !/status value from FAB/RAB to zero
FILESTAT = '94';
ACTION = ABORT;
RAB[RAB$_STS] = .ERR_MSG_NUM;
RAB[RAB$_STV] = 0;
END;

[COB$_K_EXC_MIN]:
BEGIN

!+
! Compiled code detected an operation on a variable length record that
! is smaller than the minimum allowed.
!-

!+
! Determine the I/O statement type that failed and select
! the appropriate message. Note that COB$_K_EXC_MINS and
! COB$_K_EXC_MAXS refer to the minimum (1) and maximum (44)
! CASE values for I/O statement types.
!-

CASE .FLAGS[COB$_K_EXC_STMT]
FROM COB$_K_EXC_MINS TO COB$_K_EXC_MAXS OF
SET

!+
! Class of read errors, varying in file organization
! and access type. For this type of I/O error, return
! an error message signifying attempting a read of
! variable length smaller than the minimum allowed.
!-

[COB$_K_EXC_REASS,
COB$_K_EXC_REARS,
```



```

: 1303
: 1304
: 1305
: 1306
: 1307
: 1308
: 1309
: 1310
: 1311
: 1312
: 1313
: 1314
: 1315
: 1316
: 1317
: 1318
: 1319
: 1320
: 1321
: 1322
: 1323
: 1324
: 1325
: 1326
: 1327
: 1328
: 1329
: 1330
: 1331
: 1332
: 1333
: 1334
: 1335
: 1336
: 1337
: 1338
: 1339
: 1340
: 1341
: 1342
: 1343
: 1344
: 1345
: 1346
: 1347
: 1348
: 1349
: 1350
: 1351
: 1352
: 1353
: 1354
: 1355
: 1356
: 1357
: 1358
: 1359

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1884
1885
1886

```

```

ERR_MSG_NUM = COB$_KEYNOTMAT ;
RMS_STS = 0;                !\Set RMS status code and
RMS_STV = 0;                !/status value from FAB/RAB to zero
FILESTAT = '94';
ACTION = ABORT;
RAB[RAB$_STS] = .ERR_MSG_NUM;
RAB[RAB$_STV] = 0;
END;

```

[COB\$\_K\_EXC\_PIO]:  
BEGIN

```

+
| Compiled code detected a DELETE or REWRITE which was not preceded
| by a successful READ while in sequential access mode.
-

```

```

ERR_MSG_NUM = COB$_REAMP_D_R ;
RMS_STS = 0;                !\Set RMS status code and
RMS_STV = 0;                !/status value from FAB/RAB to zero
FILESTAT = '93';
ACTION = ABORT;
RAB[RAB$_STS] = .ERR_MSG_NUM;
RAB[RAB$_STV] = 0;
END;

```

TES; ! End of case on error type

At this point in the code, the following have been computed:

- RMS\_STS -- RMS status extracted from FAB/RAB
- RMS\_STV -- Extended RMS status extracted from FAB/RAB
- FILESTAT -- COBOL file status to be returned to caller via optional argument.
- ACTION -- Subsequent action  
Possible settings are:  
ABORT  
GOTO  
CONTINUE  
SUCCEED  
(See definitions in LITERAL declarations)
- ERR\_MSG\_NUM -- COB\$ facility error condition code to be signalled if there is no USE procedure available.

: 1360 1887 2  
: 1361 1888 2  
: 1362 1889 2  
: 1363 1890 2  
: 1364 1891 2  
: 1365 1892 2  
: 1366 1893 2  
: 1367 1894 2  
: 1368 1895 2  
: 1369 1896 2  
: 1370 1897 2  
: 1371 1898 2  
: 1372 1899 2  
: 1373 1900 2  
: 1374 1901 2  
: 1375 1902 2  
: 1376 1903 2  
: 1377 1904 2  
: 1378 1905 2  
: 1379 1906 2  
: 1380 1907 3  
: 1381 1908 3  
: 1382 1909 3  
: 1383 1910 2  
: 1384 1911 2  
: 1385 1912 2  
: 1386 1913 2  
: 1387 1914 2  
: 1388 1915 2  
: 1389 1916 2  
: 1390 1917 2  
: 1391 1918 2  
: 1392 1919 2  
: 1393 1920 2  
: 1394 1921 2  
: 1395 1922 2  
: 1396 1923 2  
: 1397 1924 2  
: 1398 1925 2  
: 1399 1926 2  
: 1400 1927 3  
: 1401 1928 3  
: 1402 1929 3  
: 1403 1930 3  
: 1404 1931 2  
: 1405 1932 3  
: 1406 1933 3  
: 1407 1934 3  
: 1408 1935 3  
: 1409 1936 4  
: 1410 1937 4  
: 1411 1938 4  
: 1412 1939 4  
: 1413 1940 4  
: 1414 1941 4  
: 1415 1942 4  
: 1416 1943 4

```
!+
Store the COBOL file status if appropriate.
Note that "STATUS" is an optional input parameter
that is used to return the COBOL file status to
the caller.
-

IF ACTUALCOUNT() GEQ 4 THEN IF .STATUS NEQ 0
THEN
  (.STATUS)<0,16> = .FILESTAT;

!+
If the error is one that requires transfer to the exception label and
it is present, go there by replacing the return PC in the stack
frame with the exception PC and executing a return.
-

IF .ACTION EQL GOTO THEN IF ACTUALCOUNT() GEQ 3 THEN IF .EXCLAB NEQ 0
THEN
  BEGIN
    FP[SF$L_SAVE_PC] = .EXCLAB;
    RETURN 0;
  END;

!+
If the action is SUCCEED, return to the I/O statement.
-

IF .ACTION EQL SUCCEED
THEN
  RETURN 1;

!+
Search for an appropriate USE procedure.
-

SFP = .FP[SF$L_SAVE_FP];
IF .SFP EQL 0
THEN
  BEGIN
    SIGNAL_STOP (OTSS_FATINTERR);
    RETURN 0;
  END
ELSE
  BEGIN
    USE = .SFP[COB$A_SF_USE];
    IF .USE NEQ 0
    THEN
      BEGIN
        !+
        Search for a USE procedure declared for the specific file
        on which the exception occurred. It is identified by the
        RAB address.
        -

```

```
! Get saved FP
!\If frame pointer is
! zero, then we have
!/serious problems

! Get USE List
! If any DECLARATIVES
```

```

: 1417      1944      4
: 1418      1945      4
: 1419      1946      5
: 1420      1947      5
: 1421      1948      5
: 1422      1949      6
: 1423      1950      6
: 1424      1951      6
: 1425      1952      6
: 1426      1953      6
: 1427      1954      6
: 1428      1955      6
: 1429      1956      6
: 1430      1957      6
: 1431      1958      6
: 1432      1959      6
: 1433      1960      6
: 1434      1961      6
: 1435      1962      6
: 1436      1963      6
: 1437      1964      6
: 1438      1965      6
: 1439      1966      6
: 1440      1967      7
: 1441      1968      7
: 1442      1969      7
: 1443      1970      7
: 1444      1971      7
: 1445      1972      7
: 1446      1973      7
: 1447      1974      7
: 1448      1975      7
: 1449      1976      7
: 1450      1977      7
: 1451      1978      7
: 1452      1979      7
: 1453      1980      7
: 1454      1981      6
: 1455      1982      6
: 1456      1983      6
: 1457      1984      6
: 1458      1985      6
: 1459      1986      6
: 1460      1987      6
: 1461      1988      6
: 1462      1989      5
: 1463      1990      5
: 1464      1991      4
: 1465      1992      4
: 1466      1993      4
: 1467      1994      4
: 1468      1995      4
: 1469      1996      4
: 1470      1997      4
: 1471      1998      4
: 1472      1999      4
: 1473      2000      4

```

```

USEENT = USE[COB$A_USE_FILES];           ! Point to first
DECR I FROM .USE[COB$B_USE_COUNT]-1 TO 0 DO ! Count of file entries
BEGIN                                     ! Loop over files
IF .USEENT[COB$A_USE_RAB] EQLA .RAB ! Right file? (find matching RAB addr)
THEN
BEGIN

```

```

!+
The EOPR value will be non-zero if the perform
range is in the current level of the code. If
the EOPR is zero, then the USE procedure can't
be seen in the contained program environment, and
therefore, an error must be signalled. Note that
the USE procedure may be found, since it is possible
that the USE procedure was in a different level of
code (an up-level reference). If this were the case,
then this would be resolved in COB$HANDLER (or a
user-defined handler).

```

```

IF .USEENT[COB$A_USE_EOPR] NEQ 0 !Check addr of end of
!perform range block
THEN
BEGIN
COB$$INVOKE_USE(
! \Invoke USE procedure;
! /USE proc is at current level
! Addr of USE procedure
.USEENT[COB$A_USE_PROC],
.USE,
.FP[$F$L_SAVE_AP],
.USEENT[COB$A_USE_EOPR],
.USE[COB$A_USE_PNC]);
IF .ACTION EQL CONTINUE
THEN
RETURN 1
ELSE
RETURN 0;
END
ELSE

```

```

!+
Save the address of the file specific USE
procedure for later call to SIGNAL.

```

```

FILE_ADDR = .USEENT[COB$A_USE_PROC];
END;
USEENT = .USEENT + COB$$_USE_FILES; ! Step to next entry
END;

```

```

!+
Fall into this section of code since no entry for the
specific file was found. See if a USE procedure has been
declared for the open mode. Note that the open mode
entries are INPUT, OUTPUT, I-O and EXTEND with corresponding
values of 0,1,2,3. Also note that the field reference of
[COB$B_CTX_MODE] refers to the open mode entry field.

```







```
00018292 00014 .LONG 98962
 37 39 00018 .ASCII \97\
 00 0001A .BYTE 0
 00* 0001B .BYTE <<COB$_FILNOTFOU-COB$_NO_USEPRO>a-3>
 00 0001C .BYTE 0
 00 0001D .BYTE 0
0001828A 0001E .LONG 98954
 31 39 00022 .ASCII \91\
 00 00024 .BYTE 0
 00* 00025 .BYTE <<COB$_FILALRLOC-COB$_NO_USEPRO>a-3>
 00 00026 .BYTE 0
 00 00027 .BYTE 0
00000000 00028 .LONG 0
 30 33 0002C .ASCII \30\
 00 0002E .BYTE 0
 00* 0002F .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
 00 00030 .BYTE 0
 00 00031 .BYTE 0
00018564 00032 P.AAC: .LONG 99684
 30 30 00036 .ASCII \00\
 03 00038 .BYTE 3
 00* 00039 .BYTE <<COB$_OPTMISCLO-COB$_NO_USEPRO>a-3>
 02 0003A .BYTE 2
 00 0003B .BYTE 0
00018564 0003C .LONG 99684
 34 39 00040 .ASCII \94\
 00 00042 .BYTE 0
 00* 00043 .BYTE <<COB$_FILALRCLO-COB$_NO_USEPRO>a-3>
 00 00044 .BYTE 0
 0C 00045 .BYTE 0
0001850C 00046 .LONG 99596
 34 39 0004A .ASCII \94\
 00 0004C .BYTE 0
 00* 0004D .BYTE <<COB$_FILALRCLO-COB$_NO_USEPRO>a-3>
 00 0004E .BYTE 0
 00 0004F .BYTE 0
00000000 00050 .LONG 0
 38 39 00054 .ASCII \98\
 00 00056 .BYTE 0
 00* 00057 .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
 00 00058 .BYTE 0
 00 00059 .BYTE 0
00018584 0005A P.AAD: .LONG 99716
 30 30 0005E .ASCII \00\
 03 00060 .BYTE 3
 00* 00061 .BYTE <<COB$_OPTMISCLO-COB$_NO_USEPRO>a-3>
 02 00062 .BYTE 2
 00 00063 .BYTE 0
00018584 00064 .LONG 99716
 34 39 00068 .ASCII \94\
 00 0006A .BYTE 0
 00* 0006B .BYTE <<COB$_FILALRCLO-COB$_NO_USEPRO>a-3>
 00 0006C .BYTE 0
 00 0006D .BYTE 0
0001863C 0006E .LONG 99900
 34 39 00072 .ASCII \94\
 00 00074 .BYTE 0
```

.....

```
00* 00075 .BYTE <<COB$_FILALRCLO-COB$_NO_USEPRO>a-3>
00 00076 .BYTE 0
00 00077 .BYTE 0
00018574 00078 .LONG 99700
30 30 0007C .ASCII \00\
03 0007E .BYTE 3
00* 0007F .BYTE <<COB$_NO_USEPRO-COB$_NO_USEPRO>a-3>
00 00080 .BYTE 0
00 00081 .BYTE 0
0001827A 00082 .LONG 98938
30 30 00086 .ASCII \00\
03 00088 .BYTE 3
00* 00089 .BYTE <<COB$_NO_USEPRO-COB$_NO_USEPRO>a-3>
00 0008A .BYTE 0
00 0008B .BYTE 0
00000000 0008C .LONG 0
38 39 00090 .ASCII \98\
00 00092 .BYTE 0
00* 00093 .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
00 00094 .BYTE 0
00 00095 .BYTE 0
0001827A 00096 P.AAE: .LONG 98938
36 31 0009A .ASCII \16\
01 0009C .BYTE 1
00* 0009D .BYTE <<COB$_NO_NEXVAL-COB$_NO_USEPRO>a-3>
03 0009E .BYTE 3
00 0009F .BYTE 0
0001827A 000A0 .LONG 98938
33 31 000A4 .ASCII \13\
01 000A6 .BYTE 1
00* 000A7 .BYTE <<COB$_NO_NEXLOG-COB$_NO_USEPRO>a-3>
00 000A8 .BYTE 0
03 000A9 .BYTE 3
000182AA 000AA .LONG 98986
32 39 000AE .ASCII \92\
00 000B0 .BYTE 0
00* 000B1 .BYTE <<COB$_RECLOCREA-COB$_NO_USEPRO>a-3>
00 000B2 .BYTE 0
00 000B3 .BYTE 0
00018584 000B4 .LONG 99716
35 31 000B8 .ASCII \15\
01 000BA .BYTE 1
00* 000BB .BYTE <<COB$_OPTMISREA-COB$_NO_USEPRO>a-3>
02 000BC .BYTE 2
00 000BD .BYTE 0
00018584 000BE .LONG 99716
34 39 000C2 .ASCII \94\
00 000C4 .BYTE 0
00* 000C5 .BYTE <<COB$_REAUNOFIL-COB$_NO_USEPRO>a-3>
00 000C6 .BYTE 0
00 000C7 .BYTE 0
0001863C 000C8 .LONG 99900
34 39 000CC .ASCII \94\
00 000CE .BYTE 0
00* 000CF .BYTE <<COB$_REAUNOFIL-COB$_NO_USEPRO>a-3>
00 000D0 .BYTE 0
00 000D1 .BYTE 0
```

.....

00018514	000D2		.LONG	99604
34 39	000D6		.ASCII	\94\
00	000D8		.BYTE	0
00*	000D9		.BYTE	<<COB\$_REAINCOPE-COB\$_NO_USEPRO>a-3>
00	000DA		.BYTE	0
00	000DB		.BYTE	0
00000000	000DC		.LONG	0
30 33	000E0		.ASCII	\30\
00	000E2		.BYTE	0
00*	000E3		.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	000E4		.BYTE	0
00	000E5		.BYTE	0
000182B2	000E6	P.AAF:	.LONG	98994
33 32	000EA		.ASCII	\23\
01	000EC		.BYTE	1
00*	000ED		.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	000EE		.BYTE	0
00	000EF		.BYTE	0
000185CC	000F0		.LONG	99788
33 32	000F4		.ASCII	\23\
01	000F6		.BYTE	1
00*	000F7		.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	000F8		.BYTE	0
00	000F9		.BYTE	0
00018594	000FA		.LONG	99732
33 32	000FE		.ASCII	\23\
01	00100		.BYTE	1
00*	00101		.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	00102		.BYTE	0
00	00103		.BYTE	0
0001858C	00104		.LONG	99724
33 32	00108		.ASCII	\23\
01	0010A		.BYTE	1
00*	0010B		.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	0010C		.BYTE	0
00	0010D		.BYTE	0
000182AA	0010E		.LONG	98986
32 39	00112		.ASCII	\92\
00	00114		.BYTE	0
00*	00115		.BYTE	<<COB\$_RECLOCREA-COB\$_NO_USEPRO>a-3>
00	00116		.BYTE	0
00	00117		.BYTE	0
00018584	00118		.LONG	99716
35 32	0011C		.ASCII	\25\
01	0011E		.BYTE	1
00*	0011F		.BYTE	<<COB\$_OPTMISREA-COB\$_NO_USEPRO>a-3>
02	00120		.BYTE	2
00	00121		.BYTE	0
00018584	00122		.LONG	99716
34 39	00126		.ASCII	\94\
00	00128		.BYTE	0
00*	00129		.BYTE	<<COB\$_REAUNOFIL-COB\$_NO_USEPRO>a-3>
00	0012A		.BYTE	0
00	0012B		.BYTE	0
00018637	0012C		.LONG	99900
34 34	00130		.ASCII	\94\
00	00132		.BYTE	0

.....

00*	00133	.BYTE	<<COB\$_REAUNOFIL-COB\$_NO_USEPRO>a-3>
00	00134	.BYTE	0
00	00135	.BYTE	0
00018514	00136	.LONG	99604
34 39	0013A	.ASCII	\94\
00	0013C	.BYTE	0
00*	0013D	.BYTE	<<COB\$_REAINCOPE-COB\$_NO_USEPRO>a-3>
00	0013E	.BYTE	0
00	0013F	.BYTE	0
00000000	00140	.LONG	0
30 33	00144	.ASCII	\30\
00	00146	.BYTE	0
00*	00147	.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	00148	.BYTE	0
00	00149	.BYTE	0
000182B2	0014A	.LONG	98994
33 32	0014E	.ASCII	\23\
01	00150	.BYTE	1
00*	00151	.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	00152	.BYTE	0
00	00153	.BYTE	0
000182AA	00154	.LONG	98986
32 39	00158	.ASCII	\92\
00	0015A	.BYTE	0
00*	0015B	.BYTE	<<COB\$_RECLOCREA-COB\$_NO_USEPRO>a-3>
00	0015C	.BYTE	0
00	0015D	.BYTE	0
00018584	0015E	.LONG	99716
35 32	00162	.ASCII	\25\
01	00164	.BYTE	1
00*	00165	.BYTE	<<COB\$_OPTMISREA-COB\$_NO_USEPRO>a-3>
02	00166	.BYTE	2
00	00167	.BYTE	0
00018584	00168	.LONG	99716
34 39	0016C	.ASCII	\94\
00	0016E	.BYTE	0
00*	0016F	.BYTE	<<COB\$_REAUNOFIL-COB\$_NO_USEPRO>a-3>
00	00170	.BYTE	0
00	00171	.BYTE	0
0001863C	00172	.LONG	99900
34 39	00176	.ASCII	\94\
00	00178	.BYTE	0
00*	00179	.BYTE	<<COB\$_REAUNOFIL-COB\$_NO_USEPRO>a-3>
00	0017A	.BYTE	0
00	0017B	.BYTE	0
00018514	0017C	.LONG	99604
34 39	00180	.ASCII	\94\
00	00182	.BYTE	0
00*	00183	.BYTE	<<COB\$_REAINCOPE-COB\$_NO_USEPRO>a-3>
00	00184	.BYTE	0
00	00185	.BYTE	0
00000000	00186	.LONG	0
30 33	0018A	.ASCII	\30\
00	0018C	.BYTE	0
00*	0018D	.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	0018E	.BYTE	0
00	0018F	.BYTE	0

P.AAG:

.....

```
00018544 00190 P.AAH: .LONG 99652
 34 33 00194 .ASCII \34\
 00 00196 .BYTE 0
00* 00197 .BYTE <<COB$_WRIBEYBOU-COB$_NO_USEPRO>a-3>
 00 00198 .BYTE 0
 00 00199 .BYTE 0
00018584 0019A .LONG 99716
 34 39 0019E .ASCII \94\
 00 001A0 .BYTE 0
00* 001A1 .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
 00 001A2 .BYTE 0
 00 001A3 .BYTE 0
0001863C 001A4 .LONG 99900
 34 39 001A8 .ASCII \94\
 00 001AA .BYTE 0
00* 001AB .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
 00 001AC .BYTE 0
 00 001AD .BYTE 0
00018514 001AE .LONG 99604
 34 39 001B2 .ASCII \94\
 00 001B4 .BYTE 0
00* 001B5 .BYTE <<COB$_WRIINCOPE-COB$_NO_USEPRO>a-3>
 00 001B6 .BYTE 0
 00 001B7 .BYTE 0
00000000 001B8 .LONG 0
 30 33 001BC .ASCII \30\
 00 001BE .BYTE 0
00* 001BF .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
 00 001C0 .BYTE 0
 00 001C1 .BYTE 0
00018544 001C2 P.AAI: .LONG 99652
 34 32 001C6 .ASCII \24\
 01 001C8 .BYTE 1
00* 001C9 .BYTE <<COB$_WRIBEYBOU-COB$_NO_USEPRO>a-3>
 00 001CA .BYTE 0
 00 001CB .BYTE 0
000182AA 001CC .LONG 98986
 32 39 001D0 .ASCII \92\
 00 001D2 .BYTE 0
00* 001D3 .BYTE <<COB$_RECLOCWRI-COB$_NO_USEPRO>a-3>
 00 001D4 .BYTE 0
 00 001D5 .BYTE 0
00018584 001D6 .LONG 99716
 34 39 001DA .ASCII \94\
 00 001DC .BYTE 0
00* 001DD .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
 00 001DE .BYTE 0
 00 001DF .BYTE 0
0001863C 001E0 .LONG 99900
 34 39 001E4 .ASCII \94\
 00 001E6 .BYTE 0
00* 001E7 .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
 00 001E8 .BYTE 0
 00 001E9 .BYTE 0
00018514 001EA .LONG 99604
 34 39 001EE .ASCII \94\
 00 001FO .BYTE 0
```

.....

00*	001F1	.BYTE	<<COB\$_WRIINCOPE-COB\$_NO_USEPRO>a-3>	
00	001F2	.BYTE	0	
00	001F3	.BYTE	0	
00000000	001F4	.LONG	0	
30	33	001FB	.ASCII	\30\
00	001FA	.BYTE	0	
00*	001FB	.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>	
00	001FC	.BYTE	0	
00	001FD	.BYTE	0	
000182A2	001FE	.LONG	98978	
32	32	00202	.ASCII	\22\
01	00204	.BYTE	1	
00*	00205	.BYTE	<<COB\$_WRIDUPKEY-COB\$_NO_USEPRO>a-3>	
00	00206	.BYTE	0	
00	00207	.BYTE	0	
00018544	00208	.LONG	99652	
34	32	0020C	.ASCII	\24\
01	0020E	.BYTE	1	
00*	0020F	.BYTE	<<COB\$_WRIBEYBOU-COB\$_NO_USEPRO>a-3>	
00	00210	.BYTE	0	
00	00211	.BYTE	0	
00018594	00212	.LONG	99732	
34	32	00216	.ASCII	\24\
01	00218	.BYTE	1	
00*	00219	.BYTE	<<COB\$_WRIBEYBOU-COB\$_NO_USEPRO>a-3>	
00	0021A	.BYTE	0	
00	0021B	.BYTE	0	
000182AA	0021C	.LONG	98986	
32	39	00220	.ASCII	\92\
00	00222	.BYTE	0	
00*	00223	.BYTE	<<COB\$_RECLOCWRI-COB\$_NO_USEPRO>a-3>	
00	00224	.BYTE	0	
00	00225	.BYTE	0	
00018584	00226	.LONG	99716	
34	39	0022A	.ASCII	\94\
00	0022C	.BYTE	0	
00*	0022D	.BYTE	<<COB\$_WRIUNOFIL-COB\$_NO_USEPRO>a-3>	
00	0022E	.BYTE	0	
00	0022F	.BYTE	0	
0001863C	00230	.LONG	99900	
34	39	00234	.ASCII	\94\
00	00236	.BYTE	0	
00*	00237	.BYTE	<<COB\$_WRIUNOFIL-COB\$_NO_USEPRO>a-3>	
00	00238	.BYTE	0	
00	00239	.BYTE	0	
00018514	0023A	.LONG	99604	
34	39	0023E	.ASCII	\94\
00	00240	.BYTE	0	
00*	00241	.BYTE	<<COB\$_WRIINCOPE-COB\$_NO_USEPRO>a-3>	
00	00242	.BYTE	0	
00	00243	.BYTE	0	
00000000	00244	.LONG	0	
30	33	00248	.ASCII	\30\
00	0024A	.BYTE	0	
00*	0024B	.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>	
00	0024C	.BYTE	0	
00	0024D	.BYTE	0	

P.AAJ:

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00018011 0024E P.AAK: .LONG 98321
 32 30 00252 .ASCII \02\
 02 00254 .BYTE 2
00* 00255 .BYTE <<COB$_WRICREDUP-COB$_NO_USEPRO>a-3>
00 00256 .BYTE 0
00 00257 .BYTE 0
000186AC 00258 .LONG 100012
 31 32 0025C .ASCII \21\
 01 0025E .BYTE 1
00* 0025F .BYTE <<COB$_WRINOTASC-COB$_NO_USEPRO>a-3>
00 00260 .BYTE 0
00 00261 .BYTE 0
000184EC 00262 .LONG 99564
 32 32 00266 .ASCII \22\
 01 00268 .BYTE 1
00* 00269 .BYTE <<COB$_WRIDISDUP-COB$_NO_USEPRO>a-3>
00 0026A .BYTE 0
00 0026B .BYTE 0
00018544 0026C .LONG 99652
 34 32 00270 .ASCII \24\
 01 00272 .BYTE 1
00* 00273 .BYTE <<COB$_WRIBEYBOU-COB$_NO_USEPRO>a-3>
00 00274 .BYTE 0
00 00275 .BYTE 0
000182AA 00276 .LONG 98986
 32 39 0027A .ASCII \92\
 00 0027C .BYTE 0
00* 0027D .BYTE <<COB$_RECLOCWRI-COB$_NO_USEPRO>a-3>
00 0027E .BYTE 0
00 0027F .BYTE 0
00018584 00280 .LONG 99716
 34 39 00284 .ASCII \94\
 00 00286 .BYTE 0
00* 00287 .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
00 00288 .BYTE 0
00 00289 .BYTE 0
0001863C 0028A .LONG 99900
 34 39 0028E .ASCII \94\
 00 00290 .BYTE 0
00* 00291 .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
00 00292 .BYTE 0
00 00293 .BYTE 0
00018514 00294 .LONG 99604
 34 39 00298 .ASCII \94\
 00 0029A .BYTE 0
00* 0029B .BYTE <<COB$_WRIINCOPE-COB$_NO_USEPRO>a-3>
00 0029C .BYTE 0
00 0029D .BYTE 0
00000000 0029E .LONG 0
 30 33 002A2 .ASCII \30\
 00 002A4 .BYTE 0
00* 002A5 .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
00 002A6 .BYTE 0
00 002A7 .BYTE 0
00018011 002A8 P.AAL: .LONG 98321
 32 30 002AC .ASCII \02\
 02 002AE .BYTE 2
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00* 002AF .BYTE <<COB$_WRICREDUP-COB$_NO_USEPRO>a-3>
00 002B0 .BYTE 0
00 002B1 .BYTE 0
000184EC 002B2 .LONG 99564
32 32 002B6 .ASCII \22\
01 002B8 .BYTE 1
00* 002B9 .BYTE <<COB$_WRIDISDUP-COB$_NO_USEPRO>a-3>
00 002BA .BYTE 0
00 002BB .BYTE 0
000182A2 002BC .LONG 98978
32 32 002C0 .ASCII \22\
01 002C2 .BYTE 1
00* 002C3 .BYTE <<COB$_WRIDISDUP-COB$_NO_USEPRO>a-3>
00 002C4 .BYTE 0
00 002C5 .BYTE 0
00018544 002C6 .LONG 99652
34 32 002CA .ASCII \24\
01 002CC .BYTE 1
00* 002CD .BYTE <<COB$_WRIBEYBOU-COB$_NO_USEPRO>a-3>
00 002CE .BYTE 0
00 002CF .BYTE 0
000182AA 002D0 .LONG 98986
32 39 002D4 .ASCII \92\
00 002D6 .BYTE 0
00* 002D7 .BYTE <<COB$_RECLOCWRI-COB$_NO_USEPRO>a-3>
00 002D8 .BYTE 0
00 002D9 .BYTE 0
00018584 002DA .LONG 99716
34 39 002DE .ASCII \94\
00 002E0 .BYTE 0
00* 002E1 .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
00 002E2 .BYTE 0
00 002E3 .BYTE 0
0001863C 002E4 .LONG 99900
34 39 002E8 .ASCII \94\
00 002EA .BYTE 0
00* 002EB .BYTE <<COB$_WRIUNOFIL-COB$_NO_USEPRO>a-3>
00 002EC .BYTE 0
00 002ED .BYTE 0
00018514 002EE .LONG 99604
34 39 002F2 .ASCII \94\
00 002F4 .BYTE 0
00* 002F5 .BYTE <<COB$_WRIINCOPE-COB$_NO_USEPRO>a-3>
00 002F6 .BYTE 0
00 002F7 .BYTE 0
00000000 002F8 .LONG 0
30 33 002FC .ASCII \30\
00 002FE .BYTE 0
00* 002FF .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
00 00300 .BYTE 0
00 00301 .BYTE 0
000182AA 00302 P.AAM: .LONG 98986
32 39 00306 .ASCII \92\
00 00308 .BYTE 0
00* 00309 .BYTE <<COB$_RECLOCDEL-COB$_NO_USEPRO>a-3>
00 0030A .BYTE 0
00 0030B .BYTE 0
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000184B4	0030C	.LONG	99508
33 39	00310	.ASCII	\93\
00	00312	.BYTE	0
00*	00313	.BYTE	<<COB\$_DELNO_R_S-COB\$_NO_USEPRO>a-3>
00	00314	.BYTE	0
00	00315	.BYTE	0
00018584	00316	.LONG	99716
34 39	0031A	.ASCII	\94\
00	0031C	.BYTE	0
00*	0031D	.BYTE	<<COB\$_DELUNOFIL-COB\$_NO_USEPRO>a-3>
00	0031E	.BYTE	0
00	0031F	.BYTE	0
0001863C	00320	.LONG	99900
34 39	00324	.ASCII	\94\
00	00326	.BYTE	0
00*	00327	.BYTE	<<COB\$_DELUNOFIL-COB\$_NO_USEPRO>a-3>
00	00328	.BYTE	0
00	00329	.BYTE	0
00018514	0032A	.LONG	99604
34 39	0032E	.ASCII	\94\
00	00330	.BYTE	0
00*	00331	.BYTE	<<COB\$_DELINCOPE-COB\$_NO_USEPRO>a-3>
00	00332	.BYTE	0
00	00333	.BYTE	0
00000000	00334	.LONG	0
30 33	00338	.ASCII	\30\
00	0033A	.BYTE	0
00*	0033B	.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	0033C	.BYTE	0
00	0033D	.BYTE	0
000182B2	0033E	.LONG	98994
33 32	00342	.ASCII	\23\
01	00344	.BYTE	1
00*	00345	.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	00346	.BYTE	0
00	00347	.BYTE	0
000185CC	00348	.LONG	99788
33 32	0034C	.ASCII	\23\
01	0034E	.BYTE	1
00*	0034F	.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	00350	.BYTE	0
00	00351	.BYTE	0
000182AA	00352	.LONG	98986
32 39	00356	.ASCII	\92\
00	00358	.BYTE	0
00*	00359	.BYTE	<<COB\$_RECLOCDEL-COB\$_NO_USEPRO>a-3>
00	0035A	.BYTE	0
00	0035B	.BYTE	0
00018584	0035C	.LONG	99716
34 39	00360	.ASCII	\94\
00	00362	.BYTE	0
00*	00363	.BYTE	<<COB\$_DELUNOFIL-COB\$_NO_USEPRO>a-3>
00	00364	.BYTE	0
00	00365	.BYTE	0
0001863C	00366	.LONG	99900
34 39	0036A	.ASCII	\94\
00	0036C	.BYTE	0

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00*	0036D		.BYTE	<<COB\$_DELUNOFIL-COB\$_NO_USEPRO>a-3>
00	0036E		.BYTE	0
00	0036F		.BYTE	0
00018514	00370		.LONG	99604
34	39	00374	.ASCII	\94\
00	00376		.BYTE	0
00*	00377		.BYTE	<<COB\$_DELINCOPE-COB\$_NO_USEPRO>a-3>
00	00378		.BYTE	0
00	00379		.BYTE	0
00000000	0037A		.LONG	0
30	33	0037E	.ASCII	\30\
00	00380		.BYTE	0
00*	00381		.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	00382		.BYTE	0
00	00383		.BYTE	0
00018484	00384	P.AAO:	.LONG	99508
33	39	00388	.ASCII	\93\
00	0038A		.BYTE	0
00*	0038B		.BYTE	<<COB\$_REWNO_R_S-COB\$_NO_USEPRO>a-3>
00	0038C		.BYTE	0
00	0038D		.BYTE	0
00018584	0038E		.LONG	99716
34	39	00392	.ASCII	\94\
00	00394		.BYTE	0
00*	00395		.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	00396		.BYTE	0
00	00397		.BYTE	0
0001863C	00398		.LONG	99900
34	39	0039C	.ASCII	\94\
00	0039E		.BYTE	0
00*	0039F		.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	003A0		.BYTE	0
00	003A1		.BYTE	0
00018514	003A2		.LONG	99604
34	39	003A6	.ASCII	\94\
00	003A8		.BYTE	0
00*	003A9		.BYTE	<<COB\$_REWINCOPE-COB\$_NO_USEPRO>a-3>
00	003AA		.BYTE	0
00	003AB		.BYTE	0
00000000	003AC		.LONG	0
30	33	003B0	.ASCII	\30\
00	003B2		.BYTE	0
00*	003B3		.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	003B4		.BYTE	0
00	003B5		.BYTE	0
000182AA	003B6	P.AAP:	.LONG	98986
32	39	003BA	.ASCII	\92\
00	003BC		.BYTE	0
00*	003BD		.BYTE	<<COB\$_RECLOCREW-COB\$_NO_USEPRO>a-3>
00	003BE		.BYTE	0
00	003BF		.BYTE	0
00018484	003C0		.LONG	99508
33	39	003C4	.ASCII	\93\
00	003C6		.BYTE	0
00*	003C7		.BYTE	<<COB\$_REWNO_R_S-COB\$_NO_USEPRO>a-3>
00	003C8		.BYTE	0
00	003C9		.BYTE	0

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00018584	003CA	.LONG	99716
34 39	003CE	.ASCII	\94\
00	003D0	.BYTE	0
00*	003D1	.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	003D2	.BYTE	0
00	003D3	.BYTE	0
0001863C	003D4	.LONG	99900
34 39	003D8	.ASCII	\94\
00	003DA	.BYTE	0
00*	003DB	.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	003DC	.BYTE	0
00	003DD	.BYTE	0
00018514	003DE	.LONG	99604
34 39	003E2	.ASCII	\94\
00	003E4	.BYTE	0
00*	003E5	.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	003E6	.BYTE	0
00	003E7	.BYTE	0
00000000	003E8	.LONG	0
30 33	003EC	.ASCII	\30\
00	003EE	.BYTE	0
00*	003EF	.BYTE	<<COB\$_ERRON_FIL-COB\$_NO_USEPRO>a-3>
00	003F0	.BYTE	0
00	003F1	.BYTE	0
000182B2	003F2	.LONG	98994
33 32	003F6	.ASCII	\23\
01	003F8	.BYTE	1
00*	003F9	.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	003FA	.BYTE	0
00	003FB	.BYTE	0
000185CC	003FC	.LONG	99788
33 32	00400	.ASCII	\23\
01	00402	.BYTE	1
00*	00403	.BYTE	<<COB\$_RECNOTEXI-COB\$_NO_USEPRO>a-3>
00	00404	.BYTE	0
00	00405	.BYTE	0
000182AA	00406	.LONG	98986
32 39	0040A	.ASCII	\92\
00	0040C	.BYTE	0
00*	0040D	.BYTE	<<COB\$_RECLOCREW-COB\$_NO_USEPRO>a-3>
00	0040E	.BYTE	0
00	0040F	.BYTE	0
00018584	00410	.LONG	99716
34 39	00414	.ASCII	\94\
00	00416	.BYTE	0
00*	00417	.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	00418	.BYTE	0
00	00419	.BYTE	0
0001863C	0041A	.LONG	99900
34 39	0041E	.ASCII	\94\
00	00420	.BYTE	0
00*	00421	.BYTE	<<COB\$_REWUNOFIL-COB\$_NO_USEPRO>a-3>
00	00422	.BYTE	0
00	00423	.BYTE	0
00018514	00424	.LONG	99604
34 39	00428	.ASCII	\94\
00	0042A	.BYTE	0

P.AAQ:

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00* 0042B .BYTE <<COB$_REWINFOPE-COB$_NO_USEPRO>a-3>
00 0042C .BYTE 0
00 0042D .BYTE 0
00000000 0042E .LONG 0
30 33 00432 .ASCII \30\
00 00434 .BYTE 0
00* 00435 .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
00 00436 .BYTE 0
00 00437 .BYTE 0
00018011 00438 P.AAR: .LONG 98321
32 30 0043C .ASCII \02\
02 0043E .BYTE 2
00* 0043F .BYTE <<COB$_REWCREDUP-COB$_NO_USEPRO>a-3>
00 00440 .BYTE 0
00 00441 .BYTE 0
0001849C 00442 .LONG 99484
31 32 00446 .ASCII \21\
01 00448 .BYTE 1
00* 00449 .BYTE <<COB$_PRIKEYCHA-COB$_NO_USEPRO>a-3>
00 0044A .BYTE 0
00 0044B .BYTE 0
000184EC 0044C .LONG 99564
32 32 00450 .ASCII \22\
C1 00452 .BYTE 1
00* 00453 .BYTE <<COB$_REWDISDUP-COB$_NO_USEPRO>a-3>
00 00454 .BYTE 0
00 00455 .BYTE 0
000182AA 00456 .LONG 98986
32 39 0045A .ASCII \92\
00 0045C .BYTE 0
00* 0045D .BYTE <<COB$_RECLOCREW-COB$_NO_USEPRO>a-3>
00 0045E .BYTE 0
00 0045F .BYTE 0
00018484 00460 .LONG 99508
33 39 00464 .ASCII \93\
00 00466 .BYTE 0
00* 00467 .BYTE <<COB$_REWNO_R_S-COB$_NO_USEPRO>a-3>
00 00468 .BYTE 0
00 00469 .BYTE 0
00018584 0046A .LONG 99716
34 39 C,46E .ASCII \94\
00 00470 .BYTE 0
00* 00471 .BYTE <<COB$_REWUNOFIL-COB$_NO_USEPRO>a-3>
00 00472 .BYTE 0
00 00473 .BYTE 0
0001863C 00474 .LONG 99900
34 39 00478 .ASCII \94\
00 0047A .BYTE 0
00* 0047B .BYTE <<COB$_REWUNOFIL-COB$_NO_USEPRO>a-3>
00 0047C .BYTE 0
00 0047D .BYTE 0
00018514 0047E .LONG 99604
34 39 00482 .ASCII \94\
00 00484 .BYTE 0
00* 00485 .BYTE <<COB$_REWINFOPE-COB$_NO_USEPRO>a-3>
00 00486 .BYTE 0
00 00487 .BYTE 0
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00000000	00488		.LONG	0
30 33	0048C		.ASCII	\30\
00	0048E		.BYTE	0
00*	0048F		.BYTE	<<COBS_ERRON_FIL-COBS_NO_USEPRO>a-3>
00	00490		.BYTE	0
00	00491		.BYTE	0
00018011	00492	P.AAS:	.LONG	98321
32 30	00496		.ASCII	\02\
02	00498		.BYTE	2
00*	00499		.BYTE	<<COBS_REWCREDUP-COBS_NO_USEPRO>a-3>
00	0049A		.BYTE	0
00	0049B		.BYTE	0
000184EC	0049C		.LONG	99564
32 32	004A0		.ASCII	\22\
01	004A2		.BYTE	1
00*	004A3		.BYTE	<<COBS_REWDISDUP-COBS_NO_USEPRO>a-3>
00	004A4		.BYTE	0
00	004A5		.BYTE	0
000182B2	004A6		.LONG	98994
33 32	004AA		.ASCII	\23\
01	004AC		.BYTE	1
00*	004AD		.BYTE	<<COBS_RECNOTEXI-COBS_NO_USEPRO>a-3>
00	004AE		.BYTE	0
00	004AF		.BYTE	0
000182AA	004B0		.LONG	98986
32 39	004B4		.ASCII	\92\
00	004B6		.BYTE	0
00*	004B7		.BYTE	<<COBS_RECLOCREW-COBS_NO_USEPRO>a-3>
00	004B8		.BYTE	0
00	004B9		.BYTE	0
00018584	004BA		.LONG	99716
34 39	004BE		.ASCII	\94\
00	004C0		.BYTE	0
00*	004C1		.BYTE	<<COBS_REWUNOFIL-COBS_NO_USEPRO>a-3>
00	004C2		.BYTE	0
00	004C3		.BYTE	0
0001863C	004C4		.LONG	99900
34 39	004C8		.ASCII	\94\
00	004CA		.BYTE	0
00*	004CB		.BYTE	<<COBS_REWUNOFIL-COBS_NO_USEPRO>a-3>
00	004CC		.BYTE	0
00	004CD		.BYTE	0
00018514	004CE		.LONG	99604
34 39	004D2		.ASCII	\94\
00	004D4		.BYTE	0
00*	004D5		.BYTE	<<COBS_REWINCOPE-COBS_NO_USEPRO>a-3>
00	004D6		.BYTE	0
00	004D7		.BYTE	0
00000000	004D8		.LONG	0
30 33	004DC		.ASCII	\30\
00	004DE		.BYTE	0
00*	004DF		.BYTE	<<COBS_ERRON_FIL-COBS_NO_USEPRO>a-3>
00	004E0		.BYTE	0
00	004E1		.BYTE	0
000182B2	004E2	P.AAT:	.LONG	98994
33 32	004E6		.ASCII	\23\
01	004E8		.BYTE	1

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00* 004E9 .BYTE <<COB$_RECNOTEXI-COB$_NO_USEPRO>a-3>
00 004EA .BYTE 0
03 004EB .BYTE 3
000185CC 004EC .LONG 99788
33 32 004FO .ASCII \23\
01 004F2 .BYTE 1
00* 004F3 .BYTE <<COB$_RECNOTEXI-COB$_NO_USEPRO>a-3>
00 004F4 .BYTE 0
03 004F5 .BYTE 3
00018584 004F6 .LONG 99716
35 32 004FA .ASCII \25\
01 004FC .BYTE 1
00* 004FD .BYTE <<COB$_OPTMISSTA-COB$_NO_USEPRO>a-3>
02 004FE .BYTE 2
00 004FF .BYTE 0
00018584 00500 .LONG 99716
34 39 00504 .ASCII \94\
00 00506 .BYTE 0
00* 00507 .BYTE <<COB$_STAUNOFIL-COB$_NO_USEPRO>a-3>
00 00508 .BYTE 0
00 00509 .BYTE 0
0001863C 0050A .LONG 99900
34 39 0050E .ASCII \94\
00 00510 .BYTE 0
00* 00511 .BYTE <<COB$_STAUNOFIL-COB$_NO_USEPRO>a-3>
00 00512 .BYTE 0
00 00513 .BYTE 0
000182AA 00514 .LONG 98986
32 39 00518 .ASCII \92\
00 0051A .BYTE 0
00* 0051B .BYTE <<COB$_RECLOCSTA-COB$_NO_USEPRO>a-3>
00 0051C .BYTE 0
00 0051D .BYTE 0
00018514 0051E .LONG 99604
34 39 00522 .ASCII \94\
00 00524 .BYTE 0
00* 00525 .BYTE <<COB$_STAINCOPE-COB$_NO_USEPRO>a-3>
00 00526 .BYTE 0
00 00527 .BYTE 0
00000000 00528 .LONG 0
30 33 0052C .ASCII \30\
00 0052E .BYTE 0
00* 0052F .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
00 00530 .BYTE 0
00 00531 .BYTE 0
000181A0 00532 P.AAU: .LONG 98720
30 30 00536 .ASCII \00\
03 00538 .BYTE 3
00* 00539 .BYTE <<COB$_RECNOTLOC-COB$_NO_USEPRO>a-3>
00 0053A .BYTE 0
00 0053B .BYTE 0
00018584 0053C .LONG 99716
34 39 00540 .ASCII \94\
00 00542 .BYTE 0
00* 00543 .BYTE <<COB$_UNLUNOFIL-COB$_NO_USEPRO>a-3>
00 00544 .BYTE 0
00 00545 .BYTE 0
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0001863C 00546 .LONG 99900
34 39 0054A .ASCII \94\
00 0054C .BYTE 0
00* 0054D .BYTE <<COB$_UNLUNOFIL-COB$_NO_USEPRO>a-3>
00 0054E .BYTE 0
00 0054F .BYTE 0
000184B4 00550 .LONG 99508
33 39 00554 .ASCII \93\
00 00556 .BYTE 0
00* 00557 .BYTE <<COB$_UNLNO_CUR-COB$_NO_USEPRO>a-3>
00 00558 .BYTE 0
00 00559 .BYTE 0
00000000 0055A .LONG 0
30 33 0055E .ASCII \30\
00 00560 .BYTE 0
00 00561 .BYTE <<COB$_ERRON_FIL-COB$_NO_USEPRO>a-3>
00 00562 .BYTE 0
00 00563 .BYTE 0
00564 P.AAV: .WORD 0 -1 0 0 0 0 50 -1 50 50 50 -
50 150 -1 150 230 150 330 400 -1 -
450 510 590 680 900 -1 950 1010 -
1080 1170 -1 -1 770 830 770 830 -
-1 -1 1250 -1 1250 -1 90 1330

```

```

0032 0032 FFFF 0032 0000 0000 0000 0000 FFFF 0000 00564
FFFF 0190 014A 0096 00E6 0096 FFFF 0096 0032 0032 00578
0492 0438 03F2 0386 FFFF 0384 02A8 024E 01FE 01C2 0058C
FFFF 04E2 FFFF FFFF 033E 0302 033E 0302 FFFF FFFF 005A0
0532 005A FFFF 04E2 005B4

```

```

BASE= P.AAA
OPE_T= P.AAB
CLO_T= P.AAC
CLR_S_S_T= P.AAD
REA_S_S_T= P.AAE
REA_R_S_T= P.AAE
REA_R_R_T= P.AAF
REA_I_S_T= P.AAE
REA_I_R_T= P.AAG
WRI_S_S_T= P.AAH
WRI_R_S_T= P.AAI
WRI_R_R_T= P.AAJ
WRI_I_S_T= P.AAK
WRI_I_R_T= P.AAL
DEL_R_S_T= P.AAM
DEL_R_R_T= P.AAN
DEL_I_S_T= P.AAM
DEL_I_R_T= P.AAN
REW_S_S_T= P.AAO
REW_R_S_T= P.AAP
REW_R_R_T= P.AAQ
REW_I_S_T= P.AAR
REW_I_R_T= P.AAS
STA_R_S_T= P.AAT
STA_I_S_T= P.AAT
UNL_T= P.AAU
PLIT_TABLE= P.AAV-2
.EXTRN LIB$STOP, COB$HANDLER
.EXTRN COB$$INVOKI USE
.EXTRN COB$_NO_USEPRO, COB$_ERRON_FIL
.EXTRN COB$_OPTMISOPE, COB$_FILALRLOC
.EXTRN COB$_FILALROPE, COB$_FILCLOLOC
.EXTRN COB$_NO_SPACE, COB$_FILNOTFOU

```



```

.EXTRN COB$_OPTMISCLO, COB$_FILALRCLO
.EXTRN COB$_NO_NEXLOG, COB$_OPTMISREA
.EXTRN COB$_NO_NEXVAL, COB$_RECLOCREA
.EXTRN COB$_RECLOC_OK, COB$_REAUNOFIL
.EXTRN COB$_REAINCOPE, COB$_WRIBEYBOU
.EXTRN COB$_WRIUNOFIL, COB$_WRIINCOPE
.EXTRN COB$_REWNO_R_S, COB$_REWUNOFIL
.EXTRN COB$_REWINCOPE, COB$_RECNOTEXI
.EXTRN COB$_OPTMISSTA, COB$_RECLOCSTA
.EXTRN COB$_STAUNOFIL, COB$_STAINCOPE
.EXTRN COB$_RECLOCWRI, COB$_RECLOCDEL
.EXTRN COB$_DELNO_R_S, COB$_DELUNOFIL
.EXTRN COB$_DELINCOPE, COB$_RECLOCREW
.EXTRN COB$_WRIDUPKEY, COB$_WRICREDUP
.EXTRN COB$_WRINOTASC, COB$_WRIDUPALT
.EXTRN COB$_REWCREDUP, COB$_PRIKEYCHA
.EXTRN COB$_REWDISDUP, COB$_WRIDISDUP
.EXTRN COB$_REASMAMIN, COB$_WRISMAMIN
.EXTRN COB$_REWSMAMIN, COB$_ORGNOTMAT
.EXTRN COB$_INVARG, COB$_LSTHNDUSE
.EXTRN COB$_KEYNOTMAT, COB$_RECNOTLOC
.EXTRN COB$_UNLUNOFIL, COB$_UNLNO_CUR
.EXTRN COB$_REAMP_D_R, OTSS$_FATINTERR

```

OFFC 00000

```

.ENTRY COB$IOEXCEPTION, Save R2,R3,R4,R5,R6,R7,R8,-; 1201
R9,R10,R11
SUBL2 #8, SP
CMPB (AP), #2 1355
BLSSU 5$
MOVL RAB, R7 1361
BEQL 5$
MOVL 60(R7), FAB 1367
BEQL 5$ 1368
MOVL 40(FAB), NAM 1374
BEQL 5$ 1375
CLRQ OPEN MD_ADDR 1388
MOVL 4(NAM), -RSADESC+4 1398
MOVZBL 3(NAM), RSADESC 1399
BNEQ 1$ 1400
MOVZBL 11(NAM), RSADESC 1402
BNEQ 1$ 1403
MOVZBL 52(FAB), RSADESC 1406
MOVZBL 52(FAB), R0 1415
MOVC3 R0, @44(FAB), @4(NAM)
CASEW FLAGS+2, #0, #7 1426
.WORD 3$-2$,-
3$-2$,-
32$-2$,-
33$-2$,-
35$-2$,-
34$-2$,-
42$-2$,-
44$-2$
BRW 54$ 1431
TSTW FLAGS+2 1442
BNEQ 4$
TSTL 8(R7) 1445

```

```

08 C2 00002
02 6C 91 00005
64 1F 00008
57 08 AC D0 0000A
5E 13 0000E
56 3C A7 D0 00010
58 13 00014
52 28 A6 D0 00016
52 13 0001A
5A 7C 0001C
04 AE 04 A2 D0 0001E
6E 03 A2 9A 00023
14 12 00027
6E 08 A2 9A 00029
0E 12 0002D
6E 34 A6 9A 0002F
50 34 A6 9A 00033
86 50 28 00037
00 06 AC AF 0003D 1$:
0013 00042 2$:
0190 0004A
028B 31 00052
06 AC B5 00055 3$:
0F 12 00058
08 A7 D5 0005A

```

0187  
0223

04 92  
07  
017E  
0211

2C 86  
00  
0013  
0190









		62	D5	002F4	TSTL	(USEENT)	2010	
		1D	13	002F6	BEQL	60\$	2010	
	04	A2	D5	002F8	TSTL	4(USEENT)	2028	
		15	13	002FB	BEQL	59\$	2028	
		63	DD	002FD	PUSHL	(USE)	2036	
	04	A2	DD	002FF	PUSHL	4(USEENT)	2035	
	18	AE	DD	00302	PUSHL	24(FP)	2034	
		53	DD	00305	PUSHL	USE	2033	
		62	DD	00307	PUSHL	(USEENT)	2032	
00000000G	00	05	FB	00309	CALLS	#5, COB\$\$INVOKE_USE	2037	
		1E	11	00310	BRB	62\$	2050	
	5A	62	DD	00312	MOVL	(USEENT), OPEN_MD_ADDR	2061	
		5B	D5	00315	TSTL	FILE_ADDR	2064	
		04	12	00317	BNEQ	61\$	2064	
		5A	D5	00319	TSTL	OPEN_MD_ADDR	2064	
		1A	13	0031B	BEQL	63\$	2064	
		5A	DD	0031D	PUSHL	OPEN_MD_ADDR	2064	
		5B	DD	0031F	PUSHL	FILE_ADDR	2064	
		02	DD	00321	PUSHL	#2	2065	
00000000G	00	8F	DD	00323	PUSHL	#COB\$ LSTHNDUSE	2065	
	02	04	FB	00329	CALLS	#4, LIB\$\$SIGNAL	2069	
		55	D1	00330	CMPL	ACTION, #2	2079	
		1D	12	00333	BNEQ	66\$	2081	
		05	11	00335	BRB	64\$	2081	
	02	55	D1	00337	CMPL	ACTION, #2	2081	
		04	12	0033A	BNEQ	65\$	2081	
	50	01	DD	0033C	MOVL	#1, R0	2081	
		04	0033F	RET			2090	
		0210	8F	BB	00340	PUSHR	#M<R4,R9>	2088
		08	AE	9F	00344	PUSHAB	RSADESC	2089
		01	DD	00347	PUSHL	#1	2089	
00000000G	00	56	DD	00349	PUSHL	ERR_MSG_NUM	2094	
		05	FB	0034B	CALLS	#5, LIB\$\$STOP	2094	
		50	D4	00352	CLRL	R0	2094	
		04	00354	RET			2094	

; Routine Size: 853 bytes, Routine Base: \_COB\$CODE + 05BC



0063 AH-BT13A-SE  
VAX/VMS V4.0

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The image displays a grid of 144 small program listings, arranged in 12 rows and 12 columns. Each listing consists of a title followed by a list of lines of code. The titles are as follows:

- Row 1: COBPAUSE LIS (column 12)
- Row 2: COBMSG LIS (column 12)
- Row 3: COBHANDLE LIS (column 1)
- Row 4: COBINTAR LIS (column 1)
- Row 5: COBINTER LIS (column 3), COBMILQ LIS (column 12), COBPOSERA LIS (column 12)
- Row 6: COBIOEXCE LIS (column 4)
- Row 7: COBIMAGE LIS (column 10)
- Row 8: COBKEY LIS (column 7)
- Row 9: COBINUSE LIS (column 4)
- Row 10: (various titles)
- Row 11: (various titles)
- Row 12: (various titles)