```
SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

101               JOB   FORTRAN COMPILER -- COMPUTED GOTO PHASE -- PHASE 40
102               CTL   6611
103         *
104         * STATEMENTS WITH TWO TO TEN EXITS GENERATE IN-LINE INSTRUCTIONS.
105         *
106         X1    EQU   89                                                      0089
107         X2    EQU   94                                                      0094
108         X3    EQU   99                                                      0099
109         *
110         * STUFF IN THE RESIDENT AREA
111         *
112         GLOBER EQU  184  GLOBAL ERROR FLAG -- WM MEANS ERROR                0184
113         *
114               EXT00   SNAPSH, LOADNX, CDOVLY                                      MACRO
115         SNAPSH EQU  333                                                     0333  GEN
116         PHASLD EQU  381                                                     0381  GEN
117         SNAPEX EQU  564                                                     0564  GEN
118         LOADNX EQU  700   CARD OVERLAY UNLESS NOP                          0700  GEN
119         CDOVLY EQU  700   1 IF LOADING FROM CARDS, N IF FROM TAPE          0700  GEN
120         TPREAD EQU  704   LOAD OVERLAY FROM TAPE                           0704  GEN
121         TPERR  EQU  728                                                     0728  GEN
122         *
123               EXT03   START, TOP OF PHASE 3                                 MACRO
124         BEGIN3 EQU  838                                                     0838  GEN
125         TOP3   EQU  2600                                                    2600  GEN
126         *
127         PHAS40 LDPH  CGOTO,LOADAD,BEGN40,,,40                               MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]  GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                      GEN
            *                                                                  GEN
            * LOAD A BLOCK                                                     GEN
            *                                                                  GEN
128         )6J003 EQU  110  PHASE ID                                           0110  GEN
129         )6K003 EQU  700  LOAD NEXT PHASE                                    0700  GEN
130         )6L003 EQU  704  TAPE READ INSTRUCTION                              0704  GEN
131         )6M003 EQU  728  TAPE ERROR HANDLER                                 0728  GEN
            *                                                                  GEN
132               ORG   201                                                          0201
133         PHAS40 BSS   )8J003,G                                           5   0201  B 257 G     GEN   1   257
134               NOP     TO PATCH IN TRAPS FOR DEBUGGING                   1   0206  N           GEN   1
135         )0J003 EQU  *&1                                                     0207                GEN
136               LCA   )9J003,)6J003                                       7   0207  L 277 110   GEN   1   277     110
137               BCE   )1J003,)6K003,1    Q: LOADING FROM CARDS?           8   0214  B 250 700 1 GEN   1   250     700
138               BCE   )1J003,)6L003&4,0  Q: LOADING FROM AUTOCODER TAPE?   8   0222  B 250 708 0 GEN   1   250     708
139               RTW   1,LOADAD           READ THE BLOCK                   8   0230  L %U1 838 R GEN   1   %U1     838
140               BER   )6M003             Q: TAPE ERROR?                   5   0238  B 728 L     GEN   2   728
141               CS    BEGN40,)9R003      ENTER THE BLOCK                  7   0243  / 838 281   GEN   2   838     281
142         )1J003 CS   )6K003,)9R003      LOAD CARDS OR AUTOCODER TAPE     7   0250  / 700 281   GEN   2   700     281
143         )8J003 SW   )9R003                                              4   0257  , 281       GEN   2   281
144               MU    %T0,)8K003,W                                      8   0261  M %T0 273 W GEN   2   %T0     273
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SEQ PG LIN  LABEL   OP   OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

145            H    )0J003                                          4  0269  . 207       GEN      2   207
146         )8K003 EQU  *&1                                           0273              GEN
147         )9J003 DCW  @CGOTO@          PHASE ID                   5  0277              GEN      3
148            DCW  #1                                              1  0278              GEN      3
149            DC   @40@          PHASE NUMBER                      2  0280              GEN      3
150         )9R003 DCW  @}@                                          1  0281              GEN      3
151            XFR  PHAS40                                                 B 201                4   201
152         *
153            ORG  BEGIN3                                                  0838
154         LOADAD EQU  *&1          LOAD ADDRESS                       0838
155    838  BEGN40 SW   GM,GM2                                       7  0838  , S95 T09           5  1295    1309
156    845  LOOP   BW   DONE,0&X1                                    8  0845  V T20 0|0 1         5  1320     000+1
157    853         MCW  0&X1,SEQNO                                   7  0853  M 0|0 T43           5   000+1  1343
158    860         MCW  SEQNO,SEQNO2                                 7  0860  M T43 T12           5  1343    1312
159    867         MCW  RBRACK,1&X1                                  7  0867  M T44 0|1           5  1344     001+1
160    874         SBR  TSTBRK&6,1&X1                                7  0874  H |78 0|1           6  1078     001+1
161    881         C    0&X1                                         4  0881  C 0|0               6   000+1
162    885         SAR  X1                                           4  0885  Q 089               6   089
163    889         C    2&X1,KT  COMPUTED GOTO STATEMENT?            7  0889  C 0|2 T45           6   002+1  1345
164    896         BU   ALMOST   NO                                  5  0896  B T13 /             6  1313
165    901         S    W2                                           4  0901  S T47               6  1347
166    905  COUNT  MN   0&X1                                         4  0905  D 0|0               6   000+1
167    909         MN                                                1  0909  D                   7
168    910         MN                                                1  0910  D                   7
169    911         SAR  X1                                           4  0911  Q 089               7   089
170    915         A    KP1,W2                                       7  0915  A T48 T47           7  1348    1347
171    922         C    W2,KP11  ELEVEN WAYS YET?                    7  0922  C T47 T50           7  1347    1350
172    929         BE   SYNTAX   YES, SYNTAX ERROR                   5  0929  B S23 S             7  1223
173    934         C    0&X1,KCOMMA                                  7  0934  C 0|0 T51           7   000+1  1351
174    941         BU   COUNT    COUNT BRANCHES                     5  0941  B 905 /             8   905
175    946         MN   0&X1                                         4  0946  D 0|0               8   000+1
176    950         SAR  X1                                           4  0950  Q 089               8   089
177    954         B    GETADR                                       4  0954  B /14               8  1114
178    958         LCA  SEQNO2,0&X3                                  7  0958  L T12 0?0           8  1312     000+3
179    965         LCA  BRANCH&3                                     4  0965  L T40               8  1340
180    969         LCA                                               1  0969  L                   8
181    970         LCA                                               1  0970  L                   9
182    971         SBR  X3                                           4  0971  H 099               9   099
183    975         SBR  X1,1&X1                                      7  0975  H 089 0|1           9   089     001+1
184         *
185         * GENERATE BCE INSTRUCTIONS TO TEST SELECTOR
186         *
187    982  GENBCE BW   ENDSTM,4&X1                                  8  0982  V |53 0|4 1         9  1053     004+1
188    990         SW   BCE-6                                        4  0990  , T25               9  1325
189    994         MN   W2,BCE                                       7  0994  D T47 T31           9  1347    1331
190  1 001         MCW  W3                                           4  1001  M T02               9  1302
191  1 005         MCW  6&X1                                         4  1005  M 0|6              10   006+1
192  1 009         SAR  X1                                           4  1009  Q 089              10   089
193  1 013         CW   BCE-6                                        4  1013  ) T25              10  1325
194  1 017         MZ   X2ZONE,BCE-5                                 7  1017  Y T52 T26          10  1352    1326
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SEQ PG LIN  LABEL   OP    OPERANDS                                              SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195  1 024          MZ    *-4,BCE-2                                               7  1024  Y |26 T29           10  1026    1329
196  1 031          LCA   BCE,0&X3                                               7  1031  L T31 0?0           10  1331     000+3
197  1 038          SBR   X3                                                    4  1038  H 099             10   099
198  1 042          S     KP1,W2                                                  7  1042  S T48 T47           11  1348    1347
199  1 049          B     GENBCE                                                  4  1049  B 982             11   982
200          *
201  1 053  ENDSTM LCA   GM,0&X3                                                 7  1053  L S95 0?0           11  1295     000+3
202  1 060          SBR   X3                                                    4  1060  H 099             11   099
203  1 064  BOTTOM C     0&X1  BOTTOM OF LOOP -- GET DOWN TO                     4  1064  C 0|0             11   000+1
204  1 068          SAR   X1      BOTTOM OF STATEMENT                           4  1068  Q 089             11   089
205  1 072  TSTBRK BCE   LOOP,0,]  NOT TOO BIG IF BRACKET NOT CLOBBERED         8  1072  B 845 000 ]       11   845     000
206  1 080          CS    332                                                     4  1080  / 332             12   332
207  1 084          CS                                                            1  1084  /                 12
208  1 085          CC    1                                                       2  1085  F 1               12
209  1 087          MCW   ERROR2,270                                             7  1087  M T88 270         12  1388     270
210  1 094          W                                                             1  1094  2                 12
211  1 095          CC    1                                                       2  1095  F 1               12
212  1 097          BCE   HALT,CDOVLY,1                                         8  1097  B /10 700 1       12  1110     700
213  1 105          RWD   1                                                       5  1105  U %U1 R           13   %U1
214  1 110  HALT    H     HALT                                                    4  1110  . /10             13  1110
215          *
216          * VERIFY THAT THE FIELD AFTER THE BRANCHES IS AN ADDRESS,
217          * THAT IS, THE DIGIT PART OF ALL THREE CHARACTERS IS IN
218          * THE RANGE 0-9.  MOVE IT TO W3.
219          *
220  1 114  GETADR SBR   GETADX&3                                                4  1114  H S22             13  1222
221  1 118          S     W1                                                      4  1118  S T89             13  1389
222  1 122  GETCH  MN    0&X1,TSTDGT&7                                           7  1122  D 0|0 /55         13   000+1  1155
223  1 129          SAR   X1                                                    4  1129  Q 089             13   089
224  1 133          BCE   OKADR,W1,B  TESTED ALL THREE CHARACTERS?              8  1133  B /81 T89 B       13  1181    1389
225  1 141          A     KP1,W1                                                  7  1141  A T48 T89         14  1348    1389
226  1 148  TSTDGT BCE   GETCH,DIGITS,0  NUMERIC PART IS A DIGIT?               8  1148  B /22 T99 0       14  1122    1399
227  1 156          B                                                             1  1156  B                 14
228  1 157          B                                                             1  1157  B                 14
229  1 158          B                                                             1  1158  B                 14
230  1 159          B                                                             1  1159  B                 14
231  1 160          B                                                             1  1160  B                 14
232  1 161          B                                                             1  1161  B                 15
233  1 162          B                                                             1  1162  B                 15
234  1 163          B                                                             1  1163  B                 15
235  1 164          B                                                             1  1164  B                 15
236  1 165  GETGM  BCE   SYNTAX,0&X1,}                                           8  1165  B S23 0|0 } GMARK 15  1223     000+1
237  1 173          SBR   X1                                                    4  1173  H 089             15   089
238  1 177          B     GETGM                                                   4  1177  B /65             15  1165
239  1 181  OKADR   BM    *&5,2&X1                                                8  1181  V /93 0|2 K       16  1193     002+1
240  1 189          B     GETGM                                                   4  1189  B /65             16  1165
241  1 193          MZ    KB1,2&X1                                                7  1193  Y U00 0|2         16  1400     002+1
242  1 200          MCW   3&X1,W3                                                7  1200  M 0|3 T02         16   003+1  1302
243  1 207          C     0&X1,GM                                                 7  1207  C 0|0 S95         16   000+1  1295
244  1 214          BU    GETGM                                                   5  1214  B /65 /           16  1165
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SEQ PG LIN  LABEL  OP    OPERANDS                                   SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

245  1 219  GETADX B     0                                            4  1219  B 000               17   000
246         *
247  1 223  SYNTAX BWZ   *&5,SEQNO,2                                  8  1223  V S35 T43 2         17  1235    1343
248  1 231         B     *&9                                          4  1231  B S43               17  1243
249  1 235         BWZ   *&15,SEQNO-2,2                               8  1235  V S57 T41 2         17  1257    1341
250  1 243         MCW   SEQNO,X2                                     7  1243  M T43 094           17  1343     094
251  1 250         MCW   0&X2,SEQNO                                   7  1250  M 0!0 T43           17   000+2  1343
252  1 257         CS    332                                          4  1257  / 332               18   332
253  1 261         CS                                                 1  1261  /                   18
254  1 262         SW    GLOBER                                       4  1262  , 184               18   184
255  1 266         MN    SEQNO,247                                    7  1266  D T43 247           18  1343     247
256  1 273         MN                                                 1  1273  D                   18
257  1 274         MN                                                 1  1274  D                   18
258  1 275         MCW   ERR34                                       4  1275  M U44               18  1444
259  1 279         W                                                  1  1279  2                   19
260  1 280         BCV   *&5                                          5  1280  B S89 @             19  1289
261  1 285         B     *&3                                          4  1285  B S91               19  1291
262  1 289         CC    1                                            2  1289  F 1                 19
263  1 291         B     BOTTOM                                       4  1291  B |64               19  1064
264         *
265  1 295  GM     DC    @}@                                          1  1295            GMARK   19
266  1 299         DCW   @T840@                                       4  1299                    19
267  1 302  W3     DCW   #3                                           3  1302                    19
268  1 305         DCW   #3                                           3  1305                    20
269  1 308         DCW   #3                                           3  1308                    20
270  1 309  GM2    DC    @}@                                          1  1309            GMARK   20
271  1 312  SEQNO2 DC    #3                                           3  1312                    20
272         *
273  1 313  ALMOST SBR   X1,5&X1                                     7  1313  H 089 0|5           20   089     005+1
274  1 320  DONE   B     LOADNX                                       4  1320  B 700               20   700
275         *
276  1 350  BCE    DCW   @BXXXXXXA@  BCE  XXX,XXX,A                  8  1331                    20
277  1 351         NOP   1001                                         4  1332  N |01               20  1001
278  1 355         H                                                  1  1336  .                   20
279  1 356  BRANCH B     15992&X3                                     4  1337  B IIB               21 15992+3
280  1 362  SEQNO  DCW   #3                                           3  1343                    21
281  1 363  RBRACK DCW   @]@                                         1  1344                    21
282  1 364  KT     DCW   @T@  COMPUTED GOTO STATEMENT CODE            1  1345                    21
283  1 366  W2     DCW   #2                                           2  1347                    21
284  1 367  KP1    DCW   &1                                           1  1348                    21
285  1 369  KP11   DCW   &11                                          2  1350                    21
286  1 370  KCOMMA DCW   @,@                                         1  1351                    22
287  1 371  X2ZONE DCW   @K@                                         1  1352                    22
288  1 407  ERROR2 DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     36  1388                    22
289  1 408  W1     DCW   #1                                           1  1389                    22
290  1 418  DIGITS DCW   @0123456789@                               10  1399                    23
291  1 419  KB1    DCW   #1                                           1  1400                    23
292  1 463  ERR34  DCW   @ERROR 34 - COMPUTED GO TO SYNTAX, STATEMENT @ 44  1444                  25
293  1 469  GMWM   DCW   @}@                                         1  1445            GMARK   25
294                XFR   BEGN40                                           B 838               26   838
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
295         CLRME   CLRA  LOADAD,GMWM,C                                                    MACRO
            *       CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                    GEN
            *                                                                              GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                            GEN
            *                                                                              GEN
296                 ORG   201                                                      0201
            *                                                                              GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                      GEN
            *                                                                              GEN
297         CLRME   EQU   *&1                                                0201          GEN
298                 BSS   SNAPSH,C                                        5  0201  B 333 C  GEN     27   333
299         )0J004  CS    GMWM         CLEAR FROM CLRTOP                  4  0206  / U45    GEN     27  1445
300                 SBR   )0J004&3                                        4  0210  H 209    GEN     27   209
301                 SBR   )0L004&6                                        4  0214  H 255    GEN     27   255
302                 C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?        7  0218  C 209 266  GEN     27   209     266
303                 BU    )0J004                                         5  0225  B 206 /  GEN     27   206
            *                                                                              GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                        GEN
            *                                                                              GEN
304         )0K004  C     )0L004&6,)0N004                                7  0230  C 255 269  GEN     27   255     269
305                 BU    )0L004                                         5  0237  B 249 /  GEN     28   249
306                 CS    LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1        7  0242  / 700 276  GEN     28   700     276
307         )0L004  LCA   )0P004,0-0     CLEAR WITH BLANK AND WORD MARK  7  0249  L 270 000  GEN     28   270     000
308                 SBR   )0L004&6                                        4  0256  H 255    GEN     28   255
309                 B     )0K004                                         4  0260  B 230    GEN     28   230
310         )0M004  DSA   )0R004         CLRBOT & X00 - 1               3  0266  899      GEN     28   899
311         )0N004  DSA   LOADAD         CLRBOT                         3  0269  838      GEN     28   838
312         )0P004  DCW   #1                                            1  0270           GEN     29
313                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP  5  0275           GEN     29
314         )0Q004  DCW   @}@                                           1  0276           GEN     29
315                 ORG   LOADAD&X00                                                0900
316         )0R004  EQU   *           CLRBOT & X00 - 1                        0899          GEN
317                 XFR   CLRME                                                  B 201            30   201
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SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J003	0207: 0	)0J004	0206: 0	)0K004	0230: 0	)0L004	0249: 0	)0M004	0266: 0	)0N004	0269: 0
)0P004	0270: 0	)0Q004	0276: 0	)0R004	0899: 0	)1J003	0250: 0	)6J003	0110: 0	)6K003	0700: 0
)6L003	0704: 0	)6M003	0728: 0	)8J003	0257: 0	)8K003	0273: 0	)9J003	0277: 0	)9R003	0281: 0
ALMOST	1313: 0	BCE	1331: 0	BEGIN3	0838: 0	BEGN40	0838: 0	BOTTOM	1064: 0	BRANCH	1337: 0
CDOVLY	0700: 0	CLRME	0201: 0	COUNT	0905: 0	DIGITS	1399: 0	DONE	1320: 0	ENDSTM	1053: 0
ERR34	1444: 0	ERROR2	1388: 0	GENBCE	0982: 0	GETADR	1114: 0	GETADX	1219: 0	GETCH	1122: 0
GETGM	1165: 0	GLOBER	0184: 0	GM	1295: 0	GM2	1309: 0	GMWM	1445: 0	HALT	1110: 0
KB1	1400: 0	KCOMMA	1351: 0	KP1	1348: 0	KP11	1350: 0	KT	1345: 0	LOADAD	0838: 0
LOADNX	0700: 0	LOOP	0845: 0	OKADR	1181: 0	PHAS40	0201: 0	PHASLD	0381: 0	RBRACK	1344: 0
SEQNO	1343: 0	SEQNO2	1312: 0	SNAPEX	0564: 0	SNAPSH	0333: 0	SYNTAX	1223: 0	TOP3	2600: 0
TPERR	0728: 0	TPREAD	0704: 0	TSTBRK	1072: 0	TSTDGT	1148: 0	W1	1389: 0	W2	1347: 0
W3	1302: 0	X1	0089: 0	X2	0094: 0	X2ZONE	1352: 0	X3	0099: 0		

UNREFERENCED SYMBOLS

PHASLD SNAPEX TOP3 TPERR TPREAD