```
SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
101                 JOB   FORTRAN COMPILER -- STOP/PAUSE PHASE -- PHASE 42
102                 CTL   6611
103         *
104         * THE PROPER INSTRUCTIONS TO
105         * 1. HALT
106         * 2. HALT, CONTINUE, AND DISPLAY THE NUMBER INDICATED
107         * ARE GENERATED IN-LINE
108         *
109         X1      EQU   89                                                      0089
110         X2      EQU   94                                                      0094
111         X3      EQU   99                                                      0099
112         *
113         * STUFF IN THE RESIDENT AREA
114         *
115         *
116                 EXT00   SNAPSH, LOADNX, CDOVLY                                      MACRO
117         SNAPSH  EQU   333                                                     0333   GEN
118         PHASLD  EQU   381                                                     0381   GEN
119         SNAPEX  EQU   564                                                     0564   GEN
120         LOADNX  EQU   700   CARD OVERLAY UNLESS NOP                          0700   GEN
121         CDOVLY  EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE          0700   GEN
122         TPREAD  EQU   704   LOAD OVERLAY FROM TAPE                          0704   GEN
123         TPERR   EQU   728                                                     0728   GEN
124         *
125                 EXT03   START, TOP OF PHASE 3                                       MACRO
126         BEGIN3  EQU   838                                                     0838   GEN
127         TOP3    EQU   2600                                                    2600   GEN
128         *
129         PHAS42  LDPH  STOP/PAUSE,LOADAD,BEGN42,,,42                               MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]      GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                         GEN
            *                                                                     GEN
            * LOAD A BLOCK                                                       GEN
            *                                                                     GEN
130         )6J003  EQU   110  PHASE ID                                          0110   GEN
131         )6K003  EQU   700  LOAD NEXT PHASE                                   0700   GEN
132         )6L003  EQU   704  TAPE READ INSTRUCTION                             0704   GEN
133         )6M003  EQU   728  TAPE ERROR HANDLER                                0728   GEN
            *                                                                     GEN
134                 ORG   201                                                          0201
135         PHAS42  EQU   *&1                                                     0201   GEN
136                 LCA   )9J003,)6J003                                      7   0201  L 253 110   GEN      1   253     110
137                 BCE   )6K003,)6K003,1      Q: LOADING FROM CARDS?        8   0208  B 700 700 1 GEN      1   700     700
138                 BCE   )6K003,)6L003&4,0    Q: LOADING FROM AUTOCODER TAPE? 8   0216  B 700 708 0 GEN      1   700     708
139                 RTW   1,LOADAD             READ THE BLOCK                8   0224  L %U1 838 R GEN      1   %U1     838
140                 BER   )6M003               Q: TAPE ERROR?                5   0232  B 728 L     GEN      1   728
141                 CS    BEGN42,)9R003        ENTER THE BLOCK               7   0237  / 838 257   GEN      2   838     257
142         )9J003  DCW   @STOP/PAUSE@          PHASE ID                     10   0253              GEN      2
143                 DC    #1                                                 1   0254              GEN      2
144                 DC    @42@          PHASE NUMBER                         2   0256              GEN      2
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

145         )9R003 DCW   @}@                                               1  0257             GEN      2
146                XFR   PHAS42                                                  B 201                 3   201
147         *
148                ORG   BEGIN3                                                  0838
149         LOADAD EQU   *&1          LOAD ADDRESS                              0838
150    838  BEGN42 CS    299                                              4  0838  / 299                 4   299
151    842  LOOP   BCE   DONE,0&X1,                                       8  0842  B 873 0|0             4   873     000+1
152    850         MCW   0&X1,CODSEQ                                      7  0850  M 0|0 W02             4   000+1  1602
153    857         BCE   STOPPZ,CODSEQ-3,A  PAUSE STATMENT?              8  0857  B 882 V99 A           4   882    1599
154    865         BCE   STOPPZ,CODSEQ-3,S  STOP STATEMENT?              8  0865  B 882 V99 S           4   882    1599
155    873  DONE   BSS   SNAPSH,C                                         5  0873  B 333 C               5   333
156    892         B     LOADNX                                           4  0878  B 700                 5   700
157         *
158         * STOP OR PAUSE STATEMENT
159         *
160    896  STOPPZ MCW   KLESS,2&X1                                       7  0882  M W03 0|2             5  1603     002+1
161    903         SBR   TSTLES&6,2&X1                                    7  0889  H S44 0|2             5  1244     002+1
162    910         LCA   0&X1,0&X3  SEQNO, CODE, GMWM                     7  0896  L 0|0 0?0             5   000+1   000+3
163    917         SAR   X1                                              4  0903  Q 089                 5   089
164    921         C     0&X3                                             4  0907  C 0?0                 5   000+3
165    925         SAR   X3                                              4  0911  Q 099                 6   099
166    929         LCA   1&X3,2&X3  CLOBBER STATEMENT CODE WITH GMWM       7  0915  L 0?1 0?2             6   001+3   002+3
167    936         SBR   X3                                              4  0922  H 099                 6   099
168    940         BCE   NOCODE,0&X1,}                                   8  0926  B |55 0|0 } GMARK     6  1055     000+1
169    948         CS    WORK                                             4  0934  / V98                 6  1598
170    952         MN    WRKBOT                                           4  0938  D V00                 6  1500
171    956         MN                                                     1  0942  D                     6
172    957         SAR   X2                                              4  0943  Q 094                 7   094
173    961         SBR   X1,0&X1                                         7  0947  H 089 0|0             7   089     000+1
174         *
175         * MOVE THE STOP CODE INTO THE WORK AREA
176         *
177    968  MOVCOD MCW   0&X1,W1                                          7  0954  M 0|0 W04             7   000+1  1604
178    975         SAR   X1                                              4  0961  Q 089                 7   089
179    979         BW    GOTWM,1&X1                                      8  0965  V 988 0|1 1           7   988     001+1
180    987         MCW   W1,2&X2                                         7  0973  M W04 0!2             7  1604     002+2
181    994         SBR   X2                                              4  0980  H 094                 8   094
182    998         B     MOVCOD                                          4  0984  B 954                 8   954
183         *
184  1 002  GOTWM  SW    WRKBOT                                          4  0988  , V00                 8  1500
185  1 006         BCE   TWOTST,WRKBOT&3,  ONE, TWO OR THREE DIGITS?     8  0992  B |28 V03             8  1028    1503
186  1 014         MCW   ERR35,222                                       7  1000  M T01 222             8  1301     222
187  1 021         MCW   MSG,247                                         7  1007  M T19 247             8  1319     247
188  1 028         MCW   WRKBOT&4,228                                    7  1014  M V04 228             9  1504     228
189  1 035         MCW   WRKBOT&2,251                                    7  1021  M V02 251             9  1502     251
190  1 042  TWOTST BCE   TWODIG,WRKBOT&2,  ONE OR TWO DIGITS?           8  1028  B |40 V02             9  1040    1502
191  1 050         B     GOTCOD                                          4  1036  B |70                 9  1070
192  1 054  TWODIG MCW   WRKBOT&1,WRKBOT&2                               7  1040  M V01 V02             9  1501    1502
193  1 061         MCW   K0                                              4  1047  M W05                 9  1605
194  1 065         B     TWOTST                                          4  1051  B |28                10  1028
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195  1 069  NOCODE LCA   K000,WRKBOT&2  USE 000 FOR HALT CODE                7  1055  L W08 V02          10  1608    1502
196  1 076         C     0&X1                                                4  1062  C 0|0              10   000+1
197  1 080         SAR   X1                                                  4  1066  Q 089              10   089
198  1 084  GOTCOD MCW   WRKBOT&2,W3                                         7  1070  M V02 W11          10  1502    1611
199  1 091         A     K0,WRKBOT&3                                         7  1077  A W05 V03          10  1605    1503
200  1 098         C     WRKBOT&2,W3  CODE IS NUMERIC?                       7  1084  C V02 W11          11  1502    1611
201  1 105         BE    NOZONE       YES                                    5  1091  B /56 S            11  1156
202  1 110         BCE   NOTYET,201,  SHOWED A MESSAGE YET?                  8  1096  B /17 201          11  1117     201
203  1 118  CLRCOD MZ    K3B,251  CLEAR THE CODE IN THE MESSAGE              7  1104  Y W14 251          11  1614     251
204  1 125         MZ                                                        1  1111  Y                  11
205  1 126         MZ                                                        1  1112  Y                  11
206  1 127         B     NOZONE                                              4  1113  B /56              11  1156
207  1 131  NOTYET MCW   ERR35,222                                           7  1117  M T01 222          12  1301     222
208  1 138         MCW   MSG,247                                             7  1124  M T19 247          12  1319     247
209  1 145         MCW   WRKBOT&2,226                                        7  1131  M V02 226          12  1502     226
210  1 152         MCW   WRKBOT&2,251                                        7  1138  M V02 251          12  1502     251
211  1 159         MCW   K3B-2,223                                           7  1145  M W12 223          12  1612     223
212  1 166         B     CLRCOD                                              4  1152  B /04              12  1104
213  1 170  NOZONE BCE   NOMSG,201,                                          8  1156  B /80 201          13  1180     201
214  1 178         W                                                         1  1164  2                  13
215  1 179         BCV   *&5                                                 5  1165  B /74 @            13  1174
216  1 184         B     *&3                                                 4  1170  B /76              13  1176
217  1 188         CC    1                                                   2  1174  F 1                13
218  1 190         CS    299                                                 4  1176  / 299              13   299
219  1 194  NOMSG  CW    WRKBOT                                              4  1180  ) V00              13  1500
220  1 198         BCE   PAUSE,CODSEQ-3,A                                   8  1184  B S19 V99 A        14  1219    1599
221  1 206         LCA   BRANCH&3,0&X3  BRANCH BACK TO NOP                   7  1192  L W18 0?0          14  1618     000+3
222  1 213         LCA   HALTOP         HALT                                4  1199  L W19              14  1619
223  1 217         LCA   WRKBOT&2       NOP WITH STOP CODE                  4  1203  L V02              14  1502
224  1 221         LCA   1&X1           GMWM                                4  1207  L 0|1              14   001+1
225  1 225         SBR   X3                                                  4  1211  H 099              14   099
226  1 229         B     TSTLES                                              4  1215  B S38              14  1238
227  1 233  PAUSE  LCA   HALTOP,0&X3    HALT                                7  1219  L W19 0?0          15  1619     000+3
228  1 240         LCA   WRKBOT&2       NOP WITH STOP CODE                  4  1226  L V02              15  1502
229  1 244         LCA   1&X1           GMWM                                4  1230  L 0|1              15   001+1
230  1 248         SBR   X3                                                  4  1234  H 099              15   099
231  1 252  TSTLES BCE   LOOP,0-0,<  NOT TOO BIG IF LESS-THAN NOT CLOBBERED  8  1238  B 842 000 <        15   842     000
232  1 260         CS    332                                                 4  1246  / 332              15   332
233  1 264         CS                                                        1  1250  /                  15
234  1 265         CC    1                                                   2  1251  F 1                16
235  1 267         MCW   ERROR2,270                                          7  1253  M W55 270          16  1655     270
236  1 274         W                                                         1  1260  2                  16
237  1 275         CC    1                                                   2  1261  F 1                16
238  1 277         BCE   HALT,CDOVLY,1                                      8  1263  B S76 700 1        16  1276     700
239  1 285         RWD   1                                                   5  1271  U %U1 R            16   %U1
240  1 290  HALT   H     HALT                                                4  1276  . S76              16  1276
241  1 315  ERR35  DCW   @ERROR 35 - HALT NUMBER@                           22  1301                     17
242  1 333  MSG    DCW   @TO BE DISPLAYED AS@                              18  1319                     18
243  1 364         DC    @                                 @               31  1350                     19
244                ORG   1499                                                      1499
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

245  1 499          DCW   @N@                                         1  1499                      20
246  1 500  WRKBOT  EQU   *&1                                          1500
247  1 548          DC    @                                     @     49  1548                      22
248                 ORG   1599                                            1599
249  1 598  WORK    EQU   *                                           1598
250  1 602  CODSEQ  DCW   #4  STATEMENT CODE AND SEQUENCE NUMBER       4  1602                      23
251  1 608  KLESS   DCW   @<@                                         1  1603                      23
252  1 609  W1      DCW   #1                                          1  1604                      23
253  1 610  K0      DCW   0                                           1  1605                      23
254  1 613  K000    DCW   000                                         3  1608                      23
255  1 616  W3      DCW   #3                                          3  1611                      23
256  1 619  K3B     DCW   #3                                          3  1614                      23
257  1 620  BRANCH  B     15992&X3                                    4  1615  B IIB               24 15992+3
258  1 624  HALTOP  H                                                 1  1619  .                   24
259  1 660  ERROR2  DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@     36  1655                      25
260  1 661  GMWM    DCW   @}@                                         1  1656              GMARK   25
261                 XFR   BEGN42                                            B 838               26   838
262          CLRME  CLRA  BEGN42,GMWM                                                    MACRO
             *      CLRA  CLRBOT,CLRTOP[,ORG,GMWMAD]                                     GEN
             *                                                                           GEN
             * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                         GEN
             *                                                                           GEN
263                 ORG   201                                                 0201
             *                                                                           GEN
             * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                   GEN
             *                                                                           GEN
264          CLRME  EQU   *&1                                                0201        GEN
265          )0J004 CS    GMWM         CLEAR FROM CLRTOP                 4  0201  / W56       GEN     27  1656
266                 SBR   )0J004&3                                       4  0205  H 204       GEN     27   204
267                 SBR   )0L004&6                                       4  0209  H 250       GEN     27   250
268                 C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?       7  0213  C 204 261   GEN     27   204     261
269                 BU    )0J004                                       5  0220  B 201 /     GEN     27   201
             *                                                                           GEN
             * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                     GEN
             *                                                                           GEN
270          )0K004 C     )0L004&6,)0N004                              7  0225  C 250 264   GEN     27   250     264
271                 BU    )0L004                                       5  0232  B 244 /     GEN     27   244
272                 CS    LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1      7  0237  / 700 271   GEN     28   700     271
273          )0L004 LCA   )0P004,0-0     CLEAR WITH BLANK AND WORD MARK 7  0244  L 265 000   GEN     28   265     000
274                 SBR   )0L004&6                                       4  0251  H 250       GEN     28   250
275                 B     )0K004                                       4  0255  B 225       GEN     28   225
276          )0M004 DSA   )0R004         CLRBOT & X00 - 1             3  0261  899         GEN     28   899
277          )0N004 DSA   BEGN42         CLRBOT                       3  0264  838         GEN     28   838
278          )0P004 DCW   #1                                           1  0265              GEN     28
279                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP 5  0270              GEN     28
280          )0Q004 DCW   @}@                                         1  0271              GEN     29
281                 ORG   BEGN42&X00                                          0900
282          )0R004 EQU   *           CLRBOT & X00 - 1                       0899              GEN
283                 XFR   CLRME                                             B 201               30   201
```

| SYMBOL | ADDRESS | SYMBOL | ADDRESS | SYMBOL | ADDRESS | SYMBOL | ADDRESS | SYMBOL | ADDRESS | SYMBOL | ADDRESS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| )0J004 | 0201: 0 | )0K004 | 0225: 0 | )0L004 | 0244: 0 | )0M004 | 0261: 0 | )0N004 | 0264: 0 | )0P004 | 0265: 0 |
| )0Q004 | 0271: 0 | )0R004 | 0899: 0 | )6J003 | 0110: 0 | )6K003 | 0700: 0 | )6L003 | 0704: 0 | )6M003 | 0728: 0 |
| )9J003 | 0253: 0 | )9R003 | 0257: 0 | BEGIN3 | 0838: 0 | BEGN42 | 0838: 0 | BRANCH | 1615: 0 | CDOVLY | 0700: 0 |
| CLRCOD | 1104: 0 | CLRME | 0201: 0 | CODSEQ | 1602: 0 | DONE | 0873: 0 | ERR35 | 1301: 0 | ERROR2 | 1655: 0 |
| GMWM | 1656: 0 | GOTCOD | 1070: 0 | GOTWM | 0988: 0 | HALT | 1276: 0 | HALTOP | 1619: 0 | K0 | 1605: 0 |
| K000 | 1608: 0 | K3B | 1614: 0 | KLESS | 1603: 0 | LOADAD | 0838: 0 | LOADNX | 0700: 0 | LOOP | 0842: 0 |
| MOVCOD | 0954: 0 | MSG | 1319: 0 | NOCODE | 1055: 0 | NOMSG | 1180: 0 | NOTYET | 1117: 0 | NOZONE | 1156: 0 |
| PAUSE | 1219: 0 | PHAS42 | 0201: 0 | PHASLD | 0381: 0 | SNAPEX | 0564: 0 | SNAPSH | 0333: 0 | STOPPZ | 0882: 0 |
| TOP3 | 2600: 0 | TPERR | 0728: 0 | TPREAD | 0704: 0 | TSTLES | 1238: 0 | TWODIG | 1040: 0 | TWOTST | 1028: 0 |
| W1 | 1604: 0 | W3 | 1611: 0 | WORK | 1598: 0 | WRKBOT | 1500: 0 | X1 | 0089: 0 | X2 | 0094: 0 |
| X3 | 0099: 0 | | | | | | | | | | |

UNREFERENCED SYMBOLS

PHASLD SNAPEX TOP3 TPERR TPREAD