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

101                JOB   FORTRAN COMPILER -- VARIABLES PHASE 5 -- 17
102                CTL   6611
103         *
104         * A CHECK IS MADE FOR UNREFERENCED VARIABLES
105         *
106         X1     EQU   89                                                      0089
107         X2     EQU   94                                                      0094
108         X3     EQU   99                                                      0099
109         *
110         * ON ENTRY AND EXIT, X1 IS THE TOP OF CODE, TOPCOR IS THE TOP OF
111         * THE SYMBOL TABLE, AND 83 IS THE BOTTOM OF THE SYMBOL TABLE.
112         *
113         * EACH ELEMENT OF THE SCALAR SYMBOLS TABLE CONSISTS OF THE
114         * THREE-CHARACTER RUN-TIME ADDRESS, WITH A WORD MARK UNDER
115         * THE FIRST CHARACTER, A GROUP MARK, WITH A WORD MARK UNDER
116         * IT IF THE VARIABLE IS NOT REFERENCED, AND THE VARIABLE, WITH
117         * CHARACTERS REVERSED.
118         *
119         * STUFF IN THE RESIDENT AREA
120         *
121         TOPCOR EQU   688  TOP CORE ADDRESS FROM PARAM CARD                  0688
122         *
123                EXT00   SNAPSH, LOADNX, CDOVLY                                          MACRO
124         SNAPSH EQU   333                                                   0333         GEN
125         PHASLD EQU   381                                                   0381         GEN
126         SNAPEX EQU   564                                                   0564         GEN
127         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                        0700         GEN
128         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE        0700         GEN
129         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                         0704         GEN
130         TPERR  EQU   728                                                   0728         GEN
131         *
132                EXT03   START, TOP OF PHASE 3                                    MACRO
133         BEGIN3 EQU   838                                                   0838         GEN
134         TOP3   EQU   2600                                                  2600         GEN
135                EXT15   STUFF IN VARIABLES PHASE 3 -- PHASE 15,                  MACRO
136         CODSIZ EQU   853   CODE SIZE, 84-86, IN DECIMAL                     0853         GEN
137         TOPCOD EQU   856   TOP OF CODE & 1                                 0856         GEN
138         BEGN15 EQU   857                                                   0857         GEN
139                EXT18   STUFF IN CONSTANT PHASE ONE -- PHASE 18                   MACRO
140         FREBOT EQU   2599                                                  2599         GEN
141         *
142         110    DCW   @VARBL QUIN@                                    10   0110                      1
143         *
144         PHAS17 LDPH  VARBL QUIN,LOADAD,BEGN17,,,17                              MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]    GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                       GEN
            *                                                                   GEN
            * LOAD A BLOCK                                                      GEN
            *                                                                   GEN
145         )6J005 EQU   110  PHASE ID                                         0110         GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

146         )6K005  EQU   700  LOAD NEXT PHASE                                  0700              GEN
147         )6L005  EQU   704  TAPE READ INSTRUCTION                           0704              GEN
148         )6M005  EQU   728  TAPE ERROR HANDLER                              0728              GEN
            *                                                                                    GEN
149                 ORG   201                                                        0201
150         PHAS17  EQU   *&1                                                    0201              GEN
151                 LCA   )9J005,)6J005                                     7    0201  L 253 110   GEN      2   253     110
152                 BCE   )6K005,)6K005,1      Q: LOADING FROM CARDS?       8    0208  B 700 700 1 GEN      2   700     700
153                 BCE   )6K005,)6L005&4,0    Q: LOADING FROM AUTOCODER TAPE? 8 0216  B 700 708 0 GEN      2   700     708
154                 RTW   1,LOADAD             READ THE BLOCK               8    0224  L %U1 857 R GEN      2   %U1     857
155                 BER   )6M005               Q: TAPE ERROR?               5    0232  B 728 L     GEN      2   728
156                 CS    BEGN17,)9R005        ENTER THE BLOCK              7    0237  / 857 257   GEN      3   857     257
157         )9J005  DCW   @VARBL QUIN@          PHASE ID                    10    0253              GEN      3
158                 DC    #1                                                 1    0254              GEN      3
159                 DC    @17@          PHASE NUMBER                         2    0256              GEN      3
160         )9R005  DCW   @}@                                               1    0257              GEN      3
161                 XFR   PHAS17                                                  B 201             3   201
162         *
163                 ORG   BEGN15  ABOVE THE TABLES IN PHASE 15                     0857
164         LOADAD  EQU   *&1          LOAD ADDRESS                              0857
165   857   BEGN17  CC    J                                                  2    0857  F J               4
166   859         MCW   X1,SX1         MEMORIZE TOP OF CODE                 7    0859  M 089 |47         4   089    1047
167   866         MCW   TOPCOR,X2      TOP OF SYMBOL TABLE                  7    0866  M 688 094         4   688     094
168   873   LOOP  BCE   TABENT,0&X2,}  GM MEANS BOTTOM OF SYM TAB NAME       8    0873  B 913 0!0 } GMARK 4   913     000+2
169   881         SBR   X2                                                 4    0881  H 094             4   094
170   885         C     X2,83          BOTTOM OF SYMBOL TABLE?              7    0885  C 094 083         4   094     083
171   892         BU    LOOP           NO                                   5    0892  B 873 /           5   873
172         *
173         * DONE
174         *
175   897         MCW   SX1,X1         RECALL TOP OF CODE                   7    0897  M |47 089         5  1047     089
176   904         BSS   SNAPSH,D                                            5    0904  B 333 D           5   333
177   941         B     LOADNX                                              4    0909  B 700             5   700
178         *
179         * X2 IS AT GM BELOW A NAME IN THE SYMBOL TABLE
180         *
181   945   TABENT BW   UNREF,0&X2     UNREFERENCED IF GM HAS WM            8    0913  V 933 0!0 1       5   933     000+2
182   953         MN    0&X2                                                4    0921  D 0!0             5   000+2
183   957         SBR   X2                                                  4    0925  H 094             5   094
184   961         B     LOOP                                                4    0929  B 873             6   873
185         *
186         * UNREFERENCED SYMBOL
187         *
188         * MOVE X3 (INITIALLY X2) UP TO WM ABOVE SYMBOL
189         *
190   965   UNREF  CS    299                                                 4    0933  / 299             6   299
191   969         MCW   ERR11,233                                           7    0937  M |80 233         6  1080     233
192   976         MCW   X2,X3                                               7    0944  M 094 099         6   094     099
193   983   LOOPU  NOP   1&X3          WHY NOT                              4    0951  N 0?1             6   001+3
194   987         SAR   X3              JUST SBR  X3,1&X3?                  4    0955  Q 099             6   099
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195    991         BW    *&5,2&X3       AT WM ABOVE SYMBOL?          8  0959  V 971 0?2 1          6   971     002+3
196    999         B     LOOPU                                       4  0967  B 951               7   951
197  1 003         MN    234            WHY NOT                      4  0971  D 234               7   234
198  1 007         MN                     JUST                       1  0975  D                   7
199  1 008         SAR   X1                SBR  X1,232?             4  0976  Q 089               7   089
200  1 012         SBR   X3,1&X3                                     7  0980  H 099 0?1           7   099     001+3
201  1 019  LOOPW  MCW   0&X3,CH        MOVE SYMBOL                  7  0987  M 0?0 |81           7   000+3  1081
202  1 026         SAR   X3               TO PRINT                   4  0994  Q 099               7   099
203  1 030         MCW   CH,2&X1             LINE WHILE               7  0998  M |81 0|2           8  1081     002+1
204  1 037         SBR   X1                   REVERSING CHARACTERS     4  1005  H 089               8   089
205  1 041         BW    *&5,1&X3               TO CORRECT             8  1009  V |21 0?1 1         8  1021     001+3
206  1 049         B     LOOPW                    ORDER                4  1017  B 987               8   987
207  1 053         W                                                  1  1021  2                   8
208  1 054         BCV   *&5                                         5  1022  B |31 @             8  1031
209  1 059         B     *&3                                         4  1027  B |33              8  1033
210  1 063         CC    1                                           2  1031  F 1                 9
211  1 065         MN    0&X2                                        4  1033  D 0!0               9   000+2
212  1 069         SAR   X2                                          4  1037  Q 094               9   094
213  1 073         B     LOOP                                        4  1041  B 873               9   873
214         *
215         * DATA
216         *
217  1 079  SX1    DCW   #3                                          3  1047                      9
218  1 121  ERR11  DCW   @ERROR 11 - UNREFERENCED VARIABLE @        33  1080                     10
219  1 122  CH     DCW   #1                                          1  1081                     10
220  1 123  GMWM   DCW   @}@                                        1  1082            GMARK    10
221                XFR   BEGN17                                          B 857                10   857
222         CLRME  CLRA  BEGIN3,FREBOT-1                                              MACRO
            *      CLRA  CLRBOT,CLRTOP[,ORG,GMWMAD]                                   GEN
            *                                                                         GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                       GEN
            *                                                                         GEN
223                ORG   201                                                  0201
            *                                                                         GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                 GEN
            *                                                                         GEN
224         CLRME  EQU   *&1                                                0201      GEN
225         )0J006 CS    FREBOT-1         CLEAR FROM CLRTOP              4  0201  / N98       GEN     11  2598
226                SBR   )0J006&3                                        4  0205  H 204       GEN     11   204
227                SBR   )0L006&6                                        4  0209  H 250       GEN     11   250
228                C     )0J006&3,)0M006   DOWN TO CLRBOT & X00?        7  0213  C 204 261   GEN     11   204     261
229                BU    )0J006                                        5  0220  B 201 /     GEN     11   201
            *                                                                         GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                  GEN
            *                                                                         GEN
230         )0K006 C     )0L006&6,)0N006                               7  0225  C 250 264   GEN     11   250     264
231                BU    )0L006                                        5  0232  B 244 /     GEN     11   244
232                CS    LOADNX,)0Q006  LOAD THE NEXT BLOCK AT 1       7  0237  / 700 271   GEN     12   700     271
233         )0L006 LCA   )0P006,0-0     CLEAR WITH BLANK AND WORD MARK 7  0244  L 265 000   GEN     12   265     000
234                SBR   )0L006&6                                        4  0251  H 250       GEN     12   250
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

235             B     )0K006                                          4  0255  B 225       GEN     12   225
236         )0M006 DSA   )0R006         CLRBOT & X00 - 1             3  0261  899         GEN     12   899
237         )0N006 DSA   BEGIN3         CLRBOT                       3  0264  838         GEN     12   838
238         )0P006 DCW   #1                                          1  0265              GEN     12
239             DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP  5  0270              GEN     12
240         )0Q006 DCW   @}@                                         1  0271              GEN     13
241             ORG   BEGIN3&X00                                                 0900
242         )0R006 EQU   *           CLRBOT & X00 - 1                   0899              GEN
243             XFR   CLRME                                                      B 201               13   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J006	0201: 0	)0K006	0225: 0	)0L006	0244: 0	)0M006	0261: 0	)0N006	0264: 0	)0P006	0265: 0
)0Q006	0271: 0	)0R006	0899: 0	)6J005	0110: 0	)6K005	0700: 0	)6L005	0704: 0	)6M005	0728: 0
)9J005	0253: 0	)9R005	0257: 0	BEGIN3	0838: 0	BEGN15	0857: 0	BEGN17	0857: 0	CDOVLY	0700: 0
CH	1081: 0	CLRME	0201: 0	CODSIZ	0853: 0	ERR11	1080: 0	FREBOT	2599: 0	GMWM	1082: 0
LOADAD	0857: 0	LOADNX	0700: 0	LOOP	0873: 0	LOOPU	0951: 0	LOOPW	0987: 0	PHAS17	0201: 0
PHASLD	0381: 0	SNAPEX	0564: 0	SNAPSH	0333: 0	SX1	1047: 0	TABENT	0913: 0	TOP3	2600: 0
TOPCOD	0856: 0	TOPCOR	0688: 0	TPERR	0728: 0	TPREAD	0704: 0	UNREF	0933: 0	X1	0089: 0
X2	0094: 0	X3	0099: 0								

UNREFERENCED SYMBOLS

CDOVLY CODSIZ GMWM PHASLD SNAPEX TOP3 TOPCOD TPERR TPREAD