```
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  BSS   )8J005,G                                          5  0201  B 257 G     GEN      2   257
151                 NOP     TO PATCH IN TRAPS FOR DEBUGGING                 1  0206  N           GEN      2
152         )0J005  EQU   *&1                                                0207              GEN
153                 LCA   )9J005,)6J005                                     7  0207  L 282 110   GEN      2   282     110
154                 BCE   )1J005,)6K005,1    Q: LOADING FROM CARDS?        8  0214  B 250 700 1 GEN      2   250     700
155                 BCE   )1J005,)6L005&4,0  Q: LOADING FROM AUTOCODER TAPE? 8  0222  B 250 708 0 GEN      2   250     708
156                 RTW   1,LOADAD           READ THE BLOCK                8  0230  L %U1 857 R GEN      2   %U1     857
157                 BER   )6M005             Q: TAPE ERROR?                5  0238  B 728 L     GEN      3   728
158                 CS    BEGN17,)9R005      ENTER THE BLOCK               7  0243  / 857 286   GEN      3   857     286
159         )1J005  CS    )6K005,)9R005      LOAD CARDS OR AUTOCODER TAPE  7  0250  / 700 286   GEN      3   700     286
160         )8J005  SW    )9R005                                          4  0257  , 286       GEN      3   286
161                 MU    %T0,)8K005,W                                    8  0261  M %T0 273 W GEN      3   %T0     273
162                 H     )0J005                                          4  0269  . 207       GEN      3   207
163         )8K005  EQU   *&1                                                0273              GEN
164         )9J005  DCW   @VARBL QUIN@          PHASE ID                 10  0282              GEN      4
165                 DCW   #1                                              1  0283              GEN      4
166                 DC    @17@          PHASE NUMBER                      2  0285              GEN      4
167         )9R005  DCW   @}@                                             1  0286              GEN      4
168                 XFR   PHAS17                                                 B 201             4   201
169         *
170                 ORG   BEGN15  ABOVE THE TABLES IN PHASE 15                     0857
171         LOADAD  EQU   *&1          LOAD ADDRESS                             0857
172     857 BEGN17  CC    J                                               2  0857  F J               5
173     859         MCW   X1,SX1         MEMORIZE TOP OF CODE             7  0859  M 089 |42         5   089    1042
174     866         MCW   TOPCOR,X2      TOP OF SYMBOL TABLE              7  0866  M 688 094         5   688     094
175     873 LOOP    BCE   TABENT,0&X2,}  GM MEANS BOTTOM OF SYM TAB NAME   8  0873  B 908 0!0 } GMARK 5   908     000+2
176     881         SBR   X2                                              4  0881  H 094             5   094
177     885         C     X2,83          BOTTOM OF SYMBOL TABLE?          7  0885  C 094 083         5   094     083
178     892         BU    LOOP           NO                               5  0892  B 873 /           6   873
179         *
180         * DONE
181         *
182     897         MCW   SX1,X1         RECALL TOP OF CODE               7  0897  M |42 089         6  1042     089
183     941         B     LOADNX                                          4  0904  B 700             6   700
184         *
185         * X2 IS AT GM BELOW A NAME IN THE SYMBOL TABLE
186         *
187     945 TABENT  BW    UNREF,0&X2     UNREFERENCED IF GM HAS WM        8  0908  V 928 0!0 1       6   928     000+2
188     953         MN    0&X2                                            4  0916  D 0!0             6   000+2
189     957         SBR   X2                                              4  0920  H 094             6   094
190     961         B     LOOP                                            4  0924  B 873             6   873
191         *
192         * UNREFERENCED SYMBOL
193         *
194         * MOVE X3 (INITIALLY X2) UP TO WM ABOVE SYMBOL
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195         *
196    965  UNREF  CS    299                                         4  0928  / 299               7   299
197    969         MCW   ERR11,233                                   7  0932  M |75 233           7  1075     233
198    976         MCW   X2,X3                                      7  0939  M 094 099           7   094     099
199    983  LOOPU  NOP   1&X3           WHY NOT                      4  0946  N 0?1               7   001+3
200    987         SAR   X3               JUST SBR  X3,1&X3?       4  0950  Q 099               7   099
201    991         BW    *&5,2&X3       AT WM ABOVE SYMBOL?          8  0954  V 966 0?2 1         7   966     002+3
202    999         B     LOOPU                                       4  0962  B 946               7   946
203  1 003         MN    234            WHY NOT                      4  0966  D 234               8   234
204  1 007         MN                     JUST                       1  0970  D                   8
205  1 008         SAR   X1                 SBR  X1,232?            4  0971  Q 089               8   089
206  1 012         SBR   X3,1&X3                                     7  0975  H 099 0?1           8   099     001+3
207  1 019  LOOPW  MCW   0&X3,CH        MOVE SYMBOL                  7  0982  M 0?0 |76           8   000+3  1076
208  1 026         SAR   X3               TO PRINT                   4  0989  Q 099               8   099
209  1 030         MCW   CH,2&X1            LINE WHILE               7  0993  M |76 0|2           8  1076     002+1
210  1 037         SBR   X1                 REVERSING CHARACTERS     4  1000  H 089               9   089
211  1 041         BW    *&5,1&X3             TO CORRECT             8  1004  V |16 0?1 1         9  1016     001+3
212  1 049         B     LOOPW                  ORDER                4  1012  B 982               9   982
213  1 053         W                                                 1  1016  2                   9
214  1 054         BCV   *&5                                         5  1017  B |26 @             9  1026
215  1 059         B     *&3                                         4  1022  B |28              9  1028
216  1 063         CC    1                                           2  1026  F 1                 9
217  1 065         MN    0&X2                                        4  1028  D 0!0              10   000+2
218  1 069         SAR   X2                                        4  1032  Q 094              10   094
219  1 073         B     LOOP                                        4  1036  B 873              10   873
220         *
221         * DATA
222         *
223  1 079  SX1    DCW   #3                                          3  1042                     10
224  1 121  ERR11  DCW   @ERROR 11 - UNREFERENCED VARIABLE @        33  1075                     11
225  1 122  CH     DCW   #1                                          1  1076                     11
226  1 123  GMWM   DCW   @}@                                        1  1077           GMARK     11
227                XFR   BEGN17                                          B 857                 11   857
228         CLRME  CLRA  BEGIN3,FREBOT-1,D                                        MACRO
            *      CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                            GEN
            *                                                                     GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                   GEN
            *                                                                     GEN
229                ORG   201                                                0201
            *                                                                     GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                             GEN
            *                                                                     GEN
230         CLRME  EQU   *&1                                             0201     GEN
231                BSS   SNAPSH,D                                    5  0201  B 333 D     GEN     12   333
232         )0J006 CS    FREBOT-1         CLEAR FROM CLRTOP           4  0206  / N98       GEN     12  2598
233                SBR   )0J006&3                                     4  0210  H 209       GEN     12   209
234                SBR   )0L006&6                                     4  0214  H 255       GEN     12   255
235                C     )0J006&3,)0M006   DOWN TO CLRBOT & X00?      7  0218  C 209 266   GEN     12   209     266
236                BU    )0J006                                      5  0225  B 206 /     GEN     12   206
            *                                                                     GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                                GEN
            *                                                                                      GEN
237         )0K006  C     )0L006&6,)0N006                             7  0230  C 255 269   GEN     12   255     269
238                 BU    )0L006                                      5  0237  B 249 /     GEN     13   249
239                 CS    LOADNX,)0Q006  LOAD THE NEXT BLOCK AT 1     7  0242  / 700 276   GEN     13   700     276
240         )0L006  LCA   )0P006,0-0     CLEAR WITH BLANK AND WORD MARK 7  0249  L 270 000   GEN     13   270     000
241                 SBR   )0L006&6                                    4  0256  H 255       GEN     13   255
242                 B     )0K006                                      4  0260  B 230       GEN     13   230
243         )0M006  DSA   )0R006         CLRBOT & X00 - 1            3  0266  899         GEN     13   899
244         )0N006  DSA   BEGIN3         CLRBOT                      3  0269  838         GEN     13   838
245         )0P006  DCW   #1                                         1  0270              GEN     14
246                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP 5  0275              GEN     14
247         )0Q006  DCW   @}@                                        1  0276              GEN     14
248                 ORG   BEGIN3&X00                                          0900
249         )0R006  EQU   *           CLRBOT & X00 - 1                    0899              GEN
250                 XFR   CLRME                                                 B 201               14   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J005	0207: 0	)0J006	0206: 0	)0K006	0230: 0	)0L006	0249: 0	)0M006	0266: 0	)0N006	0269: 0
)0P006	0270: 0	)0Q006	0276: 0	)0R006	0899: 0	)1J005	0250: 0	)6J005	0110: 0	)6K005	0700: 0
)6L005	0704: 0	)6M005	0728: 0	)8J005	0257: 0	)8K005	0273: 0	)9J005	0282: 0	)9R005	0286: 0
BEGIN3	0838: 0	BEGN15	0857: 0	BEGN17	0857: 0	CDOVLY	0700: 0	CH	1076: 0	CLRME	0201: 0
CODSIZ	0853: 0	ERR11	1075: 0	FREBOT	2599: 0	GMWM	1077: 0	LOADAD	0857: 0	LOADNX	0700: 0
LOOP	0873: 0	LOOPU	0946: 0	LOOPW	0982: 0	PHAS17	0201: 0	PHASLD	0381: 0	SNAPEX	0564: 0
SNAPSH	0333: 0	SX1	1042: 0	TABENT	0908: 0	TOP3	2600: 0	TOPCOD	0856: 0	TOPCOR	0688: 0
TPERR	0728: 0	TPREAD	0704: 0	UNREF	0928: 0	X1	0089: 0	X2	0094: 0	X3	0099: 0

UNREFERENCED SYMBOLS

CDOVLY CODSIZ GMWM PHASLD SNAPEX TOP3 TOPCOD TPERR TPREAD