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

101               JOB   FORTRAN COMPILER -- SHIFT CFL PHASE -- PHASE 50B
102               CTL   6611
103         *
104         * CONSTANTS, FORMATS AND LIST STRINGS ARE MOVED INTO THEIR
105         * OBJECT CORE-STORAGE LOCATIONS ABOVE ARRAY STORAGE.  ARRAY
106         * STORAGE-AREA IS CLEARED.
107         *
108         * ON ENTRY X3 IS AT THE TOP OF THE MOVED-DOWN CODE.
109         *
110         X1     EQU   89                                                        0089
111         X2     EQU   94                                                        0094
112         X3     EQU   99                                                        0099
113         *
114         * STUFF IN THE RESIDENT AREA
115         *
116         TBLBOT EQU   145  ONE BELOW NUMBERS, FORMATS, I/O LISTS               0145
117         SEQTAB EQU   148  BOTTOM OF SEQUENCE NUMBER TABLE - 2                 0148
118         ARYSIZ EQU   160  TOTAL ARRAY SIZE & 2                                0160
119         NEGARY EQU   163  16000 - ARYSIZ                                      0163
120         ARYTOP EQU   194  TOP OF ARRAYS IN OBJECT CODE                        0194
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               SFX   <
136               EXT47   STUFF IN RESORT PHASE ONE -- 47                                    MACRO
137         TOPA   EQU   841   TABBOT PLUS 3 X NUMBER OF STATEMENTS          <      0841        GEN
138         SX3A   EQU   844   USED ONLY IN PHASE 48 AND 49                 <      0844        GEN
139         TABBOT EQU   847   BOTTOM OF RESORT TABLE                       <      0847        GEN
140         NEXT   EQU   850   USED ONLY IN PHASE 49                        <      0850        GEN
141         SX2    EQU   853   USED ONLY IN PHASE 48 AND 49                 <      0853        GEN
142         SX3B   EQU   856                                                <      0856        GEN
143         W3     EQU   859   USED ONLY IN PHASE 48 AND 49                 <      0859        GEN
144         TOPC   EQU   862   TABBOT PLUS 3 X NUMBER OF STATEMENTS PLUS 1  <      0862        GEN
145         SEQNO  EQU   865   USED ONLY IN PHASE 48 AND 49                 <      0865        GEN
146         TOPC5  EQU   870   TOPC AS FIVE DIGITS                          <      0870        GEN
147         TIMES6 EQU   875   DOCNT TIMES 6                               <      0875        GEN
148         W5     EQU   880   USED ONLY IN PHASE 49                        <      0880        GEN
149         TOPB   EQU   883   TABBOT PLUS 3 X NUMBER OF STATEMENTS PLUS 1  <      0883        GEN
150         FLAG   EQU   884   USED ONLY IN PHASE 48 AND 49                 <      0884        GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

151         ADR5B   EQU   891                                               <       0891              GEN
152         ADR5    EQU   896                                               <       0896              GEN
153         CONV53  EQU   929                                               <       0929              GEN
154         CONV35  EQU   969                                               <       0969              GEN
155         FINDGM  EQU   1052                                              <       1052              GEN
156         TOOBIG  EQU   1092                                              <       1092              GEN
157         BEGN47  EQU   1175                                              <       1175              GEN
158                 SFX
159         *
160         * ADR5B   EQU  891
161         * ADR5    EQU  896
162         * CONV35  EQU  969  CONVERT ADDRESS IN ADR5 TO DIGITS IN ADR5B
163         * TOOBIG  EQU  1092
164         *
165         PHS50B LDPH  SHIFT CFL,LOADAD,BEG50B,,,50B                                                  MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                          GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                                              GEN
            *                                                                                          GEN
            * LOAD A BLOCK                                                                             GEN
            *                                                                                          GEN
166         )6J004 EQU   110  PHASE ID                                              0110              GEN
167         )6K004 EQU   700  LOAD NEXT PHASE                                       0700              GEN
168         )6L004 EQU   704  TAPE READ INSTRUCTION                                 0704              GEN
169         )6M004 EQU   728  TAPE ERROR HANDLER                                    0728              GEN
            *                                                                                          GEN
170                ORG   201                                                              0201
171         PHS50B BSS   )8J004,G                                                5  0201  B 257 G     GEN      1   257
172                NOP     TO PATCH IN TRAPS FOR DEBUGGING                       1  0206  N           GEN      1
173         )0J004 EQU   *&1                                                        0207              GEN
174                LCA   )9J004,)6J004                                           7  0207  L 281 110   GEN      1   281     110
175                BCE   )1J004,)6K004,1    Q: LOADING FROM CARDS?               8  0214  B 250 700 1 GEN      1   250     700
176                BCE   )1J004,)6L004&4,0  Q: LOADING FROM AUTOCODER TAPE?       8  0222  B 250 708 0 GEN      1   250     708
177                RTW   1,LOADAD           READ THE BLOCK                       8  0230  L %U1 /75 R GEN      1   %U1    1175
178                BER   )6M004             Q: TAPE ERROR?                       5  0238  B 728 L     GEN      2   728
179                CS    BEG50B,)9R004      ENTER THE BLOCK                      7  0243  / /75 286   GEN      2  1175     286
180         )1J004 CS    )6K004,)9R004      LOAD CARDS OR AUTOCODER TAPE         7  0250  / 700 286   GEN      2   700     286
181         )8J004 SW    )9R004                                                  4  0257  , 286       GEN      2   286
182                MU    %T0,)8K004,W                                          8  0261  M %T0 273 W GEN      2   %T0     273
183                H     )0J004                                                4  0269  . 207       GEN      2   207
184         )8K004 EQU   *&1                                                        0273              GEN
185         )9J004 DCW   @SHIFT CFL@          PHASE ID                           9  0281              GEN      3
186                DCW   #1                                                      1  0282              GEN      3
187                DC    @50B@          PHASE NUMBER                           3  0285              GEN      3
188         )9R004 DCW   @}@                                                    1  0286              GEN      3
189                XFR   PHS50B                                                        B 201               4   201
190         *
191                ORG   BEGN47                                                         1175
192         LOADAD EQU   *&1                                                        1175
193  1 175  BEG50B C     TOPCOR,ARYTOP                                         7  1175  C 688 194           5   688     194
194  1 182         BE    DONE                                                  5  1182  B 700 S             5   700
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195  1 187          MCW   SEQTAB,X1                                   7  1187  M 148 089           5   148     089
196  1 194          MCW   SEQTAB,X2                                   7  1194  M 148 094           5   148     094
197  1 201          MA    NEGARY,X2                                   7  1201  # 163 094           5   163     094
198  1 208          SBR   SX3&6,0&X3                                  7  1208  H U89 0?0           6  1489     000+3
199  1 215          CW    ADR5 <-2                                    4  1215  ) 894               6   894
200  1 219          MCW   X2,ADR5 <                                   7  1219  M 094 896           6   094     896
201  1 226          B     CONV35                                      4  1226  B 969               6   969
202  1 230          MCW   ADR5B<,W5A                                  7  1230  M 891 V53           6   891    1553
203  1 237          MCW   X3,ADR5 <                                   7  1237  M 099 896           6   099     896
204  1 244          B     CONV35                                      4  1244  B 969               7   969
205  1 248          MCW   ADR5B<,W5B                                  7  1248  M 891 V58           7   891    1558
206  1 255          C     W5A,W5B                                     7  1255  C V53 V58           7  1553    1558
207  1 262          BH    TOOBIG                                      5  1262  B |92 U             7  1092
208  1 267          MCW   SEQTAB,ADR5 <                               7  1267  M 148 896           7   148     896
209  1 274          B     CONV35                                      4  1274  B 969               7   969
210  1 278          MCW   ADR5B<,W5C                                  7  1278  M 891 V63           8   891    1563
211  1 285          MCW   ARYTOP,ADR5 <                               7  1285  M 194 896           8   194     896
212  1 292          B     CONV35                                      4  1292  B 969               8   969
213  1 296          MCW   ADR5B<,W5D                                  7  1296  M 891 V68           8   891    1568
214  1 303          C     W5C,W5D                                     7  1303  C V63 V68           8  1563    1568
215  1 310          BIN   TESTMV,                                V3M4  5  1310  B V74               8  1574
216          *
217          * MOVE SEQUENCE NUMBER TABLE DOWN BY THE ARRAY SIZE
218          *
219  1 315  SEQMV  MA    KA001,X1                                    7  1315  # V71 089           9  1571     089
220  1 322          MA    KA001,X2                                    7  1322  # V71 094           9  1571     094
221  1 329          BW    SEQMV3,0&X1                                 8  1329  V T82 0|0 1         9  1382     000+1
222  1 337          CW    0&X2                                        4  1337  ) 0!0               9   000+2
223  1 341          MN    0&X1,0&X2                                   7  1341  D 0|0 0!0           9   000+1   000+2
224  1 348          MZ    0&X1,0&X2                                   7  1348  Y 0|0 0!0          10   000+1   000+2
225  1 355  SEQMV2  CW    0&X1                                        4  1355  ) 0|0              10   000+1
226  1 359          C     X1,ARYTOP                                   7  1359  C 089 194          10   089     194
227  1 366          BU    SEQMV                                       5  1366  B T15 /            10  1315
228  1 371          MCW   ARYTOP,X3                                   7  1371  M 194 099          10   194     099
229  1 378          B     NOSQV2                                      4  1378  B U00              10  1400
230  1 382  SEQMV3  LCA   0&X1,0&X2                                   7  1382  L 0|0 0!0          11   000+1   000+2
231  1 389          B     SEQMV2                                      4  1389  B T55              11  1355
232          *
233          * DON'T MOVE THE SEQUENCE NUMBER TABLE
234          *
235  1 393  NOSQMV MCW   SEQTAB,X3                                   7  1393  M 148 099          11   148     099
236  1 400  NOSQV2 BW    *&9,1&X3                                    8  1400  V U16 0?1 1        11  1416     001+3
237  1 408          CW    FLAG                                        4  1408  ) V72              11  1572
238  1 412          SW    1&X3                                        4  1412  , 0?1              11   001+3
239          *
240          * MOVE CONSTANTS AND STRINGS UP
241          *
242  1 416          MCW   TOPCOR,X1                                   7  1416  M 688 089          12   688     089
243  1 423          MCW   ARYTOP,X2                                   7  1423  M 194 094          12   194     094
244  1 430  MOVEUP  LCA   0&X1,0&X2                                   7  1430  L 0|0 0!0          12   000+1   000+2
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

245  1 437         SBR   X2                                                4  1437  H 094               12   094
246  1 441         SBR   X1                                                4  1441  H 089               12   089
247  1 445         MA    ARYSIZ,X1                                         7  1445  # 160 089           12   160     089
248  1 452         C     X1,X3                                             7  1452  C 089 099           13   089     099
249  1 459         BU    MOVEUP                                            5  1459  B U30 /             13  1430
250  1 464         BW    SX3,FLAG                                          8  1464  V U83 V72 1         13  1483    1572
251  1 472         MA    NEGARY,X3                                         7  1472  # 163 099           13   163     099
252  1 479         CW    1&X3                                              4  1479  ) 0?1               13   001+3
253  1 483  SX3    SBR   X3,0                                             7  1483  H 099 000           13   099     000
254  1 490         MA    NEGARY,83                                         7  1490  # 163 083           14   163     083
255  1 497         MA    NEGARY,TBLBOT                                     7  1497  # 163 145           14   163     145
256  1 504         MA    NEGARY,SEQTAB                                     7  1504  # 163 148           14   163     148
257  1 511         MCW   TOPCOR,X1                                         7  1511  M 688 089           14   688     089
258  1 518  CSLOOP C     X1,ARYTOP                                         7  1518  C 089 194           14   089     194
259  1 525         BE    DONE                                              5  1525  B 700 S             15   700
260  1 530         MCW   KB1,0&X1                                          7  1530  M V73 0|0           15  1573     000+1
261  1 537         CW    0&X1                                              4  1537  ) 0|0               15   000+1
262  1 541         SBR   X1                                                4  1541  H 089               15   089
263  1 545         B     CSLOOP                                            4  1545  B V18               15  1518
264         *
265  1 549  DONE   EQU   LOADNX                                               0700
266         *
267         * DATA
268         *
269  1 594  W5A    DCW   #5                                                5  1553                      15
270  1 599  W5B    DCW   #5                                                5  1558                      15
271  1 604  W5C    DCW   #5                                                5  1563                      16
272  1 609  W5D    DCW   #5                                                5  1568                      16
273  1 612  KA001  DSA   1                                                 3  1571  001                 16   001
274  1 613  FLAG   DCW   #1                                                1  1572                      16
275  1 614  KB1    DCW   #1                                                1  1573                      16
276  1 624  TESTMV BH    SEQMV                                   V3M4     5  1574  B T15 U             16  1315
277  1 629         BIN   NOSQMV,                                 V3M4     5  1579  B T93               16  1393
278  1 634  GMWM   DCW   @}@                                               1  1584              GMARK  17
279                XFR   BEG50B                                                 B /75               18  1175
280         CLRME  CLRA  BEGIN3,GMWM,C                                                             MACRO
            *      CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                             GEN
            *                                                                                      GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                                    GEN
            *                                                                                      GEN
281                ORG   201                                                          0201
            *                                                                                      GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                              GEN
            *                                                                                      GEN
282         CLRME  EQU   *&1                                                  0201                GEN
283                BSS   SNAPSH,C                                            5  0201  B 333 C      GEN     19   333
284         )0J005 CS    GMWM         CLEAR FROM CLRTOP                       4  0206  / V84        GEN     19  1584
285                SBR   )0J005&3                                            4  0210  H 209        GEN     19   209
286                SBR   )0L005&6                                            4  0214  H 255        GEN     19   255
287                C     )0J005&3,)0M005   DOWN TO CLRBOT & X00?             7  0218  C 209 266    GEN     19   209     266
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

288                 BU    )0J005                                            5  0225  B 206 /     GEN     19   206
          *                                                                                     GEN
          * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                               GEN
          *                                                                                     GEN
289       )0K005    C     )0L005&6,)0N005                                   7  0230  C 255 269   GEN     19   255     269
290                 BU    )0L005                                            5  0237  B 249 /     GEN     20   249
291                 CS    LOADNX,)0Q005  LOAD THE NEXT BLOCK AT 1           7  0242  / 700 276   GEN     20   700     276
292       )0L005    LCA   )0P005,0-0     CLEAR WITH BLANK AND WORD MARK    7  0249  L 270 000   GEN     20   270     000
293                 SBR   )0L005&6                                          4  0256  H 255       GEN     20   255
294                 B     )0K005                                            4  0260  B 230       GEN     20   230
295       )0M005    DSA   )0R005         CLRBOT & X00 - 1                  3  0266  899         GEN     20   899
296       )0N005    DSA   BEGIN3         CLRBOT                            3  0269  838         GEN     20   838
297       )0P005    DCW   #1                                              1  0270              GEN     21
298                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP     5  0275              GEN     21
299       )0Q005    DCW   @}@                                             1  0276              GEN     21
300                 ORG   BEGIN3&X00                                                 0900
301       )0R005    EQU   *           CLRBOT & X00 - 1                        0899              GEN
302                 XFR   CLRME                                                     B 201               22   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J004	0207: 0	)0J005	0206: 0	)0K005	0230: 0	)0L005	0249: 0	)0M005	0266: 0	)0N005	0269: 0
)0P005	0270: 0	)0Q005	0276: 0	)0R005	0899: 0	)1J004	0250: 0	)6J004	0110: 0	)6K004	0700: 0
)6L004	0704: 0	)6M004	0728: 0	)8J004	0257: 0	)8K004	0273: 0	)9J004	0281: 0	)9R004	0286: 0
ADR5 <	0896: 0	ADR5B<	0891: 0	ARYSIZ	0160: 0	ARYTOP	0194: 0	BEG50B	1175: 0	BEGIN3	0838: 0
BEGN47	1175: 0	CDOVLY	0700: 0	CLRME	0201: 0	CONV35	0969: 0	CONV53	0929: 0	CSLOOP	1518: 0
DONE	0700: 0	FINDGM	1052: 0	FLAG	1572: 0	FLAG <	0884: 0	GMWM	1584: 0	KA001	1571: 0
KB1	1573: 0	LOADAD	1175: 0	LOADNX	0700: 0	MOVEUP	1430: 0	NEGARY	0163: 0	NEXT <	0850: 0
NOSQMV	1393: 0	NOSQV2	1400: 0	PHASLD	0381: 0	PHS50B	0201: 0	SEQMV	1315: 0	SEQMV2	1355: 0
SEQMV3	1382: 0	SEQNO<	0865: 0	SEQTAB	0148: 0	SNAPEX	0564: 0	SNAPSH	0333: 0	SX2 <	0853: 0
SX3	1483: 0	SX3A <	0844: 0	SX3B <	0856: 0	TABBOT	0847: 0	TBLBOT	0145: 0	TESTMV	1574: 0
TIMES6	0875: 0	TOOBIG	1092: 0	TOP3	2600: 0	TOPA <	0841: 0	TOPB <	0883: 0	TOPC <	0862: 0
TOPC5<	0870: 0	TOPCOR	0688: 0	TPERR	0728: 0	TPREAD	0704: 0	W3 <	0859: 0	W5 <	0880: 0
W5A	1553: 0	W5B	1558: 0	W5C	1563: 0	W5D	1568: 0	X1	0089: 0	X2	0094: 0
X3	0099: 0										

UNREFERENCED SYMBOLS

CDOVLY CONV53 FINDGM FLAG < NEXT < PHASLD SEQNO< SNAPEX SX2 < SX3A < SX3B < TABBOT TIMES6 TOP3 TOPA < TOPB < TOPC <
TOPC5< TPERR TPREAD W3 < W5 <