```
SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
101                JOB   FORTRAN COMPILER -- RESORT 4 PHASE -- PHASE 50A
102                CTL   6611
103         *
104         * THE STATEMENTS ARE RELOCATED TO THE POSITIONS THEY WILL OCCUPY
105         * AT OBJECT TIME.  THE STATEMENT NUMBER TABLE IS ADJUSTED TO
106         * TO SHOW THE OBJECT TIME LOCATIONS OF THE STATEMENTS.
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         NSTMTS EQU   183  NUMBER OF STATEMENTS, INCLUDING GENERATED STOP      0183
119         *
120                EXT00   SNAPSH, LOADNX, CDOVLY                                                MACRO
121         SNAPSH EQU   333                                                       0333            GEN
122         PHASLD EQU   381                                                       0381            GEN
123         SNAPEX EQU   564                                                       0564            GEN
124         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                           0700            GEN
125         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE           0700            GEN
126         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                            0704            GEN
127         TPERR  EQU   728                                                       0728            GEN
128         *
129                SFX   <
130                EXT47   STUFF FROM RESORT ONE PHASE -- 47                                      MACRO
131         TOPA   EQU   841   TABBOT PLUS 3 X NUMBER OF STATEMENTS          <    0841            GEN
132         SX3A   EQU   844   USED ONLY IN PHASE 48 AND 49                  <    0844            GEN
133         TABBOT EQU   847   BOTTOM OF RESORT TABLE                       <    0847            GEN
134         NEXT   EQU   850   USED ONLY IN PHASE 49                        <    0850            GEN
135         SX2    EQU   853   USED ONLY IN PHASE 48 AND 49                  <    0853            GEN
136         SX3B   EQU   856                                                 <    0856            GEN
137         W3     EQU   859   USED ONLY IN PHASE 48 AND 49                  <    0859            GEN
138         TOPC   EQU   862   TABBOT PLUS 3 X NUMBER OF STATEMENTS PLUS 1   <    0862            GEN
139         SEQNO  EQU   865   USED ONLY IN PHASE 48 AND 49                  <    0865            GEN
140         TOPC5  EQU   870   TOPC AS FIVE DIGITS                           <    0870            GEN
141         TIMES6 EQU   875   DOCNT TIMES 6                                <    0875            GEN
142         W5     EQU   880   USED ONLY IN PHASE 49                        <    0880            GEN
143         TOPB   EQU   883   TABBOT PLUS 3 X NUMBER OF STATEMENTS PLUS 1   <    0883            GEN
144         FLAG   EQU   884   USED ONLY IN PHASE 48 AND 49                  <    0884            GEN
145         ADR5B  EQU   891                                                 <    0891            GEN
146         ADR5   EQU   896                                                 <    0896            GEN
147         CONV53 EQU   929                                                 <    0929            GEN
148         CONV35 EQU   969                                                 <    0969            GEN
149         FINDGM EQU   1052                                                <    1052            GEN
150         TOOBIG EQU   1092                                                <    1092            GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

151         BEGN47  EQU   1175                                               <      1175              GEN
152         * COPE WITH SUFFIX PROBLEMS -- SFX GOES IN SIXTH CHARACTER BUT A
153         * LABEL CANNOT CONTAIN MORE THAN ONE BLANK
154         W3....  EQU   W3                                                 <      0859
155                 SFX
156         *
157         W3      EQU   W3....                                                   0859
158         *
159         PHS50A  LDPH  RESORT FOR,LOADAD,BEG50A,,,50A                                          MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                    GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                                       GEN
            *                                                                                   GEN
            * LOAD A BLOCK                                                                      GEN
            *                                                                                   GEN
160         )6J003  EQU   110  PHASE ID                                           0110          GEN
161         )6K003  EQU   700  LOAD NEXT PHASE                                    0700          GEN
162         )6L003  EQU   704  TAPE READ INSTRUCTION                              0704          GEN
163         )6M003  EQU   728  TAPE ERROR HANDLER                                 0728          GEN
            *                                                                                   GEN
164                 ORG   201                                                          0201
165         PHS50A  BSS   )8J003,G                                              5  0201  B 257 G     GEN      1   257
166                 NOP     TO PATCH IN TRAPS FOR DEBUGGING                     1  0206  N           GEN      1
167         )0J003  EQU   *&1                                                      0207              GEN
168                 LCA   )9J003,)6J003                                         7  0207  L 282 110   GEN      1   282     110
169                 BCE   )1J003,)6K003,1    Q: LOADING FROM CARDS?            8  0214  B 250 700 1 GEN      1   250     700
170                 BCE   )1J003,)6L003&4,0  Q: LOADING FROM AUTOCODER TAPE?    8  0222  B 250 708 0 GEN      1   250     708
171                 RTW   1,LOADAD           READ THE BLOCK                    8  0230  L %U1 /75 R GEN      1   %U1    1175
172                 BER   )6M003             Q: TAPE ERROR?                    5  0238  B 728 L     GEN      2   728
173                 CS    BEG50A,)9R003      ENTER THE BLOCK                   7  0243  / /75 287   GEN      2  1175     287
174         )1J003  CS    )6K003,)9R003      LOAD CARDS OR AUTOCODER TAPE      7  0250  / 700 287   GEN      2   700     287
175         )8J003  SW    )9R003                                               4  0257  , 287       GEN      2   287
176                 MU    %T0,)8K003,W                                        8  0261  M %T0 273 W GEN      2   %T0     273
177                 H     )0J003                                              4  0269  . 207       GEN      2   207
178         )8K003  EQU   *&1                                                      0273              GEN
179         )9J003  DCW   @RESORT FOR@          PHASE ID                     10  0282              GEN      3
180                 DCW   #1                                                  1  0283              GEN      3
181                 DC    @50A@          PHASE NUMBER                        3  0286              GEN      3
182         )9R003  DCW   @)@                                                 1  0287              GEN      3
183                 XFR   PHS50A                                                     B 201               4   201
184         *
185                 ORG   BEGN47                                                      1175
186         LOADAD  EQU   *&1                                                      1175
187  1 175  BEG50A  MCW   SEQTAB,X1                                           7  1175  M 148 089           5   148     089
188  1 182          SBR   X1,1&X1                                            7  1182  H 089 0|1           5   089     001+1
189  1 189          C     TBLBOT,X1                                          7  1189  C 145 089           5   145     089
190  1 196          BE    ATBOT                                              5  1196  B S60 S             5  1260
191  1 201  LOOP    SBR   X1,3&X1                                            7  1201  H 089 0|3           5   089     003+1
192  1 208          MCW   0&X1,X2                                            7  1208  M 0|0 094           6   000+1   094
193  1 215          BWZ   *&12,X2-1,2                                       8  1215  V S34 093 2         6  1234     093
194  1 223          MCW   0&X2,0&X1                                          7  1223  M 0!0 0|0           6   000+2   000+1
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195  1 230          B     TSTBOT                                        4  1230  B S48               6  1248
196  1 234          MA    W3,X2                                         7  1234  # 859 094           6   859     094
197  1 241          MCW   X2,0&X1                                      7  1241  M 094 0|0           7   094     000+1
198  1 248  TSTBOT  C     X1,TBLBOT                                     7  1248  C 089 145           7   089     145
199  1 255          BU    LOOP                                          5  1255  B S01 /             7  1201
200  1 260  ATBOT   MCW   W3,X1                                        7  1260  M 859 089           7   859     089
201  1 267          MA    X3,X1                                         7  1267  # 099 089           7   099     089
202  1 274          MCW   X1,NEWX3&6                                   7  1274  M 089 U69           8   089    1469
203  1 281          SBR   ADR5 <,0&X3                                  7  1281  H 896 0?0           8   896     000+3
204  1 288          B     CONV35                                        4  1288  B 969               8   969
205  1 292          MCW   ADR5B<,TOPC5<                                7  1292  M 891 870           8   891     870
206  1 299          MCW   ADR5B<,W5                                    7  1299  M 891 W49           8   891    1649
207  1 306          MCW   W3,ADR5 <                                    7  1306  M 859 896           8   859     896
208  1 313          B     CONV35                                        4  1313  B 969               9   969
209  1 317          A     ADR5B<,TOPC5<                                7  1317  A 891 870           9   891     870
210  1 324          C     K16000,TOPC5<                                7  1324  C W44 870           9  1644     870
211  1 331          BL    *&8                                           5  1331  B T43 T             9  1343
212  1 336          S     K16000,TOPC5<                                7  1336  S W44 870           9  1644     870
213  1 343          MCW   SEQTAB,ADR5 <                                7  1343  M 148 896           9   148     896
214  1 350          B     CONV35                                        4  1350  B 969              10   969
215  1 354          C     ADR5B<,TOPC5<                                7  1354  C 891 870          10   891     870
216  1 361          BH    TOOBIG                                        5  1361  B |92 U            10  1092
217  1 366          MZ    X1,TSTZON&7                                   7  1366  Y 089 V58          10   089    1558
218  1 373          MCW   X1-2,TSTCHR&7                               7  1373  M 087 V78          10   087    1578
219  1 380          MCW   NSTMTS,X2                                    7  1380  M 183 094          10   183     094
220  1 387          MA    W3,NSTMTS                                     7  1387  # 859 183          11   859     183
221  1 394          C     TOPC5<,W5                                    7  1394  C 870 W49          11   870    1649
222  1 401          BH    FINDW2                                        5  1401  B U95 U            11  1495
223  1 406  MORE    LCA   0&X3,0&X1                                    7  1406  L 0?0 0|0          11   000+3   000+1
224  1 413          SAR   X3                                            4  1413  Q 099              11   099
225  1 417          C     0&X1                                          4  1417  C 0|0              11   000+1
226  1 421          SAR   X1                                            4  1421  Q 089              11   089
227  1 425          BCE   *&5,0&X3,:  AT TOP OF MOVED-UP CODE          8  1425  B U37 0?0 :        12  1437     000+3
228  1 433          B     MORE                                          4  1433  B U06              12  1406
229          *
230          * DONE
231          *
232  1 437  CSLOOP  CS    0&X1                                          4  1437  / 0|0              12   000+1
233  1 441          SBR   X1                                            4  1441  H 089              12   089
234  1 445          C     X1,BOTCLR  AT THE BOTTOM OF CORE TO CLEAR?    7  1445  C 089 W52          12   089    1652
235  1 452          BU    CSLOOP     NO, CLEAR MORE                     5  1452  B U37 /            12  1437
236  1 457          CW    0&X1                                          4  1457  ) 0|0              12   000+1
237  1 461          CW                                                  1  1461  )                  13
238  1 462          CW                                                  1  1462  )                  13
239  1 463  NEWX3   SBR   X3,0                                         7  1463  H 099 000          13   099     000
240  1 470          SW    0&X1,1&X3                                     7  1470  , 0|0 0?1          13   000+1   001+3
241  1 477          MCW   W3,X2                                        7  1477  M 859 094          13   859     094
242  1 503          B     LOADNX                                        4  1484  B 700              13   700
243          *
244          * MOVE THE CODE TO ITS FINAL PLACE
```

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

245         *
246  1 507  FINDWM  MA    A001,X2  WHY NOT  SBR  X2,1&X2 ???               V3M4  7  1488  # W59 094          13  1659     094
247  1 514  FINDW2  BW    *&5,1&X2                                                8  1495  V V07 0!1 1        14  1507     001+2
248  1 522          B     FINDWM                                                  4  1503  B U88              14  1488
249  1 526          MCW   X2,X1                                                   7  1507  M 094 089          14   094     089
250  1 533          MA    W3,X1                                                   7  1514  # 859 089          14   859     089
251  1 540          LCA   0&X2,0&X1  MOVE ONE FIELD TO ITS FINAL PLACE           7  1521  L 0!0 0|0          14   000+2   000+1
252  1 547          C     X2,X3                                                   7  1528  C 094 099          15   094     099
253  1 554          BU    FINDWM                                                  5  1535  B U88 /            15  1488
254  1 559          LCA   KB2,2&X3                                                7  1540  L W55 0?2          15  1655     002+3
255  1 566          CW    1&X3                                                    4  1547  ) 0?1              15   001+3
256  1 570  TSTZON  BWZ   TSTCHR,X3,2  CLEAR MOVED-AWAY CODE                     8  1551  V V71 099 2        15  1571     099
257  1 578          CS    0&X3                                                    4  1559  / 0?0              15   000+3
258  1 582          SBR   X3                                                      4  1563  H 099              15   099
259  1 586          B     TSTZON                                                  4  1567  B V51              16  1551
260  1 590  TSTCHR  BCE   CLR00F,X3-2,0                                          8  1571  B V91 097 0        16  1591     097
261  1 598          CS    0&X3                                                    4  1579  / 0?0              16   000+3
262  1 602          SBR   X3                                                      4  1583  H 099              16   099
263  1 606          B     TSTCHR                                                  4  1587  B V71              16  1571
264  1 610  CLR00F  C     X3,X1                                                   7  1591  C 099 089          16   099     089
265  1 617          BE    CLRFIN                                                  5  1598  B W22 S            16  1622
266  1 622          LCA   KB1,0&X3                                                7  1603  L W56 0?0          17  1656     000+3
267  1 629          CW    0&X3                                                    4  1610  ) 0?0              17   000+3
268  1 633          SBR   X3                                                      4  1614  H 099              17   099
269  1 637          B     CLR00F                                                  4  1618  B V91              17  1591
270  1 641  CLRFIN  MCW   NSTMTS,X1                                              7  1622  M 183 089          17   183     089
271  1 648          SBR   X1,15999&X1                                             7  1629  H 089 IZI          17   089   15999+1
272  1 655          B     CSLOOP                                                  4  1636  B U37              17  1437
273         *
274         * DATA
275         *
276  1 663  K16000  DCW   16000                                                   5  1644                     18
277  1 668  W5      DCW   #5                                                      5  1649                     18
278  1 671  BOTCLR  DSA   DOWNTO  TEST FOR BOTTOM OF CLEARING                    3  1652  W99                18  1699
279  1 681  KP1     DCW   &1                                                     1  1653                     18
280  1 683  KB2     DCW   #2                                                     2  1655                     18
281  1 684  KB1     DCW   #1                                                     1  1656                     18
282  1 690  A001    DSA   1                                                V3M4  3  1659  001                18   001
283  1 691  GMWM    DCW   @}@                                                   1  1660            GMARK    19
284                 ORG   *&X00                                                      1700
285         DOWNTO  EQU   *                                                       1699
286                 XFR   BEG50A                                                      B /75                20  1175
287         CLRME   CLRA  LOADAD,GMWM,D                                                          MACRO
            *       CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                          GEN
            *                                                                                    GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                                  GEN
            *                                                                                    GEN
288                 ORG   201                                                         0201
            *                                                                                    GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                            GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

            *                                                                             GEN
289         CLRME   EQU   *&1                                                 0201        GEN
290                 BSS   SNAPSH,D                                        5   0201  B 333 D     GEN     21   333
291         )0J004  CS    GMWM         CLEAR FROM CLRTOP                  4   0206  / W60       GEN     21  1660
292                 SBR   )0J004&3                                        4   0210  H 209       GEN     21   209
293                 SBR   )0L004&6                                        4   0214  H 255       GEN     21   255
294                 C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?        7   0218  C 209 266   GEN     21   209     266
295                 BU    )0J004                                          5   0225  B 206 /     GEN     21   206
            *                                                                             GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                      GEN
            *                                                                             GEN
296         )0K004  C     )0L004&6,)0N004                                 7   0230  C 255 269   GEN     21   255     269
297                 BU    )0L004                                          5   0237  B 249 /     GEN     22   249
298                 CS    LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1         7   0242  / 700 276   GEN     22   700     276
299         )0L004  LCA   )0P004,0-0     CLEAR WITH BLANK AND WORD MARK  7   0249  L 270 000   GEN     22   270     000
300                 SBR   )0L004&6                                        4   0256  H 255       GEN     22   255
301                 B     )0K004                                          4   0260  B 230       GEN     22   230
302         )0M004  DSA   )0R004         CLRBOT & X00 - 1                3   0266  /99         GEN     22  1199
303         )0N004  DSA   LOADAD         CLRBOT                          3   0269  /75         GEN     22  1175
304         )0P004  DCW   #1                                             1   0270              GEN     23
305                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP  5   0275              GEN     23
306         )0Q004  DCW   @}@                                            1   0276              GEN     23
307                 ORG   LOADAD&X00                                            1200
308         )0R004  EQU   *           CLRBOT & X00 - 1                      1199              GEN
309                 XFR   CLRME                                                   B 201               24   201
```

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	1199: 0	)1J003	0250: 0	)6J003	0110: 0	)6K003	0700: 0
)6L003	0704: 0	)6M003	0728: 0	)8J003	0257: 0	)8K003	0273: 0	)9J003	0282: 0	)9R003	0287: 0
A001	1659: 0	ADR5 <	0896: 0	ADR5B<	0891: 0	ATBOT	1260: 0	BEG50A	1175: 0	BEGN47	1175: 0
BOTCLR	1652: 0	CDOVLY	0700: 0	CLR00F	1591: 0	CLRFIN	1622: 0	CLRME	0201: 0	CONV35	0969: 0
CONV53	0929: 0	CSLOOP	1437: 0	DOWNTO	1699: 0	FINDGM	1052: 0	FINDW2	1495: 0	FINDWM	1488: 0
FLAG <	0884: 0	GMWM	1660: 0	K16000	1644: 0	KB1	1656: 0	KB2	1655: 0	KP1	1653: 0
LOADAD	1175: 0	LOADNX	0700: 0	LOOP	1201: 0	MORE	1406: 0	NEWX3	1463: 0	NEXT <	0850: 0
NSTMTS	0183: 0	PHASLD	0381: 0	PHS50A	0201: 0	SEQNO<	0865: 0	SEQTAB	0148: 0	SNAPEX	0564: 0
SNAPSH	0333: 0	SX2 <	0853: 0	SX3A <	0844: 0	SX3B <	0856: 0	TABBOT	0847: 0	TBLBOT	0145: 0
TIMES6	0875: 0	TOOBIG	1092: 0	TOPA <	0841: 0	TOPB <	0883: 0	TOPC <	0862: 0	TOPC5<	0870: 0
TPERR	0728: 0	TPREAD	0704: 0	TSTBOT	1248: 0	TSTCHR	1571: 0	TSTZON	1551: 0	W3	0859: 0
W3 <	0859: 0	W3....	0859: 0	W5	1649: 0	W5 <	0880: 0	X1	0089: 0	X2	0094: 0
X3	0099: 0										

UNREFERENCED SYMBOLS

CDOVLY CONV53 FINDGM FLAG < KP1 NEXT < PHASLD SEQNO< SNAPEX SX2 < SX3A < SX3B < TABBOT TIMES6 TOPA < TOPB < TOPC <
TPERR TPREAD W5 <