```
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
```

```
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 EQU   *&1                                                        0201                GEN
172                LCA   )9J004,)6J004                                          7  0201  L 252 110     GEN      1   252     110
173                BCE   )6K004,)6K004,1      Q: LOADING FROM CARDS?            8  0208  B 700 700 1   GEN      1   700     700
174                BCE   )6K004,)6L004&4,0    Q: LOADING FROM AUTOCODER TAPE?   8  0216  B 700 708 0   GEN      1   700     708
175                RTW   1,LOADAD             READ THE BLOCK                    8  0224  L %U1 /75 R   GEN      1   %U1    1175
176                BER   )6M004               Q: TAPE ERROR?                    5  0232  B 728 L       GEN      1   728
177                CS    BEG50B,)9R004        ENTER THE BLOCK                   7  0237  / /75 257     GEN      2  1175     257
178         )9J004 DCW   @SHIFT CFL@          PHASE ID                          9  0252                GEN      2
179                DC    #1                                                     1  0253                GEN      2
180                DC    @50B@          PHASE NUMBER                            3  0256                GEN      2
181         )9R004 DCW   @}@                                                    1  0257                GEN      2
182                XFR   PHS50B                                                        B 201                3   201
183         *
184                ORG   BEGN47                                                           1175
185         LOADAD EQU   *&1                                                        1175
186  1 175  BEG50B C     TOPCOR,ARYTOP                                          7  1175  C 688 194             4   688     194
187  1 182         BE    DONE                                                   5  1182  B V49 S               4  1549
188  1 187         MCW   SEQTAB,X1                                              7  1187  M 148 089             4   148     089
189  1 194         MCW   SEQTAB,X2                                              7  1194  M 148 094             4   148     094
190  1 201         MA    NEGARY,X2                                              7  1201  # 163 094             4   163     094
191  1 208         SBR   SX3&6,0&X3                                             7  1208  H U89 0?0             5  1489     000+3
192  1 215         CW    ADR5 <-2                                               4  1215  ) 894                 5   894
193  1 219         MCW   X2,ADR5 <                                              7  1219  M 094 896             5   094     896
194  1 226         B     CONV35                                                 4  1226  B 969                 5   969
```

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

195  1 230          MCW   ADR5B<,W5A                                 7  1230  M 891 V62           5   891    1562
196  1 237          MCW   X3,ADR5 <                                  7  1237  M 099 896           5   099     896
197  1 244          B     CONV35                                     4  1244  B 969               6   969
198  1 248          MCW   ADR5B<,W5B                                 7  1248  M 891 V67           6   891    1567
199  1 255          C     W5A,W5B                                    7  1255  C V62 V67           6  1562    1567
200  1 262          BH    TOOBIG                                     5  1262  B |92 U             6  1092
201  1 267          MCW   SEQTAB,ADR5 <                             7  1267  M 148 896           6   148     896
202  1 274          B     CONV35                                     4  1274  B 969               6   969
203  1 278          MCW   ADR5B<,W5C                                 7  1278  M 891 V72           7   891    1572
204  1 285          MCW   ARYTOP,ADR5 <                             7  1285  M 194 896           7   194     896
205  1 292          B     CONV35                                     4  1292  B 969               7   969
206  1 296          MCW   ADR5B<,W5D                                 7  1296  M 891 V77           7   891    1577
207  1 303          C     W5C,W5D                                    7  1303  C V72 V77           7  1572    1577
208  1 310          BIN   TESTMV,                              V3M4   5  1310  B V83               7  1583
209          *
210          * MOVE SEQUENCE NUMBER TABLE DOWN BY THE ARRAY SIZE
211          *
212  1 315  SEQMV  MA    KA001,X1                                   7  1315  # V80 089           8  1580     089
213  1 322          MA    KA001,X2                                   7  1322  # V80 094           8  1580     094
214  1 329          BW    SEQMV3,0&X1                                8  1329  V T82 0|0 1         8  1382     000+1
215  1 337          CW    0&X2                                       4  1337  ) 0!0               8   000+2
216  1 341          MN    0&X1,0&X2                                  7  1341  D 0|0 0!0           8   000+1   000+2
217  1 348          MZ    0&X1,0&X2                                  7  1348  Y 0|0 0!0           9   000+1   000+2
218  1 355  SEQMV2  CW    0&X1                                       4  1355  ) 0|0               9   000+1
219  1 359          C     X1,ARYTOP                                  7  1359  C 089 194           9   089     194
220  1 366          BU    SEQMV                                      5  1366  B T15 /             9  1315
221  1 371          MCW   ARYTOP,X3                                 7  1371  M 194 099           9   194     099
222  1 378          B     NOSQV2                                     4  1378  B U00               9  1400
223  1 382  SEQMV3  LCA   0&X1,0&X2                                  7  1382  L 0|0 0!0          10   000+1   000+2
224  1 389          B     SEQMV2                                     4  1389  B T55              10  1355
225          *
226          * DON'T MOVE THE SEQUENCE NUMBER TABLE
227          *
228  1 393  NOSQMV MCW   SEQTAB,X3                                  7  1393  M 148 099          10   148     099
229  1 400  NOSQV2 BW    *&9,1&X3                                   8  1400  V U16 0?1 1        10  1416     001+3
230  1 408          CW    FLAG                                       4  1408  ) V81              10  1581
231  1 412          SW    1&X3                                       4  1412  , 0?1              10   001+3
232          *
233          * MOVE CONSTANTS AND STRINGS UP
234          *
235  1 416          MCW   TOPCOR,X1                                  7  1416  M 688 089          11   688     089
236  1 423          MCW   ARYTOP,X2                                  7  1423  M 194 094          11   194     094
237  1 430  MOVEUP  LCA   0&X1,0&X2                                  7  1430  L 0|0 0!0          11   000+1   000+2
238  1 437          SBR   X2                                         4  1437  H 094              11   094
239  1 441          SBR   X1                                         4  1441  H 089              11   089
240  1 445          MA    ARYSIZ,X1                                  7  1445  # 160 089          11   160     089
241  1 452          C     X1,X3                                      7  1452  C 089 099          12   089     099
242  1 459          BU    MOVEUP                                     5  1459  B U30 /            12  1430
243  1 464          BW    SX3,FLAG                                   8  1464  V U83 V81 1        12  1483    1581
244  1 472          MA    NEGARY,X3                                  7  1472  # 163 099          12   163     099
```

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

245  1 479          CW    1&X3                                             4  1479  ) 0?1               12   001+3
246  1 483  SX3     SBR   X3,0                                             7  1483  H 099 000           12   099     000
247  1 490          MA    NEGARY,83                                        7  1490  # 163 083           13   163     083
248  1 497          MA    NEGARY,TBLBOT                                    7  1497  # 163 145           13   163     145
249  1 504          MA    NEGARY,SEQTAB                                    7  1504  # 163 148           13   163     148
250  1 511          MCW   TOPCOR,X1                                        7  1511  M 688 089           13   688     089
251  1 518  CSLOOP  C     X1,ARYTOP                                        7  1518  C 089 194           13   089     194
252  1 525          BE    DONE                                             5  1525  B V49 S             14  1549
253  1 530          MCW   KB1,0&X1                                         7  1530  M V82 0|0           14  1582     000+1
254  1 537          CW    0&X1                                             4  1537  ) 0|0               14   000+1
255  1 541          SBR   X1                                               4  1541  H 089               14   089
256  1 545          B     CSLOOP                                           4  1545  B V18               14  1518
257          *
258  1 549  DONE    BSS   SNAPSH,C                                         5  1549  B 333 C             14   333
259  1 586          B     LOADNX                                           4  1554  B 700               14   700
260          *
261          * DATA
262          *
263  1 594  W5A     DCW   #5                                               5  1562                      15
264  1 599  W5B     DCW   #5                                               5  1567                      15
265  1 604  W5C     DCW   #5                                               5  1572                      15
266  1 609  W5D     DCW   #5                                               5  1577                      15
267  1 612  KA001   DSA   1                                                3  1580  001                 15   001
268  1 613  FLAG    DCW   #1                                               1  1581                      15
269  1 614  KB1     DCW   #1                                               1  1582                      15
270  1 624  TESTMV  BH    SEQMV                                  V3M4      5  1583  B T15 U             16  1315
271  1 629          BIN   NOSQMV,                                V3M4      5  1588  B T93               16  1393
272  1 634  GMWM    DCW   @}@                                              1  1593              GMARK   16
273                 XFR   BEG50B                                                  B /75               17  1175
274          CLRME  CLRA  BEGIN3,GMWM                                                                MACRO
             *      CLRA  CLRBOT,CLRTOP[,ORG,GMWMAD]                                                 GEN
             *                                                                                       GEN
             * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                                     GEN
             *                                                                                       GEN
275                 ORG   201                                                       0201
             *                                                                                       GEN
             * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                               GEN
             *                                                                                       GEN
276          CLRME  EQU   *&1                                                 0201                  GEN
277          )0J005 CS    GMWM         CLEAR FROM CLRTOP                      4  0201  / V93         GEN     18  1593
278                 SBR   )0J005&3                                           4  0205  H 204         GEN     18   204
279                 SBR   )0L005&6                                           4  0209  H 250         GEN     18   250
280                 C     )0J005&3,)0M005   DOWN TO CLRBOT & X00?            7  0213  C 204 261     GEN     18   204     261
281                 BU    )0J005                                             5  0220  B 201 /       GEN     18   201
             *                                                                                       GEN
             * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                                 GEN
             *                                                                                       GEN
282          )0K005 C     )0L005&6,)0N005                                    7  0225  C 250 264     GEN     18   250     264
283                 BU    )0L005                                             5  0232  B 244 /       GEN     18   244
284                 CS    LOADNX,)0Q005  LOAD THE NEXT BLOCK AT 1            7  0237  / 700 271     GEN     19   700     271
```

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

285         )0L005 LCA   )0P005,0-0     CLEAR WITH BLANK AND WORD MARK      7  0244  L 265 000   GEN     19   265     000
286                SBR   )0L005&6                                           4  0251  H 250       GEN     19   250
287                B     )0K005                                           4  0255  B 225       GEN     19   225
288         )0M005 DSA   )0R005         CLRBOT & X00 - 1                  3  0261  899         GEN     19   899
289         )0N005 DSA   BEGIN3         CLRBOT                            3  0264  838         GEN     19   838
290         )0P005 DCW   #1                                               1  0265              GEN     19
291                DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP    5  0270              GEN     19
292         )0Q005 DCW   @}@                                              1  0271              GEN     20
293                ORG   BEGIN3&X00                                                 0900
294         )0R005 EQU   *           CLRBOT & X00 - 1                        0899              GEN
295                XFR   CLRME                                                    B 201               21   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J005	0201: 0	)0K005	0225: 0	)0L005	0244: 0	)0M005	0261: 0	)0N005	0264: 0	)0P005	0265: 0
)0Q005	0271: 0	)0R005	0899: 0	)6J004	0110: 0	)6K004	0700: 0	)6L004	0704: 0	)6M004	0728: 0
)9J004	0252: 0	)9R004	0257: 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	1549: 0	FINDGM	1052: 0	FLAG	1581: 0	FLAG <	0884: 0
GMWM	1593: 0	KA001	1580: 0	KB1	1582: 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	1583: 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	1562: 0	W5B	1567: 0	W5C	1572: 0	W5D	1577: 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 <