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

101                JOB   FORTRAN COMPILER -- RESORT 3 PHASE -- PHASE 49
102                CTL   6611
103         *
104         * THE SOURCE PROGRAM IS RESORTED BACK TO ITS ORIGINAL ORDER.
105         * THE STATEMENT NUMBER TABLE IS FILLED WITH THE CURRENT LOCATION
106         * OF EACH STATEMENT.
107         *
108         * ON ENTRY X3 IS AT THE BOTTOM ENTRY IN  THE SORT TABLE AND
109         * X2 IS ONE ABOVE THE COLON THAT MARKS THE TOP OF THE SORT TABLE.
110         *
111         X1     EQU   89                                                      0089
112         X2     EQU   94                                                      0094
113         X3     EQU   99                                                      0099
114         *
115         * STUFF IN THE RESIDENT AREA
116         *
117         SEQTAB EQU   148  BOTTOM OF SEQUENCE NUMBER TABLE - 2               0148
118         TOPCOR EQU   688  TOP CORE ADDRESS FROM PARAM CARD                  0688
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                                                                          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         SX2...  EQU   SX2                                                      <      0853
155         W3....  EQU   W3                                                       <      0859
156         W5....  EQU   W5                                                       <      0880
157                 SFX
158         SX1     EQU   SX3A <  SX3A IN PREVIOUS PHASE                                 0844
159         SX3A    EQU   SX2...  SX2 IN PREVIOUS PHASE                                 0853
160         SX3     EQU   SX3B <  SX3B IN PREVIOUS PHASE                                 0856
161         W3      EQU   W3....                                                        0859
162         W5      EQU   W5....                                                        0880
163         *
164         SORTAB  EQU   TABEL  SORT TABLE                                             2499
165         *
166         PHAS49  LDPH  RESORT TRI,LOADAD,BEGN49,,,49                                       MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                 GEN
            *       XFR  PHASZ     PROHIBITED IN A MACRO                                     GEN
            *                                                                               GEN
            * LOAD A BLOCK                                                                  GEN
            *                                                                               GEN
167         )6J003  EQU   110  PHASE ID                                                 0110              GEN
168         )6K003  EQU   700  LOAD NEXT PHASE                                          0700              GEN
169         )6L003  EQU   704  TAPE READ INSTRUCTION                                    0704              GEN
170         )6M003  EQU   728  TAPE ERROR HANDLER                                       0728              GEN
            *                                                                               GEN
171                 ORG   201                                                                 0201
172         PHAS49  BSS   )8J003,G                                                  5   0201  B 257 G     GEN      1   257
173                 NOP     TO PATCH IN TRAPS FOR DEBUGGING                         1   0206  N           GEN      1
174         )0J003  EQU   *&1                                                          0207              GEN
175                 LCA   )9J003,)6J003                                             7   0207  L 282 110   GEN      1   282     110
176                 BCE   )1J003,)6K003,1    Q: LOADING FROM CARDS?                8   0214  B 250 700 1 GEN      1   250     700
177                 BCE   )1J003,)6L003&4,0  Q: LOADING FROM AUTOCODER TAPE?        8   0222  B 250 708 0 GEN      1   250     708
178                 RTW   1,LOADAD          READ THE BLOCK                          8   0230  L %U1 /75 R GEN      1   %U1     1175
179                 BER   )6M003            Q: TAPE ERROR?                          5   0238  B 728 L     GEN      2   728
180                 CS    BEGN49,)9R003     ENTER THE BLOCK                         7   0243  / /75 286   GEN      2  1175     286
181         )1J003  CS    )6K003,)9R003     LOAD CARDS OR AUTOCODER TAPE            7   0250  / 700 286   GEN      2   700     286
182         )8J003  SW    )9R003                                                    4   0257  , 286       GEN      2   286
183                 MU    %T0,)8K003,W                                            8   0261  M %T0 273 W GEN      2   %T0     273
184                 H     )0J003                                                  4   0269  . 207       GEN      2   207
185         )8K003  EQU   *&1                                                          0273              GEN
186         )9J003  DCW   @RESORT TRI@          PHASE ID                          10   0282              GEN      3
187                 DCW   #1                                                      1   0283              GEN      3
188                 DC    @49@          PHASE NUMBER                              2   0285              GEN      3
189         )9R003  DCW   @}@                                                     1   0286              GEN      3
190                 XFR   PHAS49                                                          B 201               4   201
191         *
192                 ORG   BEGN47                                                          1175
193         LOADAD  EQU   *&1                                                          1175
194  1 175  BEGN49  SW    GM                                                      4   1175  , M52               5  2452
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195                 CS    299  LOADING FROM CARDS OR AUTOCODER DOESN'T CLEAR      4  1179  / 299               5   299
196  1 446          LCA   K000,208  MOVED HERE FROM PHASE 47                    7  1183  L M32 208           5  2432     208
197  1 179          B     *&8                                                   4  1190  B S01               5  1201
198  1 183  LOOP    SBR   X3,0-0                                               7  1194  H 099 000           5   099     000
199  1 190          SBR   NEXT <                                               4  1201  H 850               5   850
200  1 194  MIDDLE  BCE   EMPTY,0&X3,                                          8  1205  B Z22 0?0           5  1922     000+3
201  1 202          SBR   LOOP&6,3&X3                                         7  1213  H S00 0?3           6  1200     003+3
202  1 209          MN    0&X3                                                4  1220  D 0?0               6   000+3
203  1 213          SAR   *&7                                                 4  1224  Q S34               6  1234
204  1 217          BWZ   INDIR,0-0,S                                        8  1228  V Y18 000 S         6  1818     000
205  1 225          MCW   0&X3,X1                                            7  1236  M 0?0 089           6   000+3   089
206  1 232  INDIRB  SBR   TOPC <,0&X3                                        7  1243  H 862 0?0           6   862     000+3
207  1 239  INNER   MCW   X1,SX1A                                            7  1250  M 089 M39           7   089    2439
208  1 246          MCW   X1,X3                                              7  1257  M 089 099           7   089     099
209  1 253          B     FINDGM  GET ADDRESS & 1 OF GM ABOVE STATEMENT       4  1264  B |52               7  1052
210  1 257          MCW   X3,ADR5 <                                          7  1268  M 099 896           7   099     896
211  1 264          B     CONV35                                              4  1275  B 969               7   969
212  1 268          MCW   ADR5B<,W5    ADDRESS &1 OF GM ABOVE STATEMENT      7  1279  M 891 880           7   891     880
213  1 275          A     K1,W5                                               7  1286  A M40 880           8  2440     880
214  1 282          MCW   SX1A,ADR5 <  ADDRESS OF STATEMENT                   7  1293  M M39 896           8  2439     896
215  1 289          B     CONV35                                              4  1300  B 969               8   969
216  1 293          MCW   ADR5B<,W5B                                          7  1304  M 891 M34           8   891    2434
217  1 300          S     W5B,W5     LENGTH OF STATEMENT                      7  1311  S M34 880           8  2434     880
218  1 307          MCW   X2,ADR5 <                                           7  1318  M 094 896           8   094     896
219  1 314          B     CONV35                                              4  1325  B 969               9   969
220  1 318          MCW   ADR5B<,TOPC5<  TOP OF TABLE & 2                    7  1329  M 891 870           9   891     870
221  1 325          B     TEST                                                4  1336  B Y82               9  1882
222  1 329          BL    MOVED1                                              5  1340  B Z63 T             9  1963
223  1 334  NEWSTM  MCW   SX1A,X1                                            7  1345  M M39 089           9  2439     089
224  1 341          BCE   *&12,F1,1                                           8  1352  B T71 M35 1         9  1371    2435
225  1 349          A     K1,208                                              7  1360  A M40 208          10  2440     208
226  1 356          B     REPORT                                              4  1367  B V38              10  1538
227         *
228  1 360          MCW   K0,F1                                              7  1371  M M41 M35          10  2441    2435
229  1 367          MCW   X3,SX3B&6                                           7  1378  M 099 V37          10   099    1537
230  1 374          MCW   3&X1,X3                                            7  1385  M 0|3 099          10   003+1   099
231  1 381          MCW   0&X3,X3                                            7  1392  M 0?0 099          10   000+3   099
232  1 388          SBR   3&X1,4&X3                                         7  1399  H 0|3 0?4          11   003+1   004+3
233  1 395          MA    W3,3&X1                                           7  1406  # 859 0|3          11   859     003+1
234  1 402          MCW   X1,SX1B                                           7  1413  M 089 M44          11   089    2444
235  1 409  DEZONE  MZ    *-4,9&X3                                          7  1420  Y U22 0?9          11  1422     009+3
236  1 416          MZ    *-4,12&X3                                         7  1427  Y U29 0A2          11  1429     012+3
237  1 423          MZ    *-4,15&X3                                         7  1434  Y U36 0A5          12  1436     015+3
238  1 430          MZ    *-4,18&X3                                         7  1441  Y U43 0A8          12  1443     018+3
239  1 437          BCE   DEZONX,22&X3,                                     8  1448  B U95 0B2          12  1495     022+3
240  1 445          MCW   22&X3,X1                                          7  1456  M 0B2 089          12   022+3   089
241  1 452          MCW   0&X1,22&X3                                        7  1463  M 0|0 0B2          12   000+1   022+3
242  1 459          MA    K004,22&X3                                        7  1470  # M47 0B2          13  2447     022+3
243  1 466          MA    W3,22&X3                                          7  1477  # 859 0B2          13   859     022+3
244  1 473          MCW   0&X1,X3                                          7  1484  M 0|0 099          13   000+1   099
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SEQ PG LIN  LABEL  OP   OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

245  1 480         B    DEZONE                                              4  1491  B U20               13  1420
246  1 484  DEZONX SBR  22&X3,4&X2                                         7  1495  H 0B2 0!4           13   022+3   004+2
247  1 491         MA   W3,22&X3                                           7  1502  # 859 0B2           13   859     022+3
248  1 498         MCW  SX1B,X1                                            7  1509  M M44 089           14  2444     089
249  1 505         BCE  *&8,0&X1,B                                         8  1516  B V31 0|0 B         14  1531     000+1
250  1 513         SBR  3&X1,918  ???                                      7  1524  H 0|3 918           14   003+1   918
251  1 520  SX3B   SBR  X3,0-0                                            7  1531  H 099 000           14   099     000
252  1 527  REPORT MCW  W3,227                                            7  1538  M 859 227           14   859     227
253  1 534         MA   X2,227                                            7  1545  # 094 227           15   094     227
254  1 541         MCW  227,X3                                            7  1552  M 227 099           15   227     099
255  1 548         MCW  X3,ADR5 <                                         7  1559  M 099 896           15   099     896
256  1 555         B    CONV35  CONVERT ADR5 < TO ADR5B<                  4  1566  B 969               15   969
257  1 559         MCS  ADR5B<,244                                         7  1570  Z 891 244           15   891     244
258  1 566         MCW  X3,256                                            7  1577  M 099 256           15   099     256
259  1 573         MA   K004,256                                          7  1584  # M47 256           16  2447     256
260  1 580         W                                                      1  1591  2                   16
261  1 581         BCV  *&5                                               5  1592  B W01 @             16  1601
262  1 586         B    *&3                                               4  1597  B W03               16  1603
263  1 590         CC   1                                                 2  1601  F 1                 16
264  1 592         MCW  X2,LINK2&6                                        7  1603  M 094 X12           16   094    1712
265  1 599         BCE  ENDSTM,0&X1,}  GM                                 8  1610  B W65 0|0 } GMARK   16  1665     000+1
266  1 607         MN   0&X2                                              4  1618  D 0!0               17   000+2
267  1 611         SAR  X2                                                4  1622  Q 094               17   094
268  1 615  MORE   MCM  0&X1                                              4  1626  P 0|0               17   000+1
269  1 619         SAR  NEWX1&6                                           4  1630  Q W52               17  1652
270  1 623         MCM  0&X1,1&X2  MOVE CODE DOWN                        7  1634  P 0|0 0!1           17   000+1   001+2
271  1 630         MN                                                     1  1641  D                   17
272  1 631         SBR  X2                                                4  1642  H 094               17   094
273  1 635  NEWX1  SBR  X1,0-0                                            7  1646  H 089 000           18   089     000
274  1 642         BCE  MORE,0&X2,|                                       8  1653  B W26 0!0 |         18  1626     000+2
275  1 650         B    *&15                                         V3M4  4  1661  B W79               18  1679
276  1 654  ENDSTM SBR  X1,1&X1                                      V3M4  7  1665  H 089 0|1           18   089     001+1
277  1 661         MCW  BRANCH,SWITCH                               V3M4  7  1672  M M48 X20           18  2448    1720
278  1 668         BWZ  *&5,0&X1,2                                  V3M4  8  1679  V W91 0|0 2         19  1691     000+1
279  1 676         B    LINK1                                       V3M4  4  1687  B W99               19  1699
280  1 680         BWZ  MARK,2&X1,2                                 V3M4  8  1691  V X13 0|2 2         19  1713     002+1
281  1 688  LINK1  MCW  2&X1,X3   PREFIX IS ADDR OF STATEMENT NUMBER        7  1699  M 0|2 099           19   002+1   099
282  1 695  LINK2  SBR  0&X3,0-0  START OF STATEMENT TO STMT NUM TBL       7  1706  H 0?0 000           19   000+3   000
283  1 702  MARK   MCW  COLON,0&X1                                        7  1713  M M49 0|0           20  2449     000+1
284  1 709  SWITCH NOP  ENDST2                                           4  1720  N X72               20  1772
285  1 713         MN   0&X1                                             4  1724  D 0|0               20   000+1
286  1 717         MN                                                     1  1728  D                   20
287  1 718         SAR  X1                                                4  1729  Q 089               20   089
288  1 722         MN   0&X2                                              4  1733  D 0!0               20   000+2
289  1 726         SAR  *&7                                               4  1737  Q X47               20  1747
290  1 730  SETWMS LCA  0&X1,0&X2  SET WORD MARKS IN MOVED-DOWN CODE      7  1741  L 0|0 0!0           21   000+1   000+2
291  1 737         SBR  *-4                                               4  1748  H X47               21  1747
292  1 741         C    0&X1                                              4  1752  C 0|0               21   000+1
293  1 745         SAR  X1                                                4  1756  Q 089               21   089
294  1 749         BCE  *&5,0&X1,}  GM                                    8  1760  B X72 0|0 } GMARK   21  1772     000+1
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

295  1 757          B     SETWMS                                              4  1768  B X41               21  1741
296          *
297  1 761  ENDST2  MCW   NOP,SWITCH                                         7  1772  M M50 X20           21  2450    1720
298  1 768          C     NEXT <,TOPA <                                       7  1779  C 850 841           22   850     841
299  1 775          BU    CONTIN                                              5  1786  B Y06 /             22  1806
300          *
301  1 780  DONE    LCA   COLON,0&X2                                          7  1791  L M49 0!0           22  2449     000+2
302  1 787          SBR   X3                                                  4  1798  H 099               22   099
303  1 810          B     LOADNX                                              4  1802  B 700               22   700
304          *
305  1 814  CONTIN  BCE   INDIR2,FLAG <,1                                    8  1806  B Y50 884 1         22  1850     884
306  1 822          B     LOOP                                                4  1814  B /94               22  1194
307          *
308          * SORT TABLE ENTRY IS THE ADDRESS OF ANOTHER ONE
309          *
310  1 826  INDIR   MCW   0&X3,X3                                            7  1818  M 0?0 099           23   000+3   099
311  1 833          MCW   0&X3,X1                                            7  1825  M 0?0 089           23   000+3   089
312  1 840          SBR   NEWX3&3,3&X3                                       7  1832  H Y60 0?3           23  1860     003+3
313  1 847          MCW   K1,FLAG <                                          7  1839  M M40 884           23  2440     884
314  1 854          B     INDIRB                                              4  1846  B S43               23  1243
315          *
316  1 858  INDIR2  MCW   K0,FLAG <                                          7  1850  M M41 884           23  2441     884
317  1 865  NEWX3   MCW   0-0,X1                                            7  1857  M 000 089           24   000     089
318  1 872          MCW   NEWX3&3,TOPC <                                     7  1864  M Y60 862           24  1860     862
319  1 879          MCW   K1,F1                                              7  1871  M M40 M35           24  2440    2435
320  1 886          B     INNER                                               4  1878  B S50               24  1250
321          *
322  1 890  TEST    SBR   TESTX&3                                           4  1882  H Z21               24  1921
323  1 894          MCW   SX3,ADR5 <                                         7  1886  M 856 896           24   856     896
324  1 901          B     CONV35  CONVERT ADR5 < TO ADR5B<                   4  1893  B 969               25   969
325  1 905          MCW   ADR5B<,TIMES6                                      7  1897  M 891 875           25   891     875
326  1 912          S     TOPC5<,TIMES6                                      7  1904  S 870 875           25   870     875
327  1 919          C     W5,TIMES6                                          7  1911  C 880 875           25   880     875
328  1 926  TESTX   B     0-0                                                 4  1918  B 000               25   000
329          *
330          * EMPTY CELL IN SORT TABLE
331          *
332  1 930  EMPTY   A     K1,208                                             7  1922  A M40 208           25  2440     208
333  1 937          C     NEXT <,TOPA <                                       7  1929  C 850 841           26   850     841
334  1 944          BE    DONE                                                5  1936  B X91 S             26  1791
335  1 949          SBR   X3,3&X3                                            7  1941  H 099 0?3           26   099     003+3
336  1 956          SBR   NEXT <                                             4  1948  H 850               26   850
337  1 960          B     MIDDLE                                              4  1952  B S05               26  1205
338          *
339  1 964  MOVED   SBR   SX3,2&X3                                           7  1956  H 856 0?2           26   856     002+3
340  1 971  MOVED1  MCW   SX3,X3                                            7  1963  M 856 099           27   856     099
341  1 978          SBR   X3,2&X3                                           7  1970  H 099 0?2           27   099     002+3
342  1 985          B     FINDGM                                              4  1977  B |52               27  1052
343  1 989          BCE   MOVED,0&X3,:  COLON MEANS STATEMENT ALREADY MOVED  8  1981  B Z56 0?0 :         27  1956     000+3
344  1 997          B     TEST                                                4  1989  B Y82               27  1882
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

345  2 001          BL    *&5                                         5  1993  B !02 T             27  2002
346  2 006          B     NEWSTM                                      4  1998  B T45               27  1345
347          *
348  2 010          SBR   SX2A&6,0&X2                               7  2002  H M11 0!0           28  2411     000+2
349  2 017  TSTTOP  C     X3,TOPCOR                                   7  2009  C 099 688           28   099     688
350  2 024          BE    ATTOP                                       5  2016  B !36 S             28  2036
351  2 029          SBR   X1,3&X3                                   7  2021  H 089 0?3           28   089     003+3
352  2 036          BCE   NEXTAB,0&X1,}  GM                         8  2028  B !49 0|0 } GMARK   28  2049     000+1
353  2 044  ATTOP   B     TEST                                        4  2036  B Y82               28  1882
354  2 048          BL    TOOBIG                                      5  2040  B |92 T             29  1092
355  2 053          B     SX2A                                        4  2045  B M05               29  2405
356  2 057  NEXTAB  SBR   X3,4&X3                                   7  2049  H 099 0?4           29   099     004+3
357  2 064  NEXTB1  B     FINDGM                                      4  2056  B |52               29  1052
358  2 068          C     0&X3,COLON                                  7  2060  C 0?0 M49           29   000+3   2449
359  2 075          BU    TSTTOP                                      5  2067  B !09 /             29  2009
360  2 080          SBR   NEXTX1&6,0&X3                            7  2072  H J38 0?0           29  2138     000+3
361  2 087          SBR   SX3A,2&X3                                   7  2079  H 853 0?2           30   853     002+3
362  2 094          SBR   X3,3&X3                                     7  2086  H 099 0?3           30   099     003+3
363  2 101  LOOP2   LCA   0&X1,0&X3                                  7  2093  L 0|0 0?0           30   000+1   000+3
364  2 108          SAR   X1                                          4  2100  Q 089               30   089
365  2 112          C     0&X3                                        4  2104  C 0?0               30   000+3
366  2 116          SAR   X3                                          4  2108  Q 099               30   099
367  2 120          BCE   *&5,0&X1,}  GM                            8  2112  B J24 0|0 } GMARK   31  2124     000+1
368  2 128          B     LOOP2                                       4  2120  B !93               31  2093
369  2 132          MN    0&X1                                        4  2124  D 0|0               31   000+1
370  2 136          SAR   SX1                                         4  2128  Q 844               31   844
371  2 140  NEXTX1  SBR   X1,0-0                                     7  2132  H 089 000           31   089     000
372  2 147          BWZ   *&5,1&X1,S                                 8  2139  V J51 0|1 S         31  2151     001+1
373  2 155          B     *&8                                         4  2147  B J58               31  2158
374  2 159          MCW   K1,F2                                       7  2151  M M40 M36           32  2440    2436
375  2 166          BWZ   *&5,0&X1,2                                 8  2158  V J70 0|0 2         32  2170     000+1
376  2 174          B     *&9                                         4  2166  B J78               32  2178
377  2 178          BWZ   *&19,2&X1,2                               8  2170  V J96 0|2 2         32  2196     002+1
378  2 186          MCW   2&X1,X1                                   7  2178  M 0|2 089           32   002+1   089
379  2 193          MCW   0&X1,X2                                   7  2185  M 0|0 094           33   000+1   094
380  2 200          B     *&8                                         4  2192  B K03               33  2203
381  2 204          MCW   2&X1,X2                                   7  2196  M 0|2 094           33   002+1   094
382  2 211          SBR   SEQNO<,0&X2                               7  2203  H 865 0!0           33   865     000+2
383  2 218          SBR   *&14                                        4  2210  H K27               33  2227
384  2 222          MZ    X2ZONE,*&6                                  7  2214  Y M51 K26           33  2451    2226
385  2 229          SBR   X2,0-0                                     7  2221  H 094 000           34   094     000
386  2 236          MCW   SEQNO<,*&14                                7  2228  M 865 K48           34   865    2248
387  2 243          MZ    X2ZONE,*&6                                  7  2235  Y M51 K47           34  2451    2247
388  2 250          SBR   X2,0-0                                     7  2242  H 094 000           34   094     000
389  2 257          BWZ   *&12,SORTAB-1&X2,S                        8  2249  V K68 MR8 S         34  2268    2498+2
390  2 265          SBR   SORTAB&X2,1&X3                            7  2257  H MR9 0?1           35  2499+2   001+3
391  2 272          B     SKIP2                                       4  2264  B L08               35  2308
392  2 276          MCW   SORTAB&X2,X1                              7  2268  M MR9 089           35  2499+2   089
393  2 283          BCE   *&12,F2,1                                   8  2275  B K94 M36 1         35  2294    2436
394  2 291          SBR   3&X1,1&X3                                  7  2283  H 0|3 0?1           35   003+1   001+3
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

395  2 298          B     *&15                                        4  2290  B L08               35  2308
396  2 302          SBR   0&X1,1&X3                                  7  2294  H 0|0 0?1           36   000+1   001+3
397  2 309          MCW   K0,F2                                      7  2301  M M41 M36           36  2441    2436
398  2 316  SKIP2   C     SX1,SX3                                     7  2308  C 844 856           36   844     856
399  2 323          BE    LOOP2X                                      5  2315  B L48 S             36  2348
400  2 328          MCW   SX1,X1                                     7  2320  M 844 089           36   844     089
401  2 335          MN    0&X3                                        4  2327  D 0?0               36   000+3
402  2 339          MN                                                1  2331  D                   36
403  2 340          MN                                                1  2332  D                   37
404  2 341          SAR   NEXTX1&6                                   4  2333  Q J38               37  2138
405  2 345          SBR   X1,1&X1                                     7  2337  H 089 0|1           37   089     001+1
406  2 352          B     LOOP2                                       4  2344  B !93               37  2093
407  2 356  LOOP2X  LCA   GM,0&X3                                    7  2348  L M52 0?0           37  2452     000+3
408  2 363          SBR   SX3                                         4  2355  H 856               37   856
409  2 367          C     SEQTAB,SX3A                                 7  2359  C 148 853           37   148     853
410  2 374          BE    ATBOT                                       5  2366  B L96 S             38  2396
411  2 379          MCW   SX3A,X3                                    7  2371  M 853 099           38   853     099
412  2 386          SBR   X1,1&X3                                    7  2378  H 089 0?1           38   089     001+3
413  2 393          SBR   X3,2&X3                                    7  2385  H 099 0?2           38   099     002+3
414  2 400          B     NEXTB1                                      4  2392  B !56               38  2056
415         *
416         * AT BOTTOM OF SORT TABLE
417         *
418  2 404  ATBOT   B     TEST                                        4  2396  B Y82               38  1882
419  2 408          BL    TOOBIG                                      5  2400  B |92 T             38  1092
420  2 413  SX2A    SBR   X2,0-0                                     7  2405  H 094 000           39   094     000
421  2 420          MCW   TOPC <,X3                                  7  2412  M 862 099           39   862     099
422  2 427          MCW   0&X3,SX1A                                  7  2419  M 0?0 M39           39   000+3   2439
423  2 434          B     NEWSTM                                      4  2426  B T45               39  1345
424         *
425         * DATA
426         *
427  2 442  W5B     DCW   00000                                       5  2434                      39
428         K000    EQU   W5B-2  MOVED HERE FROM PHASE 47               2432
429  2 443  F1      DCW   0                                           1  2435                      39
430  2 444  F2      DCW   0                                           1  2436                      39
431  2 447  SX1A    DCW   #3                                          3  2439                      40
432  2 448  K1      DCW   1                                           1  2440                      40
433  2 449  K0      DCW   0                                           1  2441                      40
434  2 452  SX1B    DCW   #3                                          3  2444                      40
435  2 455  K004    DSA   4                                         3  2447  004                 40   004
436  2 456  BRANCH  B                                               1  2448  B                   40
437  2 457  COLON   DCW   @:@                                       1  2449                      40
438  2 458  NOP     NOP                                             1  2450  N                   41
439  2 467  X2ZONE  DCW   @R@                                       1  2451                      41
440  2 468  GM      DC    @}@                                       1  2452              GMARK   41
441  2 469  GMWM    DCW   @}@                                       1  2453              GMARK   41
442                 ORG   *&X00                                                2500
443 *       TABEL   EQU   *                                             2499
444                 XFR   BEGN49                                              B /75               42  1175
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

445         CLRME   CLRA  BEGN49,GMWM,C                                          MACRO
            *       CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                         GEN
            *                                                                   GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                 GEN
            *                                                                   GEN
446                 ORG   201                                                0201
            *                                                                   GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                           GEN
            *                                                                   GEN
447         CLRME   EQU   *&1                                          0201     GEN
448                 BSS   SNAPSH,C                                  5  0201  B 333 C     GEN     43   333
449         )0J004  CS    GMWM         CLEAR FROM CLRTOP             4  0206  / M53       GEN     43  2453
450                 SBR   )0J004&3                                    4  0210  H 209       GEN     43   209
451                 SBR   )0L004&6                                    4  0214  H 255       GEN     43   255
452                 C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?     7  0218  C 209 266   GEN     43   209     266
453                 BU    )0J004                                      5  0225  B 206 /     GEN     43   206
            *                                                                   GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                            GEN
            *                                                                   GEN
454         )0K004  C     )0L004&6,)0N004                              7  0230  C 255 269   GEN     43   255     269
455                 BU    )0L004                                      5  0237  B 249 /     GEN     44   249
456                 CS    LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1     7  0242  / 700 276   GEN     44   700     276
457         )0L004  LCA   )0P004,0-0     CLEAR WITH BLANK AND WORD MARK 7  0249  L 270 000   GEN     44   270     000
458                 SBR   )0L004&6                                    4  0256  H 255       GEN     44   255
459                 B     )0K004                                      4  0260  B 230       GEN     44   230
460         )0M004  DSA   )0R004         CLRBOT & X00 - 1            3  0266  /99         GEN     44  1199
461         )0N004  DSA   BEGN49         CLRBOT                      3  0269  /75         GEN     44  1175
462         )0P004  DCW   #1                                         1  0270              GEN     45
463                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP 5  0275              GEN     45
464         )0Q004  DCW   @}@                                        1  0276              GEN     45
465                 ORG   BEGN49&X00                                       1200
466         )0R004  EQU   *           CLRBOT & X00 - 1                  1199              GEN
467                 XFR   CLRME                                             B 201                 46   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	0286: 0
ADR5 <	0896: 0	ADR5B<	0891: 0	ATBOT	2396: 0	ATTOP	2036: 0	BEGN47	1175: 0	BEGN49	1175: 0
BRANCH	2448: 0	CDOVLY	0700: 0	CLRME	0201: 0	COLON	2449: 0	CONTIN	1806: 0	CONV35	0969: 0
CONV53	0929: 0	DEZONE	1420: 0	DEZONX	1495: 0	DONE	1791: 0	EMPTY	1922: 0	ENDST2	1772: 0
ENDSTM	1665: 0	F1	2435: 0	F2	2436: 0	FINDGM	1052: 0	FLAG <	0884: 0	GM	2452: 0
GMWM	2453: 0	INDIR	1818: 0	INDIR2	1850: 0	INDIRB	1243: 0	INNER	1250: 0	K0	2441: 0
K000	2432: 0	K004	2447: 0	K1	2440: 0	LINK1	1699: 0	LINK2	1706: 0	LOADAD	1175: 0
LOADNX	0700: 0	LOOP	1194: 0	LOOP2	2093: 0	LOOP2X	2348: 0	MARK	1713: 0	MIDDLE	1205: 0
MORE	1626: 0	MOVED	1956: 0	MOVED1	1963: 0	NEWSTM	1345: 0	NEWX1	1646: 0	NEWX3	1857: 0
NEXT <	0850: 0	NEXTAB	2049: 0	NEXTB1	2056: 0	NEXTX1	2132: 0	NOP	2450: 0	PHAS49	0201: 0
PHASLD	0381: 0	REPORT	1538: 0	SEQNO<	0865: 0	SEQTAB	0148: 0	SETWMS	1741: 0	SKIP2	2308: 0
SNAPEX	0564: 0	SNAPSH	0333: 0	SORTAB	2499: 0	SWITCH	1720: 0	SX1	0844: 0	SX1A	2439: 0
SX1B	2444: 0	SX2 <	0853: 0	SX2...	0853: 0	SX2A	2405: 0	SX3	0856: 0	SX3A	0853: 0
SX3A <	0844: 0	SX3B	1531: 0	SX3B <	0856: 0	TABBOT	0847: 0	TABEL	2499: 0	TEST	1882: 0
TESTX	1918: 0	TIMES6	0875: 0	TOOBIG	1092: 0	TOPA <	0841: 0	TOPB <	0883: 0	TOPC <	0862: 0
TOPC5<	0870: 0	TOPCOR	0688: 0	TPERR	0728: 0	TPREAD	0704: 0	TSTTOP	2009: 0	W3	0859: 0
W3 <	0859: 0	W3....	0859: 0	W5	0880: 0	W5 <	0880: 0	W5....	0880: 0	W5B	2434: 0
X1	0089: 0	X2	0094: 0	X2ZONE	2451: 0	X3	0099: 0				

UNREFERENCED SYMBOLS

CDOVLY CONV53 PHASLD SNAPEX TABBOT TOPB < TPERR TPREAD