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

101               JOB   FORTRAN COMPILER -- DIMENSION PHASE ONE -- 09
102               CTL   6611
103         *
104         * EXTERNALLY REFERENCED SYMBOLS ARE MARKED WITH ASTERISK IN COLUMN 1.
105         *
106         * A TABLE OF ARRAYS IS GENERATED AT THE END OF STORAGE.
107         * EACH TABLE ELEMENT CONSISTS OF THE ARRAY NAME, ITS
108         * DIMENSIONS AND SUFFICIENT SPACE FOR CONTROL STATEMENTS
109         * AND DATA GENERATED BY THE EQUIVALENCE PHASES AND BY
110         * DIMENSION PHASE TWO.
111         *
112         * DIMENSION TABLE ELEMENTS ARE SEPARATED BY GROUP MARK WORD MARK.
113         * AT THE TOP OF EACH ELEMENT IS THE ARRAY NAME, SPELT BACKWARD.
114         * BELOW THAT ARE TWO CELLS USED TO DOUBLE LINK THE ELEMENTS.
115         * THE UPPER ONE POINTS TO THE NEXT ONE HIGHER IN CORE (UNLESS
116         * IT'S BLANK); THE LOWER ONE POINTS TO THE NEXT ONE LOWER IN
117         * CORE (UNLESS IT'S BLANK).  BELOW THAT ARE EMPTY THREE CHARACTER
118         * AND FIVE CHARACTER FIELDS.  BELOW THAT ARE THE DIMENSIONS, WITH
119         * THE FIRST DIMENSION AT THE HIGHER ADDRESS.  THE DIGITS OF THE
120         * DIMENSIONS ARE NOT REVERSED.
121         *
122         * 81-83 = START (TOP ADDRESS) OF FIRST (TOP IN MEMORY)
123         * STATEMENT.  REMEMBER, STATEMENTS ARE SORTED BY TYPE NOW,
124         * AND PUSHED TO THE BOTTOM OF AVAILABLE CORE.
125         *
126         * ON EXIT, 84-86 IS THE ADDRESS OF THE TOPMOST (FIRST)
127         * DIMENSION TABLE.
128         *
129         X1     EQU   89                                                0089
130         X2     EQU   94                                                0094
131         X3     EQU   99                                                0099
132         *
133         * STUFF IN THE RESIDENT AREA
134         *
135         GLOBER EQU   184  GLOBAL ERROR FLAG -- WM MEANS ERROR          0184
136         TOPCOR EQU   688  TOP CORE ADDRESS FROM PARAM CARD             0688
137         IMOD   EQU   690  INTEGER MODULUS -- NUMBER OF DIGITS          0690
138         MANTIS EQU   692  FLOATING POINT MANTISSA DIGITS               0692
139         *
140               EXT00   SNAPSH, LOADNX, CDOVLY                                        MACRO
141         SNAPSH EQU   333                                               0333        GEN
142         PHASLD EQU   381                                               0381        GEN
143         SNAPEX EQU   564                                               0564        GEN
144         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                    0700        GEN
145         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE     0700        GEN
146         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                      0704        GEN
147         TPERR  EQU   728                                               0728        GEN
148         *
149               EXT03   START, TOP OF PHASE 3                                         MACRO
150         BEGIN3 EQU   838                                               0838        GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

151         TOP3    EQU   2600                                                 2600             GEN
152         *
153         110     DCW   @DIMEN ONE@                                      9  0110                      1
154         094     DCW   000                                              3  0094                      2
155         096     DC    00                                               2  0096                      2
156         099     DCW   000                                              3  0099                      2
157         100     DC    0                                                1  0100                      2
158         *
159         PHAS9   LDPH  DIMEN ONE,DIFF,BEGIN9,,,9                                              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         PHAS9   BSS   )8J003,G                                           5  0201  B 257 G     GEN      3   257
166                 NOP     TO PATCH IN TRAPS FOR DEBUGGING                  1  0206  N           GEN      3
167         )0J003  EQU   *&1                                                  0207             GEN
168                 LCA   )9J003,)6J003                                      7  0207  L 281 110   GEN      3   281     110
169                 BCE   )1J003,)6K003,1    Q: LOADING FROM CARDS?          8  0214  B 250 700 1 GEN      3   250     700
170                 BCE   )1J003,)6L003&4,0  Q: LOADING FROM AUTOCODER TAPE?  8  0222  B 250 708 0 GEN      3   250     708
171                 RTW   1,DIFF           READ THE BLOCK                    8  0230  L %U1 838 R GEN      3   %U1     838
172                 BER   )6M003             Q: TAPE ERROR?                  5  0238  B 728 L     GEN      4   728
173                 CS    BEGIN9,)9R003      ENTER THE BLOCK                 7  0243  / 839 284   GEN      4   839     284
174         )1J003  CS    )6K003,)9R003      LOAD CARDS OR AUTOCODER TAPE    7  0250  / 700 284   GEN      4   700     284
175         )8J003  SW    )9R003                                           4  0257  , 284       GEN      4   284
176                 MU    %T0,)8K003,W                                     8  0261  M %T0 273 W GEN      4   %T0     273
177                 H     )0J003                                           4  0269  . 207       GEN      4   207
178         )8K003  EQU   *&1                                                  0273             GEN
179         )9J003  DCW   @DIMEN ONE@          PHASE ID                    9  0281             GEN      5
180                 DCW   #1                                               1  0282             GEN      5
181                 DC    @9@          PHASE NUMBER                        1  0283             GEN      5
182         )9R003  DCW   @}@                                              1  0284             GEN      5
183                 XFR   PHAS9                                                    B 201             5   201
184         *
185                 ORG   BEGIN3                                                   0838
186 *  838  DIFF    DCW   @0@   WM IF FP WIDTH /= INTEGER WIDTH              1  0838                      6
187 *  839  BEGIN9  CS    39  THIS PHASE EXPECTS IT TO BE BLANK, BUT         4  0839  / 039       GEN      6   039
188                 SW    1     IT'S NOT IF LOADING FROM AUTOCODER TAPE     4  0843  , 001       GEN      6   001
189                 SW    GM                                               4  0847  , W62       GEN      6  1662
190    843          MCW   83,X1         TOP OF TOP (FIRST) STATEMENT       7  0851  M 083 089     GEN      6   083     089
191    850          A     KB1,MANTIS    GET RID OF ZONES IN MANTIS         7  0858  A W72 692     GEN      6  1672     692
192    857          MCW   MANTIS,MANP2                                     7  0865  M 692 W74     GEN      6   692    1674
193    864          A     KP2,MANP2     MANTIS + 2 = TOTAL FP WIDTH        7  0872  A W75 W74     GEN      7  1675    1674
194    871          C     IMOD,MANP2    FP WIDTH == INTEGER WIDTH?         7  0879  C 690 W74     GEN      7   690    1674
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195    878         BU    DIFWID                                      5  0886  B 895 /             7   895
196    883         CW    DIFF                                        4  0891  ) 838               7   838
197    887  DIFWID LCA   GM,1&X1       SET GMWM ABOVE STATEMENT      7  0895  L W62 0|1           7  1662     001+1
198    894         LCA   TOPCOR,X2     X2 = TOPCOR                 7  0902  L 688 094           7   688     094
199    901         MN    0&X2                                        4  0909  D 0!0               8   000+2
200    905         MN                                                1  0913  D                   8
201    906         MCW   KB1A                                       4  0914  M W76               8  1676
202    910         SBR   X2           X2 = TOPCOR - 3               4  0918  H 094               8   094
203    914  PREV   MCW   KB1,1-0       CLOBBER PREVIOUS LESS-THAN SIGN 7  0922  M W72 001           8  1672     001
204    921         MCW   KLESS,2&X1    STMT TOP + 2 = LESS-THAN SIGN 7  0929  M W77 0|2           8  1677     002+1
205    928         NOP   2&X1                                        4  0936  N 0|2               8   002+1
206    932         SAR   PREV&6        REMEMBER WHERE WE PUT IT      4  0940  Q 928               9   928
207    936         LCA   0&X1,PREFIX                                 7  0944  L 0|0 W61           9   000+1  1661
208    943         SAR   X1           POINT X1                      4  0951  Q 089               9   089
209    947         SBR   X3             AND X3 AFTER LABEL          4  0955  H 099               9   099
210    951         BCE   DONE,PREFIX,     NO MORE STATEMENTS?       8  0959  B V53 W61           9  1553    1661
211    959         BCE   FIND,PREFIX-3,I  DIMENSION STATEMENT?      8  0967  B 987 W58 I         9   987    1658
212    967         BCE   END,PREFIX-3,/   END STATEMENT?            8  0975  B V41 W58 /        10  1541    1658
213    975         B     DONE                                        4  0983  B V53              10  1553
214         *
215         * SKIP OVER THE ARRAY NAME -- MUST END WITH LEFT PAREN
216         *
217    979  FIND   BCE   LPAREN,0&X1,%                               8  0987  B |27 0|0 %         10  1027     000+1
218    987         BCE   SYNTAX,0&X1,,                               8  0995  B U92 0|0 ,         10  1492     000+1
219    995         BCE   SYNTAX,0&X1,)                               8  1003  B U92 0|0 )         10  1492     000+1
220  1 003         BCE   SYNTAX,0&X1,}                               8  1011  B U92 0|0 } GMARK   11  1492     000+1
221  1 011         SBR   X1                                          4  1019  H 089              11   089
222  1 015         B     FIND                                        4  1023  B 987              11   987
223         *
224         * FOUND THE LEFT PAREN
225         *
226  1 019  LPAREN SW    LPFLAG                                      4  1027  , W71              11  1671
227  1 023         MN    0&X1       GET BELOW                        4  1031  D 0|0              11   000+1
228  1 027         SAR   X1           LEFT PAREN                     4  1035  Q 089              11   089
229  1 031         SW    2&X1       SET WORD MARK AT BOTTOM OF SYMBOL 4  1039  , 0|2              11   002+1
230  1 035         MCW   X2,SAVX2                                    7  1043  M 094 W80          12   094    1680
231  1 042         BW    FIRST,FIRSTF                                8  1050  V /20 W81 1        12  1120    1681
232         *
233         * CHECK WHETHER SYMBOL IS IN THE TABLE.  X2 IS AT BOTTOM
234         * OF THE BOTTOM SYMBOL ENTRY.
235         *
236  1 050  CHECK  MCM   1&X2                                        4  1058  P 0!1              12   001+2
237  1 054         SAR   X2                                          4  1062  Q 094              12   094
238  1 058         BCE   FIRST,0&X2,  TOP OF THE TABLE?              8  1066  B /20 0!0          12  1120     000+2
239  1 066  HIGHER MCM   2&X2       MOVE UP TO NEXT ELEMENT          4  1074  P 0!2              12   002+2
240  1 070         MN                                                1  1078  D                  12
241  1 071         MN                                                1  1079  D                  13
242  1 072         SBR   X2         TOP OF ELEMENT (MAYBE)           4  1080  H 094              13   094
243  1 076         BCE   HIGHER,1&X2,|  NEED TO MOVE UP MORE IF RM   8  1084  B |74 0!1 |        13  1074     001+2
244  1 084  COMPAR C     0&X2,0&X3  SAME AS ALREADY IN TABLE?        7  1092  C 0!0 0?0          13   000+2   000+3
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

245  1 091          SAR   X2                                            4  1099  Q 094               13   094
246  1 095          BU    CHECK                                         5  1103  B |58 /             13  1058
247  1 100          BW    DOUBLE,1&X2                                   8  1108  V T64 0!1 1         13  1364     001+2
248  1 108          B     CHECK                                         4  1116  B |58               14  1058
249  1 112  FIRST   MCW   SAVX2,X2                                      7  1120  M W80 094           14  1680     094
250  1 119          LCA   GM,0&X2    MARK TOP OF ELEMENT               7  1127  L W62 0!0           14  1662     000+2
251  1 126          LCA   0&X3       SYMBOL TO ELEMENT                 4  1134  L 0?0               14   000+3
252  1 130          LCA   NEWX3      CHAIN                             4  1138  L W65               14  1665
253  1 134          SBR   X2         BELOW CHAIN IN ELEMENT            4  1142  H 094               14   094
254  1 138          MCW   NEWX3,X3                                      7  1146  M W65 099           14  1665     099
255  1 145          BCE   HEAD,X3,                                      8  1153  B /65 099           15  1165     099
256  1 153          B     NOHEAD                                        4  1161  B /72               15  1172
257  1 157  HEAD    A     KB1,X3     CONVERT BLANK X3 TO ZEROES         7  1165  A W72 099           15  1672     099
258  1 164  NOHEAD  LCA   K3B,0&X2   PUT TWO THREE-CHARACTER            7  1172  L W84 0!0           15  1684     000+2
259  1 171          LCA   K3B          FIELDS INTO SYMBOL TABLE         4  1179  L W84               15  1684
260  1 175          SBR   6&X3       LINK PREV ELEMENT TO THIS ONE     4  1183  H 0?6               15   006+3
261  1 179          SBR   NEWX3                                         4  1187  H W65               15  1665
262  1 183          LCA   K5B        ADD FIVE SPACES TO ELEMENT        4  1191  L W89               16  1689
263  1 187          SBR   X2           AND GET X2 BELOW IT             4  1195  H 094               16   094
264  1 191  NOTHER  MN    DIMSAV-4   MAKE X3&2                         4  1199  D W66               16  1666
265  1 195          MN                 BE THE HIGH-ORDER               1  1203  D                   16
266  1 196          SAR   X3             DIGIT OF DIMSAV               4  1204  Q 099               16   099
267  1 200          SBR   X1,0&X1    STRANGE KIND OF NOP?              7  1208  H 089 0|0           16   089     000+1
268          *
269          * ACCUMULATE CHARACTERS OF DIMENSION
270          *
271  1 207  MORE    MCW   0&X1,CHAR  GET CHARACTER FROM DIMENSION FIELD 7  1215  M 0|0 W90           16   000+1  1690
272  1 214          SAR   X1           AND STEP DOWN TO NEXT ONE       4  1222  Q 089               17   089
273  1 218          BCE   DIMFIN,CHAR,)                                8  1226  B S65 W90 )         17  1265    1690
274  1 226          BCE   DIMFIN,CHAR,}                                8  1234  B S65 W90 } GMARK   17  1265    1690
275  1 234          BCE   DIMFIN,CHAR,,                               8  1242  B S65 W90 ,         17  1265    1690
276  1 242          MCW   CHAR,2&X3  STORE CHAR IN DIMENSION SAVE     7  1250  M W90 0?2           17  1690     002+3
277  1 249          SBR   X3                                          4  1257  H 099               17   099
278  1 253          B     MORE                                        4  1261  B S15               18  1215
279  1 257  DIMFIN  BCE   SYNTAX,1&X1,}                               8  1265  B U92 0|1 } GMARK   18  1492     001+1
280  1 265          LCA   1&X3,0&X2  MOVE DIMENSION TO SYMBOL TABLE    7  1273  L 0?1 0!0           18   001+3  000+2
281  1 272          SBR   X2                                          4  1280  H 094               18   094
282  1 276          BCE   NOTHER,1&X1,,  GET ANOTHER DIMENSION        8  1284  B /99 0|1 ,         18  1199     001+1
283  1 284          MCW   PREV&6,X3                                   7  1292  M 928 099           18   928     099
284  1 291          BCE   NOTBIG,0&X3,<                               8  1299  B T11 0?0 <         19  1311     000+3
285  1 299          B     TOOBIG                                      4  1307  B W17               19  1617
286  1 303  NOTBIG  CW    FIRSTF  CLEAR FIRST-TIME FLAG               4  1311  ) W81               19  1681
287  1 307  TSTFIN  BCE   FINI,0&X1,}  FINISHED                      8  1315  B T52 0|0 } GMARK   19  1352     000+1
288  1 315          B                    WITH STATEMENT?              1  1323  B                   19
289  1 316          BCE   NEWVAR,0&X1,,  ANOTHER VARIABLE?            8  1324  B T36 0|0 ,         19  1336     000+1
290  1 324          B     SYNTAX                                      4  1332  B U92               19  1492
291  1 328  NEWVAR  MN    0&X1       GET BELOW COMMA                  4  1336  D 0|0               20   000+1
292  1 332          SAR   X1                                          4  1340  Q 089               20   089
293  1 336          SBR   X3                                          4  1344  H 099               20   099
294  1 340          B     FIND         AND GO FIND END OF NEXT VARIABLE 4  1348  B 987             20   987
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SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

295         *
296         * FINISHED WITH DIMENSION STATEMENT
297         *
298  1 344  FINI    C     0&X1                                             4  1352  C 0|0              20   000+1
299  1 348         SAR   X1                                               4  1356  Q 089              20   089
300  1 352         B     PREV                                             4  1360  B 922              20   922
301         *
302         * DOUBLY DEFINED ARRAY
303         *
304  1 356  DOUBLE  CS    332                                              4  1364  / 332              21   332
305  1 360         CS                                                     1  1368  /                  21
306  1 361         SW    GLOBER                                           4  1369  , 184              21   184
307  1 365         MCW   ERROR2,230                                       7  1373  M X20 230          21  1720     230
308  1 372         MCW   COMPAR&6,X2                                      7  1380  M |98 094          21  1098     094
309  1 379         MN    232                                              4  1387  D 232              21   232
310  1 383         MN                                                     1  1391  D                  21
311  1 384         SAR   X2                                               4  1392  Q 094              22   094
312  1 388         SBR   X3,0&X3                                         7  1396  H 099 0?0          22   099     000+3
313  1 395  MORECH MCW   0&X3,CH                                         7  1403  M 0?0 X21          22   000+3  1721
314  1 402         SAR   X3                                               4  1410  Q 099              22   099
315  1 406         MCW   CH,2&X2                                         7  1414  M X21 0!2          22  1721     002+2
316  1 413         SBR   X2                                               4  1421  H 094              22   094
317  1 417         BW    DONECH,1&X3   AT THE END OF THE VARIABLE NAME?   8  1425  V U37 0?1 1        23  1437     001+3
318  1 425         B     MORECH                                           4  1433  B U03              23  1403
319  1 429  DONECH W                                                      1  1437  2                  23
320  1 430         BCV   OVFL                                             5  1438  B U47 @            23  1447
321  1 435         B     NOOVFL                                           4  1443  B U49              23  1449
322  1 439  OVFL    CC    1                                                2  1447  F 1                23
323  1 441  NOOVFL BCE   BOTTOM,0&X1,)  BOTTOM OF STATEMENT?             8  1449  B U73 0|0 )        23  1473     000+1
324  1 449         SBR   X1                                               4  1457  H 089              24   089
325  1 453         BCE   SYNTAX,1&X1,}                                    8  1461  B U92 0|1 } GMARK  24  1492     001+1
326  1 461         B     NOOVFL                                           4  1469  B U49              24  1449
327  1 465  BOTTOM MN    0&X1                                             4  1473  D 0|0              24   000+1
328  1 469         SAR   X1                                               4  1477  Q 089              24   089
329  1 473         MCW   SAVX2,X2                                         7  1481  M W80 094          24  1680     094
330  1 480         B     TSTFIN                                           4  1488  B T15              24  1315
331         *
332         * DIMENSION SYNTAX ERROR
333         *
334  1 484  SYNTAX  CS    332                                              4  1492  / 332              25   332
335  1 488         CS                                                     1  1496  /                  25
336  1 489         SW    GLOBER                                           4  1497  , 184              25   184
337  1 493         MN    PREFIX,241                                       7  1501  D W61 241          25  1661     241
338  1 500         MN                                                     1  1508  D                  25
339  1 501         MN                                                     1  1509  D                  25
340  1 502         MCW   ERROR3                                          4  1510  M X59              25  1759
341  1 506         W                                                      1  1514  2                  26
342  1 507         BCV   OVFL2                                            5  1515  B V24 @            26  1524
343  1 512         B     NOVL2                                            4  1520  B V26              26  1526
344  1 516  OVFL2   CC    1                                                2  1524  F 1                26
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
345  1 518  NOVL2  MCW   SAVX2,X2                                          7  1526  M W80 094           26  1680     094
346  1 525         BCE   PREV,1&X1,}                                       8  1533  B 922 0|1 } GMARK   26   922     001+1
347  1 533  END    C     0&X1                                              4  1541  C 0|0               26   000+1
348  1 537         SAR   X1                                                4  1545  Q 089               27   089
349  1 541         B     PREV                                              4  1549  B 922               27   922
350         *
351  1 545  DONE   BW    GOTLP,LPFLAG                                      8  1553  V V96 W71 1         27  1596    1671
352  1 553         LCA   GM,0&X2                                           7  1561  L W62 0!0           27  1662     000+2
353  1 560         LCA   COLON                                            4  1568  L X60               27  1760
354  1 564         LCA   W3                                                4  1572  L X63               27  1763
355  1 568         LCA   W3                                                4  1576  L X63               27  1763
356  1 572         LCA   W3                                                4  1580  L X63               28  1763
357  1 576         LCA   W5                                                4  1584  L X68               28  1768
358  1 580         LCA   W10                                               4  1588  L X70               28  1770
359  1 584         SBR   X2                                                4  1592  H 094               28   094
360  1 588  GOTLP  NOP   2&X1                                             4  1596  N 0|2               28   002+1
361  1 592         MCM                                                     1  1600  P                   28
362  1 593         MCW                                                     1  1601  M                   28
363  1 594         SAR   X1                                                4  1602  Q 089               29   089
364  1 598         MCW   6,86          TOPMOST TABLE ENTRY ADDRESS TO 86   7  1606  M 006 086           29   006     086
365  1 642         B     LOADNX                                            4  1613  B 700               29   700
366         *
367         * PROGRAM IS TOO BIG
368         *
369  1 646  TOOBIG CS    332                                               4  1617  / 332               29   332
370  1 650         CS                                                      1  1621  /                   29
371  1 651         CC    1                                                 2  1622  F 1                 29
372  1 653         MCW   MSG2,270                                          7  1624  M Y06 270           29  1806     270
373  1 660         W                                                       1  1631  2                   30
374  1 661         CC    1                                                 2  1632  F 1                 30
375  1 663         BCE   HALT,CDOVLY,1                                    8  1634  B W47 700 1         30  1647     700
376  1 671         RWD   1                                                 5  1642  U %U1 R             30   %U1
377  1 676  HALT   H     HALT                                              4  1647  . W47               30  1647
378         *
379         * DATA
380         *
381  1 690  PREFIX DCW   @0          @                                   11  1661                      30
382  1 691  GM     DC    @}@                                               1  1662             GMARK    30
383  1 694  NEWX3  DCW   #3                                                3  1665                      30
384  1 699  DIMSAV DCW   #5                                                5  1670                      31
385  1 700  LPFLAG DC    #1   WM IN LOW-ORDER CHARACTER IF LEFT PAREN       1  1671                      31
386  1 701  KB1    DCW   #1                                                1  1672                      31
387  1 703  MANP2  DCW   #2   MANTIS + 2                                   2  1674                      31
388  1 704  KP2    DCW   &2                                                1  1675                      31
389  1 705  KB1A   DCW   #1                                                1  1676                      31
390  1 706  KLESS  DCW   @<@                                               1  1677                      31
391  1 709  SAVX2  DCW   #3                                                3  1680                      31
392  1 710  FIRSTF DCW   #1   WM IS FIRST-TIME FLAG                        1  1681                      32
393  1 713  K3B    DCW   #3                                                3  1684                      32
394  1 718  K5B    DCW   #5                                                5  1689                      32
```

```
SEQ PG LIN  LABEL   OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
395  1 719  CHAR    DCW   #1   CHARACTER FROM DIMENSION FIELD               1  1690                      32
396  1 749  ERROR2  DCW   @ERROR 2 - DOUBLY DEFINED ARRAY@                30  1720                      33
397  1 750  CH      DCW   #1                                               1  1721                      33
398  1 788  ERROR3  DCW   @ERROR 3 - DIMENSION SYNTAX, STATEMENT @         38  1759                      34
399  1 789  COLON   DCW   @:@                                              1  1760                      34
400  1 792  W3      DCW   #3                                               3  1763                      35
401  1 797  W5      DCW   #5                                               5  1768                      35
402  1 799  W10     DCW   10                                               2  1770                      35
403  1 844  MSG2    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@           36  1806                      36
404         200     DCW   #1  MAKE SURE 1-80 ARE BLANK -- SEE MCW 6,86     1  0200                      37
405  1 845  GMWM    DCW   @}@                                              1  1807          GMARK       38
406                 XFR   BEGIN9                                                 B 839                 38   839
407          *
408          CLRME  CLRA  BEGIN9,GMWM,C                                                   MACRO
             *      CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                   GEN
             *                                                                           GEN
             * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                         GEN
             *                                                                           GEN
409                 ORG   201                                                     0201
             *                                                                           GEN
             * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                   GEN
             *                                                                           GEN
410          CLRME  EQU   *&1                                                 0201       GEN
411                 BSS   SNAPSH,C                                          5  0201  B 333 C     GEN     39   333
412          )0J004 CS    GMWM         CLEAR FROM CLRTOP                  4  0206  / Y07       GEN     39  1807
413                 SBR   )0J004&3                                         4  0210  H 209       GEN     39   209
414                 SBR   )0L004&6                                         4  0214  H 255       GEN     39   255
415                 C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?         7  0218  C 209 266   GEN     39   209     266
416                 BU    )0J004                                           5  0225  B 206 /     GEN     39   206
             *                                                                           GEN
             * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                     GEN
             *                                                                           GEN
417          )0K004 C     )0L004&6,)0N004                                  7  0230  C 255 269   GEN     39   255     269
418                 BU    )0L004                                           5  0237  B 249 /     GEN     40   249
419                 CS    LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1          7  0242  / 700 276   GEN     40   700     276
420          )0L004 LCA   )0P004,0-0     CLEAR WITH BLANK AND WORD MARK   7  0249  L 270 000   GEN     40   270     000
421                 SBR   )0L004&6                                         4  0256  H 255       GEN     40   255
422                 B     )0K004                                           4  0260  B 230       GEN     40   230
423          )0M004 DSA   )0R004         CLRBOT & X00 - 1                 3  0266  899         GEN     40   899
424          )0N004 DSA   BEGIN9         CLRBOT                           3  0269  839         GEN     40   839
425          )0P004 DCW   #1                                               1  0270              GEN     41
426                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP    5  0275              GEN     41
427          )0Q004 DCW   @}@                                              1  0276              GEN     41
428                 ORG   BEGIN9&X00                                              0900
429          )0R004 EQU   *           CLRBOT & X00 - 1                        0899              GEN
430                 XFR   CLRME                                                  B 201                 41   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	0899: 0	)1J003	0250: 0	)6J003	0110: 0	)6K003	0700: 0
)6L003	0704: 0	)6M003	0728: 0	)8J003	0257: 0	)8K003	0273: 0	)9J003	0281: 0	)9R003	0284: 0
BEGIN3	0838: 0	BEGIN9	0839: 0	BOTTOM	1473: 0	CDOVLY	0700: 0	CH	1721: 0	CHAR	1690: 0
CHECK	1058: 0	CLRME	0201: 0	COLON	1760: 0	COMPAR	1092: 0	DIFF	0838: 0	DIFWID	0895: 0
DIMFIN	1265: 0	DIMSAV	1670: 0	DONE	1553: 0	DONECH	1437: 0	DOUBLE	1364: 0	END	1541: 0
ERROR2	1720: 0	ERROR3	1759: 0	FIND	0987: 0	FINI	1352: 0	FIRST	1120: 0	FIRSTF	1681: 0
GLOBER	0184: 0	GM	1662: 0	GMWM	1807: 0	GOTLP	1596: 0	HALT	1647: 0	HEAD	1165: 0
HIGHER	1074: 0	IMOD	0690: 0	K3B	1684: 0	K5B	1689: 0	KB1	1672: 0	KB1A	1676: 0
KLESS	1677: 0	KP2	1675: 0	LOADNX	0700: 0	LPAREN	1027: 0	LPFLAG	1671: 0	MANP2	1674: 0
MANTIS	0692: 0	MORE	1215: 0	MORECH	1403: 0	MSG2	1806: 0	NEWVAR	1336: 0	NEWX3	1665: 0
NOHEAD	1172: 0	NOOVFL	1449: 0	NOTBIG	1311: 0	NOTHER	1199: 0	NOVL2	1526: 0	OVFL	1447: 0
OVFL2	1524: 0	PHAS9	0201: 0	PHASLD	0381: 0	PREFIX	1661: 0	PREV	0922: 0	SAVX2	1680: 0
SNAPEX	0564: 0	SNAPSH	0333: 0	SYNTAX	1492: 0	TOOBIG	1617: 0	TOP3	2600: 0	TOPCOR	0688: 0
TPERR	0728: 0	TPREAD	0704: 0	TSTFIN	1315: 0	W10	1770: 0	W3	1763: 0	W5	1768: 0
X1	0089: 0	X2	0094: 0	X3	0099: 0						

UNREFERENCED SYMBOLS

PHASLD SNAPEX TOP3 TPERR TPREAD