```
SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
101               JOB   FORTRAN COMPILER -- EQUIVALENCE PHASE TWO -- 11
102               CTL   6611
103         *
104         * THE DIMENSION TABLE IS ALTERED TO SHOW THE RELATIONSHIP
105         * BETWEEN ARRAYS.  THE PROCEDURE, ESSENTIALLY, IS TO MAKE
106         * EVERY ARRAY WHOSE FIRST ELEMENT IS EQUIVALENT TO A SECONDARY
107         * ELEMENT OF ANOTHER ARRAY KNOW THE DISTANCE TO THE FIRST
108         * ELEMENT OF THE LATTER ARRAY.
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         GLOBER EQU    184  GLOBAL ERROR FLAG -- WM MEANS ERROR          0184
117         *
118               EXT00   SNAPSH, LOADNX, CDOVLY                                        MACRO
119         SNAPSH EQU    333                                               0333        GEN
120         PHASLD EQU    381                                               0381        GEN
121         SNAPEX EQU    564                                               0564        GEN
122         LOADNX EQU    700   CARD OVERLAY UNLESS NOP                     0700        GEN
123         CDOVLY EQU    700   1 IF LOADING FROM CARDS, N IF FROM TAPE     0700        GEN
124         TPREAD EQU    704   LOAD OVERLAY FROM TAPE                      0704        GEN
125         TPERR  EQU    728                                               0728        GEN
126         *
127               EXT03   START, TOP OF PHASE 3                                         MACRO
128         BEGIN3 EQU    838                                               0838        GEN
129         TOP3   EQU    2600                                              2600        GEN
130               EXT10   STUFF IN THE PREVIOUS OVERLAY -- PHASE 10                     MACRO
131         GM      EQU   839                                               0839        GEN
132         PREFIX EQU    849                                               0849        GEN
133         NEXT   EQU    852   ONE BELOW NEXT SLOT IN ARRAY TABLE          0852        GEN
134         OFF1   EQU    857   OFFSET WORK AREA                            0857        GEN
135         CLASS1 EQU    860   EQUIVALENCE CLASS LINK                      0860        GEN
136         OFF2   EQU    865   OFFSET WORK AREA                            0865        GEN
137         CLASS2 EQU    868   EQUIVALENCE CLASS LINK                      0868        GEN
138         OFF3   EQU    873   OFFSET WORK AREA                            0873        GEN
139         NEXT3  EQU    876   EQUIVALENCE CLASS LINK                      0876        GEN
140         SYNTAX EQU    883                                               0883        GEN
141         NXSTMT EQU    1115                                              1115        GEN
142         GOTLP  EQU    1158  GOT LEFT PAREN -- SYNTAX OK                 1158        GEN
143         NXTVAR EQU    1165  SKIP LEFT PAREN TO GET X1 TO                1165        GEN
144         CHKTYP EQU    1181  GET READY TO TEST FIRST                     1181        GEN
145         *
146         110     DCW   @EQUIV TWO@                                   9   0110                    1
147         *
148         * THIS PHASE ACTUALLY STARTS AT NXSTMT IN THE PREVIOUS OVERLAY.
149         * HERE X1 POINTS ONE BELOW THE BOTTOM CHARACTER OF A VARIABLE IN
150         * A STATEMENT AND X2 POINTS AT THE TOPMOST CHARACTER OF THE NAME
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
151         * OF THE CORRESPONDING VARIABLE IN THE ARRAY TABLE.
152         *
153         * EACH ELEMENT OF THE ARRAY TABLE HAS ONE OR TWO VARIABLE-WIDTH
154         * DIMENSION FIELDS (FIRST DIMENSION HIGHER IN CORE), WITH THE
155         * DIGITS OF THE DIMENSIONS NOT REVERSED, A FIVE DIGIT OFFSET
156         * FROM THE BASE OF THE EQUIVALENCE CLASS, A THREE-CHARACTER LINK
157         * TO THE BASE MEMBER OF THE EQUIVALENCE CLASS, A THREE-CHARACTER
158         * LINK TO THE NEXT ELEMENT, A THREE-CHARACTER LINK TO THE
159         * PREVIOUS ELEMENT, THE NAME (VARIABLE WIDTH), AND A GROUP MARK
160         * WITH A WORD MARK.  THE GMWM OF THE TOPMOST ELEMENT IS AT
161         * TOPCOR-3, AND TOPCOR-2 .. TOPCOR ARE BLANK.
162         *
163         * THE NEXT AND PREV POINTERS ARE REDIRECTED SO THAT ELEMENTS OF
164         * AN EQUIVALENCE CLASS ARE CONSECUTIVE, AND ASCENDING ORDER BY
165         * OFFSET.
166         *
167         * BELOW THE ARRAY TABLE, BUILD A TABLE OF CLASSES, EACH ELEMENT
168         * HAVING A FIVE-DIGIT OFFSET AND A LINK TO THE FIRST ELEMENT OF
169         * THE CLASS IN THE ARRAY TABLE.
170         *
171         * AT EXIT, X3 IS ONE BELOW THE GM AT THE BOTTOM OF THE ARRAY
172         * TABLE, AND X1 IS THE TOP (PREFIX) OF THE FIRST STATEMENT
173         * AFTER (BELOW) THE LAST EQUIVALENCE.
174         *
175         * COME HERE FROM FIND ROUTINE IN PREVIOUS PHASE WHEN IT FINDS
176         * THE VARIABLE IN THE ARRAY TABLE.
177         *
178         PHAS11 LDPH  EQUIV TWO,FOUND,NXSTMT,,,11                                                  MACRO
                * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                   GEN
                *        XFR  PHASZ     PROHIBITED IN A MACRO                                      GEN
                *                                                                                  GEN
                * LOAD A BLOCK                                                                     GEN
                *                                                                                  GEN
179         )6J004 EQU   110  PHASE ID                                          0110              GEN
180         )6K004 EQU   700  LOAD NEXT PHASE                                   0700              GEN
181         )6L004 EQU   704  TAPE READ INSTRUCTION                             0704              GEN
182         )6M004 EQU   728  TAPE ERROR HANDLER                                0728              GEN
                *                                                                                  GEN
183                ORG   201                                                          0201
184         PHAS11 BSS   )8J004,G                                          5  0201  B 257 G     GEN      2   257
185                NOP     TO PATCH IN TRAPS FOR DEBUGGING                 1  0206  N           GEN      2
186         )0J004 EQU   *&1                                                    0207              GEN
187                LCA   )9J004,)6J004                                      7  0207  L 281 110   GEN      2   281     110
188                BCE   )1J004,)6K004,1    Q: LOADING FROM CARDS?          8  0214  B 250 700 1 GEN      2   250     700
189                BCE   )1J004,)6L004&4,0  Q: LOADING FROM AUTOCODER TAPE?  8  0222  B 250 708 0 GEN      2   250     708
190                RTW   1,FOUND           READ THE BLOCK                   8  0230  L %U1 /81 R GEN      2   %U1    1181
191                BER   )6M004             Q: TAPE ERROR?                  5  0238  B 728 L     GEN      3   728
192                CS    NXSTMT,)9R004      ENTER THE BLOCK                 7  0243  / /15 285   GEN      3  1115     285
193         )1J004 CS    )6K004,)9R004      LOAD CARDS OR AUTOCODER TAPE    7  0250  / 700 285   GEN      3   700     285
194         )8J004 SW    )9R004                                             4  0257  , 285       GEN      3   285
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195             MU    %T0,)8K004,W                                          8  0261  M %T0 273 W GEN      3   %T0     273
196             H     )0J004                                                4  0269  . 207       GEN      3   207
197         )8K004 EQU  *&1                                                   0273              GEN
198         )9J004 DCW  @EQUIV TWO@          PHASE ID                     9  0281              GEN      4
199             DCW   #1                                                    1  0282              GEN      4
200             DC    @11@          PHASE NUMBER                          2  0284              GEN      4
201         )9R004 DCW  @}@                                                 1  0285              GEN      4
202             XFR   PHAS11                                                     B 201             4   201
203         *
204             ORG   CHKTYP  MOKOTOFF V3M0.LST LINE 1973, PHASE 10              1181
205  1 181  FOUND  LCA   KZ5,OFF2                                           7  1181  L Z55 865           5  1955     865
206  1 188         NOP   0&X2                                              4  1188  N 0!0               5   000+2
207  1 192         MCW             SKIP NAME                             1  1192  M                   5
208  1 193         MCW             SKIP "NEXT" POINTER                   1  1193  M                   5
209  1 194         MCW             SKIP "PREV" POINTER                   1  1194  M                   5
210  1 195         MCW             SKIP "CLASS" POINTER                  1  1195  M                   5
211  1 196         SAR   X2        X2 NOW POINTS AT 5-DIGIT OFFSET       4  1196  Q 094               5   094
212  1 200         BAV   *&1       TURN OFF ARITHMETIC OVERFLOW FLAG     5  1200  B S05 Z             6  1205
213  1 205         S     W3                                              4  1205  S Z58               6  1958
214  1 209  MORE   BCE   NEW,1&X2,  OFFSET EMPTY?                        8  1209  B S47 0!1           6  1247     001+2
215  1 217         A     0&X2,OFF2                                       7  1217  A 0!0 865           6   000+2   865
216  1 224         MCW   3&X2,X2    NEXT ELEMENT IN EQUIVALENCE CLASS     7  1224  M 0!3 094           6   003+2   094
217  1 231         A     KP1,W3      COUNT ELEMENTS IN CLASS               7  1231  A Z59 Z58           6  1959    1958
218  1 238         BAV   FIXIT       ERROR IF OVERFLOW -- CIRCULAR LIST?   5  1238  B Z15 Z             7  1915
219  1 243         B     MORE                                            4  1243  B S09               7  1209
220  1 247  NEW    MCW   X2,CLASS2                                       7  1247  M 094 868           7   094     868
221  1 254         BCE   SUBS,0&X1,%  VARIABLE IN EQUIVALENCE SUBSCRIPTED? 8  1254  B V92 0|0 %         7  1592     000+1
222  1 262         A     K1,OFF2     BUMP OFFSET                         7  1262  A Z60 865           7  1960     865
223  1 269  TOTOP  MCW   NEXT3,X3    TOP OF CLASS TABLE                  7  1269  M 876 099           7   876     099
224  1 276         LCA   OFF1,OFF3                                       7  1276  L 857 873           8   857     873
225  1 283         S     OFF2,OFF3                                       7  1283  S 865 873           8   865     873
226  1 290         BM    NEG,OFF3    OFF2 .LT. OFF1?                     8  1290  V W53 873 K         8  1653     873
227  1 298         LCA   CLASS2,0&X3                                     7  1298  L 868 0?0           8   868     000+3
228  1 305         SBR   NEXT3                                           4  1305  H 876               8   876
229  1 309  GETNXT BCE   NXTVAR,0&X1,,                                   8  1309  B /65 0|0 ,         9  1165     000+1
230  1 317         BCE   EQVFIN,0&X1,)  EQUIVALENCE GROUP DONE           8  1317  B T29 0|0 )         9  1329     000+1
231  1 325         B     SYNTAX                                          4  1325  B 883               9   883
232  1 329  EQVFIN MN    0&X1        SKIP RIGHT PAREN                    4  1329  D 0|0               9   000+1
233  1 333         MN              SKIP COMMA IF STATEMENT NOT ENDED     1  1333  D                   9
234  1 334         SAR   SAVX1       LEFT PAREN IF STATEMENT NOT ENDED   4  1334  Q Z63               9  1963
235  1 338         MCW   NEXT3,X3                                        7  1338  M 876 099           9   876     099
236  1 345         LCA   DOLLAR,0&X3  MARK BOTTOM OF CLASS TABLE          7  1345  L Z64 0?0          10  1964     000+3
237         *
238         * SEARCH THE CLASS TABLE FOR THE LINK TO THE CLASS IN CLASS1
239         *
240  1 352         MCW   NEXT,X3      TOP OF CLASS TABLE                  7  1352  M 852 099          10   852     099
241  1 359  TSTBOT BCE   ATBOT,0&X3,$  AT BOTTOM OF CLASS TABLE?          8  1359  B W83 0?0 $        10  1683     000+3
242  1 367         MCW   0&X3,WNEXT                                      7  1367  M 0?0 Z67          10   000+3  1967
243  1 374         C     CLASS1,WNEXT                                    7  1374  C 860 Z67          10   860    1967
244  1 381         BE    TESTRI    IT'S EITHER REDUNDANT OR ILLEGAL      5  1381  B X92 S            11  1792
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SEQ PG LIN  LABEL  OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

245  1 386  BACKRI MCW   0&X3,X2                                        7  1386  M 0?0 094          11   000+3   094
246  1 393         SAR   NEXT3                                         4  1393  Q 876              11   876
247  1 397         BCE   EMPTY,0&X2,                                   8  1397  B U09 0!0          11  1409     000+2
248  1 405         B     FULL       ENTRY HAS AN OFFSET                4  1405  B Z36              11  1936
249  1 409  EMPTY  MCW   9&X2,X1    PREV TO X1                         7  1409  M 0!9 089          11   009+2   089
250  1 416  EMPTYL MCW   6&X2,X3    NEXT FROM X3 IS X3                 7  1416  M 0!6 099          12   006+2   099
251  1 423         BCE   ENDTAB,X3,  AT END OF ARRAY TABLE?            8  1423  B U47 099          12  1447     099
252  1 431         BCE   ENDTAB,1&X3,                                  8  1431  B U47 0?1          12  1447     001+3
253  1 439         SBR   X2         NEXT TO X2                         4  1439  H 094              12   094
254  1 443         B     EMPTYL                                        4  1443  B U16              12  1416
255  1 447  ENDTAB BCE   ENDTB2,X3,  AT END OF ARRAY TABLE?            8  1447  B U62 099          12  1462     099
256  1 455         MCW   X1,9&X3                                       7  1455  M 089 0?9          13   089     009+3
257  1 462  ENDTB2 BCE   NOPREV,X1,   NO PREV LINK?                    8  1462  B X24 089          13  1724     089
258  1 470         MCW   X3,6&X1                                       7  1470  M 099 0|6          13   099     006+1
259  1 477  ENDTB3 MCW   CLASS1,X1                                     7  1477  M 860 089          13   860     089
260  1 484         MCW   6&X1,6&X2                                     7  1484  M 0|6 0!6          13   006+1   006+2
261  1 491         MCW   6&X1,X3                                       7  1491  M 0|6 099          14   006+1   099
262  1 498         MCW   X2,9&X3                                       7  1498  M 094 0?9          14   094     009+3
263  1 505         MCW   NEXT3,X3                                      7  1505  M 876 099          14   876     099
264  1 512         MCW   3&X3,X2                                       7  1512  M 0?3 094          14   003+3   094
265  1 519         MCW   X2,6&X1                                       7  1519  M 094 0|6          14   094     006+1
266  1 526         MCW   X1,9&X2                                       7  1526  M 089 0!9          15   089     009+2
267  1 533         MCW   CLASS1,3&X2                                   7  1533  M 860 0!3          15   860     003+2
268  1 540         MCW                                                 1  1540  M                  15
269  1 541         S     0&X3,0&X2                                     7  1541  S 0?0 0!0          15   000+3   000+2
270  1 548         SAR   X3                                            4  1548  Q 099              15   099
271  1 552         BW    TSTBOT,FLAG                                   8  1552  V T59 !99 1        15  1359    2099
272  1 560         SW    FLAG                                          4  1560  , !99              15  2099
273  1 564         C     0&X2,WOFF                                     7  1564  C 0!0 !98          16   000+2  2098
274  1 571         BE    RED1                                          5  1571  B V84 S            16  1584
275  1 576         B     ILLEGL                                        4  1576  B Y31              16  1831
276  1 580         B     TSTBOT                                        4  1580  B T59              16  1359
277         *
278         * REDUNDANT EQUIVALENCE
279         *
280  1 584  RED1   B     REDUND                                        4  1584  B Y73              16  1873
281  1 588         B     TSTBOT                                        4  1588  B T59              16  1359
282         *
283         * VARIABLE IN EQUIVALENCE HAS SUBSCRIPT
284         *
285  1 592  SUBS   MN    877                                           4  1592  D 877              16   877
286  1 596         MN                                                  1  1596  D                  17
287  1 597         SAR   X3         WHY NOT SBR X3,NEXT3-1?            4  1597  Q 099              17   099
288  1 601         SBR   X1,0&X1                                       7  1601  H 089 0|0          17   089     000+1
289         *
290         * MOVE SUBSCRIPT, IN FORWARD ORDER, TO CLASS TABLE
291         *
292  1 608  SUBSL  MCW   0&X1,CHTEST                                    7  1608  M 0|0 Z68          17   000+1  1968
293  1 615         SAR   X1                                            4  1615  Q 089              17   089
294  1 619         BCE   SUBSX,CHTEST,)                                8  1619  B W42 Z68 )        17  1642    1968
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

295  1 627         MCW   CHTEST,2&X3                                         7  1627  M Z68 0?2           17  1968     002+3
296  1 634         SBR   X3                                                  4  1634  H 099               18   099
297  1 638         B     SUBSL                                               4  1638  B W08               18  1608
298         *
299  1 642  SUBSX  A     1&X3,OFF2                                           7  1642  A 0?1 865           18   001+3   865
300  1 649         B     TOTOP                                               4  1649  B S69               18  1269
301         *
302  1 653  NEG    BCE   FIRST,OFF1,  STILL EMPTY?                          8  1653  B W72 857           18  1672     857
303  1 661         LCA   CLASS1,0&X3                                         7  1661  L 860 0?0           18   860     000+3
304  1 668         SBR   NEXT3                                               4  1668  H 876               18   876
305  1 672  FIRST  MCW   CLASS2,CLASS1  CURRENT ONE HAS LEAST OFFSET         7  1672  M 868 860           19   868     860
306  1 679         B     GETNXT                                              4  1679  B T09               19  1309
307         *
308         * AT BOTTOM OF CLASS TABLE
309         *
310  1 683  ATBOT  MCW   SAVX1,X1                                            7  1683  M Z63 089           19  1963     089
311  1 690         LCA   EOFF,OFF1  EMPTY OFFSET TO OFF1                     7  1690  L Z73 857           19  1973     857
312  1 697         MCW   NEXT,NEXT3                                         7  1697  M 852 876           19   852     876
313  1 704         BCE   GOTLP,1&X1,,                                        8  1704  B /58 0|1 ,         20  1158     001+1
314  1 712         BCE   NXSTMT,1&X1,}                                       8  1712  B /15 0|1 } GMARK   20  1115     001+1
315  1 720         B     SYNTAX                                              4  1720  B 883               20   883
316         *
317  1 724  NOPREV MCW   X3,86                                              7  1724  M 099 086           20   099     086
318  1 731         B     ENDTB3                                              4  1731  B U77               20  1477
319         *
320         * CODE NOT OVERLAID IN PREVIOUS PHASE COMES HERE WHEN EQUIVALENCE
321         * STATEMENTS HAVE ALL BEEN PROCESSED
322         *
323 *1 735  DONE2  MCW   NEXT,X3                                            7  1735  M 852 099           20   852     099
324  1 742         MCW   GM,1&X3    MARK BOTTOM OF ARRAY TABLE               7  1742  M 839 0?1           21   839     001+3
325  1 749         MCM   5&X1                                               4  1749  P 0|5               21   005+1
326  1 753         MN                                                        1  1753  D                   21
327  1 754         MN                                                        1  1754  D                   21
328  1 755         SAR   X1         TOP OF STATEMENT AFTER LAST EQUIVALENCE  4  1755  Q 089               21   089
329  1 796         B     LOADNX                                              4  1759  B 700               21   700
330               DCW   #1                                                  1  1763                      21
331         *
332         * CODE NOT OVERLAID IN PREVIOUS PHASE COMES HERE FOR VARIABLES
333         * IN THE EQUIVALENCE STATEMENT THAT ARE NOT IN THE TABLE
334         *
335 *1 800  NOTIN2 BCE   GOTRP,0&X1,)                                        8  1764  B X80 0|0 )         22  1780     000+1
336  1 808         SBR   X1                                                  4  1772  H 089               22   089
337  1 812         B     NOTIN2                                              4  1776  B X64               22  1764
338  1 816  GOTRP  MN    0&X1                                                4  1780  D 0|0               22   000+1
339  1 820         SAR   X1                                                 4  1784  Q 089               22   089
340  1 824         B     NXTVAR                                              4  1788  B /65               22  1165
341         *
342         * TEST FOR REDUNDANT OR ILLEGAL EQUIVALENCE
343         *
344  1 828  TESTRI MCW   0&X3,X2                                            7  1792  M 0?0 094           22   000+3   094
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

345  1 835          SAR   X2                                            4  1799  Q 094               23   094
346  1 839          C     0&X2,OFF1                                     7  1803  C 0!0 857           23   000+2   857
347  1 846          BE    RED2                                          5  1810  B Y23 S             23  1823
348  1 851          B     ILLEGL                                        4  1815  B Y31               23  1831
349  1 855          B     BACKRI                                        4  1819  B T86               23  1386
350  1 859  RED2    B     REDUND                                        4  1823  B Y73               23  1873
351  1 863          B     BACKRI                                        4  1827  B T86               23  1386
352          *
353          * ILLEGAL EQUIVALENCE
354          *
355  1 867  ILLEGL  SBR   NOVFL1&3                                      4  1831  H Y72               24  1872
356  1 871          CS    332                                           4  1835  / 332               24   332
357  1 875          CS                                                  1  1839  /                   24
358  1 876          SW    GLOBER                                        4  1840  , 184               24   184
359  1 880          MN    PREFIX,244                                    7  1844  D 849 244           24   849     244
360  1 887          MN                                                  1  1851  D                   24
361  1 888          MN                                                  1  1852  D                   24
362  1 889          MCW   ERROR7                                       4  1853  M !14               25  2014
363  1 893          W                                                   1  1857  2                   25
364  1 894          BCV   OVFL1                                       5  1858  B Y67 @             25  1867
365  1 899          B     NOVFL1                                        4  1863  B Y69               25  1869
366  1 903  OVFL1   CC    1                                             2  1867  F 1                 25
367  1 905  NOVFL1  B     0                                             4  1869  B 000               25   000
368          *
369          * REDUNDANT EQUIVALENCE
370          *
371  1 909  REDUND  SBR   NOVFL2&3                                      4  1873  H Z14               25  1914
372  1 913          CS    332                                           4  1877  / 332               26   332
373  1 917          CS                                                  1  1881  /                   26
374  1 918          SW    GLOBER                                        4  1882  , 184               26   184
375  1 922          MN    PREFIX,246                                    7  1886  D 849 246           26   849     246
376  1 929          MN                                                  1  1893  D                   26
377  1 930          MN                                                  1  1894  D                   26
378  1 931          MCW   ERROR8                                       4  1895  M !57               26  2057
379  1 935          W                                                   1  1899  2                   27
380  1 936          BCV   OVFL2                                       5  1900  B Z09 @             27  1909
381  1 941          B     NOVFL2                                        4  1905  B Z11               27  1911
382  1 945  OVFL2   CC    1                                             2  1909  F 1                 27
383  1 947  NOVFL2  B     0                                             4  1911  B 000               27   000
384          *
385          * PRINT "CORRECT ERRORS AND RERUN" MESSAGE AND STOP
386          *
387  1 951  FIXIT   CC    L                                             2  1915  F L                 27
388  1 953          CS    332                                           4  1917  / 332               27   332
389  1 957          CS                                                  1  1921  /                   28
390  1 958          MCW   FIXMSG,270                                    7  1922  M !93 270           28  2093     270
391  1 965          W                                                   1  1929  2                   28
392  1 966          CC    1                                             2  1930  F 1                 28
393  1 968  HALT    H     HALT                                          4  1932  . Z32               28  1932
394          *
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

395         * OFFSET HAS A VALUE
396         *
397  1 972  FULL    MCW   0&X2,WOFF                                          7  1936  M 0!0 !98          28   000+2  2098
398  1 979          CW    FLAG                                               4  1943  ) !99              28  2099
399  1 983          B     EMPTY                                              4  1947  B U09              29  1409
400         *
401         * DATA
402         *
403  1 991  KZ5     DCW   @00000@                                            5  1955                     29
404  1 994  W3      DCW   #3                                                 3  1958                     29
405  1 995  KP1     DCW   &1                                                 1  1959                     29
406  1 996  K1      DCW   1                                                  1  1960                     29
407  1 999  SAVX1   DCW   #3                                                 3  1963                     29
408  2 000  DOLLAR  DCW   @$@                                                1  1964                     29
409  2 003  WNEXT   DCW   #3                                                 3  1967                     30
410  2 004  CHTEST  DCW   #1                                                 1  1968                     30
411  2 009  EOFF    DCW   #5                                                 5  1973                     30
412  2 059  ERROR7  DCW   @ERROR 7 - ILLEGAL EQUIVALENCE, STATEMENT @       41  2014                     32
413  2 102  ERROR8  DCW   @ERROR 8 - REDUNDANT EQUIVALENCE, STATEMENT @     43  2057                     34
414  2 138  FIXMSG  DCW   @CORRECT ERRORS INDICATED AND RESTART@            36  2093                     35
415  2 143  WOFF    DCW   #5  OFFSET WORK AREA                              5  2098                     36
416  2 144  FLAG    DCW   #1                                                 1  2099                     36
417  2 145  GMWM    DCW   @}@                                                1  2100          GMARK      36
418                XFR   NXSTMT                                                  B /15                  36  1115
419         CLRME   CLRA  BEGIN3,GMWM,C                                                   MACRO
            *       CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                   GEN
            *                                                                             GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                           GEN
            *                                                                             GEN
420                 ORG   201                                                      0201
            *                                                                             GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                     GEN
            *                                                                             GEN
421         CLRME   EQU   *&1                                                      0201   GEN
422                 BSS   SNAPSH,C                                             5  0201  B 333 C     GEN      37   333
423         )0J005  CS    GMWM         CLEAR FROM CLRTOP                     4  0206  / J00       GEN      37  2100
424                 SBR   )0J005&3                                             4  0210  H 209       GEN      37   209
425                 SBR   )0L005&6                                             4  0214  H 255       GEN      37   255
426                 C     )0J005&3,)0M005   DOWN TO CLRBOT & X00?              7  0218  C 209 266   GEN      37   209     266
427                 BU    )0J005                                               5  0225  B 206 /     GEN      37   206
            *                                                                             GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                       GEN
            *                                                                             GEN
428         )0K005  C     )0L005&6,)0N005                                       7  0230  C 255 269   GEN      37   255     269
429                 BU    )0L005                                               5  0237  B 249 /     GEN      38   249
430                 CS    LOADNX,)0Q005  LOAD THE NEXT BLOCK AT 1              7  0242  / 700 276   GEN      38   700     276
431         )0L005  LCA   )0P005,0-0     CLEAR WITH BLANK AND WORD MARK       7  0249  L 270 000   GEN      38   270     000
432                 SBR   )0L005&6                                             4  0256  H 255       GEN      38   255
433                 B     )0K005                                               4  0260  B 230       GEN      38   230
434         )0M005  DSA   )0R005         CLRBOT & X00 - 1                     3  0266  899         GEN      38   899
```

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

435         )0N005 DSA   BEGIN3         CLRBOT                             3  0269  838         GEN     38   838
436         )0P005 DCW   #1                                                1  0270              GEN     39
437                DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP      5  0275              GEN     39
438         )0Q005 DCW   @}@                                               1  0276              GEN     39
439                ORG   BEGIN3&X00                                                0900
440         )0R005 EQU   *           CLRBOT & X00 - 1                          0899              GEN
441                XFR   CLRME                                                    B 201               39   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J004	0207: 0	)0J005	0206: 0	)0K005	0230: 0	)0L005	0249: 0	)0M005	0266: 0	)0N005	0269: 0
)0P005	0270: 0	)0Q005	0276: 0	)0R005	0899: 0	)1J004	0250: 0	)6J004	0110: 0	)6K004	0700: 0
)6L004	0704: 0	)6M004	0728: 0	)8J004	0257: 0	)8K004	0273: 0	)9J004	0281: 0	)9R004	0285: 0
ATBOT	1683: 0	BACKRI	1386: 0	BEGIN3	0838: 0	CDOVLY	0700: 0	CHKTYP	1181: 0	CHTEST	1968: 0
CLASS1	0860: 0	CLASS2	0868: 0	CLRME	0201: 0	DOLLAR	1964: 0	DONE2	1735: 0	EMPTY	1409: 0
EMPTYL	1416: 0	ENDTAB	1447: 0	ENDTB2	1462: 0	ENDTB3	1477: 0	EOFF	1973: 0	EQVFIN	1329: 0
ERROR7	2014: 0	ERROR8	2057: 0	FIRST	1672: 0	FIXIT	1915: 0	FIXMSG	2093: 0	FLAG	2099: 0
FOUND	1181: 0	FULL	1936: 0	GETNXT	1309: 0	GLOBER	0184: 0	GM	0839: 0	GMWM	2100: 0
GOTLP	1158: 0	GOTRP	1780: 0	HALT	1932: 0	ILLEGL	1831: 0	K1	1960: 0	KP1	1959: 0
KZ5	1955: 0	LOADNX	0700: 0	MORE	1209: 0	NEG	1653: 0	NEW	1247: 0	NEXT	0852: 0
NEXT3	0876: 0	NOPREV	1724: 0	NOTIN2	1764: 0	NOVFL1	1869: 0	NOVFL2	1911: 0	NXSTMT	1115: 0
NXTVAR	1165: 0	OFF1	0857: 0	OFF2	0865: 0	OFF3	0873: 0	OVFL1	1867: 0	OVFL2	1909: 0
PHAS11	0201: 0	PHASLD	0381: 0	PREFIX	0849: 0	RED1	1584: 0	RED2	1823: 0	REDUND	1873: 0
SAVX1	1963: 0	SNAPEX	0564: 0	SNAPSH	0333: 0	SUBS	1592: 0	SUBSL	1608: 0	SUBSX	1642: 0
SYNTAX	0883: 0	TESTRI	1792: 0	TOP3	2600: 0	TOTOP	1269: 0	TPERR	0728: 0	TPREAD	0704: 0
TSTBOT	1359: 0	W3	1958: 0	WNEXT	1967: 0	WOFF	2098: 0	X1	0089: 0	X2	0094: 0
X3	0099: 0										

UNREFERENCED SYMBOLS

CDOVLY DONE2 PHASLD SNAPEX TOP3 TPERR TPREAD