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

101               JOB   FORTRAN COMPILER -- PHASE 1 -- READ THE PARAM CARD
102               CTL   6611
103         *
104         * LOAD THIS BLOCK AND THE NEXT ONE
105         *
106         PHAS1 LDPH  LOADER,BEGIN1,LOADNX,,,1.1                                                MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                    GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                                        GEN
            *                                                                                    GEN
            * LOAD A BLOCK                                                                       GEN
            *                                                                                    GEN
107         )6J001 EQU   110  PHASE ID                                          0110            GEN
108         )6K001 EQU   700  LOAD NEXT PHASE                                   0700            GEN
109         )6L001 EQU   704  TAPE READ INSTRUCTION                             0704            GEN
110         )6M001 EQU   728  TAPE ERROR HANDLER                                0728            GEN
            *                                                                                    GEN
111               ORG   201                                                           0201
112         PHAS1 BSS   )8J001,G                                              5  0201  B 257 G     GEN      1   257
113               NOP     TO PATCH IN TRAPS FOR DEBUGGING                     1  0206  N           GEN      1
114         )0J001 EQU   *&1                                                     0207                GEN
115               LCA   )9J001,)6J001                                         7  0207  L 278 110   GEN      1   278     110
116               BCE   )1J001,)6K001,1    Q: LOADING FROM CARDS?            8  0214  B 250 700 1 GEN      1   250     700
117               BCE   )1J001,)6L001&4,0  Q: LOADING FROM AUTOCODER TAPE?    8  0222  B 250 708 0 GEN      1   250     708
118               RTW   1,BEGIN1           READ THE BLOCK                    8  0230  L %U1 872 R GEN      1   %U1     872
119               BER   )6M001             Q: TAPE ERROR?                    5  0238  B 728 L     GEN      2   728
120               CS    LOADNX,)9R001      ENTER THE BLOCK                   7  0243  / 700 283   GEN      2   700     283
121         )1J001 CS   )6K001,)9R001      LOAD CARDS OR AUTOCODER TAPE      7  0250  / 700 283   GEN      2   700     283
122         )8J001 SW   )9R001                                               4  0257  , 283       GEN      2   283
123               MU    %T0,)8K001,W                                        8  0261  M %T0 273 W GEN      2   %T0     273
124               H     )0J001                                              4  0269  . 207       GEN      2   207
125         )8K001 EQU   *&1                                                     0273                GEN
126         )9J001 DCW   @LOADER@          PHASE ID                          6  0278                GEN      3
127               DCW   #1                                                    1  0279                GEN      3
128               DC    @1.1@          PHASE NUMBER                         3  0282                GEN      3
129         )9R001 DCW   @}@                                                 1  0283                GEN      3
130               XFR   PHAS1                                                      B 201               3   201
131         *
132         * READ AND PROCESS THE PARAMETER CARD.
133         *
134         * READ AND STORE THE SOURCE PROGRAM, IN REVERSE ORDER, STARTING
135         * AT THE TOP OF CORE, WITH BLANKS REMOVED EXCEPT WITHIN
136         * HOLLERITH FIELDS IN FORMAT STATEMENTS.  EACH STATEMENT BEGINS
137         * WITH 000.  FORMAT STATEMENTS THEN HAVE F, WHILE OTHERS HAVE R.
138         * THEN THE LABEL, IF ANY, FOLLOWED BY A COLON.  THE END OF EACH
139         * STATEMENT IS MARKED BY A GROUP MARK WITH A WORD MARK.  AFTER
140         * THE LAST CARD, A STOP STATEMENT IS INSERTED.
141         *
142     89  X1    EQU   089                                                   0089
143     94  X2    EQU   094                                                   0094
144     99  X3    EQU   099                                                   0099
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

145         *
146         * ADDRESSES IN PHASE 0
147         *
148         NSTMTS EQU   183  NUMBER OF STATEMENTS, INCLUDING GENERATED STOP      0183
149         *
150                EXT00   SNAPSH, LOADNX, CDOVLY                                        MACRO
151         SNAPSH EQU   333                                                 0333        GEN
152         PHASLD EQU   381                                                 0381        GEN
153         SNAPEX EQU   564                                                 0564        GEN
154         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                      0700        GEN
155         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE       0700        GEN
156         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                        0704        GEN
157         TPERR  EQU   728                                                 0728        GEN
158         *
159         * STORAGE FOR PARAMETER CARD IS IN PHASE 0
160         *
161    685  PWORD  EQU   685     THE WORD PARAM                              0685
162    688  TOPCOR EQU   688     TOP CORE ADDRESS FROM PARAM CARD            0688
163    690  IMOD   EQU   690     INTEGER MODULUS -- NUMBER OF DIGITS         0690
164    692  MANTIS EQU   692     FLOATING POINT MANTISSA DIGITS              0692
165    693  CONDNS EQU   693     P FOR CONDENSED DECK                        0693
166    694  SNAPSW EQU   694     S FOR SNAPSHOT                              0694
167    695  C1410  EQU   695     T IF RUN ON 1410 IN 1401 COMPATIBILITY MODE 0695
168    696  FMTSW  EQU   696     X FOR NO FORMAT, L FOR LIMITED FORMAT       0696
169         *                      BLANK FOR ORDINARY, A FOR A CONVERSION
170    699  PARAM  EQU   699     PARAMETER CARD IS STORED HERE               0699
171         *
172         * READ AND CHECK PARAMETER CARD
173         *
174                ORG   872        FOUR LESS THAN MOKOTOFF V3M0 LINE 218          0872
175         BEGIN1 CS    80         CLEAR AUTOCODER TAPE LOADER          4  0872  / 080              4   080
176                SW    1                                               4  0876  , 001              4   001
177                SW    81,84                                           7  0880  , 081 084          4   081     084
178    874         SW    GM         ORIGINALLY DONE IN PHASE 0           4  0887  , N29              4  2529
179    876         R                READ PARAMETER CARD                  1  0891  1                  4
180    877         LCA   19,PARAM   SAVE IT                              7  0892  L 019 699          4   019     699
181    884         C     PARAM-14,KPARAM  IS IT A PARAMETER CARD?        7  0899  C 685 N54          4   685    2554
182    891         BU    NOPARM     NO, ANNOUNCE ERROR                   5  0906  B L22 /            5  2322
183    896         SW    73         SET WORD MARKS FOR                   4  0911  , 073              5   073
184    900         SW    6,7          FORTRAN MARGINS                    7  0915  , 006 007          5   006     007
185    907         SW    TOPCOR-2                                        4  0922  , 686              5   686
186    911         MCW   80,PWORD                                        7  0926  M 080 685          5   080     685
187         *
188         * DETERMINE THIS MACHINE'S CORE SIZE, COMPARE IT TO
189         * SIZE ON PARAMETER CARD
190         *
191    918         CS    0-0                                             4  0933  / 000              5   000
192    922         SBR   CORSIZ                                          4  0937  H N57              5  2557
193    926         MCW   TOPCOR,TOCONV                                   7  0941  M 688 N60          6   688    2560
194    933         B     ADCONV     COVERT TOPCOR TO FIVE DIGITS         4  0948  B Y91              6  1891
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

195    937          MCW   CONVTD,TOP5                                         7  0952  M N65 O53            6  2565    2653
196    944          MCW   CORSIZ,TOCONV                                       7  0959  M N57 N60            6  2557    2560
197    951          B     ADCONV     CONVERT CORSIZ TO FIVE DIGITS            4  0966  B Y91                6  1891
198    955          MCW   CONVTD,COR5                                         7  0970  M N65 O48            6  2565    2648
199    962          A     KP1,TOP5   TOP ADDR + 1 = SIZE                      7  0977  A N66 O53            7  2566    2653
200    969          A     KP1,COR5   COR ADDR + 1 = SIZE                      7  0984  A N66 O48            7  2566    2648
201    976          CS    332                                                 4  0991  / 332                7   332
202    980          CS                                                        1  0995  /                    7
203    981          CC    1                                                   2  0996  F 1                  7
204    983          CS    332                                                 4  0998  / 332                7   332
205    987          CS                                                        1  1002  /                    7
206    988          MCW   STMSG,228  START FORTRAN COMPILATION MSG            7  1003  M N94 228            8  2594     228
207    995          W                                                         1  1010  2                    8
208    996          CC    J                                                   2  1011  F J                  8
209    998          MCW   TOP5,231                                           7  1013  M O53 231            8  2653     231
210  1 005          MCW   SPSIZE     SPECIFIED SIZE                           4  1020  M O20                8  2620
211  1 009          W                                                         1  1024  2                    8
212  1 010          CS    235                                                 4  1025  / 235                8   235
213  1 014          MCW   COR5,228                                            7  1029  M O48 228            9  2648     228
214  1 021          MCW   ACTSIZ     ACTUAL SIZE                              4  1036  M O43                9  2643
215  1 025          BCE   BIGNUF,C1410,T  COMPILING FOR 1410 COMPATIBILITY?  8  1040  B /11 695 T          9  1111     695
216  1 033          W                                                         1  1048  2                    9
217  1 034          C     COR5,TOP5                                           7  1049  C O48 O53            9  2648    2653
218  1 041          BH    PSGTM       PRINT SPEC SIZE GT MACH SIZE            5  1056  B |92 U              9  1092
219  1 046          C     TOP5,K3900  COMPARE TOP TO 3900                     7  1061  C O53 O58            9  2653    2658
220  1 053          BL    BIGNUF                                              5  1068  B /11 T             10  1111
221  1 058          CC    J                                                   2  1073  F J                 10
222  1 060          CS    332                                                 4  1075  / 332               10   332
223  1 064          CS                                                        1  1079  /                   10
224  1 065          MCW   SIZERR,218  MACHINE SIZE ERROR                      7  1080  M O76 218           10  2676     218
225  1 072          W                                                         1  1087  2                   10
226  1 073          B     USEACT                                              4  1088  B /04               10  1104
227  1 077  PSGTM   MCW   SGTM,267  SPEC. SIZE GT MACH. SIZE MSG              7  1092  M P22 267           11  2722     267
228  1 084          MCW   SGTM2     REST OF THE MESSAGE                       4  1099  M P43               11  2743
229  1 088          W                                                         1  1103  2                   11
230  1 089  USEACT  MCW   CORSIZ,TOPCOR  USE ACTUAL SIZE                      7  1104  M N57 688           11  2557     688
231  1 096  BIGNUF  MCW   TOPCOR,CLEARD&3                                     7  1111  M 688 /21           11   688    1121
232           *
233           * CLEAR FROM TOP OF THIS MACHINE'S MEMORY DOWN TO DOWNTO
234           *
235  1 103  CLEARD  CS    0-0                                                 4  1118  / 000               11   000
236  1 107          SBR   CLEARD&3                                            4  1122  H /21               11  1121
237  1 111          C     CLEARD&3,DOWNTO                                     7  1126  C /21 P46           12  1121    2746
238  1 118          BU    CLEARD                                              5  1133  B /18 /             12  1118
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

239             JOB   FORTRAN COMPILER -- PHASE 2 -- READ THE PROGRAM
240         *
241         * READ THE PROGRAM INTO CORE.
242         *
243  1 123          R                                                      1  1138  1                    12
244  1 124          MZ    *-6,AZONE  SET A ZONE AFTER CARD STORAGE AREA    7  1139  Y /39 N01            12  1139    2501
245  1 131          MZ    *-6,INTRST&7   SET A ZONE IN BCE D-MODIFIER       7  1146  Y /46 X22            12  1146    1722
246  1 138          MZ    *-6,BLNKOK&7     ,,                             7  1153  Y /53 Z95            12  1153    1995
247  1 145          MZ    *-6,INTCHR-1   ADD A ZONE TO INTERESTING CHARS    7  1160  Y /60 L85            13  1160    2385
248  1 152          MCW   PREFIX,CARD1-1  SET DEFAULT PREFIX               7  1167  M N33 M28            13  2533    2428
249  1 159          MCW   TOPCOR,*&4                                       7  1174  M 688 /84            13   688    1184
250  1 166          CW    0-0                                              4  1181  ) 000                13   000
251  1 170          SBR   MVCHAR&6                                        4  1185  H T85                13  1385
252         *
253         * PROCESS NEXT CARD
254         *
255  1 174  RDLOOP BW    MOVECD,FLAG                                      8  1189  V S26 Q28 1          13  1226    2828
256  1 182          BCE   DONE,1,:                                         8  1197  B !85 001 :          14  2085     001
257         *
258         * NO SYSTEM AFTER END CARD
259         *
260  1 190  NOSYS  CC    1                                                2  1205  F 1                  14
261  1 192          CS    332                                              4  1207  / 332                14   332
262  1 196          CS                                                     1  1211  /                    14
263  1 197          MCW   MSG1,270                                         7  1212  M P87 270            14  2787     270
264  1 204          W                                                      1  1219  2                    14
265  1 205          CC    1                                                2  1220  F 1                  14
266  1 207  HALT1   H     HALT1                                            4  1222  . S22                15  1222
267         *
268         * MOVE CARD TO SAVE AREA
269         *
270  1 211  MOVECD MCW   72,CARD72  MOVE CARD TO SAVE AREA                 7  1226  M 072 N00            15   072    2500
271  1 218          MCW                                                    1  1233  M                    15
272  1 219          MCW                                                    1  1234  M                    15
273  1 220          BCE   DONE,CARD1,:                                     8  1235  B !85 M29 :          15  2085    2429
274  1 228  C12T   BIN   PRTHDG,  UNCONDITIONAL AT FIRST, BECOMES BCV      5  1243  B K65                15  2265
275  1 233  AFTHDG CS    300                                              4  1248  / 300                15   300
276  1 237          CS                                                     1  1252  /                    16
277  1 238          MCW   72,283   MOVE CARD TO PRINT AREA                 7  1253  M 072 283            16   072     283
278  1 245          MCW   6,215                                            7  1260  M 006 215            16   006     215
279  1 252          BCE   LSTCMT,CARD1,C    PRINT NOW IF COMMENT           8  1267  B L56 M29 C          16  2356    2429
280  1 260  CRD1SW B     NOTCNT  BECOMES NOP AFTER FIRST CARD               4  1275  B V61                16  1561
281  1 264          BCE   NOTCNT,CARD6,0                                   8  1279  B V61 M34 0          16  1561    2434
282  1 272          BCE   NOTCNT,CARD6,                                    8  1287  B V61 M34            17  1561    2434
283         *
284         * CONTINUATION CARD
285         *
286  1 280          A     KP1,CNTCNT        BUMP CONTINUATION COUNT        7  1295  A N66 Q24            17  2566    2824
287  1 287          BCE   CNTOK,CNTCNT-1,0  NINE OR FEWER?                 8  1302  B T17 Q23 0          17  1317    2823
288  1 295          MCW   CNTMSG,300        PUT ERROR MSG IN PRINT AREA    7  1310  M Q02 300            17  2802     300
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SEQ PG LIN  LABEL  OP    OPERANDS                                        SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

289  1 302  CNTOK  W               LIST THE CARD                          1  1317  2                  17
290  1 303         MCW   CARD7A,SVCHAR&3   SET SAVE CHAR ADDR TO COL 7    7  1318  M N06 T28          17  2506    1328
291         *
292         * PROCESS THE CARD (NOTCNT COMES BACK HERE)
293         *
294  1 310  SVCHAR MCW   0-0,CHAR          SAVE A CHARACTER               7  1325  M 000 Q31          18   000    2831
295  1 317         SW    SVCHAR&1                                        4  1332  , T26              18  1326
296  1 321         A     K1,SVCHAR&3       BUMP ADDR OF CHAR TO SAVE     7  1336  A N10 T28          18  2510    1328
297  1 328         CW    SVCHAR&1                                        4  1343  ) T26              18  1326
298  1 332  CRD2SW NOP   BLNKOK           BRANCH IF COPYING EVERYTHING   4  1347  N Z88              18  1988
299  1 336         BCE   SVCHAR,CHAR,      SKIP BLANKS                   8  1351  B T25 Q31          18  1325    2831
300  1 344         MCW   CHAR,*&8                                        7  1359  M Q31 T73          19  2831    1373
301  1 351         BCE   INTRST,INTCHR,0                                 8  1366  B X15 L86 0        19  1715    2386
302               CHAIN 5                                                                 MACRO
303               BCE                                                   1  1374  B                  GEN     19
304               BCE                                                   1  1375  B                  GEN     19
305               BCE                                                   1  1376  B                  GEN     19
306               BCE                                                   1  1377  B                  GEN     19
307               BCE                                                   1  1378  B                  GEN     19
308  1 364  MVCHAR MCW   CHAR,0                                          7  1379  M Q31 000          20  2831     000
309  1 371         SBR   MVCHAR&6                                        4  1386  H T85              20  1385
310  1 375  BUMPNS A     KP1,NCHAR        BUMP CHARACTER COUNTER        7  1390  A N66 Q07          20  2566    2807
311  1 382         C     MVCHAR&6,BOTCOR  CORE FULL OF SOURCE CODE?     7  1397  C T85 Q10          20  1385    2810
312  1 389         BE    BIGSRC                                          5  1404  B K31 S            20  2231
313  1 394  CRD3SW BCE   HOLLER,CHAR,H                                   8  1409  B X66 Q31 H        20  1766    2831
314  1 402  CRD4SW NOP   BRANCH,CRD3SW                                   7  1417  N Q11 U09          21  2811    1409
315         *
316  1 409  TEST7  C     SVCHAR&3,CARD7A  AT COLUMN 7?                  7  1424  C T28 N06          21  1328    2506
317  1 416  CRD5SW BU    SVCHAR                                          5  1431  B T25 /            21  1325
318  1 421         SW    MVCHAR&4                                        4  1436  , T83              21  1383
319  1 425  CRD6SW MCW   MVCHAR&6,X2                                     7  1440  M T85 094          21  1385     094
320  1 432         CW    MVCHAR&4                                        4  1447  ) T83              21  1383
321  1 436         MCW   NOP2,CRD6SW                                    7  1451  M N28 U40          22  2528    1440
322  1 443         MCW   NOP2,CRD5SW                                    7  1458  M N28 U31          22  2528    1431
323  1 450         A     K10,COLCNT                                      7  1465  A N36 N03          22  2536    2503
324  1 457         BCE   COL3,COLCNT-1,5    THREE COLUMNS DONE?          8  1472  B W84 N02 5        22  1684    2502
325  1 465         SW    FLAG                                            4  1480  , Q28              22  2828
326  1 469         BWZ   SVCHAR,COLCNT-1,2  MORE THAN SEVEN COLUMNS DONE? 8  1484  V T25 N02 2        23  1325    2502
327  1 477         MCW   BRNCH2,CRD5SW                                   7  1492  M N11 U31          23  2511    1431
328  1 484         MCW   0&X2,WORK7                                      7  1499  M 0!0 N20          23   000+2  2520
329  1 491         C     KFMT,WORK7  FORMAT% ?                           7  1506  C N27 N20          23  2527    2520
330  1 498         BU    SVCHAR                                          5  1513  B T25 /            23  1325
331         *
332         * PROCESS A FORMAT STATEMENT
333         *
334  1 503         MCW   BRANCH,CRD3SW                                   7  1518  M Q11 U09          24  2811    1409
335  1 510         MCW   0&X3,WORK6                                      7  1525  M 0?0 Q17          24   000+3  2817
336  1 517         MCW   KF,WORK6-3                                     7  1532  M Q18 Q14          24  2818    2814
337  1 524         MCW   WORK6,0&X3                                     7  1539  M Q17 0?0          24  2817     000+3
338  1 531         B     SVCHAR                                          4  1546  B T25              24  1325
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

339         *
340         * TAPE BLOCK IS TOO BIG FOR CHM TAU EMULATOR
341         *
342         END1    DCW   @}@                                                1  1550              GMARK   24
343                 XFR   LOADNX         LOAD THIS                                    B 700              24   700
344         PART2   LDPH  ,SLASH,BEGIN1,,,2.2  LOAD PART2 AND START IN PART 1                          MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                         GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                                             GEN
            *                                                                                         GEN
            * LOAD A BLOCK                                                                           GEN
            *                                                                                         GEN
345         )6K003 EQU   700  LOAD NEXT PHASE                                    0700              GEN
346         )6L003 EQU   704  TAPE READ INSTRUCTION                              0704              GEN
347         )6M003 EQU   728  TAPE ERROR HANDLER                                 0728              GEN
            *                                                                                         GEN
348                 ORG   201                                                          0201
349         PART2   BSS   )8J003,G                                               5  0201  B 250 G     GEN     25   250
350                 NOP     TO PATCH IN TRAPS FOR DEBUGGING                      1  0206  N           GEN     25
351         )0J003 EQU   *&1                                                        0207              GEN
352                 BCE   )1J003,)6K003,1    Q: LOADING FROM CARDS?              8  0207  B 243 700 1 GEN     25   243     700
353                 BCE   )1J003,)6L003&4,0  Q: LOADING FROM AUTOCODER TAPE?      8  0215  B 243 708 0 GEN     25   243     708
354                 RTW   1,SLASH          READ THE BLOCK                        8  0223  L %U1 V50 R GEN     25   %U1    1550
355                 BER   )6M003            Q: TAPE ERROR?                       5  0231  B 728 L     GEN     25   728
356                 CS    BEGIN1,)9R003     ENTER THE BLOCK                      7  0236  / 872 270   GEN     26   872     270
357         )1J003 CS    )6K003,)9R003     LOAD CARDS OR AUTOCODER TAPE         7  0243  / 700 270   GEN     26   700     270
358         )8J003 SW    )9R003                                                 4  0250  , 270       GEN     26   270
359                 MU    %T0,)8K003,W                                         8  0254  M %T0 266 W GEN     26   %T0     266
360                 H     )0J003                                               4  0262  . 207       GEN     26   207
361         )8K003 EQU   *&1                                                        0266              GEN
362                 DCW   #1                                                   1  0266              GEN     26
363                 DC    @2.2@          PHASE NUMBER                          3  0269              GEN     26
364         )9R003 DCW   @}@                                                   1  0270              GEN     26
365                 XFR   PART2                                                      B 201              26   201
366                 ORG   END1                                                        1550
367         *
368  1 535  SLASH  MCW   KAT,CHAR   CONVERT SLASH TO AT-SIGN                    7  1550  M Q19 Q31           27  2819    2831
369  1 542         B     MVCHAR                                                 4  1557  B T79               27  1379
370         *
371         * NOT A CONTINUATION CARD
372         *
373  1 546  NOTCNT MCW   NOP,CRD1SW                                            7  1561  M N49 S75           27  2549    1275
374  1 553         A     KP1,NSTMT                                              7  1568  A N66 Q22           27  2566    2822
375  1 560         MCW   NOP,CRD3SW                                            7  1575  M N49 U09           27  2549    1409
376  1 567         MCW   NOP,CRD4SW                                            7  1582  M N49 U17           27  2549    1417
377  1 574         MCW   5,211      MOVE LABEL TO PRINT AREA                    7  1589  M 005 211           28   005     211
378  1 581         S     CNTCNT     CLEAR CONTINUATION COUNT                    4  1596  S Q24               28  2824
379  1 585         MCW   NOP,CRD2SW                                            7  1600  M N49 T47           28  2549    1347
380  1 592         MCS   NSTMT,203  MOVE STATEMENT COUNT TO PRINT AREA          7  1607  Z Q22 203           28  2822     203
381  1 599         W                                                            1  1614  2                   28
382  1 600         SW    MVCHAR&4                                               4  1615  , T83               28  1383
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

383  1 604          MCW   MVCHAR&6,MVCHR2&6                                   7  1619  M T85 W43           28  1385    1643
384  1 611          CW    MVCHAR&4                                            4  1626  ) T83               29  1383
385  1 615          MCW   MOVE,CRD6SW                                        7  1630  M N37 U40           29  2537    1440
386  1 622  MVCHR2  LCA   GM,0                                               7  1637  L N29 000           29  2529     000
387  1 629          SBR   X3         SAVE ADDRESS OF FIRST CHAR STORED       4  1644  H 099               29   099
388  1 633          SBR   MVCHAR&6                                           4  1648  H T85               29  1385
389  1 637          MCW   COLON,CARD6  COLON AFTER LABEL, IF ANY             7  1652  M N34 M34           29  2534    2434
390  1 644          MCW   BRNCH2,CRD5SW                                      7  1659  M N11 U31           30  2511    1431
391  1 651          MCW   K20,COLCNT   INITIALIZE COLUMN COUNTER             7  1666  M N13 N03           30  2513    2503
392  1 658          MCW   SAVE2A,SVCHAR&3                                    7  1673  M N09 T28           30  2509    1328
393  1 665          B     SVCHAR                                             4  1680  B T25               30  1325
394          *
395  1 669  COL3    C     0&X2,KEND  END CARD?                               7  1684  C 0!0 Q27           30   000+2  2827
396  1 676          BU    SVCHAR                                             5  1691  B T25 /             30  1325
397  1 681          CW    FLAG                                               4  1696  ) Q28               31  2828
398  1 685          B     SVCHAR                                             4  1700  B T25               31  1325
399          *
400  1 689  AT      MCW   KMINUS,CHAR  CONVERT AT SIGN TO MINUS              7  1704  M Q29 Q31           31  2829    2831
401  1 696          B     MVCHAR                                             4  1711  B T79               31  1379
402          *
403          * SAW AN INTERESTING CHARACTER
404          *
405  1 700  INTRST  BCE   TESTLC,CHAR,    TEST FOR A ZONE                    8  1715  B L71 Q31           31  2371    2831
406  1 708          BCE   TESTLC,CHAR,|   RECORD MARK                       8  1723  B L71 Q31 |         31  2371    2831
407  1 716          BCE   SLASH,CHAR,/                                       8  1731  B V50 Q31 /         32  1550    2831
408  1 724          BCE   AT,CHAR,@                                          8  1739  B X04 Q31 @         32  1704    2831
409  1 732          MCW   KSTAR,300                                          7  1747  M Q30 300           32  2830     300
410  1 739          MCW   PROCD                                              4  1754  M N48               32  2548
411  1 743          MCW   CHAR                                               4  1758  M Q31               32  2831
412  1 747          B     MVCHAR                                             4  1762  B T79               32  1379
413          *
414          * CHARACTER IS H, PROBABLY HOLLERITH
415          *
416  1 751  HOLLER  MCW   MVCHAR&6,X1                                        7  1766  M T85 089           33  1385     089
417  1 758          MCW   NOP,CRD3SW                                         7  1773  M N49 U09           33  2549    1409
418  1 765          MCW   NOP,CRD4SW                                         7  1780  M N49 U17           33  2549    1417
419  1 772          MCW   BRANCH,CRD2SW                                      7  1787  M Q11 T47           33  2811    1347
420  1 779          MCW   4&X1,HCOUNT  REMEMBER, SOURCE IS STORED BACKWARD   7  1794  M 0|4 Q34           33   004+1  2834
421  1 786          BCE   AT2,HCOUNT-1,@                                     8  1801  B Y17 Q33 @         34  1817    2833
422  1 794          BWZ   NZHM1,HCOUNT-1,2                                   8  1809  V Y32 Q33 2         34  1832    2833
423  1 802  AT2     MCW   HCOUNT-2,HCOUNT  ONE DIGIT OF HOLLERITH COIUNT     7  1817  M Q32 Q34           34  2832    2834
424  1 809          MCW   KZ2                                                4  1824  M Q36               34  2836
425  1 813          B     TEST7                                              4  1828  B U24               34  1424
426          *
427          * NO ZONE AT HCOUNT-1
428          *
429  1 817  NZHM1   BCE   AT3,HCOUNT,@                                       8  1832  B Y48 Q34 @         34  1848    2834
430  1 825          BWZ   NZH,HCOUNT,2                                       8  1840  V Y66 Q34 2         35  1866    2834
431  1 833  AT3     MCW   HCOUNT-2,HCOUNT                                    7  1848  M Q32 Q34           35  2832    2834
432  1 840          MCW   KZ1,HCOUNT-2                                       7  1855  M Q37 Q32           35  2837    2832
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
433  1 847         B     TEST7                                        4  1862  B U24               35  1424
434         *
435         * NO ZONE AT HCOUNT.  REVERSE THE DIGITS
436         *
437  1 851  NZH    MCW   HCOUNT,WORKH1                                7  1866  M Q34 Q38           35  2834    2838
438  1 858         MCW   HCOUNT-2,HCOUNT                             7  1873  M Q32 Q34           36  2832    2834
439  1 865         MCW   WORKH1,HCOUNT-2                             7  1880  M Q38 Q32           36  2838    2832
440  1 872         B     TEST7                                        4  1887  B U24               36  1424
441         *
442         * CONVERT ADDRESS TO FIVE DIGITS
443         *
444               SFX   C
445  1 876  ADCONV SBR   EXIT&3                                   C   4  1891  H Z87               36  1987
446  1 880         S     CNVW2A                                   C   4  1895  S Q40               36  2840
447  1 884         S     CNVW2B                                   C   4  1899  S Q42               36  2842
448  1 888         MZ    TOCONV,CNVW2A-1                          C   7  1903  Y N60 Q39           36  2560    2839
449  1 895         MZ    TOCONV-2,CNVW2B-1                        C   7  1910  Y N58 Q41           37  2558    2841
450  1 902  LOOP1  BWZ   LOOP2,CNVW2B-1,2                        C   8  1917  V Z36 Q41 2         37  1936    2841
451  1 910         A     CNVKA0,CNVW2B                            C   7  1925  A Q44 Q42           37  2844    2842
452  1 917         B     LOOP1                                    C   4  1932  B Z17               37  1917
453  1 921  LOOP2  BWZ   LP2X,CNVW2A-1,2                         C   8  1936  V Z55 Q39 2         37  1955    2839
454  1 929         A     CNVKQ4,CNVW2A                            C   7  1944  A Q46 Q40           38  2846    2840
455  1 936         B     LOOP2                                    C   4  1951  B Z36               38  1936
456  1 940  LP2X   A     CNVW2B-1,CNVW2A                          C   7  1955  A Q41 Q40           38  2841    2840
457  1 947         MCW   TOCONV,CONVTD                            C   7  1962  M N60 N65           38  2560    2565
458  1 954         MCW   CNVW2A                                   C   4  1969  M Q40               38  2840
459  1 958         ZA    CONVTD                                   C   4  1973  ? N65               38  2565
460  1 962         MZ    *-4,CONVTD  CLEAR ZONE IN OUTPUT         C   7  1977  Y Z79 N65           39  1979    2565
461  1 969  EXIT   B     0-0                                      C   4  1984  B 000               39   000
462               SFX
463         *
464  1 973  BLNKOK BCE   TESTLC,CHAR,   TEST FOR A ZONE              8  1988  B L71 Q31           39  2371    2831
465  1 981         S     KP1,HCOUNT                                   7  1996  S N66 Q34           39  2566    2834
466  1 988         C     HCOUNT,PZE  HOLLERITH COUNT DOWN TO ZERO?    7  2003  C Q34 Q49           39  2834    2849
467  1 995         BU    MVCHAR      NOPE, JUST MOVE THE CHARACTER    5  2010  B T79 /             39  1379
468  2 000         MCW   MOVE2,CRD4SW                               7  2015  M Q50 U17           40  2850    1417
469  2 007         MCW   NOP2,CRD2SW                                7  2022  M N28 T47           40  2528    1347
470  2 014         MCW   SVCHAR&3,X1                                7  2029  M T28 089           40  1328     089
471  2 021         C     0&X1,COMMA                                 7  2036  C 0|0 Q51           40   000+1  2851
472  2 028         BE    MVCHAR                                     5  2043  B T79 S             40  1379
473  2 033         MCW   MVCHAR&6,*&7                              7  2048  M T85 !61           41  1385    2061
474  2 040         MCW   0,0                                       7  2055  M 000 000           41   000     000
475  2 047         MCW   COMMA                                     4  2062  M Q51               41  2851
476  2 051         SBR   MVCHAR&6                                  4  2066  H T85               41  1385
477  2 055         A     KP1,NCHAR                                  7  2070  A N66 Q07           41  2566    2807
478  2 062         B     BUMPNS                                     4  2077  B T90               41  1390
479  2 066         B     MVCHAR                                     4  2081  B T79               41  1379
480         *
481         * FINISHED READING THE SOURCE DECK
482         *
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SEQ PG LIN  LABEL   OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

483  2 070  DONE    MCW   MVCHAR&6,X1                                7  2085  M T85 089           42  1385     089
484  2 077          LCA   GM,0&X1                                    7  2092  L N29 0|0           42  2529     000+1
485  2 084          SBR   X1                                         4  2099  H 089               42   089
486  2 088          CC    1                                          2  2103  F 1                 42
487  2 090          CS    332                                        4  2105  / 332               42   332
488  2 094          CS                                               1  2109  /                   42
489  2 095          MCS   NCHAR,205                                  7  2110  Z Q07 205           42  2807     205
490  2 102          MCW   MSGCHR,222                                 7  2117  M Q67 222           43  2867     222
491  2 109          W                                                1  2124  2                   43
492  2 110          CC    J                                          2  2125  F J                 43
493  2 112          MCW   NSTMT,NSTMTS                               7  2127  M Q22 183           43  2822     183
494  2 119          LCA   STOP,0&X1                                  7  2134  L Q78 0|0           43  2878     000+1
495  2 126          SBR   X1                                         4  2141  H 089               43   089
496  2 130          SW    2&X1                                       4  2145  , 0|2               43   002+1
497  2 134          A     KP1,NSTMTS                                 7  2149  A N66 183           44  2566     183
498  2 141          BCE   NOTBIG,3000,                               8  2156  B J68 ?00           44  2168    3000
499  2 149          B     BIGSRC                                     4  2164  B K31               44  2231
500  2 153  NOTBIG  CS    80         GET                             4  2168  / 080               44   080
501  2 183          SW    1,40         READY                         7  2172  , 001 040           44   001     040
502  2 190          SW    47,54          FOR                         7  2179  , 047 054           44   047     054
503  2 197          SW    61,68            CARD                      7  2186  , 061 068           45   061     068
504  2 204          SW    72                 OVERLAY                 4  2193  , 072               45   072
505  2 167          BSS   SNAPSH,C                                   5  2197  B 333 C             45   333
506  2 208          BCE   CARDS,LOADNX,1  Q: RUNNING FROM CARDS?     8  2202  B K14 700 1         45  2214     700
507            B     LOADNX          NO                              4  2210  B 700               45   700
508  2 216  CARDS   R                                                1  2214  1                   45
509  2 217          C     7,SCANR2                                   7  2215  C 007 Q85           45   007    2885
510  2 224          BE    LOADNX                                     5  2222  B 700 S             46   700
511  2 229          B     NOSYS                                      4  2227  B S05               46  1205
512            *
513            * SOURCE PROGRAM TOO BIG
514            *
515  2 233  BIGSRC  CS    332                                        4  2231  / 332               46   332
516  2 237          CS                                               1  2235  /                   46
517  2 238          CC    1                                          2  2236  F 1                 46
518  2 240          MCW   MSG2,270                                   7  2238  M R21 270           46  2921     270
519  2 247          W                                                1  2245  2                   46
520  2 248          CC    1                                          2  2246  F 1                 47
521  2 250          BCE   HALT2,LOADNX,1  RUNNING FROM CARDS?       8  2248  B K61 700 1         47  2261     700
522  2 258          RWD   1             NO, REWIND THE TAPE          5  2256  U %U1 R             47   %U1
523  2 263  HALT2   H     HALT2                                      4  2261  . K61               47  2261
524            *
525            * PRINT LISTING PAGE HEADING
526            *
527  2 267  PRTHDG  CC    1                                          2  2265  F 1                 47
528  2 269          MCW   KAT,C12T&4  CHANGE TO BCV                  7  2267  M Q19 S47           47  2819    1247
529  2 276          CS    299                                        4  2274  / 299               47   299
530  2 280          A     K1,PAGNUM                                  7  2278  A N10 R24           48  2510    2924
531  2 287          MCS   PAGNUM,299                                 7  2285  Z R24 299           48  2924     299
532  2 294          MCW   KPAGE,295                                  7  2292  M R32 295           48  2932     295
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SEQ PG LIN  LABEL  OP    OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

533  2 301         MCW   80                                          4  2299  M 080               48   080
534  2 305         W                                                 1  2303  2                   48
535  2 306         CS    299                                         4  2304  / 299               48   299
536  2 310         MCW   PAGHDG,234                                  7  2308  M M21 234           48  2421     234
537  2 317         W                                                 1  2315  2                   49
538  2 318         CC    J                                           2  2316  F J                 49
539  2 320         B     AFTHDG                                      4  2318  B S48               49  1248
540         *
541         * NO PARAMETER CARD
542         *
543  2 324  NOPARM CC    1                                           2  2322  F 1                 49
544  2 326         CS    332                                         4  2324  / 332               49   332
545  2 330         CS                                                1  2328  /                   49
546  2 331         MCW   MSG3,270                                    7  2329  M R61 270           49  2961     270
547  2 338         W                                                 1  2336  2                   50
548  2 339         CC    1                                           2  2337  F 1                 50
549  2 341         BCE   HALT3,LOADNX,1  RUNNING FROM CARDS?        8  2339  B L52 700 1         50  2352     700
550  2 349         RWD   1             NO, REWIND THE TAPE         5  2347  U %U1 R             50   %U1
551  2 354  HALT3  H     HALT3                                       4  2352  . L52               50  2352
552         *
553         * LIST COMMENT CARD
554         *
555  2 358  LSTCMT MCW   FINAL,203                                  7  2356  M R64 203           50  2964     203
556  2 365         MCW   5,211                                       7  2363  M 005 211           50   005     211
557  2 372         W                                                 1  2370  2                   51
558  2 373  TESTLC BLC   DONE                                       5  2371  B !85 A             51  2085
559  2 378         R                                                 1  2376  1                   51
560  2 379         B     RDLOOP                                      4  2377  B /89               51  1189
561         *
562  2 388  INTCHR DCW   @$@/|  @  INTERESTING CHARACTERS           6  2386                      51
563  2 423  PAGHDG DCW   @ SEQ   STMNT      FORTRAN STATEMENT@     35  2421                      52
564         *
565         * CARD SAVE AREA
566         *
567               ORG   2424  SAME AS MOKOTOFF V3M0 LINE 531                 2424
568               DA    1X78                                          2424  2501                52
569         SAVE2       2                                           2425            SBFLD
570         CARD1       6                                           2429            SBFLD
571         CARD6       11                                          2434            SBFLD
572         CARD7       12                                          2435            SBFLD
573         CARD72      77                                          2500            SBFLD
574         AZONE       78                                          2501            SBFLD
575         *
576         * CONSTANTS AND WORK AREAS
577         *
578  2 503  COLCNT DCW   #2                                          2  2503                      53
579  2 506  CARD7A DSA   CARD7  ADDRESS OF COLUMN 7 IN SAVE AREA     3  2506  M35                 53  2435
580  2 509  SAVE2A DSA   SAVE2                                       3  2509  M25                 53  2425
581  2 510  K1     DCW   1                                           1  2510                      53
582  2 511  BRNCH2 B                                                 1  2511  B                   53
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SEQ PG LIN  LABEL  OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR
583  2 513  K20    DC    20                                                  2  2513                      53
584  2 520  WORK7  DCW   #7                                                  7  2520                      53
585  2 527  KFMT   DCW   @%TAMROF@  'FORMAT%' SPELLED BACKWARD               7  2527                      53
586  2 528  NOP2   DC    @N@                                                 1  2528                      53
587  2 529  GM     DC    @}@                                                 1  2529             GMARK    53
588  2 533  PREFIX DCW   @000R@     DEFAULT STATEMENT PREFIX -- ARITHMETIC   4  2533                      54
589  2 534  COLON  DCW   @:@                                                 1  2534                      54
590  2 536  K10    DCW   10                                                  2  2536                      54
591  2 537  MOVE   DC    @M@                                                 1  2537                      54
592  2 548  PROCD  DCW   @ PROCESSED @                                      11  2548                      54
593  2 549  NOP    NOP                                                       1  2549  N                   54
594  2 554  KPARAM DCW   @PARAM@                                            5  2554                      54
595  2 557  CORSIZ DCW   #3         ACTUAL MACHINE SIZE (TOP ADDR)          3  2557                      54
596  2 560  TOCONV DCW   #3         ADDRESS TO BE CONVERTED TO FIVE DIGITS  3  2560                      55
597  2 565  CONVTD DCW   #5         ADDRESS CONVERTED TO FIVE DIGITS        5  2565                      55
598  2 566  KP1    DCW   &1                                                  1  2566                      55
599  2 594  STMSG  DCW   @START OF FORTRAN COMPILATION@                     28  2594                      55
600  2 620  SPSIZE DCW   @MACHINE SIZE SPECIFIED IS @                      26  2620                      56
601  2 643  ACTSIZ DCW   @ACTUAL MACHINE SIZE IS @                         23  2643                      57
602  2 648  COR5   DCW   #5         CORSIZ AS FIVE DIGITS                   5  2648                      57
603  2 653  TOP5   DCW   #5         TOPCOR AS FIVE DIGITS                   5  2653                      57
604  2 658  K3900  DCW   03900                                              5  2658                      57
605  2 676  SIZERR DCW   @MACHINE SIZE ERROR@                              18  2676                      58
606  2 722  SGTM   DCW   @SPECIFIED IS GREATER THAN ACTUAL MACHINE SIZE.@  46  2722                      60
607  2 743  SGTM2  DCW   @ERROR - MACHINE SIZE @                           21  2743                      60
608  2 746  DOWNTO DSA   2999                                               3  2746  R99                 60  2999
609  2 787  MSG1   DCW   @MESSAGE 1-SYSTEM DOES NOT FOLLOW END CARD@       41  2787                      62
610  2 802  CNTMSG DCW   @CONTINUE CD ERR@                                 15  2802                      62
611  2 807  NCHAR  DCW   #5         NUMBER OF CHARACTERS                    5  2807                      62
612  2 810  BOTCOR DSA   3000       BOTTOM OF SPACE TO STORE PROGRAM        3  2810  ?00                 62  3000
613  2 811  BRANCH DCW   @B@                                                1  2811                      62
614  2 817  WORK6  DCW   #6                                                 6  2817                      63
615  2 818  KF     DCW   @F@                                                1  2818                      63
616  2 819  KAT    DCW   @@@                                                1  2819                      63
617  2 822  NSTMT  DCW   #3         NUMBER OF STATEMENTS                    3  2822                      63
618  2 824  CNTCNT DCW   #2         COUNT OF CONTINUATION CARDS             2  2824                      63
619  2 827  KEND   DCW   @DNE@      END SPELLED BACKWARD                    3  2827                      63
620  2 828  FLAG   DCW   #1         WORD MARK IS A FLAG                     1  2828                      63
621  2 829  KMINUS DCW   @-@                                                1  2829                      64
622  2 830  KSTAR  DCW   @*@                                                1  2830                      64
623  2 831  CHAR   DCW   #1         CHARACTER FROM INPUT                    1  2831                      64
624  2 834  HCOUNT DCW   #3         HOLLERITH COUNT                         3  2834                      64
625  2 836  KZ2    DCW   00         TWO ZEROS                               2  2836                      64
626  2 837  KZ1    DCW   0                                                  1  2837                      64
627  2 838  WORKH1 DCW   #1         WORK SPACE FOR HOLLERITH COUNT          1  2838                      64
628  2 840  CNVW2A DCW   #2         WORK SPACE FOR ADDRESS CONVERSION       2  2840                      65
629  2 842  CNVW2B DCW   #2         WORK SPACE FOR ADDRESS CONVERSION       2  2842                      65
630  2 844  CNVKA0 DCW   @A0@        CONSTANT FOR ADDRESS CONVERSION        2  2844                      65
631  2 846  CNVKQ4 DCW   @?4@        CONSTANT FOR ADDRESS CONVERSION        2  2846                      65
632  2 849  PZE    DCW   &000       PLUS ZERO                               3  2849                      65
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

633  2 850  MOVE2   MCW                                                       1  2850  M                  65
634  2 851  COMMA   DCW   @,@                                                 1  2851                     65
635  2 867  MSGCHR DCW   @INPUT CHARACTERS@                                  16  2867                     66
636  2 878  STOP    DCW   @ }POTS:R000@  STOP SPELLED BACKWARD, ETC.         11  2878                     66
637  2 892  SCANR2 DCW   @SCANNER@                                            7  2885                     66
638  2 928  MSG2    DCW   @MESSAGE 2 - OBJECT PROGRAM TOO LARGE@             36  2921                     67
639  2 931  PAGNUM DCW   #3                                                   3  2924                     67
640  2 939  KPAGE   DCW   @   PAGE @                                         8  2932                     68
641  2 968  MSG3    DCW   @MESSAGE 3 - NO PARAMETER CARD@                    29  2961                     68
642  2 971  FINAL   DCW   #3                                                  3  2964                     69
643             ORG   2999  MOKOTOFF V3M0.LST LINE 606                            2999
644 *2 999  SYSGM   DCW   @}@                                                 1  2999             GMARK   70
645             XFR   BEGIN1                                                      B 872                70   872
646         *
647         * SCANNER NEEDS THESE TO FIND THE END OF THE PROGRAM WHEN
648         * LOADING FROM CARDS.
649         *
650         110     DCW   @:@                                                 1  0110                     71
651         110     DCW   @SCANNER@                                           7  0110                     72
652         *
653         * GENERATE THE BLOCK TO CLEAR PHASES 1 AND 2
654         *
655         CLR12   CLRA  BEGIN1,SYSGM                                                    MACRO
            *       CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                   GEN
            *                                                                             GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                           GEN
            *                                                                             GEN
656             ORG   201                                                         0201
            *                                                                             GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                     GEN
            *                                                                             GEN
657         CLR12   EQU   *&1                                                     0201    GEN
658         )0J004 CS     SYSGM         CLEAR FROM CLRTOP                     4  0201  / R99       GEN     73  2999
659             SBR   )0J004&3                                                  4  0205  H 204       GEN     73   204
660             SBR   )0L004&6                                                  4  0209  H 250       GEN     73   250
661             C     )0J004&3,)0M004   DOWN TO CLRBOT & X00?                  7  0213  C 204 261   GEN     73   204     261
662             BU    )0J004                                                    5  0220  B 201 /     GEN     73   201
            *                                                                             GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                       GEN
            *                                                                             GEN
663         )0K004 C      )0L004&6,)0N004                                       7  0225  C 250 264   GEN     73   250     264
664             BU    )0L004                                                    5  0232  B 244 /     GEN     73   244
665             CS    LOADNX,)0Q004  LOAD THE NEXT BLOCK AT 1                   7  0237  / 700 271   GEN     74   700     271
666         )0L004 LCA    )0P004,0-0     CLEAR WITH BLANK AND WORD MARK        7  0244  L 265 000   GEN     74   265     000
667             SBR   )0L004&6                                                  4  0251  H 250       GEN     74   250
668             B     )0K004                                                    4  0255  B 225       GEN     74   225
669         )0M004 DSA    )0R004         CLRBOT & X00 - 1                     3  0261  899         GEN     74   899
670         )0N004 DSA    BEGIN1         CLRBOT                               3  0264  872         GEN     74   872
671         )0P004 DCW    #1                                                  1  0265              GEN     74
672             DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP           5  0270              GEN     74
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SEQ PG LIN  LABEL   OP    OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

673         )0Q004 DCW   @}@                                           1  0271             GEN     75
674                ORG   BEGIN1&X00                                          0900
675         )0R004 EQU   *           CLRBOT & X00 - 1                     0899             GEN
676                XFR   CLR12                                                B 201             75   201
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J001	0207: 0	)0J003	0207: 0	)0J004	0201: 0	)0K004	0225: 0	)0L004	0244: 0	)0M004	0261: 0
)0N004	0264: 0	)0P004	0265: 0	)0Q004	0271: 0	)0R004	0899: 0	)1J001	0250: 0	)1J003	0243: 0
)6J001	0110: 0	)6K001	0700: 0	)6K003	0700: 0	)6L001	0704: 0	)6L003	0704: 0	)6M001	0728: 0
)6M003	0728: 0	)8J001	0257: 0	)8J003	0250: 0	)8K001	0273: 0	)8K003	0266: 0	)9J001	0278: 0
)9R001	0283: 0	)9R003	0270: 0	ACTSIZ	2643: 0	ADCONV	1891: 0	AFTHDG	1248: 0	AT	1704: 0
AT2	1817: 0	AT3	1848: 0	AZONE	2501: 0	BEGIN1	0872: 0	BIGNUF	1111: 0	BIGSRC	2231: 0
BLNKOK	1988: 0	BOTCOR	2810: 0	BRANCH	2811: 0	BRNCH2	2511: 0	BUMPNS	1390: 0	C12T	1243: 0
C1410	0695: 0	CARD1	2429: 0	CARD6	2434: 0	CARD7	2435: 0	CARD72	2500: 0	CARD7A	2506: 0
CARDS	2214: 0	CDOVLY	0700: 0	CHAR	2831: 0	CLEARD	1118: 0	CLR12	0201: 0	CNTCNT	2824: 0
CNTMSG	2802: 0	CNTOK	1317: 0	CNVKA0	2844: 0	CNVKQ4	2846: 0	CNVW2A	2840: 0	CNVW2B	2842: 0
COL3	1684: 0	COLCNT	2503: 0	COLON	2534: 0	COMMA	2851: 0	CONDNS	0693: 0	CONVTD	2565: 0
COR5	2648: 0	CORSIZ	2557: 0	CRD1SW	1275: 0	CRD2SW	1347: 0	CRD3SW	1409: 0	CRD4SW	1417: 0
CRD5SW	1431: 0	CRD6SW	1440: 0	DONE	2085: 0	DOWNTO	2746: 0	END1	1550: 0	EXIT C	1984: 0
FINAL	2964: 0	FLAG	2828: 0	FMTSW	0696: 0	GM	2529: 0	HALT1	1222: 0	HALT2	2261: 0
HALT3	2352: 0	HCOUNT	2834: 0	HOLLER	1766: 0	IMOD	0690: 0	INTCHR	2386: 0	INTRST	1715: 0
K1	2510: 0	K10	2536: 0	K20	2513: 0	K3900	2658: 0	KAT	2819: 0	KEND	2827: 0
KF	2818: 0	KFMT	2527: 0	KMINUS	2829: 0	KP1	2566: 0	KPAGE	2932: 0	KPARAM	2554: 0
KSTAR	2830: 0	KZ1	2837: 0	KZ2	2836: 0	LOADNX	0700: 0	LOOP1C	1917: 0	LOOP2C	1936: 0
LP2X C	1955: 0	LSTCMT	2356: 0	MANTIS	0692: 0	MOVE	2537: 0	MOVE2	2850: 0	MOVECD	1226: 0
MSG1	2787: 0	MSG2	2921: 0	MSG3	2961: 0	MSGCHR	2867: 0	MVCHAR	1379: 0	MVCHR2	1637: 0
NCHAR	2807: 0	NOP	2549: 0	NOP2	2528: 0	NOPARM	2322: 0	NOSYS	1205: 0	NOTBIG	2168: 0
NOTCNT	1561: 0	NSTMT	2822: 0	NSTMTS	0183: 0	NZH	1866: 0	NZHM1	1832: 0	PAGHDG	2421: 0
PAGNUM	2924: 0	PARAM	0699: 0	PART2	0201: 0	PHAS1	0201: 0	PHASLD	0381: 0	PREFIX	2533: 0
PROCD	2548: 0	PRTHDG	2265: 0	PSGTM	1092: 0	PWORD	0685: 0	PZE	2849: 0	RDLOOP	1189: 0
SAVE2	2425: 0	SAVE2A	2509: 0	SCANR2	2885: 0	SGTM	2722: 0	SGTM2	2743: 0	SIZERR	2676: 0
SLASH	1550: 0	SNAPEX	0564: 0	SNAPSH	0333: 0	SNAPSW	0694: 0	SPSIZE	2620: 0	STMSG	2594: 0
STOP	2878: 0	SVCHAR	1325: 0	SYSGM	2999: 0	TEST7	1424: 0	TESTLC	2371: 0	TOCONV	2560: 0
TOP5	2653: 0	TOPCOR	0688: 0	TPERR	0728: 0	TPREAD	0704: 0	USEACT	1104: 0	WORK6	2817: 0
WORK7	2520: 0	WORKH1	2838: 0	X1	0089: 0	X2	0094: 0	X3	0099: 0		

UNREFERENCED SYMBOLS

CDOVLY CONDNS FMTSW IMOD MANTIS PHASLD SNAPEX SNAPSW TPERR TPREAD