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

101               JOB   FORTRAN COMPILER -- SNAPSHOT -- PHASE 53S
102               CTL   6611
103         *
104         * SAME AS SNAPSHOT IN PHASE 00, EXCEPT THERE'S A GMWM AT THE END
105         * OF EXECUTED IN THE LAST DATA OBJECT.
106         *
107         X1     EQU   89                                                      0089
108         X2     EQU   94                                                      0094
109         X3     EQU   99                                                      0099
110         *
111         * STUFF IN THE RESIDENT AREA
112         *
113         PHASID EQU   110                                                     0110
114         TOPCOR EQU   688  TOP CORE ADDRESS FROM PARAM CARD                   0688
115         *
116               EXT00   SNAPSH, LOADNX, CDOVLY                                          MACRO
117         SNAPSH EQU   333                                                     0333      GEN
118         PHASLD EQU   381                                                     0381      GEN
119         SNAPEX EQU   564                                                     0564      GEN
120         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                         0700      GEN
121         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE         0700      GEN
122         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                          0704      GEN
123         TPERR  EQU   728                                                     0728      GEN
124         *
125               XT52B   STUFF IN PHASE 52BC                                           MACRO
126         BEG52C EQU   934   RELOCATION TAG FROM SW INSTRUCTION               0934      GEN
127         CLR52C EQU   1696                                                    1696      GEN
128         *
129         * ALL WE DO HERE IS CLEAR 52C BECAUSE THE RELOCATABLE LIBRARY COMES
130         * IMMEDIATELY AFTER IT, THEN RELOAD THE SNAPSHOT PHASE, THEN LOAD
131         * THE NEXT PHASE.
132         *
133         CLR52  CLRA  BEG52C,CLR52C                                                 MACRO
            *      CLRA  CLRBOT,CLRTOP[,ORG,GMWMAD]                                   GEN
            *                                                                         GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                       GEN
            *                                                                         GEN
134               ORG   201                                                  0201
            *                                                                         GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                 GEN
            *                                                                         GEN
135         CLR52  EQU   *&1                                                     0201      GEN
136         )0J003 CS    CLR52C         CLEAR FROM CLRTOP                  4  0201  / W96       GEN      1  1696
137               SBR   )0J003&3                                            4  0205  H 204       GEN      1   204
138               SBR   )0L003&6                                            4  0209  H 250       GEN      1   250
139               C     )0J003&3,)0M003   DOWN TO CLRBOT & X00?             7  0213  C 204 261   GEN      1   204     261
140               BU    )0J003                                              5  0220  B 201 /     GEN      1   201
            *                                                                         GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                  GEN
            *                                                                         GEN
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SEQ PG LIN  LABEL   OP    OPERANDS                                          SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

141         )0K003  C     )0L003&6,)0N003                                     7  0225  C 250 264   GEN      1   250     264
142                 BU    )0L003                                              5  0232  B 244 /     GEN      1   244
143                 CS    LOADNX,)0Q003  LOAD THE NEXT BLOCK AT 1            7  0237  / 700 271   GEN      2   700     271
144         )0L003  LCA   )0P003,0-0     CLEAR WITH BLANK AND WORD MARK      7  0244  L 265 000   GEN      2   265     000
145                 SBR   )0L003&6                                            4  0251  H 250       GEN      2   250
146                 B     )0K003                                              4  0255  B 225       GEN      2   225
147         )0M003  DSA   )0R003         CLRBOT & X00 - 1                    3  0261  999         GEN      2   999
148         )0N003  DSA   BEG52C         CLRBOT                              3  0264  934         GEN      2   934
149         )0P003  DCW   #1                                                  1  0265              GEN      2
150                 DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP       5  0270              GEN      2
151         )0Q003  DCW   @}@                                                 1  0271              GEN      3
152                 ORG   BEG52C&X00                                                  1000
153         )0R003  EQU   *           CLRBOT & X00 - 1                            0999              GEN
154                 XFR   CLR52                                                       B 201                4   201
155         *
156         PHS53S  LDPH  SNAPSHOT,SNAPSH,LOADNX,,,53S                                                  MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]                           GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                                               GEN
            *                                                                                          GEN
            * LOAD A BLOCK                                                                             GEN
            *                                                                                          GEN
157         )6J004  EQU   110  PHASE ID                                            0110              GEN
158         )6K004  EQU   700  LOAD NEXT PHASE                                     0700              GEN
159         )6L004  EQU   704  TAPE READ INSTRUCTION                               0704              GEN
160         )6M004  EQU   728  TAPE ERROR HANDLER                                  0728              GEN
            *                                                                                          GEN
161                 ORG   201                                                         0201
162         PHS53S  EQU   *&1                                                       0201              GEN
163                 LCA   )9J004,)6J004                                         7   0201  L 251 110   GEN      5   251     110
164                 BCE   )6K004,)6K004,1      Q: LOADING FROM CARDS?           8   0208  B 700 700 1 GEN      5   700     700
165                 BCE   )6K004,)6L004&4,0    Q: LOADING FROM AUTOCODER TAPE?  8   0216  B 700 708 0 GEN      5   700     708
166                 RTW   1,SNAPSH             READ THE BLOCK                   8   0224  L %U1 333 R GEN      5   %U1     333
167                 BER   )6M004               Q: TAPE ERROR?                   5   0232  B 728 L     GEN      5   728
168                 CS    LOADNX,)9R004        ENTER THE BLOCK                  7   0237  / 700 256   GEN      6   700     256
169         )9J004  DCW   @SNAPSHOT@          PHASE ID                         8   0251              GEN      6
170                 DC    #1                                                    1   0252              GEN      6
171                 DC    @53S@          PHASE NUMBER                           3   0255              GEN      6
172         )9R004  DCW   @}@                                                   1   0256              GEN      6
173                 XFR   PHS53S                                                      B 201                7   201
174         *
175                 ORG   333                                                         0333
176     333 MYSNAP  SBR   EXIT&3  SAME AS SNAPSH                                 4   0333  H 567               8   567
177     337         SBR   SXX&6                                                 4   0337  H 408               8   408
178     341         MCW   KZ3,ADR5-2  START FIVE-DIGIT ADDRESS AT ZERO         7   0341  M 661 656           8   661     656
179     348         MCW   X3,SX3&6                                            7   0348  M 099 415           8   099     415
180     355         MCW   X1,SX1&6                                            7   0355  M 089 422           8   089     422
181     362         SBR   X1,1                                                7   0362  H 089 001           8   089     001
182     369         SBR   X3,202                                              7   0369  H 099 202           9   099     202
183     376         CS    332                                                 4   0376  / 332               9   332
184     380         CS                                                        1   0380  /                   9
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SEQ PG LIN  LABEL  OP   OPERANDS                                    SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

185    381         MCW  PHASID,210                                     7  0381  M 110 210           9   110     210
186    388         BSS  SKIP,F                                        5  0388  B 621 F             9   621
187         *
188         * PRINT A HEADER
189         *
190    393         CC   1                                            2  0393  F 1                 9
191    395         MCW  X2,250                                       7  0395  M 094 250           9   094     250
192    402  SXX    SBR  216,0       RETURN ADDRESS WAS STORED IN B   7  0402  H 216 000          10   216     000
193    409  SX3    SBR  256,0       X3 WAS STORED IN B               7  0409  H 256 000          10   256     000
194    416  SX1    SBR  244,0       X1 WAS STORED IN B               7  0416  H 244 000          10   244     000
195    423         W                                                 1  0423  2                  10
196    424         CC   K                                            2  0424  F K                10
197    426         ZA   KP2,W2A                                      7  0426  ? 662 664          10   662     664
198    433  CLEARH CS   332                                          4  0433  / 332              10   332
199    437         CS                                                1  0437  /                  11
200    438         CC   J                                            2  0438  F J                11
201    440         MCW  ADR5,306    FIVE-DIGIT ADDRESS               7  0440  M 658 306          11   658     306
202    447         MCW                                               1  0447  M                  11
203    448         SBR  LOOP&6                                       4  0448  H 465              11   465
204    452         MCW  K9,W2B-1                                     7  0452  M 665 668          11   665     668
205    459  LOOP   MCW  W2B-1,000                                    7  0459  M 668 000          11   668     000
206    466         MCW  DOTS                                         4  0466  M 651              12   651
207    470         SBR  LOOP&6                                       4  0470  H 465              12   465
208    474         A    KM10,W2B    ADD I0 = -10                     7  0474  A 667 669          12   667     669
209    481         BWZ  LOOP,W2B-1,2  NO ZONE IN COUNTER HIGH DIGIT? 8  0481  V 459 668 2        12   459     668
210    489         A    KP1,ADR5-2  BUMP HUNDREDS DIGIT OF ADDRESS    7  0489  A 670 656          12   670     656
211    496         W                                                 1  0496  2                  12
212    497  GET    SW   0&X3        MOVE DATA AND WM TO PRINT AREA   4  0497  , 0?0              12   000+3
213    501         MCW  0&X1,0&X3                                    7  0501  M 0|0 0?0          13   000+1   000+3
214    508         BW   DOWM,0&X1   SKIP CLEARING PRINT AREA WM      8  0508  V 520 0|0 1        13   520     000+1
215    516         CW   0&X3                                         4  0516  ) 0?0              13   000+3
216    520  DOWM   C    X1,TOPCOR  DONE?                            7  0520  C 089 688          13   089     688
217    527         BU   CONT        NO                              5  0527  B 568 /            13   568
218    532         W                                                 1  0532  2                  13
219    533         WM                                                2  0533  2 )                13
220    535  RX1    MCW  SX1&6,X1   RESTORE INDEX REGS                 7  0535  M 422 089          14   422     089
221    542         MCW  SX3&6,X3                                     7  0542  M 415 099          14   415     099
222    549         CS   332                                          4  0549  / 332              14   332
223    553         CS                                                1  0553  /                  14
224    554         BSS  HALT,G                                       5  0554  B 563 G            14   563
225    559         B    EXIT                                         4  0559  B 564              14   564
226    563  HALT   H                                                 1  0563  .                  14
227    564  EXIT   B    0-0                                          4  0564  B 000              15   000
228    568  CONT   SBR  X1,1&X1                                      7  0568  H 089 0|1          15   089     001+1
229    575         BCE  BUMP3,X3-2,2                                 8  0575  B 632 097 2        15   632     097
230    583         SBR  X3,201                                       7  0583  H 099 201          15   099     201
231    590         W                                                 1  0590  2                  15
232    591         WM                                                2  0591  2 )                15
233    593         A    KP1,W2A                                      7  0593  A 670 664          15   670     664
234    600         C    W2A,KP15                                     7  0600  C 664 672          16   664     672
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SEQ PG LIN  LABEL  OP   OPERANDS                                  SFX CT  LOCN  INSTRUCTION TYPE  CARD A-ADDR  B-ADDR

235    607         BU   CLEARH                                      5  0607  B 433 /             16   433
236    612         S    W2A                                         4  0612  S 664               16   664
237    616         CCB  CLEARH,1                                    5  0616  F 433 1             16   433
238    621  SKIP   MCW  XQTD,220                                    7  0621  M 680 220           16   680     220
239    628         W    RX1                                         4  0628  2 535               16   535
240    632  BUMP3  A    KP1,X3                                      7  0632  A 670 099           16   670     099
241    639         B    GET                                         4  0639  B 497               17   497
242    651  DOTS   DCW  @9........@                                  9  0651                      17
243    653         DCW  @9-@                                        2  0653                      17
244    658  ADR5   DCW  00000      FIVE DIGIT ADDRESS                5  0658                      17
245    661  KZ3    DCW  000                                         3  0661                      17
246    662  KP2    DCW  &2                                          1  0662                      17
247    664  W2A    DCW  #2                                          2  0664                      17
248    665  K9     DCW  9                                           1  0665                      18
249    667  KM10   DCW  @I0@                                        2  0667                      18
250    669  W2B    DCW  #2                                          2  0669                      18
251    670  KP1    DCW  &1                                          1  0670                      18
252    672  KP15   DCW  &15                                         2  0672                      18
253    679         DCW  @EXECUTE@                                   7  0679                      18
254 *  680  XQTD   DCW  @}@  CHANGED TO D BY RELOADER PHASE 53R     1  0680              GMARK   18
255                XFR  LOADNX  JUST LOAD THE NEXT PHASE                    B 700               19   700
```

SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS	SYMBOL	ADDRESS
)0J003	0201: 0	)0K003	0225: 0	)0L003	0244: 0	)0M003	0261: 0	)0N003	0264: 0	)0P003	0265: 0
)0Q003	0271: 0	)0R003	0999: 0	)6J004	0110: 0	)6K004	0700: 0	)6L004	0704: 0	)6M004	0728: 0
)9J004	0251: 0	)9R004	0256: 0	ADR5	0658: 0	BEG52C	0934: 0	BUMP3	0632: 0	CDOVLY	0700: 0
CLEARH	0433: 0	CLR52	0201: 0	CLR52C	1696: 0	CONT	0568: 0	DOTS	0651: 0	DOWM	0520: 0
EXIT	0564: 0	GET	0497: 0	HALT	0563: 0	K9	0665: 0	KM10	0667: 0	KP1	0670: 0
KP15	0672: 0	KP2	0662: 0	KZ3	0661: 0	LOADNX	0700: 0	LOOP	0459: 0	MYSNAP	0333: 0
PHASID	0110: 0	PHASLD	0381: 0	PHS53S	0201: 0	RX1	0535: 0	SKIP	0621: 0	SNAPEX	0564: 0
SNAPSH	0333: 0	SX1	0416: 0	SX3	0409: 0	SXX	0402: 0	TOPCOR	0688: 0	TPERR	0728: 0
TPREAD	0704: 0	W2A	0664: 0	W2B	0669: 0	X1	0089: 0	X2	0094: 0	X3	0099: 0
XQTD	0680: 0										

UNREFERENCED SYMBOLS

CDOVLY MYSNAP PHASLD SNAPEX TPERR TPREAD