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

101               JOB   FORTRAN COMPILER -- LIST PHASE THREE -- PHASE 27
102               CTL   6611
103         *
104         * EACH INPUT-OUTPUT STATEMENT IS REDUCED TO THE ADDRESS OF
105         * THE LIST STRING (WHEN PRESENT), THE FORMAT STRING (WHEN
106         * PRESENT), AND THE TAPE UNIT NUMBER (WHEN APPLICABLE).
107         *
108         * ON ENTRY, X1 IS THE TOP OF THE TOP I/O STATEMENT AND X2
109         * IS ONE BELOW THE TABLE OF I/O STRINGS, FORMATS AND NUMBERS.
110         *
111         * ON EXIT, 83 IS THE TOP OF CODE IN HIGH CORE AND X2 IS ONE
112         * BELOW THE BOTTOM OF CODE IN HIGH CORE.
113         *
114         X1     EQU   89                                                  0089
115         X2     EQU   94                                                  0094
116         *
117         * STUFF IN THE RESIDENT AREA
118         *
119               EXT00   SNAPSH, LOADNX, CDOVLY                                      MACRO
120         SNAPSH EQU   333                                                 0333      GEN
121         PHASLD EQU   381                                                 0381      GEN
122         SNAPEX EQU   564                                                 0564      GEN
123         LOADNX EQU   700   CARD OVERLAY UNLESS NOP                      0700      GEN
124         CDOVLY EQU   700   1 IF LOADING FROM CARDS, N IF FROM TAPE       0700      GEN
125         TPREAD EQU   704   LOAD OVERLAY FROM TAPE                       0704      GEN
126         TPERR  EQU   728                                                 0728      GEN
127         *
128               EXT03     START, TOP OF PHASE 3                                   MACRO
129         BEGIN3 EQU   838                                                 0838      GEN
130         TOP3   EQU   2600                                                2600      GEN
131               EXT25     STUFF IN PHASE 25 - LISTER PHASE 1                      MACRO
132         SEQCOD EQU   841                                                 0841      GEN
133         SX1    EQU   844                                                 0844      GEN
134         BEGN25 EQU   845                                                 0845      GEN
135         *
136         110    DCW   @LISTR TRI@                                      9  0110                  1
137         *
138         PHAS27 LDPH  LISTR TRI,LOADAD,BEGN27,,,27                                 MACRO
            * PHAZ   LDPH [PHASID],LOADAD,ENTAD[,SKIPFG,SKIP],[NUMBER][,HALT]      GEN
            *        XFR  PHASZ     PROHIBITED IN A MACRO                         GEN
            *                                                                     GEN
            * LOAD A BLOCK                                                       GEN
            *                                                                     GEN
139         )6J004 EQU   110  PHASE ID                                       0110      GEN
140         )6K004 EQU   700  LOAD NEXT PHASE                                0700      GEN
141         )6L004 EQU   704  TAPE READ INSTRUCTION                          0704      GEN
142         )6M004 EQU   728  TAPE ERROR HANDLER                            0728      GEN
            *                                                                     GEN
143               ORG   201                                                         0201
144         PHAS27 BSS   )8J004,G                                          5  0201  B 257 G     GEN      2   257
```

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

145             NOP     TO PATCH IN TRAPS FOR DEBUGGING                      1  0206  N           GEN      2
146         )0J004 EQU   *&1                                                  0207              GEN
147             LCA   )9J004,)6J004                                          7  0207  L 281 110   GEN      2   281     110
148             BCE   )1J004,)6K004,1    Q: LOADING FROM CARDS?            8  0214  B 250 700 1 GEN      2   250     700
149             BCE   )1J004,)6L004&4,0  Q: LOADING FROM AUTOCODER TAPE?    8  0222  B 250 708 0 GEN      2   250     708
150             RTW   1,LOADAD           READ THE BLOCK                    8  0230  L %U1 845 R GEN      2   %U1     845
151             BER   )6M004             Q: TAPE ERROR?                    5  0238  B 728 L     GEN      3   728
152             CS    BEGN27,)9R004      ENTER THE BLOCK                   7  0243  / 845 285   GEN      3   845     285
153         )1J004 CS    )6K004,)9R004      LOAD CARDS OR AUTOCODER TAPE      7  0250  / 700 285   GEN      3   700     285
154         )8J004 SW    )9R004                                           4  0257  , 285       GEN      3   285
155             MU    %T0,)8K004,W                                         8  0261  M %T0 273 W GEN      3   %T0     273
156             H     )0J004                                               4  0269  . 207       GEN      3   207
157         )8K004 EQU   *&1                                                  0273              GEN
158         )9J004 DCW   @LISTR TRI@          PHASE ID                     9  0281              GEN      4
159             DCW   #1                                                   1  0282              GEN      4
160             DC    @27@          PHASE NUMBER                         2  0284              GEN      4
161         )9R004 DCW   @}@                                               1  0285              GEN      4
162             XFR   PHAS27                                                     B 201               4   201
163         *
164             ORG   BEGN25                                                     0845
165         LOADAD EQU   *&1          LOAD ADDRESS                             0845
166    845  BEGN27 MCW   X2,83                                             7  0845  M 094 083           5   094     083
167    852         SW    GM                                               4  0852  , 970               5   970
168    856         LCA   GM,0&X2  GM BELOW I/O STRING TABLE               7  0856  L 970 0!0           5   970     000+2
169    863         SBR   X2                                               4  0863  H 094               5   094
170    867  TESTIO BW    NOTIO,0&X1                                       8  0867  V 918 0|0 1         5   918     000+1
171    875         B     MOVE  MOVE PREFIX                                4  0875  B 942               5   942
172    879         B     MOVE  MOVE TAPE NUMBER AND LIST (R/W TAPE),      4  0879  B 942               5   942
173         *                 TAPE NUMBER AND FORMAT (R/W I/O TAPE),
174         *                 OR FORMAT (READ/PRINT/PUNCH)
175    883         BCE   TESTIO,1&X2,}  END OF STATEMENT?                 8  0883  B 867 0!1 } GMARK   6   867     001+2
176    891         CW    1&X2                                             4  0891  ) 0!1               6   001+2
177    895         C     0&X1  GET DOWN TO WM                             4  0895  C 0|0               6   000+1
178    899         SAR   X1                                               4  0899  Q 089               6   089
179    903         SBR   X1,1&X1                                          7  0903  H 089 0|1           6   089     001+1
180    910         B     MOVE  MOVE LIST (R/W I/O TAPE) OR ONLY GMWM      4  0910  B 942               6   942
181    914         B     TESTIO                                           4  0914  B 867               6   867
182         *
183         * NOT I/O, COPY EVERYTHING ELSE
184         *
185    918  NOTIO  CW    0&X1                                             4  0918  ) 0|0               7   000+1
186    922  COPY   BCE   DONE,0&X1,                                       8  0922  B 700 0|0           7   700     000+1
187    930         B     MOVE  MOVE PREFIX                                4  0930  B 942               7   942
188    934         B     MOVE  MOVE BODY                                  4  0934  B 942               7   942
189    938         B     COPY                                             4  0938  B 922               7   922
190         *
191         * MOVE FROM CODE AREA TO LIST AREA
192         *
193    942  MOVE   SBR   MOVEX&3                                          4  0942  H 968               7   968
194    946         LCA   0&X1,0&X2                                        7  0946  L 0|0 0!0           7   000+1   000+2
```

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

195    953         SAR   X1                                          4  0953  Q 089               8   089
196    957         C     0&X2                                        4  0957  C 0!0               8   000+2
197    961         SAR   X2                                          4  0961  Q 094               8   094
198    965  MOVEX  B     0-0                                         4  0965  B 000               8   000
199         *
200    969  DONE   EQU   LOADNX                                          0700
201         *
202  1 011  GM     DCW   @ }@                                        2  0970                      8
203  1 018  GMWM   DCW   @}@                                         1  0971              GMARK   8
204                XFR   BEGN27                                             B 845               8   845
205         CLRME  CLRA  BEGIN3,GMWM,D                                                    MACRO
            *      CLRA  CLRBOT,CLRTOP[,SS,HERE,GWMAD]                                    GEN
            *                                                                             GEN
            * CLEAR CORE AFTER A PHASE USING THE CLRTOP ADDRESS                           GEN
            *                                                                             GEN
206                ORG   201                                                  0201
            *                                                                             GEN
            * CLEAR DOWN TO CLRBOT & X00 THE EASY WAY                                     GEN
            *                                                                             GEN
207         CLRME  EQU   *&1                                                 0201         GEN
208                BSS   SNAPSH,D                                           5  0201  B 333 D     GEN      9   333
209         )0J005 CS    GMWM         CLEAR FROM CLRTOP                   4  0206  / 971         GEN      9   971
210                SBR   )0J005&3                                          4  0210  H 209         GEN      9   209
211                SBR   )0L005&6                                          4  0214  H 255         GEN      9   255
212                C     )0J005&3,)0M005   DOWN TO CLRBOT & X00?           7  0218  C 209 266     GEN      9   209     266
213                BU    )0J005                                            5  0225  B 206 /       GEN      9   206
            *                                                                             GEN
            * NOW CLEAR DOWN TO CLRBOT THE HARD WAY                                      GEN
            *                                                                             GEN
214         )0K005 C     )0L005&6,)0N005                                   7  0230  C 255 269     GEN      9   255     269
215                BU    )0L005                                            5  0237  B 249 /       GEN     10   249
216                CS    LOADNX,)0Q005  LOAD THE NEXT BLOCK AT 1           7  0242  / 700 276     GEN     10   700     276
217         )0L005 LCA   )0P005,0-0     CLEAR WITH BLANK AND WORD MARK    7  0249  L 270 000     GEN     10   270     000
218                SBR   )0L005&6                                          4  0256  H 255         GEN     10   255
219                B     )0K005                                            4  0260  B 230         GEN     10   230
220         )0M005 DSA   )0R005         CLRBOT & X00 - 1                  3  0266  899           GEN     10   899
221         )0N005 DSA   BEGIN3         CLRBOT                            3  0269  838           GEN     10   838
222         )0P005 DCW   #1                                                1  0270                GEN     11
223                DC    @CLRA @     IDENTIFY IN A DECK, TAPE, OR DUMP     5  0275                GEN     11
224         )0Q005 DCW   @}@                                               1  0276                GEN     11
225                ORG   BEGIN3&X00                                                 0900
226         )0R005 EQU   *           CLRBOT & X00 - 1                             0899                GEN
227                XFR   CLRME                                                    B 201                11   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
BEGIN3	0838: 0	BEGN25	0845: 0	BEGN27	0845: 0	CDOVLY	0700: 0	CLRME	0201: 0	COPY	0922: 0
DONE	0700: 0	GM	0970: 0	GMWM	0971: 0	LOADAD	0845: 0	LOADNX	0700: 0	MOVE	0942: 0
MOVEX	0965: 0	NOTIO	0918: 0	PHAS27	0201: 0	PHASLD	0381: 0	SEQCOD	0841: 0	SNAPEX	0564: 0
SNAPSH	0333: 0	SX1	0844: 0	TESTIO	0867: 0	TOP3	2600: 0	TPERR	0728: 0	TPREAD	0704: 0
X1	0089: 0	X2	0094: 0								

UNREFERENCED SYMBOLS

CDOVLY PHASLD SEQCOD SNAPEX SX1 TOP3 TPERR TPREAD