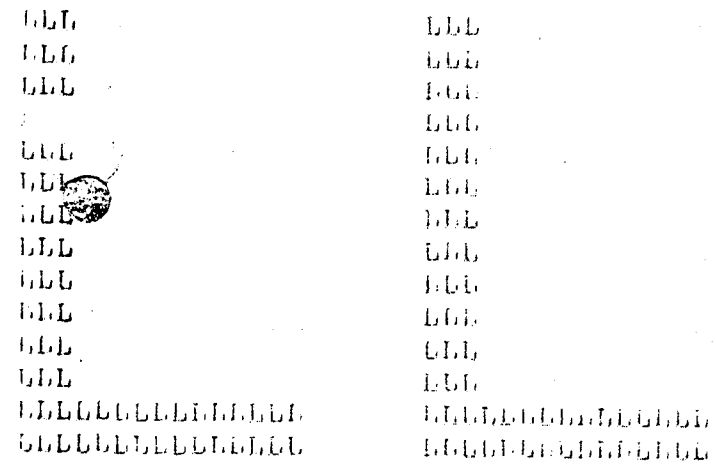
RFASM	8
RFILL	9
SARX	6
SCLEAR	20
STRNG	1
SVNBT	12
SHEL2	23
SIXBT	13
TOTBD	14
TOTE	14
TYPER	19
TYPE2	20
TYDAY	11
UNJUL	16
UNPAC	7
UNPK	22



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/L:ALL /A/E/Φ

/A /D /T /E /L:ALL /Φ

LPTSPL Version 6(350) Running on LPT0
START User CVD D.GODING [133,2017] Job LL Seq. 492 Date 01-May-75 18:35:35
Monitor CH2M HILL INC. 507AVB *START*
Request created: 01-May-75 18:36:43
File: DSKB0:LL[133,2017] Created: 01-May-75 17:58:00 <257>
Printed: 01-May-75 18:35:41
QUEUE Switches: /PRINT:ARROW /FILE:ASCII /COPIES:1
/SPACING:1 /LIMIT:99 /FORMS:NORMAL

```
00010  C*************************************************************************
00020        SUBROUTINE STRNG(JCARD,JCNT,BLFOT,BKLNK,OCURS)
00030        INTEGER JCARD(1),BLFOT(1),BLANK,BLANK,COMMA,OCURS
00040        DATA BLANK/' '/
   50        DATA COMMA/','/
00060        M=0
00070        K=1
00080        OCURS=0
00090     10 IF(JCARD(K)-BLANK)11,20,11
00100     11 IF(JCARD(K)-COMMA)25,20,25
00110     20 K=K+1
00120        IF(K-JCNT)10,10,50
00130     25 OCURS=OCURS+1
00140        M=M+1
00150        N=M+BKLNK
00160        J=1
00170        DO 40 I=N,N
00180        GO TO(30,35),J
00190     30 IF(JCARD(K)-BLANK)31,34,31
00200     31 IF(JCARD(K)-COMMA)32,34,32
00210     32 IF(K-JCNT)33,33,34
00220     33 BLKOT(I)=JCARD(K)
00230        K=K+1
00240        GO TO 40
00250     34 J=2
00260     35 BLKOT(I)=BLANK
00270     40 CONTINUE
00280     45 IF(K-JCNT)46,46,50
00290     46 IF(JCARD(K)-BLANK)47,10,47
   00     47 IF(JCARD(K)-COMMA)48,10,48
00310     48 K=K+1
00320        GO TO 45
00330     50 RETURN
00340        END
00350  C*************************************************************************
00360  C
00370  C   THIS ROUTINE RETURNS THE DAY OF THE WEEK AS FOLLOWS:
00380  C    SUN=1,MON=2,...FRI=6,SAT=7
00390  C
00400        SUBROUTINE DAYWK(MONTH,DAY,YEAR,OFWEK)
00410        INTEGER DAY,YEAR,OFWEK,KEYS(12),TOTAL
00420        DATA KEYS/1,4,4,0,2,5,0,3,6,1,4,6/
00430        K=(19-(YEAR/100))*2
00440        IF(((YEAR/4)*4)-YEAR)20,10,20
00450     10 IF(MONTH-2)15,15,20
00460     15 K=K-1
00470     20 LAST2=YEAR-((YEAR/100)*100)
00480        LAST2=LAST2-(LAST2/LAST2)+1
00490        TOTAL=LAST2+(LAST2/4)+DAY+KEYS(MONTH)+K
00500        OFWEK=TOTAL-((TOTAL/7)*7)
00510        IF(OFWEK)30,25,30
00520     25 OFWEK=7
00530     30 CONTINUE
00540        RETURN
   50        END
00560  C*************************************************************************
00570        SUBROUTINE DATA1(MONTH,DAY,YEAR,A1ARY)
00580        INTEGER A1ARY(20),YEAR,DAY,DAYS(28),MNTHS(24),OFWEK
00590        INTEGER BLANK,COMMA
00600        DATA COMMA/','/
```

```
      DATA BLANK/' '/
      DATA DAYS/
     *'SU','ND','AY','  ',
     *'MO','ND','AY','  ',
     *'TU','ES','DA','Y ',
     *'WE','NS','DA','Y ',
     *'TH','UR','SD','AY',
     *'FR','ID','AY','  ',
     *'SA','TU','RD','AY'/
      DATA MNTHS/
     *'JA','N ',
     *'FE','B ',
     *'MA','R ',
     *'AP','R ',
     *'MA','Y ',
     *'JU','N ',
     *'JU','L ',
     *'AU','G ',
     *'SE','P ',
     *'OC','T ',
     *'NO','V ',
     *'DE','C '/
      CALL DAYWK(MONTH,DAY,YEAR,DFWEK)
      CALL JVERT(YEAR,A1ARY(11))
      A1ARY(12)=BLANK
      A1ARY(7)=COMMA
      A1ARY(5)=BLANK
      CALL JVERT(DAY,A1ARY(6))
      I=MONTH*2
      CALL UNPAC(MNTHS,I-1,I,A1ARY,1)
      I=DFWEK*4
      CALL UNPAC(DAYS,I-3,I,A1ARY,13)
      RETURN
      END
C*****************************************************************************
      SUBROUTINE MOVE(JCARD,J,JLAST,KCARD,K)
      DIMENSION JCARD(1),KCARD(1)
      IF(J.LT.1.OR.JLAST.LT.1.OR.K.LT.1.OR.JLAST.LT.J)RETURN
      DO 10 JNOW=J,JLAST
      KNOW=K+JNOW-J
   10 KCARD(KNOW)=JCARD(JNOW)
      RETURN
      END
C*****************************************************************************
      SUBROUTINE FILL(JCARD,J,JLAST,ICHAR)
      DIMENSION JCARD(1)
      IF(J.LT.1.OR.JLAST.LT.1.OR.JLAST.LT.J)RETURN
      DO 10 JNOW=J,JLAST
   10 JCARD(JNOW)=ICHAR
      RETURN
      END
C*****************************************************************************
      SUBROUTINE PARSE(JCARD,NMBR1,DSPL1,NMBR2,DSPL2,NMBR3,DSPL3,
     *                 STNG1,STNG2,DLMCT,COMND)
      INTEGER DSPL1,DSPL2,DSPL3,STNG1(40),STNG2(40),COMND,DLMCT,JCARD(1)
      INTEGER TYPES(174),TYPCT,TOTAL(6),COMMA
      INTEGER TOTCT,APLUS,STRMV,BLANK,JCRDL,FIN
      LOGICAL DISPL,NEGTV,CNTED
      INTEGER TY01(6)
      INTEGER TY02(6)
```

```
01210           INTEGER TY03(6)
01220           INTEGER TY04(6)
01230           INTEGER TY05(6)
  240           INTEGER TY06(6)
  250           INTEGER TY07(6)
01260           INTEGER TY08(6)
01270           INTEGER TY09(6)
01280           INTEGER TY10(6)
01290           INTEGER TY11(6)
01300           INTEGER TY12(6)
01310           INTEGER TY13(6)
01320           INTEGER TY14(6)
01330           INTEGER TY15(6)
01340           INTEGER TY16(6)
01350           INTEGER TY17(6)
01360           INTEGER TY18(6)
01370           INTEGER TY19(6)
01380           INTEGER TY20(6)
01390           INTEGER TY21(6)
01400           INTEGER TY22(6)
01410           INTEGER TY23(6)
01420           INTEGER TY24(6)
01430           INTEGER TY25(6)
01440           INTEGER TY26(6)
01450           INTEGER TY27(6)
01460           INTEGER TY28(6)
01470           INTEGER TY29(6)
01480           EQUIVALENCE(TY01(1),TYPES(  1))
  490           EQUIVALENCE(TY02(1),TYPES(  7))
  500           EQUIVALENCE(TY03(1),TYPES( 13))
01510           EQUIVALENCE(TY04(1),TYPES( 19))
01520           EQUIVALENCE(TY05(1),TYPES( 25))
01530           EQUIVALENCE(TY06(1),TYPES( 31))
01540           EQUIVALENCE(TY07(1),TYPES( 37))
01550           EQUIVALENCE(TY08(1),TYPES( 43))
01560           EQUIVALENCE(TY09(1),TYPES( 49))
01570           EQUIVALENCE(TY10(1),TYPES( 55))
01580           EQUIVALENCE(TY11(1),TYPES( 61))
01590           EQUIVALENCE(TY12(1),TYPES( 67))
01600           EQUIVALENCE(TY13(1),TYPES( 73))
01610           EQUIVALENCE(TY14(1),TYPES( 79))
01620           EQUIVALENCE(TY15(1),TYPES( 85))
01630           EQUIVALENCE(TY16(1),TYPES( 91))
01640           EQUIVALENCE(TY17(1),TYPES( 97))
01650           EQUIVALENCE(TY18(1),TYPES(103))
01660           EQUIVALENCE(TY19(1),TYPES(109))
01670           EQUIVALENCE(TY20(1),TYPES(115))
01680           EQUIVALENCE(TY21(1),TYPES(121))
01690           EQUIVALENCE(TY22(1),TYPES(127))
01700           EQUIVALENCE(TY23(1),TYPES(133))
01710           EQUIVALENCE(TY24(1),TYPES(139))
01720           EQUIVALENCE(TY25(1),TYPES(145))
01730           EQUIVALENCE(TY26(1),TYPES(151))
01740           EQUIVALENCE(TY27(1),TYPES(157))
  750           EQUIVALENCE(TY28(1),TYPES(163))
01760           EQUIVALENCE(TY29(1),TYPES(169))
01770           DATA APLUS/'+'/
01780           DATA MINUS/'-'/
01790           DATA TYPCT/29/
01800           DATA BLANK/' '/
```

```
01810           DATA COMMA/',',
01820           DATA PIN/6/
01830           DATA TY01/'S','A','R',' ',' ',' '/
   40           DATA TY02/'S','A','R','L',' ',' '/
01850           DATA TY03/'L','I','S','T',' ',' '/
01860           DATA TY04/'R','E','P',' ',' ',' '/
01[illegible]   DATA TY05/'I','N','S','E','R','T'/
01880           DATA TY06/'F','I','N','D',' ',' '/
01890           DATA TY07/'M','O','V','E',' ',' '/
01900           DATA TY08/'A','P','P','E','N','D'/
01910           DATA TY09/'I','N','P','U','T',' '/
01920           DATA TY10/'E','R','A','S','E',' '/
01930           DATA TY11/'O','U','T',' ',' ',' '/
01940           DATA TY12/'F','F',' ',' ',' ',' '/
01950           DATA TY13/'R','E','S','E','Q',' '/
01960           DATA TY14/'L','L',' ',' ',' ',' '/
01970           DATA TY15/'E','X','I','T',' ',' '/
01980           DATA TY16/'R','U','N',' ',' ',' '/
01990           DATA TY17/'E','J','E','C','T',' '/
02000           DATA TY18/'F','I','E','L','D',' '/
02010           DATA TY19/'S','A','E',' ',' ',' '/
02020           DATA TY20/'S','O','R','T',' ',' '/
02030           DATA TY21/'G','P',' ',' ',' ',' '/
02040           DATA TY22/'P','U',' ',' ',' ',' '/
02050           DATA TY23/'A','N','D',' ',' ',' '/
02060           DATA TY24/'D','L','E','M',' ',' '/
02070           DATA TY25/'R','O','T','A','T','E'/
02080           DATA TY26/'S','T','A','T','U','S'/
[illegible]90   DATA TY27/'M','A','K','E',' ',' '/
02100           DATA TY28/'T','I','M','E',' ',' '/
02110           DATA TY29/'H','E','L','P',' ',' '/
02[illegible]   DO 1 I=1,6
02130         1 TOTAL(I)=0
02140           STRG1(1)=0
02150           STRG2(1)=0
02160     C
02170     C    FIND COMMAND TYPE
02180     C
02190           DO 5 I=2,6
02200           J=I-1
02210           IF(JCARD(I)-BLANK)4,6,4
02220         4 IF(JCARD(I)-COMMA)5,6,5
02230         5 CONTINUE
02240           J=6
02250         6 DO 10 COMND=1,TYPCT
02260           K=(6*COMND)-5
02270           IF(KOMP(JCARD,J,TYPES(K)))10,15,10
02280        10 CONTINUE
02290           COMND=0
02300           GO TO 55
02310        15 TOTCT=1
02320           IF(COMND-29)73,68,73
02330        73 STRMV=1
02340           I=J+1
[illegible]50   DLMCT=1
02360           CNTED=.FALSE.
02[illegible]   C
02[illegible]   C    STRINGS MAYNOT BE DELIMITED BY NUMBERS
02390     C
02400     C       DO 50 I=J,80
```

```
02410       77 NEGTV=.FALSE.
02420          DISPL=.FALSE.
02430          IF(JCARD(I)-BLANK)17,50,17
02440       17 IF(JCARD(I)-COMMA)18,63,18
02450       63 CNTED=.TRUE.
02460          GO TO 48
02470       18 IF(IVORT(JCARD(I))+2)60,30,60
02480    C
02490    C    DECODE A LINE NUMBER AND ITS DISPLACEMENT
02500    C
02510       60 L=I-1
02520          IF(JCARD(I).EQ.APLUS.AND.IVORT(JCARD(I+1)).LE.0)GO TO 30
02530       61 L=L+1
02540          JCRDL=JCARD(L)
02550          IF((JCRDL.EQ.APLUS.OR.JCRDL.EQ.MINUS).
02560         *    AND.L.NE.I)GO TO 20
02570          IF(JCRDL-BLANK)64,27,64
02580       64 IF(JCRDL-COMMA)19,26,19
02590       19 M=IVORT(JCRDL)
02600          IF(M+2)66,25,66
02610       66 TOTAL(TOTCT)=TOTAL(TOTCT)*10+M
02620          GO TO 25
02630       20 DISPL=.TRUE.
02640          TOTCT=TOTCT+1
02650          NEGTV=JCRDL.EQ.MINUS
02660       25 IF(L-80)61,27,27
02670       26 L=L-1
02680       27 TOTCT=TOTCT+2
02690          IF(DISPL)TOTCT=TOTCT-1
02700          IF(NEGTV)TOTAL(TOTCT-1)=-TOTAL(TOTCT-1)
02710       28 IF(L.LE.80)I=L
02720          IF(.NOT.CNTED)GO TO 48
02730          CNTED=.FALSE.
02740          GO TO 50
02750    C
02760    C    MOVE A DELIMITED STRING
02770    C
02780       30 M=I+1
02790          MP40=80
02800          IF(JCARD(M-2).EQ.BLANK)M=I
02810          IF(M+40.LE.80)MP40=M+40
02820          K=0
02830          GO TO(31,37),STRMV
02840       37 STNG2(1)=0
02850       31 DO 35 L=M,MP40
02860          JCRDL=JCARD(L)
02870          IF(JCRDL-JCARD(M-1))32,36,32
02880       32 K=K+1
02890          GO TO(33,34),STRMV
02900       33 STNG1(K)=JCRDL
02910          STNG1(K+1)=0
02920       34 STNG2(K)=JCRDL
02930          STNG2(K+1)=0
02940       35 CONTINUE
02950          GO TO (42,44),STRMV
02960       42 STNG1(1)=0
02970       44 STNG2(1)=0
02980       36 STRMV=2
02990          IF(TOTCT-1)28,27,28
03000       48 DLMCT=DLMCT+1
```

```
C   50 CONTINUE
    50 I=I+1
       IF(I.LE.80)GO TO 77
C
C    DONE, EXIT PARSE
C
    55 NMBR1=TOTAL(1)
       DSPL1=TOTAL(2)
       NMBR2=TOTAL(3)
       DSPL2=TOTAL(4)
       NMBR3=TOTAL(5)
       DSPL3=TOTAL(6)
       IF(CMJED)DLMCT=DLMCT-1
       IF(DLMCT.NE.2.AND.COMND.NE.FLD)RETURN
       IF(STNG1(1))57,56,57
    56 NMBR2=NMBR1
       DSPL2=DSPL1
    57 RETURN
    68 CALL PARHL(TYPCT,TYPES)
       RETURN
       END
C*******************************************************************************
      SUBROUTINE SAPX
     *(JCARD,LFELD,RTFLD,STNG1,LNGH1,STNG2,LNGH2,NPAD,FOUND)
       INTEGER JCARD(1),RTFLD,STNG1(1),STNG2(1),BUFER(80)
       LOGICAL FOUND
       FOUND=.FALSE.
       IF(LNGH1.LE.0)RETURN
       CALL FILL(BUFER,1,80,NPAD)
       I=LFELD-1
       J=LFELD-1
    10 I=I+1
       J=J+1
       IF(I.GT.RTFLD.OR.J.GT.RTFLD)GO TO 100
       BUFER(J)=JCARD(I)
       IF(J+LNGH1-1.GT.RTFLD)GO TO 200
       IF(KOMP(JCARD(I),LNGH1,STNG1).NE.0)GO TO 10
       FOUND=.TRUE.
       BUFER(J)=NPAD
       IF(LNGH2.LE.0)GO TO 30
       DO 20 K=1,LNGH2
       BUFER(J)=STNG2(K)
       J=J+1
       IF(J.GT.RTFLD)GO TO 100
    20 CONTINUE
    30 J=J-1
       I=I+LNGH1-1
       GO TO 10
   100 CALL MOVE(BUFER,LFELD,RTFLD,JCARD,LFELD)
       RETURN
   200 IF(I.GE.RTFLD)GO TO 100
       I=I-1
       J=J-1
       DO 210 L=J,RTFLD
       BUFER(L)=JCARD(I)
       I=I+1
       IF(I.GT.RTFLD)GO TO 100
   210 CONTINUE
       GO TO 100
       END
```

```
03610 C*************************************************************************
03620       SUBROUTINE JVERT(K,JCARD)
03630       INTEGER JCARD(1),BUFER(3),BLANK,KHOLD(12)
03640       DATA BLANK/' '/
03650       ENCODE(12,1,BUFER)
03660     1 FORMAT(I12)
03670       DECODE(12,2,BUFER)KHOLD
03680     2 FORMAT(12A1)
03690       DO 10 I=1,12
03700       K=13-I
03710       IF(KHOLD(K).EQ.BLANK)RETURN
03720       JCARD(K-11)=KHOLD(K)
03730    10 CONTINUE
03740       RETURN
03750       END
03760 C*************************************************************************
03770       SUBROUTINE INSRT(JCARD,J,CHRCT,KCARD,LFELD)
03780       INTEGER RTFLD,JCARD(1),CHRCT,KCARD(1),ESC
03790       DATA ESC/1463078918 4/
03800 C    ESC IS A1 EQUIV OF ESCAPE OR ALT MODE
03810       RTFLD=LFELD+CHRCT-1
03820       K=J
03830       DO 20 I=LFELD,RTFLD
03840       IF(JCARD(K).EQ.ESC)RETURN
03850       KCARD(I)=JCARD(K)
03860    20 K=K+1
03870       RETURN
03880       END
03890 C*************************************************************************
  900 C
03910 C    FORTRAN COMMERCIAL SUBROUTINE SUBSTITUTE FOR UNPAC
  920 C
03930       SUBROUTINE UNPAC(JCARD,J,JLAST,KCARD,K)
03940       INTEGER JCARD(1),KCARD(1)
03950       IF(J.LT.1.OR.JLAST.LT.1.OR.JLAST.LT.J.OR.K.LT.1)RETURN
03960       KLOC=K
03970       DO 30 I=J,JLAST
03980       JCRDI=JCARD(I)
03990       DECODE(2,10,JCRDI)KCARD(KLOC),KCARD(KLOC+1)
04000    10 FORMAT(2A1)
04010    30 KLOC=KLOC+2
04020       RETURN
04030       END
04040 C*************************************************************************
04050       FUNCTION IVORT(A1CHR)
04060       INTEGER A1CHR,NUMA1(13),VALUE(13)
04070       DATA NUMA1/' ','0','1','2','3','4','5','6','7','8','9',
04080      *'+','-'/
04090       DATA VALUE/0,0,1,2,3,4,5,6,7,8,9,0,-1/
04100       IVORT=-2
04110       DO 10 I=1,13
04120       IF(A1CHR-NUMA1(I))10,20,10
04130    10 CONTINUE
04140       RETURN
  150    20 IVORT=VALUE(I)
04160       RETURN
04170       END
04180 C*************************************************************************
04190       SUBROUTINE EQUIP(LUN,NAM10,CHRCT,KASOC)
04200       INTEGER CHRCT,NAM10(10),ENTRY(10)
```

```
04210          INTEGER BLANK,PERID
04220          DOUBLE PRECISION EDLET,NAME
04230          DATA EDLET/'EDLET.     '/
04240          DATA PERID/'.'/
04250          DATA BLANK/' '/
04260          DO 10 I=1,10
04270          IF(NAM10(I).EQ.PERID)GO TO 25
04280       10 CONTINUE
04290          DO 20 I=1,10
04300          IF(NAM10(I).NE.BLANK)GO TO 20
04310          NAM10(I)=PERID
04320          GO TO 25
04330       20 CONTINUE
04340          GO TO 40
04350       25 I=0
04360          OPEN(UNIT=1,DEVICE='DSK',ACCESS='RANDOM',MODE='ASCII',
04370         *DISPOSE='SAVE',FILE=EDLET,RECORD SIZE=10)
04380    C     CALL DEFINE FILE(1,10,K1,EDLET,0,0)
04390       30 I=I+1
04400          READ(1#I,1,END=40)ENTRY
04410        1 FORMAT(10A1)
04420          IF(KOMP(NAM10,10,ENTRY).NE.0)GO TO 30
04430          ENCODE(10,1,NAME)NAM10
04440          OPEN(UNIT=LUN,DEVICE='DSK',ACCESS='RANDOM',MODE='ASCII',
04450         *DISPOSE='SAVE',FILE=NAME,RECORD SIZE=CHRCT,
04460         *ASSOCIATE VARIABLE=KASOC)
04470    C     CALL DEFINE FILE(LUN,CHRCT,KASOC,NAME,0,0)
04480          RETURN
04490       40 KASOC=-1
04500          RETURN
04510          END
04520    C*****************************************************************************
04530    C
04540    C  KOMP VERSION TWO OVERCOMES COMPILER BUGS
04550    C
04560          FUNCTION KOMP(JCARD,KNT,KCARD)
04570          DIMENSION JCARD(1),KCARD(1)
04580          IF(KNT)25,25,10
04590       10 DO 15 I=1,KNT
04600          IF(JCARD(I)-KCARD(I))20,15,20
04610       15 CONTINUE
04620          KOMP=0
04630          RETURN
04640       20 KOMP=I
04650          RETURN
04660       25 KOMP=-1
04670          RETURN
04680          END
04690    C*****************************************************************************
04700          SUBROUTINE DEFEO(LUN,LIMIT)
04710          LIMIT=0
04720       10 READ(LUN#LIMIT+1,1,END=20)JX
04730          LIMIT=LIMIT+1
04740        1 FORMAT(1A1)
04750          GO TO 10
04760       20 CONTINUE
04770          RETURN
04780          END
04790    C*****************************************************************************
04800          SUBROUTINE REASM(I)
```

```
      RETURN
      END
C*************************************************************************
      FUNCTION IOCTL(JCARD)
      INTEGER JCARD(1),TOTAL,BLANK
      LOGICAL BITO
      DATA BLANK/' '/
      TOTAL=0
      N=1
      M=IVORT(JCARD(1))
      BITO=M.GT.3
      IF(.NOT.BITO)GO TO 10
      N=2
      TOTAL=M-4
   10 DO 20 I=N,12
      M=IVORT(JCARD(I))
      IF(M.LT.0.OR.M.GT.7.OR.JCARD(I).EQ.BLANK)GO TO 40
      TOTAL=TOTAL*8+M
   20 CONTINUE
      IF(BITO)TOTAL=TOTAL.OR."400000000000
   30 IOCTL=TOTAL
      RETURN
   40 IF(BITO)TOTAL=TOTAL+4*(8**(I-2))
      GO TO 30
      END
C*************************************************************************
      SUBROUTINE RFILL(X,FIRST,LAST,W)
      INTEGER FIRST,LAST
      DIMENSION X(1)
      IF(FIRST.LT.1.OR.FIRST.LT.LAST.OR.LAST.LT.1)RETURN
      DO 10 I=FIRST,LAST
   10 X(I)=W
      RETURN
      END
C*************************************************************************
      SUBROUTINE BACSH(JCARD,J,JLOC)
      INTEGER JCARD(1),BLANK
      DATA BLANK/' '/
      IF(J.LT.1)RETURN
      DO 10 K=1,J
      JLOC=J+1-K
      IF(JCARD(JLOC).NE.BLANK)RETURN
   10 CONTINUE
      JLOC=0
      RETURN
      END
C*************************************************************************
      FUNCTION AVERT(JCARD,COUNT)
      INTEGER JCARD(1),COUNT,BLANK,PERIO
      DATA BLANK/' '/
      DATA PERIO/'.'/
      I=COUNT
      TOTL1=0.0
      TOTL2=0.0
      A=1.0
      J=1
   20 JCRD1=JCARD(I)
      NUMBR=IVORT(JCRD1)
      IF(NUMBR.LT.0.OR.JCRD1.EQ.BLANK)GO TO 30
   25 TOTL1=TOTL1*.1+NUMBR
```

```
05410          TOTL2=TOTL2+NUMBR*A
05420          A=A*10.0
05430       27 I=I-1
    40         IF(I)80,80,20
05450       30 IF(NUMBR+1)35,75,35
05460       35 IF(JCRDI-BLANK)40,27,40
05470       40 IF(JCRDJ-PERIOD)80,45,80
05480       45 GO TO(50,80),J
05490       50 J=2
05500          TOTL2=TOTL1*.1
05510          A=1.0
05520          GO TO 27
05530       75 TOTL2=-TOTL2
05540       80 AVERT=TOTL2
05550          RETURN
05560          END
05570    C*****************************************************************************
05580          SUBROUTINE PACK(JCARD,J,JLAST,KCARD,K)
05590          INTEGER JCARD(1),KCARD(1),BLANK
05600          DATA BLANK/' '/
05610          IF(J.LT.1.OR.JLAST.LT.1.OR.JLAST.LT.J.OR.K.LT.1)RETURN
05620          JLOC=J
05630          N=(JLAST-J+1)/2
05640          DO 30 I=1,N
05650          ENCODE(5,10,KCARD(I))JCARD(JLOC),JCARD(JLOC+1),
05660         *                              BLANK,BLANK,BLANK
05670       10 FORMAT(5A1)
05680       30 JLOC=JLOC+2
    90         RETURN
05700          END
05710    C*****************************************************************************
05720          SUBROUTINE BITIM(HOURS,MINET,SECND,AMPM)
05730          INTEGER AM,PM,HOURS,SECND,AMPM,TEMP(5),HHMM,SSTM
05732          DATA AM/1/,PM/0/
05740          IFRA1(N1,N2)=IVORT(N1)*10+IVORT(N2)
05750          AMPM=AM
05760          CALL TIME(HHMM,SSTM)
05770          DECODE(5,1,HHMM)TEMP
05780       1  FORMAT(5A1)
05790          HOURS=IFRA1(TEMP(1),TEMP(2))
05810          MINET=IFRA1(TEMP(4),TEMP(5))
05812          IF((HOURS*100)+MINET.GT.1200)AMPM=PM
05814          IF(HOURS.EQ.0)HOURS=12
05820          DECODE(5,1,SSTM)TEMP
05830          SECND=IFRA1(TEMP(2),TEMP(3))
05840          IF(HOURS.GE.12)RETURN
05850          HOURS=HOURS-12
05870          RETURN
05880          END
05890    C*****************************************************************************
05900          SUBROUTINE ADATE(MONTH,DAY,YEAR)
05910          INTEGER DAY,YEAR,TABLE(12),HOLD(2),TEMP(10)
05920
    930    C
    940    C    THIS TABLE IS COMPOSED OF AS EQUIVALENCIES FOR THE THREE
05950    C    LETTER ABBREAVATIONS OF THE THE TWELEVE MONTHS.
05960    C    THE FIRST LETTER IS A CAPITOL, THESECOND TWO ARE
05970    C    LOWER CASE.
05980    C
05990          DATA TABLE/
```

```
06000        *-28580569024,
06010        *-30711668672,
06020        *-26959825216,
06030        *-33349361600,
   40        *-26969595840,
06050        *-28495682944,
06060        *-28496748480,
06070        *-33328750528,
06080        *-23731888064,
06090        *-25887629248,
06100        *-26374102976,
06110        *-31785377728/
06120          IFRA1(M1,M2)=IVORT(M1)*10+IVORT(M2)
06130          CALL DATE(HOLD)
06140          DECODE(10,1,HOLD)TEMP
06150        1 FORMAT(10A1)
06160          DAY=IFRA1(TEMP(1),TEMP(2))
06170          YEAR=IFRA1(TEMP(8),TEMP(9))
06180          ENCODE(3,2,MNTH)TEMP(4),TEMP(5),TEMP(6)
06190          MONTH=MNTH
06200        2 FORMAT(3A1)
06210          DO 10 I=1,12
06220          IF(MONTH+8256.NE.TABLE(I))GO TO 10
06230          MONTH=I
06240          RETURN
06250       10 CONTINUE
06260          MONTH=0
06270          RETURN
06280          END
   30  C*************************************************************************
06300        SUBROUTINE PARHL(TYPCT,TYPES)
06310          INTEGER TYPCT,TYPES(1)
06320          DATA LUNOUT/5/
06330          WRITE(LUNOUT,1)
06340        1 FORMAT(' EDIT HAS THE FOLLOWING COMMANDS:'/)
06350          N=TYPCT*6
06360          WRITE(LUNOUT,2)(TYPES(I),I=1,N)
06370        2 FORMAT(8(2X,6A1))
06380          WRITE(LUNOUT,3)
06390        3 FORMAT(/,1X,'ANY COMMAND MAY BE SHORTENED AS LONG AS',/,
06400         *' ENOUGH REMAINS TO BE UNIQUE I.E. -  HELP TO H .',//)
06410          RETURN
06420          END
06430  C*************************************************************************
06440        SUBROUTINE TIDAY(OT32A)
06450          INTEGER OT32A(32),DAY,YEAR,HOUR,SECNT,AMPM,P,TIME(6)
06460          DATA P/'P'/
06470          DATA TIME/'00',':0','0:','00',' A','M '/
06480          CALL ADATE(MONTH,DAY,YEAR)
06490          CALL DATAI(MONTH,DAY,YEAR+1900,OT32A(13))
06500          CALL ATTIM(HOUR,MINET,SECNT,AMPM)
06510          CALL UNPAC(TIME,1,6,OT32A,1)
06520          CALL JVERT(HOUR,OT32A(2))
06530          CALL JVERT(MINET,OT32A(5))
   70          CALL JVERT(SECNT,OT32A(8))
06   30        IF(AMPM)20,10,20
06570       10 OT32A(10)=P
06570       20 CONTINUE
06580          RETURN
06590          END
```

```
C*************************************************************************
      SUBROUTINE BOCTA(I,ARY12)
      INTEGER BOLD(3),ARY12(12),ZERO,BLANK
      LOGICAL INSID
      DATA ZERO/'0'/
      DATA BLANK/' '/
      INSID=.FALSE.
    5 ENCODE(12,10,BOLD)I
   10 FORMAT(O12)
      DECODE(12,20,BOLD)(ARY12(J),J=1,12)
   20 FORMAT(12A1)
      IF(INSID)GO TO 25
      RETURN
      ENTRY BOCTZ(I,ARY12)
      INSID=.TRUE.
      GO TO 5
   25 DO 30 J=1,11
      IF(ARY12(J).NE.ZERO)RETURN
      ARY12(J)=BLANK
   30 CONTINUE
      RETURN
      END
C*************************************************************************
      SUBROUTINE SVORT(IA1,ASCII,LINUM)
      INTEGER ASCII(5),VALUE
      LOGICAL LINUM,NEGTV
      DATA MASK1/"377777777777/
      DATA MASK2/"177/
      NEGTV=IA1.LT.0
      VALUE=IA1
      IF(NEGTV)VALUE=VALUE.AND.MASK1
      LINUM=(VALUE.AND.1).EQ.1
      VALUE=VALUE/2
      DO 10 I=1,5
      N=6-I
      ASCII(N)=VALUE.AND.MASK2
      VALUE=VALUE/128
   10 CONTINUE
      IF(NEGTV)ASCII(1)=ASCII(1)+64
      RETURN
      END
C*************************************************************************
      SUBROUTINE BITS(WORD,ARY36)
      INTEGER WORD,ARY36(36)
      DATA MASK/"377777777777/
      ARY36(1)=0
      NUM=WORD
      IF(WORD.GE.0)GO TO 10
      NUM=NUM.AND.MASK
      ARY36(1)=1
   10 DO 20 I=1,35
      M=37-I
      ARY36(M)=MOD(NUM,2)
      NUM=NUM/2
   20 CONTINUE
      RETURN
      END
C*************************************************************************
      FUNCTION BSBT(WORD,FIRST,LAST)
      INTEGER FIRST,WORD,BITS(36)
```

DATA MASK1 /Ø377777777777/

DATA MASK2/Ø177/

LOGICAL FUNCTION KAND (I, J)
LOGICAL I, J
KAND = I.AND.J
RETURN
END

```
07200           MSKBT=0
07210           IF(
07220          *    FIRST.LT.0.OR.
07230          *    FIRST.GT.35.OR.
07240          *    FIRST.GT.LAST.OR.
07250          *    LAST.LT.0.OR.
07260          *    LAST.GT.35)RETURN
07270           IF(LAST-FIRST.NE.35)GO TO 10
07280           MSKBT=NOT(0)
07290           RETURN
07300        10 CALL BITS(NOT(0),FIRST,N)
07310           N=FIRST+1
07320           M=LAST+1
07330           DO 20 I=1,N
07340        20 MSKBT=MSKBT*2+BITS(I)
07350           RETURN
07360           END
07370     C*****************************************************************************
07380           FUNCTION IASA1(ASCII)
07390           INTEGER ASCII,CHAR,BTZRO
07400           CHAR=ASCII
07410           IF(CHAR.LT.32.OR.CHAR.GT.125)CHAR=16
07420           BTZRO=0
07430           IF(CHAR.GT.63)BTZRO="400000000000
07440           IASA1=(((CHAR.AND.63)*"004000000000).OR.BTZRO).OR."001004020100
07450           RETURN
07460           END
07470     C*****************************************************************************
07480           SUBROUTINE SIXBT(WORD,SIXNM)
07490           INTEGER WORD,SIXNM(6),VALUE
07500           LOGICAL NEGTV
07510           DATA MASK1/"377777777777/
07520           DATA MASK2/"77/
07530           VALUE=WORD
07540           NEGTV=VALUE.LT.0
07550           IF(NEGTV)VALUE=VALUE.AND.MASK1
07560           DO 10 I=1,6
07570           N=7-I
07580           SIXNM(N)=VALUE.AND.MASK2
07590           VALUE=VALUE/64
07600        10 CONTINUE
07610           IF(NEGTV)SIXNM(1)=SIXNM(1)+32
07620           RETURN
07630           END
07640     C*****************************************************************************
07650           SUBROUTINE BBXA9(WORD,A1ARY)
07660           INTEGER WORD,A1ARY(9),TABLE(16)
07670           DATA TABLE/'0','1','2','3','4','5','6','7','8','9',
07680          *'A','B','C','D','E','F'/
07690           N=0
07700           DO 10 I=1,9
07710           M=MSKBT(WORD,N,N+3)+1
07720           A1ARY(I)=TABLE(M)
07730        10 N=N+4
07740           RETURN
07750           END
07760     C*****************************************************************************
07770           SUBROUTINE REVRS(JARAY,LNGTH)
07780           DIMENSION JARAY(1)
07790           K=LNGTH/2
```

```
07800          DO 10 K=1,K
07810          L=JARAY(K)
07820          I=(L-GTH+1)-K
07830          JARAY(K)=JARAY(I)
07840       10 JARAY(I)=L
07850          RETURN
07860          END
07870    C*****************************************************************************
07880          SUBROUTINE TOTBD(CHAR)
07890          INTEGER BOARD(60),CHAR,BLANK,PERID
07900          DATA BOARD/60*'.'/
07910          DATA PERID/'.'/
07920          DATA BLANK/' '/
07930          DO 10 I=1,59
07940       10 BOARD(I)=BOARD(I+1)
07950          BOARD(60)=CHAR
07960          WRITE(5,1)BOARD
07970        1 FORMAT('+',60A1)
07980          DO 20 I=1,60
07990          IF(BOARD(I).EQ.BLANK.OR.BOARD(I).EQ.PERID)GO TO 20
08000          RETURN
08010       20 CONTINUE
08020          BOARD(60)=PERID
08030          RETURN
08040          END
08050    C*****************************************************************************
08060          SUBROUTINE TOTE(JCARD,JCNT)
08070          INTEGER JCARD(1),PERID
08080          DATA PERID/'.'/
08090          IF(JCNT.LT.1)RETURN
08100          CALL BACSN(JCARD,JCNT,LOCH)
08110          DO 10 I=1,LOCH
08120       10 CALL TOTBD(JCARD(I))
08130          DO 20 I=1,60
08140       20 CALL TOTBD(PERID)
08150          RETURN
08160          END
08170    C*****************************************************************************
08180          SUBROUTINE FIXNM(NAME,FNAME,OK)
08190          INTEGER NAME(10),HOLD(10),PERID,BLANK
08200          DOUBLE PRECISION FNAME,PNAME
08210          LOGICAL OK
08220          DATA PERID/'.'/
08230          DATA BLANK/' '/
08240          OK=.FALSE.
08250          CALL MOVE(NAME,1,10,HOLD,1)
08260          DO 10 I=1,10
08270          IF(HOLD(I).EQ.PERID)GO TO 20
08280       10 CONTINUE
08290          DO 15 I=1,10
08300          IF(HOLD(I).NE.BLANK)GO TO 15
08310          HOLD(I)=PERID
08320          GO TO 20
08330       15 CONTINUE
08340          RETURN
08350       20 ENCODE(10,1,PNAME)HOLD
08360        1 FORMAT(10A1)
08370          FNAME=PNAME
08380          OK=.TRUE.
08390          RETURN
```

```
      END
C*****************************************************************************
      FUNCTION IEBAS(EBDIC)
      INTEGER TABLE(64),EBDIC
C
C     TABLE IS EBASECODE ORDER
C
      DATA TABLE/' ','A','B','C','D','E','F','G','H','I',
     *'[','.','<','(','+','-','&',
     *'J','K','L','M','N','O','P','Q','R',
     *'!','$','*',')',';','\','-','/',
     *'S','T','U','V','W','X','Y','Z',
     *']',',','%','_','>','?',
     *'0','1','2','3','4','5','6','7','8','9',
     *':','#','@','''','=','"'/
      K=MSKBT(EBDIC,30,35)
      IEBAS=TABLE(K)
      RETURN
      END
C*****************************************************************************
      FUNCTION MSBCD(WORD,FIRST,LAST)
      INTEGER WORD,FIRST
      MSBCD=0
      IF(
     *    FIRST.LT.0.OR.
     *    FIRST.GT.35.OR.
     *    FIRST.GT.LAST.OR.
     *    LAST.LT.0.OR.
     *    LAST.GT.35.OR.
     *    FIRST+3.GT.LAST)RETURN
      J=FIRST
   10 MSBCD=MSBCD*10+MSKBT(WORD,J,J+3)
      IF(J+3.GE.LAST)RETURN
      J=J+4
      GO TO 10
      END
C*****************************************************************************
      SUBROUTINE BITX(WORD)
      INTEGER WORD,BITZ(36),HEX(9)
      CALL BITS(WORD,BITZ)
      CALL BHXA9(WORD,HEX)
      WRITE(5,1)BITZ,WORD,HEX
    1 FORMAT(2X,36I1,'=',O12,'=',9A1)
      RETURN
      END
C*****************************************************************************
      SUBROUTINE ENJUL(JDAY,MONTH,DAY,YEAR,DFWEK)
      INTEGER TABLE(12),DAY,YEAR,DFWEK,CENT,YER,FEB
      EQUIVALENCE(FEB,TABLE(2))
      DATA TABLE/3,0,3,2,3,2,3,3,2,3,2,3/
      JDAY=0
      FEB=0
      DFWEK=0
      CENT=YEAR/100
      IF(CENT.LT.1)CENT=19
      YER=MOD(YEAR,100)
      IF(YER/4*4.EQ.YER)FEB=1
      IF(CENT/4*4.NE.CENT.AND.YER.EQ.0)FEB=FEB-1
      IF(MONTH.LT.1.OR.MONTH.GT.12)RETURN
      IF(DAY.GT.28+TABLE(MONTH).OR.DAY.LT.1)RETURN
```

```
09000           MON1=MONTH-1
09010           JDAY=FLOAT(MON1*28+DAY
09020           IF(MON1.LT.1)GO TO 20
09030           DO 10 I=1,MON1
   40         10 JDAY=JDAY+TABLE(I)
09050         20 IF(CENT.GT.19)YEAR=YEAR+100
09060           CALL DAYWK(MONTH,DAY,YEAR+1900,DFWEK)
09070           RETURN
09080           END
09090     C*****************************************************************************
09100           SUBROUTINE UNJUL(JDAY,MONTH,DAY,YEAR,DFWEK)
09110           INTEGER DAY,YEAR,DFWEK
09120           INTEGER TABLE(12),FEB,CENT,YEAR,DACNT
09130           DATA TABLE/3,0,3,2,3,2,3,3,2,3,2,3/
09140           FEB=0
09150           DAY=0
09160           MONTH=0
09170           DACNT=365
09180           CENT=YEAR/100
09190           IF(CENT.LT.1)CENT=19
09200           YEAR=MOD(YEAR,100)
09210           IF(YEAR/4*4.NE.YEAR)GO TO 10
09220           FEB=1
09230           DACNT=366
09240        10 IF(CENT/4*4.NE.CENT.AND.YEAR.EQ.0)FEB=FEB-1
09250           IF(JDAY.LT.1.OR.JDAY.GT.DACNT)RETURN
09260           JJ=JDAY
09270           DO 20 MONTH=1,12
09280           DAY=JJ
09290           JJ=JJ-28-TABLE(MONTH)
09300           IF(JJ.LT.1)GO TO 30
09310        20 CONTINUE
09320        30 IF(CENT.GT.19)YEAR=YEAR+100
09330           CALL DAYWK(MONTH,DAY,YEAR+1900,DFWEK)
09340           RETURN
09350           END
09360     C*****************************************************************
09370           FUNCTION JDAYS(MONTH,DAY,YEAR)
09380           INTEGER DAY,YEAR,BASE,DFWEK,TOTJL
09390           DATA BASE/1900/
09400           JDAYS=0
09410           IF(YEAR.LT.BASE)RETURN
09420           TOTJL=0
09430           JJ=BASE-1
09440        10 JJ=JJ+1
09450           CALL ENJUL(JULDA,12,31,JJ,DFWEK)
09460           TOTJL=TOTJL+JULDA
09470           IF(JJ.NE.YEAR)GO TO 10
09480           CALL ENJUL(JJ,MONTH,DAY,YEAR,DFWEK)
09490           IF(JJ.LT.1)RETURN
09500           JDAYS=TOTJL-JULDA+JJ
09510           RETURN
09520           END
09530     C*****************************************************************************
09540           SUBROUTINE CDATE(JDATE,MONTH,DAY,YEAR,DFWEK)
09550           INTEGER DAY,YEAR,DFWEK,BASE
09560           DATA BASE/1900/
09570           MONTH=0
09580           DAY=0
09590           YEAR=0
```

```
09600          OFFSET=0
09610          IF(JDATE.LT.1)RETURN
09620          JJ=0
   30          YEAR=BASE-1
09640       10 YEAR=YEAR+1
09650          CALL ENJUL(JULDA,12,31,YEAR,OFFSET)
09660          JJ=JJ+JULDA
09670          IF(JJ.LT.JDATE)GO TO 10
09680          JJ=JDATE-(JJ-JULDA)
09690          CALL UNJUL(JJ,MONTH,DAY,YEAR,OFFSET)
09700          RETURN
09710          END
09720    C*****************************************************************************
09730          FUNCTION IVERT(JCARD)
09740          INTEGER JCARD(15),TOTAL,BLANK
09750          LOGICAL NEGTV
09760          DATA BLANK/' '/
09770          TOTAL=0
09780          N=1
09790          NEGTV=IVORT(JCARD(1)).EQ.-1
09800          IF(NEGTV)N=2
09810          DO 10 I=N,15
09820          M=IVORT(JCARD(I))
09830          IF(M.LT.0.OR.M.GT.9.OR.JCARD(I).EQ.BLANK)GO TO 20
09840          TOTAL=TOTAL*10+M
09850       10 CONTINUE
09860       20 IVERT=TOTAL
09870          IF(NEGTV)IVERT=-TOTAL
09880          RETURN
09890          END
09900    C*****************************************************************************
09910          SUBROUTINE HASH(MODE,LOOK4,ARRAY,SIZE,LOCER)
09920          INTEGER ARRAY(1),SIZE,HOLE
09930    C
09940    C     MODE-                        LOCER-
09950    C       1=COUNT                     -1=NOT FOUND, FULL
09960    C       0=FIND                       0=FOUND A HOLE
09970    C      -1=FIND AND PUT               +=LOCATION
09980    C
09990          HOLE=ARRAY(1)
10000          IF(MODE.NE.1)GO TO 20
10010          LOCER=0
10020    C
10030    C    COUNT ITEMS PRESENT
10040    C
10050          DO 15 I=2,SIZE
10060          IF(ARRAY(I)-HOLE)10,15,10
10070       10 LOCER=LOCER+1
10080       15 CONTINUE
10090          RETURN
10100    C
10110    C    DO LOOKUP
10120    C
10130    C       LOCA=IABS(LOOK4)-IABS(LOOK4)/(SIZE-1)*(SIZE-1)+2
   40       20 LOCA=MOD(IABS(LOOK4),SIZE-1)+2
10150          DO 25 I=LOCA,SIZE
10160          IF(ARRAY(I)-HOLE)22,32,22
10170       22 IF(ARRAY(I)-LOOK4)25,35,25
10180       25 CONTINUE
10190          DO 30 I=2,LOCA
```

```
10200          IF(ARRAY(I)-GOLD)27,32,27
10210       27 IF(ARRAY(I)-LOOK)30,35,30
10220       30 CONTINUE
10230      C
10240      C    NO HOLES OR NOT FOUND
1  50      C
10           LOCER=-1
10270        RETURN
10280       32 IF(MODE.LT.0)GO TO 34
10290        LOCER=0
10300        RETURN
10310      C
10320      C    PUT
10330      C
10340       34 ARRAY(I)=LOOK
10350      C
10360      C    TELL WHERE
10370      C
10380       35 LOCER=1
10390        RETURN
10400        END
10410      C*****************************************************************************
10420        SUBROUTINE BITOF(WORD,BTNUM)
10430        INTEGER WORD,BTNUM,BITZ(36),BIT
10440        BIT=1
10450         5 IF(BTNUM.LT.0.OR.BTNUM.GT.36)RETURN
10460        CALL BITS(WORD,BITZ)
10470        BITZ(BTNUM)=BIT
10480        J=0
10490        DO 10 I=2,36
10  0       10 J=J*2+BITZ(I)
10           IF(BITZ(1).EQ.1)J=J.OR."400000000000
105          WORD=J
10530        RETURN
10540        ENTRY BITOF(WORD,BTNUM)
10550        BIT=0
10560        GO TO 5
10570        END
10580      C*****************************************************************************
10590        FUNCTION IAPPN(AIARY)
10600        INTEGER AIARY(13),TEMP(12)
10610        CALL MOVE(AIARY,1,5,TEMP,1)
10620        CALL MOVE(AIARY,8,13,TEMP,7)
10630        IAPPN=IOCTL(TEMP)
10640        RETURN
10650        END
10660      C*****************************************************************************
10670        FUNCTION NVERT(JCARD,COUNT)
10680        INTEGER JCARD(1),TOTAL,BLANK,COUNT
10690        LOGICAL NEGTV
10700        DATA BLANK/' '/
10710        TOTAL=0
10720        NEGTV=.FALSE.
10730        IF(COUNT.LT.1.OR.COUNT.GT.15)GO TO 20
10740        DO 5 L=1,COUNT
10 0         IF(JCARD(L).NE.BLANK)GO TO 8
10           5 CONTINUE
10            L=COUNT
10780        8 NEGTV=IVORT(JCARD(L)).EQ.-1
10790          IF(NEGTV.AND.L.EQ.COUNT)GO TO 20
```

```
10800           IF(.NOT.IV)L=L+1
10810           DO 10 I=L,COUNT
10820           N=IVERT(JCARD(I))
10830           IF(N.LT.0.OR.N.GT.9.OR.JCARD(I).EQ.BLANK)GO TO 20
10840           TOTAL=TOTAL*10+N
10850        10 CONTINUE
10860        20 KVERT=TOTAL
10870           IF(NEGIV)KVERT=-TOTAL
10880           RETURN
10890           END
10900     C*****************************************************************
10910           FUNCTION IA1AS(A1)
10920           INTEGER A1,BTZRO
10930           BTZRO=0
10940           IF(A1.LT.0)BTZRO="000000000100
10950           IA1AS=((A1.AND."374000000000)/"004000000000).OR.BTZRO
10960           RETURN
10970           END
10980     C*****************************************************************
10990           SUBROUTINE TYPER(JCARD,JCNT)
11000           INTEGER JCARD(1)
11010           LOGICAL RETRN
11020           RETRN=.TRUE.
11030        10 IF(JCNT.LT.1.OR.JCNT.GT.80)RETURN
11040           IF(.NOT.RETRN)GO TO 20
11050           CALL RETURN
11060           CALL LINFED
11070        20 DO 30 I=1,JCNT
11080        30 CALL ADCHOT(IA1AS(JCARD(I)))
11090           RETURN
11100           ENTRY TYPE(JCARD,JCNT)
11110           RETRN=.FALSE.
11120           GO TO 10
11130           END
11140     C*****************************************************************
11150           SUBROUTINE KEYBD(JCARD,JCNT)
11160           INTEGER JCARD(1),BLANK,EOF,BACSP,SLASH,CHAR,ERASE,CNTLA
11170           LOGICAL RETRN
11180           DATA BLANK/' '/
11190           DATA EOF/13/
11200           DATA ERASE/127/
11210           DATA CNTLA/1/
11220           DATA BACSP/8/
11230           DATA SLASH/47/
11240           RETRN=.FALSE.
11250        10 IF(JCNT.LT.1.OR.JCNT.GT.120)RETURN
11260           IF(.NOT.RETRN)GO TO 20
11270        15 CALL RETURN
11280           CALL LINFED
11290        20 CALL FILL(JCARD,1,JCNT,BLANK)
11300           I=1
11310        25 CALL ADCHIN(CHAR)
11320           IF(CHAR.EQ.CNTLA)CALL EXIT
11330           IF(CHAR.EQ.EOF)RETURN
11340           IF(CHAR.EQ.ERASE)GO TO 40
11350           IF(CHAR.NE.BACSP)GO TO 30
11360           IF(I.EQ.1)GO TO 25
11370           I=I-1
11380           CALL ADCHOT(BACSP)
11390           GO TO 25
```

```
11400      30 JCARD(I)=IASAI(CHAR)
11410         CALL ADCHOT(IA1AS(JCARD(I)))
11420         I=I+1
11430         IF(I.LE.JCNT)GO TO 25
11440         RETURN
11450      40 CALL ADCHOT(SLASH)
11460         CALL ADCHOT(SLASH)
11470         GO TO 15
11480         ENTRY KEYBR(JCARD,JCNT)
11490         RETRN=.TRUE.
11500         GO TO 10
11510         END
11520   C*************************************************************************
11530         SUBROUTINE TYPEZ(JCARD,JCNT)
11540         INTEGER JCARD(1),BUFER(80)
11550         IF(JCNT.GT.1.OR.JCNT.GT.80)RETURN
11560         CALL PACSA(JCARD,80,LOCN)
11570         CALL TYPER(JCARD,LOCN)
11580         RETURN
11590         ENTRY KEYZ(JCARD,JLOC)
11600         CALL KEYBR(BUFER,80)
11610         CALL PACSA(BUFER,80,JLOC)
11620         CALL MOVE(BUFER,1,JLOC,JCARD,1)
11630         RETURN
11640         END
11650   C*************************************************************************
11660         SUBROUTINE BELL
11670         CALL ADCHOT(7)
11680         RETURN
11690         END
11700   C*************************************************************************
11710         SUBROUTINE PACSPC
11720         CALL ADCHOT(8)
11730         RETURN
11740         END
11750   C*************************************************************************
11760         SUBROUTINE LINFED
11770         CALL ADCHOT(10)
11780         RETURN
11790         END
11800   C*************************************************************************
11810         SUBROUTINE RETURN
11820         CALL ADCHOT(13)
11830         RETURN
11840         END
11850   C*************************************************************************
11860         SUBROUTINE HOME
11870         CALL ADCHOT(27)
11880         CALL ADCHOT(72)
11890         RETURN
11900         END
11910   C*************************************************************************
11920         SUBROUTINE SCLEAR
11930         CALL ADCHOT(27)
11940         CALL ADCHOT(69)
11950         RETURN
11960         END
11970   C*************************************************************************
11980         SUBROUTINE ETROSC
11990         CALL ADCHOT(27)
```

```
12000          CALL ADCHOT(74)
12010          RETURN
12020          END
12030    C*************************************************************************
   40          SUBROUTINE ERASE
12050          CALL ADCHOT(27)
12060          CALL ADCHOT(75)
12070          RETURN
12080          END
12090    C*************************************************************************
12100          SUBROUTINE CURSLF
12110          CALL ADCHOT(27)
12120          CALL ADCHOT(68)
12130          RETURN
12140          END
12150    C*************************************************************************
12160          SUBROUTINE CURSRT
12170          CALL ADCHOT(27)
12180          CALL ADCHOT(67)
12190          RETURN
12200          END
12210    C*************************************************************************
12220          SUBROUTINE CURSUP
12230          CALL ADCHOT(27)
12240          CALL ADCHOT(65)
12250          RETURN
12260          END
12270    C*************************************************************************
12280          SUBROUTINE CURSDN
  290          CALL ADCHOT(27)
12300          CALL ADCHOT(66)
12310          RETURN
12320          END
12330    C*************************************************************************
12340          SUBROUTINE PLACE(X,Y)
12350          INTEGER X,Y
12360          N=MOD(X,79)
12370          M=MOD(Y,23)
12380          IF(N.LE.0.OR.M.LE.0)RETURN
12390          CALL HOME
12400          DO 10 I=1,N
12410       10 CALL CURSRT
12420          DO 20 I=1,M
12430       20 CALL CURSDN
12440          RETURN
12450          END
12460    C*************************************************************************
12470          SUBROUTINE BUPLOT(X,Y)
12480          IMPLICIT INTEGER (A-Z)
12490          DATA BRANCH/1/
12500          DATA CHAR/88/
12510          GO TO(10,20),BRANCH
12520       10 CALL SCLEAR
12530          CALL HOME
12540          NOWX=1
12550          NOWY=1
12560          BRANCH=2
12570       20 KX=X
12580          KY=Y
12590          IF(KX.GT.79)KX=79
```

```
12600          IF(KY.GT.23)KY=23
12610          IF(KX.LT.1)KX=1
12620          IF(KY.LT.1)KY=1
12630          MOVX=KX-MOVX
   40          MOVY=KY-MOVY
               IF(MOVX)30,70,50
12660       30 MOVX=-MOVX
12670          DO 40 I=1,MOVX
12680       40 CALL CURSLF
12690          GO TO 70
12700       50 DO 60 I=1,MOVX
12710       60 CALL CURSRT
12720       70 IF(MOVY)80,200,100
12730       80 MOVY=-MOVY
12740          DO 90 I=1,MOVY
12750       90 CALL CURSUP
12760          GO TO 200
12770      100 DO 110 I=1,MOVY
12780      110 CALL CURSDN
12790      200 CALL ADCHOT(CHAR)
12800          CALL CURSLF
12810          MOVX=KX
12820          MOVY=KY
12830          RETURN
12840          ENTRY NEWSCR
12850          BRSCH=1
12860          RETURN
12870          ENTRY NUCHAR(A1)
12880          CHAR=IA1AS(A1)
12890          RETURN
12900          END
12910  C*****************************************************************************
12920          SUBROUTINE UNPK(KCARD,K,KLAST,JCARD,J)
12930          INTEGER KCARD(1),JCARD(1)
12940          IF(K.LT.1.OR.KLAST.LT.1.OR.KLAST.LT.K.OR.J.LT.1)RETURN
12950          KLOC=K
12960          N=J+((KLAST-K+1)/2)-1
12970          DO 20 I=J,N
12980          DECODE(2,10,JCARD(I))KCARD(KLOC),KCARD(KLOC+1)
12990       10 FORMAT(2A1)
13000       20 KLOC=KLOC+2
13010          RETURN
13020          END
13030  C*****************************************************************************
13040          SUBROUTINE RELA1(X,JARAY)
13050          DIMENSION JARAY(16)
13060          INTEGER WHOLE,PERIO,ASTER,AZERO,BLANK
13070          DATA PERIO/'.'/
13080          DATA ASTER/'*'/
13090          DATA AZERO/'0'/
13100          DATA BLANK/' '/
13110          DO 10 I=1,16
13120       10 JARAY(I)=BLANK
13130          IF(X.GT.34359738367. .OR.X.LT.-34359738368. )GO TO 30
13140          WHOLE=IFIX(X)
13150          TSHST=(X-FLOAT(WHOLE)+.0005)*1000.0
13160          JARAY(14)=AZERO
13170          JARAY(15)=AZERO
13180          CALL JVERT(IFIX(TSHST),JARAY(16))
13190          CALL JVERT(WHOLE,JARAY(11))
```

```
13200       20 JARAY(12)=PERIOD
13210          RETURN
13220       30 DO 40 I=2,10
13230       40 JARAY(I)=ASTER
13240          GO TO 20
13250          END
13260    C*****************************************************************************
13270          FUNCTION IA1SB(A1ARY)
13280          INTEGER A1ARY(6),SIXBT
13290          LOGICAL BTZRO
13300          IA1SB=IA1AS(A1ARY(1))-32
13310          BTZRO=IA1SB.GT."37
13320          IF(BTZRO)IA1SB=IA1SB.AND."37
13330          DO 10 I=2,6
13340          SIXBT=IA1AS(A1ARY(I))-32
13350       10 IA1SB=(IA1SB*"100)+SIXBT
13360          IF(BTZRO)IA1SB=IA1SB.OR."400000000000
13370          RETURN
13380          END
13390    C*****************************************************************************
13400          SUBROUTINE SHELL2(ARAY1,ARAY2,COUNT)
13410          INTEGER ARAY1(1),ARAY2(1),COUNT,TEMP
13420          M=0
13430       10 M=M+M+1
13440          IF(M-COUNT)10,20,20
13450       20 M=M/2
13460          IF(M.GE.0)RETURN
13470       30 K=COUNT-M
13480          DO 60 J=1,K
13490          I=J
13500       40 L=I+M
13510          IF(ARAY1(I).GE.ARAY1(L))GO TO 60
13520          TEMP=ARAY1(I)
13530          ARAY1(I)=ARAY1(L)
13540          ARAY1(L)=TEMP
13550          TEMP=ARAY2(I)
13560          ARAY2(I)=ARAY2(L)
13570          ARAY2(L)=TEMP
13580          I=I-M
13590          IF(I)60,60,40
13600       60 CONTINUE
13610          GO TO 20
13630          END
```

```
C-ERRS...STNO.C..... F O R T R A N   S O U R C E   S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**
C---------1---------2---------3---------4---------5---------6---------7--72 71 EDIT0025
C                                                                               EDIT0026
C       S U M M A R Y   O F   E D I T   C O M M A N D S                         EDIT0027
C                                                                               EDIT0028
C-------------------------------------------------------------------------------EDIT0029
C                                                                               EDIT0030
C  COMMAND          REF                    FORMS                               EDIT0031
C-------------------------------------------------------------------------------EDIT0032
C  SAR              1          SAR.../STRING/                                    EDIT0033
C                   2          SAR.../STRING1/./STRING2/                         EDIT0034
C                   3          SAR L1../STRING/                                  EDIT0035
C                   4          SAR L1../STRING1/./STRING2/                       EDIT0036
C                   5          SAR L1.L2./STRING/                                EDIT0037
C                   6          SAR L1.L2./STRING1/./STRING2/                     EDIT0038
C-------------------------------------------------------------------------------EDIT0039
C  SARL             7          SAME AS SAR, BUT WITH LIST OF                     EDIT0040
C                               WHAT IS BEING DONE.                             EDIT0041
C-------------------------------------------------------------------------------EDIT0042
C  RESEQ            8          RESEQ                                             EDIT0043
C                   9          RESEQ INCR                                        EDIT0044
C                  10          RESEQ NAME                                        EDIT0045
C                  11          RESEQ NAME INCR                                   EDIT0046
C-------------------------------------------------------------------------------EDIT0047
C  EXIT            12          EXIT                                              EDIT0048
C-------------------------------------------------------------------------------EDIT0049
C  LL              13          LL                                                EDIT0050
C                  14          LL L1                                             EDIT0051
C                  15          LL L1 L2                                          EDIT0052
C-------------------------------------------------------------------------------EDIT0053
C  STAT            16          LIST EDIT SWITCHES                                EDIT0054
C-------------------------------------------------------------------------------EDIT0055
C  LIST            17          LIST                                              EDIT0056
C                  18          LIST L1                                           EDIT0057
C                  19          LIST L1..                                         EDIT0058
C                  20          LIST L1 L2                                        EDIT0059
C                  21          LIST PR (OR PRINTER)                              EDIT0060
C                  22          LIST PR L1                                        EDIT0061
C                  23          LIST PR L1 L2                                     EDIT0062
C-------------------------------------------------------------------------------EDIT0063
C  EJECT           24          EJECT                                             EDIT0064
C                  25          EJECT TYP                                         EDIT0065
C-------------------------------------------------------------------------------EDIT0066
C  FIN             26          FIN FILENAME                                      EDIT0067
C                  27          FIN FILENAME.LDR                                  EDIT0068
C-------------------------------------------------------------------------------EDIT0069
C  APP             28          APP                                               EDIT0070
C                  29          APP CARD                                          EDIT0071
C                  30          APP TAPE                                          EDIT0072
C                  31          APP FILENAME                                      EDIT0073
C                  32          APP FILENAME L1 L2                                EDIT0074
C-------------------------------------------------------------------------------EDIT0075
C  APPEND          33          LONG FORM OF APP                                  EDIT0076
C-------------------------------------------------------------------------------EDIT0077
C  INPUT           34          INPUT                                             EDIT0078
C                  35          INPUT CARD                                        EDIT0079
C                  36          INPUT TAPE                                        EDIT0080
```

```
C-ERRS...STNO.C..... F O R T R A N   S O U R C E   S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      C                37          INPUT FILENAME                                EDIT0081
      C                38          INPUT FILENAME L1 L2                          EDIT0082
      C-------------------------------------------------------------------------- EDIT0083
      C  OUT           39          OUT                                           EDIT0084
      C                40          OUT TAPE                                      EDIT0085
      C                41          OUT L1 L2                                     EDIT0086
      C                42          OUT L1,,                                      EDIT0087
      C                43          OUT TAPE L1 L2                                EDIT0088
      C                44          OUT TAPE L1,,                                 EDIT0089
      C-------------------------------------------------------------------------- EDIT0090
      C  MOVE          45          MOVE L1 L2                                    EDIT0091
      C                46          MOVE L1 L2 L3                                 EDIT0092
      C-------------------------------------------------------------------------- EDIT0093
      C  SAE           47          SAE,,,/STRING/                                EDIT0094
      C                48          SAE L1,,/STRING/                              EDIT0095
      C                49          SAE L1,L2,/STRING/                            EDIT0096
      C-------------------------------------------------------------------------- EDIT0097
      C  DO            50          DO FILENAME                                   EDIT0098
      C                51          DO FILENAME L1                                EDIT0099
      C                52          DO FILENAME L1,,                              EDIT0100
      C                53          DO FILENAME L1 L2                             EDIT0101
      C-------------------------------------------------------------------------- EDIT0102
      C  SORT          54          SORT COL+CNT                                  EDIT0103
      C                55          SORT COL1+CNT1,COL2+CNT2                      EDIT0104
      C                56          SORT COL1+CNT1,COL2+CNT2,COL3+CNT3            EDIT0105
      C-------------------------------------------------------------------------- EDIT0106
      C  AND           57          AND L1                                        EDIT0107
      C                58          AND L1,L2,L3                                  EDIT0108
      C                59          AND L1,L2,L3                                  EDIT0109
      C-------------------------------------------------------------------------- EDIT0110
      C  FF            60          FF                                            EDIT0111
      C                61          FF ON                                         EDIT0112
      C-------------------------------------------------------------------------- EDIT0113
      C  DLEM          62          DLEM                                          EDIT0114
      C                63          DLEM ACHAR                                    EDIT0115
      C-------------------------------------------------------------------------- EDIT0116
      C  RUN           64          RUN                                           EDIT0117
      C                65          RUN FILENAME                                  EDIT0118
      C-------------------------------------------------------------------------- EDIT0119
      C  REP           66          REP L1                                        EDIT0120
      C                67          REP L1,,                                      EDIT0121
      C                68          REP L1 L2                                     EDIT0122
      C-------------------------------------------------------------------------- EDIT0123
      C  FIELD         69          FIELD                                         EDIT0124
      C                70          FIELD COL                                     EDIT0125
      C                71          FIELD COL1,COL2                               EDIT0126
      C-------------------------------------------------------------------------- EDIT0127
      C  INSERT        72          INSERT L1                                     EDIT0128
      C-------------------------------------------------------------------------- EDIT0129
      C  GP            73          GP,,,/STRING/                                 EDIT0130
      C                74          GP L1,,/STRING/                               EDIT0131
      C                75          GP L1,L2,/STRING/                             EDIT0132
      C-------------------------------------------------------------------------- EDIT0133
      C  ERASE         76          ERASE L1                                      EDIT0134
      C                77          ERASE L1,L2                                   EDIT0135
      C-------------------------------------------------------------------------- EDIT0136
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      C  ASM          78          ASM L1                                      EDIT0137
      C               79          ASM L1,L2                                   EDIT0138
      C---------------------------------------------------------------------- EDIT0139
      C  BLKFLD       80          BLKF                                        EDIT0140
      C               81          BLKF L1                                     EDIT0141
      C               82          BLKF L1,L2                                  EDIT0142
      C---------------------------------------------------------------------- EDIT0143
      C  HELP         83          HELP                                        EDIT0144
      C---------------------------------------------------------------------- EDIT0145
      C  LJUST        84          LJ                                          EDIT0146
      C               85          LJ L1                                       EDIT0147
      C               86          LJ L1,L2                                    EDIT0148
      C---------------------------------------------------------------------- EDIT0149
      C  SEQ          87          SEQ                                         EDIT0150
      C               88          SEQ  N                                      EDIT0151
      C               89          SEQ  NAME                                   EDIT0152
      C               90          SEQ  NAME N                                 EDIT0153
      C---------------------------------------------------------------------- EDIT0154
      C  RJUST        91          RJ                                          EDIT0155
      C               92          RJ L1                                       EDIT0156
      C               93          RJ L1,L2                                    EDIT0157
      C---------------------------------------------------------------------- EDIT0158
      C  SAEN         94          SAE IF STRING NOT FOUND                     EDIT0159
      C---------------------------------------------------------------------- EDIT0160
      C  SALN         95          SALN,,,/STRING/                             EDIT0161
      C               96          SALN L1,,/STRING/                           EDIT0162
      C               97          SALN L1,L2,/STRING/                         EDIT0163
      C---------------------------------------------------------------------- EDIT0164
      C  PACK         98          PACK                                        EDIT0165
      C---------------------------------------------------------------------- EDIT0166
      C  SLF          99          SLF CNT                                     EDIT0167
      C              100          SLF L1,CNT                                  EDIT0168
      C              101          SLF L1,L2,CNT                               EDIT0169
      C---------------------------------------------------------------------- EDIT0170
      C  SRF         102          SRF CNT                                     EDIT0171
      C              103          SRF L1,CNT                                  EDIT0172
      C              104          SRF L1,L2,CNT                               EDIT0173
      C---------------------------------------------------------------------- EDIT0174
      C  C2629       105          C26...                                      EDIT0175
      C              106          C26 L1                                      EDIT0176
      C              107          C26 L1,L2                                   EDIT0177
      C---------------------------------------------------------------------- EDIT0178
      C  ROTATE      108          ROT CNT                                     EDIT0179
      C              109          ROT L1,CNT                                  EDIT0180
      C              110          ROT L1,L2,CNT                               EDIT0181
      C---------------------------------------------------------------------- EDIT0182
      C  DOC         111          DOC...                                      EDIT0183
      C              112          DOC L1                                      EDIT0184
      C              113          DOC L1,L2                                   EDIT0185
      C---------------------------------------------------------------------- EDIT0186
      C  C2926       114          C29...                                      EDIT0187
      C              115          C29 L1                                      EDIT0188
      C              116          C29 L1,L2                                   EDIT0189
      C---------------------------------------------------------------------- EDIT0190
      C  PRINT       117          PRINT                                       EDIT0191
      C---------------------------------------------------------------------- EDIT0192
```

```
C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      C  TYPE          118          TYPE                                      EDIT0193
      C-------------------------------------------------------------------- EDIT0194
      C  PUNCH         119          PUNCH                                     EDIT0195
      C-------------------------------------------------------------------- EDIT0196
      C  MASK          120          MASK                                      EDIT0197
      C                121          MASK ACHAR                                EDIT0198
      C-------------------------------------------------------------------- EDIT0199
      C  OR            122          OR STRING                                 EDIT0200
      C-------------------------------------------------------------------- EDIT0201
      **                                                                     EDIT0202
```

```
C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ..... IDENTFCN    **COMPILER MESSAGES**
      C1...+...2...+...3...+...4...+...5...+...6...+...7...+...8...+...9...+...0...+...1...+...2...+...3...+...4 EDIT0203
      C                                                                                                         EDIT0204
      C                    U S I N G   A S M   F R E E   F O R M                                                EDIT0205
      C                                                                                                         EDIT0206
      C-----------------------------------------------------------------------------------------------------    EDIT0207
      C                                                                                                         EDIT0208
      C     NOTE- FF MUST BE SET ON TO ENABLE ASSEMBLER FREEFORM.                                               EDIT0209
      C                                                                                                         EDIT0210
      C --- CC ---..        --- CC ---+---1---+---2---+---3---+---4---+---5---+---6---+---7                    EDIT0211
      C 0000000001          22222222233333333334444444444555555555566666666677                                EDIT0212
      C 1234567890          12345678901234567890123456789012345678901234567890123                             EDIT0213
      C TYPE THIS              REFORMATS TO THIS                                                              EDIT0214
      C                                                                                                         EDIT0215
      C *-                  ***************************************************                               EDIT0216
      C *                   *                                                 *                               EDIT0217
      C *THIS IS A TEST     *THIS IS A TEST                                   *                               EDIT0218
      C *.THIS IS A TEST    *              THIS IS A TEST                     *                               EDIT0219
      C *                   *                                                 *                               EDIT0220
      C *-                  ***************************************************                               EDIT0221
      C START LD A          START LD      A                                                                   EDIT0222
      C  A.L1 A                   A    L1 A                                                                  EDIT0223
      C  S.3 A                    S     3 A                                                                  EDIT0224
      C  STO.I2 A COMMENT         STO   I2 A          COMMENT                                                 EDIT0225
      C FINISEXIT           FINIS EXIT                                                                        EDIT0226
      C  EBC...A S D F.           EBC     .A S D F.                                                           EDIT0227
      C GO MACRO PRAM       GO    MACRO   PRAM.                                                               EDIT0228
      C  XCH  COMM.               XCH                 COMM.                                                 EDIT0229
      C FUN LDD.Z TRIP      FUN   LDD     TRIP                                                                EDIT0230
      C A B.U C D E F G     A     B     1 C           D E F G                                                   EDIT0231
      C                                                                                                         EDIT0232
      C                                                                                                         EDIT0233
      C                     ***************************************************                               EDIT0234
      C                     *                                                 *                               EDIT0235
      C                     *              N O T E                            *                               EDIT0236
      C                     *                IN THE 'T' FIELD /,U,I,AND O     *                               EDIT0237
      C                     *                BECOME 0,1,2,AND 3.              *                               EDIT0238
      C                     *                                                 *                               EDIT0239
      C                     *              TWO ',' AFTER THE OP CODE SUPPRESS *                               EDIT0240
      C                     *               SPACING IE. EBC...1 2 3.          *                               EDIT0241
      C                     *                                                 *                               EDIT0242
      C                     ***************************************************                               EDIT0243
      C                                                                                                         EDIT0244
      C-----------------------------------------------------------------------------------------------------    EDIT0245
      **                                                                                                        EDIT0246
```

```
C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      LOGICAL FOUND,PRINT,LINEP,FIELD,FIRST,MORE,AND,OPEND,KNOT                EDIT0247
      LOGICAL ERASE,DO,GP,SUMOR,EOF,FWDRV(3),HLDIR,FREFM,FAIL                  EDIT0248
      LOGICAL PAC,SECUN,RJ,SLF,SRF,OLL,HOLD,LPRNT,HELP,PUNCH,OR                EDIT0249
C                                                                              EDIT0250
      COMMON MCR(40)                                                           EDIT0251
      COMMON TM01,TM02,TM03,TM04,STNG1,STNG2,TM08,CRDSQ,LINUM                  EDIT0252
      COMMON ARGS,ARGLA,AISEQ                                                  EDIT0253
C                                                                              EDIT0254
      INTEGER SWAP(6),NOXEQ(8),TM02(80),TM03(80),LSDDF(2),LSDMJ(2)             EDIT0255
      INTEGER HFTM1(40),SEQ(4),AISEQ(8),DELMT,TM07(80),TM08(80)                EDIT0256
      INTEGER CRDSQ(40),DOLIM,ALTIO,ON(2),RETRN,SRTCR                          EDIT0257
      INTEGER TM01(80),CRD(36),STNG1(40),STNG2(40),LINUM(5)                    EDIT0258
      INTEGER KARD(4),PRNTR(2),SLSLB(3),DALER,DASH                             EDIT0259
      INTEGER SARC,SARC1,SARC2,FILNO,FLSH,RUN,DLMCT,COMND                      EDIT0260
      INTEGER FILE,FSTLN,AMPER,COLON,APLUS,FLMRK,AZERO                         EDIT0261
      INTEGER DIRET,FIN,SAR,REP,ERACE,BRNCH,SCAD1,SCAD2,SCAD3                  EDIT0262
      INTEGER HERIS(6),TYP(3),FEED,DSPL1,DSPL2,DSPL3,FILNM(5)                  EDIT0263
      INTEGER ZLIS1,ZLIS2,FRMT9,GANLM,APMAX,CHRCT,PASS                         EDIT0264
      INTEGER TM04(80),ARGS(6),ARGLA(6),TAPE(4),TM05(40),TM06(40)              EDIT0265
C                                                                              EDIT0266
      EQUIVALENCE(CRD(1),CRDSQ(1))                                             EDIT0267
      EQUIVALENCE(SEQ(1),CRDSQ(37))                                            EDIT0268
      EQUIVALENCE(HFTM1(1),TM01(1))                                            EDIT0269
      EQUIVALENCE(ARGS(1),NMBR1)                                               EDIT0270
      EQUIVALENCE(ARGS(2),DSPL1)                                               EDIT0271
      EQUIVALENCE(ARGS(3),NMBR2)                                               EDIT0272
      EQUIVALENCE(ARGS(4),DSPL2)                                               EDIT0273
      EQUIVALENCE(ARGS(5),NMBR3)                                               EDIT0274
      EQUIVALENCE(ARGS(6),DSPL3)                                               EDIT0275
      EQUIVALENCE(SLSLB(1),NOXEQ(1))                                           EDIT0276
      EQUIVALENCE(TM01(1),TM05(1)),(TM01(41),TM06(1))                          EDIT0277
      EQUIVALENCE(FILNM(1),NOXEQ(4))                                           EDIT0278
      EQUIVALENCE(TM07(1),STNG1(1)),(TM07(41),STNG2(1))                        EDIT0279
C                                                                              EDIT0280
      DATA AMPER/'&'/                                                          EDIT0281
      DATA AND/.FALSE./                                                        EDIT0282
      DATA APLUS/'+'/                                                          EDIT0283
      DATA AZERO/'0'/                                                          EDIT0284
      DATA CHRCT/72/                                                           EDIT0285
      DATA COLON/':'/                                                          EDIT0286
      DATA DALER/'$'/                                                          EDIT0287
      DATA DASH/'-'/                                                           EDIT0288
      DATA DELMT/' '/                                                          EDIT0289
      DATA DO/.FALSE./                                                         EDIT0290
      DATA EOF/.FALSE./                                                        EDIT0291
      DATA ERACE/10/                                                           EDIT0292
      DATA FAIL/.FALSE./                                                       EDIT0293
      DATA FEED/9536/     line 1...                                            EDIT0294
      DATA FIELD/.FALSE./                                                      EDIT0295
      DATA FIN/6/                                                              EDIT0296
      DATA FIRST/.TRUE./                                                       EDIT0297
      DATA FLMRK/'  '/                                                         EDIT0298
      DATA FLSH/Z0071/                                                         EDIT0299
      DATA FREFM/.FALSE./                                                      EDIT0300
      DATA FSTLN/1/                                                            EDIT0301
      DATA FWDRV/3*.FALSE./                                                    EDIT0302
```

```
C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      DATA HELP/.FALSE./                                                      EDIT0303
      DATA HERIS/1600,13888,13632,27968,5184,5696/                            EDIT0304
      DATA INREQ/0/                                                           EDIT0305
      DATA KARD/'C','A','R','D'/                                              EDIT0306
      DATA KCSW/Z007C/                                                        EDIT0307
      DATA K2629/41/                                                          EDIT0308
      DATA K2926/43/                                                          EDIT0309
      DATA LASLN/0/                                                           EDIT0310
      DATA LFELD/1/                                                           EDIT0311
      DATA LPRNT/.FALSE./                                                     EDIT0312
      DATA LSDDF/Z410E,Z1388/                                                 EDIT0313
      DATA LSDMJ/Z4511,Z1388/                                                 EDIT0314
      DATA LUNIN/6/                                                           EDIT0315
      DATA MASK/0/                                                            EDIT0316
      DATA MAXRC/1000/                                                        EDIT0317
      DATA MEND/72/                                                           EDIT0318
      DATA MORE/.FALSE./                                                      EDIT0319
      DATA NDUP/Z0034/                                                        EDIT0320
      DATA NOXEQ/'/','/',' ','E','D','I','T',' '/                            EDIT0321
      DATA NXEQ/Z0035/                                                        EDIT0322
      DATA ON/'O','N'/                                                        EDIT0323
      DATA OPEND/.FALSE./                                                     EDIT0324
      DATA OR/.FALSE./                                                        EDIT0325
      DATA PASS/0/                                                            EDIT0326
      DATA PRNTR/'P','R'/                                                     EDIT0327
      DATA PUNCH/.FALSE./                                                     EDIT0328
      DATA QLL/.FALSE./                                                       EDIT0329
      DATA REP/4/                                                             EDIT0330
      DATA RUN/16/                                                            EDIT0331
      DATA SAR/1/                                                             EDIT0332
      DATA SARC/Z004C/                                                        EDIT0333
      DATA SRTOK/1/                                                           EDIT0334
      DATA SWAP/'//',' S','WA','P ',2*'  '/                                   EDIT0335
      DATA TAPE/'T','A','P','E'/                                              EDIT0336
      DATA TYP/'T','Y','P'/                                                   EDIT0337
C                                                                             EDIT0338
      DEFINE FILE 10(1,40,U,K1),20(8,40,U,K2)                                 EDIT0339
      DEFINE FILE 30(8,40,U,K3),40(1,40,U,K4)                                 EDIT0340
C                                                                             EDIT0341
    1 FORMAT(80A1)                                                            EDIT0342
    2 FORMAT(5A1,' ',40A2)                                                    EDIT0343
    3 FORMAT(40A2)                                                            EDIT0344
    4 FORMAT(1X,5A1,' ',40A2)                                                 EDIT0345
    5 FORMAT(/,'// * ',5A2,2X,40A1)                                           EDIT0346
    6 FORMAT('1')                                                             EDIT0347
    7 FORMAT(1X,'=',80A1)                                                     EDIT0348
    8 FORMAT(' FL',I5,', LL',I5,', MX',I5)                                    EDIT0349
    9 FORMAT(80H                                  55                          EDIT0350
     *                                          )                            EDIT0351
   10 FORMAT(' FILE NOT FOUND')                                               EDIT0352
   11 FORMAT(' STRING ERROR')                                                 EDIT0353
   12 FORMAT(' WHAT?')                                                        EDIT0354
   13 FORMAT(' FILE TO SMALL FOR MOVE')                                       EDIT0355
   14 FORMAT(' FILE TO SMALL FOR REQUESTED RECORDS')                          EDIT0356
   15 FORMAT(' ASM FREE FORM ON')                                             EDIT0357
   16 FORMAT(' MONCL IN WRONG PLACE')                                         EDIT0358
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**

     17 FORMAT(' NO EOF FOUND')                                                 EDIT0359
     18 FORMAT(' LFT FIELD ',I2,/,' RT FIELD  ',I2,/,' DELM CHAR IS ',1A1)      EDIT0360
     19 FORMAT(' SEARCH FAILS')                                                 EDIT0361
     20 FORMAT(' NON-BLANK CARD ENCOUNTERED')                                   EDIT0362
     21 FORMAT(' FILE IN USE IS ',5A1)                                          EDIT0363
     22 FORMAT(' BAD NUMBER FOUND')                                             EDIT0364
     23 FORMAT(' MISSING DELIMITER')                                            EDIT0365
     60 FORMAT(' LSDDF AND/OR LSDMJ NOT IN LET/FLET')                           EDIT0366
     61 FORMAT(4X,'LISTING OF FILE ',6A1,' FL',I5,', LL',I5,', MX',I5,/)        EDIT0367
C********** S T A R T ******** S T A R T **************************             EDIT0368
        CALL DCOFF(10)                                                          EDIT0369
        CALL DBOFF(20)                                                          EDIT0370
        CALL SPOLZ(40)                                                          EDIT0371
        CALL EQUIP(10,0,0)                                                      EDIT0372
        CALL DFNFO(10,MAXRC,SCAD1)                                              EDIT0373
        ASSIGN 9 TO FRMT9                                                       EDIT0374
        SARC1=LD(SARC)                                                          EDIT0375
        SARC2=LD(SARC+1)                                                        EDIT0376
        READ(10'MAXRC) I                                                        EDIT0377
        WRITE(10'MAXRC) I                                                       EDIT0378
C       CALL NEXIT                                                              EDIT0379
        IF(LD(KCSW).EQ.0.OR.SARC1+SARC2.NE.0)LUNIN=2                            EDIT0380
        IF(LUNIN.EQ.2.AND.LD(FLSH).NE.0)CALL EXIT                               EDIT0381
        LUNOT=3-LUNIN/3                                                         EDIT0382
        CALL STO(0,FLSH)                                                        EDIT0383
        CALL STO(0,NDUP)                                                        EDIT0384
        CALL STO(0,NXEQ)                                                        EDIT0385
        CALL FREEZ(INREQ)                                                       EDIT0386
        HERIS(1)=5440                                                           EDIT0387
        IF(.NOT.FIRST.AND.(SARC1.NE.0.OR.LUNIN.EQ.2))GO TO 70                   EDIT0388
        IF(.NOT.FIRST.AND.DO)GO TO 2230                                         EDIT0389
        IF(.NOT.FIRST)GO TO 25                                                  EDIT0390
        CALL UNPAC(MCR,1,40,TM02,1)                                             EDIT0391
        CALL FILL(MCR,1,40,16448)                                               EDIT0392
        FIRST=.FALSE.                                                           EDIT0393
        DO 36 I=1,20                                                            EDIT0394
        IF(TM02(I).EQ.AMPER)TM02(I)=COLON                                       EDIT0395
     36 CONTINUE                                                                EDIT0396
        IF(KOMP(NOXEQ,2,TM02))25,24,25                                          EDIT0397
     24 CALL FILL(TM02,1,8,16448)                                               EDIT0398
        GO TO 35                                                                EDIT0399
     25 INREQ=0                                                                 EDIT0400
        IF(FAIL)WRITE(LUNOT,19)                                                 EDIT0401
        FAIL=.FALSE.                                                            EDIT0402
        IF(LUNIN.EQ.2.OR.MORE.OR.DO)GO TO 30                                    EDIT0403
        IF(PASS.GE.2.AND.KBCON(I).EQ.1)GO TO 31                                 EDIT0404
        IF(OLL)GO TO 1425                                                       EDIT0405
        WRITE(1,1)HERIS                                                         EDIT0406
     30 LIN=LUNIN                                                               EDIT0407
        CALL FINIS                                                              EDIT0408
        IF(MORE)GO TO 35                                                        EDIT0409
        IF(DO)GO TO 32                                                          EDIT0410
        PASS=PASS+1                                                             EDIT0411
        READ(LUNIN,1)TM02                                                       EDIT0412
        HERIS(1)=1600                                                           EDIT0413
        PASS=0                                                                  EDIT0414
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      GO TO 35                                                                EDIT0415
   31 CALL STO(0,KCSW)                                                        EDIT0416
      CALL EXIT                                                               EDIT0417
   32 IF(K3.GT.DOLIM)GO TO 2230                                               EDIT0418
      READ(30'K3)CRDSQ                                                        EDIT0419
      CALL UNPAC(CRDSQ,1,40,TM02,1)                                           EDIT0420
      IF(EOF.AND.CRD(1).EQ.FLMRK)GO TO 2230                                   EDIT0421
   35 MORE=.TRUE.                                                             EDIT0422
      CALL FILL(TM01,1,80,16448)                                              EDIT0423
      DO 38 I=1,80                                                            EDIT0424
      IF(TM02(I).EQ.DELMT)GO TO 40                                            EDIT0425
   38 CONTINUE                                                                EDIT0426
      MORE=.FALSE.                                                            EDIT0427
   40 IF(MORE)TM02(I)=16448                                                   EDIT0428
      M=I-1                                                                   EDIT0429
      DO 42 I=1,M                                                             EDIT0430
      IF(TM02(I).NE.16448)GO TO 44                                            EDIT0431
   42 CONTINUE                                                                EDIT0432
      GO TO 25                                                                EDIT0433
   44 CALL MOVE(TM02,I,M,TM01,1)                                              EDIT0434
      IF(KOMP(TM01,3,SLSLB).EQ.0)GO TO 8900                                   EDIT0435
      CALL FILL(TM02,I,M,16448)                                               EDIT0436
      IF(LUNIN.EQ.2)WRITE(LUNOT,7)TM01                                        EDIT0437
   45 CALL FILL(STNG1,1,6,0)                                                  EDIT0438
      CALL PARCE                                                              EDIT0439
     *(TM01,NMBR1,DSPL1,NMBR2,DSPL2,NMBR3,DSPL3,STNG1,STNG2,DLMCT,COMND)      EDIT0440
      IF(AND)GO TO 2310                                                       EDIT0441
      IF(OR)GO TO 3210                                                        EDIT0442
      IF((COMND.NE.23.AND.COMND.NE.32).AND.COMND.GT.0)                        EDIT0443
     *   CALL MOVE(TM01,1,80,TM04,1)                                          EDIT0444
   50 ERASE=.FALSE.                                                           EDIT0445
      GP=.FALSE.                                                              EDIT0446
      KNOT=.FALSE.                                                            EDIT0447
      PAC=.FALSE.                                                             EDIT0448
      SEQUN=.FALSE.                                                           EDIT0449
      LINEP=LUNIN.EQ.2                                                        EDIT0450
      FILNO=1                                                                 EDIT0451
      ALTIO=0                                                                 EDIT0452
      IF(KOMP(STNG1,4,KARD).EQ.0)ALTIO=2                                      EDIT0453
      IF(KOMP(STNG1,2,PRNTR).EQ.0)ALTIO=1                                     EDIT0454
      IF(KOMP(STNG1,4,TAPE).EQ.0)ALTIO=4                                      EDIT0455
      AND=.FALSE.                                                             EDIT0456
      OR=.FALSE.                                                              EDIT0457
      IF(COMND.LT.1)GO TO 3010                                                EDIT0458
      GO TO(100,200,300,400,500,600,700,800,900,                              EDIT0459
     *1000,1100,1200,1300,1400,1500,1600,1700,1800,1900,                      EDIT0460
     *2000,2100,2200,2300,2400,2500,2600,2700,2800,2900,3000,                 EDIT0461
     *3100,3200,3300,3400,3500,3600,3700,3800,3900,4000,4100,                 EDIT0462
     *4200,4300,4400,4500,4600,4700),COMND                                    EDIT0463
   70 CALL STO(-1,FLSH)                                                       EDIT0464
      CALL EXIT                                                               EDIT0465
C*****************************SAR SAR SAR*********************************  EDIT0466
  100 PRINT=.FALSE.                                                          EDIT0467
      FAIL=.TRUE.                                                             EDIT0468
      GO TO 210                                                               EDIT0469
C*****************************SARL SARL ***********************************  EDIT0470
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ..... IDENTFCN   **COMPILER MESSAGES**

      200 PRINT=.TRUE.                                                      EDIT0471
      210 BRNCH=1                                                           EDIT0472
          IF(DLMCT.NE.4.AND.DLMCT.NE.5)GO TO 25                             EDIT0473
          ZLIS1=41                                                          EDIT0474
          ZLIS2=41                                                          EDIT0475
          DO 220 I=1,40                                                     EDIT0476
          IF(ZLIS1.EQ.41.AND.STNG1(I).EQ.0)ZLIS1=I                          EDIT0477
          IF(ZLIS2.EQ.41.AND.STNG2(I).EQ.0)ZLIS2=I                          EDIT0478
          IF(ZLIS1.NE.41.AND.ZLIS2.NE.41)GO TO 222                          EDIT0479
      220 CONTINUE                                                          EDIT0480
      222 N=FSTLN                                                           EDIT0481
          M=0                                                               EDIT0482
          IF(DLMCT.LT.2.AND.                                                EDIT0483
         *(COMND.EQ.REP.OR.COMND.EQ.ERACE.OR.COMND.EQ.SAR)                  EDIT0484
         *)GO TO 25                                                         EDIT0485
          GO TO(245,245,240,242,245,240,240,240,240,240,245),BRNCH          EDIT0486
      242 IF(GP)GO TO 245                                                   EDIT0487
      240 IF(STNG1(1).NE.0)GO TO 9010                                       EDIT0488
      245 IF(DLMCT.LT.2)GO TO 223                                           EDIT0489
          N=NMBR1+DSPL1                                                     EDIT0490
          M=NMBR2+DSPL2                                                     EDIT0491
          IF(BRNCH.EQ.1.AND.M.EQ.0)M=N                                      EDIT0492
          IF(BRNCH.EQ.4.AND.N.GT.M.AND.M.NE.0)M=N                           EDIT0493
      223 IF(N.LT.1)N=FSTLN                                                 EDIT0494
          IF(N.GT.LASLN.OR.N.LT.FSTLN)GO TO 25                              EDIT0495
          GO TO(231,320,440,1010,1110,2710,3120,2810,2550,4110,330),BRNCH   EDIT0496
      225 IF(N.EQ.M.AND.BRNCH.NE.3)GO TO 25                                 EDIT0497
          IF(N.EQ.M)GO TO 510                                               EDIT0498
          N=N+1                                                             EDIT0499
          GO TO 223                                                         EDIT0500
      231 READ(10'N)CRDSQ                                                   EDIT0501
          CALL UNPAC(CRDSQ,1,40,TM01,1)                                     EDIT0502
          CALL SARMX                                                        EDIT0503
         *(TM01,LFELD,LFELD+CHRCT-1,STNG1,ZLIS1-1,STNG2,ZLIS2-1,MASK,FOUND, EDIT0504
         *DLMCT)                                                            EDIT0505
          IF(.NOT.FOUND.AND.KNOT)GO TO 227                                  EDIT0506
          IF(.NOT.FOUND.OR.KNOT)GO TO 225                                   EDIT0507
      227 FAIL=.FALSE.                                                      EDIT0508
          CALL PACK(TM01,1,80,CRDSQ,1)                                      EDIT0509
          IF(ERASE)CALL FILL(CRDSQ,1,40,16448)                              EDIT0510
          WRITE(10'N)CRDSQ                                                  EDIT0511
          IF(.NOT.PRINT)GO TO 225                                           EDIT0512
      215 CALL FILL(LINUM,1,5,AZERO)                                        EDIT0513
          CALL JVERT(N,LINUM(5))                                            EDIT0514
          IF(ERASE)CALL PACK(TM01,1,80,CRDSQ,1)                             EDIT0515
          IF(PUNCH)GO TO 1120                                               EDIT0516
      218 IF(LINEP.OR.LPRNT)GO TO 238                                       EDIT0517
          J=36                                                              EDIT0518
          IF(MEND.GT.72)J=40                                                EDIT0519
          K=1                                                               EDIT0520
          IF(.NOT.FREEM)GO TO 232                                           EDIT0521
          CALL FILL(HFTM1,1,10,16448)                                       EDIT0522
          K=KOMP(HFTM1,10,CRDSQ)                                            EDIT0523
          IF(K.LT.1)K=10                                                    EDIT0524
      232 WRITE(LUNOT,2)LINUM,(CRDSQ(I),I=K,J)                              EDIT0525
          GO TO 225                                                         EDIT0526
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

      238 WRITE(3,4)LINUM,CRDSQ                                              EDIT0527
          GO TO 225                                                          EDIT0528
C*****************************LIST LIST ************************************ EDIT0529
      300 BRNCH=2                                                            EDIT0530
          IF(ALTIO.NE.1)GO TO 222                                            EDIT0531
          LINEP=.TRUE.                                                       EDIT0532
      308 NMBR1=NMBR2                                                        EDIT0533
          DSPL1=DSPL2                                                        EDIT0534
          NMBR2=NMBR3                                                        EDIT0535
          DSPL2=DSPL3                                                        EDIT0536
          DLMCT=DLMCT-1                                                      EDIT0537
          IF(DLMCT.EQ.3)GO TO 222                                            EDIT0538
          NMBR2=NMBR1                                                        EDIT0539
          DSPL2=DSPL1                                                        EDIT0540
          GO TO 222                                                          EDIT0541
      320 BRNCH=11                                                           EDIT0542
          K=16448                                                            EDIT0543
          IF(FWDRV(1))K=APLUS                                                EDIT0544
          IF(LINEP)WRITE(3,61)K,FILNM,FSTLN,LASLN,MAXRC                      EDIT0545
      330 READ(10'N)CRDSQ                                                    EDIT0546
          GO TO 215                                                          EDIT0547
C*****************************REP REP ************************************** EDIT0548
      400 BRNCH=3                                                            EDIT0549
          GO TO 222                                                          EDIT0550
      440 RETRN=2                                                            EDIT0551
          GO TO 940                                                          EDIT0552
      450 READ(LUNIN,9)                                                      EDIT0553
          CALL FMTA2(FRMT9,CRDSQ)                                            EDIT0554
          IF(.NOT.FIELD.AND.FREFM)CALL RFASM(CRD)                            EDIT0555
          READ(10'N)HFTM1                                                    EDIT0556
          CALL INSRT(CRD,1,CHRCT,HFTM1,LFELD)                                EDIT0557
          WRITE(10'N)HFTM1                                                   EDIT0558
          GO TO 225                                                          EDIT0559
C*****************************INSERT ************************************** EDIT0560
      500 IF(DLMCT.NE.2)GO TO 9002                                           EDIT0561
          M=NMBR1+DSPL1                                                      EDIT0562
          IF(M.EQ.0.AND.STNG1(1).NE.0)GO TO 9010                             EDIT0563
      510 IF(FIELD.AND.COMND.EQ.REP)GO TO 25                                 EDIT0564
          RETRN=3                                                            EDIT0565
          N=M+1                                                              EDIT0566
          GO TO 940                                                          EDIT0567
      511 RETRN=4                                                            EDIT0568
      512 READ(LUNIN,9)                                                      EDIT0569
          CALL FMTA2(FRMT9,CRDSQ)                                            EDIT0570
          DO 520 I=1,36                                                      EDIT0571
          IF(CRD(I)-16448)530,520,530                                        EDIT0572
      520 CONTINUE                                                           EDIT0573
          GO TO 25                                                           EDIT0574
      530 IF(CRD(1).EQ.FLMRK)GO TO 25                                        EDIT0575
          IF(FREFM)CALL RFASM(CRD)                                           EDIT0576
          IF(.NOT.FIELD)GO TO 535                                            EDIT0577
          CALL FILL(HFTM1,1,40,16448)                                        EDIT0578
          CALL INSRT(CRDSQ,1,CHRCT,HFTM1,LFELD)                              EDIT0579
          CALL MOVE(HFTM1,1,40,CRDSQ,1)                                      EDIT0580
      535 M=M+1                                                              EDIT0581
          IF(LASLN+2.GE.MAXRC)GO TO 9008                                     EDIT0582
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

            N=M+1                                                            EDIT0583
            GO TO 940                                                        EDIT0584
          540 CALL FINIS                                                     EDIT0585
            INREQ=1                                                          EDIT0586
            ISER=SCAD1                                                       EDIT0587
            IF(FWDRV(1))ISER=-ISER                                           EDIT0588
            CALL EDINS(ISER,M,LASLN+2,CRD)                                   EDIT0589
            OLL=.TRUE.                                                       EDIT0590
            LASLN=LASLN+1                                                    EDIT0591
            INREQ=0                                                          EDIT0592
            GO TO 512                                                        EDIT0593
          C*****************************FIN FIN ************************************ EDIT0594
          600 IF(COMND.NE.FIN)GO TO 610                                      EDIT0595
            IF(NMBR2+DSPL2.GT.4.OR.NMBR2+DSPL2.LT.0)GO TO 9010               EDIT0596
          610 HLDIR=FWDRV(FILNO)                                             EDIT0597
            FILE=FILNO*10                                                    EDIT0598
            IF(FWDRV(FILNO))CALL IODFR(FILE)                                 EDIT0599
            K=1                                                              EDIT0600
            FWDRV(FILNO)=STNG1(1).EQ.APLUS                                   EDIT0601
            IF(FWDRV(FILNO))K=2                                              EDIT0602
            CALL NAMCD(STNG1(K),NAME1,NAME2)                                 EDIT0603
            IF(PREFM.AND.COMND.EQ.FIN)WRITE(LUNOT,15)                        EDIT0604
            NNFF=1                                                           EDIT0605
            NT=5                                                             EDIT0606
            INREQ=1                                                          EDIT0607
            IF(DLMCT.NE.3.OR.COMND.NE.FIN)GO TO 612                          EDIT0608
            NNFF=NMBR2+DSPL2+1                                               EDIT0609
            NT=NNFF                                                          EDIT0610
          612 DO 615 I=NNFF,NT                                               EDIT0611
            LOGDR=I-1                                                        EDIT0612
            CALL EQUIP(FILE,NAME1,NAME2,LOGDR)                               EDIT0613
            IF(LOGDR+1.EQ.I)GO TO 618                                        EDIT0614
          615 CONTINUE                                                       EDIT0615
            FWDRV(FILNO)=HLDIR                                               EDIT0616
          618 IF(FWDRV(FILNO))CALL IODFR(FILE)                               EDIT0617
            INREQ=0                                                          EDIT0618
            IF(I.EQ.NT+1)GO TO 9000                                          EDIT0619
          C   1, FIN   2, APP   3, DO                                        EDIT0620
            GO TO(620,850,2210),FILNO                                        EDIT0621
          620 CALL DFNFO(10,MAXRC,SCAD1)                                     EDIT0622
            FSTLN=1                                                          EDIT0623
            LASLN=0                                                          EDIT0624
            OPEND=.TRUE.                                                     EDIT0625
            CALL MOVE(STNG1,K,K+4,FILNM,1)                                   EDIT0626
            OLL=.TRUE.                                                       EDIT0627
            DO 660 I=1,MAXRC                                                 EDIT0628
            READ(10'I)J                                                      EDIT0629
            IF(J.EQ.FLMRK)GO TO 680                                          EDIT0630
          660 LASLN=I                                                        EDIT0631
            LASLN=0                                                          EDIT0632
          680 IF(COMND.EQ.RUN)GO TO 1620                                     EDIT0633
            GO TO 1420                                                       EDIT0634
          C*****************************MOVE MOVE ************************************ EDIT0635
          700 IF((DLMCT.NE.3.AND.DLMCT.NE.4).OR.STNG1(1).NE.0)GO TO 9010     EDIT0636
            INREQ=1                                                          EDIT0637
            NMBR1=NMBR1+DSPL1                                                EDIT0638
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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ..... IDENTFCN  **COMPILER MESSAGES**

      NMBR2=NMBR2+DSPL2                                                    EDIT0639
      NMBR3=NMBR3+DSPL3                                                    EDIT0640
      IF(DLMCT-3)705,703,705                                               EDIT0641
  703 NMBR3=NMBR2                                                          EDIT0642
      NMBR2=NMBR1                                                          EDIT0643
  705 IF(NMBR1.GT.NMBR2.OR.                                                EDIT0644
     *  (NMBR3.GE.NMBR1.AND.NMBR3.LE.NMBR2))GO TO 9002                     EDIT0645
      IF(NMBR2.GT.LASLN.OR.NMBR3.GT.LASLN)GO TO 9002                       EDIT0646
      IF(NMBR1.LT.1.OR.NMBR3.LT.0)GO TO 9002                               EDIT0647
      IF(NMBR1.EQ.1.AND.NMBR2.EQ.1.AND.NMBR3.EQ.0)GO TO 25                 EDIT0648
      MOVCT=NMBR2-NMBR1+1                                                  EDIT0649
      IF(MAXRC.LE.LASLN+MOVCT)GO TO 9006                                   EDIT0650
      J=LASLN+1                                                            EDIT0651
      DO 710 I=NMBR1,NMBR2                                                 EDIT0652
      READ(10'I)CRDSQ                                                      EDIT0653
      WRITE(10'J)CRDSQ                                                     EDIT0654
  710 J=J+1                                                                EDIT0655
      IF(NMBR3.GT.NMBR2)GO TO 720                                          EDIT0656
      J1=NMBR1-1                                                           EDIT0657
      J2=NMBR2                                                             EDIT0658
      INCRM=-1                                                             EDIT0659
      J=J1-NMBR3                                                           EDIT0660
      K=NMBR3+1                                                            EDIT0661
      GO TO 730                                                            EDIT0662
  720 J1=NMBR2+1                                                           EDIT0663
      J2=NMBR1                                                             EDIT0664
      INCRM=1                                                              EDIT0665
      J=NMBR3-J2                                                           EDIT0666
      K=NMBR3-MOVCT+1                                                      EDIT0667
  730 DO 740 I=1,J                                                         EDIT0668
      READ(10'J1)CRDSQ                                                     EDIT0669
      WRITE(10'J2)CRDSQ                                                    EDIT0670
      J1=J1+INCRM                                                          EDIT0671
  740 J2=J2+INCRM                                                          EDIT0672
      J=LASLN+1                                                            EDIT0673
      DO 750 I=1,MOVCT                                                     EDIT0674
      READ(10'J)CRDSQ                                                      EDIT0675
      WRITE(10'K)CRDSQ                                                     EDIT0676
      J=J+1                                                                EDIT0677
  750 K=K+1                                                                EDIT0678
      WRITE(10'LASLN+1)FLMRK                                               EDIT0679
      GO TO 25                                                             EDIT0680
C*****************************APP APP ************************************ EDIT0681
  800 IF(LASLN.LT.1)GO TO 900                                              EDIT0682
      IF(ALTIO.GE.2)LIN=ALTIO                                              EDIT0683
      N=LASLN+1                                                            EDIT0684
      IF(N.GE.MAXRC)GO TO 9008                                             EDIT0685
  810 IF(ALTIO.LT.2.AND.DLMCT.GE.2)GO TO 840                               EDIT0686
      RETRN=1                                                              EDIT0687
      GLL=LIN.NE.6                                                         EDIT0688
      GO TO 940                                                            EDIT0689
  812 READ(LIN,9)                                                          EDIT0690
      CALL FMTA2(FRMT9,CRDSQ)                                              EDIT0691
      IF(CRD(1).EQ.FLMRK)GO TO 25                                          EDIT0692
      IF(LIN.NE.6)GO TO 830                                                EDIT0693
      DO 820 I=1,36                                                        EDIT0694
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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**

      IF(CRD(1)-16448)830,820,830                                              EDIT0695
  820 CONTINUE                                                                 EDIT0696
      GO TO 25                                                                 EDIT0697
  830 LASLN=N                                                                  EDIT0698
      IF(FREFM)CALL RFASM(CRD)                                                 EDIT0699
      IF(.NOT.FIELD)GO TO 835                                                  EDIT0700
      CALL FILL(HFTM1,1,40,16448)                                              EDIT0701
      CALL INSRT(CRD,1,CHRCT,HFTM1,LFELD)                                      EDIT0702
      CALL MOVE(HFTM1,1,40,CRDSQ,1)                                            EDIT0703
  835 WRITE(10'N)CRDSQ,FLMRK                                                   EDIT0704
      N=N+1                                                                    EDIT0705
      IF(N.GE.MAXRC)GO TO 9008                                                 EDIT0706
      GO TO 940                                                                EDIT0707
  840 FILNO=2                                                                  EDIT0708
      IF(STNG1(1).EQ.0)GO TO 9002                                              EDIT0709
      GO TO 600                                                                EDIT0710
  850 CALL DFNFO(20,APMAX,SCAD2)                                               EDIT0711
      N=1                                                                      EDIT0712
      M=APMAX                                                                  EDIT0713
      NMBR2=NMBR2+DSPL2                                                        EDIT0714
      NMBR3=NMBR3+DSPL3                                                        EDIT0715
      IF(NMBR2.GT.0)N=NMBR2                                                    EDIT0716
      IF(NMBR3.GT.0)M=NMBR3                                                    EDIT0717
      IF(N.GT.APMAX)GO TO 9008                                                 EDIT0718
      IF(LASLN-N+NMBR3.GT.MAXRC-1)GO TO 9008                                   EDIT0719
      IF(LASLN-N+M.GT.MAXRC-1)M=MAXRC-N-1                                      EDIT0720
      DO 860 I=N,M                                                             EDIT0721
      READ(20'I)CRDSQ                                                          EDIT0722
      IF(CRD(1).EQ.FLMRK.AND.DLMCT.NE.4)GO TO 25                               EDIT0723
      LASLN=LASLN+1                                                            EDIT0724
      WRITE(10'LASLN)CRDSQ,FLMRK                                               EDIT0725
      QLL=.TRUE.                                                               EDIT0726
      IF(LASLN+2.EQ.MAXRC)GO TO 9008                                           EDIT0727
  860 CONTINUE                                                                 EDIT0728
      IF(M.EQ.NMBR3)GO TO 25                                                   EDIT0729
      WRITE(LUNOT,17)                                                          EDIT0730
      GO TO 25                                                                 EDIT0731
C*****************************INPUT ***************************************** EDIT0732
  900 WRITE(10'1)FLMRK                                                         EDIT0733
      IF(ALTIO.GE.2)LIN=ALTIO                                                  EDIT0734
      LASLN=0                                                                  EDIT0735
      N=1                                                                      EDIT0736
      GO TO 810                                                                EDIT0737
  940 CALL FILL(LINUM,1,5,AZERO)                                               EDIT0738
      CALL JVERT(N,LINUM(5))                                                   EDIT0739
      I=-1                                                                     EDIT0740
      GO TO(950,25,970),LUNOT                                                  EDIT0741
  950 IF(ALTIO.EQ.0)WRITE(1,1)LINUM,COLON,I                                    EDIT0742
  970 GO TO(812,450,511,540),RETRN                                             EDIT0743
C*****************************ERASE ****************************************** EDIT0744
 1000 BRNCH=4                                                                  EDIT0745
      GO TO 222                                                                EDIT0746
 1010 READ(10'N)CRDSQ                                                          EDIT0747
      CALL UNPAC(CRDSQ,1,40,TM01,1)                                            EDIT0748
      IF(COMND.EQ.ERACE.OR.GP)CALL FILL(TM01,LFELD,LFELD+CHRCT-1,16448)        EDIT0749
      IF(GP)CALL MOVE(STNG1,1,GANUM,TM01,LFELD)                                EDIT0750
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**
      CALL PACK(TM01,1,80,CRDSQ,1)                                            EDIT0751
      WRITE(10'N)CRDSQ                                                        EDIT0752
      GO TO 225                                                               EDIT0753
C*****************************OUT OUT ************************************** EDIT0754
 1100 URNCH=5                                                                 EDIT0755
      IF(ALTIO.EQ.4)GO TO 1105                                                EDIT0756
      WRITE(2,5)FILNM                                                         EDIT0757
      GO TO 222                                                               EDIT0758
 1105 WRITE(4,5)FILNM                                                         EDIT0759
      IF(NMBR1+DSPL1.EQ.0)GO TO 308                                           EDIT0760
      GO TO 222                                                               EDIT0761
 1110 READ(10'N)CRDSQ                                                         EDIT0762
      IF(ALTIO-4)1119,1115,1119                                               EDIT0763
 1115 WRITE(4,3)CRD                                                           EDIT0764
      IF(N.EQ.M.OR.N.EQ.LASLN)GO TO 1118                                      EDIT0765
      GO TO 225                                                               EDIT0766
 1118 WRITE(4,3)FLMRK                                                         EDIT0767
      GO TO 225                                                               EDIT0768
 1119 HOLD=PUNCH                                                              EDIT0769
      PUNCH=.FALSE.                                                           EDIT0770
 1120 IF(LUNIN.EQ.2)INREQ=1                                                   EDIT0771
      CALL FILL(TM01,41,80,16448)                                             EDIT0772
      SARC1=LD(SARC)                                                          EDIT0773
      SARC2=LD(SARC+1)                                                        EDIT0774
      CALL STO(0,SARC)                                                        EDIT0775
      CALL STO(0,SARC+1)                                                      EDIT0776
      READ(2,9)                                                               EDIT0777
      CALL STO(SARC1,SARC)                                                    EDIT0778
      CALL STO(SARC2,SARC+1)                                                  EDIT0779
      INREQ=0                                                                 EDIT0780
      CALL FMTA2(FRMT9,TM01)                                                  EDIT0781
      IF(KOMP(TM01,40,TM01(41)).EQ.0)GO TO 1125                               EDIT0782
      WRITE(LUNOT,20)                                                         EDIT0783
      PAUSE 1007                                                              EDIT0784
      GO TO 1120                                                              EDIT0785
 1125 WRITE(2,3)CRDSQ                                                         EDIT0786
      IF(PUNCH)GO TO 218                                                      EDIT0787
      PUNCH=HOLD                                                              EDIT0788
      GO TO 225                                                               EDIT0789
C*****************************FF  FF  ************************************** EDIT0790
 1200 FREFM=.FALSE.                                                           EDIT0791
      IF(KOMP(STNG1,2,ON).NE.0)GO TO 25                                       EDIT0792
      FREFM=.TRUE.                                                            EDIT0793
      WRITE(LUNOT,15)                                                         EDIT0794
      GO TO 25                                                                EDIT0795
C*****************************RESEQ ************************************** EDIT0796
 1300 PAC=.NOT.FIELD                                                          EDIT0797
 1302 FOUND=.FALSE.                                                           EDIT0798
      ALL=.TRUE.                                                              EDIT0799
 1305 CALL FILL(A1SEQ,1,8,AZERO)                                              EDIT0800
      IF(NMBR2.LT.1)NMBR2=1                                                   EDIT0801
      N=NMBR2                                                                 EDIT0802
      INREQ=1                                                                 EDIT0803
      DO 1310 I=1,8                                                           EDIT0804
      IF(STNG1(I).EQ.0)GO TO 1320                                             EDIT0805
 1310 A1SEQ(I)=STNG1(I)                                                       EDIT0806
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**

 1320 M=LASLN+1                                                                EDIT0807
      J=FSTLN                                                                  EDIT0808
      IF(M.GT.MAXRC)M=MAXRC                                                    EDIT0809
      CALL FILL(HFTM1,1,36,16448)                                              EDIT0810
      READ(10'M)CRDSQ                                                          EDIT0811
      HOLD=CRDSQ(1).NE.FLMRK                                                   EDIT0812
      IF(HOLD.AND.M.GT.1)M=M-1                                                 EDIT0813
      DO 1350 I=FSTLN,M                                                        EDIT0814
      READ(10'I)CRDSQ                                                          EDIT0815
      IF(SEQUN)GO TO 1340                                                      EDIT0816
      IF(KOMP(CRD,36,HFTM1))1340,1330,1340                                     EDIT0817
 1330 FOUND=.TRUE.                                                             EDIT0818
      GO TO 1350                                                               EDIT0819
 1340 CALL JVERT(N,A1SEQ(8))                                                   EDIT0820
      N=N+NMBR2                                                                EDIT0821
      IF(PAC.OR.SEQUN)CALL PACK(A1SEQ,1,8,SEQ,1)                               EDIT0822
      IF(PAC.OR.FOUND)WRITE(10'J)CRDSQ                                         EDIT0823
      J=J+1                                                                    EDIT0824
 1350 CONTINUE                                                                 EDIT0825
      LASLN=J-2                                                                EDIT0826
      IF(.NOT.HOLD.AND.SEQUN)GO TO 25                                          EDIT0827
      IF(HOLD.OR.SEQUN)LASLN=LASLN+1                                           EDIT0828
      GO TO 25                                                                 EDIT0829
C*****************************LL LL LL ************************************  EDIT0830
 1400 IF(DLMCT.EQ.2)LASLN=NMBR1+DSPL1                                          EDIT0831
      IF(DLMCT.NE.3)GO TO 1420                                                 EDIT0832
      FSTLN=NMBR1+DSPL1                                                        EDIT0833
      LASLN=NMBR2+DSPL2                                                        EDIT0834
 1420 IF(LASLN.GT.MAXRC)LASLN=MAXRC                                            EDIT0835
 1425 WRITE(LUNOT,8)FSTLN,LASLN,MAXRC                                          EDIT0836
      ULL=.FALSE.                                                              EDIT0837
      GO TO 25                                                                 EDIT0838
C*****************************EXIT EXIT ************************************  EDIT0839
 1500 CALL EXIT                                                                EDIT0840
C*****************************RUN RUN ************************************  EDIT0841
 1600 IF(DLMCT.EQ.2)GO TO 600                                                  EDIT0842
 1620 IF(LASLN+2.GT.MAXRC)LASLN=MAXRC-2                                        EDIT0843
      SWAP(5)=LD(SARC)                                                         EDIT0844
      SWAP(6)=LD(SARC+1)                                                       EDIT0845
      CALL FILL(MCR,1,40,16448)                                                EDIT0846
      CALL MOVE(SWAP,1,6,MCR,1)                                                EDIT0847
      WRITE(10'LASLN+2)MCR                                                     EDIT0848
      CALL SFR4C(SCAD1,FSTLN-1,LASLN+2,FWDRV(1))                               EDIT0849
      CALL STO(-1,KCSW)                                                        EDIT0850
      CALL FINIS                                                               EDIT0851
      IF(SWAP(5).NE.0)CALL EXIT                                                EDIT0852
      GO TO 8920                                                               EDIT0853
C*****************************EJECT ************************************  EDIT0854
 1700 IF(KOMP(STNG1,3,TYP))1705,1720,1705                                      EDIT0855
 1705 IF(NMBR2.LT.1)NMBR2=1                                                    EDIT0856
      DO 1710 I=1,NMBR2                                                        EDIT0857
 1710 WRITE(3,6)                                                               EDIT0858
      GO TO 25                                                                 EDIT0859
 1720 IF(LUNIN.NE.2)WRITE(1,1)FEED,FEED,FEED,FEED,FEED,FEED                    EDIT0860
      GO TO 25                                                                 EDIT0861
C*****************************FIELD ************************************  EDIT0862
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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**
     1800 FIELD=.FALSE.                                                        EDIT0863
          LFELD=1                                                              EDIT0864
          CHRCT=72                                                             EDIT0865
          MEND=72                                                              EDIT0866
          NMBR1=NMBR1+DSPL1                                                    EDIT0867
          NMBR2=NMBR2+DSPL2                                                    EDIT0868
          IF(NMBR2.LT.1)NMBR2=72                                               EDIT0869
          IF(NMBR1.GT.NMBR2.OR.NMBR2.GT.80)GO TO 9002                          EDIT0870
          IF(NMBR1.LT.1)GO TO 25                                               EDIT0871
          LFELD=NMBR1                                                          EDIT0872
          CHRCT=NMBR2-NMBR1+1                                                  EDIT0873
          IF(NMBR2.GT.MEND)MEND=NMBR2                                          EDIT0874
          FIELD=.TRUE.                                                         EDIT0875
          GO TO 25                                                             EDIT0876
     C*****************************SAE SAE ************************************ EDIT0877
     1900 ERASE=.TRUE.                                                         EDIT0878
          GO TO 200                                                            EDIT0879
     C*****************************SORT SORT ********************************** EDIT0880
     2000 IF(DLMCT.GT.4)GO TO 9002                                             EDIT0881
          GO TO(9002,2010,2020,2030),DLMCT                                     EDIT0882
     2030 IF(NMBR3.LT.1 .OR.                                                   EDIT0883
          *   NMBR3.GT.80.OR.                                                  EDIT0884
          *   DSPL3.LT.1 .OR.                                                  EDIT0885
          *   NMBR3+DSPL3.GT.81)GO TO 9002                                     EDIT0886
     2020 IF(NMBR2.LT.1 .OR.                                                   EDIT0887
          *   NMBR2.GT.80.OR.                                                  EDIT0888
          *   DSPL2.LT.1 .OR.                                                  EDIT0889
          *   NMBR2+DSPL2.GT.81)GO TO 9002                                     EDIT0890
     2010 IF(NMBR1.LT.1 .OR.                                                   EDIT0891
          *   NMBR1.GT.80.OR.                                                  EDIT0892
          *   DSPL1.LT.1 .OR.                                                  EDIT0893
          *   NMBR1+DSPL1.GT.81)GO TO 9002                                     EDIT0894
          DIRET=2                                                              EDIT0895
          IF(FWDRV(1))DIRET=-6                                                 EDIT0896
     2084 GO TO(2085,9014,2080),SRTOK                                          EDIT0897
     2085 CALL LFLOK(LSDDF(2),I,J,K,N)                                         EDIT0898
          CALL LFLOK(LSDMJ(2),I,J,K,M)                                         EDIT0899
          SRTOK=2                                                              EDIT0900
          IF((N.EQ.3.OR.N.EQ.7).AND.(M.EQ.2.OR.M.EQ.6))SRTOK=3                 EDIT0901
          GO TO 2084                                                           EDIT0902
     2080 CALL KEYOF                                                           EDIT0903
          GO TO(9002,2040,2050,2060),DLMCT                                     EDIT0904
     2060 CALL LSDMF                                                           EDIT0905
          *(10,FSTLN,FSTLN,LASLN,DIRET,3,NMBR1,DSPL1,NMBR2,DSPL2,NMBR3,DSPL3) EDIT0906
          GO TO 2070                                                           EDIT0907
     2050 CALL LSDMF                                                           EDIT0908
          *(10,FSTLN,FSTLN,LASLN,DIRET,2,NMBR1,DSPL1,NMBR2,DSPL2)              EDIT0909
          GO TO 2070                                                           EDIT0910
     2040 CALL LSDMF                                                           EDIT0911
          *(10,FSTLN,FSTLN,LASLN,DIRET,1,NMBR1,DSPL1)                          EDIT0912
     2070 IF(LUNIN.EQ.6)CALL KEYON                                             EDIT0913
          GO TO 25                                                             EDIT0914
     C*****************************GP GP GP ********************************** EDIT0915
     2100 IF(DLMCT.NE.4)GO TO 9002                                             EDIT0916
          DO 2122 I=1,40                                                       EDIT0917
          IF(STNG1(I).EQ.0)GO TO 2125                                          EDIT0918
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN     **COMPILER MESSAGES**
 2122 CONTINUE                                                                  EDIT0919
 2125 IF(NMBR2+DSPL2.NE.0)GO TO 2130                                            EDIT0920
      NMBR2=NMBR1                                                               EDIT0921
      DSPL2=DSPL1                                                               EDIT0922
 2130 CONTINUE                                                                  EDIT0923
      DLMCT=DLMCT-1                                                             EDIT0924
      CANLM=I-1                                                                 EDIT0925
      IF(CANLM.GT.CHRCT)GO TO 9002                                              EDIT0926
      GP=.TRUE.                                                                 EDIT0927
      BRNCH=4                                                                   EDIT0928
      GO TO 222                                                                 EDIT0929
C*****************************DO DO DO ************************************** EDIT0930
 2200 IF(DLMCT.LT.2.OR.DLMCT.GT.4)GO TO 9002                                    EDIT0931
      FILNO=3                                                                   EDIT0932
      GO TO 600                                                                 EDIT0933
 2210 CALL DEFFO(30,DOLIM,SCAD3)                                                EDIT0934
      NMBR3=NMBR3+DSPL3                                                         EDIT0935
      NMBR2=NMBR2+DSPL2                                                         EDIT0936
      CALL FINIS                                                                EDIT0937
      K3=1                                                                      EDIT0938
      IF(DLMCT.EQ.3)NMBR3=NMBR2                                                 EDIT0939
      IF(DLMCT.GT.2)K3=NMBR2                                                    EDIT0940
      IF(K3.LT.1)GO TO 9002                                                     EDIT0941
      IF(DLMCT.GT.2.AND.                                                        EDIT0942
     *   NMBR3.GE.NMBR2.AND.                                                    EDIT0943
     *   NMBR3.LT.DOLIM)DOLIM=NMBR3                                             EDIT0944
      EOF=(DLMCT.EQ.4.AND.DOLIM.EQ.NMBR3).OR.DLMCT.EQ.2                         EDIT0945
      DO=.TRUE.                                                                 EDIT0946
      CALL MOVE(TM02,1,80,TM03,1)                                               EDIT0947
      SUMOR=MORE                                                                EDIT0948
      MORE=.FALSE.                                                              EDIT0949
      GO TO 25                                                                  EDIT0950
 2230 CONTINUE                                                                  EDIT0951
      MORE=SUMOR                                                                EDIT0952
      DO=.FALSE.                                                                EDIT0953
      CALL MOVE(TM03,1,80,TM02,1)                                               EDIT0954
      EOF=.FALSE.                                                               EDIT0955
      GO TO 25                                                                  EDIT0956
C*****************************AND  AND  ************************************* EDIT0957
 2300 IF(DLMCT.GT.4)GO TO 9002                                                  EDIT0958
      AND=.TRUE.                                                                EDIT0959
      NNFF=DLMCT                                                                EDIT0960
      CALL MOVE(ARGS,1,6,ARGLA,1)                                               EDIT0961
 2305 CALL MOVE(TM04,1,80,TM01,1)                                               EDIT0962
      GO TO 45                                                                  EDIT0963
 2310 CALL MOVE(ARGLA,1,6,ARGS,1)                                               EDIT0964
      IF(DLMCT.LT.NNFF)DLMCT=NNFF                                               EDIT0965
      GO TO 50                                                                  EDIT0966
C*****************************DLEM DLEM ************************************* EDIT0967
 2400 IF(DLMCT.EQ.2)DELMT=STNGI(1)                                              EDIT0968
      IF(DLMCT.EQ.1.OR.DELMT.EQ.16448.OR.DELMT.EQ.0)DELMT=COLON                 EDIT0969
      GO TO 25                                                                  EDIT0970
C*****************************ROTAT ROTAT ************************************ EDIT0971
 2500 SRF=.TRUE.                                                                EDIT0972
      SLF=.TRUE.                                                                EDIT0973
 2505 IF(DLMCT.LT.2.OR.DLMCT.GT.4)GO TO 9002                                    EDIT0974
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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**
                                                                                EDIT0975
      DLMCT=DLMCT-1                                                             EDIT0976
      GO TO(2510,2520,2530),DLMCT                                               EDIT0977
 2510 NNFF=NMBR1+DSPL1                                                          EDIT0978
      GO TO 2540                                                                EDIT0979
 2520 NNFF=NMBR2+DSPL2                                                          EDIT0980
      NMBR2=NMBR1+DSPL1                                                         EDIT0981
      DSPL2=0                                                                   EDIT0982
      GO TO 2540                                                                EDIT0983
 2530 NNFF=NMBR3+DSPL3                                                          EDIT0984
 2540 IF(NNFF.LT.1.OR.NNFF.GT.CHRCT)GO TO 9002                                  EDIT0985
      IF(CHRCT.LE.1)GO TO 25                                                    EDIT0986
      BRNCH=9                                                                   EDIT0987
      J=LFELD+CHRCT-1                                                           EDIT0988
      NNFF=NNFF+1                                                               EDIT0989
      IF(.NOT.SLF.AND.SRF)NNFF=(CHRCT+1)-(NNFF-1)                               EDIT0990
      GO TO 222                                                                 EDIT0991
 2550 CALL FILL(TM07,1,1E0,16448)                                               EDIT0992
      READ(10'N)CRDSQ                                                           EDIT0993
      CALL UNPAC(CRDSQ,1,40,TM01,1)                                             EDIT0994
      IF(SLF)CALL MOVE(TM01,LFELD,J,TM07,1)                                     EDIT0995
      IF(SRF)CALL MOVE(TM01,LFELD,J,TM07,CHRCT+1)                               EDIT0996
      CALL MOVE(TM07(NNFF),1,CHRCT,TM01,LFELD)                                  EDIT0997
      CALL PACK(TM01,1,80,CRDSQ,1)                                              EDIT0998
      WRITE(10'N)CRDSQ                                                          EDIT0999
      GO TO 225                                                                 EDIT1000
C*****************************STAT STAT ************************************  EDIT1001
 2600 NNFF=LFELD+CHRCT-1                                                        EDIT1002
      WRITE(LUNOT,18)LFELD,NNFF,DELMT                                           EDIT1003
      IF(FREFM)WRITE(LUNOT,15)                                                  EDIT1004
      IF(OPEND)WRITE(LUNOT,21)FILNM                                             EDIT1005
      GO TO 1425                                                                EDIT1006
C*****************************ASM  ASM  ************************************  EDIT1007
 2700 BRNCH=6                                                                   EDIT1008
      CALL FILL(HFTM1,1,40,16448)                                               EDIT1009
      GO TO 222                                                                 EDIT1010
 2710 READ(10'N)CRDSQ                                                           EDIT1011
      IF(KOMP(CRDSQ,10,HFTM1).EQ.0)GO TO 225                                    EDIT1012
      IF(KOMP(CRDSQ(11),26,HFTM1).NE.0)GO TO 225                                EDIT1013
      CALL REASM(CRD)                                                           EDIT1014
      WRITE(10'N)CRDSQ                                                          EDIT1015
      GO TO 225                                                                 EDIT1016
C*****************************BLKFLD BLKFLD ********************************  EDIT1017
 2800 BRNCH=8                                                                   EDIT1018
      J=LFELD+CHRCT-1                                                           EDIT1019
      GO TO 222                                                                 EDIT1020
 2810 READ(10'N)CRDSQ                                                           EDIT1021
      CALL UNPAC(CRDSQ,1,40,TM01,1)                                             EDIT1022
      CALL LRJST(TM01,LFELD,J)                                                  EDIT1023
      CALL PACK(TM01,1,80,CRDSQ,1)                                              EDIT1024
      WRITE(10'N)CRDSQ                                                          EDIT1025
      GO TO 225                                                                 EDIT1026
C*****************************FLDMOV FLDMOV ********************************  EDIT1027
 2900 GO TO 9004                                                                EDIT1028
C*****************************HELP HELP ************************************  EDIT1029
 3000 HELP=.TRUE.                                                               EDIT1030
      GO TO 25
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**

 3010 IF(.NOT.HELP)GO TO 9004                                                  EDIT1031
      N=-COMND                                                                 EDIT1032
      IF(N.GT.100)N=N/100                                                      EDIT1033
      CALL FILL(TM01,1,80,16448)                                               EDIT1034
      TM01(N)=DALER                                                            EDIT1035
      IF(N.GE.2)CALL FILL(TM01,1,N-1,DASH)                                     EDIT1036
      GO TO(3020,25,3030),LUNOT                                                EDIT1037
 3020 WRITE(1,1)TM01                                                           EDIT1038
      GO TO 9004                                                               EDIT1039
 3030 WRITE(3,7)TM01                                                           EDIT1040
      GO TO 9004                                                               EDIT1041
C*****************************LJUST LJUST ********************************** EDIT1042
 3100 RJ=.FALSE.                                                               EDIT1043
 3110 BRNCH=7                                                                  EDIT1044
      CALL FILL(TM08,1,80,16448)                                               EDIT1045
      GO TO 222                                                                EDIT1046
 3120 READ(10'N)CRDSQ                                                          EDIT1047
      CALL UNPAC(CRDSQ,1,40,TM01,1)                                            EDIT1048
      CALL MOVE(TM01,LFELD,LFELD+CHRCT-1,TM07,1)                               EDIT1049
      CALL FILL(TM01,LFELD,LFELD+CHRCT-1,16448)                                EDIT1050
      IF(RJ)CALL REVRS(TM07,CHRCT)                                             EDIT1051
      J=KOMP(TM07,CHRCT,TM08)                                                  EDIT1052
      IF(J.LE.0)GO TO 225                                                      EDIT1053
      CALL MOVE(TM07,J,CHRCT,TM01,LFELD)                                       EDIT1054
      IF(RJ)CALL REVRS(TM01(LFELD),CHRCT)                                      EDIT1055
      CALL PACK(TM01,1,80,CRDSQ,1)                                             EDIT1056
      WRITE(10'N)CRDSQ                                                         EDIT1057
      GO TO 225                                                                EDIT1058
C*****************************OR OR OR ************************************ EDIT1059
 3200 IF(DLMCT.NE.2)GO TO 9002                                                 EDIT1060
      IF(STNG1(1).EQ.0)GO TO 25                                                EDIT1061
      OR=.TRUE.                                                                EDIT1062
      CALL MOVE(STNG1,1,40,CRD,1)                                              EDIT1063
      GO TO 2305                                                               EDIT1064
 3210 IF(STNG1(1).EQ.0)GO TO 9002                                              EDIT1065
      CALL MOVE(CRD,1,40,STNG1,1)                                              EDIT1066
      GO TO 50                                                                 EDIT1067
C*****************************PACK PACK ************************************ EDIT1068
 3300 PAC=.FALSE.                                                              EDIT1069
      GO TO 1302                                                               EDIT1070
C*****************************RESET RESET ********************************** EDIT1071
 3400 PREFM=.FALSE.                                                            EDIT1072
      FIELD=.FALSE.                                                            EDIT1073
      LFELD=1                                                                  EDIT1074
      CHRCT=72                                                                 EDIT1075
      MEND=72                                                                  EDIT1076
      MASK=0                                                                   EDIT1077
      HELP=.FALSE.                                                             EDIT1078
      PUNCH=.FALSE.                                                            EDIT1079
      LPRNT=.FALSE.                                                            EDIT1080
      DELMT=COLON                                                              EDIT1081
      K=1                                                                      EDIT1082
      IF(.NOT.FWORV(1))GO TO 3410                                              EDIT1083
      K=2                                                                      EDIT1084
      STNG1(1)=APLUS                                                           EDIT1085
 3410 CALL MOVE(FILNM,1,5,STNG1,K)                                             EDIT1086
```

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C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........  IDENTFCN    **COMPILER MESSAGES**
      FILNO=1                                                                  EDIT1087
      GO TO 600                                                                EDIT1088
C*****************************RJUST RJUST ***********************************  EDIT1089
 3500 RJ=.TRUE.                                                                EDIT1090
      GO TO 3110                                                               EDIT1091
C*****************************SAEN SAEN *************************************  EDIT1092
 3600 KNOT=.TRUE.                                                              EDIT1093
      GO TO 1900                                                               EDIT1094
C*****************************SALN SALN *************************************  EDIT1095
 3700 KNOT=.TRUE.                                                              EDIT1096
      CALL MOVE(STNG1,1,40,STNG2,1)                                            EDIT1097
      GO TO 200                                                                EDIT1098
C*****************************SEQ  SEQ  *************************************  EDIT1099
 3800 SEQUN=.TRUE.                                                             EDIT1100
      FOUND=.TRUE.                                                             EDIT1101
      GO TO 1305                                                               EDIT1102
C*****************************SLF  SLF  *************************************  EDIT1103
 3900 SLF=.TRUE.                                                               EDIT1104
      SRF=.FALSE.                                                              EDIT1105
      GO TO 2505                                                               EDIT1106
C*****************************SRF  SRF  *************************************  EDIT1107
 4000 SRF=.TRUE.                                                               EDIT1108
      SLF=.FALSE.                                                              EDIT1109
      GO TO 2505                                                               EDIT1110
C*****************************C2629  C2629  *********************************  EDIT1111
 4100 BRNCH=10                                                                 EDIT1112
      GO TO 222                                                                EDIT1113
 4110 READ(10'N)CRDSQ                                                          EDIT1114
      CALL UNPAC(CRDSQ,1,40,TM01,1)                                            EDIT1115
      IF(COMND.EQ.K2629)CALL A2629(TM01,LFELD,LFELD+CHRCT-1)                   EDIT1116
      IF(COMND.EQ.K2926)CALL A2926(TM01,LFELD,LFELD+CHRCT-1)                   EDIT1117
      CALL PACK(TM01,1,80,CRDSQ,1)                                             EDIT1118
      WRITE(10'N)CRDSQ                                                         EDIT1119
      GO TO 225                                                                EDIT1120
C*****************************DOC DOC  **************************************  EDIT1121
 4200 GO TO 9004                                                               EDIT1122
C*****************************C2926 C2926 ***********************************  EDIT1123
 4300 GO TO 4100                                                               EDIT1124
C*****************************PRINT PRINT ***********************************  EDIT1125
 4400 LPRNT=.TRUE.                                                             EDIT1126
      GO TO 25                                                                 EDIT1127
C*****************************TYPE TYPE *************************************  EDIT1128
 4500 LPRNT=.FALSE.                                                            EDIT1129
      GO TO 25                                                                 EDIT1130
C*****************************PUNCH PUNCH ***********************************  EDIT1131
 4600 PUNCH=.TRUE.                                                             EDIT1132
      GO TO 25                                                                 EDIT1133
C*****************************MASK MASK  ************************************  EDIT1134
 4700 IF(DLMCT.EQ.2)MASK=STNG1(1)                                              EDIT1135
      IF(DLMCT.EQ.1.OR.MASK.EQ.16448)MASK=0                                    EDIT1136
      GO TO 25                                                                 EDIT1137
C*****************************//  //  ************************************  EDIT1138
 8900 DO 8910 N=1,80                                                           EDIT1139
      IF(TM02(N).EQ.COLON)TM02(N)=AMPER                                        EDIT1140
 8910 CONTINUE                                                                 EDIT1141
      IF(MORE)TM02(M+1)=AMPER                                                  EDIT1142
```

```
C-ERRS...STNO.C..... F O R T R A N  S O U R C E  S T A T E M E N T S ........ IDENTFCN    **COMPILER MESSAGES**

            CALL PACK(TM02,I,80,MCR,1)                                        EDIT1143
          8920 CALL MONCL(MCR)                                                EDIT1144
            WRITE(LUNOT,16)                                                   EDIT1145
            GO TO 25                                                          EDIT1146
          C*****************************ERRORS ERRORS ***************************** EDIT1147
          9000 WRITE(LUNOT,10)                                                EDIT1148
            IF(LUNIN.EQ.2)GO TO 70                                            EDIT1149
            GO TO 25                                                          EDIT1150
          9002 WRITE(LUNOT,11)                                                EDIT1151
            GO TO 25                                                          EDIT1152
          9004 IF(COMND.EQ.0)GO TO 9005                                       EDIT1153
            IF(COMND.GT.-99)GO TO 9010                                        EDIT1154
            IF(COMND.LE.-100)GO TO 9012                                       EDIT1155
          9005 IF(.NOT.AND)WRITE(LUNOT,12)                                    EDIT1156
            AND=.FALSE.                                                       EDIT1157
            GO TO 25                                                          EDIT1158
          9006 WRITE(LUNOT,13)                                                EDIT1159
            GO TO 25                                                          EDIT1160
          9008 WRITE(LUNOT,14)                                                EDIT1161
            GO TO 25                                                          EDIT1162
          9010 WRITE(LUNOT,22)                                                EDIT1163
            GO TO 25                                                          EDIT1164
          9012 WRITE(LUNOT,23)                                                EDIT1165
            GO TO 25                                                          EDIT1166
          9014 WRITE(LUNOT,60)                                                EDIT1167
            GO TO 25                                                          EDIT1168
            END                                                               EDIT1169
VARIABLE ALLOCATIONS
  BLANK COMMON BLOCK
    MCR(I*2 C)=7FFF-7FD8    TM01(I*2 C)=7FD7-7F88    TM02(I*2 C)=7F87-7F38
   TM03(I*2 C)=7F37-7EE8    TM04(I*2 C)=7EE7-7E98  STNG1(I*2 C)=7E97-7E70
  STNG2(I*2 C)=7E6F-7E48    TM08(I*2 C)=7E47-7DF8  CRDSQ(I*2 C)=7DF7-7DD0
  LINUM(I*2 C)=7DCF-7DCB    ARGS(I*2 C)=7DCA-7DC5  ARGLA(I*2 C)=7DC4-7DBF
  A1SEQ(I*2 C)=7DBE-7DB7

  EQUIVALENCES & INTERNAL VARIABLES
     CRD(I*2 C)=7DF7-7DD4     SEQ(I*2 C)=7DD3-7DD0  HFTM1(I*2 C)=7FD7-7FB0
  NMBR1(I*2 C)=7DCA        DSPL1(I*2 C)=7DC9        NMBR2(I*2 C)=7DC8
  DSPL2(I*2 C)=7DC7        NMBR3(I*2 C)=7DC6        DSPL3(I*2 C)=7DC5
   TM05(I*2 C)=7FD7-7FB0    TM06(I*2 C)=7FAF-7F88    TM07(I*2 C)=7E97-7E48
  SLSLD(I*2  )=0221-021F  NOXEQ(I*2  )=0221-021A  FILNM(I*2  )=021E-021A
  FOUND(L*2  )=0228        PRINT(L*2  )=0229        LINEP(L*2  )=022A
  FIELD(L*2  )=022B        FIRST(L*2  )=022C         MORE(L*2  )=022D
    AND(L*2  )=022E        OPEND(L*2  )=022F         KNOT(L*2  )=0230
  ERASE(L*2  )=0231           DO(L*2  )=0232           GP(L*2  )=0233
  SUMOR(L*2  )=0234          EOF(L*2  )=0235        HLDIR(L*2  )=0236
  FREFM(L*2  )=0237         FAIL(L*2  )=0238          PAC(L*2  )=0239
  SEQUN(L*2  )=023A           RJ(L*2  )=023B          SLF(L*2  )=023C
    SRF(L*2  )=023D          OLL(L*2  )=023E         HOLD(L*2  )=023F
  LPRNT(L*2  )=0240         HELP(L*2  )=0241        PUNCH(L*2  )=0242
     OR(L*2  )=0243        DELMT(I*2  )=0244        DOLIM(I*2  )=0245
  ALTIO(I*2  )=0246        RETRN(I*2  )=0247        SRTOK(I*2  )=0248
  DALER(I*2  )=0249         DASH(I*2  )=024A         SARC(I*2  )=024B
  SARC1(I*2  )=024C        SARC2(I*2  )=024D        FILNO(I*2  )=024E
   FLSH(I*2  )=024F          RUN(I*2  )=0250        DLMCT(I*2  )=0251
  COMND(I*2  )=0252         FILE(I*2  )=0253        FSTLN(I*2  )=0254
```

AMPER(I*2)=0255	COLON(I*2)=0256	APLUS(I*2)=0257
FLMRK(I*2)=0258	AZERO(I*2)=0259	DIRET(I*2)=025A
FIN(I*2)=025B	SAR(I*2)=025C	REP(I*2)=025D
ERACE(I*2)=025E	BRNCH(I*2)=025F	SCAD1(I*2)=0260
SCAD2(I*2)=0261	SCAD3(I*2)=0262	FEED(I*2)=0263
ZLIS1(I*2)=0264	ZLIS2(I*2)=0265	FRMT9(I*2)=0266
GANLM(I*2)=0267	APMAX(I*2)=0268	CHRCT(I*2)=0269
PASS(I*2)=026A	K1(I*2)=026B	K2(I*2)=026C
K3(I*2)=026D	K4(I*2)=026E	MAXRC(I*2)=026F
I(I*2)=0270	KCSW(I*2)=0271	LUNIN(I*2)=0272
LUNOT(I*2)=0273	NDUP(I*2)=0274	NXEQ(I*2)=0275
INREQ(I*2)=0276	LIN(I*2)=0277	M(I*2)=0278
N(I*2)=0279	LASLN(I*2)=027A	LFELD(I*2)=027B
MASK(I*2)=027C	J(I*2)=027D	MEND(I*2)=027E
K(I*2)=027F	ISER(I*2)=0280	NAME1(I*2)=0281
NAME2(I*2)=0282	NNFF(I*2)=0283	NT(I*2)=0284
LOGDR(I*2)=0285	MOVCT(I*2)=0286	J1(I*2)=0287
J2(I*2)=0288	INCRM(I*2)=0289	K2629(I*2)=028A
K2926(I*2)=028B	FWDRV(L*2)=028C-028E	SWAP(I*2)=0290-0291
LSDDF(I*2)=0298-0297	LSDMJ(I*2)=029A-0299	ON(I*2)=029C-029B
KARD(I*2)=02A0-029D	PRNTR(I*2)=02A2-02A1	HERIS(I*2)=02A8-02A3
TYP(I*2)=02AB-02A9	TAPE(I*2)=02AF-02AC	

STATEMENT ALLOCATIONS

1=02D1	2=02D4	3=02DB	4=02DE	5=02E6	6=02F1	7=02F4
8=02FA	9=0307	10=0331	11=033B	12=0344	13=0349	14=0357
15=036B	16=0376	17=0383	18=038C	19=03A6	20=03B1	21=03C1
22=03CD	23=03D8	60=03E3	61=03F7	36=04F2	24=0502	25=050A
30=0541	31=0565	32=056A	35=0587	38=05A1	40=05AE	42=05D1
44=05DC	45=0601	50=063C	70=06D0	100=06DA	200=06E4	210=06E8
220=074A	222=0753	242=0791	240=0795	245=079C	223=07E0	225=080F
231=082E	227=0869	215=088A	218=08AA	232=08E0	238=08FC	300=0908
308=0917	320=093E	330=0961	400=0969	440=096F	450=0975	500=099C
510=09B9	511=09CE	512=09D2	520=09E8	530=09F3	535=0A1A	540=0A31
600=0A60	610=0A78	612=0AF2	615=0B0B	618=0B1D	620=0B42	660=0B74
680=0B95	700=0B8E	703=0BC3	705=0BCB	710=0C45	720=0C78	730=0C94
740=0CAB	750=0CD7	800=0CF4	810=0D13	812=0D30	820=0D54	830=0D5F
835=0D83	840=0D9B	850=0DA8	860=0E3E	900=0E54	940=0E6F	950=0E91
970=0EA3	1000=0EB0	1010=0EB6	1100=0EF5	1105=0F09	1110=0F1B	1115=0F27
1118=0F40	1119=0F48	1120=0F50	1125=0FB1	1200=0FC2	1300=0FDA	1302=0FDF
1305=0FE7	1310=1010	1320=1022	1330=106E	1340=1074	1350=10A5	1400=10C9
1420=10C9	1425=10F4	1500=1104	1600=1105	1620=110C	1700=1173	1705=117A
1710=1189	1720=1198	1800=11B1	1900=120C	2000=1212	2030=1226	2020=124A
2010=126E	2084=129F	2085=12AB	2080=12F3	2060=1302	2050=1312	2040=1320
2070=132A	2100=1335	2122=134C	2125=1355	2130=1366	2200=1383	2210=1399
2230=1418	2300=142D	2305=1443	2310=144C	2400=1460	2500=148A	2505=1492
2510=14B4	2520=14BC	2530=14CE	2540=14D4	2550=1516	2600=1566	2700=158D
2710=1599	2800=15C6	2810=15D4	2900=15F6	3000=15F8	3010=15FE	3020=1644
3030=164D	3100=1656	3110=165A	3120=1666	3200=16CF	3210=16EA	3300=16FA
3400=1700	3410=1739	3500=1746	3600=174C	3700=1752	3800=175F	3900=1769
4000=1773	4100=177D	4110=1783	4200=17C8	4300=17CA	4400=17CC	4500=17D2
4600=17D8	4700=17DE	8900=17FF	8910=1818	8920=1835	9000=183E	9002=184B
9004=1851	9005=1868	9006=1877	9008=187D	9010=1883	9012=1889	9014=188F

FEATURES SUPPORTED

ONE WORD INTEGERS
STANDARD PRECISION
ORIGIN
SEQUENCED

```
 IOCS
    1132 PRINTER
    DISK
    KEYBOARD
    TYPEWRITER
    PAPER TAPE
    CARD

CALLED SUBPROGRAMS
 DBUFF    SPOLZ    EQUIP    DFNFO    LD       STO      FREEZ    UNPAC    FILL     KOMP
 KBCON    FINIS    MOVE     PARCE    SARMX    PACK     JVERT    FMTA2    RFASM    INSRT
 EDINS    IODFR    NAMCD    SFR4C    LFLOK    KEYOF    LSDMF    KEYON    LRJST    REVRS
 A2629    A2926    MONCL    INIT$    FLD      FSTO     TYPEZ    CARDZ    PRNTZ    PAPTZ
 SRED     SWRT     SCOMP    SFIO     SIOAI    SIOIX    SIOI     SUBSC    PAUSE    SDFIO
 SDRED    SDWRT    SDCOM    SDAI     SDI      ISUB     LRGT     LRLT     LRGE     LRLE
 LRNE     LREQ     LNOT

LOGICAL CONSTANTS      .FALSE.=02B0      .TRUE.=02B1

INTEGER CONSTANTS
    10=02B2      20=02B3      40=02B4       0=02B5       1=02B6       2=02B7       3=02B8
  5440=02B9   16448=02BA      80=02BB       8=02BC    1600=02BD      30=02BE       6=02BF
    23=02C0      32=02C1       4=02C2       5=02C3      41=02C4      36=02C5      72=02C6
    11=02C7    1007=02C8      81=02C9       7=02CA       9=02CB     160=02CC      26=02CD
   100=02CE      99=02CF    4103=02D0

CORE REQUIREMENTS FOR - EDIT
 BLANK COMMON-    586.   VARIABLES AND TEMPORARIES-    178.   CONSTANTS AND PROGRAM-  5606

END OF SUCCESSFUL COMPILATION

// DUP                                                                    EDIT1170

*DELETE              MJJC      0002                                      EDIT1171
CART ID 0002   DB ADDR  493F   DB CNT   0176

*STORE      WS  UA  MJJC             0002                                EDIT1172
CART ID 0002   DB ADDR  493F   DB CNT   0176

*DELETE              TEDIT                                               EDIT1174
CART ID 0001   DB ADDR  4540   DB CNT   0410

*DUMP       UA  WS  EDIT                                                 EDIT1175
CART ID 0001  DB ADDR 4540   DB CNT 0410

*STOREDATACIWS  UA  TEDIT                                                EDIT1176
CART ID 0001   DB ADDR  4950   DB CNT   0410

*DELETE              EDIT      0001                                      EDIT1177
CART ID 0001   DB ADDR  4540   DB CNT   0410

*DUMP       UA  WS  MJJC                                                 EDIT1178
CART ID 0002  DB ADDR 493F   DB CNT 0176

*STORECI  X WS  UA  EDIT  0002      0001                                 EDIT1179
*LOCAL,PARCE,LSDMF,SPOLZ,DBUFF,CARDZ,SDLS                                EDIT1180
*LOCAL,MONCL,LRJST,SFR4C,PAPTZ,LFLOK                                     EDIT1181
FILES ALLOCATION
```

an end-of-file record to be written in the unformatted I/O area.

In FORTRAN under IBM 1800 Card/Paper Tape Programming System and the IBM 1800 TSX, the END FILE statement causes an end-of-file mark to be written on the tape on unit n.

In backspacing and in skipping forward over records, the end-of-file record or mark is equivalent to one logical record.

In FORTRAN under the IBM 1800 MPX System the END FILE statement causes either an end-of-file record to be written in the unformatted I/O area for unformatted disk operations or an end-of-file record to be written on the tape on tape unit n.

LOGICAL UNIT NUMBERS

The logical unit numbers used in FORTRAN I/O statements under the IBM 1130 Card/Paper Tape Programming System and the IBM 1130 Disk Monitor System are:

1 Console Printer
2 1442 Card Read Punch, Model 6 or 7
3 1132 Printer
4 1134 Paper Tape Reader/1055 Paper Tape Punch
6 Keyboard
7 1627 Plotter

The logical unit numbers used in FORTRAN I/O statements under the IBM 1130 Disk Monitor System, Version 2, are:

1 Console Printer
2 1442 Card Read Punch, Model 6 or 7
3 1132 Printer
4 1134 Paper Tape Reader/1055 Paper Tape Punch
5 1403 Printer
6 Keyboard
7 1627 Plotter
8 2501 Card Reader
9 1442 Card Punch, Model 5
10 Unformatted I/O area on disk

The logical unit numbers used in FORTRAN I/O statements under the IBM 1800 Card/Paper Tape Programming System are assigned by each installation during system edit.

The logical unit numbers used in FORTRAN I/O statements under the 1800 TSX and MPX Systems are assigned by each installation during system generation.

FORMAT STATEMENT

In order for data to be transmitted from an external storage medium (e.g., cards or paper tape) to the computer or from the computer to an external medium (cards, paper tape, or printed line), it is necessary that the computer know the form in which the data exists. This is accomplished by a FORMAT statement. The FORMAT statement describes the type of conversion to be performed between the internal and the external representation of each quantity in an I/O list by the use of data conversion specifications (see Conversion of Numeric Data). FORMAT statements may appear any place within the source program after all Specification statements.

General Form:

$$m\ \text{FORMAT}\ (k_1, k_2, \ldots, k_n/t_1, t_2, \ldots, t_n/\ldots)$$

where:

m represents a statement number,
$k_1, k_2, \ldots, k_n$ and $t_1, t_2, \ldots, t_n$ represent data conversion specifications, and
/ represents the beginning of a new record (see Multiple Field Format).

Examples:

```
 5  FORMAT (I5, F8.4)
18  FORMAT (I4/F6.2, F8.4)
20  FORMAT (E11.4/I8)
```

FORMAT statements are not executed but they must be given a statement number.

Successive items in the I/O list are transmitted according to successive specifications in the FORMAT statement, until all items in the list are transmitted. If there are more items in the list than there are specifications in the FORMAT statement, control transfers to the preceding left parenthesis (including any preceding repeat constant) of the FORMAT statement and the same specifications are used again with the next unit record. For example, suppose a program contains the following statements: