```
      SUBROUTINE TM1(NTSD,IDAT,DT)
C     ---------------------------------------
C                    14/07/99
C                    02/05/2000
C                    03/07/2000
C                    05/01/2001
C     ---------------------------------------
      PARAMETER (IM=111,JM=221,LM=38,LSM=19)
      PARAMETER (IMJM = IM*JM - JM/2)
      PARAMETER (LP1=LM+1)
      PARAMETER (JAM=6+2*(JM-10))
      PARAMETER (IMAX=2*IM-1  , JMAX=JM)
      PARAMETER (KKMAX=LM)
      PARAMETER (KMAX=KKMAX)
      PARAMETER (KMIN = LM-KKMAX)
      PARAMETER (KTOP = KMIN + 1)
      PARAMETER (LENIWA=1000)
      REAL PHI0,LAM0
      LOGICAL LOGU

      COMMON/ETATRN/
     * QQL(IMJM,KKMAX),QQH(IMJM,KKMAX),
     * PS(IMJM,2), QQ(IMJM,KKMAX,2),
     * UU(IMJM,KKMAX,2), VV(IMJM,KKMAX,2),
     * WW(IMJM,KKMAX,2), RO(IMJM,KKMAX,2),
     * TT(IMJM,KKMAX,2), ZZ(IMJM,KKMAX+1,2),
     * ALFA(IMJM,KKMAX,2),
     * DIFQ(IMJM,KKMAX),
     * AKH(IMJM,KKMAX,2),AKHS(IMJM,2),
     * TOPG(IMJM)
     *,PREC(IMJM,2),ACPR(IMJM,2)

      PARAMETER (NPOINT=25)
C
      COMMON/ETAGRD/
     *      XB,DEX,YB,DEY,
     *      COSETA(JM),XETA(IMAX),YETA(JM),
     *      ITMP(NPOINT), JTMP(NPOINT), KTMP(NPOINT)
C
      COMMON/ETABND/IBND1,IBND2,JBND1,JBND2
      COMMON/ETAREA/CAREA(IMJM)
      COMMON/CITERB/EPS,MAXIT
      COMMON/CFINTY/FINTY(30)
      COMMON/CBFIRE/ICLF1,QFLX1,ARFKM2,FLON1,FLAT1,
     *                   FLON2,FLAT2,FLON3,FLAT3
C         From TUPI Version
C         ICLF1 = 1 with one fire only
C         ICLF1 = 2 with distribution fires + one fire
C         ICLF1 = 3 with distribution fires only
C
C23456789 123456789 123456789 123456789 123456789 123456789 123456789 12
C     DIAGNOSIS ARRAYS
C
      CHARACTER*80 NAMEC
      DIMENSION IDAT(3)
      DIMENSION IWA(LENIWA)
C-----------------------------------------------------------------------
C      DATA FINTY/0.,0.,0. ,0., 0., 0.,0.,0.,0.,0.,
C     *           0.,0.,0. ,0., 0., 0.,0.,0.,0.,0.,
C     *           0.,0.,0.5,2.0,0.5,0.,0.,0.,0.,0./
C-----------------------------------------------------------------------
                             C O M M O N /VRBLS/
     & PD(IMJM),RES(IMJM),FIS(IMJM)
C
     &,U(IMJM,LM),V(IMJM,LM),T(IMJM,LM),Q(IMJM,LM)
C-----------------------------------------------------------------------
                             C O M M O N /MASKS/
     & HBM2  (IMJM),VBM2  (IMJM),VBM3  (IMJM),SM    (IMJM),SICE (IMJM)
C
```



```
     &,HTM   (IMJM,LM),VTM   (IMJM,LM)
C-----------------------------------------------------------------------
                             C O M M O N /MAPOT/
     & LSL,IXM,IYM
     &,ISHDE(49)
     &,R,PT,TSPH
     &,WBD,SBD,TLM0D,TPH0D,DLMD,DPHD,CMLD,DP30,X1P,Y1P
     &,DISLP,Z0SLP,SPL(LSM),ALSL(LSM)
     &,DETA(LM),AETA(LM),ETA(LP1),TSHDE(49)
     &,ERLAM0,CPHI0,SPHI0
     &,KUNIT,LUNIT,MUNIT,IUNIT,NUNIT
C-----------------------------------------------------------------------
                             C O M M O N /LOOPS/
     & KHLA  (JAM),KHHA  (JAM),KVLA  (JAM),KVHA  (JAM)
C
     &,KHL2  (JM),KHH2  (JM),KVL2  (JM),KVH2  (JM)
C
     &,LMH   (IMJM),LMV   (IMJM)
C------------------------------------------------------------------------
CDB      COMMON/ICOUNT/NUMSTE,NUMPOI,NUMLEV
C --------------------------------
C      DIMENSION BUFI(IMJM,2)     ! Buffer for the fires area
C --------------------------------

       CHARACTER*4 RUN
       CHARACTER*80 S80, NRUN
       CHARACTER*7 DATE
       CHARACTER*40 RUNAME

       COMMON/CBT1T2/HINTG(IMJM), HINN(IMJM,KMAX),
      *              HZM(IMJM,KMAX+1),BUFI(IMJM,2),
      *              QFLUX(IMJM,2) ,EFIREA(IMJM,4),
      *              QSOUR(10),ISOUR(10),JSOUR(10),
      *              XSOUR(10),YSOUR(10),
      *              QFIL(IMJM,KKMAX,2),
      *              IDATCP(3)
C
C                    IDATCP(3)= IM, ID, IY
C
       COMMON/TMCTRL/ISTEP,IBSTEP,DTT,
      *  NSTEP,NSWRI,NSFON,
      *  QMIN,VD,CW,IFDAY,QFLX0,
      *  NSSOUR,QCON0,NSOUR,
      *  IREC,IREC1,IREC2,IREC3,IRECF,
      *  AREAX0,AREAY0,NXAREA,NYAREA,
      *  LOGU,DATE2

       PARAMETER (NFIL = 10)
       COMMON/DIRICT/DIRTAB(NFIL),IDIR(NFIL)
       CHARACTER*80   DIRTAB

       COMMON/RECRDS/IREC4                  ! nvp

       CHARACTER*6 DATE2
       CHARACTER*6 DATE3

       COMMON/TIMECP/t1,t2,t3,t4, tt1, tt2
       REAL*8 t1,t2,t3,t4, tt1, tt2
C-----------------------------------------------------------------------
       DATA G /9.81/
       DATA CON/-999.0/
C      ---------------------
C             START
C      ---------------------
       call clock(t1)

       WRITE(66,*)'START TM1 NTSD=',NTSD,' t1=',t1

       RADDEG=3.14159265/180.
```

```
      DEG=180./3.14159265


      CALL RDDIRS(54)
      CLOSE(54)

      I1=IDIR(1)
      OPEN(54,FILE=DIRTAB(1)(1:I1)//'runpar.x4',
     *   STATUS='UNKNOWN')

      OPEN(55,FILE=DIRTAB(1)(1:I1)//'runame',
     *   STATUS='UNKNOWN')

      READ(55,'(A40)')RUNAME
      WRITE(66,*)'TM1: ',RUNAME
      REWIND(55)
      CALL READST(55,NRUN,LNRUN)
      WRITE(66,*)'////////////////'
      WRITE(66,*)' x4.   Version  ',RUNAME
      WRITE(66,*)'////////////////'

      CALL READST(54,RUN,LENRUN)
      CALL READI(54,NSTEP)
C
C     Warning: Some problem will be for a last day of month
C                        IENDAY = 32
C

      IENDAY=IDAT(2)+NSTEP/30
      IENDAT=(IENDAY*10000+IDAT(1)*100+IDAT(3)-2000)
      I2Y=IDAT(3)-(IDAT(3)/100)*100
      IENDA2=(                I2Y*10000+IDAT(1)*100+IENDAY)
C     IENDA2=((IDAT(3)-2000)*10000+IDAT(1)*100+IENDAY)
      WRITE(66,*)'  ///// IDAT =',IDAT
      WRITE(66,*)'  ///// NSTEP =',NSTEP       !  30
      WRITE(66,*)'  ///// IENDAY=',IENDAY      !  17
      WRITE(66,*)'  ///// IENDAT=',IENDAT      !  171001  171099  last day
      WRITE(66,*)'  ///// IENDA2=',IENDA2      !  011017  991017  last day

      CALL READI(54,NSWRI)
      CALL READI(54,NSFON)

      CALL READR(54,QMIN)
      CALL READR(54,EPS)
      CALL READI(54,MAXIT)
      CALL READR(54,VD)
      CALL READR(54,CW)
      CALL READL(54,LOGU)

      CALL TR3DATE(IDAT,DATE,DATE2)
      DATE3=DATE2(5:6)//DATE2(3:4)//DATE2(1:2)

      WRITE(66,*)'     INITIAL CONDITION'
      WRITE(66,*)'     ',DATE
      WRITE(66,*)'     ',DATE2
      WRITE(66,*)'     ',DATE3
      WRITE(66,*)'     '

C       IF(IDAT(3).LT.2000)THEN
C       IDATE=(IDAT(2)*10000+IDAT(1)*100+IDAT(3)-1900)
C       ELSE
C       IDATE=(IDAT(2)*10000+IDAT(1)*100+IDAT(3)-2000)
C       ENDIF

      IDATE=(IDAT(2)*10000+IDAT(1)*100+I2Y)
      WRITE(66,*)'IDATE=',IDATE
      CALL CALEND(IDATE*100,JUDAY1)

      WRITE(66,*)'QMIN =',QMIN
```



```
      WRITE(66,*)'EPS  =',EPS
      WRITE(66,*)'MAXIT =',MAXIT

      IF(RUN.EQ.'COLD')THEN
      IFDAY=IDAT(2)-19
      ELSE
      IFDAY=IDATCP(2)-19
      ENDIF

      CALL READR(54,QFLX0)
      CALL READI(54,NSSOUR)
      WRITE(66,*)'NSSOUR=',NSSOUR
      DO K=1,NSSOUR
      READ(54,*)XSOUR(K),YSOUR(K)
      WRITE(66,*)'SURFACE SOURCE ',QFLX0,XSOUR(K),YSOUR(K)


      ENDDO

      CALL READR(54,QCON0)
      CALL READI(54,NSOUR)                ! CONCENTRATION IN COLUM

      WRITE(66,*)'RUN=',RUN
      WRITE(66,*)'NSTEP=',NSTEP
      WRITE(66,*)'NSWRI=',NSWRI
      WRITE(66,*)'NSFON=',NSFON
      WRITE(66,*)'QFLX0=',QFLX0,' INPUT: kg CO2/ha/day'
      QFLX0=QFLX0/10000./86400.
      WRITE(66,*)'QFLX0=',QFLX0,'      kg CO2/m**2/s'
      WRITE(66,*)'QCON0=',QCON0
      WRITE(66,*)'NSOUR=',NSOUR
      DO K=1,NSOUR                        ! CONCENTRATION IN COLUM
      READ(54,*)ISOUR(K),JSOUR(K)         ! CONCENTRATION IN COLUM
      ENDDO                               ! CONCENTRATION IN COLUM
      CALL READR(54,AREAX0)
      CALL READR(54,AREAY0)
      CALL READI(54,NXAREA)
      CALL READI(54,NYAREA)
C
C     CHECK POINT FOR READ
C
      IF(RUN.EQ.'WARM')THEN
      CALL I2CH(IDATE,NAMEC(1:6))
C   From 6-digits number to 6-character string

C
C     PRINT TO PROTOCOL
C
      WRITE(0,*)'>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>'
      WRITE(0,*)'Date ',IDAT
      WRITE(0,*)'Chkp in =',DATE3
      WRITE(0,*)'Chkp out=',NAMEC(1:6)
      WRITE(0,*)'<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<'

      WRITE(66,*)'CONTINUE WITH READ FROM'

      I1=IDIR(2)
      OPEN(57,FILE=
     * DIRTAB(2)(1:I1)//'FIRST.CHKP',STATUS='OLD')

      WRITE(66,*)
     *DIRTAB(2)(1:I1)//'FIRST.CHKP'

      ENDIF
C
C    '/pesqout/sdg04/igor/eta/40km/of/o/'//NAMEC(1:6)//'_chkp.3
C
C     CHECK POINT FOR WRITE
C
```

```fortran
      CALL I2CH(IENDA2,NAMEC(1:6))

      WRITE(66,*)'CHECK POINT FOR WRITE ',NAMEC(1:6)

      I1=IDIR(2)
      OPEN(58,FILE=
     * DIRTAB(2)(1:I1)//'SECOND.CHKP',STATUS='UNKNOWN')

      WRITE(66,*)'CHECK POINT FOR WRITE:'
      WRITE(66,*)
     * DIRTAB(2)(1:I1)//'SECOND.CHKP'

C
C                      FIRE AREAS FILE
C
C           |-----------------------------------|
C           |                                   |
C           |                                   |
C           |          FIRE AREAS FILE          |
C           |                                   |
C           |                                   |
C           |-----------------------------------|
C

      I1=IDIR(3)
      OPEN(4,FILE=DIRTAB(3)(1:I1)//'fire_areas_eta2.dat',
     * FORM='UNFORMATTED',ACCESS='DIRECT',RECL=IMJM,
     * STATUS='OLD')

      WRITE(66,*)'FIRE AREA FROM:'
      WRITE(66,*)
     *DIRTAB(3)(1:I1)//'fire_areas_eta2.dat'

      CALL NULLI(BUFI,2*IMJM)
C
      IRECF=1
C
      WRITE(66,*)'FIRE AREA OF ',DATE,' IREC=',IRECF,' /#'
C
C

      IBSTEP=0
      ISTEP=0

      IF(RUN.EQ.'COLD')THEN
      WRITE(66,*)'     START TRNETA COLD RUN'

      DO K=1,KMAX
      DO J=1,IMJM
      QQ(J,K,1)=0.
      ENDDO
      ENDDO
      IBSTEP=0


      IREC=0
      IREC1=0
      IREC2=0
      IREC3=0

      WRITE(66,*)'IBSTEP=',IBSTEP
      WRITE(66,*)'IREC =',IREC
      WRITE(66,*)'IREC1 =',IREC1
      WRITE(66,*)'IREC2 =',IREC2
      WRITE(66,*)'IREC3 =',IREC3


      ELSE
      WRITE(66,*)'     START TRNETA WARM RUN'
```



```fortran
      CALL CHKPT(57,'R',IDATCP,IBSTEP,IREC,IREC1,IREC2,
     * QQ,IMJM,KMAX)

      IDATE=(IDATCP(2)*10000+IDATCP(1)*100+IDATCP(3)-1900)
      CALL CALEND(IDATE*100,JUDAY2)

      ENDIF

      WRITE(66,*)'IREC=',IREC,' IREC1=',IREC1,' IREC2=',IREC2
C
C        INTERNAL POINTS
C
C         +/- 4 points
C
         IMAR=4
         JMAR=4

         IBND1=IMAR+1                 !   5
         IBND2=IMAX-IMAR              ! 217  mistake
         JBND1=JMAR+1                 !   5
         JBND2=JM-JMAR                ! 217  mistake
C
C        GET MASK FOR INTERNAL POINT
C
         CALL GETMSK(HINTG,IMJM,IM,IBND1,IBND2,JBND1,JBND2)

C


         WRITE(66,*)'IM=',IM
         WRITE(66,*)'JM=',JM
         WRITE(66,*)'DT=',DT
         WRITE(66,*)'IDAT=',IDAT
         WRITE(66,*)'PT=',PT
         WRITE(66,*)'KMIN,KTOP,KMAX=',KMIN,KTOP,KMAX,' #/'
C
      DTT=30.*DT
      WRITE(66,*)'TRANSPORT MODEL TIME STEP=',DTT,' sec'

      CALL ETAGSI
C     =====================================
C                  HISTORY FILES
C     =====================================

      I1=IDIR(5)
      OPEN(60,FILE=
     * DIRTAB(5)(1:I1)//'P.'//DATE3//'_'//NRUN(1:LNRUN)//'_history.grd',
     * FORM='UNFORMATTED',ACCESS='DIRECT',RECL=51*51*4,
     * STATUS='UNKNOWN')

      WRITE(66,*)'     HISTORY FILE:'
      WRITE(66,*)
     *DIRTAB(5)(1:I1)//'P.'//DATE3//'_'//NRUN(1:LNRUN)//'_history.grd'

       IREC4=0

      CALL EGRIDS(DPHD,DLMD)         !      (PHI0,LAM0)

      CALL SETMPL(IMAR,JMAR)
C
C     HEIGHT MASK = 1.
C
      DO J=1,IMJM
      DO K=1,KMAX+1
      HZM(J,K)=1.
      ENDDO
      ENDDO
C
C     SET INNER POINTS MASK
C
```

```
      DO J=1,IMJM
      DO K=1,KMAX
      HINN(J,K)=HTM(J,K+KMIN)*HINTG(J)
      ENDDO
      ENDDO
C
C     SET 3D INTEREPOLATION PARAMETERS
C
      CALL SETID3(XB,DEX,YB,DEY,IM,JM,CON)
C
C     SET VERTICAL MASK FOR 3D-INTERPOLATION
C
      CALL VEGRID(AETA(KTOP),0.1)

      DO J=1,IMJM
      QFLUX(J,1)=0.
      QFLUX(J,2)=0.
      ENDDO

      CALL CELLAR(CMEAN,CMIN,CMAX)
      WRITE(66,*)'CELL AREA'
      WRITE(66,*)'CMEAN=',CMEAN,' m**2'
      WRITE(66,*)'CMIN =',CMIN,' m**2'
      WRITE(66,*)'CMAX =',CMAX,' m**2'

      CALL AMWEIG(RO(1,1,1),HTM(1,KTOP),PS(1,1),RES,
     * IMJM,KMAX,DETA(KTOP),CAREA,1.)

      WRITE(66,*)'  FIRE SOURCE LOCATION'
      DO K=1,NSOUR
      CALL GCOORD(ISOUR(K),JSOUR(K),GLON,GLAT)
      WRITE(66,*)'I,J FONTE=',ISOUR(K),JSOUR(K),
     *' Lon=',GLON,' Lat=',GLAT
      ENDDO
C     ----------------------------------------
C            INPUT FIRE AREA FOR 4 TIMES
C     ----------------------------------------
      CLOSE(54)
C     ----------------------------------------
C     AREAS ANALISADOS
C     ----------------------------------------
      IWA(1)=0
C ------------------
C     VEGETATION
C ------------------
      CALL VEGETY      ! Warning: Temporary is out.

      WRITE(66,*)' ************** End of TM1 ****************'
      CALL TAPES(66)
      WRITE(66,*)' ************** End of TM1 ****************'

      WRITE(66,*)'KMAX=',KMAX
      CALL EXTRAC(HTM,IMJM*KMAX,AMEAN,AMIN,AMAX,0.,NULL)
      WRITE(66,*)'HTM=',AMEAN,AMIN,AMAX,' 0=',NULL
      CALL EXTRAC(HTM,IMJM*KMAX,AMEAN,AMIN,AMAX,1.,NULL)
      WRITE(66,*)'HTM=',AMEAN,AMIN,AMAX,' 1=',NULL
C     -------------------------------------------
C                      One fire
C     -------------------------------------------
      CLOSE(54)
      I1=IDIR(1)
      OPEN(54,FILE=DIRTAB(1)(1:I1)//'one_fire',
     *   STATUS='OLD')

      CALL NULLI(EFIREA,4*IMJM)
      CALL TRANXY(-1.,56.,20.,40.,-1.,9.,57.,45.,FLON1,FLAT1)
      ARFKM2=0.0009      ! 9 ha = 0.0009 km**2
      CALL ONEFIR(EFIREA,ARFKM2,FLON1,FLAT1)
C      QFLX0=0.0228/(3.*2880.)          !  kg/m**2*s
```



```
C      QFLX0=100.0*0.0228/(3.*2880.)     !  kg/m**2*s
      QFLX1=0.0228                      ! see one_fire
      QFLX1=10.*QFLX1/2880.
C --------- Original Source ------------ 25/03/2002
      QFLX1=22.8/(3.*2880.)
C ------------------------------------- 25/03/2002
      WRITE(66,*)'  Program one fire parameters'
      WRITE(66,*)'Location: FLON,FLAT=',FLON1,FLAT1
      WRITE(66,*)'Fire area      =',ARFKM2,' km**2'
      WRITE(66,*)'Fire intensity   =',QFLX1 ,' kg/m**2*s'

      READ(54,*)HEX,XGRA,XMIN,XSEC,HEY,YGRA,YMIN,YSEC
Cx      HEX=-1.
Cx      XGRA=56.
Cx      XMIN=20.
Cx      XSEC=40.
Cx      HEY=-1.
Cx      YGRA=9.
Cx      YMIN=57.
Cx      YSEC=45.       !   Coordinates of one fire
      CALL TRANXY(HEX,XGRA,XMIN,XSEC,HEY,YGRA,YMIN,YSEC,FLON2,FLAT2)
      READ(54,*)ARFKM2
Cx      ARFKM2=0.0009
      READ(54,*)QFLXA
Cx      QFLX0=0.0228
      QFLXA=QFLXA/(3.*2880.)      !  kg/m**2*s
      QFLX1=QFLXA
C     25/03/2002 /////////////////////////////!  kg/m**2*s

      READ(54,*)(FINTY(I),I=1,30)
      IF(RUN.EQ.'WARM')THEN
      DO I=1,30
      FINTY(I)=0.
      ENDDO
      ENDIF
      READ(54,*)ICLF1
      WRITE(66,*)' '
      WRITE(66,*)'  Table one fire parameters'
      WRITE(66,*)'Location: FLON,FLAT=',FLON2,FLAT2
      WRITE(66,*)'Fire area      =',ARFKM2,' km**2'
      WRITE(66,*)'Fire intensity   =',QFLXA ,' kg/m**2*s'
      WRITE(66,*)'Time intensity'
      WRITE(66,100)(I1,FINTY(I1),I1=1,30)
C      WRITE(66,*)FINTY
      WRITE(66,*)'Source Type (ICLF1)=',ICLF1,', see next table'
      WRITE(66,*)'      Source Type Table'
      WRITE(66,*)'ICLF1 = 0 with one fire only'
      WRITE(66,*)'ICLF1 = 1 with distribution fires + one fire'
      WRITE(66,*)'ICLF1 = 2 with distribution fires only'

      call clock(t2)
      write(66,101) t2-t1

      call clock(t1)
100   FORMAT(5(I2,'-',F3.1,1X))
101   format('CPU TIME for initiallization: ',f10.4,' sec')

C      STOP

      RETURN

      END
C& TR3DATE
      SUBROUTINE TR3DATE(IDAT,DATE,DATE2)
      DIMENSION IDAT(3)
      CHARACTER*6 DATE2
      CHARACTER*7 DATE
      CHARACTER*3 MON1(12)
      CHARACTER*2 MON2(12), DAY(31), YEAR(25)
```

```
      DATA MON1/'JAN','FEB','MAR','APR','MAI','JUN',
     *          'JUL','AUG','SEP','OCT','NOV','DEC'/
      DATA MON2/'01','02','03','04','05','06',
     *          '07','08','09','10','11','12'/
      DATA DAY/'01','02','03','04','05','06',
     *         '07','08','09','10','11','12',
     *         '13','14','15','16','17','18',
     *         '19','20','21','22','23','24',
     *         '25','26','27','28','29','30',
     *         '31'/
      DATA YEAR/'80','81','82','83','84',
     *          '85','86','87','88','89',
     *          '90','91','92','93','94',
     *          '95','96','97','98','99',
     *          '00','01','02','03','04'/

      ID=IDAT(2)                                   !  2
      IM=IDAT(1)                                   !  1
      IY=IDAT(3)-1979                              !  2000-1979=21
      IF(IY.LT.1.OR.IY.GT.25)THEN
      WRITE(66,*)'ERROR IN INITIAL DATE:'
      WRITE(66,*)'IDAT=',IDAT
      WRITE(66,*)'Year.GE.1980.and.Year.LE.2004'
      STOP
      ENDIF

      DATE=DAY(ID)//MON1(IM)//YEAR(IY)              !   7 bytes
      DATE2=DAY(ID)//MON2(IM)//YEAR(IY)             !   6 bytes
      RETURN
      END
C& RDDIRS
      SUBROUTINE RDDIRS(NU)
C
C     READ DIRECTORIES
C
      PARAMETER (NFIL = 10)
      COMMON/DIRICT/DIRTAB(NFIL),IDIR(NFIL)
      CHARACTER*80 DIRTAB,S80

      WRITE(66,*)'    TABLE OF DIRECTORIES'
      WRITE(66,*)
     *'123456789 123456789 123456789 123456789 123456789 1'

      DO I=1,5
      READ(NU,'(A80)')S80
      I1=INDEX(S80,' ')-1
      IDIR(I)=I1
      DIRTAB(I)(1:I1)=S80(1:I1)
      WRITE(66,*)DIRTAB(I)(1:I1)
      ENDDO

      RETURN
      END
```