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CON
C+*****
C
C      PROGRAM READUNMI
C
C      ACRONYM: READ UNMERGED ION MODE TABLES.
C              ****  ***      *
C
C      PURPOSE: To read un-merged LSF ion mode tables & do what you please.
C
C      OVERVIEW:
C
C      PARAMETERS: NONE
C      NAME          DIM      TYPE  I/O    DESCRIPTION
C      ----          ---      ----  ---    -
C
C      NOTES:
C
C      CALLING MODULE: UNMERL
C
C      SUBROUTINES CALLED: NONE
C
C      COMMONS USED: NONE
C      NAME          DESCRIPTION
C      ----          -
C
C      FILE USAGE:
C      FILE          LUN      DESCRIPTION
C      ----          ---      -
C      ION####.LSF   KF       Input un-merged ion file.
C      FOR069.DAT    69       Error log file.
C
C      ENVIRONMENT: VAX/VMS
C
C      AUTHOR:  Joe Goosby
C      DATE:    6/93
C
C-*****
COFF
C
C      CHARACTER*8  TLSF
C      CHARACTER*9  DLSF
C      CHARACTER*11 NAM
C      REAL*4       NO
C      INTEGER*4    TPER
C
C      DIMENSION ALPHA(300), ALTI(300), BCKI(300), C02(300), CSQ(300),
*                EPM(17,300), FRSI(300), H(300), HE(300), NDSI(300),
*                NO(300), O(300), O2(300), PHII(300), SIGV(300), SZAI(300),
*                TI(300), TIMI(300), TOTI(300), VELI(300)
C
C
C
C... Open output file.
      OPEN(UNIT=KF, NAME='ION1.LSF', STATUS='UNKNOWN', ACCESS='DIRECT',

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      *      FORM='UNFORMATTED', RECL=37)
C      OPEN(UNIT=KF, NAME='IONOU', STATUS='UNKNOWN', ACCESS='DIRECT',
C      *      FORM='UNFORMATTED', RECL=37)
C      OPEN(UNIT=KF, NAME=NAM, STATUS='UNKNOWN', ACCESS='DIRECT',
C      *      FORM='UNFORMATTED', RECL=37)
      IUS=0
      I9=0
      I=1
      DO WHILE(IUS.EQ.0)
        I9=I9+1
        READ(KF, REC=I9, IOSTAT=IUS) IORBT, TPER, KDAY, NDSI(I),
      *      TIMI(I), ALTI(I), SZAI(I), TOTI(I), H(I), HE(I), O(I),
      *      NO(I), O2(I), CO2(I), VELI(I), TI(I), PHII(I), CSQ(I),
      *      FRSI(I), BCKI(I), (EPM(K, I), K=1, 17)
C      IF (IORBT.GT.1480) THEN
C      WRITE(6, '(I15,1X,I5)') I9, IORBT
C      WRITE(69, 3000) I9, IORBT, TIMI(I), ALTI(I), SZAI(I)
C      END IF
      END DO
      CLOSE (UNIT=KF)
1000 FORMAT(1X, ' UNMI: ORBIT ', I4, ' EOF')
2000 FORMAT(1X, ' UNMI: ORBIT ', I4, 1X, 'ION READ ERROR')
3000 FORMAT(1X, I10, 1X, I4, 1X, F12.3, 1X, F13.1, 1X, F7.3)
C
      END

```