

ADAS Subroutine e1file

SUBROUTINE E1FILE(IUNIT , IZ0 , IZ , IRCODE , DSNAME)

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C
C ***** FORTRAN77 SUBROUTINE: E1FILE *****
C
C PURPOSE: TO OPEN AN IONIZATIONS PER PHOTON DATA SET
C
C         BY DEFAULT AN 'IONELEC' FILE WILL BE USED FOR AN
C         EMITTING ION WITH NUCLEAR CHARGE 'IZ0' AND CHARGE 'IZ'.
C         OR, AN ALTERNATIVE DATA SET CAN BE SPECIFIED.
C         THIS WILL BE CONNECTED TO UNIT 'IUNIT'.
C
CA DATA FILE OPENED UNDER UNIX : '$ADASCENT/DEFADF/USRGRP/USRTYP/
CA   USRGRP_<EXT><ELEMENT><CHARGE>'
C
C CALLING PROGRAM: SSXB
C
C SUBROUTINE:
C
C INPUT : (I*4)   IUNIT   = UNIT TO WHICH DATA SET WILL BE CONNECTED
C INPUT : (I*4)   IZ0     = NUCLEAR CHARGE OF EMITTING ION REQUESTED
C INPUT : (I*4)   IZ      = ION CHARGE OF EMITTING ION REQUESTED
C
C OUTPUT: (I*4)   IRCODE  = RETURN CODE FROM SUBROUTINE:
C                           0 => DATA SET SUCCESSFULLY CONNECTED
C                           1 => REQUESTED DATA SET MEMBER DOES NOT
C                               EXISTS - DATA SET NOT CONNECTED.
C                           6 => INVALID VALUE FOR 'IZ' ENTERED.
C                               ( 0 <= 'IZ' <= 99 )
C                           9 => REQUESTED DATA SET EXISTS BUT CANNOT
C                               BE OPENED.
CA OUTPUT: (C*80) DSNAME  = FILE NAME INCLUDING PATH
C
C         (I*4)   IDLEN   = LENGTH, IN BYTES, OF FIXED 'DSNAME' PREFIX
C         (I*4)   LENF1   = FIRST NON-BLANK CHR OF 'DSNAME' GROUP PART
C         (I*4)   LENF2   = LAST  NON-BLANK CHR OF 'DSNAME' GROUP PART
C         (I*4)   LENF3   = FIRST NON-BLANK CHR OF 'DSNAME' TYPE PART
C         (I*4)   LENF4   = LAST  NON-BLANK CHR OF 'DSNAME' TYPE PART
C         (I*4)   LENF5   = FIRST NON-BLANK CHR OF 'DSNAME' USERID PART
C         (I*4)   LENF6   = LAST  NON-BLANK CHR OF 'DSNAME' URESID PART
C         (I*4)   LENF7   = FIRST NON-BLANK CHR OF 'DSNAME' EXTENSION PART
C         (I*4)   LENF8   = LAST  NON-BLANK CHR OF 'DSNAME' EXTENSION PART
C         (I*4)   IZEND   = LAST BYTE WRITTEN TO IN 'CZ'. (= 1 OR 2)
CA        (C*1)   HASH    = '#' if NON-BLANK EXT, ELSE ' '.
C         (C*2)   CZ      = 'IZ' (NO LEADING BLANKS)
C         (C*2)   XFESYM  = FUNCTION - (SEE ROUTINES SECTION BELOW)
C         (C*2)   ESYM    = ELEMENT SYMBOL FOR NUCLEAR CHARGE 'IZ0'
C         (C*3)   USREXT  = ADAS SOURCE DATA FILE EXTENSION
CA        (C*80)  USERID  = ADAS SOURCE DATA USER ID
C         (C*8)   USRGRP  = ADAS SOURCE DATA GROUPNAME
CA        (C*80)  USRTYP  = OPTIONAL SUB-DIRECTORY
CA        (C*6)   DEFADF  = DEFAULT ADF DATA DIRECTORY, I.E. ADF13
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C
C          (L*4)   LEXIST  = .TRUE.  => REQUESTED  DATA  SET  EXISTS.
C                               .FALSE. => REQUESTED  DATA  SET  DOES  NOT
C                               EXIST.
C
C ROUTINES:
C          ROUTINE      SOURCE      BRIEF DESCRIPTION
C          -----
C          XXUID        ADAS         FETCHES/SETS ADAS SOURCE DATA USER ID
C          XXSSXB       ADAS         FETCHES/SETS ADAS SOURCE DATA FILENAME
C                               AND FILE EXTENSION
C          XFESYM       ADAS         CHARACTER*2 FUNCTION -
C                               GATHERS ELEMENT SYMBOL FOR NUC. CHARGE
C          XXSLEN       ADAS         FINDS FIRST AND LAST NON-BLANK
C          CHARACTERS IN STRING.
C
C AUTHOR:  PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
C          K1/0/37
C          JET EXT. 5023
C
C DATE:    01/06/91
C UPDATE:  31/07/91 - PE BRIDEN: ADDED "ACTION='READ'" TO OPEN STATEMENT
C UPDATE:  08/08/91 - PE BRIDEN: ADDED "IRCODE=9" => OPEN ERROR
C UPDATE:  10/03/93 - PE BRIDEN: ADDED CALL TO XXUID AND USERID VARIABLE
C                               - NOW ALLOWS ANY INPUT DATASET USER ID.
C UPDATE:   2/09/93 - HPS          : ADDED CALL TO XXSSXB AND USRGRP, USRTYP
C                               AND USREXT NAMES
C                               - NOW ALLOWS ANY INPUT DATASET FILENAME
C                               AND EXTENSION
C UPDATE:  23/11/93 - PEB          : CORRECT ERROR - A '.' HAD MISTAKENLY
C                               BEEN PLACED BEFORE THE MEMBER NAME IN
C                               VARIABLE DSNAME.
C
C UPDATE:  26/10/94 - L. JALOTA: MODIFIED CODE FOR RUNNING UNDER UNIX
C          USING NEW FILENAMING CONVENTION.
C          "ACTION" KEYWORD IN OPEN COMMAND IS IBM
C          SO REMOVED HERE.
C
C UPDATE:   7/11/94 - L. JALOTA: ADDED VARIABLE DEFADF - DEFAULT ADF DIRECTORY
C
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C
C VERSION: 1.1 DATE: 02-05-95
C MODIFIED: UNKNOWN (SOMEONE FROM TESSELLA SUPPORT SERVICES PLC)
C          - PUT UNDER SCCS CONTROL
C
C
C VERSION: 1.2 DATE: 19-05-95
C MODIFIED: Hugh Summers
C          - Introduced hash to eliminate # in file if there is
C            no extension part of the file name alter logic to
C            allow usrtyp, usrext to be a single character.
C

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C VERSION: 1.3 DATE: 20-07-07

C MODIFIED: Allan Whiteford

C - Modification to comments to allow for automatic
C documentation preparation.

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CHARACTER*80	DSNAME			
INTEGER	IRCODE,	IUNIT,	IZ,	IZ0