

ADAS Subroutine cafile

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      SUBROUTINE CAFILE( IUNIT , IZ0 , IRCODE , DSNAME , DLPATH)
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C
C ***** FORTRAN77 SUBROUTINE: CAFILE *****
C
C PURPOSE: TO OPEN AN IONIZATION RATE-COEFFT 'IONELEC' DATA SET
C           BY DEFAULT, OR AN ALTERNATIVE DATA SET IF REQUIRED, FOR
C           IONIZING ION WITH NUCLEAR CHARGE 'IZ0'
C           THIS WILL BE CONNECTED TO UNIT 'IUNIT'.
C
C   DATA SET OPENED: DLPATH/adf07/<DEFADF>/<GROUP>(OPTIONAL)/<TYPE>/
C <GROUP_EXT>#<ELEMENT SYMBOL>'
C
C CALLING PROGRAM: CASSZD
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 : (C*80)  DLPATH  = PATH NAME TO THE RELEVANT DATA FILES
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                           9 => REQUESTED DATA SET EXISTS BUT CANNOT
C                               BE OPENED.
C OUTPUT: (C*80)  DSNAME  = NAME OF OPENED DATA SET UNDER UNIX
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  = LAST  NON-BLANK CHR OF 'DSNAME' USERID PART
C           (I*4)   LENF6  = LAST  NON-BLANK CHR OF 'DSNAME' USERID PART
C           (I*4)   LENF7  = LAST  NON-BLANK CHR OF 'DSNAME' EXTENSION PART
C           (I*4)   LENF8  = LAST  NON-BLANK CHR OF 'DSNAME' EXTENSION PART
CA          (C*1)   HASH   = '#'   IF NON-BLANK EXT, ELSE ' '.
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  = ADAS SOURCE DATA TYPENAME
C           (C*5)   DEFADF  = DEFAULT DATA DIRECTORY, I.E. ADF13
C
C           (L*4)   LEXIST = .TRUE. => REQUESTED DATA SET EXISTS.
C                           .FALSE. => REQUESTED DATA SET DOES NOT
C                                   EXIST.
C
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C ROUTINES:

ROUTINE	SOURCE	BRIEF DESCRIPTION
XXUID	ADAS	FETCHES/SETS ADAS SOURCE DATA USER ID
XXSSZD	ADAS	FETCHES/SETS ADAS SOURCE DATA FILENAME AND FILE EXTENSION
XFESYM	ADAS	CHARACTER*2 FUNCTION - GATHERS ELEMENT SYMBOL FOR NUC. CHARGE
XXSLEN	ADAS	FINDS FIRST AND LAST NON-BLANK CHARACTERS IN STRING.

C AUTHOR: H.P. SUMMERS

C K1/1/57

C JET EXT. 4941

C DATE: 11/10/91

C UPDATE: 10/03/93 - PE BRIDEN: ADDED CALL TO XXUID AND USERID VARIABLE - NOW ALLOWS ANY INPUT DATASET USER ID.

C UPDATE: 2/09/93 - HPS : ADDED CALL TO XXSSZD AND USRGRP, USRTYP AND USREXT NAMES - NOW ALLOWS ANY INPUT DATASET FILENAME AND EXTENSION

C UPDATE: 23/11/93 - PEB : CORRECT ERROR - A '.' HAD MISTAKENLY BEEN PLACED BEFORE THE MEMBER NAME IN VARIABLE DSNAME.

C UPDATE: 10/11/94 - L. JALOTA: MODIFIED CODE FOR RUNNING UNDER UNIX USING NEW FILE NAMING CONVENTION.

C "ACTION" KEYWORD IN OPEN COMMAND IS IBM SO REMOVED HERE.

C ADDED DEFADF

C UPDATE: 22/11/94 - L. JALOTA: TIDIED UP CHARACTER LENGTH DEFINITIONS

C UPDATE: 24/03/95 - HPS : INTRODUCED HASH TO ELIMINATE # IN FILE IF THERE IS NO EXTENSION PART OF THE FILE NAME ALTER LOGIC TO ALLOW USRTYP, USREXT TO BE A SINGLE CHARACTER.

C VERSION: 1.1 DATE: 08-02-96

C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)

C - FIRST VERSION

CHARACTER*80 DLPATH, DSNAME
INTEGER IRCODE, IUNIT, IZO