

ADAS Subroutine d5scrp

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      SUBROUTINE D5SCRP( LRSCRP , LSNULL ,
&                      DSNINC , DSPECA ,
&                      NDLINE , NDCOMP , NDRAT , NDFILE ,
&                      NFILE , LFILE ,
&                      UID , GROUP , TYPE , EXT , ION ,
&                      MEMB , IZ0 ,
&                      NLINE , NCOMP ,
&                      IZION , IMET , CIMET , INDPH , CINDPH ,
&                      IFILE , TITL ,
&                      NRAT ,
&                      ILINE , JLINE , TITR , IRCODE
&                      )
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C ***** FORTRAN77 SUBROUTINE: D5SCRP *****
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C PURPOSE: TO READ SCRIPT FILE AND ACCESS EMISSIVITY DATA
C          ON SPECTRAL LINES REQUESTED FOR FURTHER PROCESSING IN
C          EQUILIBRIUM IONISATION CODES.
C
C CALLING PROGRAM: ADAS405
C
C SUBROUTINE:
C
C INPUT : (C*120) DSNINC   = SCRIPT DATA SET NAME (FULL MVS DSN)
C                      (IN FORM SUITABLE FOR DYNAMIC ALLOCATION)
C INPUT : (I*4)   NDLINE   = MAXIMUM NUMBER OF LINES ALLOWED
C INPUT : (I*4)   NDCOMP   = MAXIMUM NUMBER OF COMPONENT FOR EACH LINE
C INPUT : (I*4)   NDRAT    = MAXIMUM NUMBER OF LINE RATIOS ALLOWED
C INPUT : (I*4)   NDFILE   = MAXIMUM NUMBER OF EMISSIVITY FILES WHICH
C                      CAN BE SEARCHED
C
C OUTPUT: (L*4)   LRSCRP   = .TRUE.  => SCRIPT FILE READ
C                      .FALSE. => SCRIPT FILE NOT READ
C OUTPUT: (L*4)   LSNULL   = .TRUE.  => SCRIPT FILE SET TO NULL
C                      .FALSE. => SCRIPT FILE VALID
C OUTPUT: (C*120) DSPECA() = PHOTON EMISSIVITY SOURCE FILES
C OUTPUT: (I*4)   NFILE    = NUMBER OF PEC FILES TO BE SCANNED
C OUTPUT: (L*4)   LFILE()  = .TRUE.  => PEC FILE EXISTS AND MATCHES
C                      .FALSE. => PEC FILE DOES NOT EXIST/MATCH
C OUTPUT: (C*6)   UID()    = USER IDENTIFIER OF PEC FILE
C OUTPUT: (C*8)   GROUP()  = GROUP IDENTIFIER OF PEC FILE
C OUTPUT: (C*5)   TYPE()   = TYPE IDENTIFIER OF PEC FILE
C OUTPUT: (C*3)   EXT()    = EXTENSION OF PEC FILE MEMBER NAME
C OUTPUT: (C*4)   ION()    = ION NAME OF PEC FILE MEMBER NAME
C OUTPUT: (C*8)   MEMB()   = MEMBER NAME OF PEC FILE
C OUTPUT: (I*4)   NLINE    = NUMBER OF LINES IDENTIFIED IN SCRIPT
C OUTPUT: (I*4)   NCOMP()  = NUMBER OF COMPONENTS OF SCRIPT LINE
C                      1ST DIM: LINE INDEX
C OUTPUT: (I*4)   IZION(,) = CHARGE STATE OF COMPONENT
C                      1ST DIM: LINE INDEX
C                      2ND DIM: COMPONENT INDEX
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C OUTPUT: (I*4) IMET(,) = NUMBER OF COMPONENTS OF SCRIPT LINE
C 1ST DIM: LINE INDEX
C 2ND DIM: COMPONENT INDEX
C OUTPUT: (C*1) CIMET(,) = SIGN (+, BLANK OR -) OF METASTABLE
C 1ST DIM: LINE INDEX
C 2ND DIM: COMPONENT INDEX
C OUTPUT: (I*4) INDPH(,) = PEC FILE INDEX OF LINE COMPONENT
C 1ST DIM: LINE INDEX
C 2ND DIM: COMPONENT INDEX
C OUTPUT: (C*1) CINDPH(,) = DRIVER (E OR BLANK => ELECTRONS)
C (H => HYDROGEN)
C 1ST DIM: LINE INDEX
C 2ND DIM: COMPONENT INDEX
C OUTPUT: (I*4) IFILE(,) = INDEX OF PEC FILE IN FILE LIST
C 1ST DIM: LINE INDEX
C 2ND DIM: COMPONENT INDEX
C OUTPUT: (C*12) TITL(,) = TITLE FOR LINE COMPONENT
C 1ST DIM: LINE INDEX
C 2ND DIM: COMPONENT INDEX
C OUTPUT: (I*4) NRAT = NUMBER OF RATIOS IDENTIFIED IN SCRIPT
C OUTPUT: (I*4) ILINE() = INDEX OF NUMERATOR LINE FOR LINE RATIO
C OUTPUT: (I*4) JLINE() = INDEX OF DENOMINATOR LINE FOR LINE RATIO
C OUTPUT: (C*25) TITR() = TILE FOR LINE RATIO
C OUTPUT: (I*4) IRCODE = ERROR FLAG:
C 0 => SCRIPT FILE WAS READ OKAY
C 1 => SCRIPT FILE DOES NOT EXIST
C 2 => I/O ERROR READING THE SCRIPT FILE
C 3 => 1 OR MORE FILE NAMES IN SCRIPT FILE
C IS/ARE INVALID.
C
C (I*4) IUNT10 = PARAMETER = INPUT UNIT FOR DATA
C (L*4) OPEN10 = .TRUE. => FILE ALLOCATED TO UNIT 10.
C .FALSE. => NO FILE ALLOCATED TO UNIT 10.
C

C ROUTINES:

ROUTINE	SOURCE	BRIEF DESCRIPTION
XXSLEN	ADAS	FIND NON-BLANK CHARACTERS IN STRING

C AUTHOR: H. P. SUMMERS, JET
C K1/1/57
C JET EXT. 4941
C

C DATE: 20/04/94

C IDL-UNIX PORT:

C VERSION: 1.1 DATE: 08/11/95
C MODIFIED: TIM HAMMOND
C - ADDED SCCS HEADER - FIRST VERSION
C

C VERSION: 1.2 DATE: 08/11/95
C MODIFIED: TIM HAMMOND

C - REMOVED SUPERFLUOUS VARIABLES

C

C VERSION: 1.3 DATE: 10/11/95

C MODIFIED: TIM HAMMOND

C - ADDED NEW ERROR CHECK VARIABLE IRCODE TO SEE
C WHETHER THE SCRIPT FILE WAS READ OKAY OR NOT.

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CHARACTER	CIMET (NDLINE, NDCOMP)	
CHARACTER	CINDPH (NDLINE, NDCOMP)	
CHARACTER*120	DSNINC, DSPECA (NDFILE)	
CHARACTER*3	EXT (NDFILE)	
CHARACTER*8	GROUP (NDFILE)	
CHARACTER*4	ION (NDFILE)	
CHARACTER*8	MEMB (NDFILE)	
CHARACTER*12	TITL (NDLINE, NDCOMP)	
CHARACTER*25	TITR (NDRAT)	
CHARACTER*5	TYPE (NDFILE)	
CHARACTER*6	UID (NDFILE)	
INTEGER	IFILE (NDLINE, NDCOMP),	ILINE (NDRAT)
INTEGER	IMET (NDLINE, NDCOMP),	INDPH (NDLINE, NDCOMP)
INTEGER	IRCODE, IZ0,	IZION (NDLINE, NDCOMP)
INTEGER	JLINE (NDRAT),	NCOMP (NDLINE)
INTEGER	NDCOMP, NDFILE,	NDLINE, NDRAT
INTEGER	NFILE, NLINE,	NRAT
LOGICAL	LFILE (NDFILE),	LRSCR, LSNULL