

ADAS Subroutine b8winf

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      SUBROUTINE B8WINF( IUNIT , LADF10 , DATE , USER ,
&                        NDLEV ,
&                        DSNINC , DSFULL , DSNEXP ,
&                        IZ0 , IZ1 ,
&                        IL , NMET , NPL , IBSELA ,
&                        LRSEL , LISEL , LHSEL , LIOSEL ,
&                        LPSEL , LZSEL , LNSEL , LNORM ,
&                        LSSETA , LSS04A
&                        )
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C ***** FORTRAN77 SUBROUTINE: B8WINF *****

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C PURPOSE: Write information section of adf10, adf13 and adf15 files.

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C CALLING PROGRAM: ADAS208 - b8wrmc, b8wr11, b8wr12

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C SUBROUTINE:

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C INPUT : (I*4) IUNIT = OUTPUT UNIT NUMBER

C INPUT : (I*4) LADF10 = .TRUE. IF WRITING COMMENTS TO ADF10 FILE.

C INPUT : (C*8) DATE = CURRENT DATE.

C INPUT : (C*30) USER = USER IDENTIFIER

C INPUT : (I*4) NDLEV = MAXIMUM NUMBER OF LEVELS ALLOWED

C INPUT : (I*4) NDMET = MAXIMUM NUMBER OF METASTABLES ALLOWED

C INPUT : (C*80) DSNINC = INPUT COPASE DATA SET NAME (IN QUOTES).

C INPUT : (C*80) DSFULL = INPUT SZD DATA SET NAME (IN QUOTES).

C INPUT : (C*80) DSNEXP = INPUT EXPANSION FILE

C INPUT : (I*4) IZ0 = NUCLEAR CHARGE READ

C INPUT : (I*4) IZ1 = RECOMBINING ION CHARGE READ

C (NOTE: IZ1 SHOULD EQUAL IZ+1)

C INPUT : (I*4) IL = NUMBER OF ENERGY LEVELS

C INPUT : (I*4) NMET = NUMBER OF METASTABLES LEVELS: 1<=NMET<=NDMET

C INPUT : (I*4) NPL = NO. OF METASTABLES OF (Z+1) ION ACCESSED

C BY EXCITED STATE IONISATION IN COPASE

C FILE WITH IONISATION POTENTIALS GIVEN

C ON THE FIRST DATA LINE

C INPUT : (I*4) IBSELA(,) = IONISATION DATA BLOCK SELECTOR INDICES

C 1ST DIMENSION - (Z) ION METASTABLE COUNT

C 2ND DIMENSION - (Z+1) ION METASTABLE COUNT

C INPUT : (L*4) LRSEL = .TRUE. - RECOMB OF (Z+1) ION ACTIVE

C .FALSE. - RECOMB. OF (Z+1) ION INACTIVE

C INPUT : (L*4) LISEL = .TRUE. - IONIS. OF (Z-1) ION ACTIVE

C .FALSE. - IONIS. OF (Z-1) ION INACTIVE

C INPUT : (L*4) LHSEL = .TRUE. - CX REC. OF (Z+1) ION ACTIVE

C .FALSE. - CX REC. OF (Z+1) ION INACTIVE

C INPUT : (L*4) LIOSEL = .TRUE. - IONIS. OF (Z) ION ACTIVE

C .FALSE. - IONIS. OF (Z) ION INACTIVE

C INPUT : (L*4) LPSEL = .TRUE. => INCLUDE PROTON COLLISIONS

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C          = .FALSE. =>DO NOT INCLUDE PROTON COLLISIONS
C INPUT : (L*4) LZSEL = .TRUE. => SCALE PROTON COLLISIONS WITH
C          PLASMA Z EFFECTIVE'ZEFF'.
C          = .FALSE. => DO NOT SCALE PROTON COLLISIONS
C          WITH PLASMA Z EFFECTIVE 'ZEFF'.
C          (ONLY USED IF 'LPSEL=.TRUE.')
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C INPUT : (L*4) LNSEL	= .TRUE.	=> INCLUDE PROJECTED BUNDLE-N DATA FROM DATAFILE IF AVAILABLE
C	= .FALSE.	=> DO NOT INCLUDE PROJECTED BUNDLE-N DATA
C INPUT : (L*4) LNORM	= .TRUE.	=> IF NMET=1 THEN VARIOUS IONISATION OUTPUT FILE NORMALISED TO STAGE TOT.POPULATN. (** NORM TYPE = T)
C	= .FALSE.	=> OTHERWISE NORMALISE TO IDENTIFIED METASTABLE POPULATIONS. (** NORM TYPE = M)

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C INPUT : (L*4) LSSETA(,)= .TRUE. => MET. IONIS RATE SET IN B8GETS
C          .FALSE. => MET. IONIS RATE NOT SET IN B8GETS
C          1ST DIMENSION: (Z) ION METASTABLE INDEX
C          2ND DIMENSION: (Z+1) ION METASTABLE INDEX
C INPUT : (L*4) LSS04A(,)= .TRUE. => IONIS. RATE SET IN ADF04 FILE:
C          .FALSE. => NOT SET IN ADF04 FILE
C          1ST DIM: LEVEL INDEX
C          2ND DIM: PARENT METASTABLE INDEX
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C INTERNAL:
C
C          (L*4) LION      = .TRUE. => SOME/ALL MET. IONIS RATE IS SET
C          (L*4) LIONALL  = .TRUE. => ALL MET. IONIS RATES ARE SET
C          (L*4) LIONA    = .TRUE. => ALL MET. IONIS RATES FROM ADF04 FILE
C          (L*4) LIONOV   = .TRUE. => SOME/ALL MET. IONIS RATES TAKEN
C                               FROM ADF07 FILE
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C ROUTINES:
C          ROUTINE      SOURCE      BRIEF DESCRIPTION
C          -----
C          XXSLEN       ADAS        FINDS LENGTH OF NON-BLANK STRINGS
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C AUTHOR:  Martin O'Mullane
C
C DATE:    8/10/99
C
C VERSION: 1.1                      DATE: 8/10/99
C MODIFIED: Martin O'Mullane
C          - First version
C VERSION: 1.2                      DATE: 21/03/00
C MODIFIED: Martin O'Mullane
C - Removed NDMET from input parameter list
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CHARACTER*8	DATE			
CHARACTER*80	DSFULL,	DSNEXP,	DSNINC	
CHARACTER*30	USER			
INTEGER	IBSELA (NDMET, NDMET) ,		IL,	IUNIT
INTEGER	IZ0,	IZ1,	NDLEV,	NMET
INTEGER	NPL			
LOGICAL	LADF10,	LHSEL,	LIOSEL,	LISEL
LOGICAL	LNORM,	LNSEL,	LPSEL,	LRSEL
LOGICAL	LSS04A (NDLEV, NDMET) ,		LSSETA (NDMET, NDMET)	
LOGICAL	LZSEL			