ADAS Subroutine cachkb

```
      SUBROUTINE CACHKB( IUNIT  , NBSEL  , IBSEL  ,
     &                   IZ0IN  , IZ0    ,
     &                   LOPEN  , IRCODE , DLPATH
     &                 )
C
C-------------------------------------------------------------------
C
C  ****************** FORTRAN77 SUBROUTINE: CACHKB ******************
C
C  PURPOSE: TO CHECK THE SELECTED BLOCK (IBSEL) OF DATA  EXISTS  IN  THE
C           INPUT DATA SET AND IF SO IT REPRESENTS THE ENTERED VALUES OF
C           'IZ0IN' (NUCLEAR CHARGE OF SELECTED IONISING ION ELEMENT).
C
C           IT ALSO CLOSES THE INPUT DATA SET ALLOCATION IF OPEN.
C
C  CALLING PROGRAM: CASSZD
C
C  SUBROUTINE:
C
C  INPUT : (I*4)   IUNIT  = UNIT TO WHICH INPUT DATA SET IS ALLOCATED
C  INPUT : (I*4)   NBSEL  = TOTAL NUMBER OF DATA-BLOCKS READ FROM INPUT
C                           DATA SET.
C  INPUT : (I*4)   IBSEL  = INDEX OF DATA-BLOCK SELECTED FOR ANALYSIS
C
C  INPUT : (I*4)   IZ0IN  = REQUESTED: NUCLEAR CHARGE OF ELEMENT
C  INPUT : (I*4)   IZ0    = INPUT FILE: NUCLEAR CHARGE OF ELEMENT
C
C  I/O   : (L*4)   LOPEN  = INPUT : .TRUE.  => INPUT DATA SET OPEN.
C                                   .FALSE. => INPUT DATA SET CLOSED.
C                           OUTPUT: ALWAYS RETURNED AS .FALSE.
C  OUTPUT: (I*4)   IRCODE = RETURN CODE FROM SUBROUTINE:
C                           0 => NO ERROR DETECTED.
C                           2 => DISCREPANCY BETWEEN REQUESTED ELEMENT
C                                AND THAT IN INPUT DATA FILE.
C                           3 => SELECTED DATA-BLOCK  OUT OF RANGE  OR
C                                DOES NOT EXIST.
C
C          (I*4)   I4UNIT = FUNCTION (SEE ROUTINE SECTION BELOW)
C
CA         (C*80)  DSNAME = DATA FILE NAME UNDER UNIX, INCLUDING PATH.
C
C ROUTINES:
C         ROUTINE    SOURCE    BRIEF DESCRIPTION
C         ------------------------------------------------------------
C         E2FILE     ADAS      OPEN DATA SET FOR SELECTED ELEMENT
C         I4UNIT     ADAS      FETCH UNIT NUMBER FOR OUTPUT OF MESSAGES
C
C AUTHOR:  PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
C          K1/0/37
C          JET EXT. 2620
C
C DATE:    06/06/91
```

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C
C UNIX-IDL PORT:
C
C VERSION: 1.1                          DATE: 25-1-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C               - CREATED FROM E2CHKB TO WHICH IT IS ESSENTIALLY
C                 IDENTICAL EXCEPT IT CALLS CAFILE RATHER THAN E2FILE
C                 AND HAS THE EXTRA PATHNAME VARIABLE DLPATH INCLUDED
C                 IN THE ARGUMENT LIST.
C
C----------------------------------------------------------------------
C----------------------------------------------------------------------
C
C----------------------------------------------------------------------
      CHARACTER*80      DLPATH
      INTEGER           IBSEL,      IRCODE,      IUNIT,      IZ0
      INTEGER           IZ0IN,      NBSEL
      LOGICAL           LOPEN
```