

## ADAS Subroutine e9chkb

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C
      SUBROUTINE E9CHKB( IUNIT , NBSEL , IBSEL ,
&                      IZ0IN , IZ0 ,
&                      LOPEN , IRCODE
&                      )
C-----
C
C ***** FORTRAN77 SUBROUTINE: E9CHKB *****
C
C PURPOSE: TO CHECK THE SELECTED BLOCK (IBSEL) OF DATA EXISTS IN THE
C          INPUT DATA SET
C
C          IF SO IT REPRESENTS THE ENTERED VALUES OF 'IZ0IN'
C          (NUCLEAR CHARGE OF SELECTED IONISING ION ELEMENT).
C
C          IT ALSO CLOSES THE INPUT DATA SET ALLOCATION IF OPEN.
C
C CALLING PROGRAM: SSCX
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
C          (C*44)  DSNAME  = FULL MVS NAME OF DATA SET OPENED
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. 2520
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C
C DATE:      06/06/91
C
C UPDATE:    23/04/93 - PE BRIDEN - ADAS91: ADDED I4UNIT FUNCTION TO WRITE
C                                     STATEMENTS FOR SCREEN MESSAGES
C
C UPDATE:    24/05/93 - PE BRIDEN - ADAS91: CHANGED I4UNIT(0)-> I4UNIT(-1)
C
C UNIX-IDL PORT: H.P.SUMMERS
C
C VERSION: 1.1 DATE: 30-04-96
C MODIFIED: WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)
C   - PUT UNDER SCCS CONTROL
C
C-----
C
C VERSION: 1.1 DATE: 30-04-96
C MODIFIED: UNKNOWN (SOMEONE FROM TESSELLA SUPPORT SERVICES PLC)
C   - PUT UNDER SCCS CONTROL
C
C VERSION: 1.2 DATE: 20-07-07
C MODIFIED: Allan Whiteford
C   - Small modification to comments to allow for automatic
C     documentation preparation.
C
C-----
C
C-----
C
INTEGER          IBSEL,          IRCODE,          IUNIT,          IZ0
INTEGER          IZ0IN,          NBSEL
LOGICAL          LOPEN

```