ADAS Subroutine cmprss

```
      SUBROUTINE CMPRSS(IUIN,IUOUT,DATE,IECOUNT,INCOUNT,ITCOUNT)
C
C-----------------------------------------------------------------------
C
C  ****************** FORTRAN77 SUBROUTINE: CMPRSS ******************
C
C PURPOSE:
C  READ OUTPUT FROM V2BNLDN1 AND PRODUCE TABLES OF BEAM STOPPING RATES
C  AS A FUNCTION OF PLASMA DENSITY AND TEMPERATURE AND OF BEAM ENERGY
C  (FOR USE IN KS4FIT BY QHIOCH)
C
C-----------------------------------------------------------------------
C
C-----------------------------------------------------------------------
C
C UPDATE:  20/01/94 - JONATHAN NASH - TESSELLA SUPPORT SERVICES PLC
C
C           THIS SUBROUTINE WAS ADAPTED FROM THE PROGRAM
C           'JETXJS.BMSTOP.FORT(COMPRESS)'.
C
C           THE FOLLOWING MODIFICATIONS HAVE BEEN MADE:
C
C           1) THE MAXIMUM NUMBER OF BEAM ENERGIES HAS BEEN INCREASED
C              FROM 13 TO 20.
C
C           2) THE UNIT NUMBERS OF THE INPUT AND OUTPUT FILES ARE PASSED
C              INTO THE ROUTINE AS ARGUMENTS.
C
C           3) THE REFERENCE ELECTRON DENSITY AND TEMPERATURE AND BEAM
C              ENERGY ARE DETERMINED RATHER THAN BEING DECLARED AS
C              PARAMETERS. THESE ASSIGMENTS ARE BASED ON KNOWING THE
C              ORDER OF THE DATA IN THE INPUT FILE.
C
C  NOTES:  NO ATTEMPT HAS BEEN MADE TO RESTRUCTURE THE ROUTINE. RATHER
C          THE MINIMUM AMOUNT OF WORK TO INTEGRATE THE ROUTINE INTO
C          ADAS310 HAS BEEN COMPLETED.
C
C UNIX-IDL PORT:
C
C VERSION: 1.1                          DATE: 01-02-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C                - PUT UNDER SCCS CONTROL
C
C VERSION: 1.2                          DATE: 01-02-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C                - ALLOWED FOR CASE WHERE ZEFF=0.0
C
C VERSION: 1.3                          DATE: 05-02-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C                 - ADDED NUMBER OF ENERGIES, TEMPS. AND DENSITIES
C                   AS OUTPUT.
C
```

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C VERSION: 1.4                        DATE: 05-02-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C               - CORRECTED SCCS KEYWORDS.
C
C VERSION: 1.5                        DATE: 08-02-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C               - REMOVED SUPERFLUOUS VARIABLES
C
C VERSION: 1.6                        DATE: 14-02-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C               - CHANGED FORMAT 1004 TO READ 97X RATHER THAN
C                  98X AS THIS WAS NOT BEING READ CORRECTLY
C
C VERSION: 1.7                        DATE: 23-09-96
C MODIFIED: WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)
C                - CHANGED FORMAT 1004 TO READ E12.5 RATHER THAN
C                   E11.5 AS THIS WAS NOT BEING READ CORRECTLY
C VERSION: 1.8
C MODIFIED: HARVEY ANDERSON
C DATE: 23/01/96
C - MODIFIED THE VALUE OF MAXTE, MAXNE, AND MAXEB FROM 10
C    TO 25.
C
C VERSION: 1.9
C MODIFIED: HARVEY ANDERSON
C DATE: 09/08/99
C - EXTENDED THE ARRAY CONTAINING THE CHEMICAL ELEMENT
C    SYMBOL TO INCLUDE ALL SPECIES UP TO ZN.
C
C
C--------------------------------------------------------------------
C
C  INPUT: (I*4)  IUIN      = UNIT NO. OF INPUT FILE.
C  INPUT: (I*4)  IUOUT     = UNIT NO. OF OUTPUT FILE.
C  INPUT: (C*8)  DATE      = DATE STRING.
C  OUTPUT: (I*4)  IECOUNT  = NUMBER OF BEAM ENERGIES
C  OUTPUT: (I*4)  INCOUNT  = NUMBER OF DENSITIES
C  OUTPUT: (I*4)  ITCOUNT  = NUMBER OF TEMPERATURES
C
C--------------------------------------------------------------------
C
C--------------------------------------------------------------------
      CHARACTER*8        DATE
      INTEGER            IECOUNT,    INCOUNT,    ITCOUNT,    IUIN
      INTEGER            IUOUT
```