ADAS Subroutine ccintp

```
      SUBROUTINE CCINTP( ZDATA   , YDATA   , XDATA    , SRAY    ,
     &                   ITREF   , IEREF   , INREF    ,
     &  TVAL    , MAXEB   , MAXNE    , MAXTE   ,
     &                   EBRAY   , NERAY   , BMSTOP   , BMEMIS  ,
     &  BMDENS  , IECOUNT , INCOUNT  ,
     &                   F1      , NN      , AVALUE   , LEVEL   ,
     &  NLEVEL  , IEA     , INA      , ITA
     &                 )
C-----------------------------------------------------------------------
C
C  ****************** FORTRAN77 SUBROUTINE: CCDATA *********************
C
C  PURPOSE:  TO INTERPOLATE BETWEEN THE EFFECTIVE STOPPING
C   OR EMISSION COEFFICIENTS.
C
C  CALLING PROGRAM: ADAS312
C
C  SUBROUTINE:
C
C  INPUT : (R*8)  ZDATA(,)   =
C  INPUT : (R*8)  YDATA()    =
C  INPUT : (R*8)  XDATA()    =
C  INPUT : (R*8)  SRAY(,,)   =
C  INPUT : (I*4)  ITREF      =
C  INPUT : (I*4)  IEREF      =
C  INPUT : (I*4)  INREF      =
C  INPUT : (I*4)  TVAL       =
C  INPUT : (I*4)  MAXEB      =
C  INPUT : (I*4)  MAXNE      = MAXIMUM NUMBER OF DENSITIES
C  INPUT : (I*4)  MAXTE      =
C  INPUT : (R*8)  EBRAY()    =
C  INPUT : (R*8)  NERAY()    =
C  INPUT : (I*4)  BMSTOP     =
C  INPUT : (I*4)  BMEMIS     =
C  INPUT : (I*4)  BMDENS     =
C  INPUT : (I*4)  IECOUNT    =
C  INPUT : (I*4)  INCOUNT    =
C  INPUT : (R*8)  F1(,,,)    =
C  INPUT : (R*8)  NN(,,,)    =
C  INPUT : (R*8)  AVALUE     =
C  INPUT : (I*4)  LEVEL      =
C  INPUT : (I*4)  NLEVEL     =
C  INPUT : (I*4)  IEA()      =
C  INPUT : (I*4)  INA()      =
C  INPUT : (I*4)  ITA()      =
C
C           (I*4)  I          = GENERAL INTEGER VARIABLE
C           (I*4)  J          = GENERAL INTEGER VARIABLE
C
C
C ROUTINES:
C          ROUTINE    SOURCE    BRIEF DESCRIPTION
```

```
C          ------------------------------------------------------------
C          I4UNIT     ADAS      FETCH UNIT NUMBER FOR OUTPUT OF MESSAGES
C
C
C
C AUTHOR:  HARVEY ANDERSON, UNIVERSITY OF STRATHCLYDE/JET
C          JA8.08
C          TEL. 0141-553-4196
C
C
C DATE:    16/05/97
C
C UNIX-IDL PORT: H.P.SUMMERS
C
C VERSION: 1.1 DATE: 10-07-97
C MODIFIED: HUGH SUMMERS, UNIVERSITY OF STRATHCLYDE
C     - PUT UNDER S.C.C.S. CONTROL
C
C VERSION: 1.2                          DATE: 05-02-03
C MODIFIED: COSTANZA MAGGI, IPP GARCHING
C           - EXTENDED TO ALLOW WRITING BMP FILES
C
C-----------------------------------------------------------------------
      INTEGER             BMDENS,       BMEMIS,       BMSTOP
      INTEGER             IEA(MAXEB),   IECOUNT,      IEREF
      INTEGER             INA(MAXNE),   INCOUNT,      INREF
      INTEGER             ITA(MAXTE),   ITREF,        LEVEL,        MAXEB
      INTEGER             MAXNE,        MAXTE,        NLEVEL,       TVAL
      REAL*8              AVALUE,       EBRAY(MAXEB)
      REAL*8              F1(MAXEB,MAXNE,MAXTE,NLEVEL)
      REAL*8              NERAY(MAXNE)
      REAL*8              NN(MAXEB,MAXNE,MAXTE,NLEVEL)
      REAL*8              SRAY(MAXEB,MAXNE,MAXTE),   XDATA(MAXEB)
      REAL*8              YDATA(MAXNE),              ZDATA(MAXEB,MAXNE)
```