

## ADAS Subroutine d7grps

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C
      subroutine d7grps(nwave, ndwave, wave, index)

C-----
C
C ***** FORTRAN77 FUNCTION: D7GRPS *****
C
C PURPOSE   : Puts wavelengths into a 5 bin histogram for automating
C             effective line selection in ADAS407.
C
C COMMENTS  : Note that the number of bins is fixed and no attempt is
C             made at clever adaptive methods of optimising case where
C             there is a large empty wavelength space between groups.
C
C INPUT:    (I*4)   NWAVE   = number of wavelengths
C INPUT:    (I*4)   NDWAVE  = max size of wavelength array
C INPUT:    (R*8)   WAVE    = wavelengths
C
C OUTPUT:   (I*4)   INDEX   = indices (1->nbin) of wavelengths
C
C ROUTINES:
C           ROUTINE      SOURCE      BRIEF DESCRIPTION
C           -----
C           I4INDF       ADAS        Finds closet index in an array
C
C AUTHOR    : Martin O'Mullane
C
C VERSION   : 1.1
C DATE      : 17-01-2002
C
C MODIFIED  : Martin O'Mullane
C             - First version.
C-----
      INTEGER          INDEX (NDWAVE) ,
      REAL*8          WAVE (NDWAVE)
      NDWAVE,
      NWAVE
```