

ADAS Subroutine hapixv

```
      subroutine hapixv( ndwvl  , ndpix  , fcrit  ,  
      &                  nwvl   , npix   , wvmin  , wvmax  ,  
      &                  iwvrg  , cpixmx ,  
      &                  wvl    , tev    , amssno , pec    ,  
      &                  cpixa  , ind1   , ind2   )  
      &
```

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C-----  
C  
C ***** fortran77 subroutine: hapixv *****  
C  
C purpose:  distribute Doppler broadened line emission into pixel range  
C  
C calling program: hapecf  
C  
C  
C subroutine:  
C  
C input : (i*4)  ndwvl   = maximum number of wavelength intervals  
C input : (i*4)  ndpix   = maximum number of pixels per wvln. interval  
C input : (r*8)  fcrit   = pixel counts for the selected line below  
C                   this fraction of the largest pixel count are  
C                   discounted.  
C  
C input : (i*4)  nwvl    = number of wavelength intervals  
C input : (i*4)  npix()  = number of pixels assigned to wavelength interval  
C input : (r*8)  wvmin() = lower limit of wavelength interval (ang)  
C input : (r*8)  wvmax() = upper limit of wavelength interval (ang)  
C  
C input : (i*4)  iwvrg   = index of wavelength range in which line lies  
C input : (r*8)  cpixmx  = largest pixel count currently found  
C                   for the wavelength range  
C  
C input : (r*8)  wvl     = input line wavelength for test(ang)  
C input : (r*8)  tev     = electron temperature (eV)  
C input : (r*8)  amssno  = atomic mass number  
C input : (r*8)  pec     = photon emissivity coefficient for line  
C  
C output: (r*8)  cpixa() = counts in each pixel for the line  
C output: (r*8)  ind1    = first pixel with non-negligible count  
C output: (r*8)  ind2    = last pixel with non-negligible count  
C  
C routines:  
C  
C routine      source      brief description  
C-----  
C i4unit       adas        fetch unit number for output of messages  
C r8erfc       adas        returns erfc(x) function value  
C  
C author:     Hugh Summers, University of Strathclyde  
C            JA7.08  
C            tel. 0141-548-4196  
C
```

c date: 15/01/02

c

c version : 1.1

c date : 15-01-2002

c modified : H P Summers

c - first version.

c

c version : 1.2

c date : 18-06-2007

c modified : H P Summers

c - corrected error in ind1 & ind2 return.

c

c

c

```
-----  
-----  
      INTEGER          IND1,          IND2,          IWVRG,          NDPIX  
      INTEGER          NDWVL,          NPIX(NDWVL),  NWVL  
      REAL*8           AMSSNO,          CPIXA(NDPIX),          CPIXMX  
      REAL*8           FCRIT,          PEC,          TEV,          WVL  
      REAL*8           WVMAX(NDWVL),          WVMIN(NDWVL)
```