ADAS Subroutine adwrd2

```
       FUNCTION ADWRD2(N,L,L1)
       IMPLICIT REAL*8(A-H,O-Z)
C -----------------------------------------------------------------------
C
C  VERSION OF DWRD2 FOR USE BY ADASRRC WHICH MAKES USE OF ADWLPOL
C  *********  H.P. SUMMERS, JET    30 JUNE 1992 ***********************
C
C  PURPOSE: CALCULATES SQUARE OF BOUND FREE DIPOLE INTEGRAL IN
C  DISTORTED WAVE APPROXIMATION.
C
C  THIS FUNCTION ACTS AS AN INTERFACE BETWEEN GIIDW AND DWLPOL.
C  ATOMIC STRUCTURE AND POTENTIAL DATA IS BROUGHT IN VIA LABELLED
C  COMMON BLOCK  /DWPARS/
C  *********  H.P. SUMMERS, JET 19 AUGUST 1985  ***********************
C  INPUT
C      N=PRINCIPAL QUANTUM NUMBER OF BOUND ELECTRON
C      L=ORBITAL QUANTUM NUMBER OF BOUND ELECTRON
C      L1=ORBITAL QUANTUM NUMBER OF FREE ELECTRON
C  OUTPUT
C      ADWRD2=SQUARED RADIAL DIPOLE INTEGRAL
C -----------------------------------------------------------------------
C-----------------------------------------------------------------------
C UNIX-IDL PORT:
C
C AUTHOR:  WILLIAM OSBORN (TESSELLA SUPPORT SERVICES PLC)
C
C DATE:    4TH JULY 1996
C
C VERSION: 1.1                          DATE: 04-07-96
C MODIFIED: WILLIAM OSBORN
C               - FIRST VERSION.
C VERSION: 1.2                          DATE: 16-05-07
C MODIFIED: Allan Whiteford
C               - Modified comments as part of subroutine documentation
C                 procedure.
C
C-----------------------------------------------------------------------
      INTEGER             L,           L1,          N
```