ADAS Subroutine abinew

```
      FUNCTION ABINEW(OA,YA,FA,A,B,N)
C
      IMPLICIT REAL*8(A-H,O-Z)
C
C----------------------------------------------------------------------
C
C  ****************** FORTRAN77 FUNCTION: ABINEW **********************
C
C----------------------------------------------------------------------
C PURPOSE: EVALUATE INNER INTEGRALS FOR RATE COEFFICIENTS.
C
C ABINEW IS CALLED BY QH & QHE.  THE PROCEDURES ALLOW FOR PROJECTILE
C AND TARGET  MASSES.
C
C  INPUT
C     OA=VECTOR OF CROSS-SECTIONS (CM2)
C     YA=VECTOR OF REDUCED RELATIVE SPEEDS. 1ST VALUE IS AT THRESHOLD
C     FA=VECTOR OF ALPHAS  (12TH VALUE IS FOR EXTRAPOLATION, PROVIDED
C        EXPLICITLY. EXTRAPOLATION BELOW YA(1) IS BASED ON FA(1))
C        N.B. OA(1) MUST BE NON-ZERO.
C           (OA,YA AND FA ARE OF FIXED LENGTH =24)
C
C     A=LOWER INTEGRAL LIMIT
C     B=UPPER INTEGRAL LIMIT
C     N=NUMBER OF CROSS-SECTIONS
C  OUTPUT
C     ABINEW=DEFINITE INTEGRAL.
C
C  ********** H.P. SUMMERS,JET          18 FEB 1987  ***************
C  **********                      COR. 31 JUL 1990  ***************
C  **********                           15 JUL 1991  REORDER EVAL AT
C                                                    LABEL 50
C
C NOTES: THIS ROUTINE IS NOT YET PROPERLY ANNOTATED
C
C UNIX-IDL PORT:
C
C VERSION: 1.1                        DATE: 16-1-96
C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)
C           - FIRST VERSION
C
C VERSION: 1.2 DATE: 16-05-07
C MODIFIED: Allan Whiteford
C    - Updated comments as part of subroutine documentation
C            procedure.
C
C----------------------------------------------------------------------
      INTEGER           N
      REAL*8            A,         B,          FA(24),      OA(24)
      REAL*8            YA(24)
```