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C OUTPUT: (R*8) GAMOSA()= SPLINE INTERPOLATED GAMMA VALUES AT 'TOSA()'
C
C OUTPUT: (L*4) LTRNG() = .TRUE. => OUTPUT SPLINE VALUE WAS
C INTERPOLATED FOR 'DLOG(TOA)'.
C .FALSE. => OUTPUT SPLINE VALUE WAS
C EXTRAPOLATED FOR 'DLOG(TOA)'.
C (NOTE: 'YOUT()=0' AS 'IOPT < 0').
C
C (I*4) NIN = PARAMETER = MAX. NO. OF INPUT TEMP/GAMMA
C PAIRS MUST BE >= 'NV'
C (I*4) NOUT = PARAMETER = MAX. NO. OF 'OUTPUT TEMP/GAMMA
C PAIRS MUST BE >= 'MAXT' & 'NPSPL'
C
C (I*4) IARR = ARRAY SUBSCRIPT USED FOR TEMP/GAMMA PAIRS
C (I*4) IOPT = DEFINES THE BOUNDARY DERIVATIVES FOR THE
C SPLINE ROUTINE 'XXSPLE', SEE 'XXSPLE'.
C (VALID VALUES = <0, 0, 1, 2, 3, 4)
C
C (R*8) TSTEP = THE SIZE OF STEP BETWEEN 'XOUT()' VALUES FOR
C GRAPHICAL OUTPUT TEMP/GAMMA PAIRS TO BE
C CALCULATED USING SPLINES.
C
C (L*4) LSETX = .TRUE. => SET UP SPLINE PARAMETERS RELATING
C TO 'XIN' AXIS.
C .FALSE. => DO NOT SET UP SPLINE PARAMETERS
C RELATING TO 'XIN' AXIS.
C (I.E. THEY WERE SET IN A PREVIOUS
C CALL )
C (VALUE SET TO .FALSE. BY 'XXSPLE')
C
C (R*8) XIN() = LOG( 'SCEF()' )
C (R*8) YIN() = LOG( 'GAMMA()' )
C (R*8) XOUT() = LOG(TEMPERATURES AT WHICH SPLINES REQUIRED)
C (R*8) YOUT() = LOG(OUTPUT SPLINE INTERPOLATED GAMMA VALUES)
C (R*8) DF() = SPLINE INTERPOLATED DERIVATIVES
C
C (L*4) LDUMP() = .TRUE. => OUTPUT SPLINE VALUE INTRPOLATED
C FOR 'YOUT()'.
C .FALSE. => OUTPUT SPLINE VALUE EXTRAPOLATED
C FOR 'YOUT()'.
C (NOTE: USED AS A DUMMY ARGUMENT.
C ALL VALUES WILL BE TRUE.)
C
C NOTE:
C
C ROUTINES:
C ROUTINE SOURCE BRIEF DESCRIPTION
C -----
C XXSPLE ADAS SPLINE SUBROUTINE (EXTENDED DIAGNOSTICS)
C R8FUN1 ADAS REAL*8 FUNCTION: ( X -> X )
C
C AUTHOR: PAUL E. BRIDEN (TESSELLA SUPPORT SERVICES PLC)
C K1/0/81

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C JET EXT. 4569

C

C DATE: 05/02/91

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C MODIFIED: TIM HAMMOND (TESSELLA SUPPORT SERVICES PLC)

C VERSION: 1.2 DATE: 27-09-95

C - INCREASED PARAMETER NIN FROM 8 TO 14 (SAME

C CHANGE MADE IN THE JET IBM CODES BY PAUL BRIDEN).

C

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C

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INTEGER	MAXT,	NPSPL,	NV
LOGICAL	LOSEL,	LTRNG (MAXT)	
REAL*8	GAMMA (NV) ,	GAMOA (MAXT) ,	GAMOS (NPSPL)
REAL*8	SCEF (NV) ,	TOA (MAXT) ,	TOSA (NPSPL)