
Subject: Double Accuracy

Posted by [michaeltcruz](#) on Mon, 11 Mar 2002 18:46:24 GMT

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I am in the process of writing a program to read in exponential data and plot its relationship to another variable. The trouble I am having is that the values I am reading in are very small and I am losing accuracy when I convert from a STRING to DOUBLE. Below is the procedure I am using with a sample of the input and output. As you can see, the output for this RATIO value is truncated to eight digits which makes the value useless. I am fairly new to PVWAVE so I could be making some fundamental mistakes. Appreciate help anyone can give.

PRO read_scc, file, VTCW, DOY, Year, Time, Ratio

Dummy = STRARR(4)

TempRatio = DOUBLE(1.0)

status = DC_READ_FIXED(file, Dummy, \$
Format = "(7X, A33)", Nskip = 1)

VTCW = float(Dummy(0))

Year = STRMID(Dummy(1), 1, 4)

DOY = fix(STRMID(Dummy(1), 6, 3))

Time = float(STRMID(Dummy(1), 10, 33))

Ratio = Dummy(2)

print, 'BRatio', Ratio

Ratio = STRSUBST(Ratio, 'e', 'd');

print, 'ARatio', Ratio

Ratio = DOUBLE(Ratio)

info, Ratio

END

INPUT FILE

xxx ZZZZZ 02 022 07:29:11

VTCW = 5.447425871924000e+13

UTC = 2002 022 2.583419472210000e+04

RATIO = 9.999198181040011e-07

OUTPUT

;BRatio 9.999198181040011e-07

;ARatio 9.999198181040011d-07

RATIO DOUBLE = 9.9991982e-07
