Subject: Re: 0=1 (Double precision/Long64)
Posted by rogass on Thu, 25 Feb 2010 22:30:41 GMT
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On 25 Feb., 17:56, wlandsman <wlands...@gmail.com> wrote:
> I had a program recently fail because I did not realize that adding 1
> to a number does not necessarily change its value ;-)
>
> IDL> a = 4611686018427387947
> IDL> b = double(a)
> IDL> help,a,b
> A LONG64 = 4611686018427387947
> B DOUBLE = 4.6116860e+18
> IDL> print,a EQ b
> 1
> IDL> print,a+1
> 4611686018427387948
> IDL> print,(a+1) EQ b
> 1
>
> So b is equal to both a and a+1. My guess is that the values are
> getting converted to double precision prior to the equality test.
> But the LONG64 variable has more precision than a double precision
> variable, and that precision is lost during the conversion.
>
> I'm not sure that there a good general solution for comparing between
> different data types. But one needs to be careful when comparing
> LONG64 and double variables.
>
> --Wayne

Oh yes,
its like my *problem with correlate. I compared the computed
coefficient by r le 1 and due to different precisions sometimes the
correlation coefficient was virtually larger than 1 ;)

Cheers

CR