Subject: Re: IDL 8.2.2 released
Posted by dain.cilke on Thu, 07 Feb 2013 22:10:32 GMT
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On Thursday, February 7, 2013 11:53:16 AM UTC-7, bobnn...@gmail.com wrote:
> On Wednesday, February 6, 2013 2:23:04 PM UTC-7, bobnn...@gmail.com wrote:
>
>> I wonder if the very long existing bug where INTERPOLATE internally truncates all results to single precision even when double precision input is used is still present (note that it still returns the results in a double precision variable but half the precision is gone). It is in 8.1 so I have little hope it is gone in 8.2.2.
>
>>
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>>
>
>> Am I the only one that has been burned by this?
>
>
>
> Well, I guess I am the only one who cares. But in case people just didn't know what I meant here is an example. Note that this is a toy example. The point is that if you have a function which you expect to work in double precision and you call interpolate then your results are truncated to single with no indication. I know of no other IDL built in function that does this!
>
>
>
> ;; File interpolate_test.pro
>
>
>
> x = dindgen(6)
>
> y = dindgen(6)
>
> x_i = dindgen(5) + 0.1d
>
>
>
> print, 'INTERPOLATE: incorrect answer, accurate only to 8 digits'
>
> print,interpolate(y,x_i),FORMAT='(G20.16)'
>
>
>
> print, 'INTERPOL: correct answer, accurate to 16 digits'

>
> print,interpol(y,x,x_i),FORMAT='(G20.16)'
>
>
>
> end
>
>
>
> IDL> .run interolate_test.pro
>
> % Compiled module: $MAIN$.
>
> INTERPOLATE: incorrect answer, accurate only to 8 digits
>
> 0.1000000014901161
>
> 1.100000023841858
>
> 2.099999904632568
>
> 3.099999904632568
>
> 4.099999904632568
>
> INTERPOL: correct answer, accurate to 16 digits
>
> 0.1000000000000000
>
> 1.100000000000000
>
> 2.100000000000000
>
> 3.100000000000000
>
> 4.100000000000000

Hi Bob,
Thanks for bring this to our attention! This bug has been fixed. Now interpolate will perform all calculations in double precision.

Cheers,
Dain
IDL Code Monkey
ExelisVIS