Subject: Re: findgen anomaly?
Posted by Chris Chronopoulos on Fri, 10 Jul 2009 22:11:13 GMT
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On Jul 10, 2:52 pm, David Fanning <n...@dfanning.com> wrote:
> Chris Chronopoulos writes:
>> this morning i decided to write up a short function that would return
>> a list of values given a min, max and increment (like Mathematica's
>> Range[] function) but it was giving me some problems. i narrowed it
>> down to an oddity in findgen, which can described by the following
>> example:
>
>> IDL> min=5.5
>> IDL> max=6.2
>> IDL> increment=0.1
>> IDL> print, (max-min)/increment+1
>>   8.00000
>> IDL> print,findgen(8.00000)
>>   0.00000   1.00000   2.00000   3.00000   4.00000
>> 5.00000
>>   6.00000   7.00000
>> IDL> print, findgen((max-min)/increment+1)
>>   0.00000   1.00000   2.00000   3.00000   4.00000
>> 5.00000
>>   6.00000
>
>> now, by any reasonable system of logic, shouldn't the last two lines
>> produce the same result? the correct result, of course, is the first
>> on that goes all the way up to 7.00000. the weird thing is that if you
>> change max from 6.2 to 6.3, it works fine. it seems there are certain
>> values that give it problems, while others work fine.
>
>> what is going on here?
>
> Golly, it has been several weeks since we had to pull
> this article out:
>
> http://www.dfanning.com/math_tips/sky_is_falling.html
>
> Cheers,
>
> David
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Thanks, David. That makes sense - I guess FINDGEN floors its input instead of rounding it. I stuck a ROUND in there, and it works like I want it to.