Subject: Re: two issues with julian dates
Posted by Josh on Mon, 16 Jul 2007 22:11:06 GMT
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On Jul 12, 1:51 pm, David Fanning <n...@dfanning.com> wrote:
> Josh writes:
>> First of all, thank you educating me about this. I read a number of
>> your articles on the precision of numbers, and I've finally got the
>> double precision values I was seeking. However, when I try to put
>> them on an x-axis, they appear to revert back to single precision
>> values. The array of values are definitely double precision, and I
>> set xtickformat='(F20.5)', but sadly the labels appear to be (single)
>> floats disguised in the F20.5 format, and the data being plotted is
>> clumped into groups instead of nice and continuous (perhaps because it
>> sees big gaps in the x values due to their single precision?). I am
>> hoping this is a minor step I've missed in the keywords to PLOT.
>
> The more I think about this, the more likely it seems to me
> that the problem comes from converting doubles to strings.
> Have you read this article?
>
> http://www.dfanning.com/misc_tips/dbl_to_str.html
>
> You might well have to write your own tick formatting function
> to make this work the way you want it to work. It's just hard
> to tell without seeing what you are doing.
>
> 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.")

Having given up Julian dates, in lieu of a simpler route, I am now simply taking the date/time and storing it as a double with respect to the year (e.g. 3/21/2004 @ 12:17:44.767 = 2004.2903452730). All the variables used to create the value were born doubles, and stayed doubles all along.

Alas, the same problem persists. I can see the following:
IDL> print, ROItimeArr[85], format='(F20.10)'
2004.2903452730

But on the plot, I get 2004.2903 which is the above, sans the 'format' at the end. So, everything within +-0.0001 (which happens to be about 20% of the data set) gets put on that x value.

I also tried subtracting 2004 from all the data, thinking that might help, but I simply get the same x values without the 2004 (e.g. 0.2903).

Just thought I'd post a minor update. If anyone else has ever had/ solved this problem, I'd appreciate any advice

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