Subject: Re: xrange woes
Posted by David Fanning on Wed, 18 Jul 2007 18:02:24 GMT
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Josh writes:

> this is a new one for me...
> i'm plotting data points (~50) that are spread over a small x range
> (relative to the values). these data points lie at values around
> 2,000,000, but are spread over a range of about 0.01. I can use
> xrange=[x1,x2] up until the difference between x2 and x1 is about
> 0.25. If I try to make the range smaller, it is just ignored (and
> left at ~0.25) until the range decreases to 0.1 at which point the
> plotted x range jumps to ~30! The xstyle keyword follows the same
> pattern (works until the range is ~0.25, then is ignored).
>
> Has anyone else ever had this happen? Is there some limitation on how
> small xrange can be given the actual xvalues? btw, these data points
> have legitimate values to the standard double precision accuracy.

I don't know. This works perfectly for me:

```
IDL> data = dindgen(51) * 0.0001 + 2000000D
IDL> Window, XSIZE=1200, YSIZE=500
IDL> plot, data, time, xstyle=1, xtickformat='(f20.6)'
IDL> print, data[50] - data[0]
   0.0049999998
```

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.")

Subject: Re: xrange woes
Posted by Craig Markwardt on Thu, 19 Jul 2007 04:17:11 GMT
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Josh <joshuamontague@gmail.com> writes:
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> Has anyone else ever had this happen? Is there some limitation on how
> small xrange can be given the actual xvalues? btw, these data points
> have legitimate values to the standard double precision accuracy.

I always understood the IDL direct-graphics system to be limited to
single precision, even if your data is double precision.
Try subtracting the mean value and see if it works.

Craig

Subject: Re: xrange woes
Posted by Josh on Thu, 19 Jul 2007 20:26:28 GMT
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On Jul 18, 10:17 pm, Craig Markwardt
<craigm...@REMOVEcow.physics.wisc.edu> wrote:
> Josh <joshuamonta...@gmail.com> writes:
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>
> I always understood the IDL direct-graphics system to be limited to
> single precision, even if your data is double precision.
> Try subtracting the mean value and see if it works.
>
> Craig

Thanks Craig, I was able to use both xrange and xstyle by subtracting
most of the value from all of the points.

-Josh