Subject: Re: Questions about NG image with (log) axis
Posted by Xin Tao on Fri, 16 Aug 2013 03:28:49 GMT
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On Friday, August 16, 2013 1:37:25 AM UTC+8, Chris Torrence wrote:
>
> Hi Xin Tao,
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>
>
> Well, I think both David's coyote library and IDL's NG are going to have problems with a log axis for an Image. When I try David's code (yes, I have it installed!) the axes "look" correct, but the image is just plotted as a normal image.
>
>
>
> If the X axis were truly a "log" axis, then I would expect the pixels to be stretched out on the left side and get smaller as you moved to the right. For example, try the following:
>
>
>
> x=10.0+dindgen(300)*(100-10.0)/(300-1)
>
> y=dindgen(300)
>
> data = dist(300)
>
> c = contour(data, x, y, /xlog, /fill)
>
>
>
> Notice how the contour plot is more stretched out on the left side. Is this what you want? If so, then you aren't going to be able to use an Image (either from NG or Coyote). You could use a filled contour plot, say with n_levels=50.
>
>
>
> On the other hand, if you don't want a stretched out image, then you might want to take the log10 of your X data first, then do the i=image() and set the xtickvalues/xtickname to get the correct labels. In the meantime, I'll try to fix the Image function for IDL 8.3 so it at least gives the correct labels, even if it doesn't stretch out the pixels.
>
>
>
> Cheers,
>
> Chris
>

> ExelisVIS

Hi Chris,

Yes, I want a truely "logged" x-axis. In the example I gave, it will give me a stretched image. The problem I have in my mind, though, is to plot a 2D data whose x-axis is defined logarithmically. When I plot the 2D data, I imagine I should be able to do it with: image(data, x, y, /xlog).

I understand I can fix things by using xtickname/xtickvalues stuff, but that sounds too complicated for a simple thing like this, since /xlog is a keyword that has been defined. Look forward to using IDL8.3.

Thanks,

Xin Tao
