Subject: Isotropic keyword in plot (function graphics)
Posted by laura.hike on Wed, 10 May 2017 19:28:39 GMT
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It seems that the "isotropic" keyword is not allowed for the "plot" command in the new function graphics. Is there any alternative? This was a very useful tool for keeping plots realistic. Is there any alternative?

Subject: Re: Isotropic keyword in plot (function graphics)
Posted by Burch on Wed, 10 May 2017 19:39:29 GMT
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On Wednesday, May 10, 2017 at 2:28:43 PM UTC-5, laura...@gmail.com wrote:
> It seems that the "isotropic" keyword is not allowed for the "plot" command in the new function graphics. Is there any alternative? This was a very useful tool for keeping plots realistic. Is there any alternative?

The aspect_ratio property may suit your needs:

https://www.harrisgeospatial.com/docs/plot.html#ASPECT_R

-Jeff

Subject: Re: Isotropic keyword in plot (function graphics)
Posted by laura.hike on Wed, 10 May 2017 20:37:43 GMT
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Thanks for the suggestion. I suppose I could start the plot, then calculate xrange/yrange (or the other way around) and use this in the aspect_ratio property after the fact. Doing it afterward hadn't occurred to me, and it wasn't clear how to do it upfront because every plot is different. So that should work. Still, it would be nice not to add two extra steps.

Hmmm, actually, it would be nice if the axis steps (size of a cell of size 1) were the same in every plot, but again, the range is different from plot to plot. I'll think about a way to do that with "dimensions," although in this case I'm letting IDL pick the axis range and dimensions has to be specified in the original call.

On Wednesday, May 10, 2017 at 12:39:31 PM UTC-7, Jeff B wrote:
> On Wednesday, May 10, 2017 at 2:28:43 PM UTC-5, laura...@gmail.com wrote:
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> -Jeff

Subject: Re: Isotropic keyword in plot (function graphics)
Posted by laura.hike on Wed, 10 May 2017 22:10:30 GMT
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Tried aspect_ratio, but it doesn't work well. It _does_ change the aspect ratio, as desired, but since the tick marks and labels are applied in the original plot call, they end up smushed on the reformatted plot. I could fix this by redoing the tick marks and labels, but this is starting to be a poor use of time.

On Wednesday, May 10, 2017 at 1:37:45 PM UTC-7, laura...@gmail.com wrote:
> Thanks for the suggestion. I suppose I could start the plot, then calculate xrange/yrange (or the other way around) and use this in the aspect_ratio property after the fact. Doing it afterward hadn't occurred to me, and it wasn't clear how to do it upfront because every plot is different. So that should work. Still, it would be nice not to add two extra steps.
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>>
>> -Jeff

Subject: Re: Isotropic keyword in plot (function graphics)
Posted by lecacheux.alain on Thu, 11 May 2017 07:59:02 GMT
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Le jeudi 11 mai 2017 00:10:33 UTC+2, laura...@gmail.com a écrit :
> Tried aspect_ratio, but it doesn't work well. It _does_ change the aspect ratio, as desired, but since the tick marks and labels are applied in the original plot call, they end up smushed on the reformatted plot. I could fix this by redoing the tick marks and labels, but this is starting to be a poor use of time.
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>>> The aspect_ratio property may suit your needs:
>>>
>>> https://www.harrisgeospatial.com/docs/plot.html#ASPECT_R
>>>
>>> -Jeff

Just use ASPECT_RATIO keyword in the original call.
alx.

Subject: Re: Isotropic keyword in plot (function graphics)
Posted by Markus Schmassmann on Thu, 11 May 2017 10:27:10 GMT
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On 05/11/2017 09:59 AM, alx wrote:
> Le jeudi 11 mai 2017 00:10:33 UTC+2, laura...@gmail.com a écrit :
>> Tried aspect_ratio, but it doesn't work well. It _does_ change the
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>>>> The aspect_ratio property may suit your needs:
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>>>> https://www.harrisgeospatial.com/docs/plot.html#ASPECT_R
>>>>
>>>> -Jeff
> Just use ASPECT_RATIO keyword in the original call. alx.

Should using the ASPECT_RATIO keyword in the original call not work to
your satisfaction, try

```
x=[0.:2.:.01]*!dpi
y=sin(x)
p_temp=plot(x,y,/buffer)
x0=p_temp.xrange[0]
x1=p_temp.xrange[1]
y0=p_temp.yrange[0]
y1=p_temp.yrange[1]
scale=100
```

```
p=plot(x,y,xrange=[x0,x1],yrange=[y0,y1], $
    dimension=[x1-x0,y1-y0]*scale+100, $
    position=[0,0,x1-x0,y1-y0]*scale+50,/device)
```

Depending on your plot, you might want to manually calculate your ranges, that often looks better.

I hope this is what you are looking for, Markus

Subject: Re: Isotropic keyword in plot (function graphics)
Posted by lecacheux.alain on Thu, 11 May 2017 11:32:12 GMT
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> Should using the ASPECT_RATIO keyword in the original call not work to
> your satisfaction, try

In principle, it should do.
In addition, you can always tune the axis appearance by using RANGE and STYLE keywords, at or after the initial call.
You also can do some final tuning interactively (SHIFT + LEFT mouse), as needed.
alx.
