Subject: Rant about axis range defaults using overplot in object graphics
Posted by laura.hike on Mon, 10 Aug 2015 23:33:39 GMT
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I know you Exelis folks are lurking out there, so why, oh, why, have you used the default of changing the axis ranges to match the new data when doing an overplot in object graphics? When I overplot data, in most cases I want to just overplot the new data on top of the original data (oddly enough). I think most of the time, people would like to keep the same axes unless they specifically ask to change them. It is a pain in the a** to keep restoring the axis ranges every time I add a new set of data.

(Note: If there is a way to override this default aside from constantly specifying the original axis ranges as separate properties every time I do an overplot, please let me know. I can't find any reference to this in the Exelis documentation or on this website.)

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by lecacheux.alain on Tue, 11 Aug 2015 09:57:03 GMT
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Le mardi 11 août 2015 01:33:41 UTC+2, laura...@gmail.com a écrit :
> I know you Exelis folks are lurking out there, so why, oh, why, have you used the default of changing the axis ranges to match the new data when doing an overplot in object graphics? When I overplot data, in most cases I want to just overplot the new data on top of the original data (oddly enough). I think most of the time, people would like to keep the same axes unless they specifically ask to change them. It is a pain in the a** to keep restoring the axis ranges every time I add a new set of data.
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> (Note: If there is a way to override this default aside from constantly specifying the original axis ranges as separate properties every time I do an overplot, please let me know. I can't find any reference to this in the Exelis documentation or on this website.)

A simple way to overplot without changing axes:
  plot = plot(...)
  overplot = plot(/OVER, ..., XRANGE=plot.XRANGE, YRANGE=plot.YRANGE)
You might even substitute /CURRENT to /OVER keyword in this case.
alx.

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by Paul Van Delst[1] on Tue, 11 Aug 2015 14:48:57 GMT
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On 08/11/15 05:57, alx wrote:
> Le mardi 11 août 2015 01:33:41 UTC+2, laura...@gmail.com a écrit :
>> I know you Exelis folks are lurking out there, so why, oh, why,
>> haveyou used the default of changing the axis ranges to match the new data

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> You might even substitute /CURRENT to /OVER keyword in this case.

Yes, this is what I do when I want to retain the original plot range.

Sometimes I also find the range adjustment behaviour annoying.

But sometimes it's quite handy to have the automatic adjustment of plot
range to include all of the data in the overplots. Several times I've
discovered weird things in my data because the overplot adjusted in
function graphics (that I would've missed - initially at least - if I
was using direct graphics).

So, I'm happy to use the method alx detailed to prevent the
auto-plot-range-adjustment because I know sometimes it is useful.

I'm not sure if I can say this without sounding condescending to the OP
(I don't mean to be), but this was one of those times with IDL function
graphics where I simply weighed my perception anchor and dropped it
someplace else.

cheers,

paulv

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by Dick Jackson on Tue, 11 Aug 2015 15:59:13 GMT
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On Tuesday, 11 August 2015 07:49:00 UTC-7, Paul van Delst wrote:

> So, I'm happy to use the method alx detailed to prevent the
> auto-plot-range-adjustment because I know sometimes it is useful.

>
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> (I don't mean to be), but this was one of those times with IDL function
> graphics where I simply weighed my perception anchor and dropped it
> someplace else.

That's a great image, Paul. And for those whose first language is not Nautical English :-), to "weigh anchor" means to raise it from the sea floor, not to measure its weight.

If you're a fan of technical writing for a *really* wide audience, Randall Munroe helps to show the way:
    http://xkcd.com/1133/ "Up Goer Five"
    http://xkcd.com/thing-explainer/ "Thing Explainer"

Cheers,
-Dick

Dick Jackson Software Consulting Inc.
Victoria, BC, Canada --- http://www.d-jackson.com

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by chris_torrence@NOSPAM on Tue, 11 Aug 2015 23:22:19 GMT
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On Tuesday, August 11, 2015 at 9:59:16 AM UTC-6, Dick Jackson wrote:
> On Tuesday, 11 August 2015 07:49:00 UTC-7, Paul van Delst wrote:
>
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One tweak to alx's code is to simply set the x/yrange after the first plot. Once you set the range it should keep it constant. For example:

```
IDL> p = plot([0,1])
IDL> p.xrange = p.xrange
IDL> p.yrange = p.yrange
IDL> p1 = plot([0,2],/overplot)
```

Man the capstan!

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by laura.hike on Wed, 12 Aug 2015 19:05:26 GMT
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Yes, that would be "constantly specifying the original axis ranges every time I do an overplot," which is what I object to.

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by laura.hike on Wed, 12 Aug 2015 19:16:34 GMT
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On Tuesday, August 11, 2015 at 4:22:22 PM UTC-7, Chris Torrence wrote:
>
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Hmmm, that does work. Why? Shouldn't the behavior of the overplot option be the same no matter what value you set the axis ranges to?

Also, I see that you are able to plot a single point. I have never been able to do this (I always got an error message indicating that an array was required), but using your command, I can. I normally plot pairs of arrays, e.g., p = plot(x,y), but if I set x and y to individual values, I can't use this syntax. Is there an explanation for this beyond "That's the way it works"?

Subject: Re: Rant about axis range defaults using overplot in object graphics

Posted by chris_torrence@NOSPAM on Thu, 13 Aug 2015 21:09:58 GMT

On Wednesday, August 12, 2015 at 1:16:38 PM UTC-6, laura...@gmail.com wrote:
> On Tuesday, August 11, 2015 at 4:22:22 PM UTC-7, Chris Torrence wrote:
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Hi Laura,

As soon as you set the x or yrange, then IDL assumes that you don't want it to change and so it "sticks" for subsequent overplot calls. If you never set the range, then it assumes that you want it to update automatically.

Regarding the "single point", I'm actually plotting 2 points. plot([0,1]) is only giving the "y" coordinates, and IDL will simply plot those against the x index values, which will be 0 and 1. So the 2 points are [0,0] and [1,1].

Cheers,
Chris

Subject: Re: Rant about axis range defaults using overplot in object graphics
Posted by laura.hike on Fri, 14 Aug 2015 15:14:20 GMT

Great, thanks! That's a big help.

On Thursday, August 13, 2015 at 2:10:01 PM UTC-7, Chris Torrence wrote:
> On Wednesday, August 12, 2015 at 1:16:38 PM UTC-6, laura...@gmail.com wrote:
>> On Tuesday, August 11, 2015 at 4:22:22 PM UTC-7, Chris Torrence wrote:

\>\>\>

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