
Subject: IDL 8, log plots and titles
Posted by [b_gom](#) on Tue, 26 Oct 2010 19:03:20 GMT
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Am I missing something, or is IDL 8 fumbling logarithmic y axes and plot titles when using the new plot function?

When plotting log plots, the plot title seems to vanish, and also IDL does not seem to be able to calculate the y range properly. In the sample code below, compare the direct graphics output (which handles the range and title correctly automatically) to the new plot function output which doesn't seem to be able to figure out what I want:

```
-----  
x=findgen(100)/100*3*!pi  
y=sin(x)
```

```
;This is what I expect; yaxis handles infinite log range and title  
appears correctly  
plot,x,y,/ylog,title='Direct Graphics Yrange and Title'
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```
;Now for the plot function output:  
;title works for linear y axes  
p1=plot(x,y,yrange=[0.1,1],title='Linear Y Axis  
Works',window_title='Linear Y Axis Works')  
;title gone for log plots  
p2=plot(x,y,/ylog,yrange=[0.1,1],title='Title Error Log Y  
Axis',window_title='Title Error Log Y Axis')  
;if you set the yrange, the title appears, but in the wrong place  
p3=plot(x,(y+2)*10,/ylog,yrange=[1,100],title='Title Error Log Y  
Axis',window_title='Title Error Log Y Axis')  
;if you don't set the yrange, the title is gone  
p4=plot(x,(y+2)*10,/ylog,title='Title Error Log Y  
Axis',window_title='Title Error Log Y Axis')
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```
-----  
Any ideas?
```

Subject: Re: IDL 8, log plots and titles
Posted by [penteado](#) on Wed, 27 Oct 2010 04:26:05 GMT
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On Oct 26, 7:21 pm, [b_gom](#) <[b_...@hotmail.com](#)> wrote:
> A related question- I assume it isn't possible to produce multiple
> plots with the new graphics functions without manually defining the
> layout. i.e., there is no equivalent of setting !p.multi. Is this
> true?

No. See the posts at the end of

http://groups.google.com/group/comp.lang.idl-pvwave/browse_thread/thread/4d0d4deb79085aa6

Subject: Re: IDL 8, log plots and titles

Posted by [Kenneth P. Bowman](#) on Wed, 27 Oct 2010 13:37:59 GMT

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In article

<94acbddd6-bedf-4e89-a45c-37b3b534c5c0@f33g2000yqh.googlegroups.com>, b_gom <b_gom@hotmail.com> wrote:

> A related question- I assume it isn't possible to produce multiple
> plots with the new graphics functions without manually defining the
> layout. i.e., there is no equivalent of setting !p.multi. Is this
> true?

The equivalent of !P.MULTI is to use the LAYOUT and CURRENT keywords, but you do have to manage the current drawing pane manually, as David illustrated here

> You want to use the LAYOUT keyword in conjunction with
> the CURRENT keyword.
> IDL> p = plot(loaddata(17), layout=[2,2,1])
> IDL> p = plot(loaddata(17), layout=[2,2,2], /current)
> IDL> p = plot(loaddata(17), layout=[2,2,3], /current)
> IDL> p = plot(loaddata(17), layout=[2,2,4], /current)

Ken Bowman

Subject: Re: IDL 8, log plots and titles

Posted by [David Fanning](#) on Wed, 27 Oct 2010 14:00:29 GMT

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Kenneth P. Bowman writes:

> The equivalent of !P.MULTI is to use the LAYOUT and CURRENT keywords,
> but you do have to manage the current drawing pane manually, as David
> illustrated here
>
>> You want to use the LAYOUT keyword in conjunction with
>> the CURRENT keyword.

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>> IDL> p = plot(loaddata(17), layout=[2,2,1])
>> IDL> p = plot(loaddata(17), layout=[2,2,2], /current)
>> IDL> p = plot(loaddata(17), layout=[2,2,3], /current)
>> IDL> p = plot(loaddata(17), layout=[2,2,4], /current)
```

Just to prove I'm not a complete Luddite, I actually think this LAYOUT keyword method is better than using !P.Multi. It is more flexible for laying out non-symmetrical plots. And the huge bonus is you don't have to learn to count backwards!

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: IDL 8, log plots and titles
Posted by [penteado](#) on Wed, 27 Oct 2010 14:08:59 GMT
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On Oct 27, 12:00 pm, David Fanning <n...@dfanning.com> wrote:
> Just to prove I'm not a complete Luddite, I
> actually think this LAYOUT keyword method is
> better than using !P.Multi. It is more
> flexible for laying out non-symmetrical plots.
> And the huge bonus is you don't have to learn
> to count backwards!

I agree layout is better, for those reasons, and most significantly, for not being a global variable. Everything that determines how a plot will be in Graphics is contained in them, and set through their methods. The frequent use of global variables (in particular those that are not affected by .reset) is one of the most important reasons I avoid DG.

Subject: Re: IDL 8, log plots and titles
Posted by [David Fanning](#) on Wed, 27 Oct 2010 14:14:01 GMT
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Paulo Penteadó writes:

- > I agree layout is better, for those reasons, and most significantly,
- > for not being a global variable. Everything that determines how a plot
- > will be in Graphics is contained in them, and set through their
- > methods. The frequent use of global variables (in particular those
- > that are not affected by .reset) is one of the most important reasons
- > I avoid DG.

Absolutely! Alright, then, graphics containment and layout are two things we will keep when we go to the simpler new, new graphics system in IDL 10. :-)

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: IDL 8, log plots and titles

Posted by [Mark Piper](#) on Wed, 27 Oct 2010 16:50:34 GMT

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On Oct 26, 1:03 pm, b_gom <b_...@hotmail.com> wrote:

- > Am I missing something, or is IDL 8 fumbling logarithmic y axes and
- > plot titles when using the new plot function?
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- > When plotting log plots, the plot title seems to vanish, and also IDL
- > does not seem to be able to calculate the y range properly. In the
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> p4=plot(x,(y+2)*10,/ylog,title='Title Error Log Y
> Axis',window_title='Title Error Log Y Axis')
> -----
>
> Any ideas?
```

This bug (along with 98 others) is fixed in IDL 8.0.1, which will be available on our website very soon.

mp

Subject: Re: IDL 8, log plots and titles
Posted by [b_gom](#) on Wed, 27 Oct 2010 17:29:40 GMT
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Good to hear that its a fixed bug. Hopefully I won't trip over the 98 others before the patch is released.

Thanks also for the multi-plot tips; I agree that the LAYOUT keyword is an improvement.
