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Subject: Re: line graph problems

Posted by [davidf](#) on Sun, 25 Mar 2001 23:13:59 GMT

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Brian ([nagybria\\_ns@msu.edu](mailto:nagybria_ns@msu.edu)) writes:

- > I have a couple of problems I was hoping that someone might be able to
- > help me with...
- >
- > First of all I am trying to automate the process of creating a series
- > of line graphs for a project (approximately 50). I could do this in
- > Excel, but it is very time consuming. I was hoping to use IDL to make
- > the process easier, but it seems to be causing me just as many
- > headaches.
- >
- > There will be two plots per page and they have identical y-axis and
- > variable x-axis ranges. The x-axis values are fairly large, which
- > leads me to my first problem. Is it possible to change the text
- > orientation for an axis using PLOT? I've searched the IDL help and
- > David's book and can't seem to find any reference to this. I'd like
- > to have the text display at a 45 degree angle so the values don't
- > overlap when displayed.

There is no way to do this directly with the PLOT command, but there is a little program described on page 94-96 of my book (as long as you have it) that shows you how easy it is to do it. You will have to modify the function for your purposes, probably.

- > My second problem relates to the y-axis. In
- > several of my plots I have a few y values that are large while the
- > rest are many times smaller. Is it possible to create a broken y-axis
- > so I can bring out the smaller values while still displaying the
- > larger ones?

You can pretty much do anything you like with IDL, but this one is also going to take a bit of programming muscle. The trick will be knowing how to draw two plots, one above the other. Then you will need to connect the separate Y axis with some kind of zigzag line (PLOTS will be used for this). Again, all the necessary keywords to the PLOT command are described in my book (POSITION, YNOZERO, [XY]STYLE, etc.). You will just have to hack something together. I wouldn't expect it to take more than 15-20 minutes.

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Toll-Free IDL Book Orders: 1-888-461-0155

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Subject: Re: line graph problems

Posted by [Martin Schultz](#) on Mon, 26 Mar 2001 09:15:38 GMT

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Brian wrote:

>  
> Hello,  
>  
> I have a couple of problems I was hoping that someone might be able to  
> help me with...  
>  
> First of all I am trying to automate the process of creating a series  
> of line graphs for a project (approximately 50). I could do this in  
> Excel, but it is very time consuming. I was hoping to use IDL to make  
> the process easier, but it seems to be causing me just as many  
> headaches.

... but presumably the pain affects a better part of your brain ;-)

> My second problem relates to the y-axis. In  
> several of my plots I have a few y values that are large while the  
> rest are many times smaller. Is it possible to create a broken y-axis  
> so I can bring out the smaller values while still displaying the  
> larger ones?

In the ESRG library is a routine to do at least part of this (draw the  
zigzag): it's called `axgap.pro`, and you can find it here:

<http://www.mpimet.mpg.de/~schultz.martin/idl/html/src/esrg/axgap.pro>

Cheers,  
Martin

>  
> Any help that can be provided will be greatly appreciated!  
>  
> Brian  
> please remove the `_ns` if replying directly by email...

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