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Subject: Re: multiple Y-axis for 2D plots  
Posted by [davidf](#) on Tue, 08 Jun 1999 07:00:00 GMT  
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Robert King (kingrj2@bp.com) writes:

- > I've taken this from "IDL Programming Techniques" by DWF. (Page 31).
- > I'm also quite new to IDL and found this book a wonderful aid to
- > programming - I use it practically every half hour that I'm programming !!
- > Well worth getting a copy,

Oh, no. Now the book orders are going to be pouring in just as I'm leaving on a vacation! Just thought I'd let you know in case anyone missed me in the next couple of weeks and worried that I couldn't handle the crushing load. :-)

Cheers,

David

P.S. Let's just say my wife made me hand over the dongle about five minutes ago. I have two minutes left to explain how color wor...

--

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Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)  
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>  
Toll-Free IDL Book Orders: 1-888-461-0155

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Robert King (kingrj2@bp.com) writes:

- > I \*JUST\* knew that answering a question using someone else's code
- > wouldn't work!
- >
- > In my answer (foolishly copied & posted without checking to see that it
- > works first!) I put the YRange from 0 to 200. You'll probably want to
- > change this to the maximum and minimum values of the second data set. You
- > can find these by using :
- >
- > maxVal=MAX(data\_set\_two, MIN=minVal)

>  
> Then modify the call to the AXIS procedure as follows:  
>  
> Axis, YAxis=1, YRange=[minVal,maxVal], /SAVE, YTitle=' Dashed Line :  
> Pressure (mmHg)'

I ran into the same problem. (Although I *\*did\** remember to test it first. I've been embarrassed *\*way\** too many times!). But I've already fixed this for the next printing of the book. :-)

Cheers,

David

--

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Subject: Re: multiple Y-axis for 2D plots  
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Hello again,

I *\*JUST\** knew that answering a question using someone else's code wouldn't work!

In my answer (foolishly copied & posted without checking to see that it works first!) I put the YRange from 0 to 200. You'll probably want to change this to the maximum and minimum values of the second data set. You can find these by using :

```
maxVal=MAX(data_set_two, MIN=minVal)
```

Then modify the call to the AXIS procedure as follows:

```
Axis, YAxis=1, YRange=[minVal,maxVal], /SAVE, YTitle=' Dashed Line :  
Pressure (mmHg)'
```

Regards,

Robert

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Subject: Re: multiple Y-axis for 2D plots

Posted by [Robert King](#) on Tue, 08 Jun 1999 07:00:00 GMT

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noymer@mozart.ceped.ined.fr wrote in article

<7jj5ai\$kin\$1@nnrp1.deja.com>...

> Dear IDL newsgroup,

>

> I have data like this: a year vector (for the X-axis) and two  
> data vectors (for the Y values of two curves). Now, the two data  
> vectors are to be displayed on the same graph, but they have radically  
> different Y-scales. Rather than multiply the smaller by, say 100, I  
> would like to display them each on their own axis. By this, I mean  
> just like the lower left panel of figure 10-12 in the "Using IDL"  
> manual (p.200 in my version), except imagine the first curve being the  
> distribution of temperature (as drawn), and the RH Y-axis not being  
> Celsius, but being mmHg, and then imagine a second curve, giving the  
> distribution of atmospheric pressure for the same locale. The LH  
> Y-axis is for temp; the RH Y-axis is for pressure.

>

> Some people feel that such graphs are unreadable because they don't  
> know without careful inspection of the caption which line goes with  
> the RH-Y-axis and which goes with the LH-Y-axis. They have a point;  
> the way out is to do two separate panels, closely stacked. But I  
> would like to know if this is at least doable.

>

> From the documentation for axis (etc), it was unclear (at least to me)  
> if this was possible, and all my experiments failed.

>

> Thanks in advance if anyone has any thoughts.

>

> Best,

> Andrew.

>

Andrew,

Sorry to everyone if someone's already posted an answer to this one -  
my newsfeed is somewhat slow and tempermental to say the least... :(

I've taken this from "IDL Programming Techniques" by DWF. (Page 31).  
I'm also quite new to IDL and found this book a wonderful aid to  
programming - I use it practically every half hour that I'm programming !!  
Well worth getting a copy, I'm sure that David will send you the details,  
otherwise visit his web site at <http://www.dfanning.com/>

"data\_set\_one" would be your temp Vs Time data

"data\_set\_two" is the press Vs Time data.

```
Plot, data_set_one, YStyle=8, YTitle='Solid Line :Temp (deg C)' , $  
    Position=[0.15,0.15,0.85,0.95]  
Axis, YAxis=1, YRange=[0,200], /SAVE, YTitle=' Dashed Line : Pressure  
(mmHg)'  
OPlot, data_set_two, LineStyle=2
```

Hope that this helps

Regards,

Robert

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Andrew (noymer@mozart.ceped.ined.fr) writes:

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> Y-axis is for temp; the RH Y-axis is for pressure.  
>  
> From the documentation for axis (etc), it was unclear (at least to me)  
> if this was possible, and all my experiments failed.

From that wonderful IDL Programming Techniques book, written  
by ol' whatshisname: :-)

```
data = Loaddata(1)  
Plot, data, YStyle=8, YTitle='Solid Line', $  
Position=[0.15, 0.15, 0.85, 0.95]  
newdata = data * 5  
Axis, YAxis=1, YRange=[Min(newdata), Max(newdata)], /Save, $  
YTitle='Dashed Line'  
OPlot, newdata, LineStyle=2
```

You can download the LoadData program from my web page

or just make up your own data. The trick is that SAVE  
keyword on the AXIS command.

Cheers,

David

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