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Subject: Re: Plotting Graphs on Same Plot With Axes Rescaled To Include Largest Range

Posted by [David Fanning](#) on Mon, 09 May 2011 19:32:40 GMT

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Chris Williams writes:

- > Is it possible to plot a set of 2D graphs on the same graph, with the
- > x,y-axes being rescaled to include the entire graph for each overplot?
- >
- > The problem I am having is if I have two graphs, and the second graph
- > has a larger range than the first graph, both graphs will be on the
- > axes of the first graph instead of the second graph. This clips the
- > first graph which I do not want.
- >
- > Using the /NOERASE keyword keeps ALL of the axes on a set of plot,
- > instead of the one with the largest range of values.
- >
- > Ideally, I am looking for a keyword to automatically set the graph
- > axes to the data set with the largest range of values. For example,
- > when using gnuplot, if you "plot func1, func2, func3", gnuplot will
- > draw all three graphs and put them on the scale of the one with the
- > largest values, so that all of the functions can be seen.

```
minPlot = Min([data1,data2], Max=maxPlot)
cgPlot, data1, YRANGE=[minPlot, maxPlot]
cgPlot, data2, /Overplot
```

Similarly for the X values, if needed.

Cheers,

David

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David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: Plotting Graphs on Same Plot With Axes Rescaled To Include Largest Range

Posted by [penteado](#) on Mon, 09 May 2011 19:34:51 GMT

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On May 9, 4:18 pm, Chris Williams <fam36boozl...@gmail.com> wrote:

- > Is it possible to plot a set of 2D graphs on the same graph, with the
- > x,y-axes being rescaled to include the entire graph for each overplot?
- >
- > The problem I am having is if I have two graphs, and the second graph
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- > when using gnuplot, if you "plot func1, func2, func3", gnuplot will
- > draw all three graphs and put them on the scale of the one with the
- > largest values, so that all of the functions can be seen.

With the iTools or (new) Graphics, that is the default behavior. With direct graphics, it is impossible: once something is drawn to the device, it stays there, and no information is preserved on how it was made. You may think of direct graphics as a printer. Once something goes there, you cannot take it back (though you can erase what is there).

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