
Subject: Re: Common x- and y-axes labels.....

Posted by [David Gell](#) on Mon, 02 Mar 2009 13:36:47 GMT

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On Feb 28, 1:38 pm, bobbylough <loughnane.rob...@gmail.com> wrote:

> Dear all,

>

> I was wondering whether it was possible to construct in IDL a common

> x- and y-axis annotation for a matrix of plots. I have a 2*6 matrix of

> plots and would like to produce an figure displaying all 12 plots

> along with a just the one x- and y- labeling, which would be

> positioned somewhere near the centre of each ordinate. Thanks in

> advance.....

>

> Regards,

> Robert.

I assume that the idea is to have twelve plots in two columns with axis annotations on one plot near the center of the matrix. The code might look something like

```
for nI=0,1 do begin
  for nJ=0,5 do begin
```

```
    ;;compute position of plot
```

```
    plot, x[* ,nI,nJ], y[* ,nI,nJ], ...
```

```
  endfor
```

```
endfor
```

You can use the graphics keywords [xy]tickname to suppress the tick labels on all but the desired plot. You can also use [xy]title to specify the axis title for the plots you want. In the example above use something like

```
xtickname= ((nI eq 1) && nJ eq 2) ? " : replicate(' ', 30)
xtitle = ((nI eq 1) && nJ eq 2) ? 'this is the x axis' : ''
```

If you specify a null string with the xtickname keyword, IDL labels the ticks, if you specify an array IDL uses the array. So to label the tickmarks on one axis in the set, supply the null string to xtick name for the plot you want labeled and an array of blanks for those you don't.

Subject: Re: Common x- and y-axes labels.....

Posted by [David Fanning](#) on Mon, 02 Mar 2009 13:58:33 GMT
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David Gell writes:

> You can use the graphics keywords [xy]tickname to suppress the tick
> labels on all but the desired plot.

I usually suppress tick labels like this:

```
IDL> plot, findgen(11), xtickformat='(A1)'
```

I don't know WHY it works, but it does.

I haven't been able to figure out what the user wanted to do either, so I haven't commented, but I did have something totally different from this in mind. :-)

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: Common x- and y-axes labels.....

Posted by [Jeremy Bailin](#) on Mon, 02 Mar 2009 15:33:55 GMT

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On Mar 2, 8:58 am, David Fanning <n...@dfanning.com> wrote:

> David Gell writes:

>> You can use the graphics keywords [xy]tickname to suppress the tick
>> labels on all but the desired plot.

>

> I usually suppress tick labels like this:

>

```
> IDL> plot, findgen(11), xtickformat='(A1)'
```

>

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> I haven't been able to figure out what the user wanted
> to do either, so I haven't commented, but I did have
> something totally different from this in mind. :-)

>

> 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.")

It works because the string representation of any number in IDL is

- a) right-justified
- b) always has leading spaces

So if you take the first character of that, it's always a space... and is therefore exactly equivalent to DG's `replicate(' ',N)`.

-Jeremy.

Subject: Re: Common x- and y-axes labels.....

Posted by [Christopher Thom](#) on Mon, 02 Mar 2009 19:58:09 GMT

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Quoth bobbylough:

> Dear all,
>
> I was wondering whether it was possible to construct in IDL a common x-
> and y-axis annotation for a matrix of plots. I have a 2*6 matrix of
> plots and would like to produce an figure displaying all 12 plots along
> with a just the one x- and y- labeling, which would be positioned
> somewhere near the centre of each ordinate. Thanks in advance.....

If you want all the plots to share common axes too (i.e. no interior space between your plots), then check out "mulitplot" in the idlastro library.

<http://idlastro.gsfc.nasa.gov/ftp/pro/plot/multiplot.pro>

Actually, I just checked the routine -- the latest version has keywords for adding spaces between plots, and labelling the common axes.

cheers
chris
