
Subject: Re: !p.multi question: margin possible at top of page?

Posted by [pcp2g](#) on Fri, 18 Mar 1994 15:21:10 GMT

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In article <2mc3vIINNa2v@i32.sma.ch>, stl@sma.ch (Stephen Strebel) writes:

|> hello,

|>

|> I am trying to find out if anyone has succesfully been able to create a
|> margin at the top of a page while !p.multi is being used.

|> My scenario is that I have multiple plots on the page, and I want to
|> xyout a title to the top of the page. No problem, but each plots has
|> titles etc and I cannot figure out how to get !p.multi to leave x number
|> of pixels margin on the top of the page.

|>

|> -stephen

I had this problem recently. I had four plots I wanted on a page, stacked 2X2, with individual tick marks. Hwoweever, I only wanted a single x and y title. A friend of mine and I worked out a solution: plot the 4 2X2 plots, then OVERPLOT an empty plot with the dimensions of the 2X2 stack. This large frame then can be used to get the x and y titles. In other words, if each of my plots is, say, 100X100, then the ganged plot is 200X200. Then make a 200X200 empty plot, and overplot it. Then when you use x and ytitle, it works for the bigger frame. This can also help adjust the margins; I'll explain below. Here is the procedure:

```
>> !p.multi=[0,2,2,2] ; makes a 2X2 ganged plot. The last "2" means  
    another plot will be layed over the existing 2x2  
    gang.
```

```
>> set_viewport,0.2,0.5,0.5,0.8  
;this will place the first plot in the upper left (UL) side  
of the 2x2 gang. The set_viewport literally sizes the plots  
to fit in your window. The example I use here starts horizontally  
at .2 of the way in from the left side of the graph and ends  
.5 of the way in. It starts vertically .5 of the window from  
the bottom and ends 0.8 of the window up from the bottom.
```

```
>> plot,x1,y1 ; make the plot
```

```
>> set_viewport,0.5,0.8,0.5,0.8 ; plot graph #2 in the UR side of the gang.  
>> plot,x2,y2
```

```
>> set_viewport,0.5,0.8,0.2,0.5 ; plot #3 in the LR space  
>> plot,x3,y3
```

```
>> set_viewport,0.2,0.5,0.2,0.5 ; plot #4 in the LL side
```

```
>> plot,x4,y4
```

Now you have the actual graphs for the figure. Now you have to set up the frame.

```
>> set_viewport,0.2,0.8,0.2,0.8 ; sets the frame to be the size of the  
entire 2X2 array
```

```
>> ya=fltarr(2,2) & ya(0,0)=0 & ya(0,1)=0 & ya(1,0)=0 & ya(1,1)=0  
;make a dummy array to plot.
```

```
>> !x.ticks=1 & !y.ticks=1
```

```
>> !x.tickname=[' ' ' ' ] & !y.tickname=[' ' ' ' ]
```

```
;set the tick marks so you don't overwrite the 'real'  
tickmarks of the 2X2 gang.
```

```
>> plot,ya,xtitle='Here is my x axis',$
```

```
>> ytitle='And here is my y axis'
```

This should work. You now have a 2X2 plot with the xtitle stretching across both plots, and the same for the yaxis. The tick marks may get a bit screwed up; the ticks from the frame may still get printed in between the real tick marks for your ganged plots. I cannot seem to find a solution for that. Fool around with the !x.ticks and !x.tickname arrays and see if you can fix it. If you can, post it!

To make a different margin, simply use different values for the set_viewport command. Make the whole thing 0.3,0.7,0.3,0.7 to get a much bigger margin. Also, to put the xtitle at the top of the page, use xyouts with the frame as a reference.

Hope this helps.

--

* Phil Plait pcp2g@virginia.edu

* Baby Member (by 1.83 years), STOFF

* "To escape from our own island, we must each metaphorically

* kill our own Gilligan..."
