
Subject: Re: Problems with control the size of the lat-lon tick labels and the position of my colorbar

Posted by [David Fanning](#) on Thu, 12 Dec 2013 17:43:56 GMT

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Madhavan Bomidi writes:

```
> I tried to write the following code to make a plot:
> (N.B:This is not complete but a part of the code!)
>
> ;-----
> PRO test
>   cgPS_Open, Fig.ps, FONT=-1, CHARSIZE=0.5
>
>   cgDisplay,1200,1000
>
>   Lats=[50.84D,50.96D] & CenterLat=(Max(Lats) + Min(Lats)) / 2.0
>   Lons=[6.36D,6.50D] & CenterLon=(Max(Lons) + Min(Lons)) / 2.0
>
>   cgMap_Set, CenterLat, CenterLon, /Cylindrical, /NoBorder, /NoErase, $
>     Limit=[50.84D,6.35D,50.96D, 6.51D], Position=[0.05, 0.47, 0.5, 0.92]
>
>   cgMap_Grid, /BOX, Color='charcoal', Thick=(!D.Name EQ 'PS') ? 2 : 1
>
>   cgLoadCT, 33 , Bottom=1
>
>   tickvalues=['0','100','200','300','400','500',$
>     '600','700','800','900','1000',$
>     '1100','1200','1300','1400','1500']
>
>   cgColorbar, Range=[0,1500],Bottom=1,Font=-1, Divisions=15, Title='W m!E-2!N', $
>     Format='(I4)',Ticknames=tickvalues,TLOCATION='Bottom',/FIT, $
>     Minor=10, CHARSIZE=0.7,OOB_FACTOR=0.5, Position=cgLayout([2,2,1])
>
>   cgPS_Close,/PNG
>   cgPS2Raster, Fig_filename, /PNG, Width=300
> END
> ; -----
>
> Here are my problems ...
>
> (1) How to control the font size of the lat-lon values on the grid map?
> (2) Can I disable to display of lat-lon values on TOP and RIGHT side on the grid map?
> (3) If I want to include X-label (i.e., 'Latitude') and Y-label(i.e., Latitude) for the grid map, then
> how can I do that?
> (4) How to position the colorbar if I want to at the bottom of this grid map?
> (5) If I change the Position values in the cgMap_Set command, I see the width of the colorbar
> at the top changes? What keyword actually controls the width of this colorbar?
```

>

> I want to divide my plotting area into 2 columns and 2 rows and include this figure in the first column and first row. I was playing with almost all keywords basing on the descriptions for `cgMap_Set`, `chMap_Grid`, `cgColorbar` and still unable to understand properly what I am doing wrong in my figure? I want my colorbar on top as now and want to position properly so that i can see the title also properly. Can anyone point at what I am doing wrong?

Well, there is quite a lot wrong here. :-)

> (1) How to control the font size of the lat-lon values on the grid map?

I get the distinct feeling you do not like to read program documentation. You are not alone in this, of course, but it really, really helps when you are trying to get something to work. :-)

The documentation is in the header to the files, or it is available on-line. Please bookmark it for future use.

<http://www.idlcoyote.com/idldoc/cg/index.html>

In this case a `Charsize` keyword will work. :-)

> (2) Can I disable to display of lat-lon values on TOP and RIGHT side on the grid map?

It is not possible with this software.

> (3) If I want to include X-label (i.e., 'Latitude') and Y-label(i.e., Latitude) for the grid map, then how can I do that?

The easiest way would probably just be to add them with a couple of `cgText` commands.

> (4) How to position the colorbar if I want to at the bottom of this grid map?

You position the color bar with the `Position` keyword to `cgColorbar`.

> (5) If I change the `Position` values in the `cgMap_Set` command, I see the width of the colorbar at the top changes? What keyword actually controls the width of this colorbar?

The position values in the `cgMap_Set` command will have no effect on the colorbar width. The width of the colorbar is determined by the `Position` keyword to `cgColorbar`.

If you want to position your color bar with respect to the map, then you should calculate its position relative to the map position. I would not be using `cgLayout` to position a colorbar, unless you like very fat colorbars. :-)

A couple of other things I notice. You have a NoErase keyword on the cgMap_Set command. What is the purpose of that? It doesn't look like it belongs there to me.

You are making two PNG files (one when you close the PostScript device, and another when you run cgPS2Raster). They are overwriting each other, so this is taking twice as long (at least!) as it should. Do you want two PNG files, or just one?

You are probably right to use cgLayout if you want to add colorbars to your map, because you probably won't have enough space underneath it to add a color bar. The cgLayout program will allow you to adjust the "gap" between plots so you can have enough room. You can see details on this page:

http://www.idlcoyote.com/code_tips/multiplots.php

Cheers,

David

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

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