Subject: Problems with control the size of the lat-lon tick labels and the position of my colorbar
Posted by atmospheric physics on Thu, 12 Dec 2013 16:51:13 GMT
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Hello,

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?

Thanks in advance

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:

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> I tried to write the following code to make a plot:
> (N.B:This is not complete but a part of the code!)
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> PRO test
>   cgPS_Open, Fig.ps, FONT=-1, CHARSIZE=0.5
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>   cgDisplay,1200,1000
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>
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>      Limit=[50.84D,6.35D,50.96D, 6.51D], Position=[0.05, 0.47, 0.5, 0.92]
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>   cgMap_Grid, /BOX, Color='charcoal', Thick=(!D.Name EQ 'PS') ? 2 : 1
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>   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
> ; ----------------------
```

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> Here are my problems ...
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> (1) How to control the font size of the lat-lon values on the grid map?
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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 progrm 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
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thue. ("Perhaps thou speakest truth.")

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 19:51:27 GMT

Madhavan Bomidi writes:

> 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 put a new example program in the Coyote Gallery today that shows you how to create multiple plots, each plot with its own annotations, such as color bars. You can find it here:

   http://www.idlcoyote.com/gallery/index.html#MULTIANNOTATE_PL OT

Time spent answering question and creating a new gallery plot: 2.5 hours. Donations so far this month: $350.

Cheers,

David
--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
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Subject: Re: Problems with control the size of the lat-lon tick labels and the position of my colorbar
Posted by Andy Sayer on Thu, 12 Dec 2013 20:13:17 GMT
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Madhavan, please stop deleting your messages (it looks like you have done it twice today), it makes the discussion less useful for others looking back through the archives.

On Thursday, December 12, 2013 2:51:27 PM UTC-5, David Fanning wrote:
> Madhavan Bomidi writes:
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Subject: Re: Problems with control the size of the lat-lon tick labels and the position of my colorbar
Posted by atmospheric physics on Fri, 13 Dec 2013 14:41:56 GMT
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I have sorted my problems before your post... Thanks for the elaborate clarification.

Subject: Re: Problems with control the size of the lat-lon tick labels and the position of my colorbar
Posted by atmospheric physics on Fri, 13 Dec 2013 14:47:58 GMT
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Sorry for deleting my messages. I have found solution to my problems and so I thought others shall not waste time in answering to my post.

On Thursday, December 12, 2013 9:13:17 PM UTC+1, AMS wrote:

> Madhavan, please stop deleting your messages (it looks like you have done it twice today), it makes the discussion less useful for others looking back through the archives.

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> On Thursday, December 12, 2013 2:51:27 PM UTC-5, David Fanning wrote:

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

Posted by Andy Sayer on Fri, 13 Dec 2013 14:51:12 GMT

Ok, for the future, it would be more helpful for others to keep the post visible and add your solutions as additional messages. :)

On Friday, December 13, 2013 9:47:58 AM UTC-5, Madhavan Bomidi wrote:
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