
Subject: Multiple color plots, same color bar
Posted by [limiqt](#) on Thu, 05 Dec 2013 22:22:48 GMT
[View Forum Message](#) <> [Reply to Message](#)

Dear all,

I was wondering if someone could help me with a problem using one color bar for multiple plots with different ranges of colors. My example bellow produces two panels and one color bar. However the color bar does not match both panels but only the first one (I1 values).

For I1 and I2, I need to do:

100-200=red

201-300=orange

301-400=yellow

401-500=green

501-600=blue

therefore, using a color table from 0 to 600, the second panel should not have any blue color.

I will appreciate any assistance.

Thanks,

Lim

=====

pro mci

X1=[2, 4, 5, 6, 7, 8]

Y1=[20, 40, 45, 30, 10, 5]

I1=[100,200,300,400,500,600]

X2=[3, 4.5, 5.5, 6.5, 7.5, 8.5]

Y2=[22, 25, 30, 33, 20, 8]

I2=[150,175,250,280,290,450]

cgLoadCT, 33, /reverse

nelmspix=n_elements(X1)

colors = cgScaleVector(Findgen(N_Elements(I1)), min(I1), max(I1))

clr = Value_Locate(colors, I1)

clr = Byte(Round(cgScaleVector(clr, 0, 255)))

cgWindow

pos1=[0.1,0.1,0.45,0.75]

pos2=[0.55,0.1,0.9,0.75]

;graph 1

cgPlot, X1, Y1, /Nodata, Xtitle='X', Ytitle='Y', position=pos1,/NoErase,/AddCMD

cgPlotS, X1, Y1, Psym=16,symsize=2,color=clr,/AddCMD

;graph 2

cgplot,X2,Y2, /Nodata, Xtitle='X', Ytitle='Y', position=pos2,/NoErase, /AddCMD

cgPlotS, X2, Y2,Psym=16,symsize=2,color=clr,/AddCMD

;the colorbar

cgColorbar, Divisions=5, Format='(I3)', Range=[100,600],/AddCMD , TLOCATION='Top', Title='I'

End

=====

Subject: Re: Multiple color plots, same color bar

Posted by [David Fanning](#) on Thu, 05 Dec 2013 22:57:47 GMT

[View Forum Message](#) <> [Reply to Message](#)

Lim writes:

>
> Dear all,
> I was wondering if someone could help me with a problem using one color bar for multiple plots with different ranges of colors. My example bellow produces two panels and one color bar. However the color bar does not match both panels but only the first one (I1 values).
> For I1 and I2, I need to do:
> 100-200=red
> 201-300=orange
> 301-400=yellow
> 401-500=green
> 501-600=blue
>
> therefore, using a color table from 0 to 600, the second panel should not have any blue color.
>
> I will appreciate any assistance.

You want this:

pro mci

```
X1=[2, 4, 5, 6, 7, 8]
Y1=[20, 40, 45, 30, 10, 5]
I1=[100,200,300,400,500,600]
```

```
X2=[3, 4.5, 5.5, 6.5, 7.5, 8.5]
Y2=[22, 25, 30, 33, 20, 8]
I2=[150,175,250,280,290,450]
```

```
cgLoadCT, 33, /reverse
clr1 = BytScl(i1, MIN=100, MAX=600)
clr2 = BytScl(i2, MIN=100, MAX=600)
```

```
cgWindow
pos1=[0.1,0.1,0.45,0.75]
pos2=[0.55,0.1,0.9,0.75]
;graph 1
```

```
cgPlot, X1, Y1, /Nodata, Xtitle='X', Ytitle='Y', $  
    position=pos1,/NoErase,/AddCMD  
cgPlotS, X1, Y1, Psym=16,symsize=2,color=clr1,/AddCMD  
;graph 2  
cgplot,X2,Y2, /Nodata, Xtitle='X', Ytitle='Y', $  
    position=pos2,/NoErase, /AddCMD  
cgPlotS, X2, Y2,Psym=16,symsize=2,color=clr2,/AddCMD  
;the colorbar  
cgColorbar, Divisions=5, Format='(I3)', Range=[100,600],$  
    /AddCMD , TLOCATION='Top', Title='I'
```

End

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: Multiple color plots, same color bar

Posted by [limiqt](#) on Thu, 05 Dec 2013 23:47:21 GMT

[View Forum Message](#) <> [Reply to Message](#)

Hi David,

Yes, Your solution worked. Need to read about the bytscl. Thanks you very much.

Lim

On Thursday, December 5, 2013 5:22:48 PM UTC-5, Lim wrote:

> Dear all,

>

> I was wondering if someone could help me with a problem using one color bar for multiple plots with different ranges of colors. My example bellow produces two panels and one color bar. However the color bar does not match both panels but only the first one (I1 values).

>

> For I1 and I2, I need to do:

>

> 100-200=red

>

> 201-300=orange

>

> 301-400=yellow

>

```
> 401-500=green
>
> 501-600=blue
>
>
>
> therefore, using a color table from 0 to 600, the second panel should not have any blue color.
>
>
>
> I will appreciate any assistance.
>
>
>
> Thanks,
>
> Lim
>
> =====
>
> pro mci
>
>
>
> X1=[2, 4, 5, 6, 7, 8]
>
> Y1=[20, 40, 45, 30, 10, 5]
>
> I1=[100,200,300,400,500,600]
>
>
>
> X2=[3, 4.5, 5.5, 6.5, 7.5, 8.5]
>
> Y2=[22, 25, 30, 33, 20, 8]
>
> I2=[150,175,250,280,290,450]
>
>
>
> cgLoadCT, 33, /reverse
>
> nelmspix=n_elements(X1)
>
> colors = cgScaleVector(Findgen(N_Elements(I1)), min(I1), max(I1))
>
> clr = Value_Locate(colors, I1)
>
```

```
> clr = Byte(Round(cgScaleVector(clr, 0, 255)))
>
>
>
> cgWindow
>
> pos1=[0.1,0.1,0.45,0.75]
>
> pos2=[0.55,0.1,0.9,0.75]
>
> ;graph 1
>
> cgPlot, X1, Y1, /Nodata, Xtitle='X', Ytitle='Y', position=pos1,/NoErase,/AddCMD
>
> cgPlotS, X1, Y1, Psym=16,symsize=2,color=clr,/AddCMD
>
> ;graph 2
>
> cgplot,X2,Y2, /Nodata, Xtitle='X', Ytitle='Y', position=pos2,/NoErase, /AddCMD
>
> cgPlotS, X2, Y2,Psym=16,symsize=2,color=clr,/AddCMD
>
> ;the colorbar
>
> cgColorbar, Divisions=5, Format='(I3)', Range=[100,600],/AddCMD , TLOCATION='Top',
Title='I'
>
>
>
> End
>
> =====
```

Subject: Re: Multiple color plots, same color bar
Posted by [David Fanning](#) on Thu, 05 Dec 2013 23:52:59 GMT
[View Forum Message](#) <> [Reply to Message](#)

Lim writes:

> Yes, Your solution worked. Need to read about the bytscl

Yes, essential for working with color tables of all sorts. ;-)

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.")
