
Subject: Colorbar with fixed level and color
Posted by [Rosie](#) on Fri, 14 Sep 2012 11:11:38 GMT
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Hello,

I have created contour plot with following color and levels

```
loadct,39
nl=21; nl,number of level
color=(findgen(nl+1)*10)+50
level=findgen(nl)*.5-5
```

Would anyone kindly tell how to plot colorbar with this specification.

Regards,
Rosie

Subject: Re: Colorbar with fixed level and color
Posted by [David Fanning](#) on Mon, 06 May 2013 23:00:25 GMT
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Sam writes:

```
> It is working perfect now. Here I have few queries:
>
> 1. To match color of zero level in contour to that with colour bar, I used following commands for
my plot and it is working. But colours shift in blue direction in one step.I tried with 'bottom'=2 or =1
in both cases for colourbar and table, but it is not matching together.
>
> nl=13
> level=(findgen(nl)*.5-3)
> colour=(findgen(nl+1))
> cgerase
> cgLoadCT, 24, NColors=14, Bottom=2, /Brewer,/reverse
> cgColorBar,NColors=14, bottom=1, Division=14
```

I don't have enough information here to answer your question. The levels you use, the way you load colors, the way you specify colors in the contour plot, and the way you specify colors in the color bar all work together. You can see many examples of contour plots and contour colors (with all manner of color bars) in the IDL plot gallery:

<http://www.idlcoyote.com/gallery/index.html>

But, I've never had trouble matching the colors of the contour plot levels to the color bar using Coyote Graphics commands. (I have been MIGHTLY frustrated with Function Graphics commands, but I don't think

you are asking about those.)

> 2. Can I simply make white on both sides of zero contour?

I don't know what this means or why it is necessary, but, yes, you can do anything you like with color values.

> 3. The colour you specified are really nice. But can I change those colours a bit, say for both blue or red can they be little lighter? or say can they be purple and orange?

Again, Coyote Graphics routines don't care how you handle your color tables. You can do anything you like with them. Basically, you just tell these routines where to find the colors and how many there are. What you load there is entirely up to you.

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: Colorbar with fixed level and color
Posted by [Rosie](#) on Tue, 07 May 2013 12:10:49 GMT
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Hello David,

Sorry,I forgot to mention about contour command I used.

contour,z,levels=level,c_colors=colour,/cell_fill, c_linestyle=(level lt 0),/overplot,/noerase

Here I find around zero lines the colour shift in one colour to that from colourbar.

Subject: Re: Colorbar with fixed level and color
Posted by [David Fanning](#) on Tue, 07 May 2013 12:42:06 GMT
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Sam writes:

> Sorry,I forgot to mention about contour command I used.
>

> contour,z,levels=level,c_colors=colour,/cell_fill, c_linestyle=(level lt 0),/overplot,/noerase
>
> Here I find around zero lines the colour shift in one colour to that from colourbar.

Well, again, this confuses me. Why are the keywords OVERPLOT and NOERASE being used together? Why CELL_FILL, since this is normally only used with map projections, and there is no hint of a map projection here?

You loaded colors starting at color index 2 (Bottom=2), but your contour plot is looking for colors starting at color index 0, and your color bar is looking for the same colors at color index 1 (Bottom=1).

I'd say there is a pretty darn good chance your colors might be off a little bit. :-)

If you match all this up, you should be good to go.

Another place to look for answers is in the Contour Plot chapter of my book, available here:

http://www.idlcoyote.com/books/tg/samples/tg_chap5.pdf

Cheers,

David

--

David Fanning, Ph.D.

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Subject: Re: Colorbar with fixed level and color
Posted by [Rosie](#) on Wed, 08 May 2013 11:09:22 GMT
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Thanks, David. Your comments were very helpful and I managed to sort that out.

Can I fill a contour with a symbol rather than any colour?

Thanks and regards,

Subject: Re: Colorbar with fixed level and color
Posted by [David Fanning](#) on Wed, 08 May 2013 11:59:21 GMT
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Sam writes:

- > Thanks, David. Your comments were very helpful and I managed to sort that out.
- >
- > Can I fill a contour with a symbol rather than any colour?

Not with symbols, no. You can use the C_ORIENTATION and C_SPACING, along with FILL or CELL_FILL to fill contours with lines, oriented in different directions, however.

Cheers,

David

--

David Fanning, Ph.D.

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