
Subject: IDL Colorbar generation question
Posted by [britneys](#) on Mon, 03 Jul 2006 22:19:53 GMT
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Hi All,

I am attempting to add colorbars to my data plots. I have a set of self-defined colors that are used in my routine, saved to the standard R_CURR, G_CURR and B_CURR arrays. I had been trying to use either the IDLgrColorbar_define program or David Fanning's colorbar_define.

Using IDLgrColorbar_define as prescribed:

```
oColorbar =OBJ_NEW("IDLgrColorbar", [R_CURR, G_CURR, B_CURR],  
SHOW_AXIS=1, Title='values', HIDE=0)
```

The colorbar is nowhere to be found in my window. Have I missed an element of the call?

Additionally, I am wondering two things about colorbar_define: 1) how can I use my self-defined color vectors in this routine (or can I?) 2) is there any change I should make so that the colorbar remains high-quality in a ps-output?

Thanks in advance for any guidance, or suggestions of other ways I can make an easy color bar. Earlier topics have been helpful to progress but I've been unable to fix these specifics.

:)

Subject: Re: IDL Colorbar generation question
Posted by [David Fanning](#) on Tue, 04 Jul 2006 09:15:30 GMT
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britneys@ucla.edu writes:

> I am attempting to add colorbars to my data plots. I have a set of
> self-defined colors that are used in my routine, saved to the standard
> R_CURR, G_CURR and B_CURR arrays. I had been trying to use either the
> IDLgrColorbar_define program or David Fanning's colorbar_define.
>
> Using IDLgrColorbar_define as prescribed:
>
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> SHOW_AXIS=1, Title='values', HIDE=0)
>
> The colorbar is nowhere to be found in my window. Have I missed an

> element of the call?

Humm. These two colorbar routines belong to two completely different graphics systems in IDL. These systems cannot be combined with one another. I **presume** you are using the direct graphics system (PLOT, CONTOUR, SURFACE, etc.) If so, you will NEVER see IDLgrColorbar in your window, since it uses the object graphic system.

Tell us what system you used to draw your plots, and we can advise you more sensibly.

> Additionally, I am wondering two things about colorbar_define: 1) how
> can I use my self-defined color vectors in this routine (or can I?) 2)
> is there any change I should make so that the colorbar remains
> high-quality in a ps-output?

If you are talking about one of my colorbar routines, they both use the colors loaded in the current color table. These are set with the NCOLORS and BOTTOM keywords, which are used in exactly the same way as the same keywords for LOADCT. Nothing is **ever** required with my direct graphics routines to get high-quality PS output. :-)

> Thanks in advance for any guidance, or suggestions of other ways I can
> make an easy color bar. Earlier topics have been helpful to progress
> but I've been unable to fix these specifics.

In general, for direct graphics output, something like this works reasonably well:

```
Window  
LoadCT, 33, NColors=16, Bottom=1  
Colorbar, NColors=16, Bottom=1, Divisions=1, XTickLen=1
```

Cheers,

David

Subject: Re: IDL Colorbar generation question
Posted by [britneys](#) on Wed, 05 Jul 2006 22:07:47 GMT
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Coyote wrote:

> Tell us what system you used to draw your plots, and we can advise
> you more sensibly.
>

I do use direct graphics, whoops on the graphics object! This is how the window is called:

```
SET_PLOT,PLATFORM
!P.FONT=0
DEVICE,DECOMPOSE=0,RETAIN=2
!P.BACKGROUND=255 ;background color=white
WINDOWCOUNT=0
WINDOW,WINDOWCOUNT,xsize=XWIND,ysize=YWIND,title=VERSION
ERASE
```

Okay, so back to your colorbar routine, it will automatically use my self-defined color table? I used the following call:

```
colorbar = Obj_New("COLORBAR", Range=[0,1000], Format='(I4)', $
    Title='Values')
colorbar->SetProperty, Position=[0.1, 0.75, 0.9, 0.80], /Draw
colorbar->Draw
```

is this correct? Also, when i output the file to a ps, the colorbar, instead of being a smooth color transition ends up as several boxes of different colors instead. Any ideas as to why this might occur?

Thanks again!

Subject: Re: IDL Colorbar generation question
Posted by [David Fanning](#) on Thu, 06 Jul 2006 16:16:16 GMT
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britneys@ucla.edu writes:

```
> I do use direct graphics, whoops on the graphics object! This is how
> the window is called:
>
> SET_PLOT,PLATFORM
> !P.FONT=0
> DEVICE,DECOMPOSE=0,RETAIN=2
> !P.BACKGROUND=255 ;background color=white
> WINDOWCOUNT=0
> WINDOW,WINDOWCOUNT,xsize=XWIND,ysize=YWIND,title=VERSION
> ERASE
>
> Okay, so back to your colorbar routine, it will automatically use my
> self-defined color table? I used the following call:
>
> colorbar = Obj_New("COLORBAR", Range=[0,1000], Format='(I4)', $
>     Title='Values')
```

> colorbar->SetProperty, Position=[0.1, 0.75, 0.9, 0.80], /Draw
> colorbar->Draw
>
> is this correct?

Yes, assuming you have loaded a 256-color color table before this call, this will work perfectly.

> Also, when i output the file to a ps, the colorbar,
> instead of being a smooth color transition ends up as several boxes of
> different colors instead. Any ideas as to why this might occur?

You didn't set BITS_PER_PIXEL=8 in the PostScript device. :-)
Thus, you are only seeing 16 possible colors. I'd use PSCONFIG to configure your PS device. Then this problem will be relegated to the past forever.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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

Subject: Re: IDL Colorbar generation question
Posted by [britneys](#) on Wed, 12 Jul 2006 22:41:28 GMT
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Hi David,

Thanks for all the help. I have one more question about the colorbar routine you've built. When I've used the call as above, I end up with a color bar where the first tenth or so of the bar is just vertical lines in a number of colors and the rest of the bar is as it should be. Any idea why this would happen?

THanks!

Subject: Re: IDL Colorbar generation question
Posted by [David Fanning](#) on Thu, 13 Jul 2006 08:07:04 GMT
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britneys@ucla.edu writes:

- > Thanks for all the help. I have one more question about the colorbar
- > routine you've built. When I've used the call as above, I end up with
- > a color bar where the first tenth or so of the bar is just vertical
- > lines in a number of colors and the rest of the bar is as it should be.
- > ANY idea why this would happen?

The Colorbar routine just loads the colors in the current color table. If there are colored lines there, then I presume this arise from colors that have been loaded into the color table. (Perhaps drawing colors for something else, would be my guess.) You might have to refresh the color table before you call the Colorbar procedure with the colors you want to see displayed.

If the problem is drawing colors, you can avoid loading them in the color table by using decomposed color (Device, Decomposed=1) and using FSC_COLOR to select drawing colors.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

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