Subject: Re: An IDL cron job, true color plots, Xvfb, Z-buffer, and all sorts of troubles
Posted by kathryn.ksm on Fri, 08 Feb 2008 18:02:23 GMT
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On Feb 8, 10:52 am, David Fanning <n...@dfanning.com> wrote:
> Katheryn writes:
>> So, I am still a little confused. The reason for using a color table
>> in the first place is so that I can do the neat trick of scaling the
>> colors in my plots to represent some arbitrary distribution of values
>> over an arbitrary range, which is the purpose of the actual version of
>> this little plotter. Is there a way to do that either with FSC_COLOR
>> or some version of color tables in the Z buffer and get the colors I
>> really want out?
>
> You load color tables in the usual way with LOADCT,
> although you might want to become acquainted with the
> keywords NCOLORS and BOTTOM as you gain more experience
> with this.
>
> Your problem is that the color table you want to
> use to display your data (33) is about the worst possible
> choice to use in drawing a plot, since--as you see--
> it typically results in a blue background with red
> axes. Yuck!
>
> The code I wrote for you yesterday loads some plot
> drawing colors into the color table, draws the plot
> with something sensible, then loads color table 33
> to draw your data. That is one way to handle the
> situation. The other way, if you insist on using
> indexed color, and--alas--you have to in the PostScript
> device, is to divide your color table up into "plot
> drawing colors" and "data display colors".
>
> For example, you could do this:
>
> LoadCT, 33, NCOLORS=250
> TVLCT, FSC_COLOR(['white', 'navy', 'indian red'], /TRIPLE), 250
>
> This gives me 250 "display colors" and three "plotting colors",
> while are loaded in indices 250, 251, and 252. Now, all I have
> to do is make sure I scale my data into only 250 values, so I
> can get the correct color display, and I am good to go:
>
> !P.Multi=[0,2,1]
> data = BytScl(dist(256), Top=249)
> Plot, findgen(11), color=251, background=250, /nodata

>   Oplot, findgen(11), color=252
>   TVImage, data
>   !P.Multi = 0
>
> This assumes you are using indexed color, of course. If you
> wanted to do this in a color set-up independent way, you would
> use FSC_COLOR to specify the colors on your plot commands.
> For example, if I wanted my program to display the correct
> results on my display (whether I was using decomposed color
> or not) and in PostScript and in the Z-buffer and ... wherever,
> I would write the code like this:
>
>   !P.Multi=[0,2,1]
>   data = Bytscl(dist(256))
>   Plot, findgen(11), color=fsc_color('navy'), $
>   background=fsc_color('white'), /nodata
>   Oplot, findgen(11), color=fsc_color('indian red')
>   LoadCT, 33
>   TVImage, data
>   !P.Multi = 0
>
> Notice here, I don't have to restrict the number of colors
> for my data, I can use all 256 I have loaded.
>
> A handy way to check which colors you have loaded in your
> color table is to use CINDEX, another Coyote Library program
> you have downloaded by now. :)
>
> Cheers,
>
> David
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.dfanning.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

David,

There went the 'aha'. I get it now... I tried out something along the lines of your suggestions (assigning the colors for the plot separately from those used to represent data) and that works - even with cron. I am actually not using FSC_COLOR but I noticed the recently-added CRONJOB option, which is awesome. I managed to get things to work with the COLORBAR using the COLOR option instead of ANNOTATECOLOR. I haven't tested it yet, but I had a feeling that the FSC_COLOR call in the ANNOTATECOLOR might cause problems in cron jobs

if the CRONJOB keyword isn't propagated through somehow. But anyway, I just made my first lovely color image using cron. Phew! Thanks gazillions,

Kathryn
