
Subject: Re: Color Frustration

Posted by [J.D. Smith](#) on Fri, 28 Feb 1997 08:00:00 GMT

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David Fanning wrote:

>
> JD Smith <jdsmith@astrosun.tn.cornell.edu> writes:
>
> [Some fantastic story about colors, IDL, and mysterious happenings]
>
> This can one of only two things:
>
> (1) TGIF has started earlier than usual at Cornell this afternoon, or
>
> (2) programmer error.
>
> I personally believe (on the basis of previous posts from JD) that
> reason (1) is most likely. :-)

Alright, I did stop in for one beer, but I really don't think that put me under. As a test of my mental acuity, I translated 'Stairway to Heaven' from English into French, and back into English again. Only two references to the lord of the underworld surfaced.

As for some more details, I skimmed because it's one of these 20 headed beasts that makes you sigh, and wish you had only known then what you know now.

Anyway, I'll, try and fill in.

I'm not using cursor (let's not be ridiculous), but I am, as I mentioned, doing some heavy swapping in and out with the pixmap. If the pixmap maintained its own colors, or had a different sized color table, that could very well be my problem, but I really don't see how this could be the case.

First, I grab the top color for drawing the symbols, and then I ensure that calls to stretch (or my variant of it, which will leave the colormap beyond a specified top index alone) will not lose the lovely green:

```
tv!ct,0B,255B,0B,!D.N_COLORS-1 ;load green into top color
tv!ct, r,g,b,/get
r_orig=r & g_orig=g & b_orig=b & r_curr=r & g_curr=g & b_curr=b ;ughh
```

I do hate that colors common block.

Then, I get the widget going. It has quite a few bells and whistles, but the next thing that happens of importance is when the user clicks on a pixel. Some magic happens, and it ends up either doing:

```
;; erase old
wset,state.drawwin
device,COPY=[p(0),p(1),s,s, $
            p(0),p(1),state.pixwin]
```

to erase the plotted symbol (if said symbol is there), or:

```
plots,p(0),p(1),psym=8,symsize=float(state.zoom>3)!D.X_CH_SIZE,/DEVICE, $
THICK=.01,COLOR=!D.N_COLORS-1
```

to plot a new one. Note that the p's aren't really the same p's in these two calls. Another possibility is removing *all* of the plotted symbols, with a total pixmap copy. But anyway, that's about it, as far as this over-plotting feature goes.

And here's what happens. I start clicking. I get a green diamond (no purple hearts, blue diamonds, green clovers). I click again. Another green. I click for my colormap tool. A nice smooth gradation of blue to white. I dismiss the tool. I click a few more greens, and then, out of thin air, a (for instance) perwinkle diamond appears. The next might be mauve, or khaki, or seaweed. Almost anything. If I bring up my colormap tool *now*, the crazy colors have taken over the place, and no loading of a new colormap, or stretching, will remove them. They sit there taunting at me. Agh. Meanwhile, If I use my zoom function to show a different piece of the image, things return to normal. The miscreant diamonds toe the line and become green. And the pattern repeats itself -- a few more clicks and it's a bad 70's music video again. Note that if I *leave* my color tool up and commence to bring on the multicolor devils with more clicks, the colormap does not go crazy too. Only if I dismiss it, and bring up another copy of the colormap tool do I see the bizarre features. Neither does the whole image jump into electric tripland when the event occurs. It remains normal throughout (excepting the individual pixels possessed by minor devils). I may be missing something really obvious, although the man who would say IDL's color management is obvious may need to look into some therapy.

Anyway, I'm not sure if there's anything more that's relevant. Note that it doesn't depend on the color map tool to screw up. It does so even when the tool is never used. Looking at the colormap just revealed to me the severity of the problem (and that the guache colors seemed glued in place, immovable and inexorcisable with `loadct()` or `stretch()`).

Well, if you made it this far, it's a small miracle, and a testament to your IDL fanatism.

And yes, David, it is a "fantastic story", but aren't all the interesting ones?

Thanks in advance,

JD
