
Subject: Re: zimage question.....(David, are you out there?)

Posted by [davidf](#) on Sat, 09 Oct 1999 07:00:00 GMT

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

Richard G. French (rfrench@wellesley.edu) writes:

> This is really a question for David F. but since it involves color, I
> thought others might like to try it out and tell me what I am doing
> wrong.

> I'm using David's ZIMAGE routine - a nice image zoomer - and trying to
> add a few bells and whistles - that all seemed to work fine - but here
> is what I don't understand.

>
> zimage, image
> ; displays a nice image, I can zoom, change colors, etc.

>
> zimage, anotherimage
> ; displays a nice image, which I can also zoom, etc.

>
> Both windows stay on the screen at the same time. Here is the part I
> don't understand. (I'm running on 24-bit color screen)

>
> Let's say in the first instance of zimage, I say that I want to change
> the colors. The color table widget shows up, and I can change the colors
> in the first instance, along with the zoom window associated with this
> instance.

>
> Then, I go to the second instance, and say that I want to change the
> colors of THAT set of windows. If I have not killed the previous
> color table widget, that is the one the gets reactivated, and the colors
> don't get changed on the second set of windows, as I would like, but on
> the first set of windows. Somehow, the event handler is not figuring out
> which instance of zimage is doing the calling, and the second set of
> windows does not get updated.

>
> I've tried various permutations of this, such as closing the color
> widget
> and trying to start it up from scratch in the second instance of zimage,
> but I cannot find a reliable way to get it to set the colors on the
> windows
> from which I called the color table widget.

My only excuse is that ZIMAGE was written a LONG time ago,
well before I started answering 10-15 questions a day about
how colors work in IDL. :-)

In fact, the XCOLORS program that ZIMAGE uses to change color

tables has long been capable of having more than one of itself on the display at the same time. (Note that this is NOT possible with XLOADCT, since XLOADCT uses common blocks and must protect itself appropriately.) But because I don't want an *unlimited* number of XCOLORS programs on the display, I decided that you could have as many as you like as long as each instance had a unique name. This way, I can easily have a color table tool for each resizable graphics window I create. (This was the original requirement for XCOLORS, in fact.)

The simplest way to create an XCOLORS tool with an unique name is to create the title of the program with the window index number of the graphics window XCOLORS should change colors for. I do it like this (here is the code as I modified it in the ZIMAGE program, which you will find below):

```
XColors, Group=event.top, NColors = info.ncolors, $  
  Bottom=info.bottom, NotifyID=[event.id, event.top], $  
  Title='ZImage Colors (' + StrTrim(info.drawIndex,2) + ')'
```

The only other trick is that the programs colors should be loaded *before* XCOLORS is called, because XCOLORS always starts up with the colors in the *current* color table. In ZIMAGE, this meant that I needed to add the R, G, and B vectors of the color table to the info structure. Not a bad idea, in any case, because this also gives me the opportunity to protect the colors in the window from other programs or users changing the color table.

As long as I was mucking about, I also decided to add a NoInterpolation keyword, which would insure that nearest neighbor sampling instead of bilinear interpolation is used for the zoomed image.

You can find the newly modified ZIMAGE program in the usual place:

<http://www.dfanning.com/programs/zimage.pro>

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

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

Toll-Free IDL Book Orders: 1-888-461-0155
