
Subject: Re: 24-bit color with writable color maps
Posted by [davidf](#) on Sat, 10 Apr 1999 07:00:00 GMT
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Kenneth P. Bowman (bowman@null.edu) writes:

> There have been a number of queries about 24-bit color lately, including
> the use of writable color maps on systems that support it (24-bit
> DirectColor visual). I attach for the interested reader a sample program
> that plots a 24-bit color graph and manipulates the color tables.

>

> The SGI O2 device looks like this:

>

> Current graphics device: X

> Server: X11.0, Silicon Graphics, Release 6001

> Display Depth, Size: 24 bits, (1280,1024)

> Visual Class: DirectColor (5)

> Bits Per RGB: 8

> Physical Color Map Entries (Used / Total): 256 / 256

> Colormap: Private, 16777216 colors. Translation table: Enabled

> Graphics pixels: Decomposed, Dither Method: Ordered

> Write Mask: 16777215 (decimal) ffffff (hex)

> Graphics Function: 3 (copy)

> Current Font: <default>, Current TrueType Font: <default>

> Default Backing Store: Req from Server.

This is an interesting article, because I just taught an IDL class this week on 8 SGI 24-bit color machines. The default visual class for these machines was DirectColor, 24-bits just like Ken's machine. But, on about half of these machines the private color table caused severe color flashing and the colors were only correct when the cursor was in the IDL graphics window. On the other half, the colors worked exactly as Ken describes.

I tried everything I could think of to get the lousy machines working like the good machines, but I'm pretty convinced there is nothing you can do within IDL to make it happen. It has to be a machine configuration thing. I'd be extremely grateful to anyone who could shed more light on this for me. :-(

We ended up putting the machines in a 24-bit TrueColor visual class and I am happy to report everything behaved **exactly** as I expected, with one very pleasant surprise: true-color images, even with color decomposition OFF, were **never** routed through the color tables like they are on PCs.

So turning color decomposition ON before you display a 24-bit image is only necessary on PCs (or Macs?), running 24-bit color, without the gray-scale color table loaded, on Fridays or Mondays, when ...

Sigh...

Cheers,

David

--

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

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Subject: Re: 24-bit color with writable color maps
Posted by [steinhh](#) on Sun, 11 Apr 1999 07:00:00 GMT
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David Fanning wrote:

> This is an interesting article, because I just taught an IDL
> class this week on 8 SGI 24-bit color machines. The default
> visual class for these machines was DirectColor, 24-bits just
> like Ken's machine. But, on about half of these machines
> the private color table caused severe color flashing and
> the colors were only correct when the cursor was in the
> IDL graphics window. On the other half, the colors worked
> exactly as Ken describes.

We may have seen some of the same behaviour here with the 8bit PseudoColor visual. On some machines (with one specific graphics card with hardware acceleration), the colors are messed up when going from inside a draw window out to the "widget area" surrounding it.

We did find a temporary fix: Move outside the widget and back in again -- this restores the correct color table for the draw windows again!! This has to be repeated every time the cursor has been inside a draw window... We suspect a bug in the graphics drivers, or in the way IDL communicates with them.

This was on Digital Alphas - uh, I mean, Compaq XPS 1000's,
as they're called now, after Compaq bought Digital....
I don't have the details on the graphics cards, though.

Regards,

Stein Vidar
