
Subject: Re: Colors with XOR plotting: How to do it
Posted by [dpkemp](#) on Sat, 25 Jul 1992 15:31:51 GMT
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An alternative to XOR that may be useful is using drawing surfaces. For example if you have a red line and you want to slide a blue disc along it, you may do so by drawing them on separate surfaces. Depending on your colormap assignment, the disk is made to appear either above or below the line.

As an example, assume you have a background axis with a red line, yellow tick marks, and green labels. You want to slide a blue marker along below the axis. Set up your two surfaces as follows:

Surface 1 (Axis)	Surface 2 (Marker)	Colormap
Write mask: 011	100	000 Gray
Transparent 00	Background (grey) 0	001 Red
Red 01	Marker (blue) 1	010 Yellow
Yellow 10		011 Green
Green 11		100 Blue
	101	Red
110		Yellow
111		Green

To make the marker appear on top of the axis, just change the last three entries in the colormap to all be Blue. That has the interpretation of Axis color 00 = Gray, and Marker color 0 = Transparent.

The only trick here is to figure out from the manual how to set the write mask. If the mask is 011, drawing operations affect just the axis surface; if it is 100, they affect just the marker surface. Use normal (Source) drawing mode instead of XOR, and when moving the marker, you can just erase the whole surface, or redraw the marker in the background color, whichever turns out to be faster.

This technique can be used for any number of independent surfaces as long as the sum of the bits in the surfaces doesn't exceed the number of bits in your colormap. (For example an 8 bit colormap (256 colors) can support 8 separate 1 bit surfaces, or 2 4 bit surfaces, or the usual 1 8 bit surface.)

With regard to a previous poster's acerbic comment, I agree that the net is no substitute for reading the manuals and playing around (oops, conducting research), but I have often been in the position of having spent hours or days working on something because I missed something or wasn't aware of a particular technique. Mr. Austin

didn't appear to be lazy, just inexperienced. We can all learn from each other - let's keep the flame wars in alt.politics.greek and news.admin.

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Dave Kemp dpkemp@afterlife.ncsc.mil

"The use of history as therapy means the corruption of history as history."

-- Arthur Schlesinger (quote stolen from Chet Ramey, CWRU)
