Subject: Color Overlays on Gray-Scale Image
Posted by davidf on Tue, 30 Mar 1999 08:00:00 GMT
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Folks,

I mentioned a few days ago that I had fooled around with the alpha blending channel on object graphics images to see if I could create color image overlays on top of gray-scale images. This worked extremely well, once I realized that the foreground image had to be a 24-bit image. (The background image can be a 24-bit image or an 8-bit image.)

I'm in the process of writing an article about this for my web page, but I thought the folks here might like a preview of the code itself. (I'm trying to debug the darn thing, if you want to know the truth.) The program is named IMAGE_BLEND.PRO and it can be found at this URL:

http://www.dfanning.com/programs/image_blend.pro

You can just type it's name to see it in action:

IDL> Image_Blend

Or, you can pass it your own images (2D images only). The images can be different sizes if you like:

IDL> Image_Blend, backgroundImage, foregroundImage

A COLORTABLE keyword can be used to set the colors associated with the foreground image. The Red Temperature color table (3) is used by default:

IDL> Image_Blend, Colortable=5

I wrote the program so that you can change either the foreground or background image colors. (And at the same time, if you like. Try *that* with XLOADCT!) But you will need my color changing tool XCOLORS:

http://www.dfanning.com/programs/xcolors.pro

There is also a slider that will allow you to change the "amount" of transparency of the foreground image. All pixel values greater than zero are set with this value. All zero pixel values are totally transparent.

(They don't have to be, but the example images look better this way.) In a real application you would probably make bone values less transparent than muscle values, etc.

I tested the program briefly on an 8-bit display. It "works", but like all object graphics programs it looks a hell of a lot better on a 24-bit display and, of course, there are no color conflicts on a 24-bit display.

There seems to be a bug in the Macintosh version of IDL 5.2 on MacOS 8.x in which my XColors program can go into some kind of a loop by sending an event to another widget program. I'm investigating with RSI. I could show you how to workaround this if it is important to you.

Let me know what you think. This is not the be-all and end-all. But it gets us going down the right path, I think. :-)

Cheers,

David

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