Subject: Re: Alpha blending with object graphics - different color palettes do not work
Posted by David Fanning on Wed, 04 May 2011 12:30:40 GMT
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LNpellen writes:

> Why isn't the rainbow (LoadCT, 13) working for me?

I would guess because you are using indexed color mode.
You do not EVER want to use indexed color when you are
working with object graphics.

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.idlcoyote.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Alpha blending with object graphics - different color palettes do not work
Posted by Karl[1] on Wed, 04 May 2011 16:17:27 GMT
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On May 4, 6:30 am, David Fanning <n...@idlcoyote.com> wrote:
> LNpellen writes:
>> Why isn't the rainbow (LoadCT, 13) working for me?
>
> I would guess because you are using indexed color mode.
> You do not EVER want to use indexed color when you are
> working with object graphics.
>
> Cheers,
>
> David
>
> --
> David Fanning, Ph.D.
> Fanning Software Consulting, Inc.
> Coyote's Guide to IDL Programming:http://www.idlcoyote.com/
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

The IDL docs for IDLgrImage say this for the image data parm:

"An n x m greyscale image, or a 2 x n x m, n x 2 x m, or n x m x 2 greyscale image with an alpha channel. (The alpha channel is ignored if the destination device uses indexed color mode.)"

So this is considered a Luminance-Alpha image. The first channel is a luminance (greyscale) channel. Greyscale images do not perform color lookup through a palette. That is why setting the palette to rainbow had no effect.

Is the dose map going to be displayed with a constant alpha, or a per-pixel alpha, where the alpha value could be different for each pixel?

It *looks* like you want a constant alpha because you are filling the alpha channel of the dose image with a constant (alpha * 255). You don't need alpha data in the image if you want to apply constant alpha with the ALPHA_CHANNEL property.

If the alpha is constant, you should just go back to a single channel image and use that as an "indexed image" in conjunction with the palette and use the ALPHA_CHANNEL property to set the global constant alpha to 0.5 or whatever.

That should display your dose image with the color palette and half-transparent.

As far as being in indexed mode goes, I don't think that the DECOMPOSED setting affects the way IDLgrWindows are created. (not sure). But you don't need to have an Indexed destination to use palettes in images.

Subject: Re: Alpha blending with object graphics - different color palettes do not work
Posted by David Fanning on Wed, 04 May 2011 16:33:17 GMT
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Karl writes:

> As far as being in indexed mode goes, I don't think that the
> DECOMPOSED setting affects the way IDLgrWindows are created. (not
> sure). But you don't need to have an Indexed destination to use
> palettes in images.

Right. Nor do you want to use indexed color if you work

with Coyote Graphics image commands, although these commands
are a little more tolerant of conservative scientists
who learned to program in the 1970s and will let you
get away with it. Internally, though, the Coyote Graphics
commands *always* work in decomposed color if it is at
all possible. (It's not always possible, except on versions
of IDL starting in IDL 7.1 and higher.)

This is more or less the reason cgImage can display
images with alpha channels and with image transparency.

Cheers,

David

--
David Fanning, Ph.D.
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Subject: Re: Alpha blending with object graphics - different color palettes do not work
Posted by djh on Wed, 04 May 2011 16:43:33 GMT
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On May 4, 4:11 am, LNpellen <lnpel...@gmail.com> wrote:

> This is how I create the alphaDose:
> alphaDose = BYTARR(2, size[0], size[1], /NOZERO)
> alphaDose[0,*,*]=dose
> alphaDose[1,*,*]=255*alpha ; where alpha is a factor between 0 and 1

I ran into this last year.

Try converting alphaDose into a [4,n,m] array to use in the overlay
image:

alphaDose = Reform(alphaDose, [1, size[0], size[1]], /overwrite)
oPaletteDose->GetProperty, red_values = r, green_values = g,
blue_values = b
alphaDose4 = [r[alphaDose], g[alphaDose], b[alphaDose], alphaDose]
alphaDose4[3,*,*] = 255*alpha

The background image can still use the palette.

Don

Subject: Re: Alpha blending with object graphics - different color palettes do not work
Posted by LNpellen on Thu, 05 May 2011 05:50:02 GMT
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For now I just want to apply the same alpha-blending on all pixels so
the indexed image together with the ALPHA_CHANNEL worked out fine for
me. Thank you!