Subject: Re: Another fun question about color in IDL
Posted by Pavel Romashkin on Wed, 20 Oct 1999 07:00:00 GMT
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I am wondering if using VERT_COLORS in combination with /SHADING will give the effect you want? You can specify color for each vertex. Here's what Help says:

VERT_COLORS (Get, Set)
Set this keyword to a vector of colors to be used to draw at each vertex. Color is interpolated between vertices if SHADING is set to 1 (Gouraud). If there are more vertices than elements in VERT_COLORS, the elements of VERT_COLORS are cyclically repeated. By default, the polygons are all drawn in the single color provided by the COLOR keyword. If this keyword is omitted or set to a scalar, vertex colors are removed and the surface is drawn in the color specified by the COLOR keyword.

Good luck,
Pavel

Todd Bowers wrote:

cut - cut

> and tweak it with the SHADE_RANGE keyword which I thought would be
> analagous to the SHADES keyword in shade_surf. No luck. It's only
> a 2 element vector. I'm trying to do something with a palette, but
> I think I'm not grasping the concepts of the obj. graphics model or
> RGB.
>
> Can anyone give me a nudge (or preferably a hard shove) in the
> right direction??
>
> Thanks, as always.
> TB

Subject: Re: Another fun question about color in IDL
Posted by davidf on Thu, 21 Oct 1999 07:00:00 GMT
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Todd Bowers (tbowers@nrlssc.navy.mil) writes:

> Well, I was just getting the hang of all this, then I
> started going to object graphics and now I'm confused
> again. I have some 2D data that I was surface'ing and
> shade_surf'ing with the z axis intensity colored by
> data value. Dandy.

>
> Then I decided to get cute when David Fanning pointed me to his
> xsurface object graphics procedure at
> http://www.dfanning.com/programs/xsurface.pro
> I thought, hmmmm, I'll just make his solid surface option which
> uses yellow by default and switch it to use my color shading
> instead, the equivalent of:
>
> colorData = zData
> shade_surf, zData, xData, yData, Ax=AX, Az=AZ, $
> shades=bytscl(colorData, top=!D.N_Colors-4, NaN=1), $
> XTitle=XTitle, YTitle=YTitle, ZTitle=ZTitle, charsize=charSize
>
> in my direct graphics code.
>
> Well, you can probably guess the rest. I can't get the RGB model
> it defaults to to handle colors the way I've been using them.
> Can anyone give me a nudge (or preferably a hard shove) in the
> right direction??

Yes, elevation shading in object graphics can be a bit
dicey. The trick is to turn shading ON and turn all
your lights OFF. The details can be found in this
article on my web page:

http://www.dfanning.com/tips/elevation_object.html

Cheers,

David

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

Subject: Re: Another fun question about color in IDL
Posted by Mark Hadfield on Thu, 21 Oct 1999 07:00:00 GMT
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Todd Bowers <tbowers@nrlssc.navy.mil> wrote in message
news:7ula30$r0d$1@ra.nrl.navy.mil...
> Well, I was just getting the hang of all this, then I
> started going to object graphics and now I'm confused
> again.

It will pass--shouldn't last more than a year or two.

> ...I have some 2D data that I was surface'ing and
> shade_surf'ing with the z axis intensity colored by
> data value
> ...
> Then I decided to get cute when David Fanning pointed me to his
> xsurface object graphics procedure at
> http://www.dfanning.com/programs/xsurface.pro
> I thought, hmmmm, I'll just make his solid surface option which
> uses yellow by default and switch it to use my color shading
> Well, you can probably guess the rest. I can't get the RGB model
> it defaults to handle colors the way I've been using them. It
> seemed simple enough, scan his code for the surface creation call:
>
> thisSurface = OBJ_NEW('IDLgrSurface', data, x, y, $
>   Color=[255,255,0], _Extra=extra)
>
> and tweak it with the SHADE_RANGE keyword which I thought would be
> analagous to the SHADES keyword in shade_surf. No luck.

SHADE_RANGE has an effect only when the destination device uses indexed colour. Assuming you have an RGB destination device (and I can't see why you would) you need to use VERT_COLORS. Set it to an [n] or [3,n] byte array where n is the number of vertices in the surface.

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