Subject: Re: 3D plotting
Posted by David Fanning on Wed, 08 Nov 2006 15:05:44 GMT
View Forum Message <> Reply to Message

Eric writes:

> I'm trying to find the most efficient way to make a 3D plot. I'm
> going into my plot code with 5 variables, r_x, r_y, r_z, count and
> color_scale.
>
> r_x, r_y and r_z are arrays with the data points, count is the number
> of points to plot and color_scale is an array of colors for each point.
> The way I'm doing it right now (using XPLOT3D) is taking A LONG time
> to plot (around 230 data points) and is also very difficult to rotate
> the plot the way I want after it is already created. I tried using
> iPlot, but it doesn't seem to like me using an array with a color
> from a color table (it seems to prefer RGB?). Is there a way of doing
> this in iPlot? Any other suggestions are welcome as well.

I managed to get color working by doing something like this:

```
zcolors = BytScl(z)
thisPalette = Obj_New('IDLgrPalette')
thisPalette->LoadCT, 5
thisPalette->GetProperty, Red=r, Green=g, Blue=b
Obj_Destroy, thisPalette

; Create the symbols for each point.
npts = N_Elements(x)
theseSymbols=ObjArr(npts)
FOR j=0,npts-1 DO BEGIN

    oOrb = obj_new('RHTgrPSolid', /TETRAHEDRON, $
       Color=[r[zcolors[j]], g[zcolors[j]], b[zcolors[j]]])
    theseSymbols[j] = OBJ_NEW('IDLgrSymbol', oOrb, $
       Size=[0.05, 0.05, 0.05])
ENDFOR

; Create Polyline object..
thisPolyline = OBJ_NEW('IDLgrPolyline', x, y, z, $
  LineStyle=6, Symbol=theseSymbols)
```

You can find the complete program here

  http://www.dfanning.com/misc/scatter_surface.pro

I tried it with 300 points and it seems to rotate OK.

Cheers,

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