Subject: 3D plotting
Posted by dere on Mon, 19 Oct 1992 21:31:45 GMT
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I have been trying to do some 3D plotting using the Surface routine and then using Contour and Plots. However, the two do not seem to share the same coordinate system. Any ideas?

Subject: Re: 3D plotting
Posted by David Fanning on Wed, 08 Nov 2006 15:05:44 GMT
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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.")

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Subject: Re: 3D plotting
Posted by eric :) on Thu, 09 Nov 2006 07:46:58 GMT
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wow, i had no idea you could make an array of objects. that fixed
everything

thanks a lot!

Eric

David Fanning wrote:
> Eric writes:
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> theseSymbols=ObjArr(npts)
> FOR j=0,npts-1 DO BEGIN
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>  Size=[0.05, 0.05, 0.05])
> ENDFOR
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