
Subject: Re: 3D Scatter Plot

Posted by [David Fanning](#) on Thu, 06 Apr 2006 14:12:51 GMT

[View Forum Message](#) <> [Reply to Message](#)

aecorner@yahoo.com writes:

- > I created a 3D scatter plot (long, lat, alt) for some satellite data
- > (using the very helpful tips on David Fanning's website). A few
- > questions...
- >
- > 1) Is there a way to fill in the symbols? This seems like it should
- > be obvious.

Create a filled symbol and use that. Here, for example, is how to create and use a filled circle:

```
phi = Findgen(32) * (!PI * 2 / 32.)
phi = [ phi, phi(0) ]
UserSym, Cos(phi), Sin(phi), /Fill
PLOTS, x, y, z, PSYM=8, COLOR=zcolors, SYMSIZE=2.5, /T3D
```

- > 2) I need each point to be a different color based on it's Aerosol
- > Optical Depth. I created an array of the color that each point needs
- > to be. Can I set the COLOR keyword equal to this array in the PLOTS
- > procedure to achieve that result?

A empirical exercise for the user. :-)

- > 3) Is there a way to display a 3D plot on a map projection? The x and
- > y axes are longitude and latitude and I would like to slip a map in
- > horizontally along the bottom of the plot.

Yes, sort of. Set up your 3D coordinate space, then warp your map projection into that space by setting the T3D keyword. But you are pushing the limits of direct graphics. You might want to make a foray into object graphics if you want to push this project much further. It adds another order of magnitude in complexity, but the results will be better, for sure.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>