
Subject: Re: How to 3D plot Earth??

Posted by [Rick Towler](#) on Wed, 04 Dec 2002 01:23:42 GMT

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"paul wisehart" <paul_wisehart@ssaihq.com> wrote

- > I am familiar with the direct graphics rendering of Earth images.(map_set)
- >
- > I would like to begin using rotating 3d spheres to plot my Earth data.

- > I realize this is a very general topic, but what I am looking for is
- > a starting point. Maybe there is a small example program that does
- > some overlaying of the continents on a globe?

Take a look at my camdemo_examine.pro program. It takes an orb (globe) and maps an image of the earth onto it. You can spin the globe and see an approximate lat/lon. I make no claims that the lat/lon's are accurate but there is no reason why with some effort they couldn't be. You can find it (and the supporting files) at:

www.acoustics.washington.edu/~towler/

If you want a 3d globe with releif take a look at the example programs in he "What's new in 5.5" pdf. I can't remember the name or what section it is in but there is a program that will mesh a globe using a heightmap of the earth. It is neat, but difficult to get any real resoulution since the polygon count goes thru the roof. But it may give you some ideas.

- > I have found a couple of routines to plot rotatable 3d-spheres, but
- > I'm not sure how to get map/continent info verlayed.

It depends on how you want to overlay your data. You can either texture map or you can plot using IDLgrPolyline. Most likely you'll want to use both so you can present multiple layers of data. The example program above will illustrate texture mapping an orb. For plotting data, try using CV_COORD to convert your lat,lon,radius data to rectuangular coords and using that data to plot using IDLgrpolyline. You may want to normalize everything since I have no idea what cv_coord will spit out.

-Rick
