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Subject: An easier way to draw a geodesic?

Posted by [Aram Panasenco](#) on Sun, 04 Apr 2010 01:24:12 GMT

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Hello, everyone! I've been programming in IDL for a little under a year now, and I am currently building a program part of which involves graphically selecting a 4-point polygon on a sphere (each side of which is a geodesic).

For that, I record the user's clicks and moves on the screen and store the x- and y- coordinates of the points they selected in a 2x4 array. The array is then processed by a function that transforms it into x- and y- coordinates of a spherical polygon. To do so, it first converts the coordinates to spherical using `cv_coord`. Then it uses the library function `map_2points` to find the longitude-latitude path arrays between the 4 point pairs. Then it combines all the longitudes and latitudes into one array, and `cv_coord`'s them back into cartesian coordinates. The points are then used as data for an `IDLgrPolyline` object.

The function works, but the resulting polygon looks extremely choppy, making it practically impossible to do any precision work (which is necessary). So my question is - how do I draw a geodesic curve without using three precision-degrading processes (`cv_coord`, `map_2points`, and `cv_coord` again) in a row?

Thank you,  
~Aram Panasenco

P.S. I can post the function that renders the polygon online if necessary.

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