Subject: An easier way to draw a geodesic?
Posted by Aram Panasenco on Sun, 04 Apr 2010 01:24:12 GMT
View Forum Message <> Reply to Message

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.