
Subject: An IsoContour Question

Posted by [David Fanning](#) on Mon, 16 Apr 2012 21:32:11 GMT

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Folks,

While I'm on a role (or, at least while I have Josh's attention) let me ask another contour question. This weekend I wanted to find the area enclosed by an isocontour at a particular level in my data.

When I created a contour plot and used a single contour level, I sometimes got multiple polygons, and sometimes I even got polygons within polygons, depending on the data. Generally, speaking when a polygon is entirely contained within another polygon, the smaller polygon's area needs to be subtracted from the total area, etc. I understand all that. And I actually worked all of this out with PATH_XY and other PATH keywords to the Contour command. (You can determine the direction of the polygon by examining fields in the PATH_INFO structure.)

All well and good. But, initially, I thought I would try to use the ISOCONTOUR command to create the polygons that I was sending to IDLanROI to calculate path geometry. This is advertised by the documentation as interpreting the "contouring algorithm found in the IDLgrContour object." If true, this may go a long way toward explaining why that venerable old "new" graphics system never caught on.

Has anyone managed to get this to work. It seemed to have all the parts there, and I got reasonably good looking vertices and connectivity arrays. I just couldn't make any sense of the polygons in those arrays.

In the end, I couldn't see how I could use these paths in the way I needed to, since I couldn't figure out how to tell the "direction" of the polygons, so I couldn't tell if I needed to add or subtract the polygon area from the area I was trying to figure out. So, I stopped pursuing the polygons themselves. Here is my question. Has anyone managed to use the polygons returned from ISOCONTOUR for anything useful?

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
