Subject: Re: object IDLanROI and polyfillv
Posted by David Fanning on Thu, 13 Sep 2001 14:12:59 GMT
View Forum Message <> Reply to Message

Karsten Rodenacker (Karsten@Rodenacker.de) writes:

> Thank you, David. The first answer helped. Do you think that other values for
> mask_rule exist?

It wouldn't appear so.

> Attached is a piece of code illustrating at least differences of ComputeMask
> and polyfillv...
> The behaviour has not become clear, but maybe there is some expertise for
> explanation. I am not so involved with graphics. Switching between
> Mask_rule=1 and Mask_rule=2 shows only deviations on the lower left side of
> the mask in contrast to the upper right side. Seemingly the understanding of
> interior, boundary and 'interior and boundary' differs a bit throughout idl.

The object graphics system and the direct graphics system are two completely different ways of doing graphics, so I am not terribly surprised to find differences between them. There are always about a dozen different ways to accomplish something with a computer program and no firm basis for calling one method "right" and another "wrong".

This is especially true (as I learned in my graduate school days) of any contouring algorithm you care to write. There is (quite literally) no "right" way to draw a contour line. There are some ways that are more internally "consistent" with one another, but no right way.

Since what we are seeing here has to do with boundaries around a contour, I'm not at all surprised to see differences in the two methods. And, frankly, I wouldn't worry about which was "right". I would urge you to pick a method and stick with it, so as to get consistent results.

I ran into exactly this problem several months ago myself, when I thought an IDLanROI object would make my life easier. But I couldn't get its answers for perimeter, centroid, and area to match with answers I was getting by performing the same calculations on contour lines returned by the Contour command. In the end, I ripped the object graphics stuff out of my code so my answers could be internally consistent.

(I could probably just as well have gone with the
ISOCONTOUR command for creating my contours, but
frankly the time required to decipher the seemingly
incomprehensible documentation appeared overwhelming
at the time. It was much faster to just write my
own methods for calculating the perimeter, centroid,
and area for contours with which I was much more
familiar.)

Cheers,

David
--
David W. Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438, E-mail: david@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155
