Subject: Re: contour and points
Posted by Gray on Fri, 01 Jul 2011 12:58:40 GMT
View Forum Message <> Reply to Message

On Jun 29, 12:36 pm, Michael Galloy <mgal...@gmail.com> wrote:
> On 6/29/11 5:43 AM, Andy Heaps wrote:
>
>> A user of mine came to me with a similar problem: how do I find whether
>> a point is inside a country outline? Her example was Norway. I suggested
>> that she plots the points by number and sees which points are within the
>> outline of Norway. As she was just using one set of points and one
>> country this is easier to do by eye. If you have multiple countries
>> and/or grid points to check this method is too laborious. For the
>> generalised case I'd open a Z buffer image plot, plot and fill the
>> country and then check whether your point was the filled colour or
>> background colour.
>
> A general way of determining if a point is inside a closed path is to
> use IDLanROI::containsPoints:
>
> [501]> path_x = [0, 1, 1, 0, 0]
> [502]> path_y = [0, 0, 1, 1, 0]
> [503]> roi = obj_new('IDLanROI', path_x, path_y)
> [504]> print, roi->containsPoints([0.5, 1.5, 1.0], [0.5, 0.5, 0.5])
> 1 0 2
>
> The result means: 0 = outside, 1 = inside, 2 = on edge.
>
> Mike
> --
> Michael Galloywww.michaelgalloy.com
> Modern IDL, A Guide to Learning IDL:http://modernidl.idldev.com
> Research Mathematician
> Tech-X Corporation

Yes, Mike -- that's exactly what I ended up doing. I grabbed the
contour information using the path_xy, path_info, and path_data_coords
keywords, and created an IDLanROI of the relevant contour and used
ContainsPoints. It works great!