
Subject: Re: contour and points

Posted by [Michael Galloy](#) on Wed, 29 Jun 2011 16:36:09 GMT

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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

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Modern IDL, A Guide to Learning IDL: <http://modernidl.idldev.com>

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