Subject: Re: data inside a circle
Posted by James Kuyper on Tue, 21 Jun 2005 12:01:35 GMT
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Ben Tupper wrote:
...
> I guess I am a bit late with this but the following is from the online
> help to IDL 6.1
>
> " The IDLanROI::ContainsPoints function method determines whether the
> given data coordinates are contained within the closed polygon region."
>
> So, you could define the circle boundary as the ROI and pass the points
> to the object method.

A circle is not a closed polygon. It can be approximated with arbitrary accuracy by a closed polygon with a sufficiently large number of sides. However, as long as you use a finite number of sides, there will always be a certain amount of inaccuracy in that approximation. The more sides you use, the slower the comparison; at some desired level of accuracy, it's quicker to perform the correct test for being inside a circle, than it is to test for being inside a polygon approximation to a circle.

In any event, the key problem in this particular problem is not the test for being inside a single cirle; the problem is that the test is against a very large number of circles. Doing that efficiently in IDL is tricky; and it's not clear to me that IDLanROI::ContainsPoints helps address that problem.