Subject: Re: Freehand ROIs and Spline curves
Posted by Robbie on Fri, 24 Feb 2006 00:40:06 GMT
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Just to clarify.

I'm actually talking about a spline curve here. The problem is that I need to approximate a freehand ROI with a piecewise polynomial function. The number of control points would be an issue too. I would have to avoid a very complex shape tending towards an infinte number of control points.

Robbie

Subject: Re: Freehand ROIs and Spline curves
Posted by David Fanning on Fri, 24 Feb 2006 01:03:46 GMT
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Robbie writes:

> Just to clarify.
>
> I'm actually talking about a spline curve here. The problem is that I
> need to approximate a freehand ROI with a piecewise polynomial
> function. The number of control points would be an issue too. I would
> have to avoid a very complex shape tending towards an infinte number of
> control points.

I've never done this in IDL, but ArcSample might be a place to start in choosing control points. It resamples a closed curve in approximately equal arc lengths.

http://www.dfanning.com/programs/arcsample.pro

It might be faster than calculating a distance then deciding how to divide the distance up into control spaces, etc.

Rather than using spline curves, I have written an application that allows the user to "nudge" a free-hand ROI with objects of various shapes. As the object touches the line, from either the inside or the outside, the curve takes the shape of the object in that location. Typically, variously sized circles are all anyone really needs to get the line in the right position.

The code is not available, but it was very simple.
Just creative use of pixmaps, like everything else. :-)

Cheers,

David
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David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

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