

---

Subject: Re: Freehand ROIs and Spline curves  
Posted by [David Fanning](#) on Fri, 24 Feb 2006 01:03:46 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

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 infinite 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

--

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

---