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Subject: Re: Creating an ordered 'blob' ROI from a messy 'criss-crossed' ROI....  
Posted by [James Preiss](#) on Fri, 06 May 2011 03:35:37 GMT

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On May 5, 11:45 am, George Millward <george.millw...@noaa.gov> wrote:

> Hi there,  
>  
> I'm working on a project which involves creating several ROIs on a  
> number of images. The functionality is based  
> on xROI.pro (but diverged from there a long time ago).  
>  
> Anyhow, what I want to achieve is for the program operator to be able  
> to define an ROI by shift-clicking to create  
> a number of points in [x,y]. Fine, I have this - but for the ROI code  
> to work, the operator must click in an 'ordered manner' around the  
> edge (ie, progressing either clockwise or anticlockwise around the  
> ROI). For the program to be truly 'bomb proof' I need to build it  
> such that if an operator clicks around the ROI in a 'non-ordered'  
> fashion - then the resulting 'criss-crossed' ROI can be re-interpreted  
> as a single ordered solid ROI.  
>  
> Does this make sense ? Considering that ROIs in general are such a  
> big deal in IDL this issue/dilemma must have been addressed  
> before.....  
>  
> I guess simply my question can be rephrased as "How do I convert a  
> messy 'criss-crossed' ROI into a consistent 'blob' ROI".  
>  
> Any help, as ever, much appreciated.  
>  
> Cheers  
>  
> George.

There is no general way to solve this problem unless you put some constraints on allowable region shapes. For example, see the image I just made at <http://imgur.com/NqlxG> . If you only allowed convex ROIs, then you could take the convex hull of the points, but I doubt you want that restriction. I can't think of any elegant solutions - you'd be better of demanding that your users click in order.

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Subject: Re: Creating an ordered 'blob' ROI from a messy 'criss-crossed' ROI....  
Posted by [David Fanning](#) on Fri, 06 May 2011 03:49:39 GMT

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James Preiss writes:

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- > constraints on allowable region shapes. For example, see the image I
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- > ROIs, then you could take the convex hull of the points, but I doubt
- > you want that restriction. I can't think of any elegant solutions -
- > you'd be better of demanding that your users click in order.

I agree with this, but there are times when you have too many points bunched up, and too few points somewhere else. I use the Coyote Library program ArcSample to "even" the points out, so there is approximately an equally spaced density of points around the exterior of the ROI. Naturally, your mileage may vary with this solution, too. But, I have used it successfully on more than several occasions. :-)

Cheers,

David

--

David Fanning, Ph.D.  
Fanning Software Consulting, Inc.  
Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>  
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

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Subject: Re: Creating an ordered 'blob' ROI from a messy 'criss-crossed' ROI....  
Posted by [George Millward](#) on Thu, 12 May 2011 19:21:55 GMT  
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On May 5, 9:49 pm, David Fanning <n...@idlcoyote.com> wrote:

- > James Preiss writes:
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- >> constraints on allowable region shapes. For example, see the image I
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> occasions. :-)  
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>  
> David  
>  
> --  
> David Fanning, Ph.D.  
> Fanning Software Consulting, Inc.  
> Coyote's Guide to IDL Programming:<http://www.idlcoyote.com/>  
> Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Hmm,

I see the problem - it's obvious that there cannot be any 'general'  
solution I guess.

I'll take a look at ArcSample though - that looks useful.

Thanks guys,

George.

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