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Subject: Re: Distinguishing between point-like and curve-like features

Posted by [David Fanning](#) on Tue, 15 Jan 2013 16:54:24 GMT

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Mats Löfdahl writes:

>  
> I'm making image masks that are supposed to take out certain small point-like features. These features are usually just a few pixels wide but sometimes as much as about ten or fifteen pixels wide. Because there are other, more large-scale variations in the image, I base the mask on a unsharp masked version of the image, to make the features I'm interested in stand out more. Then I clean the mask with a morph\_open operation to get rid of some raggedness of the edges of the "holes" in the mask.  
>  
> This has worked fine, but I now have some images that have, in addition to the small features that I want to take out, also some high-amplitude curved fringes with similar width that I do not want the mask to take out.  
>  
> I'm wondering if anyone can suggest a strategy for automatically (and reasonably fast) distinguishing between the point-like and the curve-like features. The masks I'm making either take both out or none, depending on the choice of parameters.  
>  
> I'm not looking for code here, but maybe some good ideas.  
>  
> (If you want the background, I'm trying to make bad-pixel masks for some CCD cameras based on flat fields that have significant interference fringes. The small features I want to mask out are clusters of bad pixels, both from the detector itself and due to near-focus dust particles. The purpose of the mask is to identify pixels with no information, where I have to interpolate to get useful values in the science images. Useful in the sense that those pixels do not cause ringing artifacts when I do deconvolution.)

Maybe you could fit the features with an ellipse. It is possible, I suppose, that curved features will have more elliptical character than point-like features.

[http://www.idlcoyote.com/ip\\_tips/fit\\_ellipse.html](http://www.idlcoyote.com/ip_tips/fit_ellipse.html)

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>

Sepore ma de ni thue. ("Perhaps thou speakest truth.")

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