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Subject: Re: IDLanROI Confusion

Posted by [davidf](#) on Thu, 05 Apr 2001 03:20:44 GMT

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Mark Hadfield (m.hadfield@niwa.cri.nz) writes:

>> What happens if you make the circle much much bigger? I think then  
>> the answers will converge to what you expect.  
>  
> I don't.  
>  
> Consider a pixelated diagonal line segment. The length along the pixel edges  
> will exceed the true (along-diagonal) length by  $\sqrt{2}$ , however fine you  
> pixelate it.

Well, I've done the experiment (easy with IDL :-)  
and I find that the area seems to converge, but  
the perimeter seems to remain about 15-17% larger  
than I expect it to be. I am now trying to  
figure out a clever way to add up the straight  
line distance between points without using a loop.  
(And without resorting to JD.) I'll let you know  
what I find. :-)

Cheers,

David

P.S. Let's just say that 15% is probably right at the  
border of the other, unavoidable, errors in my analysis,  
but it is big enough to worry me.

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David Fanning, Ph.D.

Fanning Software Consulting

Phone: 970-221-0438 E-Mail: [davidf@dfanning.com](mailto:davidf@dfanning.com)

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