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Subject: Re: Joining Multiple Vectors from the Thin Function  
Posted by [mzagursk@gmail.com](mailto:mzagursk@gmail.com) on Tue, 12 Aug 2008 18:28:36 GMT  
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On Aug 12, 11:25 am, David Fanning <n...@dfanning.com> wrote:

> mzagursk@gmail.com writes:

>> This problem is a bit complex so I'll try to spell it out as best I  
>> can. IDL's THIN() function finds the medial axis of a shape. In my  
>> case, this medial axis is akin to the ridge of a mountain. The output  
>> of the THIN function is an array of the same dimensions as the image  
>> with all values set to 0 except: If the point is on the medial axis,  
>> it has a value of '3'. If the point is on the medial axis and is an  
>> endpoint, it has a value of 2. I need to find a way to extract (in  
>> order) the ridge data. This task is further complicated because the  
>> THIN function does not output just one medial axis. Instead, it  
>> outputs 'segments' if there is a kink in the shape. So, you end up  
>> with a complex structure of line segments. What I need to do is put  
>> these segments in order from one endpoint to the other endpoint of the  
>> ridge. Any ideas?

>

> Get a list of end points and make arrays to keep track of any  
> end points and ridge points you have already examined. Start with  
> any unexamined endpoint. Mark it as "examined". Look at its eight  
> neighbors for an unexamined ridge point. Mark this ridge point  
> as "examined". Keep doing this until you find another end point.  
> That's a segment.

>

> Do this until you have no more unexamined end points.

>

> Cheers,

>

> David

>

> P.S. Consider doing this in C. :-)

>

> --

> David Fanning, Ph.D.

> Fanning Software Consulting, Inc.

> Coyote's Guide to IDL Programming ([www.dfanning.com](http://www.dfanning.com))

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

Thanks for the reply. Making the segments shouldn't be a problem, my  
problem is after I get these segments I need to create a "master"  
array of all of the segments in order. Any ideas on that?