Subject: Re: Following a ridgeline
Posted by karo03de on Mon, 23 Jun 2008 07:50:23 GMT
View Forum Message <> Reply to Message

Have a look at http://picasaweb.google.de/karo03de/Idl

Left you see a distance transformed binary image a with the result of
thin(a) in red, unluckily not exact and not connected, an error existant
since the beginnings of idl. In fact thin is working on the binary image.
The skeleton should correspond with the ridge lines of the distance
transformed binary image!
tvscl,a,0
tvscl,thin(a),0,chan=1

Right a possible result performed by my program, which is not easily to be
transfered (dll and a bunch of software). mm_skeleton is a "real" grey
scale skeleton, performed by succeeding hit-or-miss transformations.
tvscl,a,1
tvscl,mm_skelton(a),0,chan=1,1

Mathematical morphology is the keyword for this! Watershed delivers just
the contrary of what you are looking for! watershed borders are some sort
of saddle points in the distance map.

Regards
Karsten

Am Mon, 16 Jun 2008 22:34:20 +0200 schrieb mzagursk@gmail.com
<mzagursk@gmail.com>:

> On Jun 16, 1:15 pm, "mzagu...@gmail.com" <mzagu...@gmail.com> wrote:
>> On Jun 16, 12:49 pm, David Fanning <n...@dfanning.com> wrote:
>>
>>
>>
>>> mzagu...@gmail.com writes:
>>>> I've got a 2d map (let's say it's a contour map of a mountain). I
>>>> need to be able to 'detect' and 'follow' the ridgeline across the
>>>> whole mountain (which does about a 180 degree turn as well, it's U
>>>> shaped). Anyone know any way to accomplish this?
>>
>>>> So far, i've attempted to start at the maximum point, and then look
>>>> for surrounding points that minimizes the downward slope, this
>>>> process, however, creates switchbacks at peaks and doesnt follow the
>>>> peak down along a ridge. Any ideas?
>>
>>> The obvious idea is the WATERSHED function. Have you
>>> tried that?

>>
>>> Cheers,
>>
>>> David
>>> --
>>> David Fanning, Ph.D.
>>> Fanning Software Consulting, Inc.
>>> Coyote's Guide to IDL Programming:http://www.dfanning.com/
>>> Sepore ma de ni thui. ("Perhaps thou speakest truth.")
>>
>> Yes, but I'm not sure how to implement it in such a way to output the
>> ridge. This 'image' is simply a background of 0's with a single
>> ridgeline rising out of it. When I use watershed, it give me bogus
>> answers, lines that make no sense at all.
>
> Here's an image of what I'm talking about:
> http://www.mattzag.com/mountain_example.tiff
> I need to follow the long ridgeline and output those points. Thanks a
> bunch.

--
Erstellt mit Operas revolutionï¿œerem E-Mail-Modul: http://www.opera.com/m2/