Subject: Re: connected component labeling problem in a graylevel image without background
Posted by Julia on Wed, 16 Oct 2002 15:55:49 GMT
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Thanks for your suggestion.

I tested the algorithm on a 1730*2210 image with 364 gray levels. If I use the label_region in IDL to mask and relabel, it takes about 80s. While if I use the watershed algorithm tm_wshe1.pro, it takes more than 4000s. I saw on your webpage that there is another version of watershed algorithm implemented in C that can be called by IDL, I think that will be faster. Can you send the file to me? My email address is: julia65201@yahoo.com.

Regards,

Julia

"Karsten Rodenacker" <rodena@gsf.de> wrote in message news:3DABC92C.DB809DD9@gsf.de...
>
>
> Julia schrieb:
>>
>> I am not quite familiar with watershed algorithm. But in my understanding,
>> "considering the gray scale image
>> as a surface, each local minimum can be thought of as the point to which
>> water falling on the surrounding
>> region drains. The boundaries of the watersheds lie on the tops of the
>> ridges. This operator labels each
>> watershed region with a unique index, and sets the boundaries to zero.
>> Typically, morphological gradients,
>> or images containing extracted edges are used for input to the watershed
>> operator."
>>
>> If I use watershed operator on the image, since it labels some pixels as
>> boundaries, it will eliminate some regions
>> with one-pixel width and label them as boundaries. That is not what I want.
>> Can watershed algorithm really solve this?
>
> 1 px width boundaries guarantee connected regions which can lateron
> relabelled e.g. by label_region. However the algorithm implemented by
> rsi generates boundaries, there are other watershed algorithms which
> generate touching regions without boundaries. I have a pure idl
> implementation under
> http://www.gsf.de/ILIAD/Rodenacker/IDL/MM.html#Watershed designed in

> times before morph_... and n-dim label_region existed which performs in
> that way (doc. in German). (Still I wait for idl watershed on 3d data
> which comprises a very simple extension of the original watershed
> algorithm).
>
>>
>> Regards,
>>
>
> --
> Karsten Rodenacker ()
> ---------- ----------:
-)
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