Subject: Re: connected component labeling problem in a graylevel image without background
Posted by Karsten Rodenacker on Tue, 15 Oct 2002 07:52:12 GMT
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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,
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Karsten Rodenacker ()
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