
Subject: Re: connected component labeling problem in a graylevel image without background

Posted by [Karsten Rodenacker](#) on Mon, 14 Oct 2002 06:43:52 GMT

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Hmm, I followed not completely the thread, but what about using watershed? Its applicability depends on the homogeneity of the different phases of marble.

Regards

Karsten

Julia schrieb:

>

> Yes, David, I think you've got the point.

>

>> How many marbles do I have

>> with a gray-scale level of X?

> Variable. A graylevel at most times corresponds to a marble. But

> at some graylevels, maybe it has two, three or more marbles each graylevel.

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>> but if you have N gray-levels and you have a tool that works with

>> bi-level images only, don't you pretty much have to use

>> your tool N times to get what you want?

> Right, if we use label_region function which works only on binay image.

> But I think if we know how they do label_region and extend the algorithm on

> the graylevel image,

> maybe we only needs to trace the image less than twice.

> I am not sure if this is practical.

>

> Cheers,

>

> Julia

>

> "David Fanning" <david@dfanning.com> wrote in message

> news:MPG.1810ac85dd5a4b049899de@news.frii.com...

>> Julia (julia65201@yahoo.com) writes:

>>

>>> But I think you kind of misunderstood my problem, maybe due to my not

> very

>>> clear expression. :)

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>>>> >" The problem is like a grayscale photograph of a jar of

>>>> >marbles. Each marble is uniformly gray. All the marbles are touching

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>>>> >other, so there is no

>>>> >background. Two marbles of the same color may not belong to the same

>>>> >region.

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>>> Any suggestion there?
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>> P.S. Let's just say I'd bet some good money even the
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>> --
>> David W. Fanning, Ph.D.
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>> Toll-Free IDL Book Orders: 1-888-461-0155

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Karsten Rodenacker ()

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Subject: Re: connected component labeling problem in a graylevel image without background

Posted by [Julia](#) on Mon, 14 Oct 2002 20:19:20 GMT

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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?

Regards,

Julia

"Karsten Rodenacker" <rodена@gsf.de> wrote in message news:3DAA67A8.EBDA82FD@gsf.de...

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