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.
>
>> 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. :)
>>>
>>>> >" The problem is like a grayscale photograph of a jar of
>>>> >marbles. Each marble is uniformly gray. All the marbles are touching
> each
>>>> >other, so there is no
>>>> >background. Two marbles of the same color may not belong to the same
>>>> >region.
>>>> >I want to give a unique label to each marble/region."

>>>
>>> In my problem, all the marbles are touching each other, so there is no
>>> background there. I do not think I can use
>>> label_region on the original image. So I do like this:
>>> First, use HISTOGRAM to get a mask of regions at each gray level, and
> then
>>> use LABEL_REGION on each mask.
>>>
>>> If there are n gray levels in the image, I need do label_region n times.
> I
>>> think this is not very efficient. I am not sure if I can solve this kind
> of
>>> problem more efficiently in IDL, I call it "connected component labeling
>>> problem in a graylevel image without background".
>>>
>>> Any suggestion there?
>>
>> I'd never be confused with a mathematician, 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? At least if I
>> understand the question to be: How many marbles do I have
>> with a gray-scale level of X?
>>
>> Cheers,
>>
>> David
>>
>> P.S. Let's just say I'd bet some good money even the
>> HISTOGRAM function can't get us out of this one. :-)
>>
>> --
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