Subject: Re: Classification of objects in 2D image
Posted by Ben Tupper on Mon, 18 Dec 2000 14:33:06 GMT
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Hello,

If I understand you correctly, you have the the image segemented into 'features' and 'background'. I do have an object (still in the development stage that will spit out 'feature' characteristics given a segemented image with only one 'feature'. I don't have it handy here, but I could send it to you soon.

One limitation it has (a least a limitation for me) is a 'good' way of finding the perimeter of the feature. I use the CONTOUR procedure on a binary version of the image. The results are OK for me, but IDL may not be calculating that perimeter the way you would want.

Ben

Norbert Hahn wrote:

> Ben Tupper <pemaquidriver@tidewater.net> wrote:
>
>> Hello,
>>
>> Could you describe the images you have in hand? I have a
>> number of thought, but it helps to know where your staring
>> point is.
>
> The images are greyscale images of crystals viewed under
> a microscope. This is an attempt to classify the quality
> of food by dissolving some salt in milk and evaporating
> the liquid. Other components are removed too until the
> salt crystals are left over.
>>
>> Here are some questions that might determine the approach
>> you take:
>> -Are the images of 'natural' samples with lots of
>> detritus/junk floating around?
>
> There is little junk floating around when the experiment
> is correctly done.
>
>> -Is the background uniform or varying?
>
> The background is uniform in a single picture but varies

> from picture to picture. The threshold has to be adjusted
> for each picture, but that seems to be manageable.
>
>> -Are the features detectable with a simple threshold
>> applied to the entire image, or do you need to consider
>> regional thresholding?
>
> A simple threshold for the entire image should be sufficient.
>
>> -Do you have only one image per field of view or do you
>> have multiple images for each field of view?
>
> There is only one image per sample of the fluid under test.
>
> One of the major problems is that the crystals have a
> varying orientation from picture to picture. Other
> properties such a shape, size and clustering vary little
> within one class. So variations of shape, size and
> clusterings should be detected and grouped into various
> classes.
>
> Norbert

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