Subject: Re: Medical Imaging Question
Posted by davidf on Mon, 16 Aug 1999 07:00:00 GMT
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Martin Schultz (m218003@modell3-d.dkrz.de) writes:

>> One of the problems with the above scheme with nuclear medicine images is
>> that there may be a few pixels that are several magnitude larger than all the
>> other pixel, therefore using a range 0-100, the max value is set at 100
>> and everything else falls into the range 0 to 10 for example. This can be
>> corrected by truncating the max pixel value. Unfortunately, the vendors
>> seem to be clueless how to do this other than manual trial and error
>> method.
>>
>>
> maybe I am too loud here, but shouldn't this kind of problem be easily
> recognized by standard statistical outlier tests? That almost screams for
> Struan's beloved histogram function, doesn't it? If you need something more
> sophisticated, it appears that this problem is related to the problem of
> determining biomass burning fires on satellite images (there they are looking
> for the hot spots you are trying to exclude). Basically, one would look for
> outlier values and reject them only if no neighbouring pixel shows similarily
> high values. But, of course, this takes some processing time...

This sounds like a Median filter to me. Fast, easy, and
a hell of a lot easier than trying to work through the
intricacies of the Reverse_Index keyword. :-(

Cheers,

David

P.S. I have to confess that I *have* written a modified
median filter function for a client recently, which only
applies the filter to user-selected high pixels (cosmic
rays screwing up the CCD camera in this case). To implement
it properly I needed to use a Histogram. :-)

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David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Toll-Free IDL Book Orders: 1-888-461-0155