
Subject: Re: not-quite meidan filter

Posted by [David Fanning](#) on Thu, 30 Sep 2010 21:22:46 GMT

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JJ writes:

- > I would like to do something that is similar to, but not quite the
- > same as, a median filter to a 2D array. Instead of choosing the
- > median value in a box surrounding each pixel, I would like to chose
- > the value in that box that occurs most frequently.
- >
- > For example, if I had
- >
- > 1 1 1 1 1
- > 1 1 1 1 1
- > 2 2 2 2 2
- > 2 2 3 3 3
- > 3 3 3 3 3
- >
- > The median would be 2, but I would want the value 1 (it occurs 10
- > times, which is more than the 8 instances of the value 3 or the 7
- > instances of the value 2).
- >
- > Can anyone think of a clever way to do this that would be fast in IDL
- > (ie, no looping through the pixels)? I need it to work for box sizes
- > up to around 21. Ties may be broken arbitrarily.
- >
- > Is there already a name for this concept?

I don't know. This article might give you some ideas, though:

http://www.dfanning.com/idl_way/smregval.html

Cheers,

David

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Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Seppure ma de ni thui. ("Perhaps thou speakest truth.")
