Subject: Re: Filter image with moving window and averaging pixels
Posted by JD Smith on Wed, 31 Jan 2007 23:52:56 GMT
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On Wed, 31 Jan 2007 10:58:39 -0800, rpertaub@gmail.com wrote:

> Hello,
> I need to filter some noise out of an image and was pointed towards
> making a moving/sliding window (size, say 7x7) and compare the center
> pixel with surrounding pixels right next to border (ignoring middle
> pixels). And compare the value of center pixel with the border average
> pixels and thus filter out noise. However, I am not sure how to do
> this.
> Anyone has any idea?
> Did I say I was new to IDL...?
> Thanks for all your help,
> my last query was met by very helpful replies, and I am grateful!

I'd use CONVOL, e.g.:

```
kernel=fltarr(7,7)
kernel[0,*]=1.
kernel[6,*]=1.
kernel[*,0]=1.
kernel[*,6]=1.

imconv=convol(image,kernel,/CENTER,/EDGE_TRUNCATE)/(4*7-4)
bad=where(abs(image-imconv) gt threshold)
```

Then again, a box median might be just as good of a statistic, especially
if coupled to a box standard deviation. The former is easy, the latter
requires some SMOOTH trickery, discussed several times here.

JD