
Subject: Re: Rapid "moving windows" access in IDL?
Posted by [mchinand](#) on Fri, 30 Jan 2004 04:33:19 GMT
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In article <BC3EF6CE.18DB4%greenberg@ucdavis.edu>, Jonathan Greenberg <greenberg@ucdavis.edu> wrote:
> I'm trying to code a semivariance measure to analyze an image in IDL. Since
> the call requires extracting data from a matrix a certain distance away from
> the center pixel, is there a fast way of coding IDL to extract these
> locations, or is am I doomed to have a very slow algorithm. Basic gist:
>
> For a given pixel/matrix location, subtract off the value of the pixels
> surrounding that pixel:
>
> For pixel at A is at x,y
> B at x-1,y
> C at x+1,y
>
> Semivariance = ((A-B)^2 + (A-C)^2)/4
>
> Any suggestions?
>
> --j
>

I'm not sure if this will be faster, but one option is to create B and C arrays using SHIFT:

```
B=shift(A,-1,0)
C=shift(B,1,0)
```

```
sv= ((A-B)^2 + (A-C)^2)/4
```

Obviously, this method is more memory intensive than looping through A. The edge values probably won't be what you want either.

--Mike

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