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Subject: Re: correlation of single pixels

Posted by [Klemen](#) on Mon, 12 Nov 2012 18:28:10 GMT

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Hi Max,

no x and y are in this case just the regression variables. See:

<https://groups.google.com/forum/?fromgroups=#!topic/comp.lang.idl-pvwave/F2E8cLePGsQ>

Computing correlation using IDL function CORRELATE is ok, if you have to do it once. But here you have to do it within each area of interest a couple of times (considering set of possible offsets in x and y direction) so you have to use 4 FOR loops which will run slow!

Thus you should ask yourself first, how large is the data set you want to process. If you are sure that your offset are not larger than 2 pixels, then you might go for the slow version. That would be something like:

```
results = make_array(...  
FOR xall=xstart,xend do begin  
  FOR yall=ystart,yend do begin  
    search_area = data[xall-search_size:yall+search_size]  
    template = data[xall-template_size:yall+template_size]  
    FOR xsearch=0,2*search_size+1 do begin  
      FOR ysearch=0,2*search_size+1 do begin
```

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