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Subject: Re: Calculate gradient  
Posted by [pgrigis](#) on Fri, 12 Mar 2010 22:37:33 GMT  
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Hi,

the simpler solution would be to use the "shift" function to calculate the dx and dy component of the gradient (whose norm is  $\sqrt{dx^2+dy^2}$ ) - similarly to the one-dimensional case when you can compute the numerical derivative of x as  $(x-\text{shift}(x,-1))/dx$ .

However you should be careful doing that with non-smooth datasets.

Ciao,  
Paolo

On Mar 12, 4:41 pm, mslarkin <enhlw...@gmail.com> wrote:  
> Hi IDL experts,  
> I have a 2-D array (2708x4060), containing reflectance data. Is it  
> possible to calculate the reflectance gradient (i.e. the rate of  
> reflectance change over distance or array grid) throughout the array,  
> and then draw lines of equal gradient (note that they're NOT contour  
> lines)?  
> Thank you very much for your help!  
> IDL beginner

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