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Subject: Clustering x,y coordinates with IDL?

Posted by [Maxwell Peck](#) on Mon, 29 Mar 2010 09:44:02 GMT

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Hi All, This is not strictly an IDL question but I'm hoping it's something simple to do and I'm not missing something painfully obvious!

I have a set of x,y values e.g.

x = [34.5,36.7,35.6,80.5,81.2,79.3]

y = [50.6,51.2,53.2,48.5,50.3,51.2]

The values will be sparsely clustered overall but tightly within an approximate 10x10 box. What I'd like to do is replace each clusters values with the average x,y value. This doesn't have to be 'perfect', the edges aren't that important.

My initial thought was to use `hist_2d` or `hist_nd` to try and calculate the 2d histogram with a binsize of 10 and use this to average the values but I can't get it to work. My other thought was using `griddata` or something similar, or at worst generating an approximate binary image and running a window over it.

Any advice or suggestions would be appreciated.

Regards

Max

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