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Subject: Re: Getting ROI data from an image  
Posted by [Rebecca](#) on Fri, 30 Sep 2011 19:41:00 GMT  
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OK, I can see how using the histogram w/ reverse indices will help quickly get the indices associated with each ROI. That's a great help, I wouldn't even need a FOR loop.  
h = HISTOGRAM(result, MIN = 0, MAX = classes, NBINS = classes+1, REVERSE\_INDICES=ri)

But this doesn't answer the problem I was having, which perhaps I didn't speak to as directly as I wanted- or perhaps you both are simply more versed at array indexing than I am! With HISTOGRAM or WHERE, it returns a 1D index of a 2D array (result), but I need to pull hyperspectral data from a 3D array using those indexes. My hyperspectral 'img' array might be 320 x 1000 x 300, for example. I cannot simply call  
temp = img[ ri[ri[1]:ri[2]-1], \*]  
And get the data I need. How would this be accomplished instead? I suppose I could use the 1D subscripts and, looping through each spectral band, get the data one band at a time but this seems tedious when I would hope an elegant solution would be possible.

As I said, I want the mean spectra for each class (ROI) identified by K-Means.

Thanks for the help so far,  
Rebecca

On Sep 30, 3:19 pm, David Fanning <n...@dfanning.com> wrote:  
> Brian J. Daniel writes:  
>> Look at using the HISTOGRAM function on the result variable with  
>> REVERSE\_INDICES keyword.  
>  
>> [http://www.idlcoyote.com/tips/histogram\\_tutorial.html](http://www.idlcoyote.com/tips/histogram_tutorial.html)  
>  
> Using the Reverse\_Indices keyword can often seem  
> complicated. You can use the ReverseIndices function  
> from the Coyote Library to return the indices to you  
> without having to learn the complicated vector in a  
> vector syntax:  
>  
> <http://www.idlcoyote.com/programs/reverseindices.pro>  
>  
> Cheers,  
>  
> David  
> --

- > David Fanning, Ph.D.
  - > Fanning Software Consulting, Inc.
  - > Coyote's Guide to IDL Programming:<http://www.idlcoyote.com/>
  - > Sepore ma de ni thui. ("Perhaps thou speakest truth.")
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