Subject: Re: Getting ROI data from an image
Posted by Rebecca on Fri, 30 Sep 2011 21:16:01 GMT
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That's great, and it makes so much sense, but it doesn't seem like IDL obeys those laws of indexing. Using
temp = img[x,y,*]
produces an out of memory error. It's not hard to figure out why-
temp = img[x,y,0]
Produces a [npix, npix] array, where npix is the number of pixels referenced in 'indices'. What I was expecting to happen was a [npix] vector! IDL is playing by different rules here.

npix = N_ELEMENTS(indices)
z = INTARR(npix)
temp = img[x,y,z]

That produces the magical vector array I want. So, is there any way to play by these rules and grab 300 bands worth of data at once so I have a [npix, bands] array? Or should I give up the chase and just FOR loop it?

On Sep 30, 4:41 pm, David Fanning <n...@dfanning.com> wrote:
> Rebecca Brown writes:
>> 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 think you need one more step:
>
> s = Size(result, /DIMENSIONS)
> h = Histogram(result, ..., REVERSE_INDICES=ri)
> indices = ReverseIndices(ri, 1) ; As an example.
> colrow = Array_Indices(s, indices, /DIMENSIONS)

>   x = Reform(colrow[0,*])
>   y = Reform(colrow[1,*])
>   temp = img[x,y,*]
>
> 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.")
