Subject: Histogram Too Many Array Elements
Posted by David Fanning on Mon, 24 Aug 2009 22:40:45 GMT
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Folks,

When I am working with large images, and I want to plot a histogram, there are occasions when Histogram complains about "too many array elements". On the current image I am working on, for example, I am passing an array to Histogram that has 1,727,194 elements.

It is an odd sort of error. And it is not even clear to me that this is too many elements per se. It almost seems like the bin size plays a role, too.

In any case, does anyone know what, exactly, causes this error to occur? It seems to me it occurs most often when working with MODIS reflectance data where the data values are between 0 and 1. If it really is "too many" elements in the array, what would be the "just right" number?

Cheers,

David
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David Fanning, Ph.D.
Coyote's Guide to IDL Programming (www.dfanning.com)
Sepore ma de ni thui. ("Perhaps thou speakest truth.")

Subject: Re: Histogram Too Many Array Elements
Posted by David Fanning on Tue, 25 Aug 2009 18:13:31 GMT
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Folks,

I wrote yesterday:

> When I am working with large images, and I want to
> plot a histogram, there are occasions when Histogram
> complains about "too many array elements". On the
> current image I am working on, for example, I am
> passing an array to Histogram that has 1,727,194
> elements.
>

> It is an odd sort of error. And it is not even clear
> to me that this is too many elements per se. It almost
> seems like the bin size plays a role, too.

As it happens this was the result of a misplaced NAN keyword, so that images with NANs caused the histogram bin size to be a NAN, resulting in the "too many elements" error message.

I was running into this problem with the Coyote Library program, XSTRETCH. I have updated this program (which is used with IMGWIN, among other programs) to work correctly. You can download an updated version here:

http://www.dfanning.com/programs/xstretch.pro

Cheers,

David

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David Fanning, Ph.D.
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