
Subject: Re: Negative Variance?

Posted by [Homeyer](#) on Fri, 20 Mar 2009 03:11:25 GMT

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On Mar 19, 5:00 pm, "anniebry...@gmail.com" <anniebry...@gmail.com> wrote:

> I am using the VARIANCE comand in IDL and am getting negative values.
> The description in the HELP menu for IDL doesn't provide much
> information, but from what I know, I thought variance was either an
> absolute value or a deviation from a squared number, neither of which
> could yield a negative value.

>
> I am looking at the variance for 2 different bands in an AVIRIS
> image. I use the same .pro, just change the band I am looking at.
> The results for Band 1 (lets call it) make sense: all positive
> values. For Band 2, I get a lot of negatives?! How is this
> possible.

>
> These are the values for Band 1:

>
> integer mean std dev minimum maximum n_elements
> 2633.3 2059.3 0.0000 9367.0 (160686) =
> 160686

>
> These are the values for Band2:

>
> integer mean std dev minimum maximum n_elements
> 1167.5 18269. -32768. 32767. (160686) =
> 160686

I am not sure how you are doing your calculations.. but I think you may have a conversion wrong in some process. If for some reason you are converting a variance (should be a FLOAT or DOUBLE) to an INT, which by the way maximizes at 32767 and minimizes at -32768, of course you will have negative values. If you are converting to INTs, that is your first problem. Variance should always be a FLOAT or DOUBLE.

Cheers,
Cameron Homeyer
