Subject: Re: Mode????
Posted by Robert S. Hill on Wed, 13 Jan 1999 08:00:00 GMT
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On Wed, 13 Jan 1999, Lisa Bryan wrote:
> Mode refers to the most likely value in an array. The method that
> jumps to mind is using the histogram function. The mode is the value
> associated with the max of the histogram. Is there anything slicker
> out there?

Getting a good estimate of the mode is not trivial. If you don't have lots of counts in your histogram, either it will be noisy near the peak or you will have to use such a big bin size that the quantization error in your estimate is large. Two approaches that I have seen are to fit a function (e.g., gaussfit) to the histogram, or to forego the histogram altogether and to use the estimator mode=3*median-2*mean. (I don't have a reference for the question under what conditions the latter formula is applicable; my ancient CRC Tables lists it without further comment as "Empirical Relation Between Mean, Median, and Mode," so presumably the distribution should have a sort of skewed Gaussian shape.)

Bob

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