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Subject: Re: Histogram

Posted by [James Kuyper](#) on Tue, 28 Jun 2005 18:29:22 GMT

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James wrote:

> Hi guys !

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> I have a question regarding histograms in general. Is there a "right"

> criteria (e.g. strict mathematical rule, etc..) of choosing the bin size ?

> I'm playing with some data and obviously the histogram looks differently

> with different bin sizes. Any help and references would be extremely

> helpful !

About 3 decades ago I read an argument, based upon the binomial distribution, that the maximum number of bins you should use was 1 more than the logarithm base 2 of the number of data points you're analyzing, rounded upward. Sorry - I can't give you a reference. I've no idea how reasonable that argument is in general.

My impression, trying to use this criteria over many years, is that it works best for data with a distribution that has a wide dynamic range, like the binomial distribution. For data that is more nearly uniform in distribution, a larger number of bins seems to give better results. I've never seen it give more bins than I thought was justified, but it often gives fewer.

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