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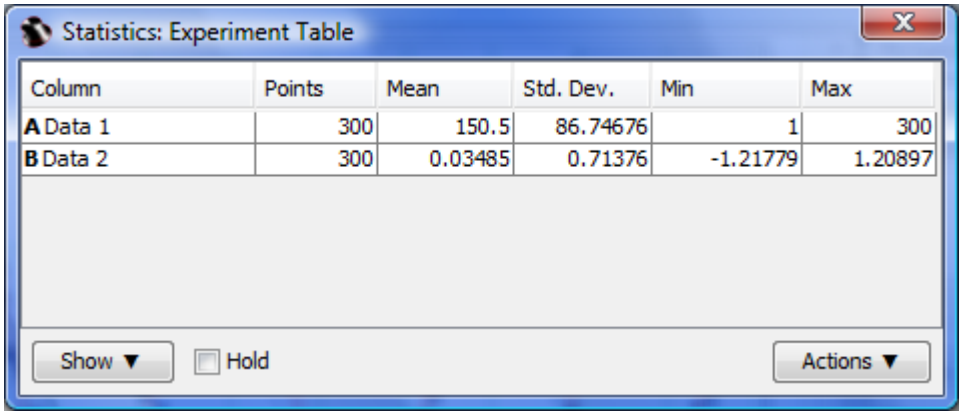
Descriptive Statistics (Pro edition only)

Select `Tools → Statistics` menu item to open the statistics dialog. Statistics dialog shows statistics on currently selected table columns or curves on plot. The statistics is updated every time you activate different windows or change the selection in active window. Select multiple instances in one window (columns or curves) to view multiple statistics data.



Showed Statistical Properties

By default some statistical properties are not shown. Click Show button to select which properties you want to calculate.

Statistical Functions in Column Formulas

You can also calculate statistics on table columns using column statistics functions when entering column formula. See `Functions` tab in `Set Column Formula` dialog for column statistics functions description. These functions are also available in MagicPlot Student edition.

Computational Formulas

Central moments are calculated as follows (see table). All sums are calculated using compensated summation. Central moments are calculated on second pass after Mean calculation.

Property	Formula
n	The number of non-empty cells
Mean	
Central moments	$\nu_1 = \frac{1}{n}\sum_i a_i$

MagicPlot uses the following formulas to calculate statistics:

Property	Formula
Mean (expected value)	$\mu = \nu_1$

$$\mu_k = \frac{1}{n}\sum_i \left(a_i - \nu_1\right)^k, \quad k = 2 \ldots 4$$

Property	Formula
Variance	
Standard deviation	$\sigma^2 = \frac{n}{n-1}\mu_2$
Skewness	$\sigma = \sqrt{\sigma^2}$
Kurtosis	
Y Sum	$\gamma_2 = \frac{1}{(n-2)(n-3)}\left((n+1)\frac{\mu_4}{\sigma^4} - 3(n-1)\right)$

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