

Moving Averages

The Moving Average study is tool that will tell you what the average price has been for a certain period of bars. Typically Moving Averages are used to smooth the highs and lows and indicate the trend of the market. Moving Averages are generally used in pairs, and applying the study to the chart will give two averages that can be set independently. When two moving averages are used the longer term, or slow average is used to indicate the trend. The shorter term is referred to as the fast average, and is used for timing purposes.



In this example the blue line is the 1st average which is the short period, and closely follows the bars. The red line is the 2nd average and is a much longer period and shows a general trend of this market.

Formula

N = Number of periods selected in Ave 1, and Ave 2

Simple = (Sum of the last N prices) / N

Exponential = Previous Bar's Ave Value + ((Current Price – Previous Bar's Ave Value) / Alpha)

Where Alpha = (N + 1) / 2

Weighted - This average places emphasis on the most recent data. A 3 period weighted average will calculate as follows:

Weighted Average = ((Price * 3) + (Price1 * 2) + (Price2 * 1)) / 6

Price = Current Price, Price1 = Price one bar ago, Price2 = Price two bars ago

6 is used for the divisor, and equals the total number of weights in the formula 3 + 2 + 1

Median Filter – The values in the set are sorted. For an odd count, the middle value is the result. For an even count, the 2 values in the middle are averaged.