

Common Study Inputs

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Common Study Inputs

This section describes chart [Study Inputs](#) that are common among the available chart studies.

Input Data

The Input data from either the Main Price Graph, or another study, to use in the study calculations. The Main Price Graph is the default. The default choices for the Main Price Graph are **Open, High, Low, Last, Volume, Number of Trades, OHLC Average, HLC Average, HL Average, Bid Volume, Ask Volume**. This Input can select a study Subgraph if the [Based On](#) setting is set to another study on the chart, or the study has an Input type that lets you choose another Study and Subgraph combination.

Chart Number

This Input type allows the selecting of a specific chart within the Chartbook which contains the chart which contains the study with this Input.

All of the charts within the Chartbook will be listed. Select one from the list.

For information about Chart Numbers, refer to [Chart Numbers](#) on the Working with Charts page.

Length

The number of graph elements or graph elements back from a chart column to use in the calculation of each graph element in a study. A graph can be the main price bars graph or could be a Moving Average study graph. A graph element is a value along a graph drawing and occupies one column in the chart. A graph can contain multiple drawings, each one known as a

Subgraph.

For the purpose of this discussion, we generally are referring to a single line drawing within a graph (also known as study **Subgraph**). A graph element can be an **Input Data** like Open, High, Low or Close/Last, an entire price graph bar, a Subgraph element of one of the study graphs, or an element of an internal array used in calculating the study.

This **Length** definition is for all Inputs with **Length** in their name, like **Moving Average Length**. Example: A moving average study with the **Length** Input set to 10 and the **Input Data** Input set to **Last** will use 10 bar Last prices in the average calculation for each of the elements along its graph.

Displace

The number of bars (chart columns) forward to shift the study.

For example, there is a chart with 10 bars in it. Each bar is one day. There is a 10 day Moving Average on that chart with the Displace Input set to 1.

Normally the average for the 10th bar will be drawn on the 10th bar. It will be the average of the 9 bars prior and the 10th bar. Since the Displace Input is set to 1, the average will be drawn on the 11th bar and it will be the average of the 10 bars prior. It is shifted forward by 1 bar.

An alternative to using the Displace Input, if provided, is the [Displacement](#) setting found on the **Subgraphs** tab of the **Study Settings Window**. This setting allows for both positive and negative displacements for each individual Subgraph in the study.

Line # (Line1, Line2, etc.), Overbought, Oversold

The value to draw a horizontal line at in the study graph. For example if you set the Line1 Input to 50, then a line will be drawn at the 50 level in the study graph.

Multiplication Factor or Multiplier

For standard deviation studies (Standard Deviation Bands, Bollinger Bands), this is the value the standard deviation is multiplied by. For other studies, this is the value that a component of the study is multiplied by.

Percentage

The percentage of the Input Data (Open, High,...) or moving average to be added or subtracted from the Input Data or moving average.

Moving Average Type

The **Moving Average Type** standard Input lets you choose among several basic types of moving averages. They are as follows:

- [Exponential Moving Average](#) (Be sure to read the documentation for this Moving Average Type to be sure it is fully understood)

- [Linear Regression Moving Average](#) (same as Least Squares Average)
- [Simple Moving Average](#)
- [Weighted Moving Average](#)
- [Wilders Smoothing Moving Average](#)
- [Simple Moving Average Skip Zeros](#) (same as Simple Moving Average except that zero values are skipped in the calculation)
- [Smoothed Moving Average](#)

Derivative averages which are based upon these basic types cannot be used with the **Moving Average Type** Input. This includes the Hull and T3 Moving Averages. This is because these derivative average types use additional internal arrays which is not supported in the way in which these basic moving average functions are used.

For example, it is not possible to use a Hull, T3 or Adaptive Moving Average. However, there is an alternative possible solution depending upon what you want to do. It is possible to base any of these individual Moving Average studies upon another study Subgraph. Refer to [Based On](#) in the Chart Studies documentation for instructions.

Time Period Unit

Sets the time unit for the time period setting for the study. This Input works in conjunction with **Time Period Unit Length** Input.

This can be set to Minutes, Days, Weeks, Months, or Years. For a 1 Day period, set this to **Days**.

The **Time Period Unit** and **Time Period Unit Length** settings segment time into fixed amounts of time from fixed points of reference. They are not creating a single trailing time period from the last Date-Time in the chart.

In the case of **Days**, the starting reference point in time is Sunday 1950-1-1.

The starting reference point in time for Weeks is Monday or Sunday depending upon the setting **Global Settings >> General Settings >> General >> Data >> Use Monday as Start of Week instead of Sunday**.

The starting reference point in time for Months is the first day of the month.

The starting reference time for Years is January 1.

For all of the starting reference points in time, the start of the day is according to the [Session Times](#) settings in the chart. If the Session Times are reversed, then the starting time is in the prior day.

For additional information, refer to [sc.scGetStartOfPeriodForDateTime](#).

Time Period Unit Length

Sets the quantity to be used with **Time Period Unit** Input. For example, for a period of 1 Day, set this to 1 and set **Time Period Unit** to **Days**.

Alert Sound Number

The **Alert Sound Number** Input is for setting the Alert Sound Number for a particular alert event in the study.

The Alert Sound Number can be configured to play a specific sound file, and send an email or SMS message. A message is also added to the **Window >> Alerts Manager >> Alerts Log**, when the alert event occurs.

To configure the selected Alert Sound Number, refer to [Alert Sound Settings](#).

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