



S-Trader





SDV | Standard Deviation

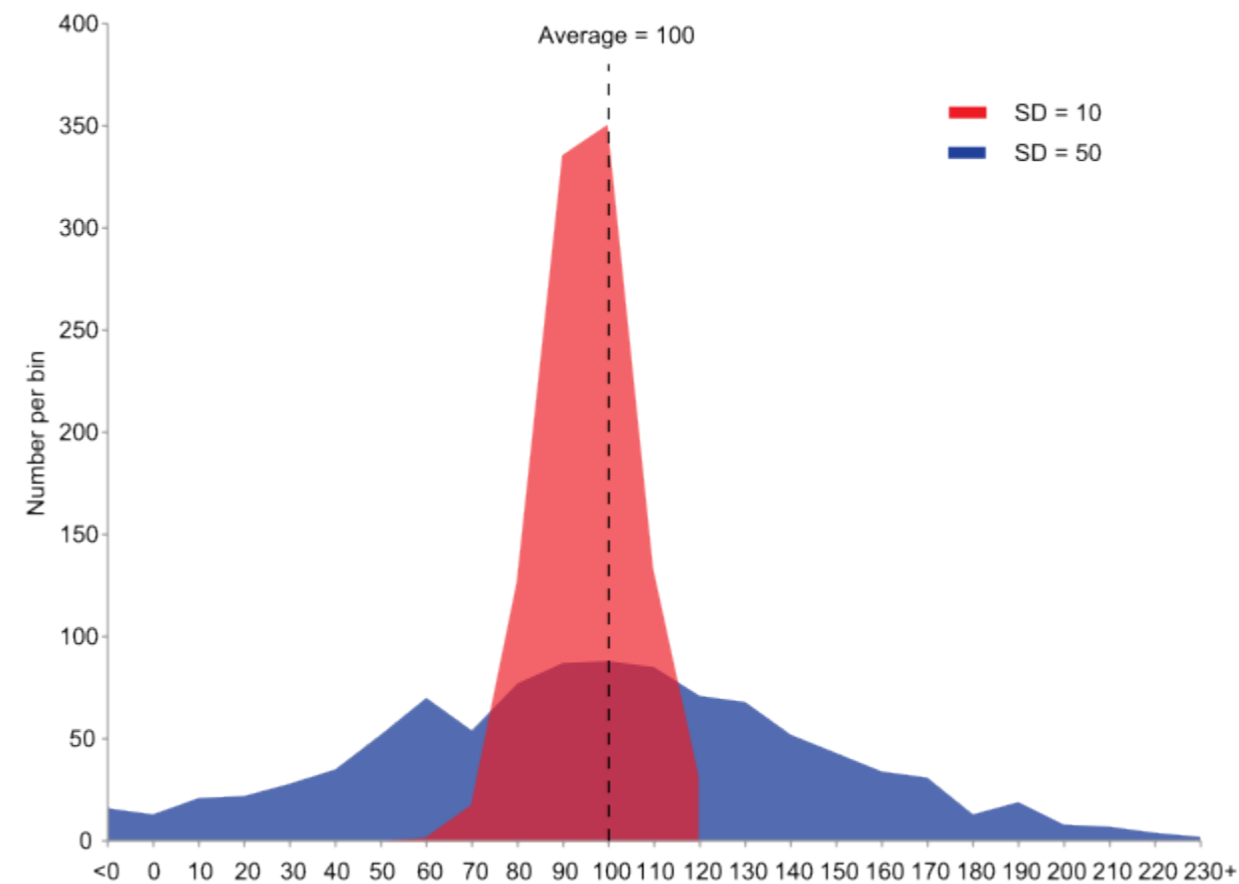
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Description

In statistics, the standard deviation (SDV), also represented by the Greek letter sigma σ or the Latin letter s , is a measure that is used to quantify the amount of variation or dispersion of a set of data values. A low standard deviation indicates that the data points tend to be close to the mean (also called the expected value) of the set, while a high standard deviation indicates that the data points are spread out over a wider range of values.





Formula

- Step 1: Calculate the right moving average for the specified source, n periods and moving average type using existing formulas;
- Step 2: Calculate $SUM = (X_i - X_{AVERAGE})^2$;
- Step 3: Calculate $Variance = SUM / (n-1)$;
- Step 4: Calculate $STANDARD\ DEV = \text{SquareRoot}(Variance)$;
- Step 5: Calculate $SDV = (StDev\ Multiple) * (STANDARD\ DEV)$.

Parameters

Source	Any price source (O, H, L, C, Vol, OI) or any other built-in or custom study
Periods	Any number of periods
StDev Multiple	Any rational number greater than 0
MA Type	Any available moving average type

Output value(s)

There is one output value resulting from the formula, the Standard Deviation.

Plot

The plot is in a separate panel at the bottom.

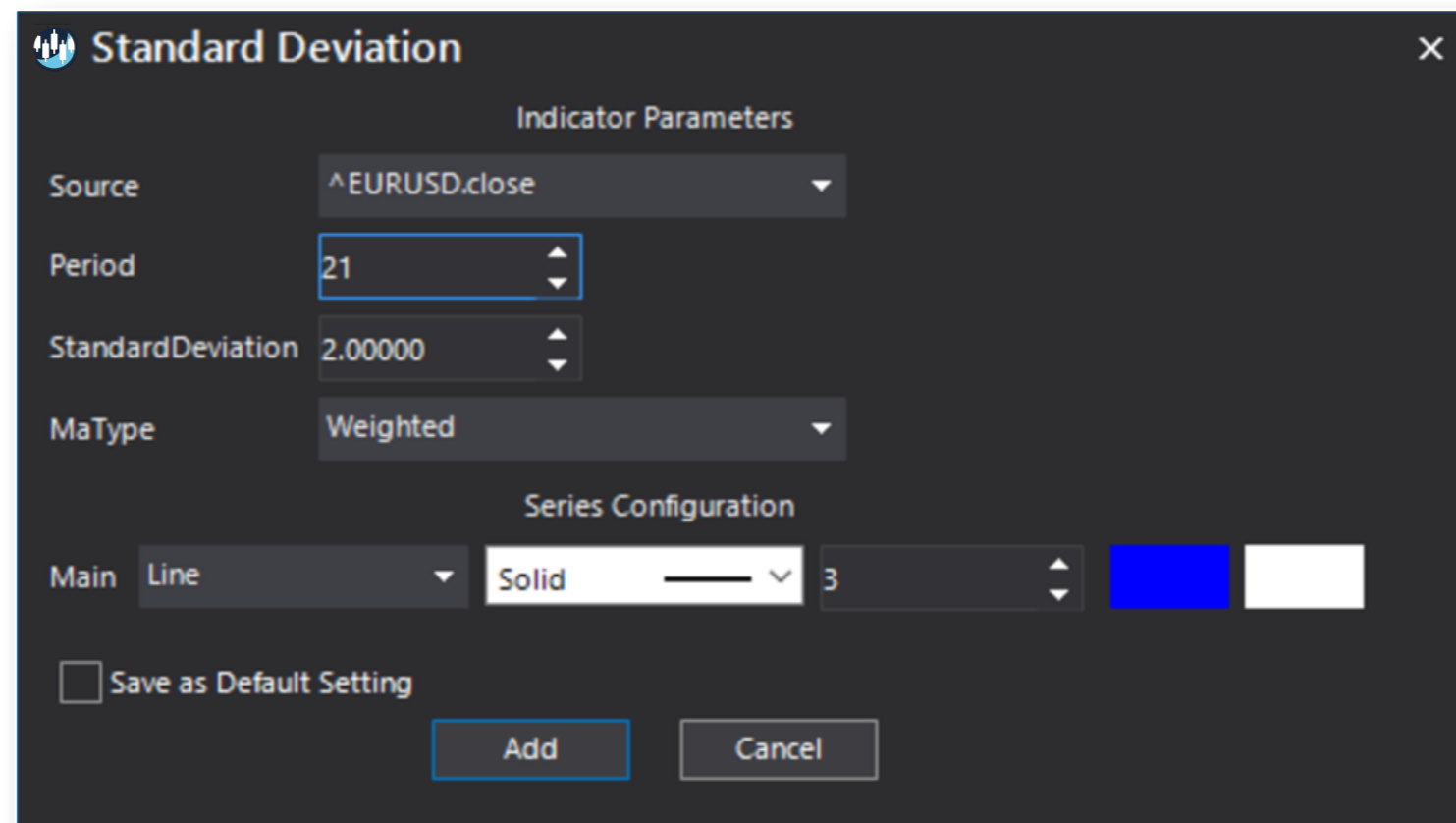


Quant Script Syntax

Short Form	<i>SDV</i> (Source, Periods, Multiple, MA Type)
Long Form	<i>StandardDeviation</i> (Source, Periods, Multiple, MA Type)

Dialogs

Chart Study Dialog



The image shows a 'Standard Deviation' dialog box with the following settings:

- Indicator Parameters:**
 - Source: ^EURUSD.close
 - Period: 21
 - StandardDeviation: 2.00000
 - MaType: Weighted
- Series Configuration:**
 - Main: Line
 - Style: Solid
 - Width: 3
 - Color: Blue
- Save as Default Setting
- Buttons: Add, Cancel



Sample Chart With Study





Quant Script™ Wizard Study Dialog

The image shows two overlapping dialog boxes in the S-Trader desktop platform. The background dialog is the 'Custom Study Wizard' and the foreground dialog is the 'Add Variable' dialog.

Custom Study Wizard Dialog:

- Save To Group: Default
- Custom Study Name: [Empty text box]
- Password: [Empty text box]
- Result: Line, Solid, 2, [Color selection]
- Reverse_Result: Line, Solid, 2, [Color selection]
- Buttons: Add New Variable, Edit Selected Variable, Add To New Panel (checked)
- Table with columns: Name, Description
- Buttons: OK, Cancel

Add Variable Dialog:

- Name: [Empty text box]
- Description: [Empty text box]
- Variable List: Average, AVG, CA, CorrelationAnalysis, KURT, Kurtosis, MedianPrice, MP, SDV, SERR, SKEW, SKEWNESS, StandardDeviations (selected), StandardError, TP, TypicalPrice, WC, WeightedClose
- Source: CLOSE
- Period: 21
- StandardDeviation: 2.00
- MaType: Weighted
- Button: Create Script Line
- Preview: StandardDeviations(CLOSE, 21, 2.00, Weighted)
- Buttons: OK, Cancel



Quant Script™ Study Dialog

Custom Study Editor [X]

Save To Group: 7_STATISTICS [A] 12.25

Custom Study Name: SDV

Password: [Empty]

Result: Line Solid 2 [Color: Teal]

Reverse_Result: Line Solid 2 [Color: Purple]

Formula [Add To New Panel]

```
SET RESULT = SDV(CLOSE, 13, 2, WEIGHTED)  
SET REVERSE_RESULT = StandardDeviations(CLOSE, 13, 2, WEIGHTED)
```

[OK] [Cancel]