



S-Trader





CA | Correlation Analysis

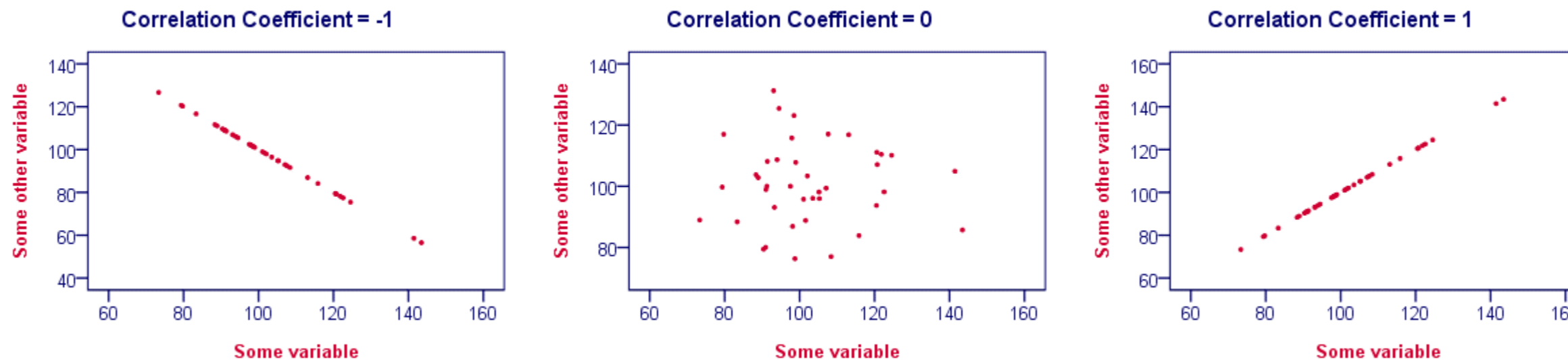
Contents

Description	3
Formula	3
Parameters	4
Output value(s)	4
Plot	4
Quant Script™ Syntax	5
Dialogs	5
Chart Study Dialog	5
Sample Chart With Study	6
Quant Script™ Wizard Study Dialog	7
Quant Script™ Study Dialog	8



Description

In statistics, the Pearson correlation coefficient, also referred to as the Pearson's r , Pearson product-moment correlation coefficient (PPMCC) or bivariate correlation, is a measure of the linear correlation between two variables X and Y . It has a value between $+1$ and -1 , where 1 is total positive linear correlation, 0 is no linear correlation, and -1 is total negative linear correlation. It is widely used in the sciences. It was developed by Karl Pearson from a related idea introduced by Francis Galton in the 1880s.



Formula

- Step 1: Sample Series 1 and Series 2 for the appropriate Periods, with the appropriate offset;
- Step 2: Calculate the appropriate moving averages $MA(X)$ and $MA(Y)$ using existing formulas;
- Step 3: Calculate the appropriate Standard Deviations $SDV(X)$ and $SDV(Y)$ on the selected samples for the requested moving average type, using existing formulas;
- Step 4: Calculate $SUM =$ the sum of all terms $(X_i - X_{AVERAGE}) * (Y_i - Y_{AVERAGE})$
- Step 5: Correlation Coefficient = $SUM / [SDV(X) * SDV(Y)]$



Parameters

Source 1	Any price source (O, H, L, C, Vol, OI) or any other built-in or custom study
Source 2	Any price source (O, H, L, C, Vol, OI) or any other built-in or custom study (must be from the same symbol)
MA Type	Any available moving average type
Periods	Any number of periods
Offset Source 2	Any number of periods

Output value(s)

There is one output value resulting from the formula, the Correlation Analysis.

Plot

The plot is in a separate panel at the bottom.



Quant Script Syntax

Short Form	<i>CA</i> (Source1, Source2, MA Type, Periods, Offset Source 2)
Long Form	<i>CorrelationAnalysis</i> (Source1, Source2, MA Type, Periods, Offset Source 2)

Dialogs

Chart Study Dialog

Bollinger Bands Indicator Parameters

Source: ^EURUSD.close

Periods: 21

Standard Dev: 2.00000

MA Type: Exponential

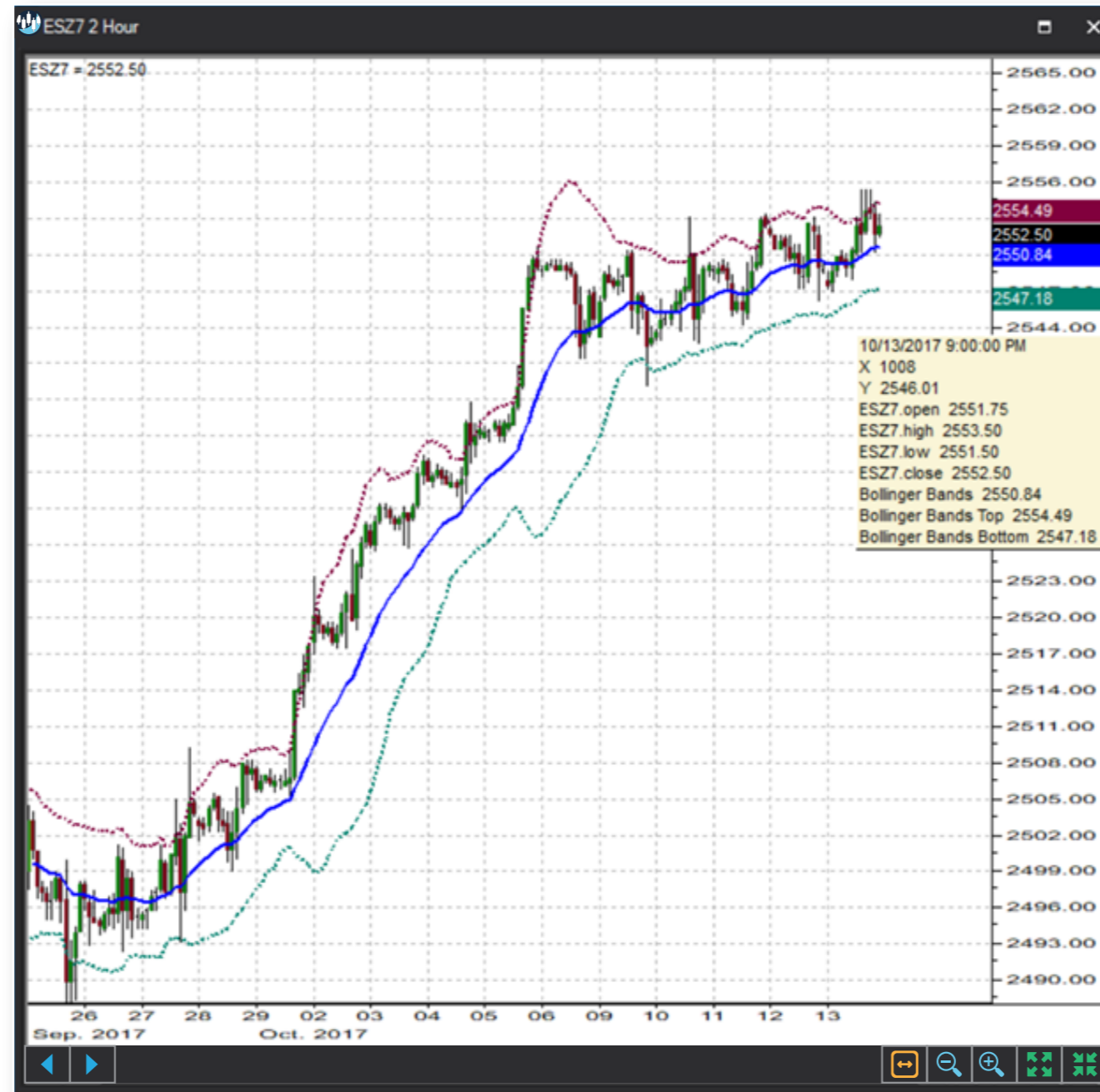
Series Configuration

Series	Line Style	Color	Width
Main	Solid	Blue	2
Top	Dash	Magenta	2
Bottom	Dash	Green	2

Buttons: Add, Cancel

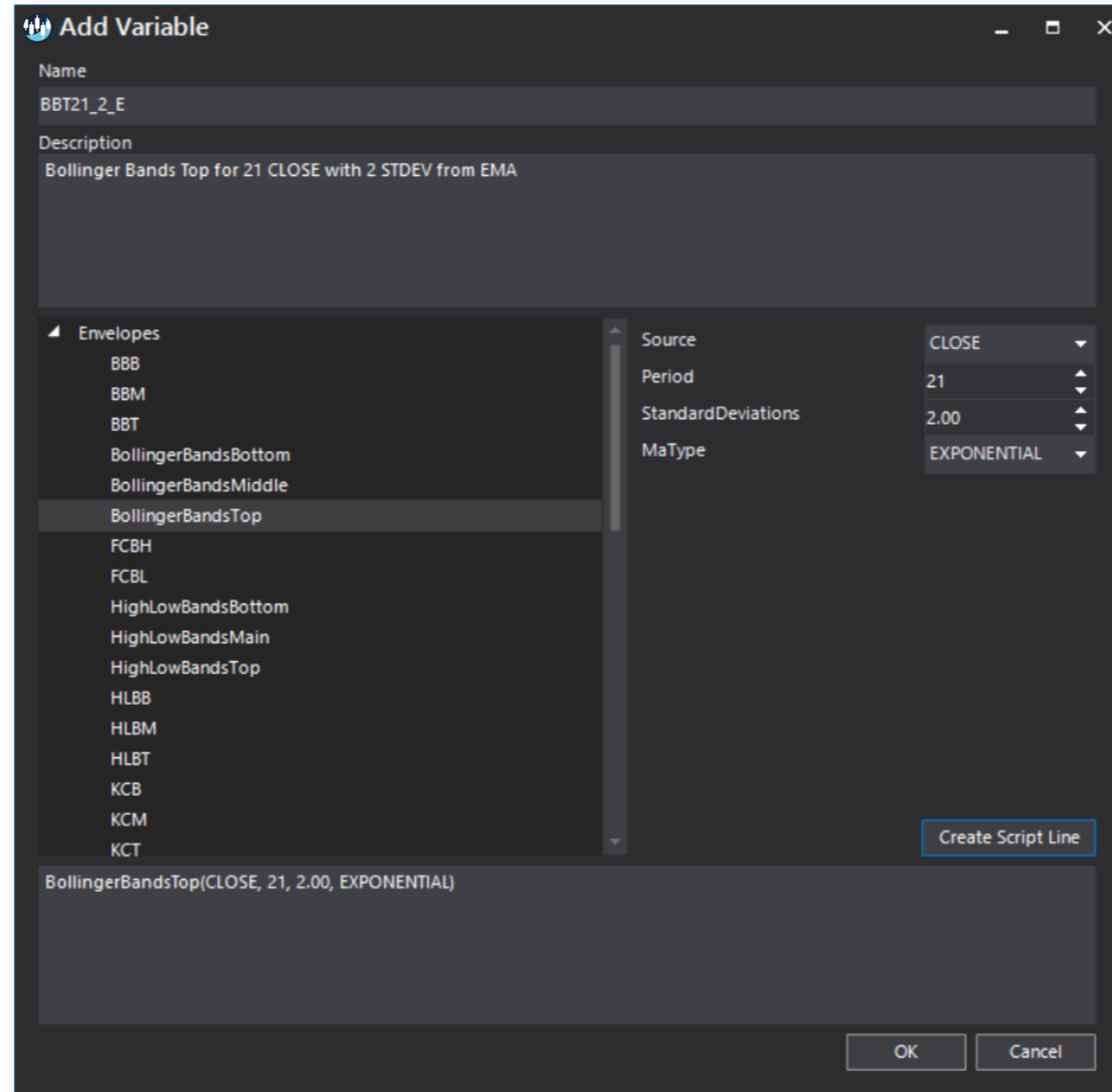


Sample Chart With Study





Quant Script™ Wizard Study Dialog





Quant Script™ Study Dialog

