



S-Trader





BB | Bollinger Bands

Contents

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



Description

Developed by John Bollinger, the Bollinger Bands® are volatility bands placed above and below a moving average. The bands can be plotted above and below any kind of moving average, be it exponential, simple, weighted, volume weighted, variable or otherwise. Likewise any kind of moving average can be used for the standard deviation calculation. Since Bollinger Bands are plotted as a pre-defined number of standard deviations above and below the average, the bands automatically widen when volatility increases and narrow when volatility decreases. To learn more about the Standard Deviation of a statistic, visit this site https://en.wikipedia.org/wiki/Standard_deviation.

Formula

Step 1: Calculate the series Moving Average and the Standard Deviation using existing formulas;

Step 2: Actual bands calculation:

- Bollinger Bands Top = Moving Average + n Standard Deviations
- Bollinger Bands Bottom = Moving Average - n Standard Deviations

Parameters

Source	Any price source (O, H, L, C, Vol, OI) or any other built-in or custom study
Periods	Any number of periods
MA Type	Any available moving average
# StDevs	Any number of standard deviations



Output value(s)

There are three output values resulting from the formula, the Bollinger Bands Top, the Bollinger Bands Main (or Middle) and the Bollinger Bands Bottom.

Plot

The plot is an overlay inside the price series panel.

Quant Script™ Syntax

Short Form	<i>BBT</i> (Source, Periods, StDevs, MA Type)
	<i>BBM</i> (Source, Periods, StDevs, MA Type)
	<i>BBB</i> (Source, Periods, StDevs, MA Type)
Long Form	<i>BollingerBandsTop</i> (Source, Periods, StDevs, MA Type)
	<i>BollingerBandsMain</i> (Source, Periods, StDevs, MA Type)
	<i>BollingerBandsBottom</i> (Source, Periods, StDevs, MA Type)



Dialogs

Chart Study Dialog

Bollinger Bands [Close]

Indicator Parameters

Source: @ESH18.open

Period: 21

StandardDeviations: 2.00000

MaType: Exponential

Series Configuration

Band	Type	Style	Width	Color	Background
Top	Line	Dash	2	Magenta	White
Middle	Line	Solid	2	Blue	White
Bottom	Line	Dash	2	Teal	White

Save as Default Setting

[Add] [Cancel]



Sample Chart With Study





Quant Script™ Wizard Study Dialog

The image shows two overlapping dialog boxes from the S-Trader platform. The top dialog is titled "Custom Study Wizard" and contains the following fields and controls:

- Save To Group: Default (dropdown)
- Custom Study Name: [Text input field]
- Password: [Text input field]
- Result: Line (dropdown), DashDotDot (dropdown), 2 (spin box), [Color swatches]
- Reverse_Result: Line (dropdown), DashDot (dropdown), 2 (spin box), [Color swatches]
- Add To New Panel:
- Buttons: Add New Variable, Edit Selected Variable
- Table with columns: Name, Description

The bottom dialog is titled "Add Variable" and contains the following fields and controls:

- Name: [Text input field]
- Description: [Text input field]
- Tree view of variables under "Envelopes":
 - BBB
 - BBM
 - BBT
 - BollingerBandsBottom (selected)
 - BollingerBandsMiddle
 - BollingerBandsTop
 - FCBH
 - FCBL
 - FractalChaosBandsHigh
 - FractalChaosBandsLow
 - HighLowBandsBottom
 - HighLowBandsMain
 - HighLowBandsTop
 - HLBB
 - HLBM
 - HLBT
 - KCB
- Source: CLOSE (dropdown)
- Period: 21 (spin box)
- StandardDeviations: 2.00 (spin box)
- MaType: Simple (dropdown)
- Button: Create Script Line
- Preview text: BollingerBandsBottom(CLOSE, 21, 2.00, Simple)
- Buttons: OK, Cancel



Quant Script™ Study Dialog

Custom Study Editor

Save To Group: 2_ENVELOPES

Custom Study Name: BB

Password:

Result: Line, DashDotDot, 2, [Color Swatches]

Reverse_Result: Line, DashDot, 2, [Color Swatches]

Formula

```
SET BBTS = BBT(CLOSE, 8, 2.00, SIMPLE)
SET BBTL = BollingerBandsTop(CLOSE,8,2.00,SIMPLE)

SET BBMS = BBM(CLOSE, 8, 2.00, SIMPLE)
SET BBML = BollingerBandsMiddle(CLOSE,8,2.00,SIMPLE)

SET BBBS = BBB(CLOSE, 8, 2.00, SIMPLE)
SET BBBL = BollingerBandsBottom(CLOSE,8,2.00,SIMPLE)
```

Add To New Panel

OK Cancel