
S-Trader

TR / ATR | True Range / Average True Range

Contents

Description

Developed by J. Welles Wilder, the True Range (TR) and the Average True Range (ATR) is an indicator that measures volatility. As with most of his indicators, Wilder designed the TR and ATR with commodities and daily prices in mind. Commodities are frequently more volatile than stocks. They are often subject to gaps and limit moves, which occur when a commodity opens up or down its maximum allowed move for the session. A volatility formula based only on the high-low range would fail to capture volatility from gap or limit moves. Wilder created the True Range and then the Average True Range to capture this “missing” volatility. It is important to remember that the TR and ATR do not provide an indication of price direction, just volatility.

Formula

Step 1: Calculate TR = True Range = the highest of 3 values:
- (Current High – Current Low),
- Absolute(Current High – Previous Close),
- Absolute(Current Low – Previous Close)

Step 2: Calculate the ATR as a moving average of TR for the selected n periods and moving average type.

Parameters

ATR Periods	Any number of periods
ATR MA Type	Any available moving average type

Output value(s)

There are two output values resulting from the formula, the True Range and the Average True Range.

Plot

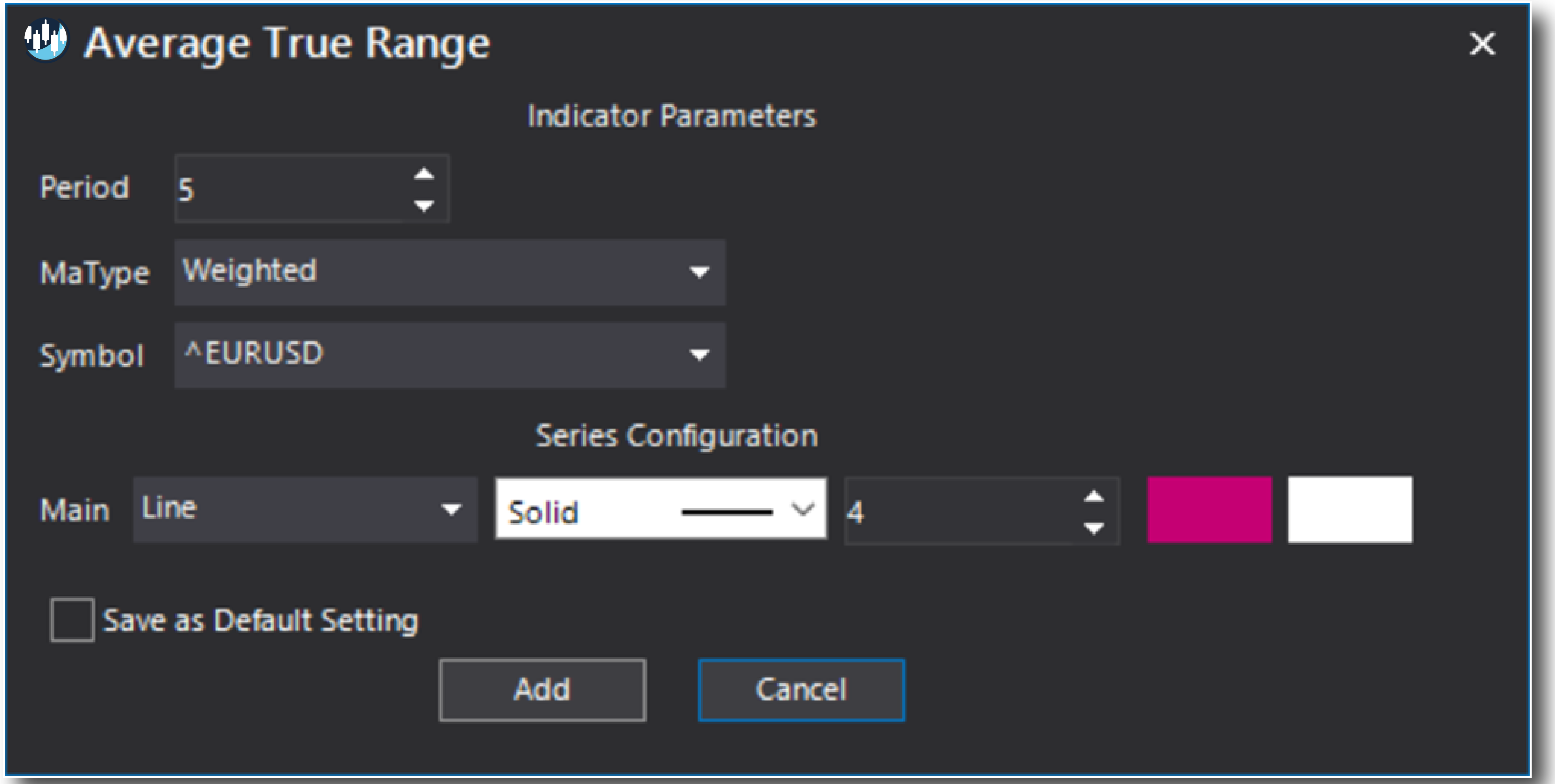
The plot is in a separate panel at the bottom.

Quant Script Syntax

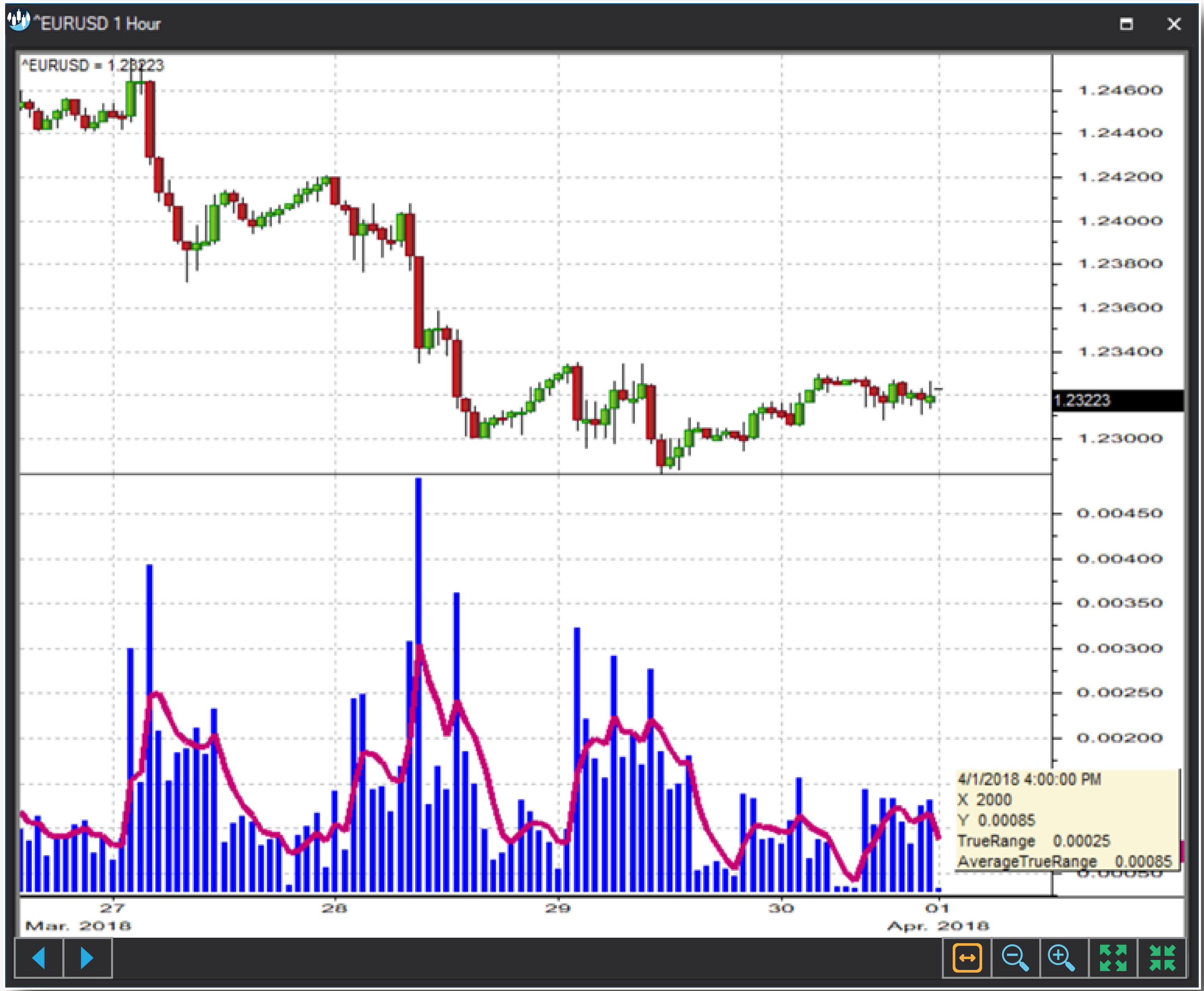
Short Form	***TR()***
	ATR (ATR Periods, ATR MA Type)
Long Form	***TrueRange()***
	AverageTrueRange (ATR Periods, ATR MA Type)

Dialogs

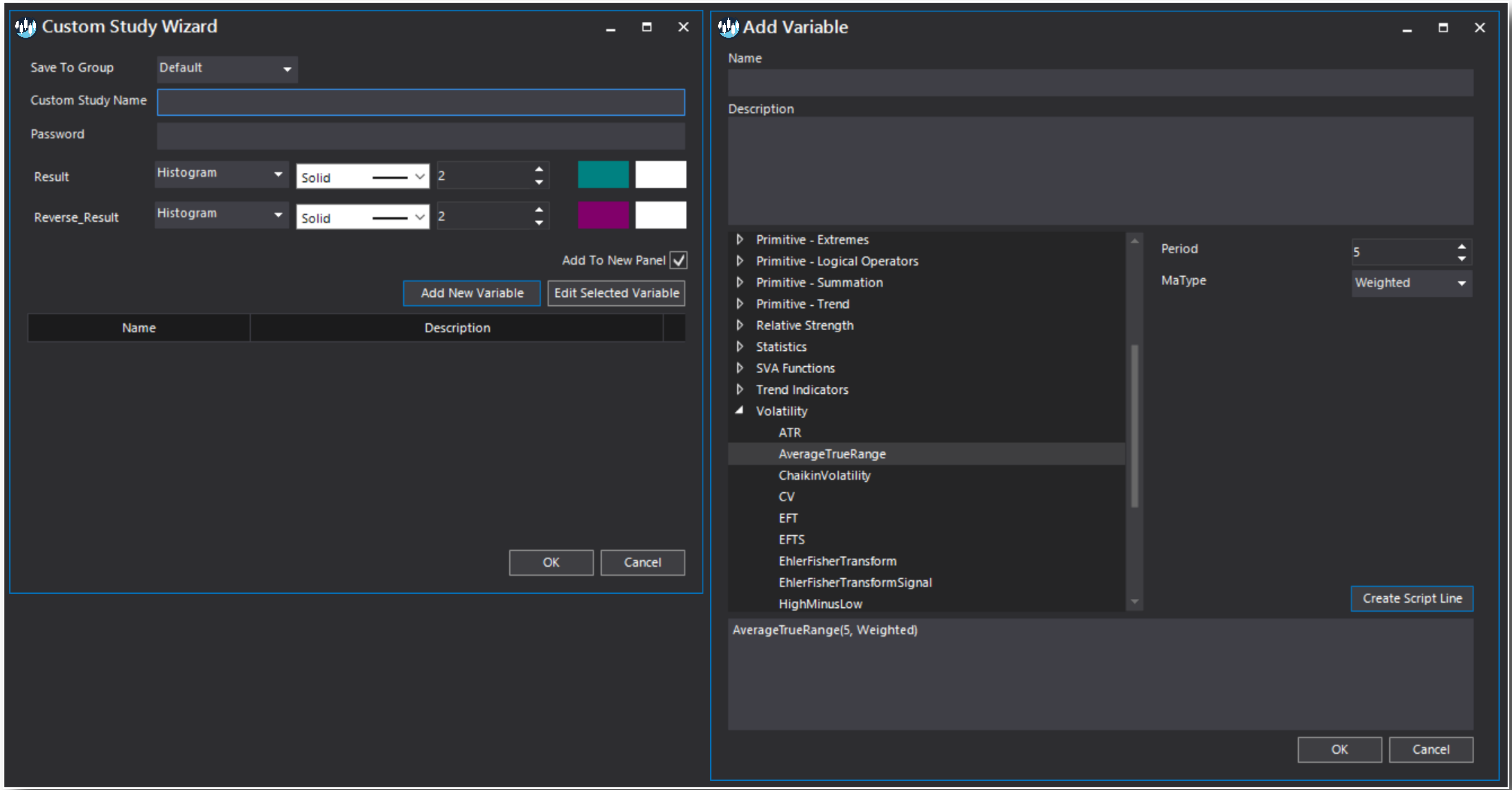
Chart Study Dialog



Sample Chart With Study



Quant Script™ Wizard Study Dialog



Quant Script™ Study Dialog