



S-Trader





RSI | Relative Strength Index

Contents

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



Description

Developed by J. Welles Wilder, the Relative Strength Index (RSI) is a momentum oscillator that measures the speed and change of price movements. The RSI oscillates between 0 and 100. Traditionally, and according to Wilder, RSI is considered overbought when above 70 and oversold when below 30. Signals can also be generated by looking for divergences, failure swings, and centerline crossovers above and below 50. RSI can also be used to identify the general trend.

Formula

- Step 1: Calculate PPC = Period Positive Change = 0 if Close < Open and Close – Open if Close > Open;
- Step 2: Calculate PNC = Period Negative Change = 0 if Close > Open and Absolute(Close – Open) if Close < Open;
- Step 3: Calculate an exponential moving average of PPC for the requested n periods;
- Step 4: Calculate an exponential moving average of PNC for the requested n periods;
- Step 5: Calculate $RS = EMA(PPC, n) / EMA(PNC, n)$;
- Step 6: Calculate $RSI = 100 - 100 / (1 + RS)$.

Parameters

Source	Any price source (O, H, L, C, Vol, OI) or any other built-in or custom study
Periods	Any number of smoothing levels

Output value(s)

There is one output value resulting from the formula, the Relative Strength Index.



Plot

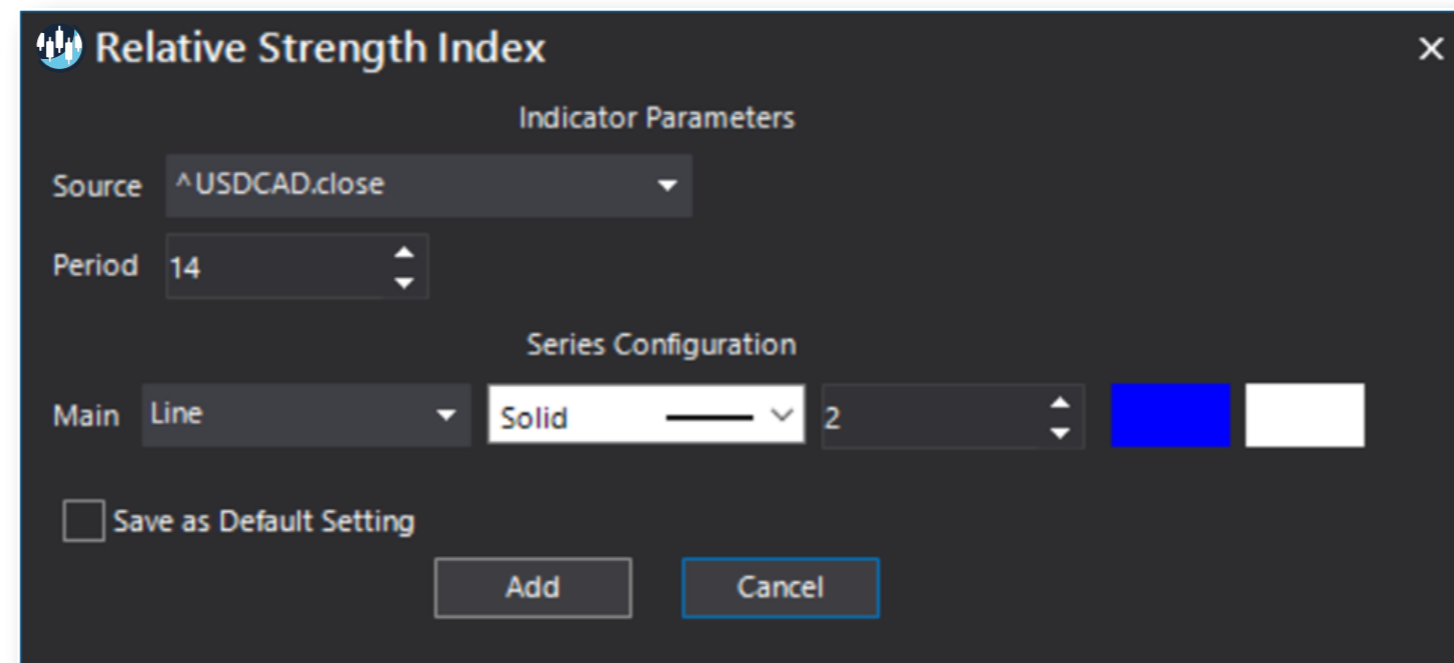
The plot is in a separate panel at the bottom.

Quant Script™ Syntax

Short Form	<i>RSI</i> (Source, Periods)
Long Form	<i>RelativeStrengthIndex</i> (Source, Periods)

Dialogs

Chart Study Dialog





Sample Chart With Study





Quant Script™ Wizard Study Dialog

The image shows two overlapping dialog boxes in the S-Trader desktop platform. The 'Custom Study Wizard' dialog is on the left, and the 'Add Variable' dialog is on the right.

Custom Study Wizard

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

Add Variable

- Name: [Empty text box]
- Description: [Empty text box]
- Source: CLOSE
- Period: 14
- Variable List: PPO, PPOS, PrettyGoodOscillator, PrimeNumberOscillator, PSAR, Qstick, QSTK, RainbowOscillator, RateOfChange, RBO, RelativeStrengthIndex (selected), ROC, RSI, SMID, SMIK, SOPD, SOPDST, SOPK
- Button: Create Script Line
- Script Line: RelativeStrengthIndex(CLOSE, 14)
- Buttons: OK, Cancel



Quant Script™ Study Dialog

Custom Study Editor

Save To Group: 3_OSCILLATORS_PRICE A 14.00

Custom Study Name: RSI

Password:

Result: Line Solid 2 [Color Swatches]

Reverse_Result: Line Solid 2 [Color Swatches]

Formula Add To New Panel

```
SET RESULT = RSI(CLOSE, 14)
SET REVERSE_RESULT = RelativeStrengthIndex(CLOSE, 14)
```

OK Cancel