



**S-Trader**





## UOST | Ultimate Oscillator ST

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## Description

Developed by Larry Williams in 1976 and featured in the Stocks & Commodities Magazine in 1985, the Ultimate Oscillator is a momentum oscillator designed to capture momentum across three different timeframes. The multiple timeframe seeks to avoid the pitfalls of other oscillators. Many momentum oscillators surge at the beginning of a strong advance and then form a bearish divergence as the advance continues. This is because they are stuck with one timeframe. The Ultimate Oscillator attempts to correct this fault by incorporating longer timeframes into the basic formula. Williams identified a buy signal based on a bullish divergence and a sell signal based on a bearish divergence.

The difference between Ultimate Oscillator and Ultimate Oscillator ST indicators is that the first uses a summation function in the final calculation stage whereas the second uses smoothed values. Because of that the Ultimate Oscillator ST has one extra parameter – moving average type – than the Ultimate Oscillator.

## Formula

Step 1: Calculate Buying Power =  $BP = CLOSE - MIN(Low\ AND\ Prior\ Close)$

Step 2: Calculate True Range =  $TR = MAX(High\ AND\ Prior\ Close) - MIN(Low\ AND\ Prior\ Close)$

Step 3: Calculate Cycle 1 = Smoothed BP / Smoothed TR for cycle1 periods and selected moving average type using existing formulas;

Step 4: Calculate Cycle 2 = Smoothed BP / Smoothed TR for cycle2 periods and selected moving average type using existing formulas;

Step 5: Calculate Cycle 3 = Smoothed BP / Smoothed TR for cycle3 periods and selected moving average type using existing formulas;

Step 6: Calculate  $q = Cycle\ 3\ Periods / Cycle\ 1\ Periods$  and  $r = Cycle\ 2\ Periods / Cycle\ 1\ Periods$ ;

Step 7:  $UOST = (q * Cycle\ 1 + r * Cycle\ 2 + Cycle\ 3) / (q + r + 1)$



## Parameters

<b>Cycle 1 Periods</b>	Any number of periods
<b>Cycle 2 Periods</b>	Any number of periods
<b>Cycle 3 Periods</b>	Any number of periods
<b>MA Type</b>	Any available moving average type

## Output value(s)

There is one output value resulting from the formula, the Ultimate Oscillator ST.

## Plot

The plot is in a separate panel at the bottom.

## Quant Script™ Syntax

<b>Short Form</b>	<i>UOST</i> (Cycle 1 Periods, Cycle 2 Periods, Cycle 3 Periods, MA Type)
<b>Long Form</b>	<i>UltimateOscillatorST</i> (Cycle 1 Periods, Cycle 2 Periods, Cycle 3 Periods, MA Type)



## Dialogs

### Chart Study Dialog

**Ultimate Oscillator ST** [Close]

Indicator Parameters

PeriodCycle1: 7

PeriodCycle2: 14

PeriodCycle3: 28

MaType: Exponential

Symbol: ESM8

Series Configuration

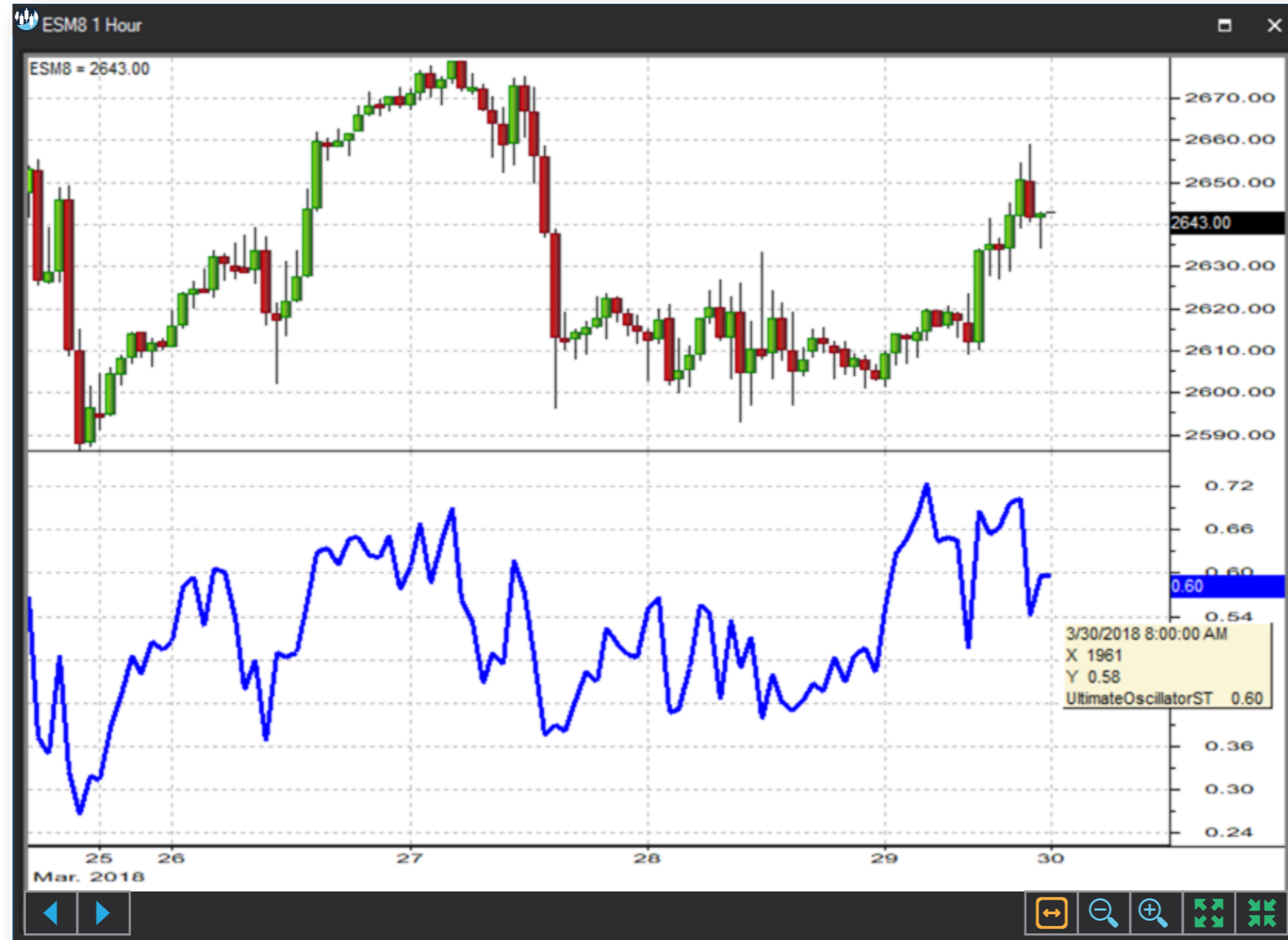
Main: Line, Solid, 3, [Blue], [White]

Save as Default Setting

[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 swatches]
- Reverse\_Result: Line, Solid, 2, [Color swatches]
- Buttons: Add To New Panel (checked), Add New Variable, Edit Selected Variable
- Table with columns: Name, Description
- Buttons: OK, Cancel

**Add Variable Dialog:**

- Name: [Empty text box]
- Description: [Empty text box]
- Variable List (Left):
  - StochasticMomentumIndexD
  - StochasticMomentumIndexK
  - StochasticOscillatorPCTD
  - StochasticOscillatorPCTDST
  - StochasticOscillatorPCTK
  - StochasticOscillatorPCTKST
  - TrueStrengthIndex
  - TrueStrengthIndexSmooth
  - TSI
  - TSIS
  - UltimateOscillator
  - UltimateOscillatorST
  - UO
  - UOST
  - WilliamsPctR
  - WPR
  - Primitive - Extremes
- Parameters (Right):
  - PeriodCycle1: 7
  - PeriodCycle2: 14
  - PeriodCycle3: 28
  - MaType: Exponential
- Button: Create Script Line
- Code Area: UltimateOscillatorST(7, 14, 28, Exponential)
- Buttons: OK, Cancel



## Quant Script™ Study Dialog

**Custom Study Editor** [Close]

Save To Group: 3\_OSCILLATORS\_PRICE [Dropdown] A 14.25 [Dropdown]

Custom Study Name:

Password:

Result: Line [Dropdown] Solid [Dropdown] 2 [Dropdown]

Reverse\_Result: Line [Dropdown] Solid [Dropdown] 2 [Dropdown]

Formula Add To New Panel

```
SET RESULT = UOST(7, 14, 28, EXPONENTIAL)
SET REVERSE_RESULT = UltimateOscillatorST(7, 14, 28, EXPONENTIAL)
```