



Divergence Indicator for NinjaTrader

Users Guide

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Installing the Indicator

Below are instructions to install the Divergence Indicator in NinjaTrader.

1. Visit this link if you have not already downloaded the indicator (make sure you remember where you save the indicator on your computer).

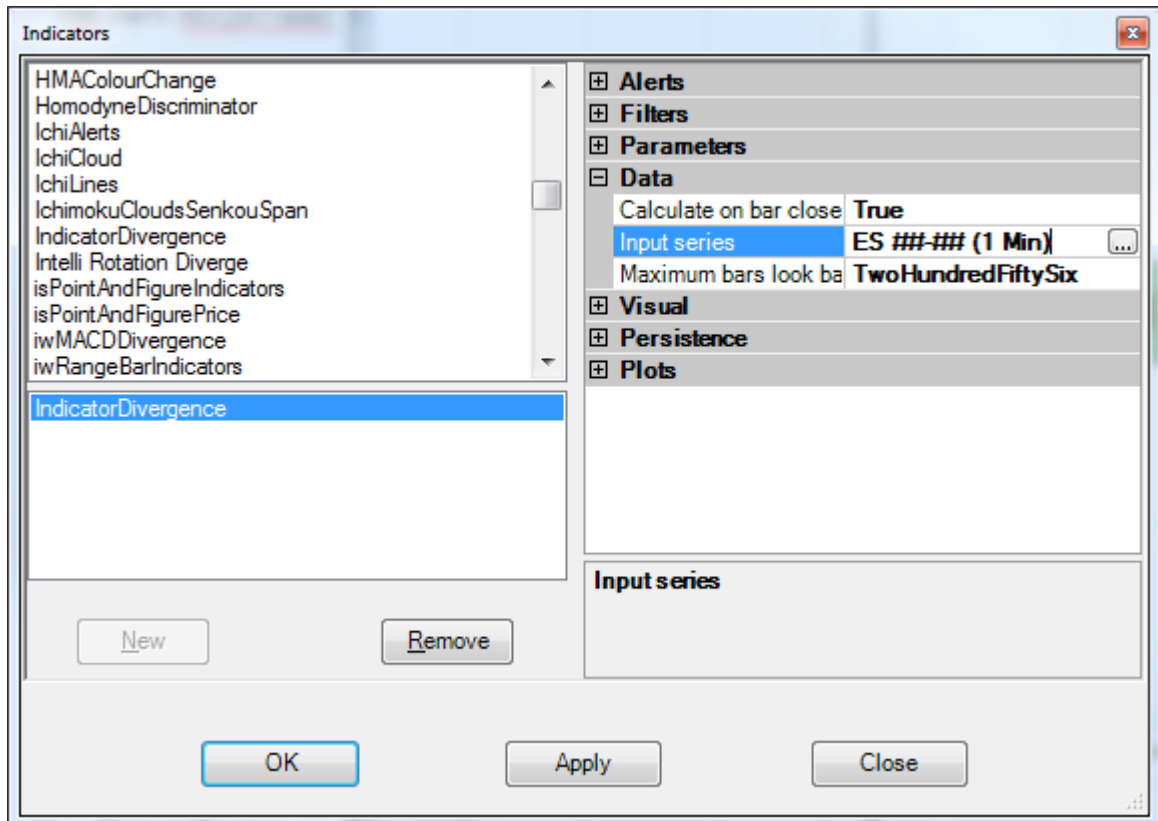
<http://www.mooretechllc.net/Downloads/NinjaTrader/IndicatorDivergence.zip>

2. Open NinjaTrader
3. Select 'File > Utilities > Import NinjaScript' from the menu in NinjaTrader's Control Center
4. In the dialog window that appears, browse to the .zip file that you downloaded in step 1 above.
5. Press OK

NinjaTrader should prompt you that the indicator has been successfully imported upon completion.

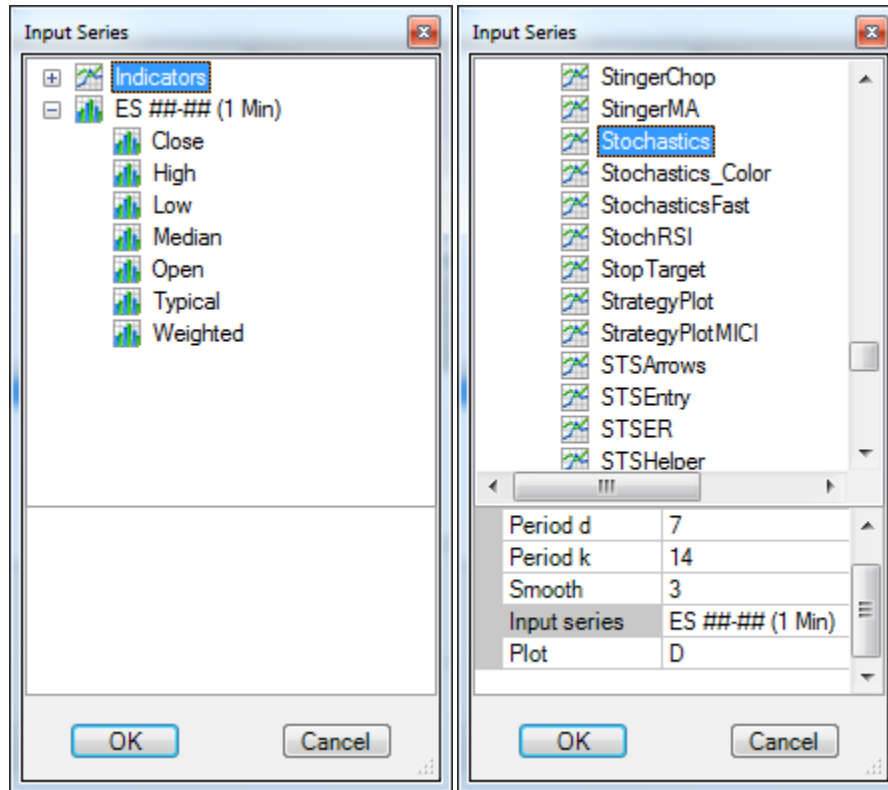
Basic Setup

1. Open a Chart in NinjaTrader
2. Add the 'IndicatorDivergence' indicator to your chart (right click the chart and select 'Indicators' to add the indicator).
3. Under the Indicator Properties, Click on the cell to the right of 'Input Series'



4. You will see a small button appear on the right hand side of this box. Click the small button.

5. A window will appear to allow you to select the input series for the indicator. Click the + sign next to 'Indicators' to see a list of all available indicators.



6. Select the indicator you would like to use to calculate Divergence. You can adjust the parameters for this indicator at the bottom of the Input Series window. Press OK to close both forms.
7. The chart should then show the divergences calculated against the indicator you selected above.



Advanced Settings

Alerts

Alerts	
AudioAlert	False
AudioFile	Alert 1.wav
EmailAddress	myEmail@myAddress.com
EmailAlert	False

The Alerts section of the indicator parameters allows you to select what types of alerts you would like to have when divergences are detected.

Filters

Filters	
DivergenceType	All
IndicatorAngle	0
IndicatorAngleFilter	False
IndicatorAngleOperator	GreaterEqual
IndicatorBars	0
IndicatorBarsFilter	False
IndicatorBarsOperator	GreaterEqual
IndicatorChange	0
IndicatorChangeFilter	False
IndicatorChangeOperator	GreaterEqual
PriceAngle	0
PriceAngleFilter	False
PriceAngleOperator	GreaterEqual
PriceBars	0
PriceBarsFilter	False
PriceBarsOperator	GreaterEqual
PriceChange	0
PriceChangeFilter	False
PriceChangeOperator	GreaterEqual
Strength	0
StrengthFilter	False
StrengthOperator	GreaterEqual

The Filters section of the indicator parameters allows you to apply filters to the divergence signals that are shown on the chart. Each filter (with the exception of the DivergenceType) contains a true/false parameter that allows you to enable/disable that particular filter. You will also see that each of these filters contains an option for the 'Operator'. The Operator is the mathematical operator you wish to use in the filter.

For example, if you use the settings as displayed in the image above and change the 'IndicatorAngleFilter' parameter to 'true', the indicator will only display divergence patterns where the angle of the line connecting the indicator is greater than 0 (ex. the indicator is making higher highs/lows).

IndicatorAngle - This filter will allow you to suppress the display of any divergence pattern where the angle of the line connecting the indicator highs/lows does not meet your filter criteria.

IndicatorBars - This filter will allow you to suppress the display of any divergence pattern where the length of the line (number of bars the line spans) connecting the indicator highs/lows does not meet your filter criteria.

IndicatorChange - This filter will allow you to suppress the display of any divergence pattern where the price change of the line connecting the indicator highs/lows does not meet your filter criteria.

PriceAngle - Same as IndicatorAngle except calculated on the line connecting price highs/lows.





PriceBars - Same as IndicatorBars except calculated on the line connecting price highs/lows.

PriceChange - Same as IndicatorChange except calculated on the line connecting price highs/lows.

Strength - Every divergence pattern will draw 2 lines on the chart (1 on price and 1 on indicator). These lines will connect the swing highs/lows in price and the indicator. Typically the strength of a swing high refers to the number of bars to the left and right of a bar with lower highs. So when price makes a new high, and is followed by 3 bars with lower highs, the bar that made the new high would have a strength of 3. This is why typical divergence indicators have a longer delay. This indicator considers a swing high when there is 1 bar to the left and right with lower highs, so our definition of Strength is a little different. The Strength of the Divergence Pattern is determined by the MINIMUM strength of any of the 3 points used to create the divergence pattern (the most recent point is ignored because it cannot have a strength more than 1). This filter will allow you to suppress the display of any divergence pattern where the strength of the divergence pattern does not meet your filter criteria.

DivergenceType - Allows you to filter divergences based on the type (Hidden or Regular).

Parameters

Parameters		
BearishHiddenDiv		Lime
BearishRegularDiv		Green
BullishHiddenDiv		Magenta
BullishRegularDiv		Red
MaxLookBack	20	
MinLookBack	1	
ToleranceBars	3	

The Parameters section of the indicator properties allows you customize colors of the divergence lines, and set rules to help the indicator find divergence patterns. The first 4 parameters simply allow you to customize the colors for the lines drawn when a divergence pattern is detected.

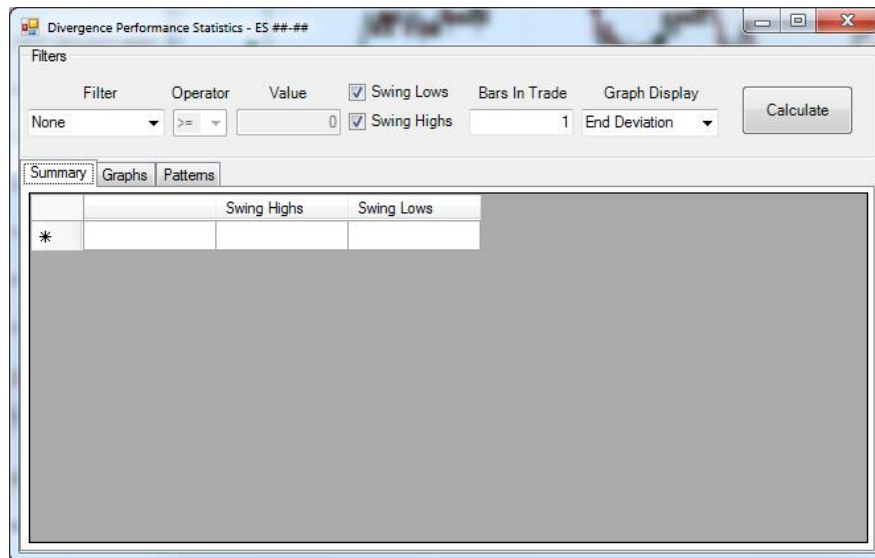
MaxLookBack - The maximum number of historical swing high/low points the indicator will look back when calculating divergence.

MinLookBack - The minimum number of historical swing high/low points the indicator will look back when calculating divergence.

ToleranceBars - Swing highs/lows in price will not always occur on the same bar as swing highs/lows in the indicator. The ToleranceBars parameter allows you to define the maximum number of bars that will be allowed in between the swing highs/lows in price and the indicator.

Using the Analysis Window

To open the Analysis Window, simply click the button labeled 'Analysis Window' in the toolbar of your chart.



Once the Analysis Window is opened, select any filters you wish to apply along with the number of bars after the divergence patterns that you would like to analyze (labeled Bars In Trade). Select the Graph Display option you would like to see, and click the Calculate button.