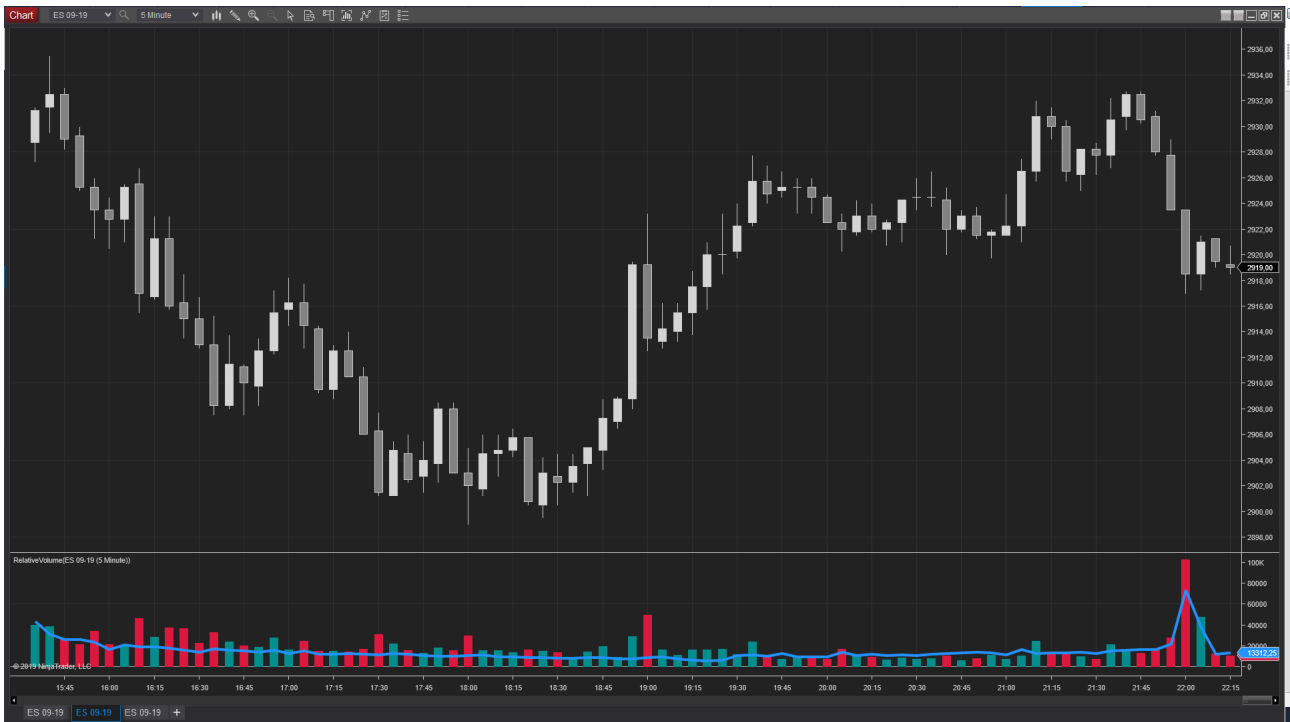


Chart Spots

Relative Volume

NinjaTrader 8

Manual



Relative Volume (RVOL) compares current volume to the average volume for the **same time of day** during prior sessions. It gives a measurement as to how active the product is being traded. Increased volume can signify the start or end of a move.

The indicator can be used to:

- Confirm a break-out
- Detect the start of a move early
- Detect the end of a move
- Expect increased odds of mean reversion throughout the session due to below average volume
- Quickly assess the Relative Volume Factor for the Day or Bar.

Relative Volume allows the configuration of how many prior sessions must be used to compare to. By default the indicator will look at the past 20 session for that specific time-frame.

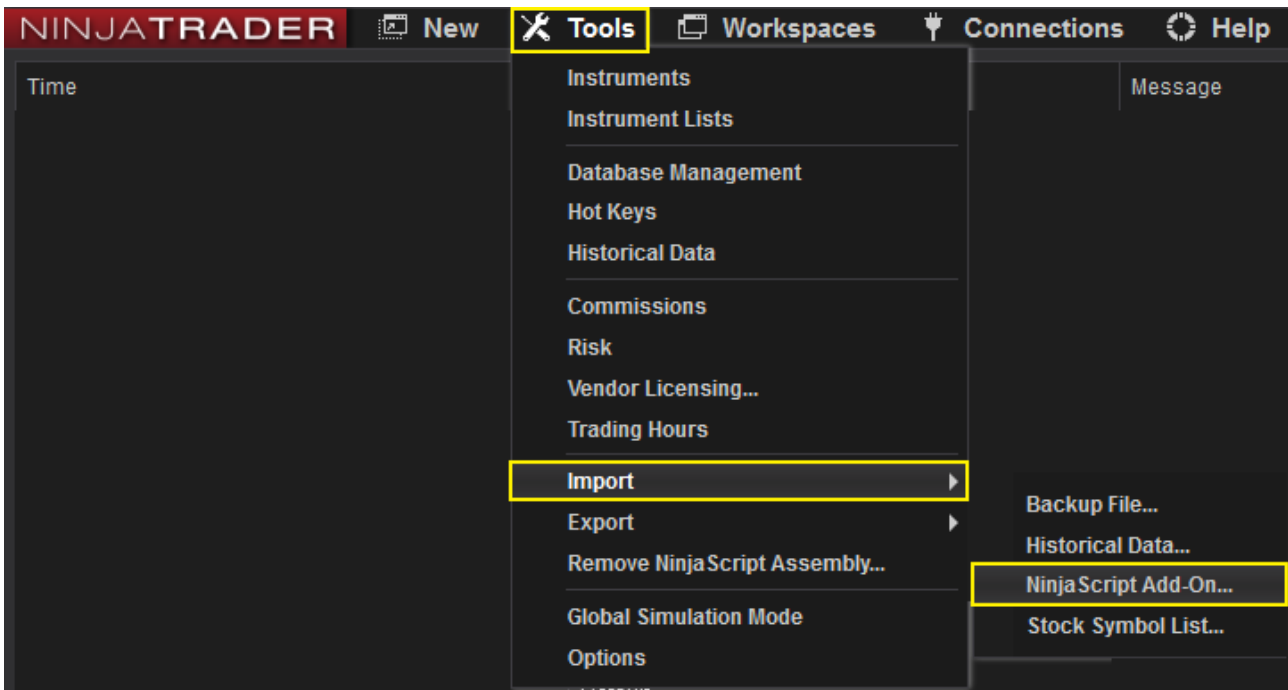
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1. Installation

After downloading the .ZIP file from the Chart Spots website, Open NinjaTrader 8 and follow these steps:

1. Select the NinjaTrader 8 Control Center window
2. Tools > Import > NinjaScript Add-on...
3. Select the downloaded .ZIP file

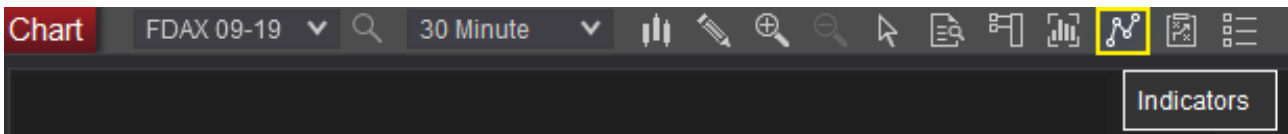


2. Configuration

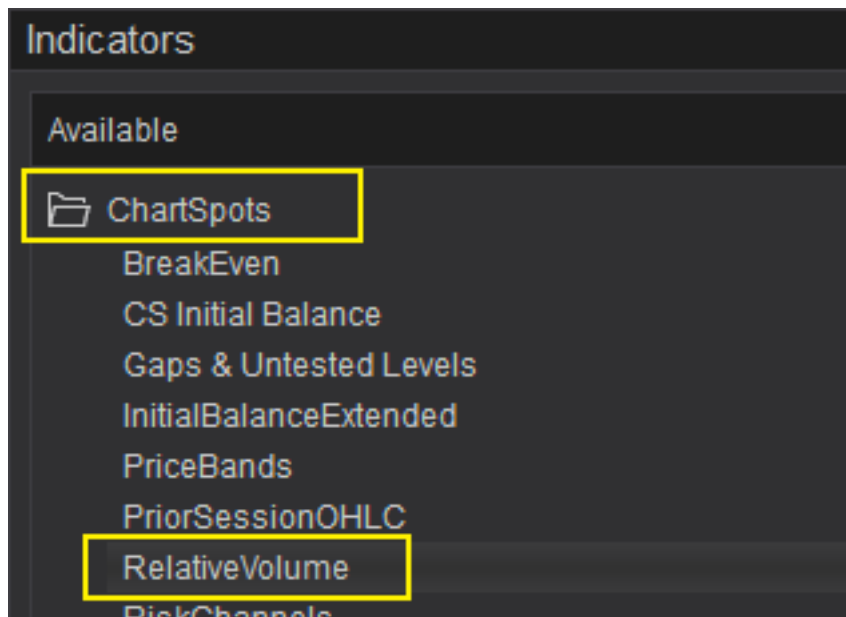
2.1 Add Indicator to Chart

Open an **Intra-day** chart and follow these steps:

1. Click the indicators button



2. Open the ChartSpots folder
3. Double click "RelativeVolume"



The Indicator will now be added in the "Configured" Pane of the Indicators dialog. Selecting "RelativeVolume" in the Configured Pane allows you to further configure the Indicator.

2.2 Configure Look-back Days

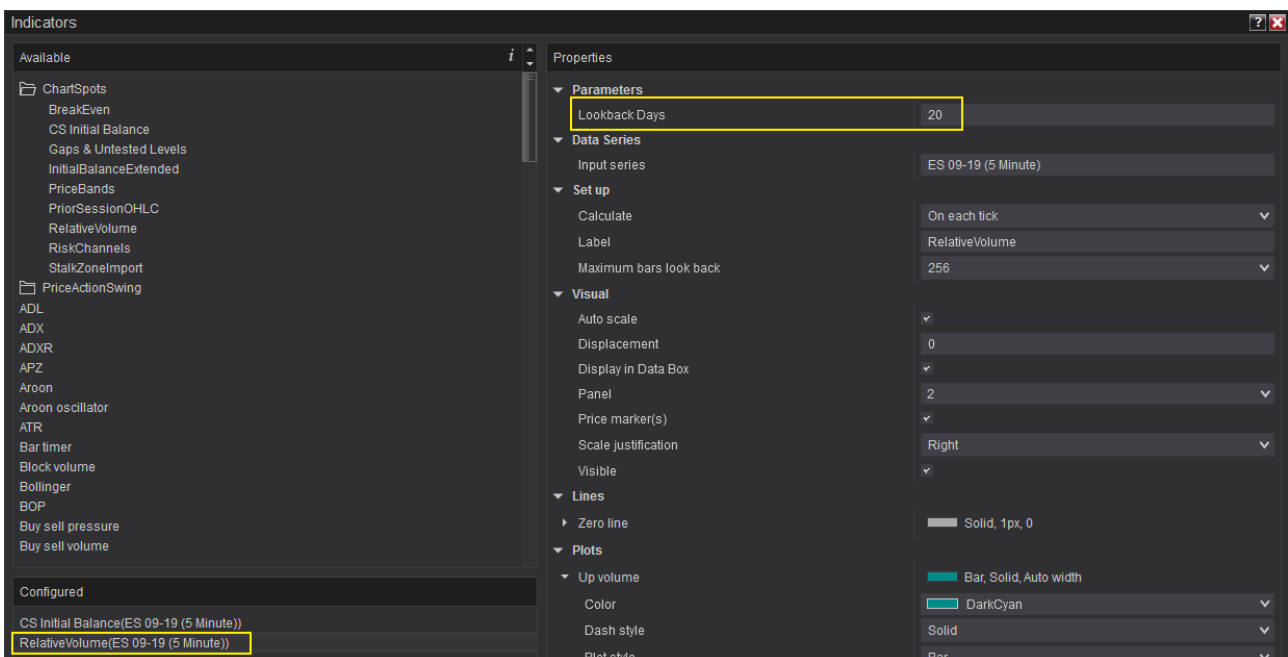
The RVOL indicator allows you to configure the amount of Look-back Days.

By default this is set to 20 sessions.

What does this mean?

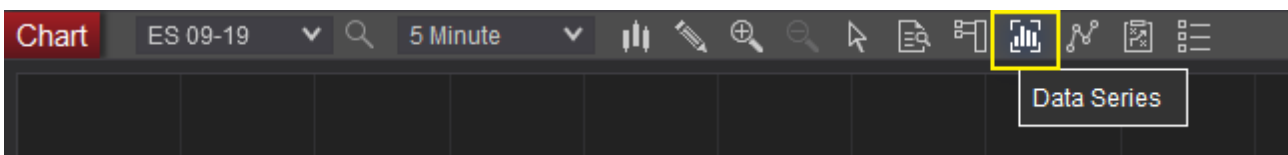
Let's assume you are using a 5 minute chart. In order to calculate the value for the Relative Volume value for 9:00am to 9:05am, the indicator will calculate the average volume of the last 20 sessions during the 9:00am to 9:05am time-frame.

This will be done for each time-frame, resulting in the Relative Volume plot, which is overlaid on the regular volume bars.

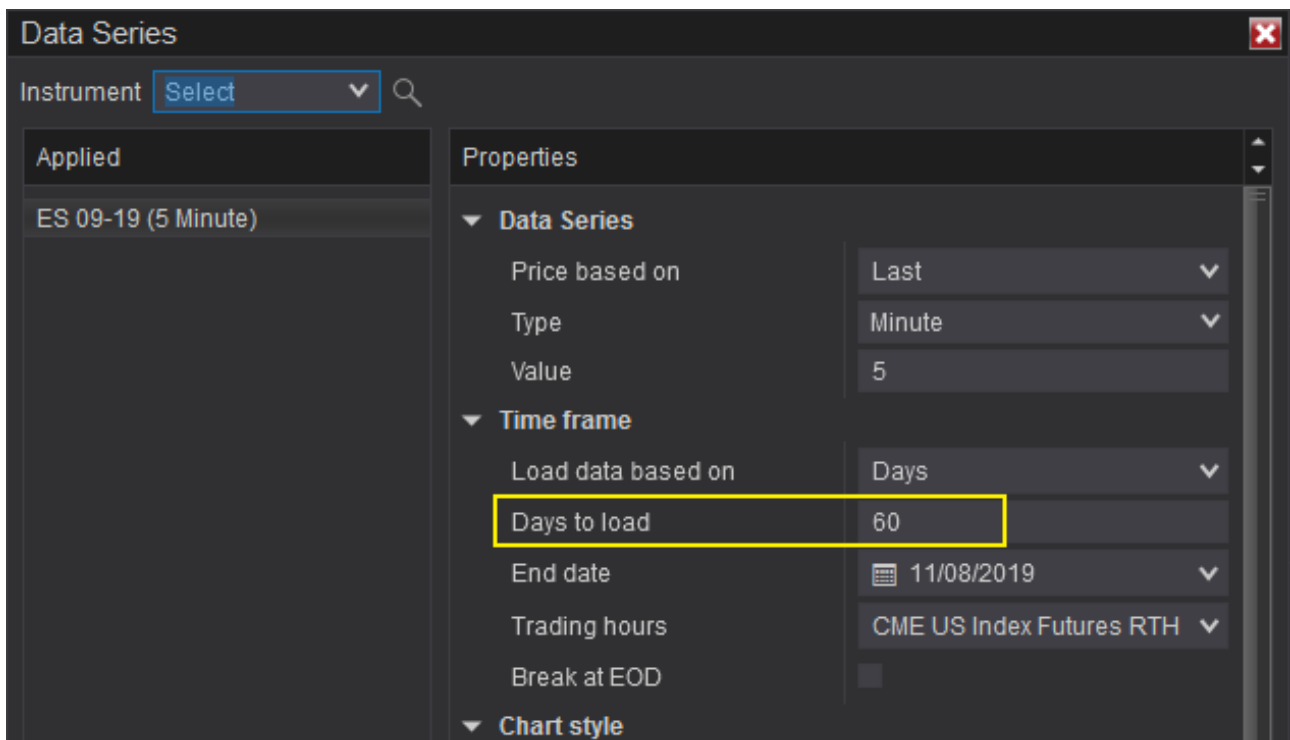


Attention: This implies that in order for the Indicator to plot the Relative Volume, sufficient data needs to be available on the chart. As such, in case of 20 Look-back Days, there needs to be at least 20+ trading sessions on your chart.

You can configure the amount of data on your chart by clicking the “Data Series” button:



In the Data Series dialog you can configure the “Days to load” parameter to be higher than your Look-back Days to ensure proper plotting of the Relative Volume.



Attention: Days to Load in the Charts Data Series are calendar days (including weekends, holidays, etc). Lookback days in the Indicator Configuration are actual trading sessions (which do not include weekends & holidays).

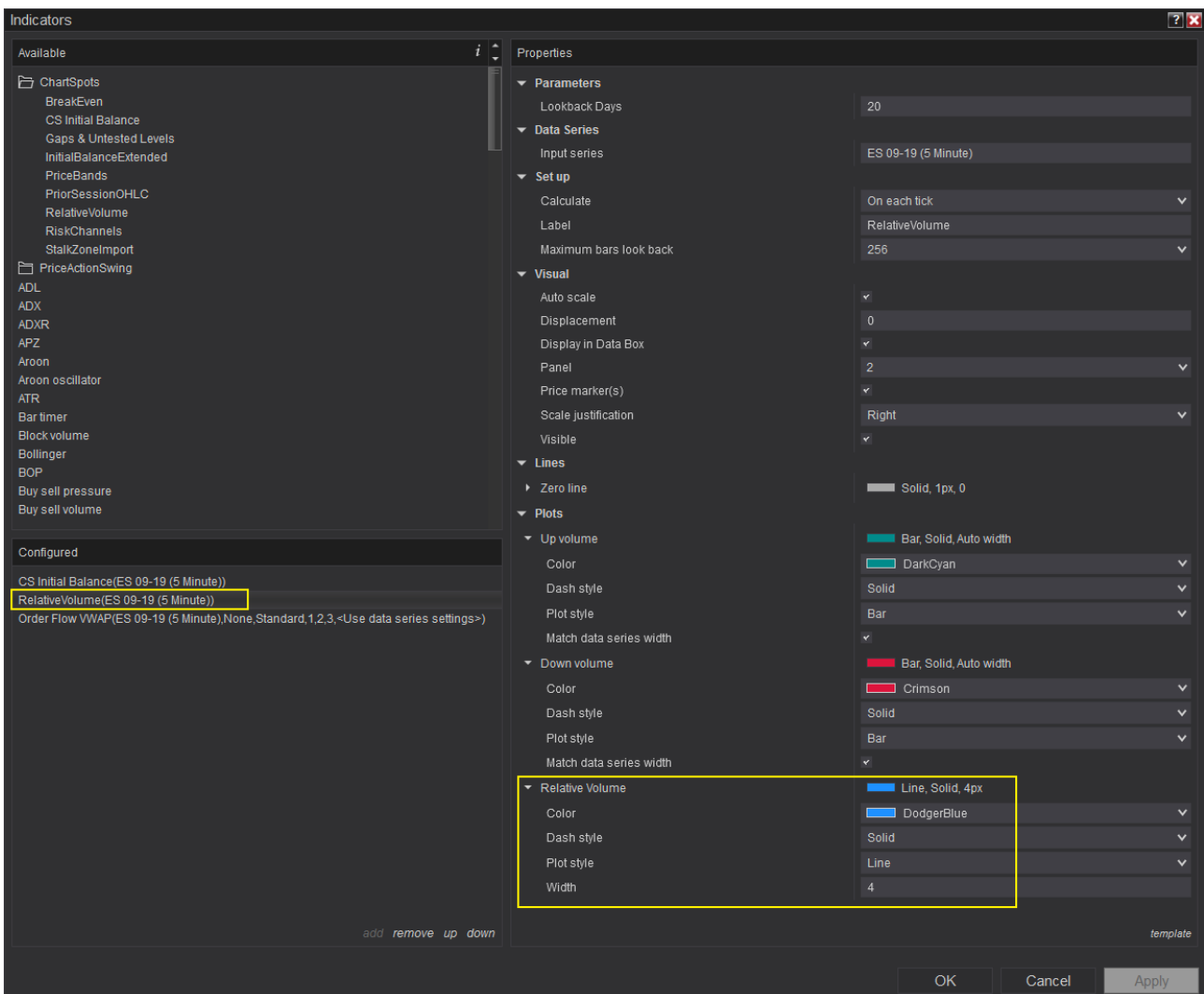
This is why Days to Load needs to be higher than Lookback days,

2.3 Relative Volume Plot configuration

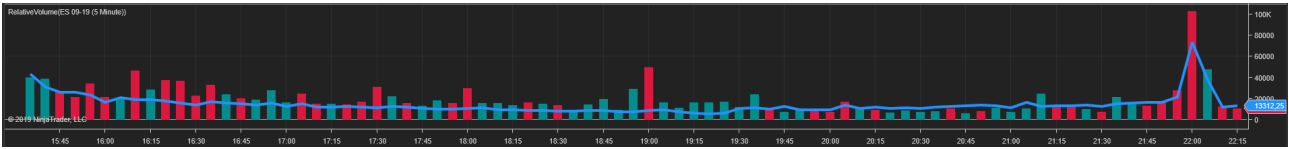
You can configure the Plots for Up & Down volume separately, allowing you to configure different colors for Bars where the close was lower than the open, and vice versa.

The Relative Volume plot is overlaid on the up & down volume bars. Common configuration styles are:

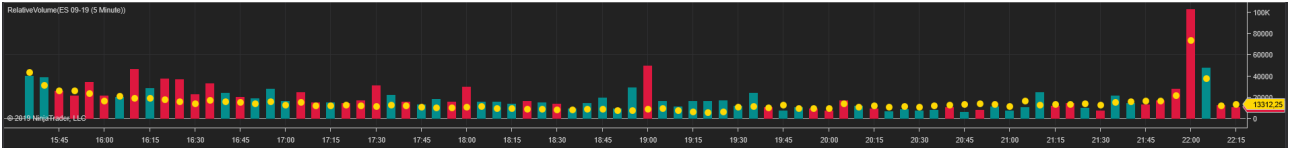
- Line
- Dot



This configuration would result in the following pane on your chart:



Another example with a configuration of yellow Dots:



2.4 Factor for Current Bar

The Relative Volume indicator can be configured to display the factor of the current bar.

$$\text{Factor} = \text{Current bar volume} / \text{Relative volume current bar}$$

As an example: the current bar is showing a volume of 1000 while the Relative Volume for that same timeframe is 500. Factor = 1000 / 500 = 2.

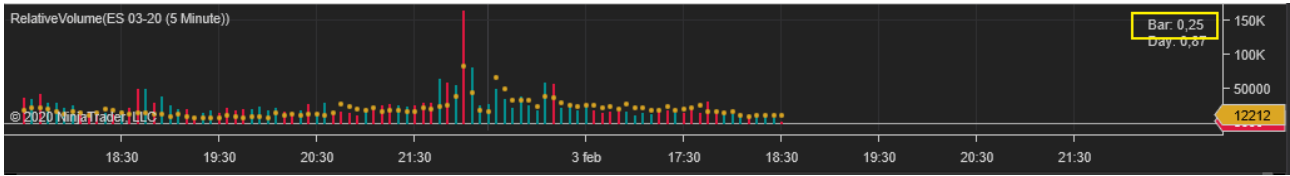
This means the current bar has twice the volume as what was observed for the same timeframe during the Lookback Days.

The screenshot shows the 'Indicators' window with the 'Properties' panel for the 'Relative Volume' indicator. The 'Configured' list on the left includes 'Relative Volume(ES 03-20 (5 Minute))', which is highlighted with a yellow box. The 'Properties' panel on the right is divided into several sections:

- Parameters:**
 - Lookback Days: 5
 - Factor - Bar: (dropdown menu)
 - Factor - Bar Text Prefix: Bar: (text field)
 - Factor - Day: (dropdown menu)
 - Factor - Day Text Prefix: Day: (text field)
- Data Series:**
 - Input series: ES 03-20 (5 Minute)
- Set up:**
 - Calculate: On each tick (dropdown menu)
 - Label: RelativeVolume (text field)
 - Maximum bars look back: 256 (dropdown menu)
- Visual:**
 - Auto scale: (checkbox)
 - Displacement: 0 (text field)
 - Display in Data Box: (checkbox)
 - Panel: 3 (dropdown menu)
 - Price marker(s): (checkbox)
 - Scale justification: Right (dropdown menu)
 - Visible: (checkbox)
- Lines:**
 - Zero line: Solid, 1px, 0
- Plots:**
 - Up volume: Bar, Solid, 2px (teal)
 - Down volume: Bar, Solid, 2px (red)
 - Relative Volume: Dot, Solid, 1px (yellow)

At the bottom of the dialog are 'OK', 'Cancel', and 'Apply' buttons. The 'Relative Volume' indicator is also visible in the 'Plots' section of the 'Visual' settings.

Example on Chart with “Factor – Bar” set to enabled and the “Factor – Bar Text Prefix” set to “Bar: “. If desired, the prefix text can be empty. If both factors are enabled, Bar Factor will be shown above the Day Factor.



2.5 Factor for Current Day

The Relative Volume indicator can be configured to display the factor of the current Day. This compares the total volume of the current calendar day (up to that point in time) to the total relative volume for that day (up to that point in time)

$$\text{Factor Day} = \text{Total Current Day Volume} / \text{Total Relative Volume for the Day}$$

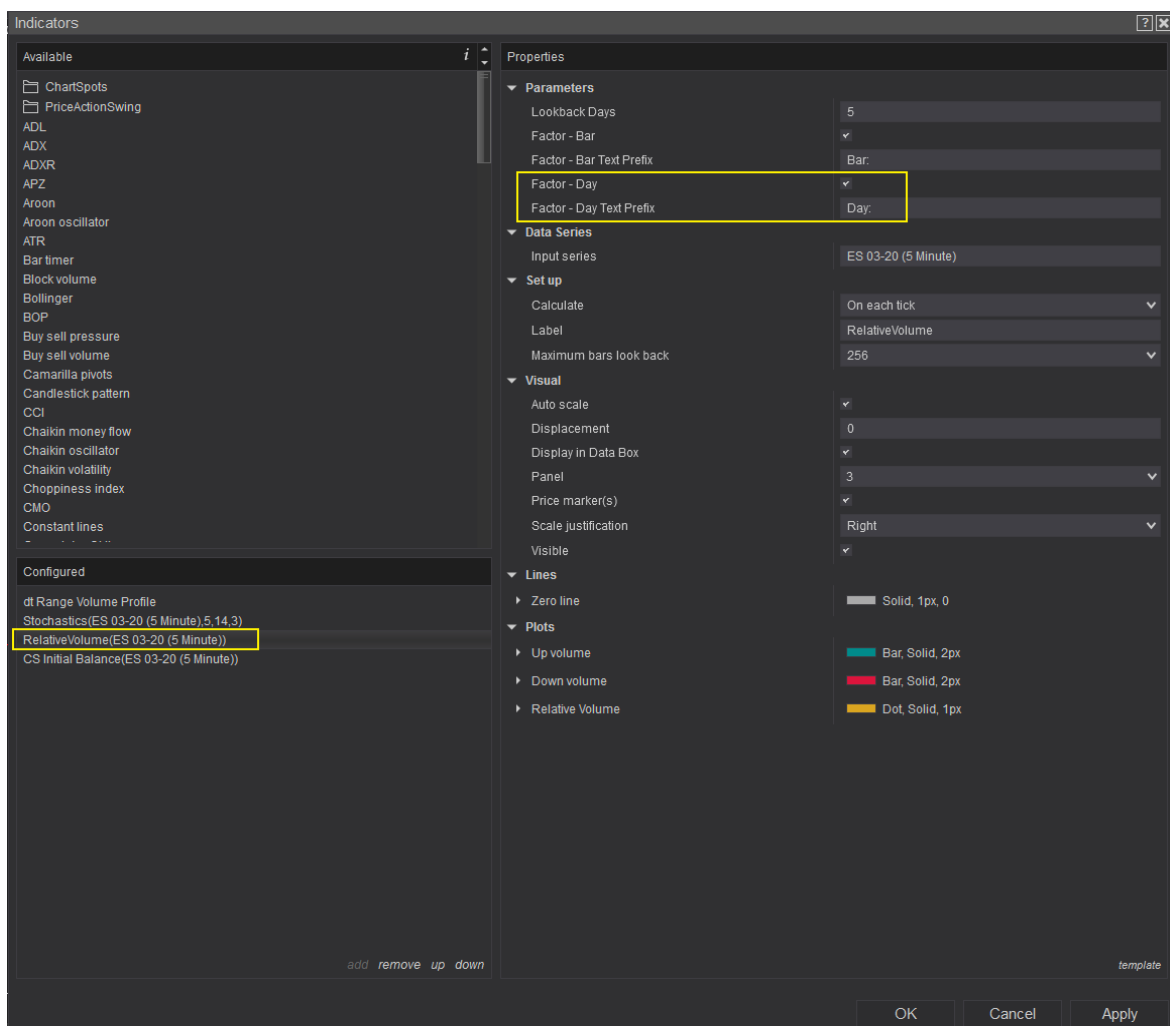
At a simple glance this will show whether the current day is showing above/below average volume.

As an example:

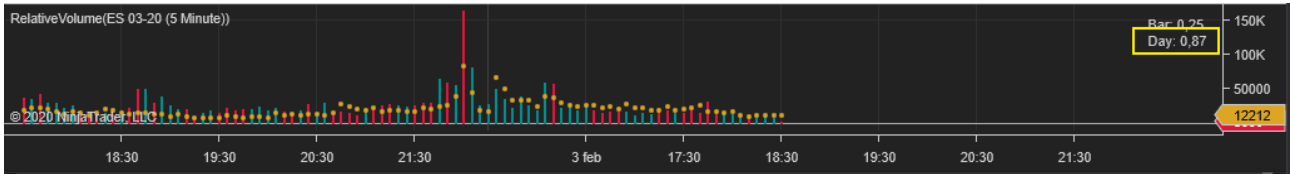
Factor Day = 1 = average volume (actual volume = relative volume)

Factor Day = 2 = double the relative volume

Factor Day = 0,5 = half the relative volume

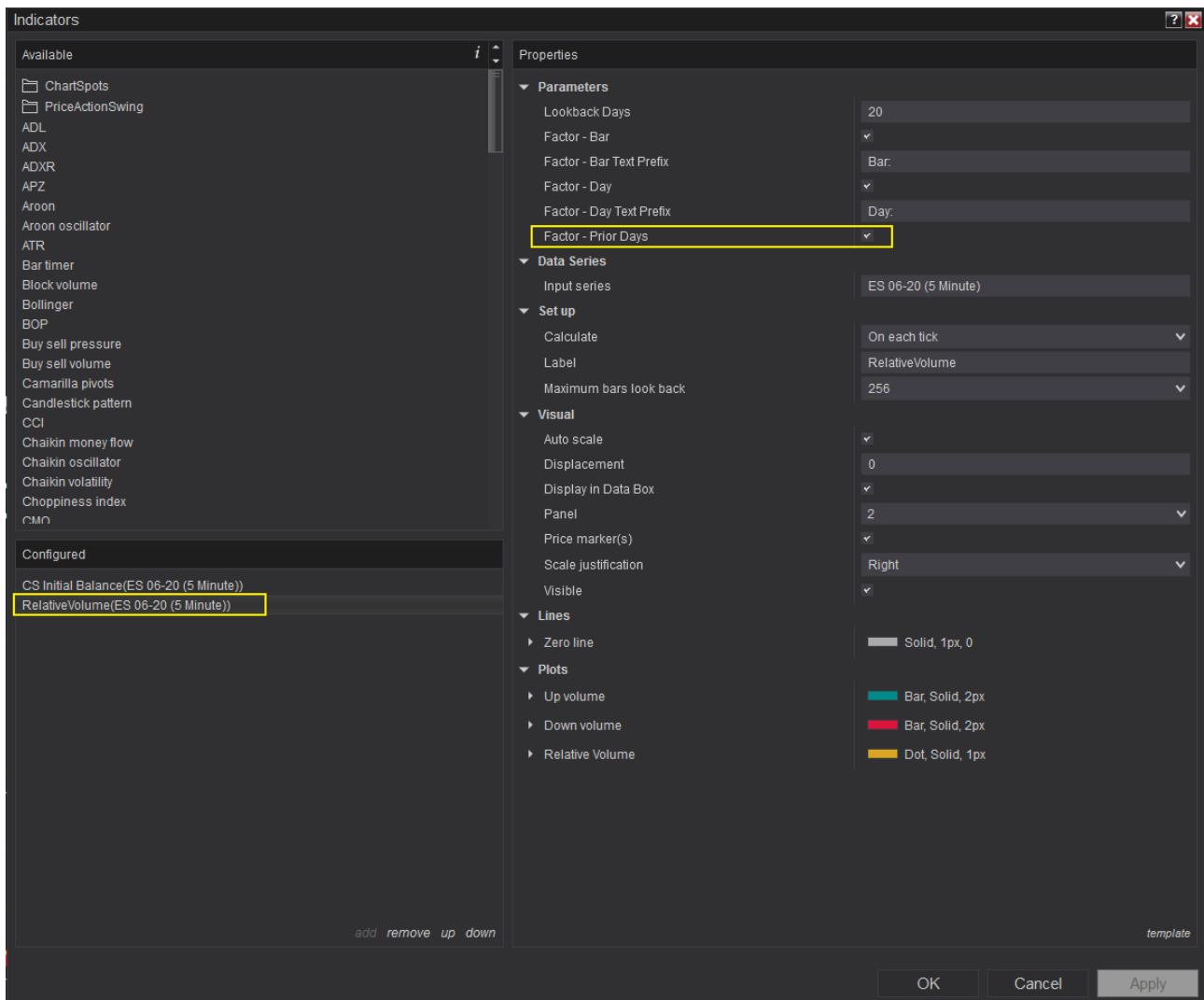


Example on Chart with “Factor – Day” set to enabled and the “Factor – Day Text Prefix” set to “Day: “. If desired, the prefix text can be empty. If both factors are enabled, Bar Factor will be shown above the Day Factor.



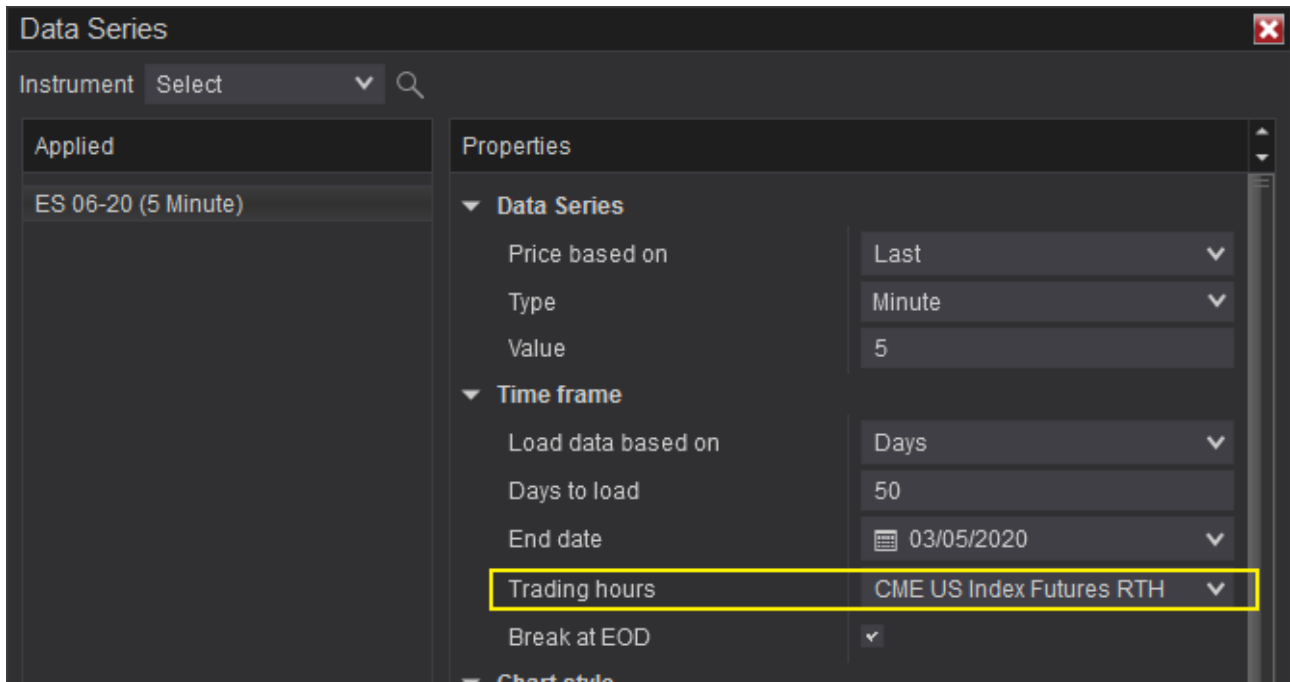
2.6 Factor for Prior Days

The Relative Volume indicator can be configured to display the factor of the prior Days. This is the same calculation as for “Factor – Current Day”.

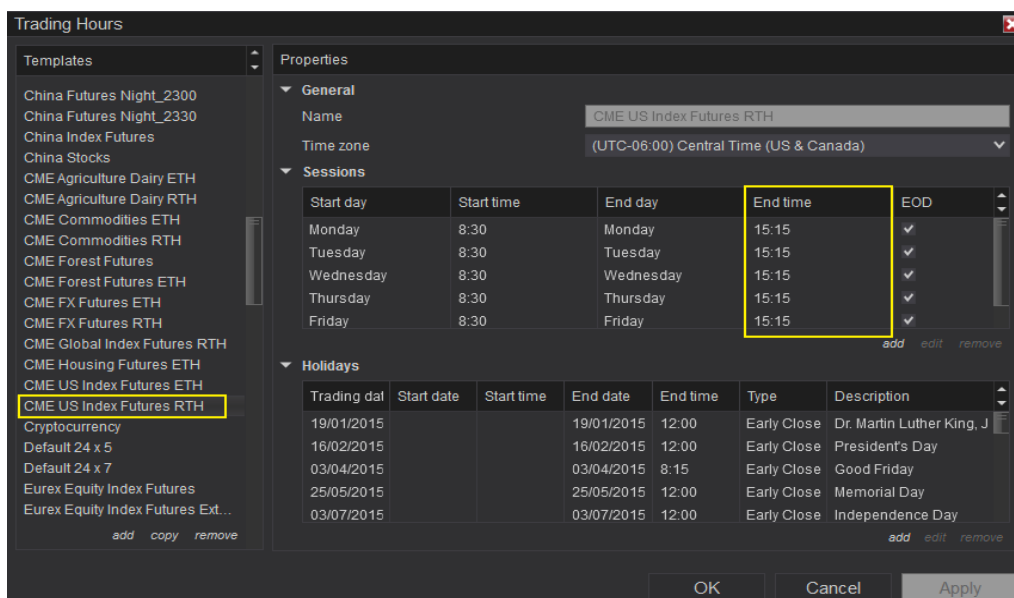


The historical Factor values will be printed when the day has reached the end of the session as configured in the Trading Hours configuration.

To verify what time will be used, check which Trading Hours template is used in your Chart's Data Series.



In Control Center > Tools > Trading Hours you can verify the configuration for that Trading Hours template. Note that the template will show the timeframe in the Exchange's timezone. This time will be converted to the timezone of your NinjaTrader configuration, as you are used to on your charts. The NinjaTrader timezone is by default configured to be the timezone you are in.



Example on Chart with “Factor – Prior Days” enabled. This ES chart is using the “CME US Index Futures RTH” template. The Exchange timezone is converted to the timezone of NinjaTrader (15:15 converts to 22:15 in this example)

