

# USERGUIDE | INDICATORS SUITE



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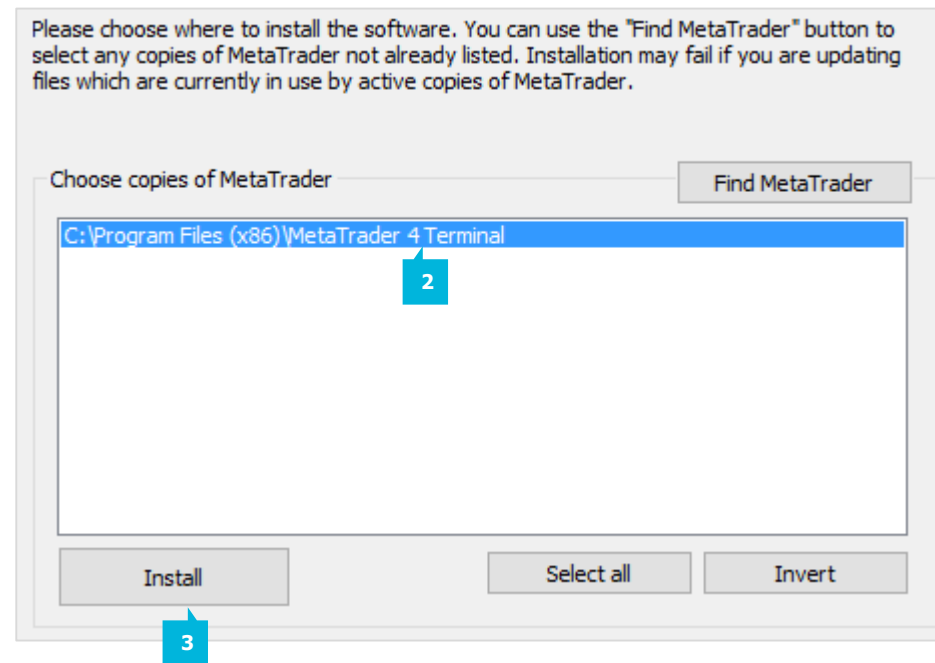
In order to install the **Indicators Suite**, follow the steps below:

1. Click [here](#) to download the retrofit installer containing the full package of JFD MT4+ exclusive add-ons.
2. Run the installer file (1) on your computer.
3. Select the **MetaTrader 4 Terminal** folder (2) where you would like to install the Add-ons package and press the **Install** button (3).
4. Press **OK** in the confirmation dialog box that will appear after successful installation.

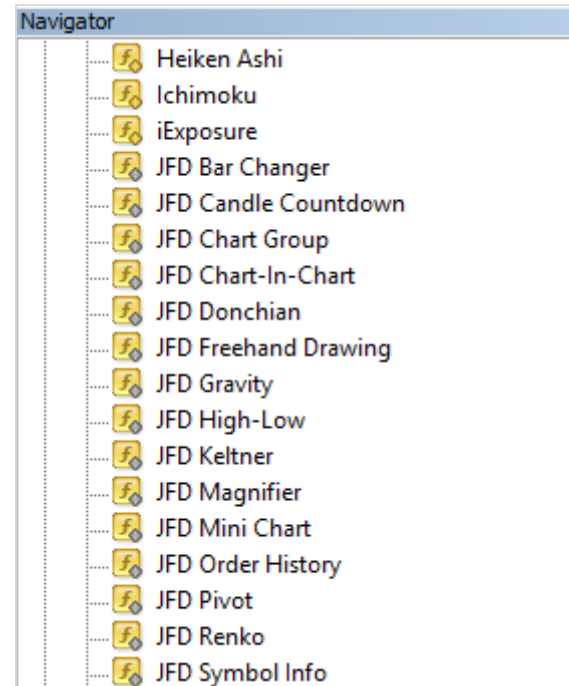
**NOTE**

Before installing JFD's MT4+ Add-ons, close your MT4 terminal. The add-ons cannot be installed if the MetaTrader 4 terminal is running.

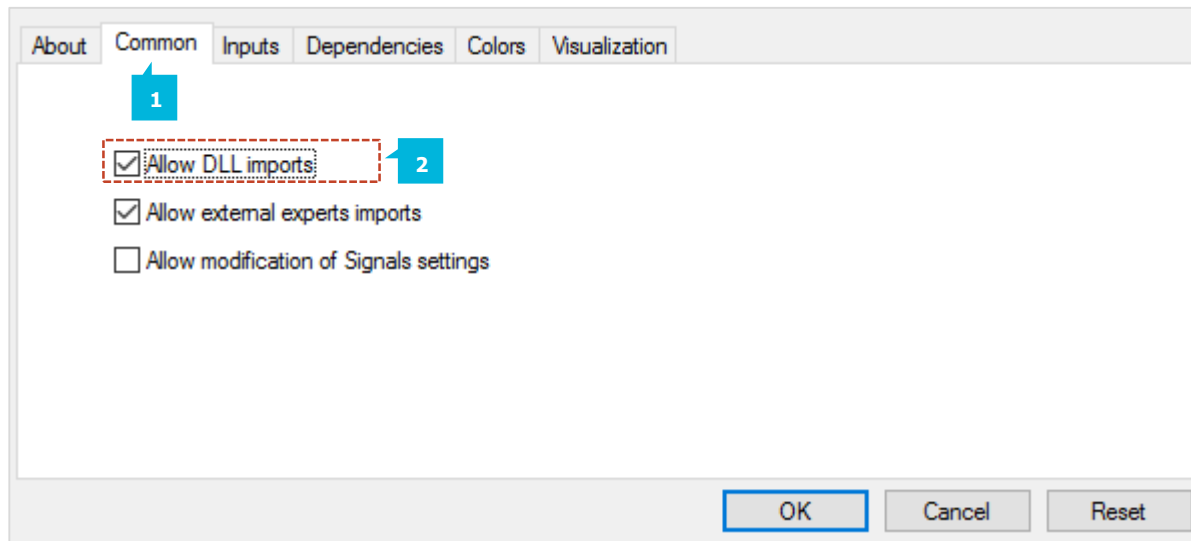
Name <	Type	Size	Packed
JFD-MT4-Apps.exe	.exe	3.0 MB	3.0 MB



After successful installation, open your MT4+ terminal and you will find the full list of JFD indicators along with all other default ones in the **Navigator** window under **Indicators**.



You add any of the indicators to a chart in the usual way, either by dragging it from the **Navigator** window onto a chart, or by double-clicking on it in the **Navigator** window. You can also use standard MT4 features such as adding the indicator to your list of **Favorites**, or assigning a hotkey to it. In the **Common** tab (1) of the indicator's options window, you need to turn on the **Allow DLL imports** (2) setting.



JFD provides a package of useful, commonly-requested chart indicators that can be a valuable addition to any trading toolkit providing useful insights on the markets being analysed for identification of new investment opportunities. The indicators listed in the suite are developed for enhancing your experience with JFD's MT4+ platform.

## A. JFD BAR CHANGER

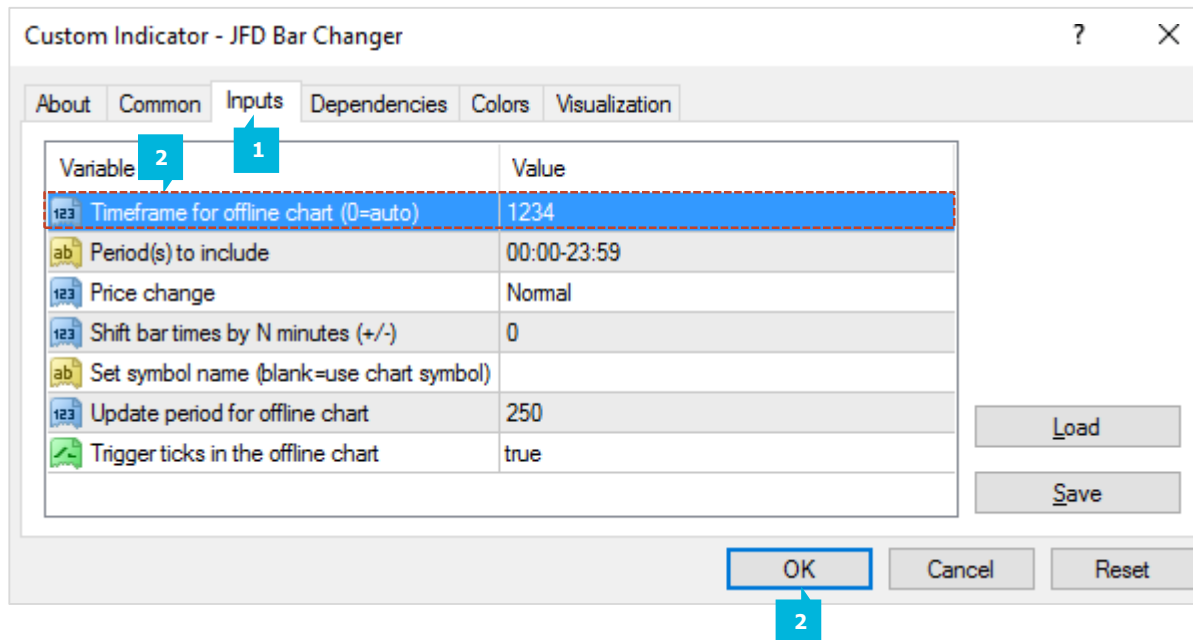
**JFD Bar Changer** indicator creates an offline chart in MT4+ containing a modified version of the chart on which the indicator is running.

**JFD Bar Changer** can make the following modifications to the bar data:

- Adjust the time of each bar (e.g. shift each bar backwards by 2 hours)
- Invert the price, or adjust it to thousands (e.g. converting 1.23456 to 12345.6)
- Exclude parts of each day, e.g. only include 09:00-16:59

The facility to set daily time ranges is mainly intended for filtering the chart activity on index CFDs which have 24-hour pricing but are only actively traded during core market hours. Most indicators and EAs can then be used on the offline chart just like a normal MT4 chart.

You need to choose a timeframe to identify the offline chart, using the respective setting (2) on the indicator's **Inputs** tab (1). If you set the value to zero then the indicator will automatically select a number based on the chart on which it is running. Once ready, press the **OK** button (3).





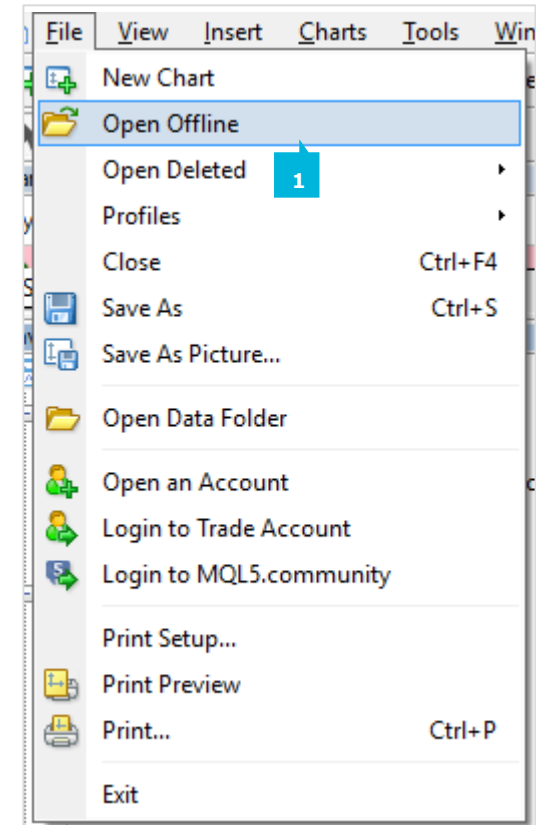
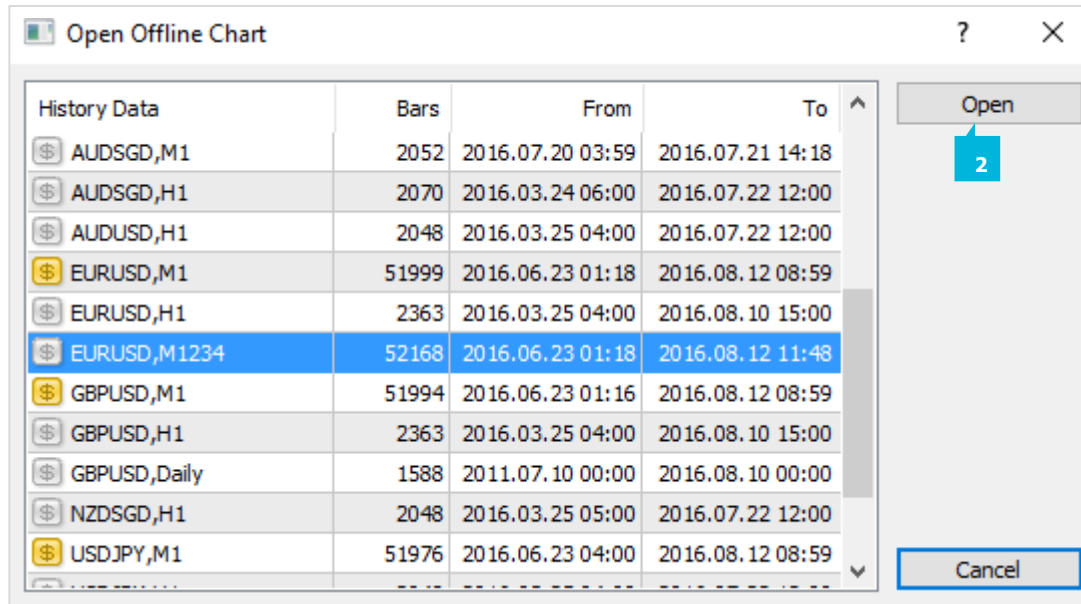
The entries which the indicator creates in the MT4 **Experts** log (1) will confirm which number it is using.

Time	Message
2016.08.12 12:26:34.090	JFD Bar Changer EURUSD,M1: initialized
2016.08.12 12:26:34.090	JFD Bar Changer EURUSD,M1: Bar Changer: using history period M1
2016.08.12 12:26:34.090	JFD Bar Changer EURUSD,M1: Bar Changer: creating offline chart EURUSD;M1234
2016.08.12 12:11:56.857	Custom indicator JFD Bar Changer EURUSD,M1: loaded successfully

Terminal

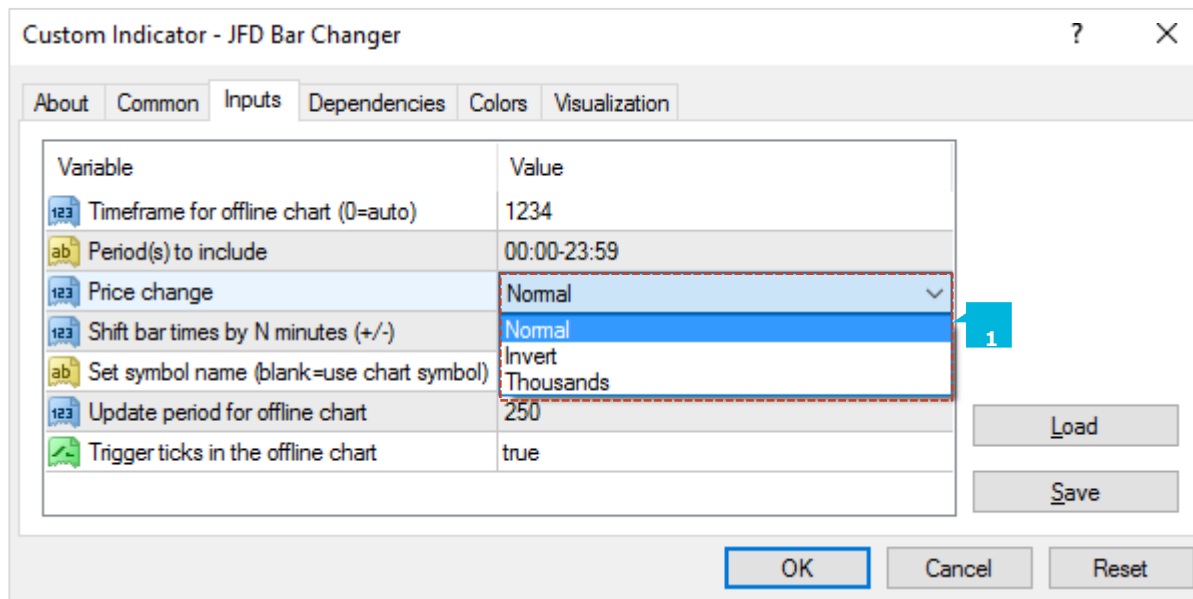
Trade | Exposure | Account History | News | Alerts | Mailbox | Market<sub>36</sub> | Signals | Code Base | **Experts** | Journal

You can then open the offline chart by using the **File** menu selecting **Open Offline** (1), and choosing the entry corresponding to the symbol name and your specified timeframe value, then pressing the **Open** button (2).

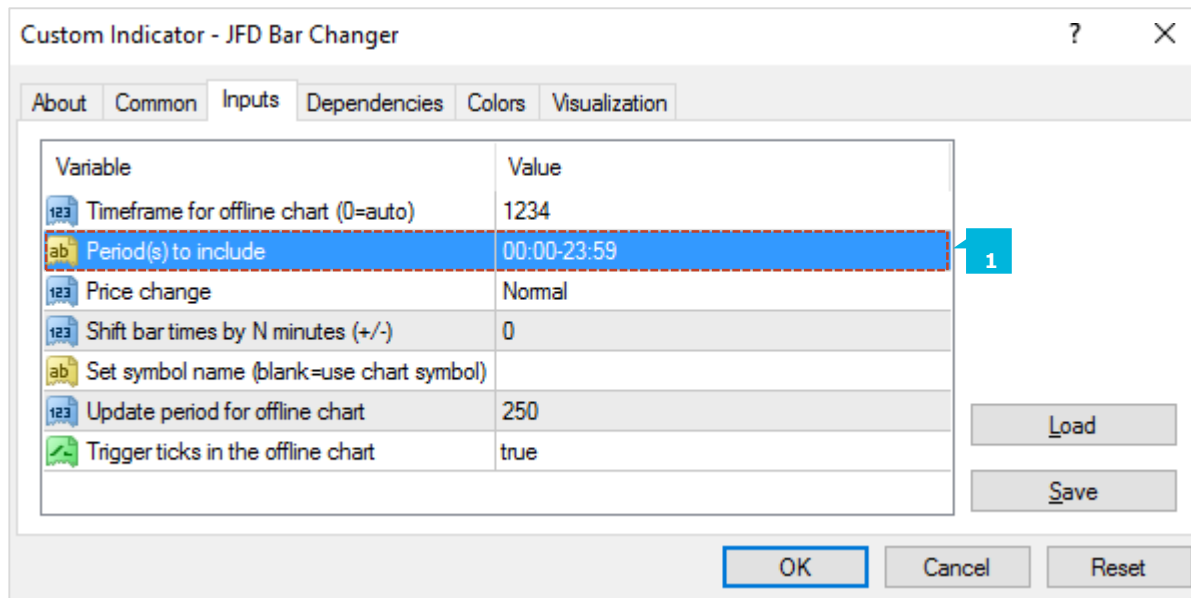


You can modify the prices in the offline chart in one of two ways, using the respective setting on the indicator's **Inputs** tab (1):

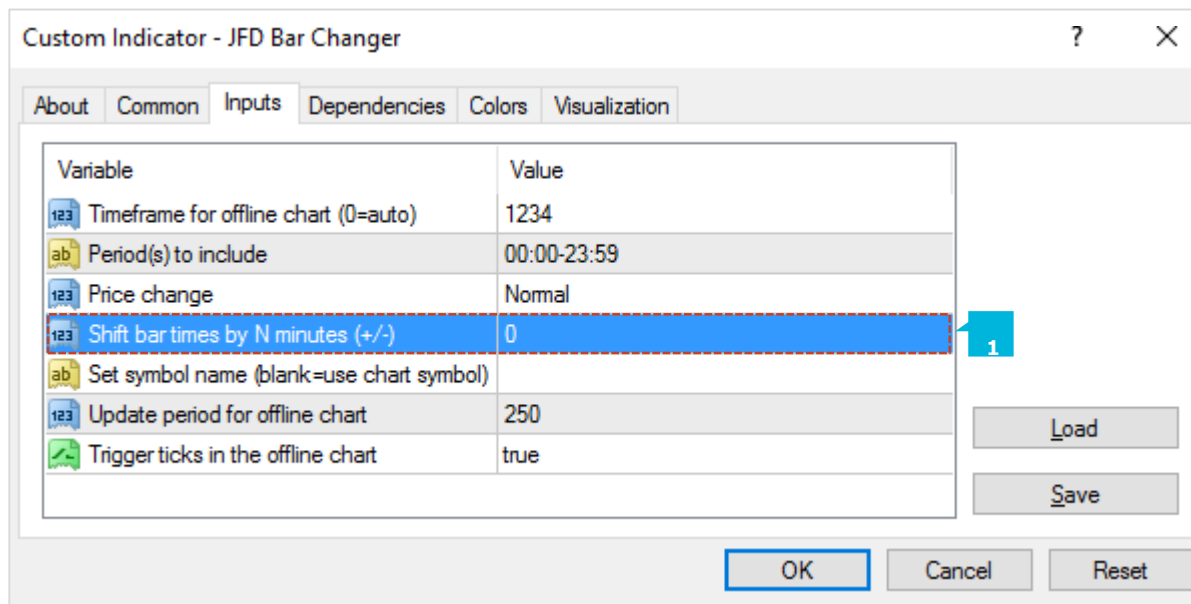
- Invert the price (e.g. in effect, turning EUR/USD into USD/EUR)
- Convert the price to thousands, e.g. converting 1.23456 to 12345.6



You can set daily time ranges using the respective setting in the **Inputs** tab (1). Any price data outside of these ranges is then excluded from the offline chart. This is mainly intended as a way of filtering the bars on index CFDs which have 24-hour pricing but are only actively traded during core market hours. You specify time ranges in MT4/broker time (not your local time), and in the format hh:mm-hh:mm. For example: 09:00-14:59. To handle daily trading hours which span midnight, you can specify multiple ranges separated by commas. For example: 22:00-23:59,00:00-02:59. The end times should (normally) be specified as xx:59 rather than xx:00. For example, the range 00:00-05:00 would include the 1 minute of price data starting at 5 am.



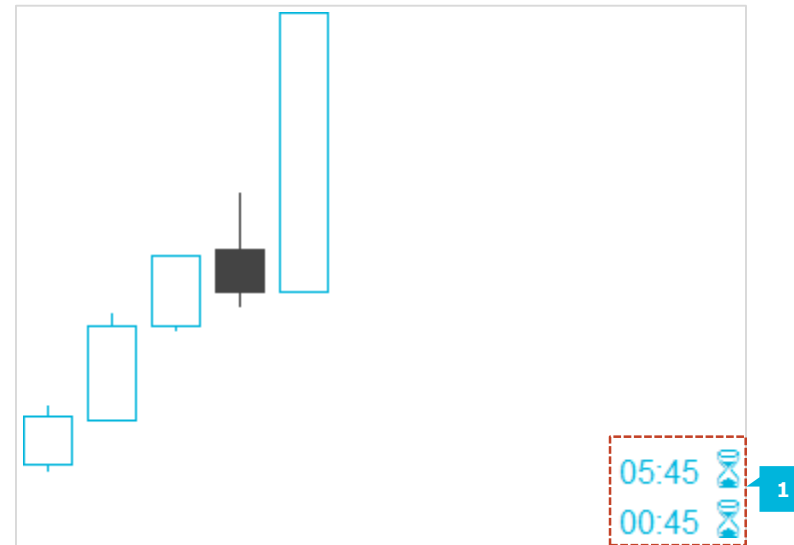
You can use the respective setting in the **Inputs** tab (1) to adjust the time of each bar, adding or subtracting a number of minutes to the standard MT4/broker time. Please note that this applies a constant adjustment throughout the trading history. The difference between your local time and MT4 time may vary over the year because of daylight-savings changes happening on different dates.



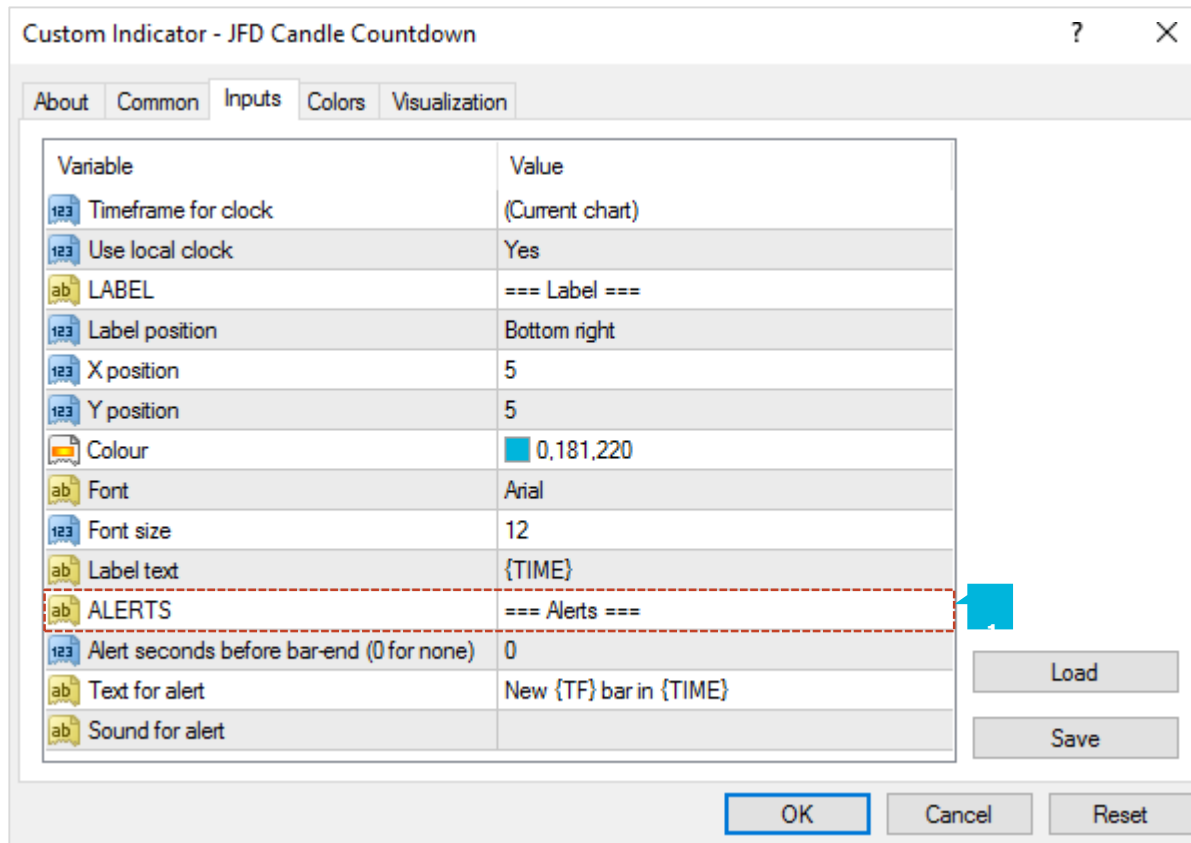
Most EAs and indicators can be used on the offline chart just like you would use them on a normal MT4 chart. The only exceptions are EAs/indicators which need to look at specific timeframe data rather than the chart on which they are running (e.g. "multi-timeframe" MTF indicators). If you configure such an indicator to look e.g. at H1 data, then it may look at the normal H1 data in MT4 rather than your offline chart even if the offline chart has been based on H1 data.

## B. JFD CANDLE COUNTDOWN

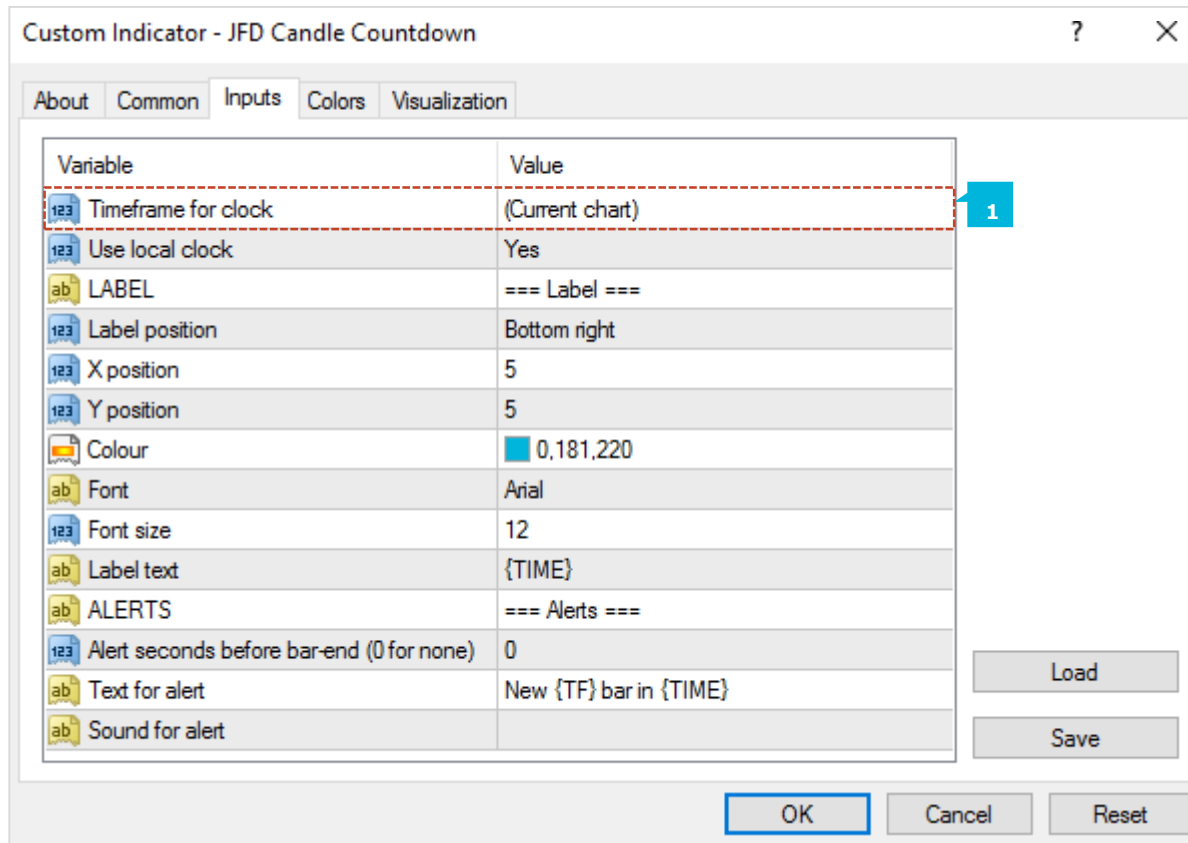
**JFD Candle Countdown** indicator shows the time remaining in the current bar (1). By default, it will use the timeframe of the chart on which it is running. You can also add multiple copies of the indicator to show the time remaining in different bar timeframes. If you are putting multiple copies of the indicator on a single chart then you will need to alter the X and/or Y positions so that the labels do not overlap.



You can configure the indicator to alert you N seconds before a bar is about to end. The alerts can be issued as pop-up messages and/or as sounds. To turn off either the pop-up message or the sound, simply leave the value blank (1).



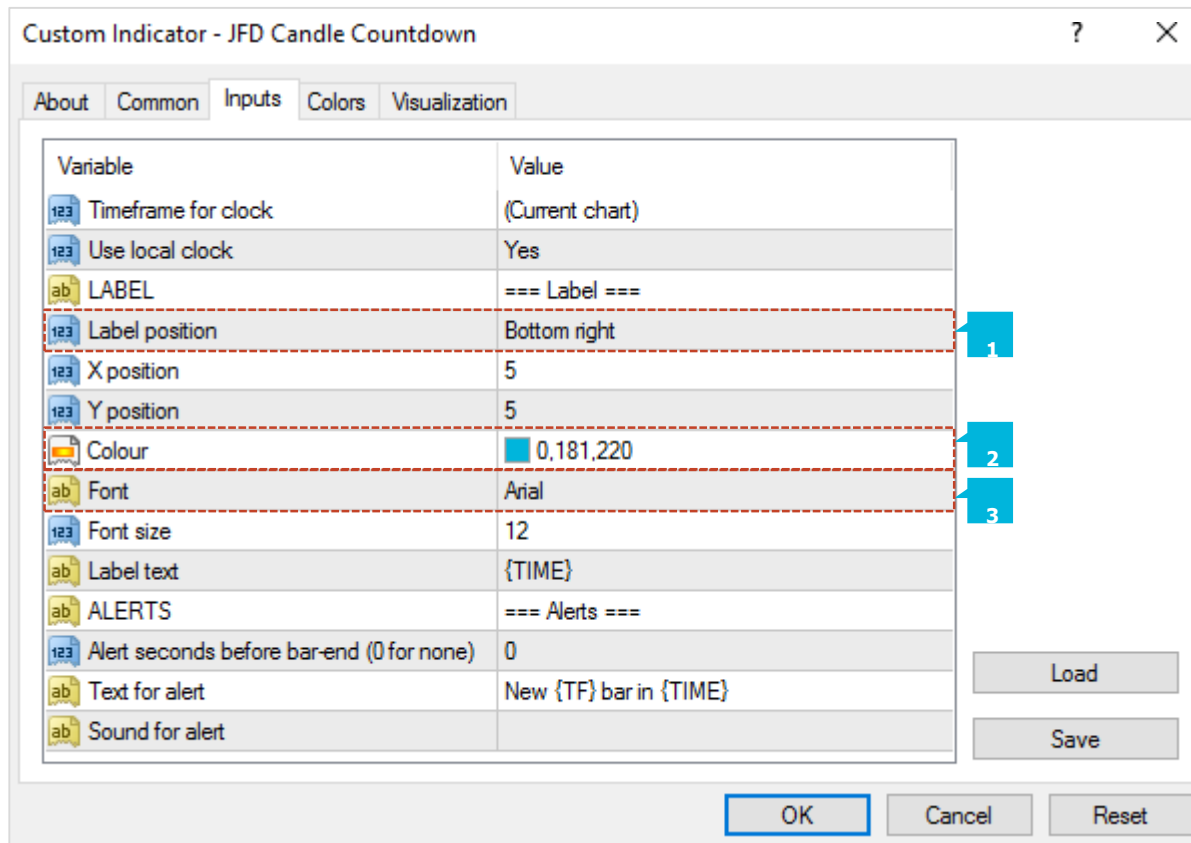
You can set the timeframe for the countdown: either whatever is the period of the current chart, or a fixed period (1).



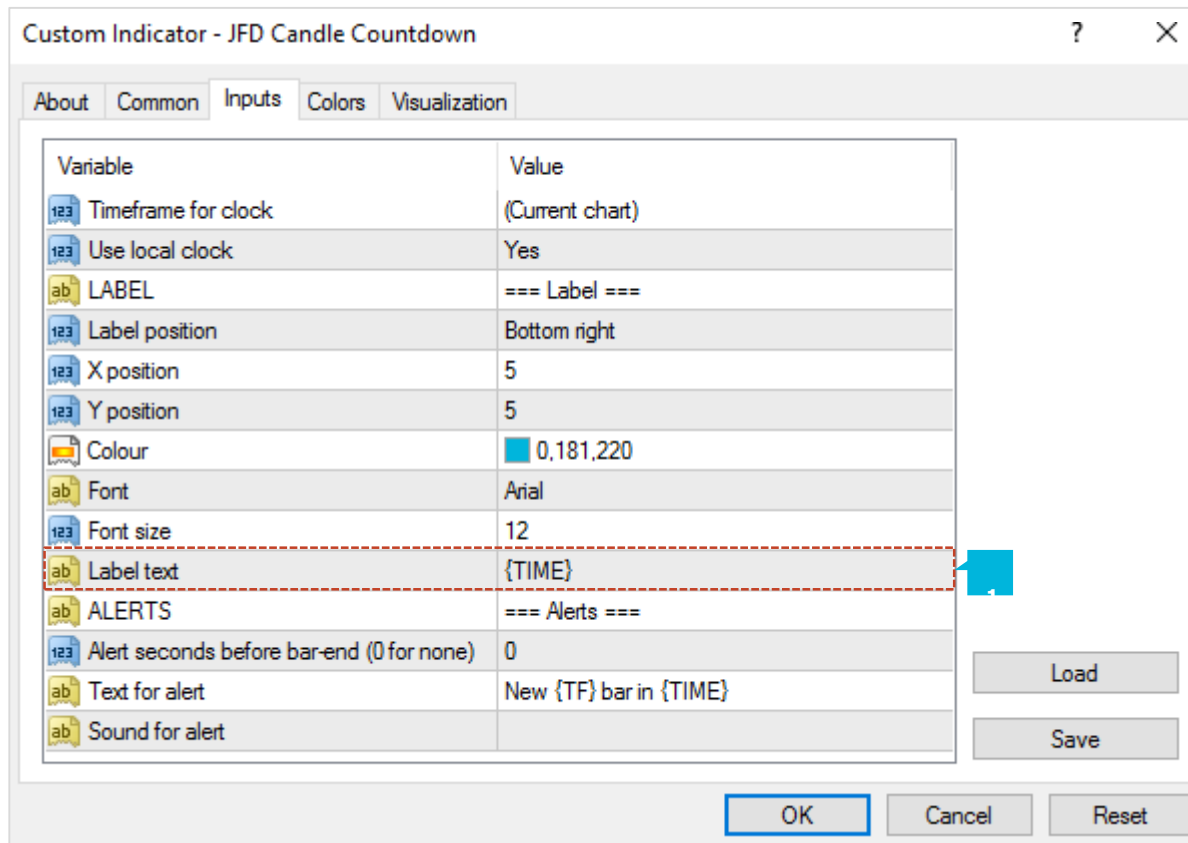
By default, the indicator will use your computer's local clock, and will continue to count down even when the market is quiet and there are no new ticks from the broker. If you turn off this setting then the countdown will only update when there are new ticks.



You can set the label position, e.g. bottom-right of chart, top-left of chart (1), the colour (2), and the font (3).



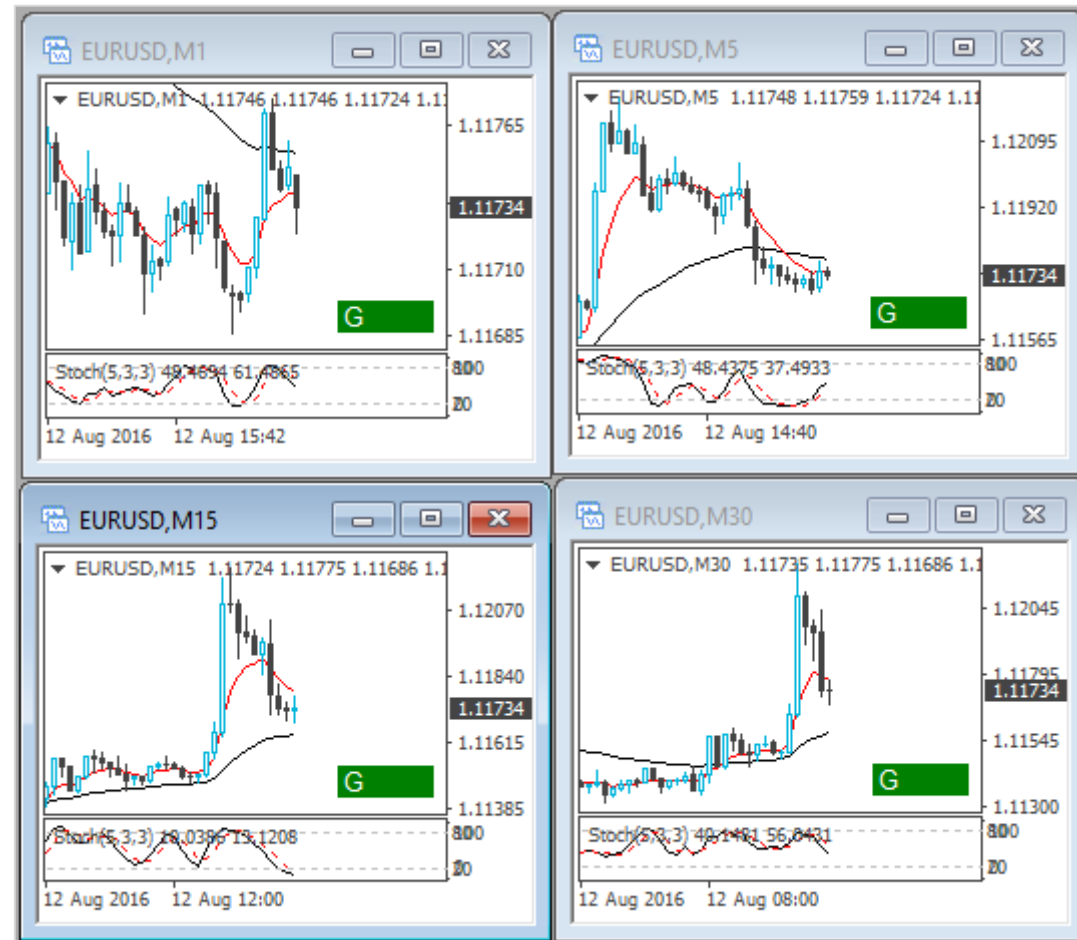
You can also set the text of the label (1), using the variable {TIME} which the indicator replaces with the time remaining.



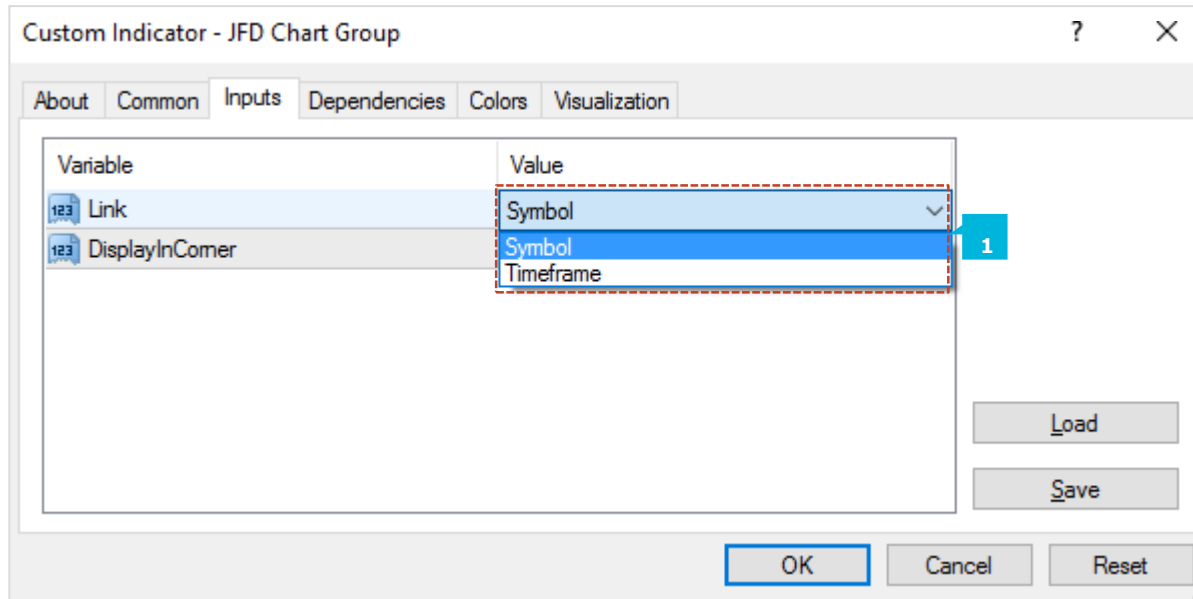
If you are using multiple copies of the indicator on the same chart then you will typically want to change the labels to remind you which timeframe each copy refers to.

### C. JFD CHART GROUP

**JFD Chart Group** indicator is a professional trading tool linking charts so that changing the symbol on one chart automatically changes other linked charts. If you have open EURUSD charts, for M1, M5, M15 and M30, you can use the indicator to link them together. Changing one of the charts to a new symbol such as GBPUSD automatically updates all the other charts to GBPUSD. Thus, the indicator provides a quick way of switching multiple charts between different symbols without having to use MT4 profiles and setting up a different profile for each symbol. You can also use the indicator to synchronize timeframes instead of symbols. If you have open charts for EURUSD, GBPUSD, and USDJPY, changing the timeframe on one of the charts automatically changes the timeframe on the others.

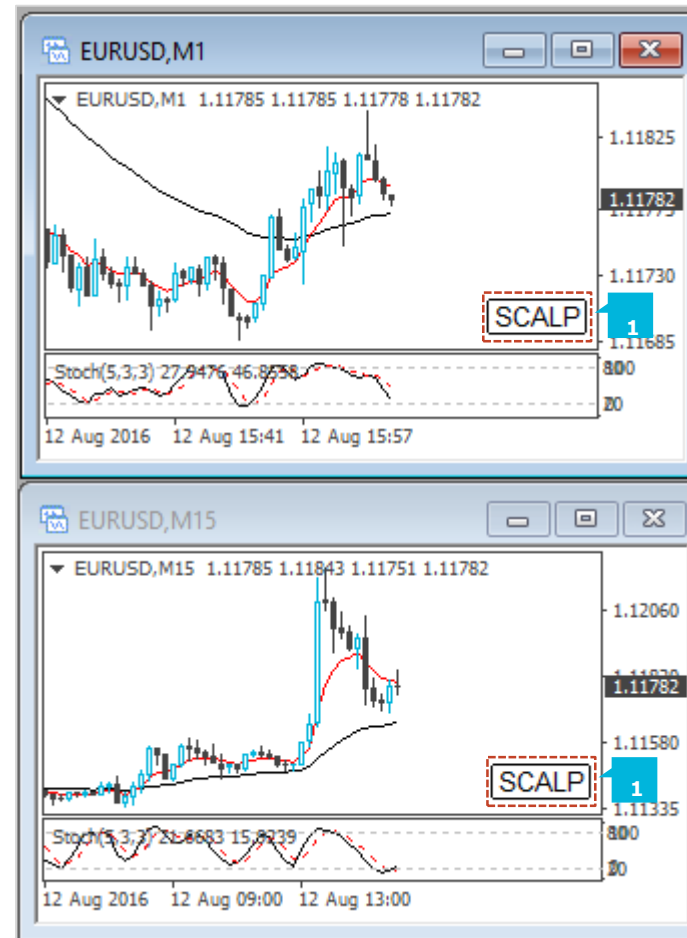


By default **JFD Chart Group** indicator will synchronise the symbol on all linked charts. You can tell it instead to synchronise the timeframe using the option on the **Inputs** tab of the indicator settings (1).



The indicator creates a text box, in the bottom-right corner of a chart by default (1). You link charts together by giving them the same group name. For example, you can assign a chart to a group called *SCALP*, and it will then change – or be changed by – any other charts which are also assigned to that group. You can have any number of charts, either all assigned to the same group or to different groups.

To make it easier to identify which charts are linked together, if you use the group names R, G, or B, then the group box is set to red, green, or blue. If you have more than one group of charts, it is then easier to see that the red charts are linked to each other and, separately, that the blue charts are linked to each other, rather than just having to read the group names in the text boxes. For an even wider range of colours, you can use the group names 1 to 6: 1 (Red), 2 (Blue), 3 (Green), 4 (Purple), 5 (Black), 6 (Grey).



All MT4 users know how to change the timeframe of a chart. It is less obvious that you can also change the symbol of a chart (e.g. change an existing chart from EURUSD to GBPUSD, rather than closing the EURUSD chart and opening a new GBPUSD chart).

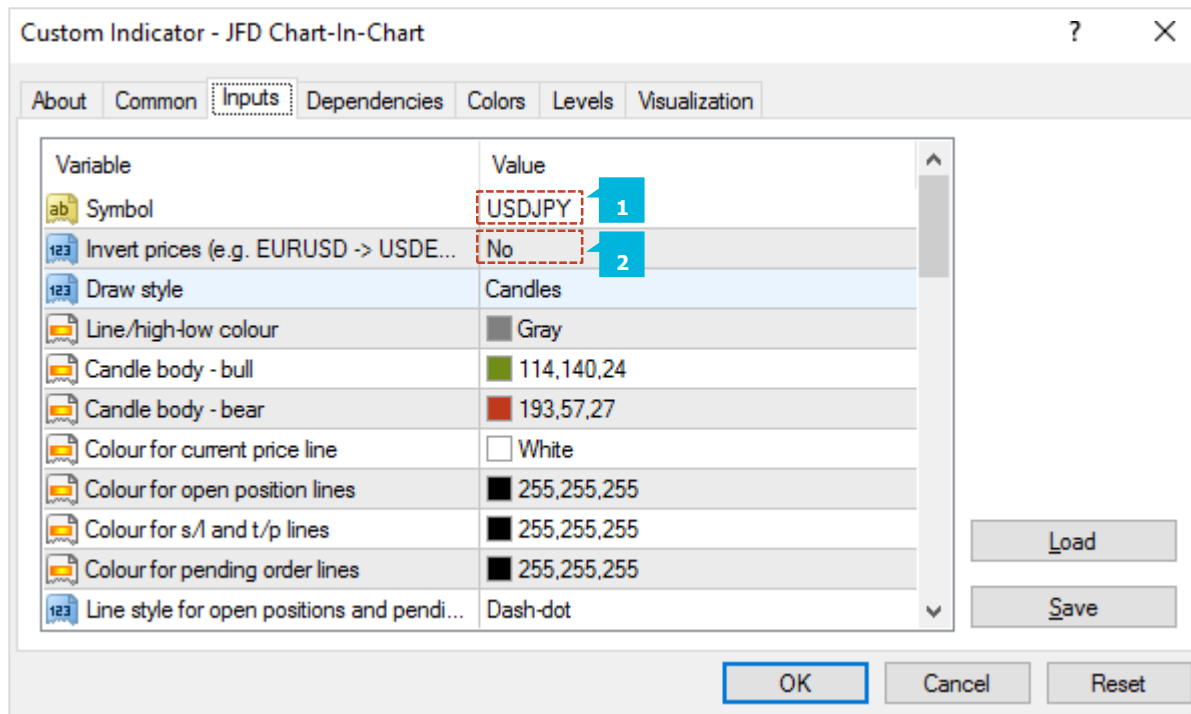
In case you were not already aware of this... you can change the symbol of a chart by dragging a symbol from the MT4 market watch onto the chart (in the same sort of way that you add an indicator to a chart by dragging the indicator from the Navigator onto the chart).

#### D. JFD CHART-IN-CHART

**JFD Chart-in-Chart** indicator shows the price action for an additional symbol in a sub-window on the main chart, allowing bar-by-bar comparisons of price action on the main chart symbol against the subsidiary symbol. You can add multiple copies of the indicator to a chart in order to show multiple extra symbols. You can choose to invert prices, e.g. so that USDJPY is shown as JPYUSD. Although the sub-window cannot provide the full functionality of a main MT4 chart, you can add popular technical indicators such as moving averages and envelopes to the display, and you can choose to display the levels of open positions and pending orders.



You set the symbol to display using the **Symbol** parameter (1) in the **Inputs** tab. The symbol must be entered as presented in the MT4 **Market Watch**. To display more than one symbol, you simply add multiple copies of the indicator to the chart. You can invert prices by turning on (Yes) the respective option (2). For example, this will convert USDJPY into JPYUSD.

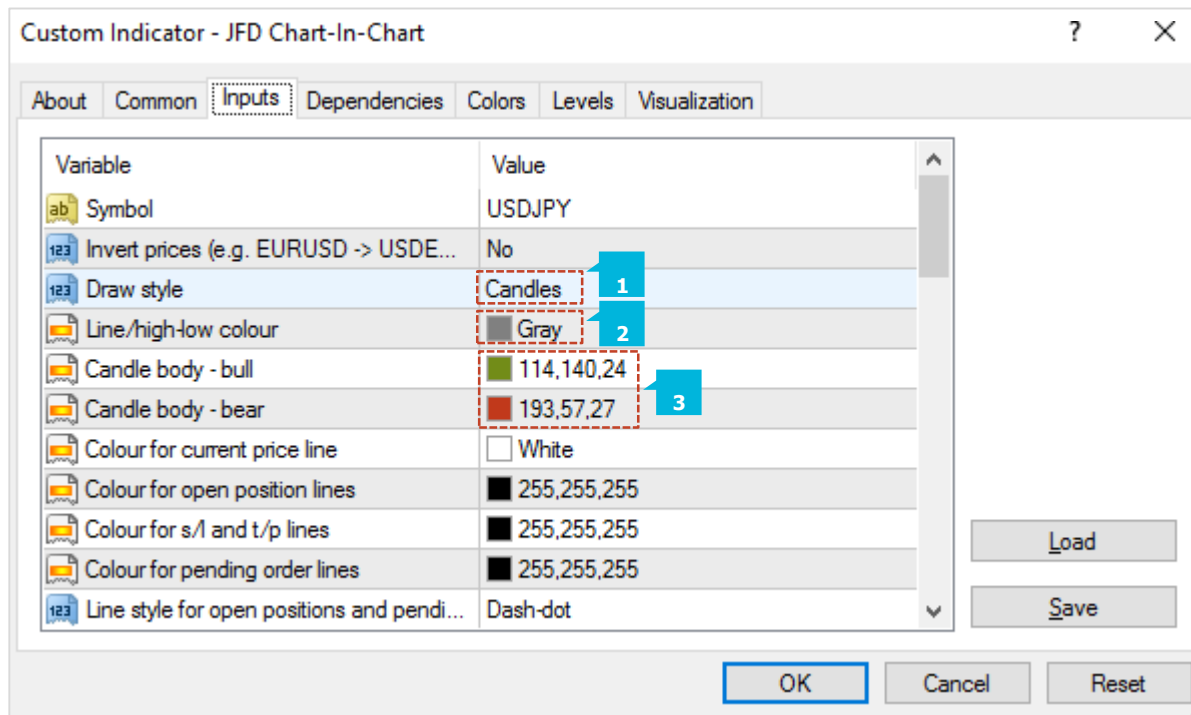




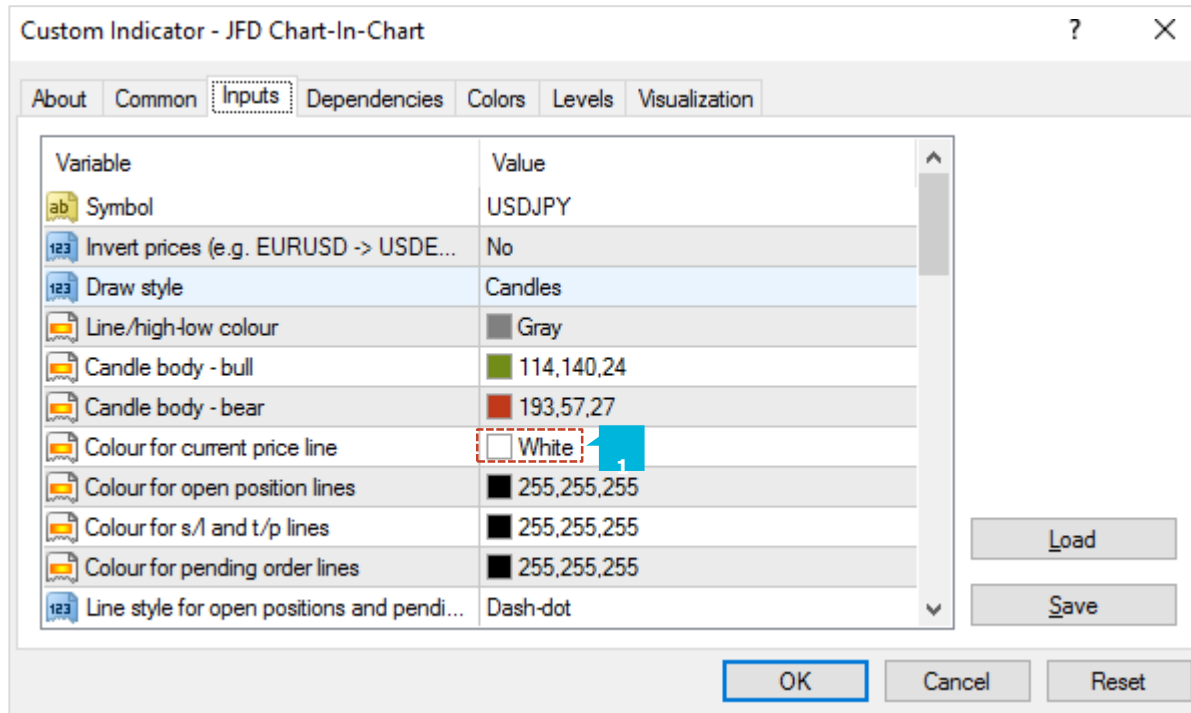
You can choose between different drawing styles (1):

- Price candles
- Line showing close price only
- Lines showing high and low prices

You can set the colour of the candle "wick", or of the close or high and low lines (2). For candles, you can also set different colours for up ("bull") and down ("bear") bars (3). Hovering the mouse over a candle, or over the close or high and low lines, displays a pop-up tooltip giving the price values at that point in time.



By default, the indicator will draw a horizontal line showing the current (bid) price. You can change the colour of this line (1). Changing the colour to "none" turns off the line.

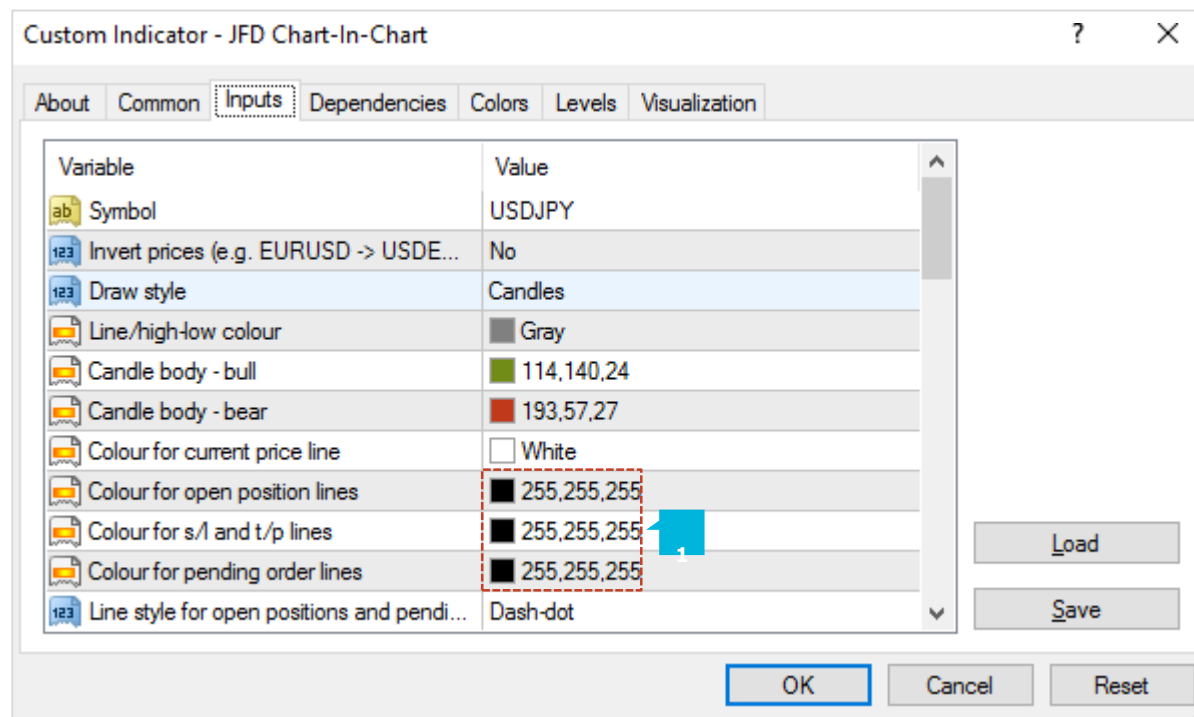


You can turn on the display of trade levels (1):

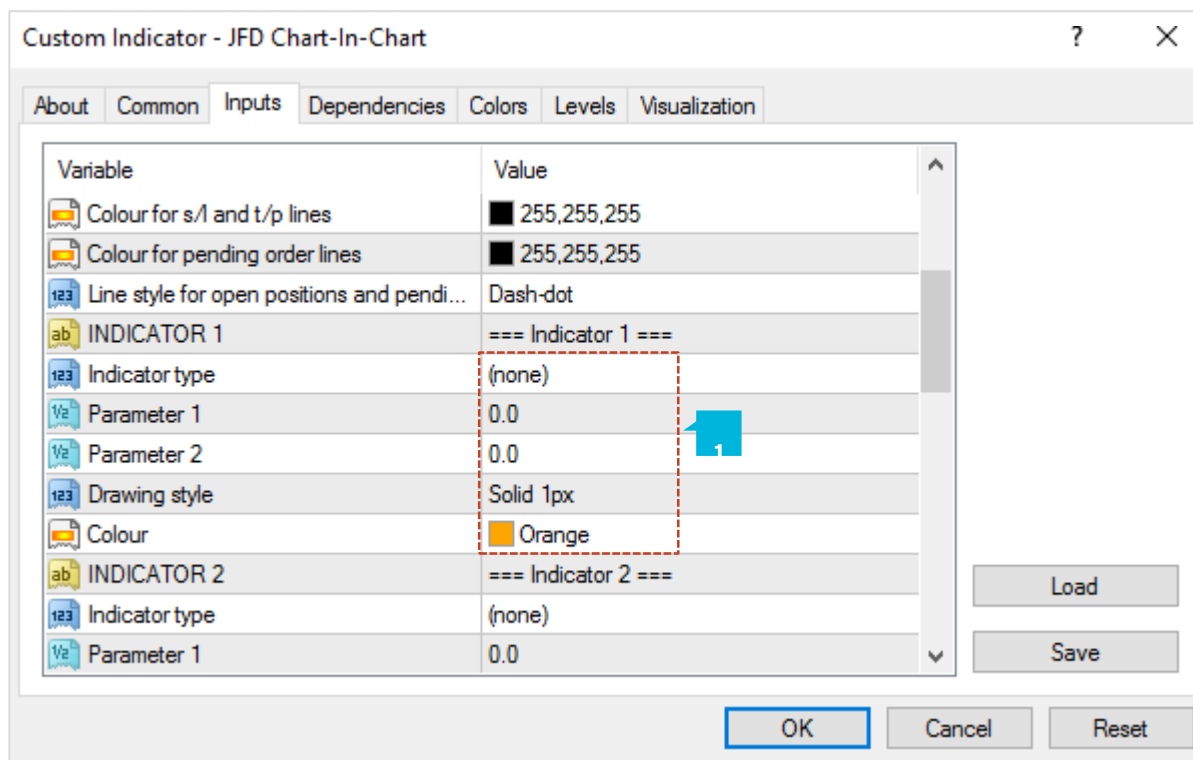
- Entry price for open positions
- Stop Loss and Take Profit of open positions
- Entry price for pending orders

Each of these settings has a different colour parameter.

Choosing a colour other than “None” turns on the display of this information. Hovering the mouse over one of these lines will then show information about the open position or pending order. If you invert prices, then the display of trade levels is also inverted. For example, a USDJPY buy will be shown as a JPYUSD sell.



The sub-window cannot provide the full functionality of a main MT4 chart – for example, you cannot drop an indicator from the Navigator onto the sub-window in order to add it to the price display for the extra symbol –but you can choose to include some popular technical indicators in the price display. The **Inputs** tab contains 5 blocks of settings (1) which you can use to define technical indicators. Each of these has a choice of indicator, a colour, a line-style, and parameters for the indicator.



The indicators which are available are as follows:

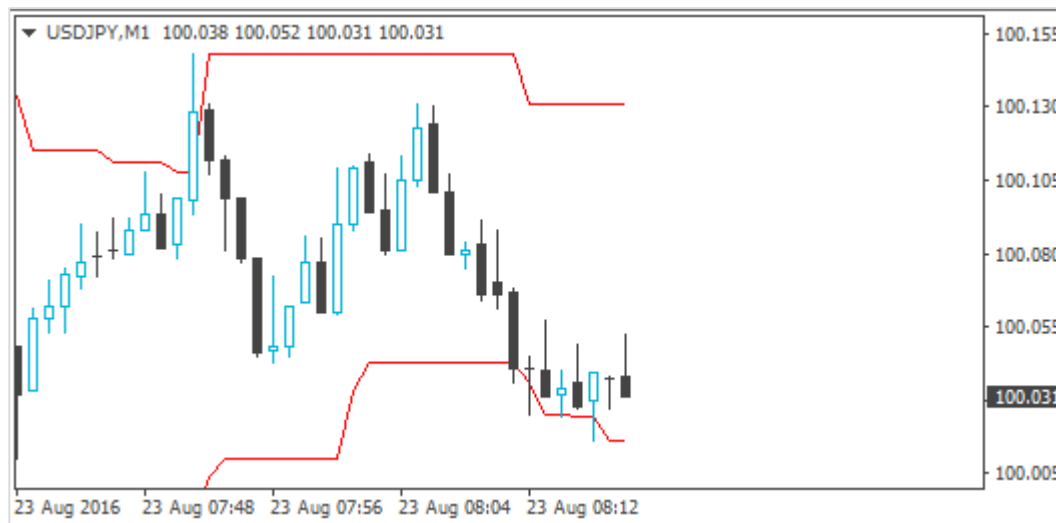
- SMA (simple moving average)
- EMA (exponential moving average)
- SMMA (smoothed moving average)
- LWMA (linear-weighted moving average)
- Bollinger band
- Envelope based on SMA
- Envelope based on EMA
- Parabolic SAR
- Yesterday's daily (D1) close price
- Yesterday's daily (D1) high and low prices
- Fixed price (equivalent to drawing a manual horizontal line on the chart)

The meaning of the "parameter 1" and "parameter 2" settings depends on the type of indicator:

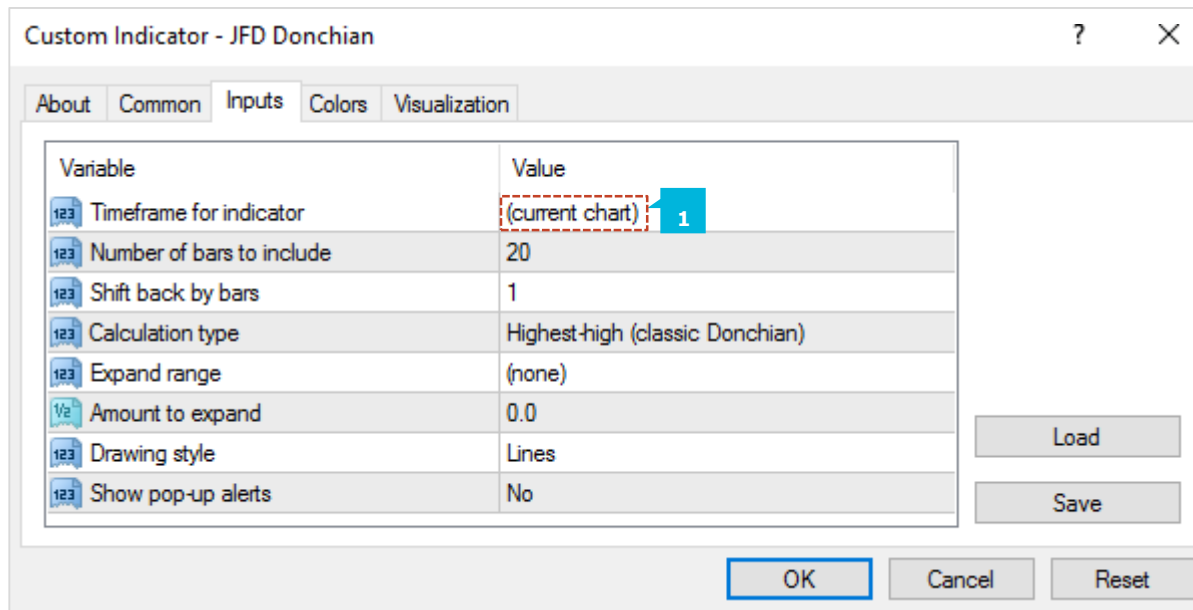
TECHNICAL INDICATOR	PARAMETER 1	PARAMETER 2
SMA	Period for moving average	(not used)
EMA	Period for moving average	(not used)
SMMA	Period for moving average	(not used)
LWMA	Period for moving average	(not used)
Bollinger bands	Period for moving average	Number of deviations
Envelope (SMA or EMA)	Period for moving average	Deviation %
Parabolic SAR	Step value	Maximum value
D1 close	(not used)	(not used)
D1 high and low	(not used)	(not used)
Fixed price	Level for price line	(not used)

### E. JFD DONCHIAN

**JFD Donchian** indicator shows Donchian channels: the high and low of the previous N bars. In addition to the classic Donchian calculation, the indicator also has three other options: average (mean) of the highs/lows; mid-point of the highs/lows; and lowest-high rather than highest-high. You can also choose to expand (or contract) the Donchian channel: by a fixed percentage, or a price amount, or a multiple of ATR or SD. You can also turn on pop-up alerts when the current price breaches the high or low lines.

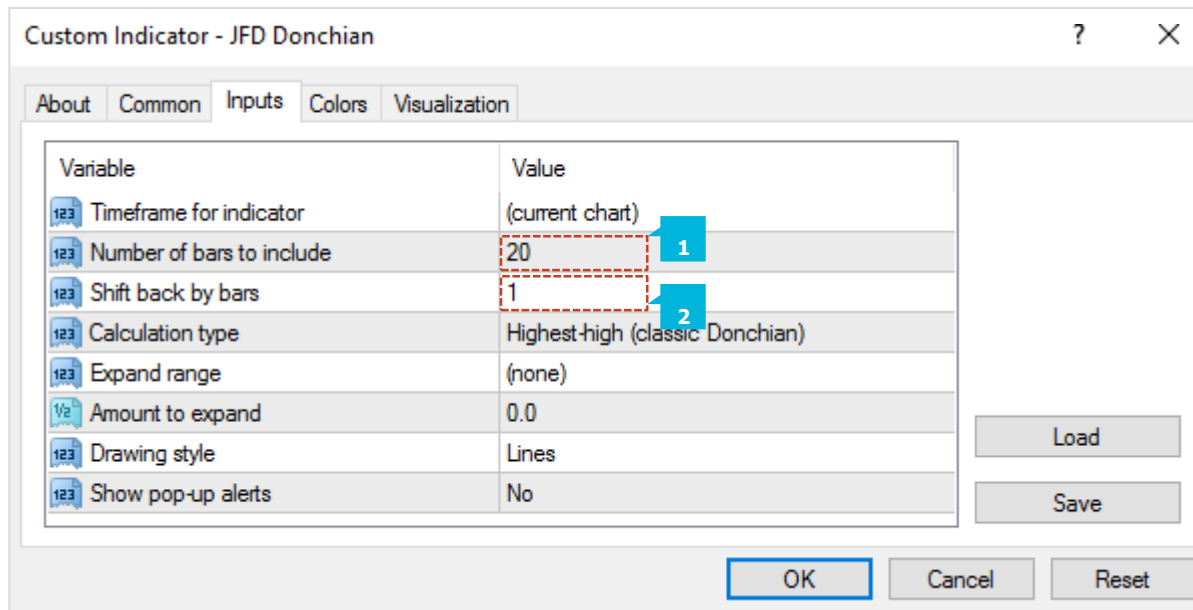


By default the indicator will be based on the same timeframe as the current chart, and will change if you alter the chart's timeframe. However, you can use the **Inputs** tab to make the indicator use a higher timeframe but not a lower one (1). For example, you can show the D1 Donchian high and low on an H1 chart.



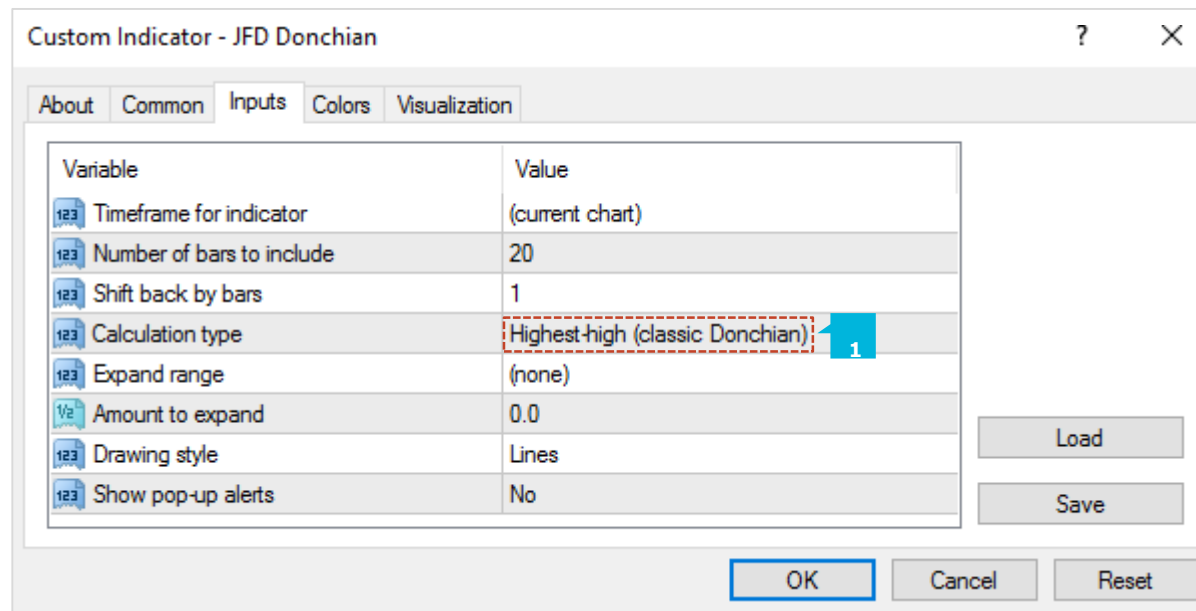


You use the **Inputs** tab to tell the indicator how many bars to include (1), and how many bars to shift back by (2). The classic Donchian values are 20 and 1: use the last 20 bars up to but excluding the current bar. If you set the shift to zero then the current bar's high and low are included in the calculation.



The classic Donchian calculation is to take the highest-high and lowest-low of the selected range (1). However, the indicator also provides three other calculations:

- Average (mean) of the highs and lows
- Mid-point of the highs and lows, i.e. halfway point between highest-high and lowest-high, and between lowest-low and highest-low
- Lowest-high and highest-low



You can tell the indicator to expand its high-low range (1). You choose a mode on the **Inputs** tab, and an amount to expand (2) by (which can be negative in order to contract the range rather than expanding it). The expansion modes are as follows:

- Percentage. The high is increased by N% and low is decreased by N%. (Therefore, if you set the parameter to 10, the total high-low range is increased by 20%)
- Price amount. You set the parameter to a value such as 0.0010, and this is added to the high and subtracted from the low.
- ATR multiple. The high is increased and the low is decreased by the specified multiple of the ATR for the period.
- Standard Deviation multiple. The high is increased and the low is decreased by the specified multiple of the SD for the period.

Custom Indicator - JFD Donchian

About Common **Inputs** Colors Visualization

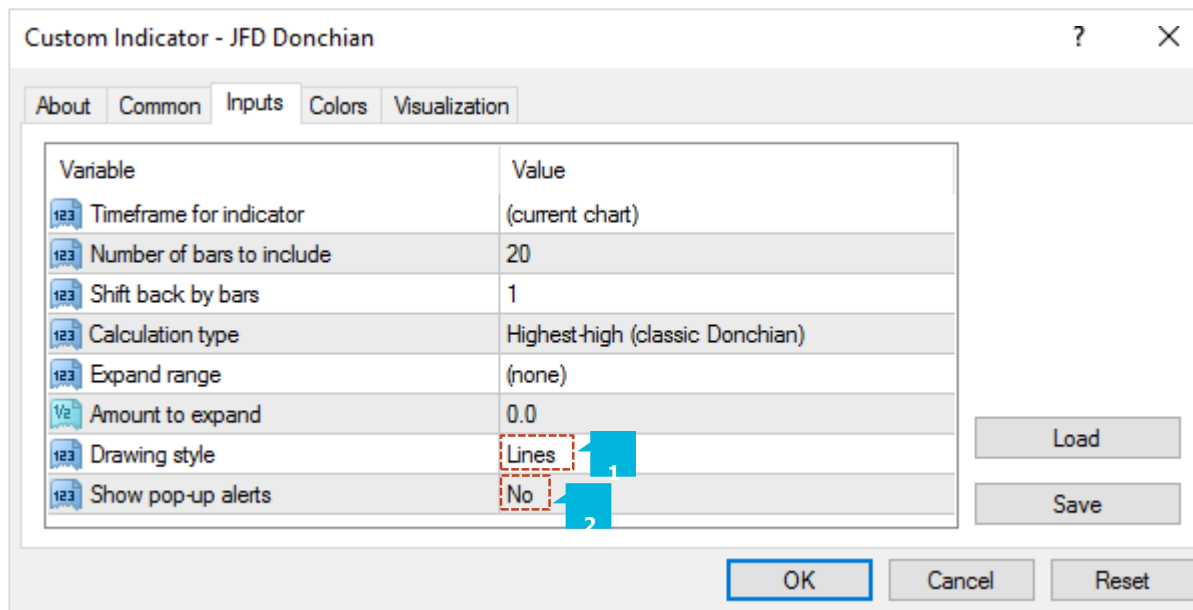
Variable	Value
Timeframe for indicator	(current chart)
Number of bars to include	20
Shift back by bars	1
Calculation type	Highest-high (classic Donchian)
Expand range	(none)
Amount to expand	0.0
Drawing style	Lines
Show pop-up alerts	No

Load Save

OK Cancel Reset

You set the colours and style for the Donchian lines in the usual way, using the Colors tab. However, you can also use the **Inputs** tab to tell the indicator to draw the Donchian channel as a filled histogram instead of as lines (1).

You can turn on pop-up alerts (2) when the current price goes beyond the high or low values. The indicator will only generate one alert per bar (treating the high and low independently). For example, if the high is breached, then the indicator will not issue another alert about a breach of the high before the start of the next bar.

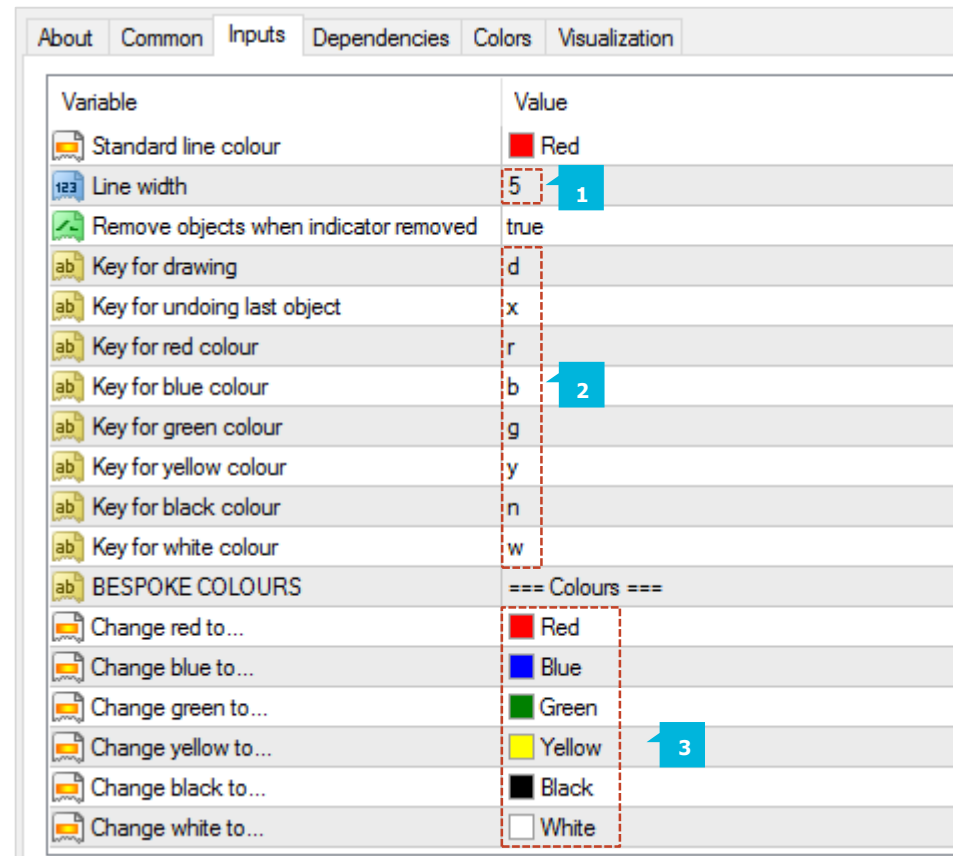


## F. JFD FREEHAND DRAWING

**JFD Freehand Drawing** indicator lets you draw onto MT4 charts, in order to mark or highlight events on the chart. It is particularly useful if you are running a live webinar for clients, or distributing screenshots or chart files to people. You draw on the chart simply by holding down a key while you move the mouse. You can change colours using keyboard shortcuts, and you can quickly undo any drawing which went wrong.

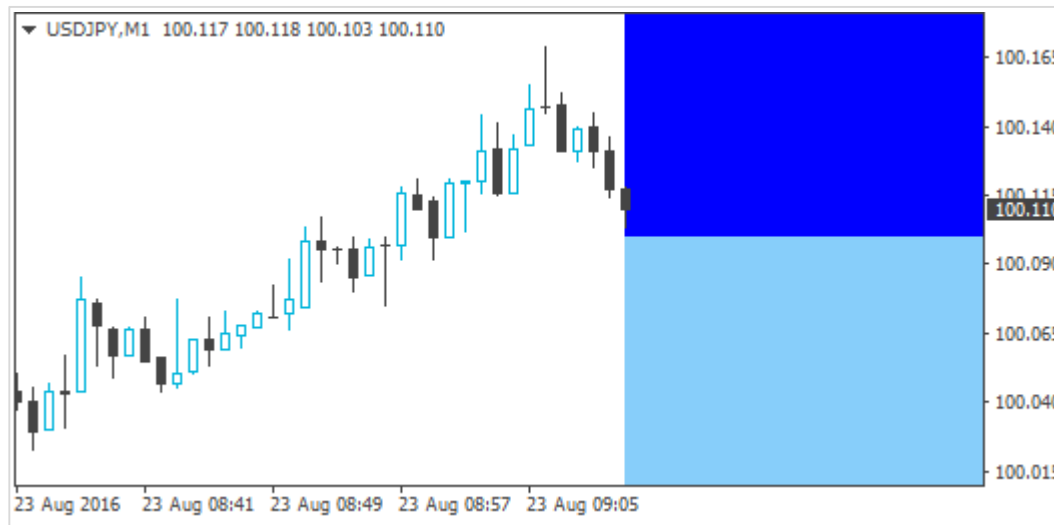


You draw on the chart simply by holding down the **D** key while you move the mouse. You can start drawing in a new colour using keyboard shortcuts. For example, after pressing the **B** key, all further drawing will be in blue. The list of colours and their keys is as follows: **R** = red, **B** = blue, **G** = green, **Y** = yellow, **N** = black, **W** = white. You can delete the most recent drawing by pressing the **X** key. Pressing **X** again deletes the previous drawing etc. You can change the width of the drawn lines using the settings (1) on the **Inputs** tab when you add the indicator to a chart. You can also use these settings to change all the shortcut keys (2). You can even change the colours (3), e.g. so that "red" (pressing R) then draws in purple.

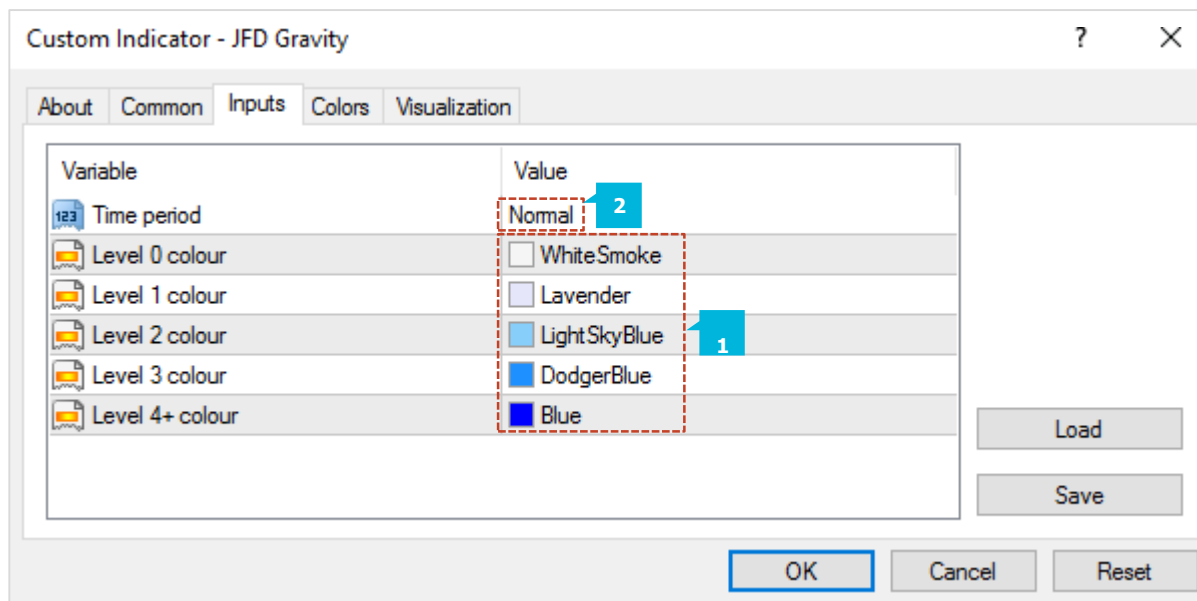


### G. JFD GRAVITY

**JFD Gravity indicator** shows areas of possible support and resistance based on previous price action, colour-coded to show areas of stronger and weaker market activity. It can either just draw from the current time onwards, using all the price activity to date, or you can set a specific start time in order to test the indicator or to ignore recent price movements.

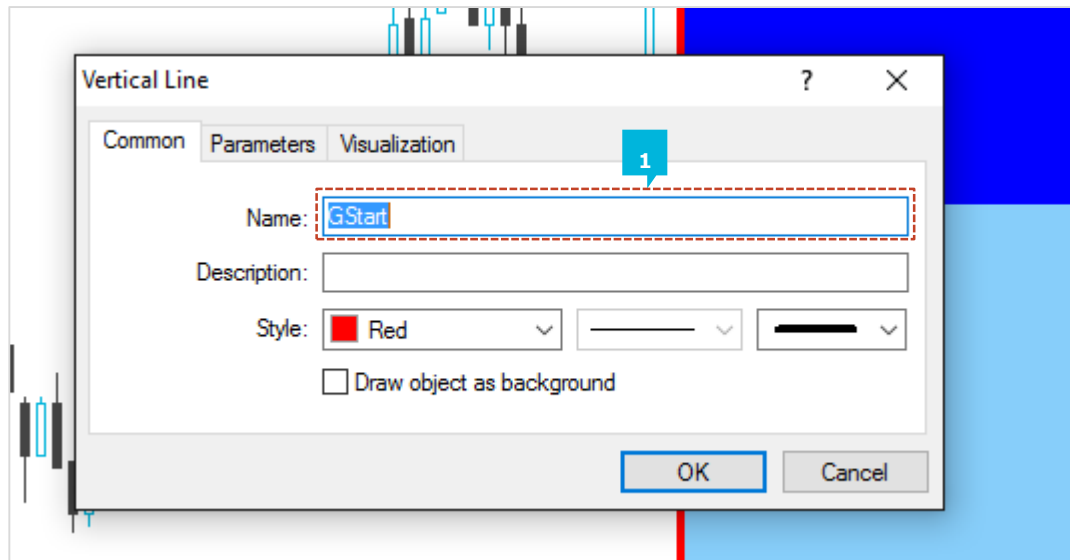


**JFD Gravity indicator** is colour-coded, showing areas of stronger support/resistance in darker colours. You can adjust the colours (1) using the settings on the **Inputs** tab. The indicator has two modes. By default it will show a relatively long-term assessment of support and resistance. For short-term trading, e.g. intra-day trading using an M5 or M15 chart, you can also use the **Inputs** tab to tell the indicator to use a shorter-term calculation (2).



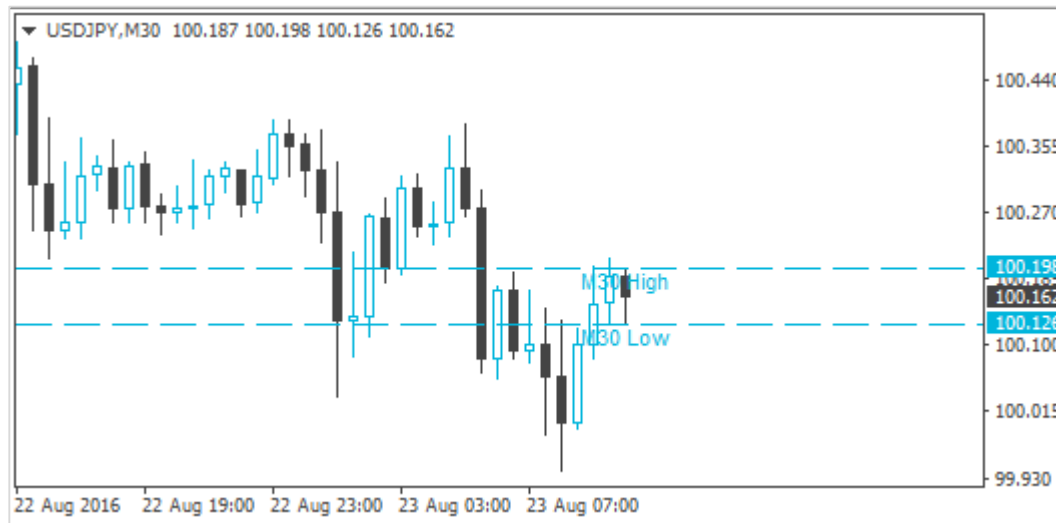


By default **JFD Gravity indicator** will show a future indication of support and resistance using price activity right up until the current time. However, you can adjust the indicator's start time by creating a vertical line on the chart and giving it the name GStart, for example (1). The indicator will then only use the price action up until the start time, without looking into the future at what subsequently happened, and will draw its support and resistance calculation starting from the line. You can use this either to test the indicator, seeing how reliable it would have been in the past, or as a way of telling the indicator to ignore recent price activity which you may regard as abnormal and irrelevant.

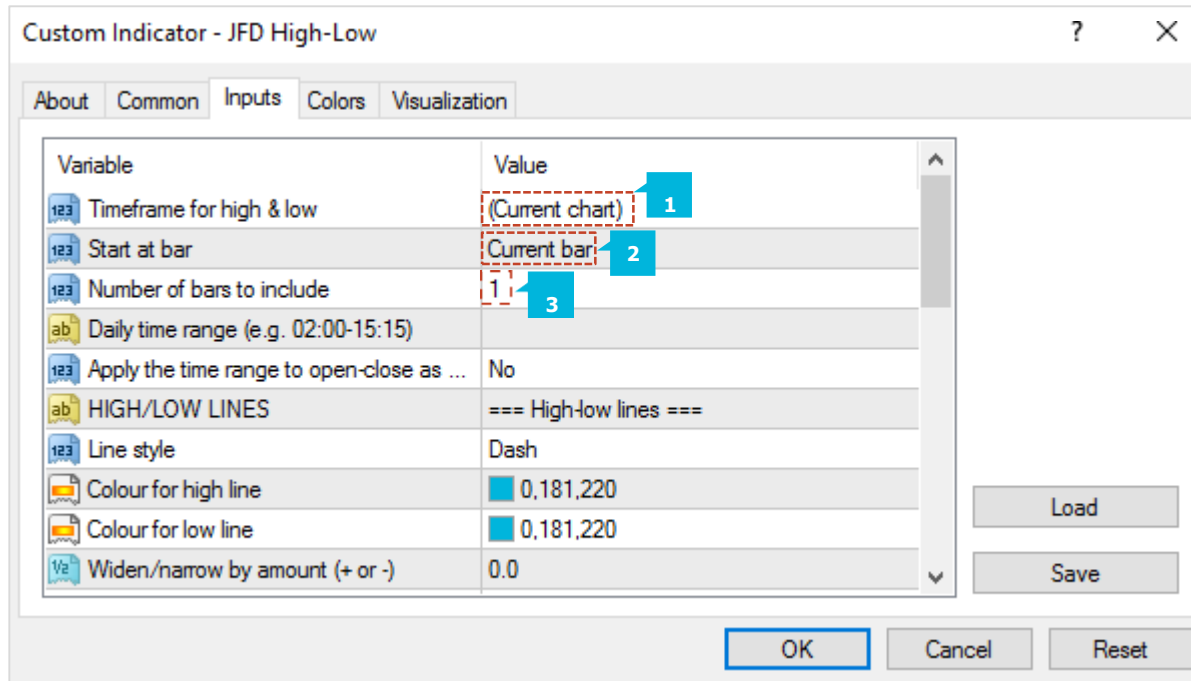


## H. JFD HIGH-LOW

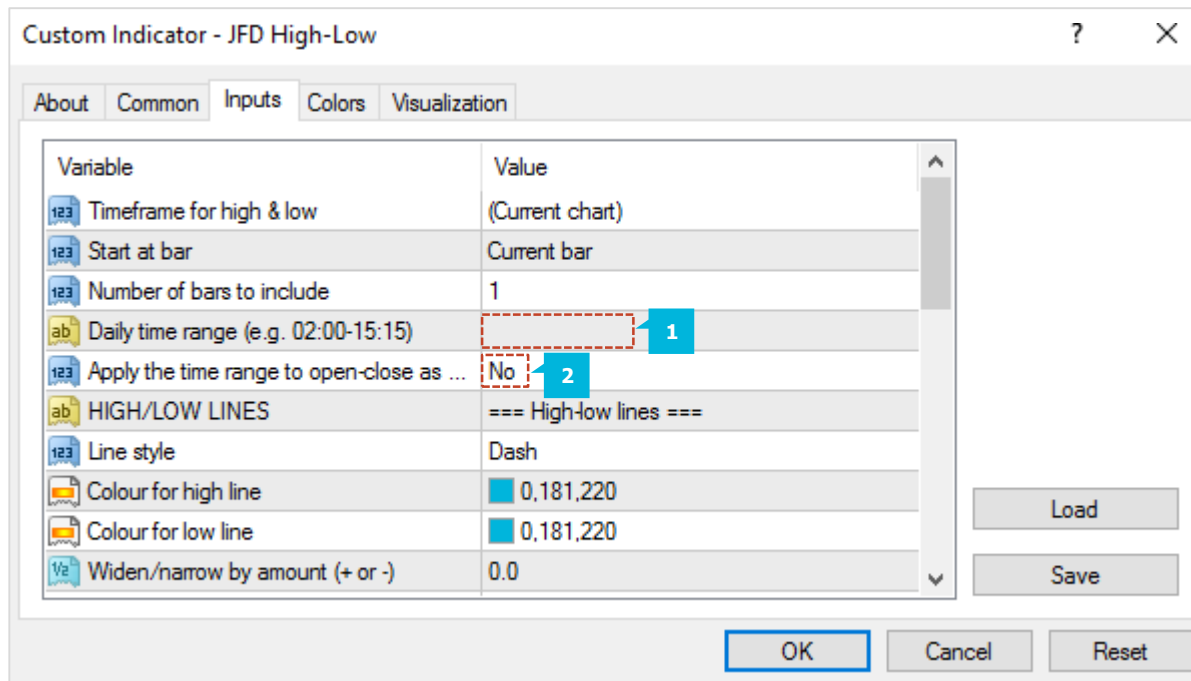
**JFD High-Low indicator** is a very flexible tool for showing highs and lows on a chart, from any timeframe and based on any number of bars. You can add multiple copies of the indicator to the same chart in order to display different levels, e.g. the D1 and H4 highs and lows on an H1 chart. The indicator can also show open and close prices as well as the high and low, and can be set to use a daily time range rather than looking at an entire day's trading. You can also configure the indicator to generate alerts when the current price breaches the historic high or low.



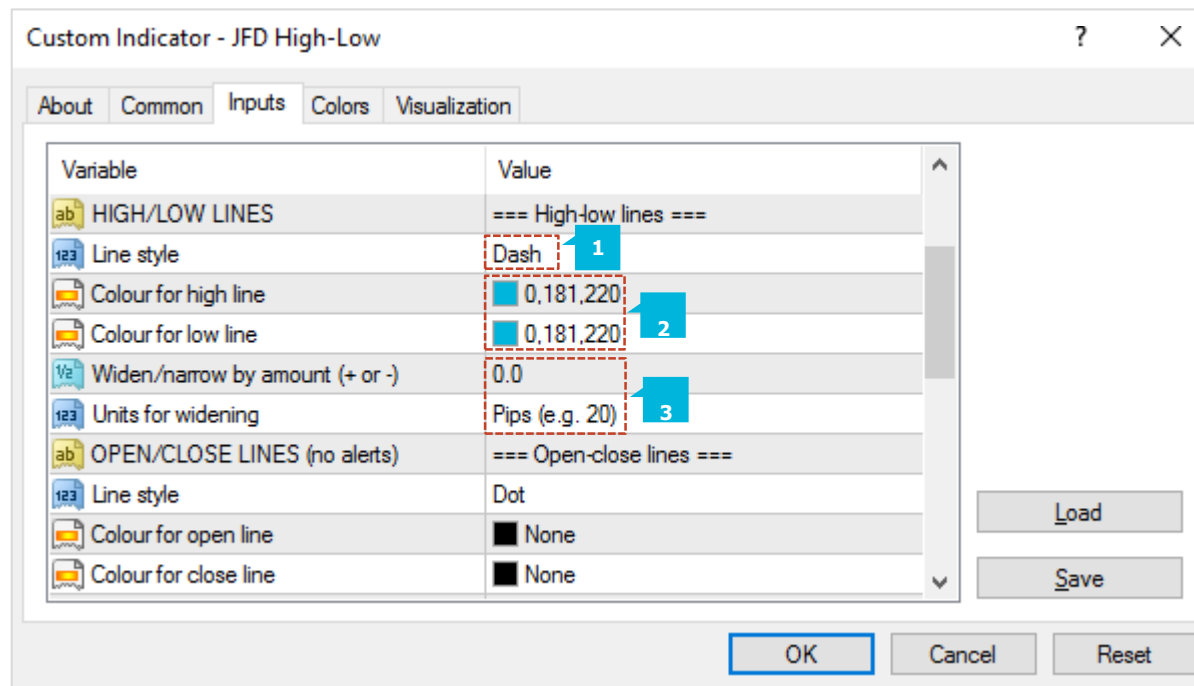
You can choose the timeframe for the high and low (1), the bar to start at (2), and the number of bars to include (3). For example, choosing D1, previous bar, and 3 bars means that the indicator will draw the high and low of the last 3 days, not including today.



You can set a daily time range (1) so that the indicator only looks at part of each day's trading. This can be particularly useful in relation to equity markets where there is 24-hour trading, but only a core period of e.g. 8 hours during which the market is truly active. You set the time range in the form hh:mm-hh:mm, e.g. 08:00-15:59. You can also choose whether the time range is only applied to the high and low, or whether it also affects the open and close prices which the indicator calculates (2).

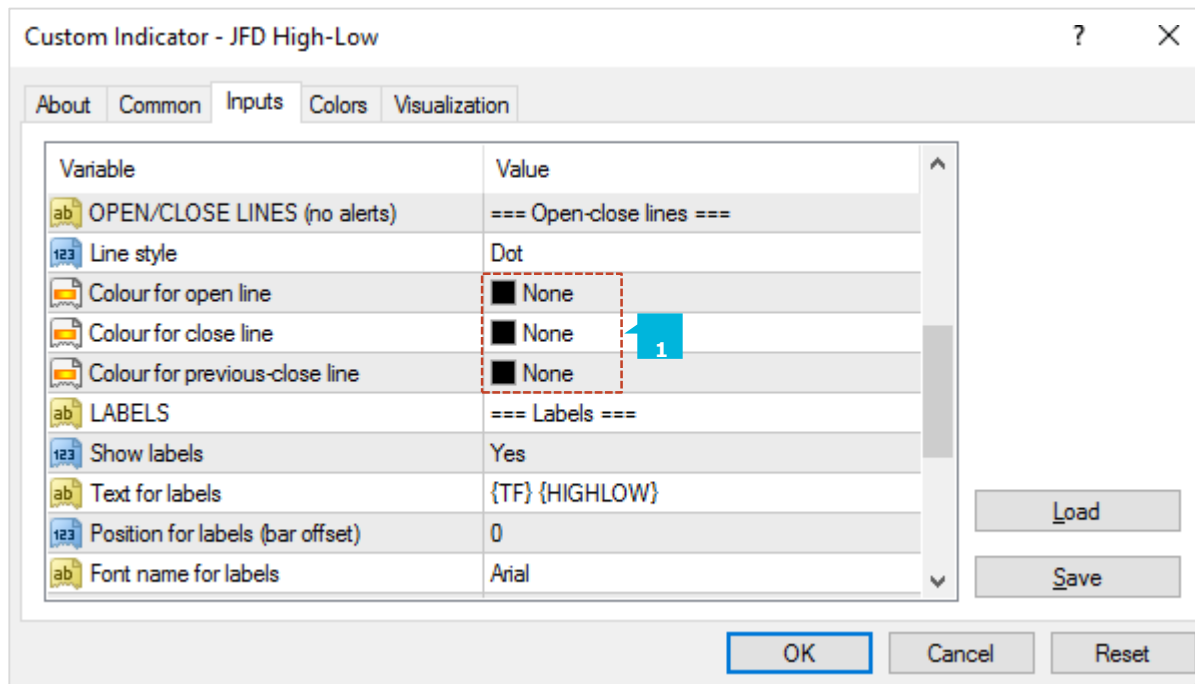


You can set the style (1) and colours (2) for the high and low lines. If you are using multiple copies of the indicator on the same chart in order to display different levels, it is obviously best if you set different colours for each indicator. You can turn off the high or low by settings its colour to *none*. You can also choose to widen the high and low lines (3), e.g. adding (or subtracting) 5 pips from the price. This widening also affects any alerts which you set up. The widening can be defined in terms of pips (e.g. 20), or a price amount (e.g. 0.0020), or a percentage of the range between the high and low. A negative value for the widening narrows the lines.

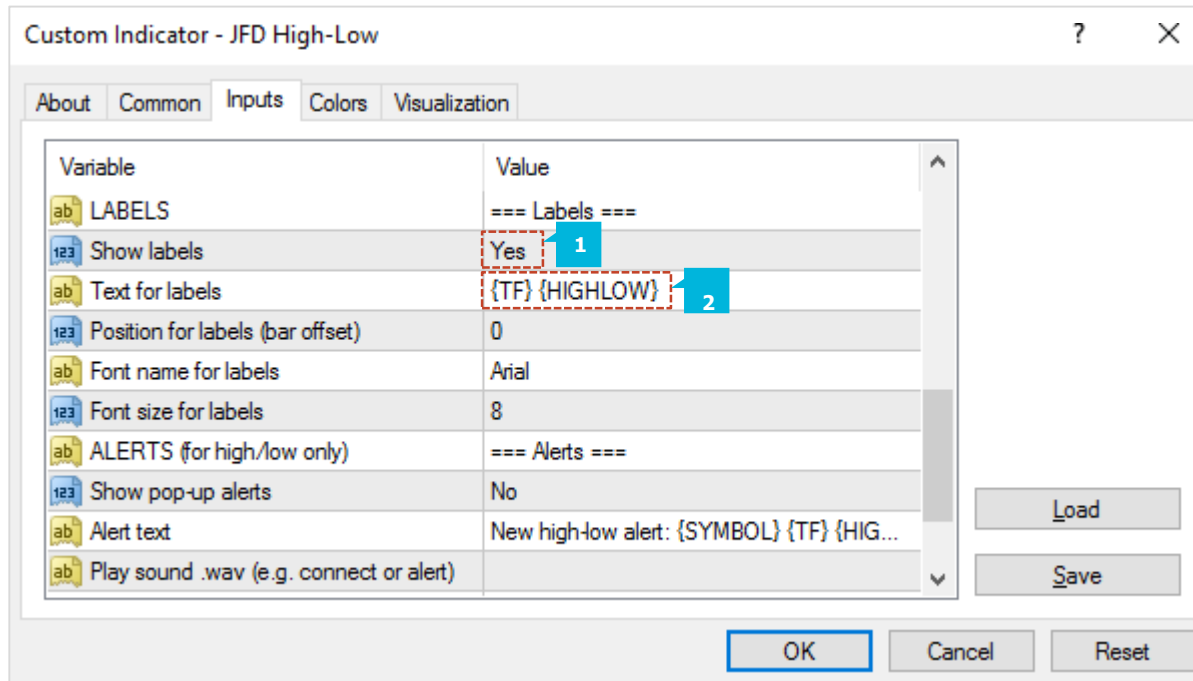


For example, if the low is at 1.2345, then a value of 10 pips will move the line to 1.2335 (widened away from the high) and a value of -10 will move the line to 1.2355 (narrowed towards the high).

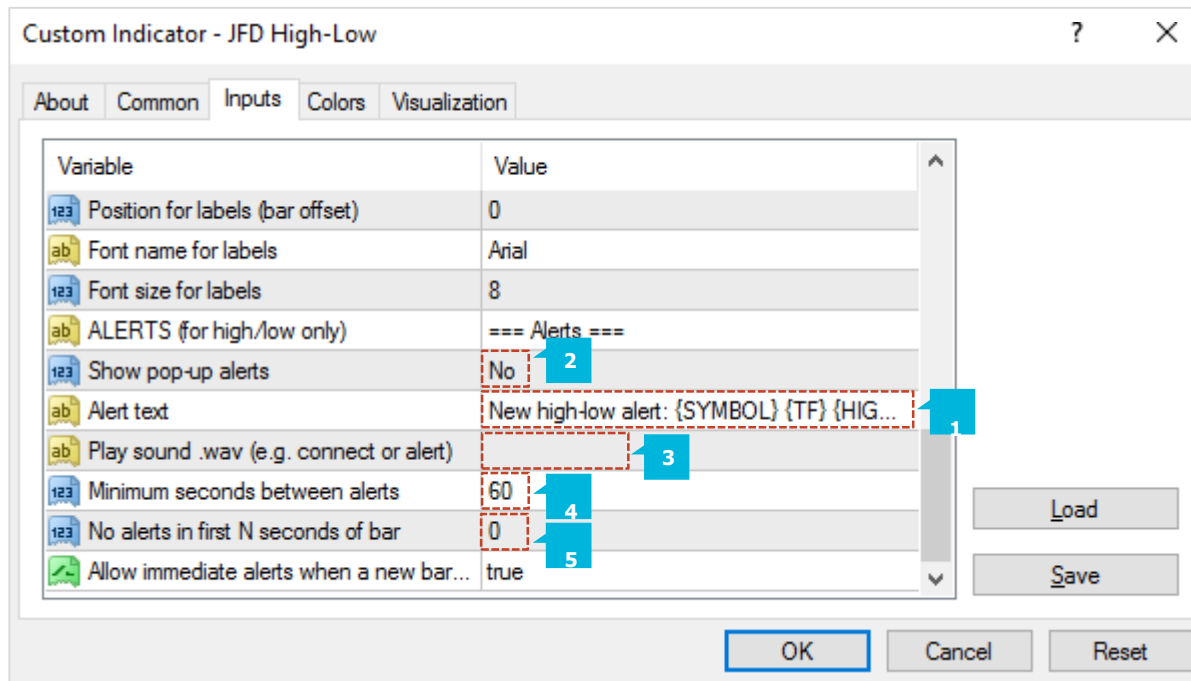
You can choose to display lines for the open, close, and previous close (1). The close line is only useful if you configure the indicator to start at the previous bar rather than the current bar, or if you apply a daily time range. Otherwise, the close line will simply be the current price. You can turn each of these three lines on and off individually by choosing a colour for it or setting the colour to *none*.



You can choose whether the indicator displays a label for each line (1), e.g. *D1 High*, and you can control the text of the label (2). You can add the variable {PRICE} into the text to make the indicator display the price value associated with the line.



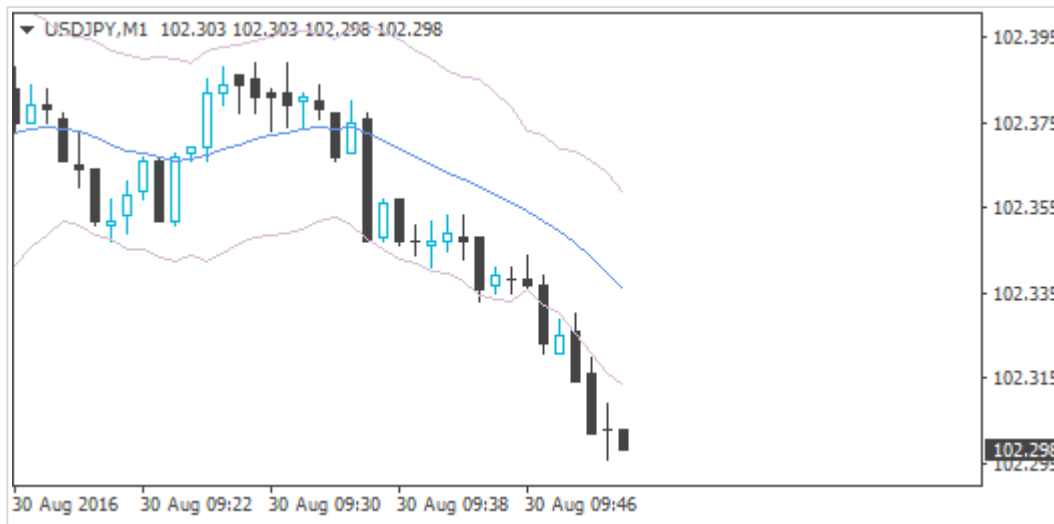
You can choose to get alerts whenever the price goes beyond the high or low lines (1), including any widening which you have defined. Alerts can be issued as pop-up messages (2) and/or as sounds (3). You can set a minimum period between alerts (4) to avoid repeated notifications, and you can also configure the indicator to ignore the first N seconds of the current bar (5).





## I JFD KELTNER

**JFD Keltner indicator** shows Keltner channels: similar to Bollinger® bands, but with the size of the channel varying based on ATR rather than standard deviation. You can configure the indicator to give you alerts when the price crosses the upper or lower channel (usually regarded as a reversal signal).



You set the parameters for the indicator calculation via the **Inputs** tab. There are three main settings which control a Keltner channel:

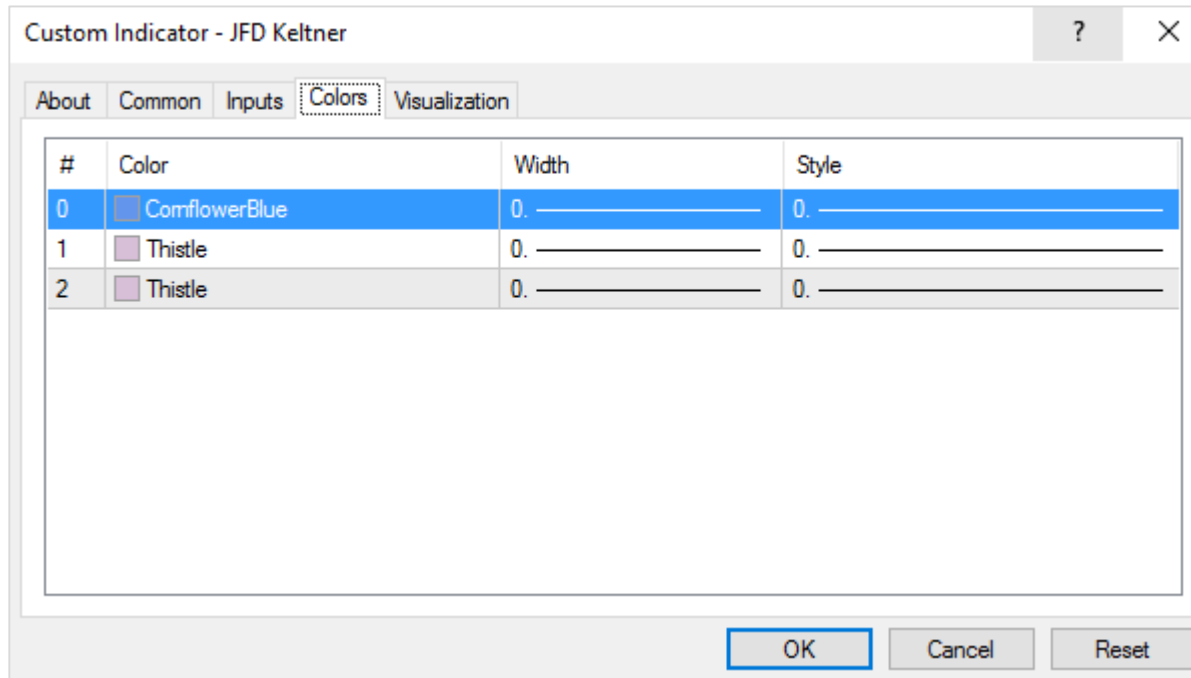
- The moving-average period (1), e.g. 20 bars
- The ATR period (2), e.g. 10 bars
- The multiple of the ATR to add/subtract to the moving average (3), e.g. 2

In addition, you can also choose the type of moving average (4) to use (SMA, EMA etc), and what type of price (5) to base it on: close price, median, "typical" etc.

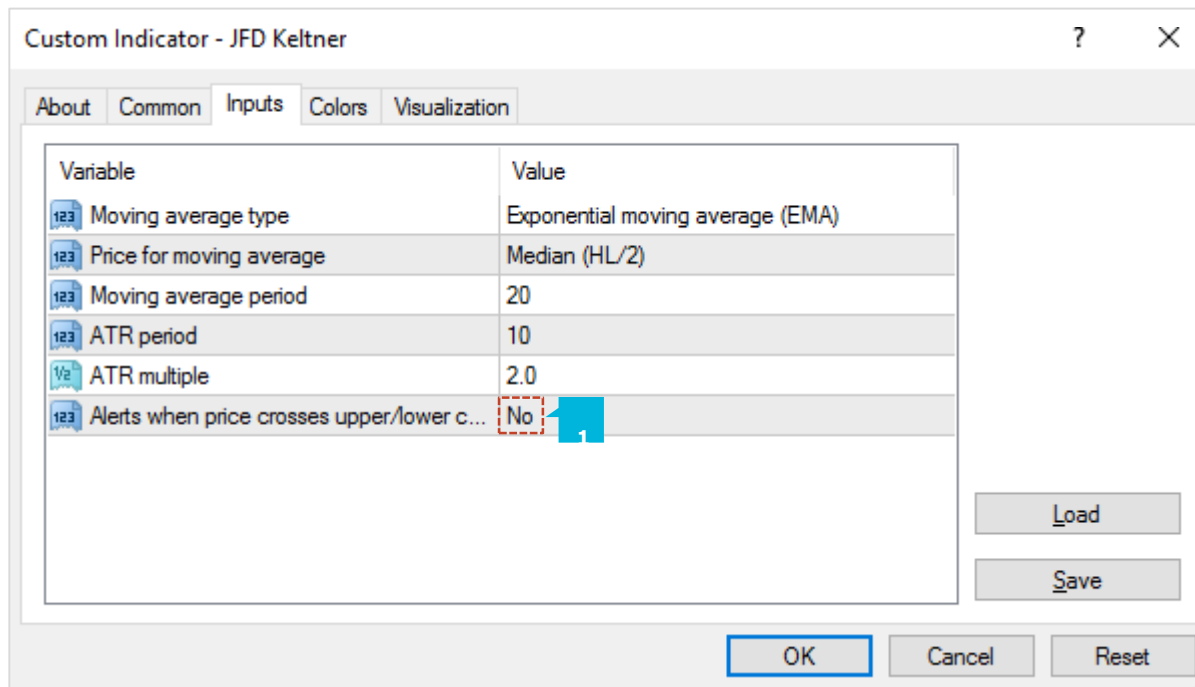
Variable	Value
Moving average type	Exponential moving average (EMA)
Price for moving average	Median (HL/2)
Moving average period	20
ATR period	10
ATR multiple	2.0
Alerts when price crosses upper/lower c...	No

Buttons: Load, Save, OK, Cancel, Reset

The indicator draws three lines: the mid-point (moving average), plus the high and low channels. You can set the colour and style for these lines in the usual way, via the Colors tab for the indicator.



You can use the **Inputs** tab to turn on pop-up alerts (1) whenever the current price crosses the upper or lower channel. To prevent repeated and too-frequent alerts, the indicator will only display a maximum of one alert per bar. Once the price has crossed the upper or lower band, a new alert will not be generated until the price has crossed back inside the channel, and then there is a new cross beyond the upper or lower channel in a later bar.

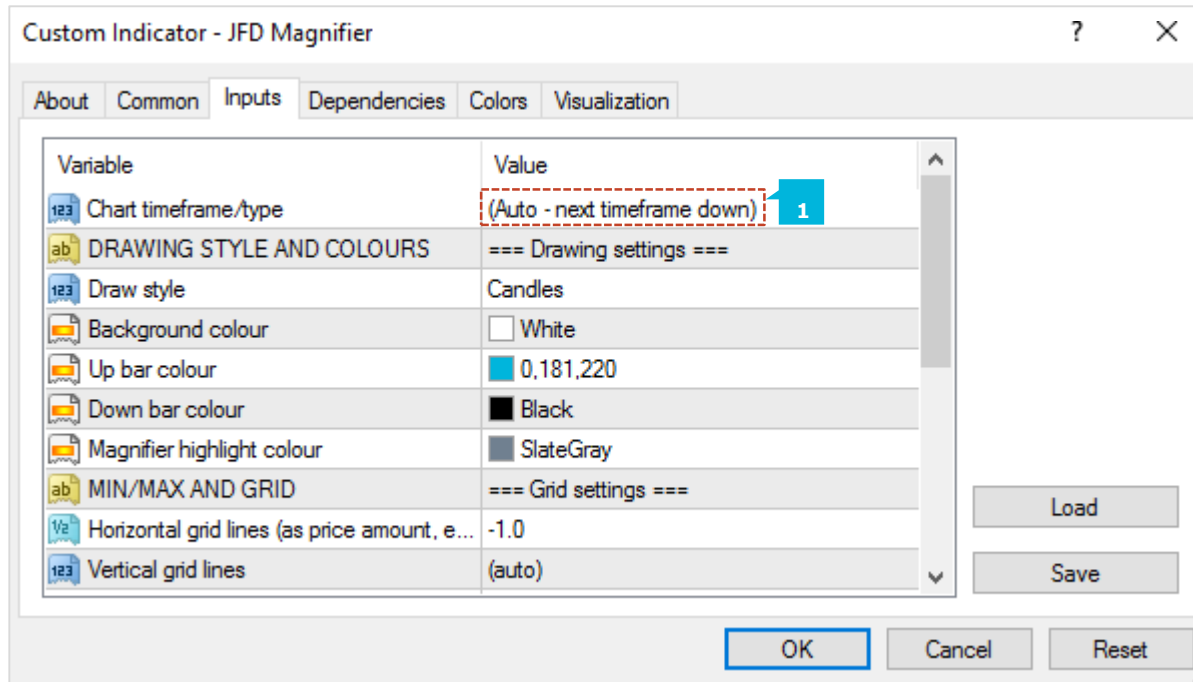


### J. JFD MAGNIFIER

**JFD Magnifier indicator** creates a draggable, resizable sub-window inside a main MT4 chart which “zooms in” on the selected bars, showing them in more detail from a lower timeframe (e.g. M30 bars on an H1 chart). You simply drag **JFD Magnifier** around the chart to zoom in on different historic periods.

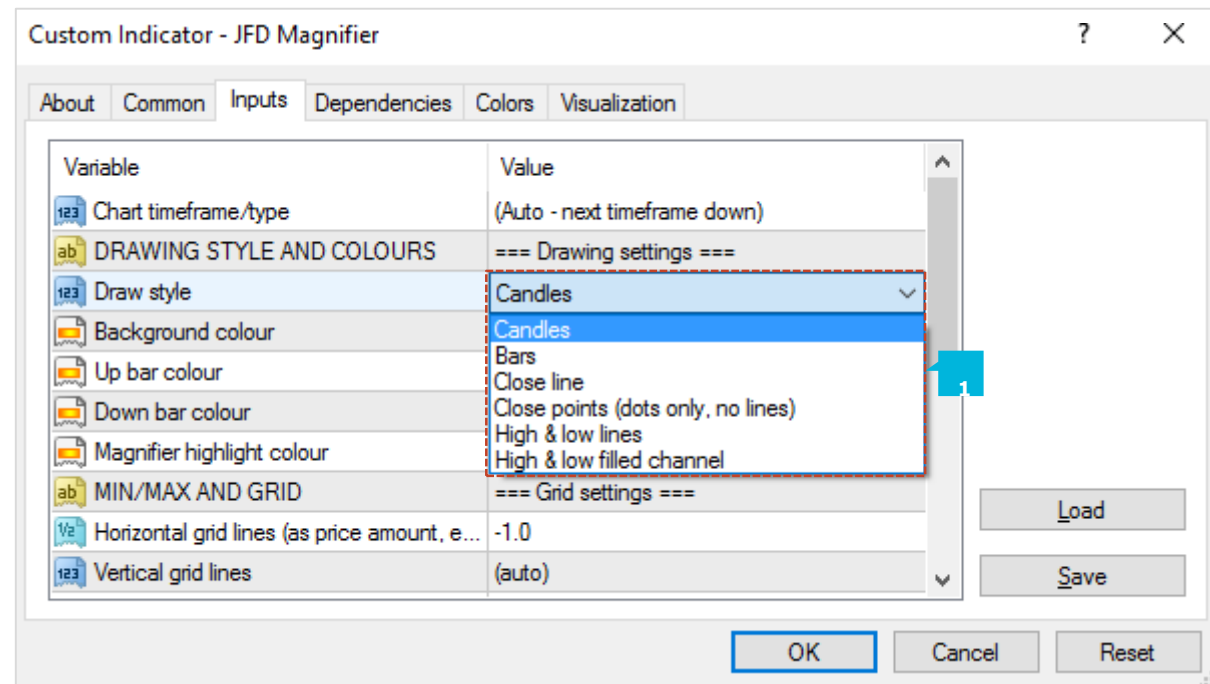


By default **JFD Magnifier** will show the next lowest timeframe. For example, if the main MT4 is H1, then **JFD Magnifier** will show M30. Alternatively, you can set a different, fixed timeframe using the setting on the indicator's **Inputs** tab (1).



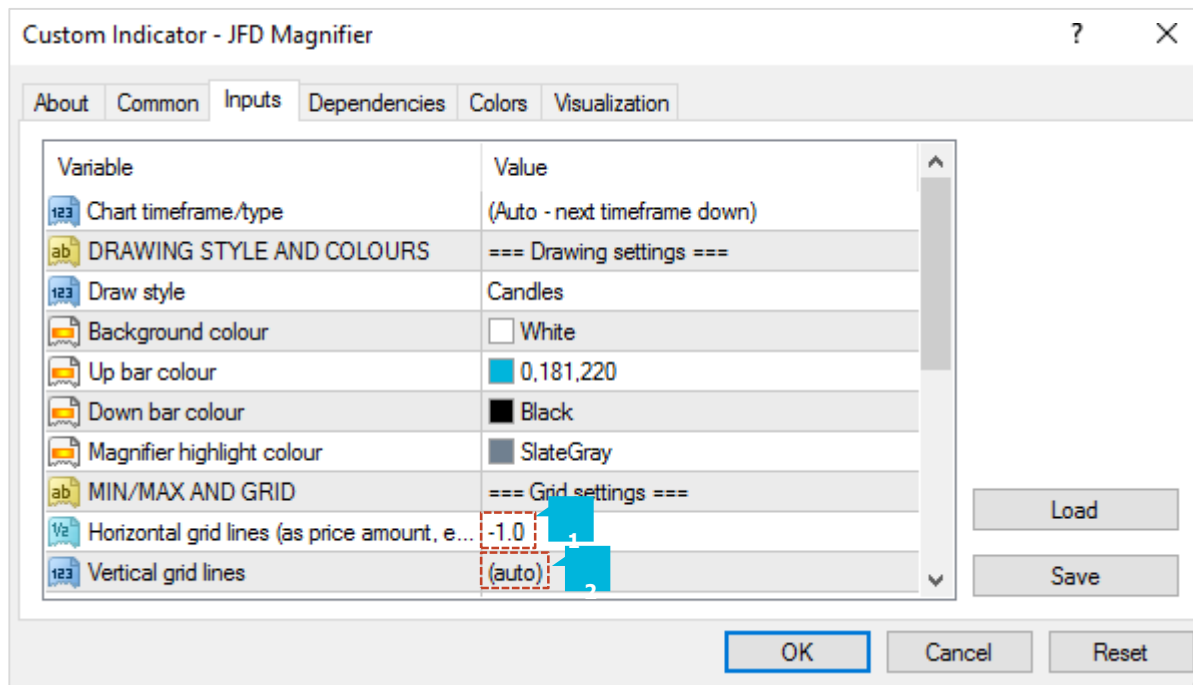
You can use the **Inputs** tab to change the style and colours (1). The mini chart offers a range of drawing styles:

- Candles
- Bars (i.e. a central high-low bar with open and close horizontal markers)
- A line showing each close price
- Close points (i.e. dots at each close price, without a line)
- Lines showing the high and low (but not the close)
- A filled channel showing the high and low, with a line showing the close inside the channel



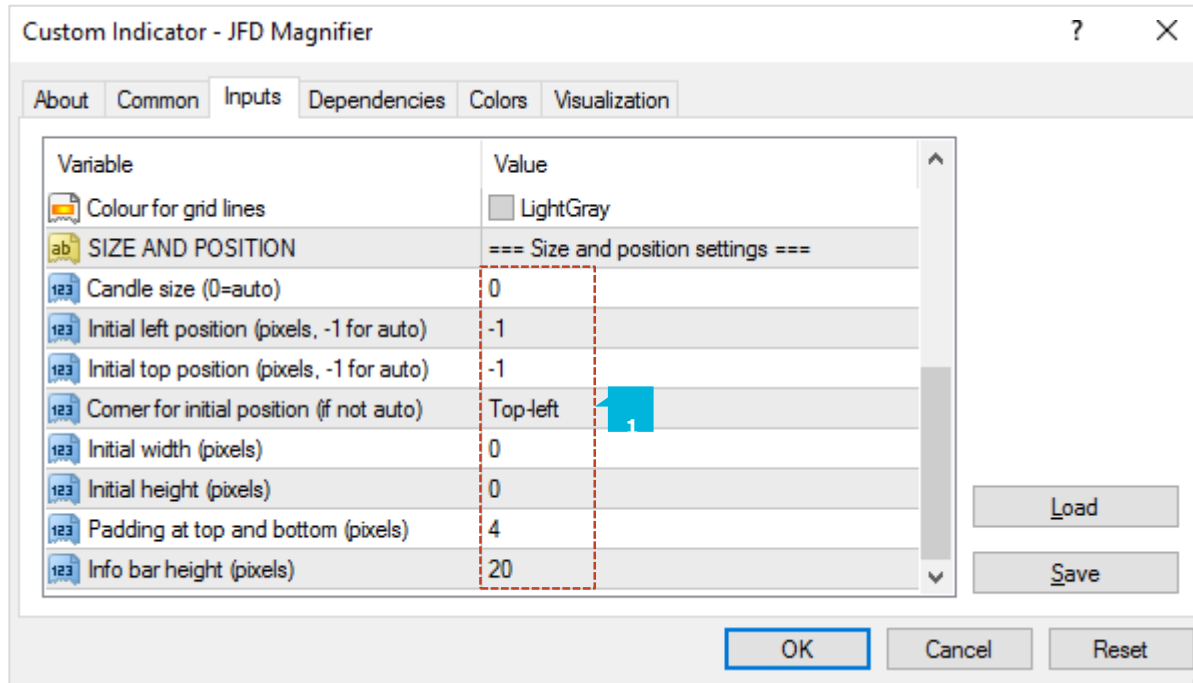
By default the mini chart will automatically draw horizontal grid lines. It will choose the nearest power of 10 (e.g. 0.01, 0.001) which does not create an excessive number of visible lines. You can set a specific grid size (1) using the **Inputs** tab, setting the parameter to a price amount such as 0.0020, or you can turn off the grid entirely by setting the parameter to zero.

By default the mini chart will automatically draw vertical grid lines based on the chart timeframe which you select. You can change the vertical grid lines, or turn them off, using the **Inputs** tab (2).



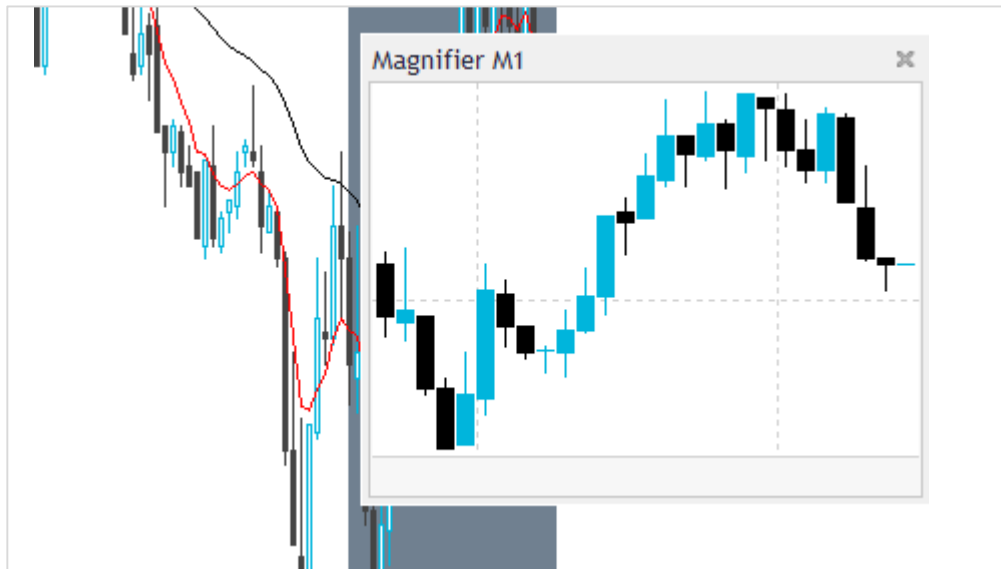


You can use the **Inputs** tab to set the indicator's initial position within the MT4 chart (1). You can define a position in terms of pixels (replacing the default values of -1) from a specific corner of the chart.



The number of historic bars which are shown in **JFD Magnifier** depends on the combination of a number of factors:

- The zoom level of the main MT4 chart. If the bars on the main MT4 chart are small, then the bars in **JFD Magnifier** also need to be small.
- The ratio between the main MT4 chart timeframe and the magnified timeframe. For example, if the main MT4 chart is H1, and you set **JFD Magnifier** to M1, then it has to display 60 M1 bars for each H1 bar on the main MT4 chart – and will not be able to fit many in.
- The candle size which you select for the indicator, in the **Inputs** tab. By default **JFD Magnifier** will select its own size, but you can override this. The larger you make the candles, the fewer which can be fitted in to **JFD Magnifier**'s window.



## K. JFD MINI CHART

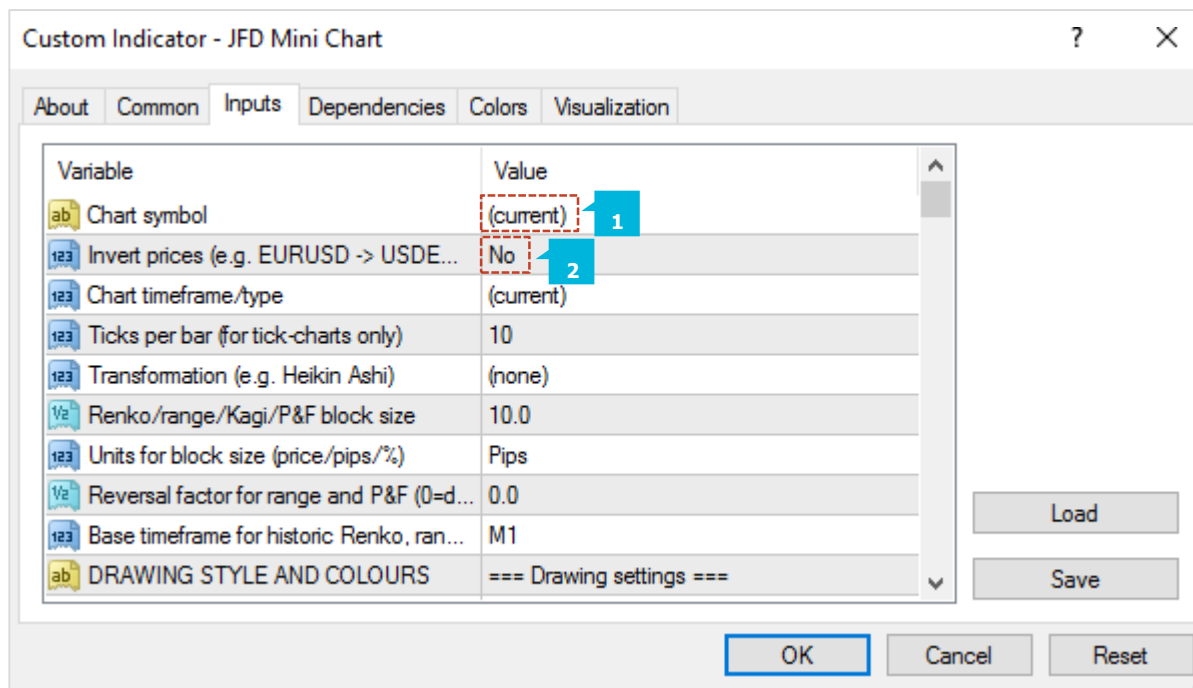
**JFD Mini Chart indicator** creates a chart in a draggable, resizable sub-window inside a main MT4 chart. It lets you see the price action on other instruments and/or timeframes without needing to switch between different MT4 charts. The mini chart has a wide variety of features:

- Timeframes such as M4 and H3 in addition to standard timeframes such as M1 or H1
- Tick bars (e.g. bars made up of 10 ticks each) and seconds bars (e.g. 20-second bars)
- Range, Renko, Kagi and Point & Figure charts
- Data-transformations such as Heikin Ashi and Three Line Break

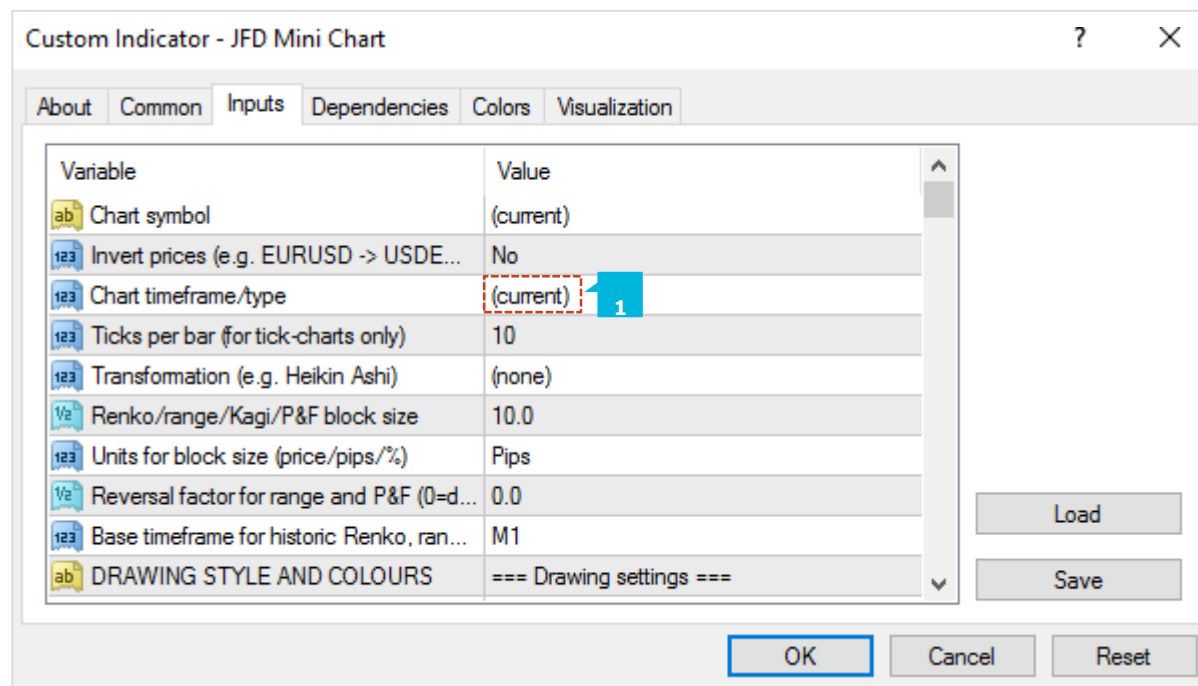
Although you cannot add MT4 indicators to a Mini Chart, it does provide its own options for showing popular indicator calculations such as moving averages and Bollinger bands.



You set the symbol to display using the Symbol parameter (1) in the **Inputs** tab. The symbol must be present in the MT4 market watch. To display more than one symbol, you simply add multiple copies of the indicator to the chart. You can also leave the symbol set to (current). This will then display the same symbol as the main MT4 chart, and will change if the main chart changes. You can invert prices by turning on the option (2) on the **Inputs** tab. For example, this will convert USDJPY into JPYUSD.



You choose the chart timeframe, or a type such as Kagi, using the option (1) on the **Inputs** tab. If you leave the timeframe set to (current) then **JFD Mini Chart** will use the same timeframe as the main MT4 chart, and will change if the main chart changes.

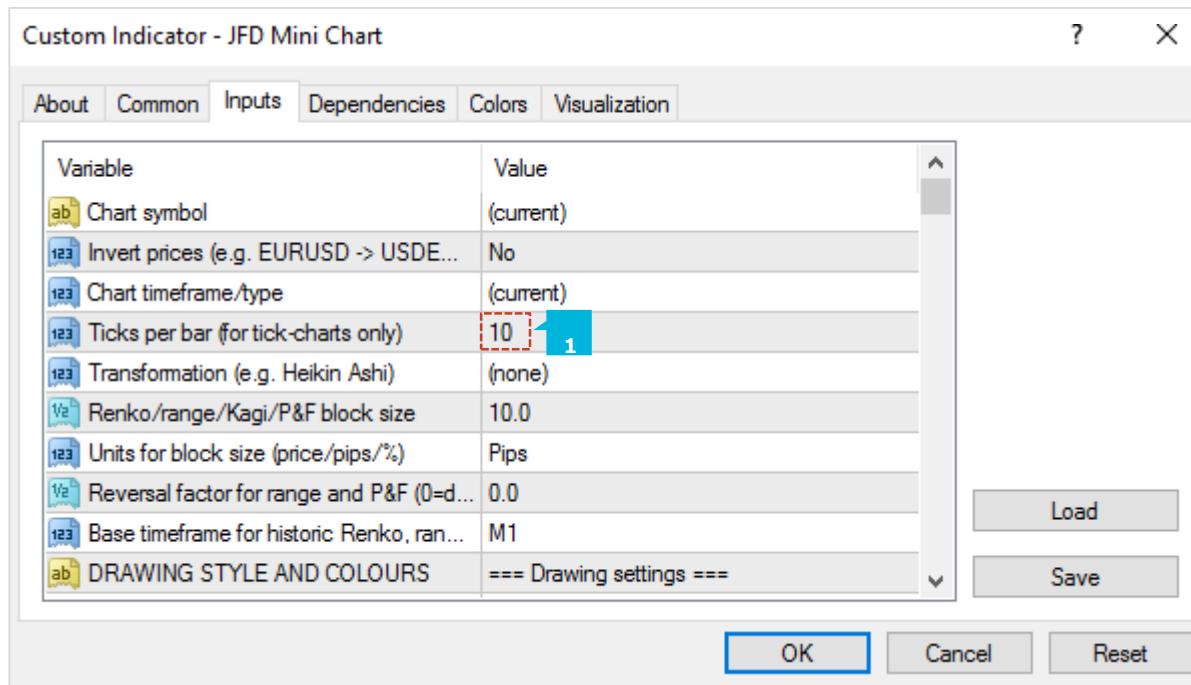


**JFD Mini Chart** offers a range of different timeframes and chart types:

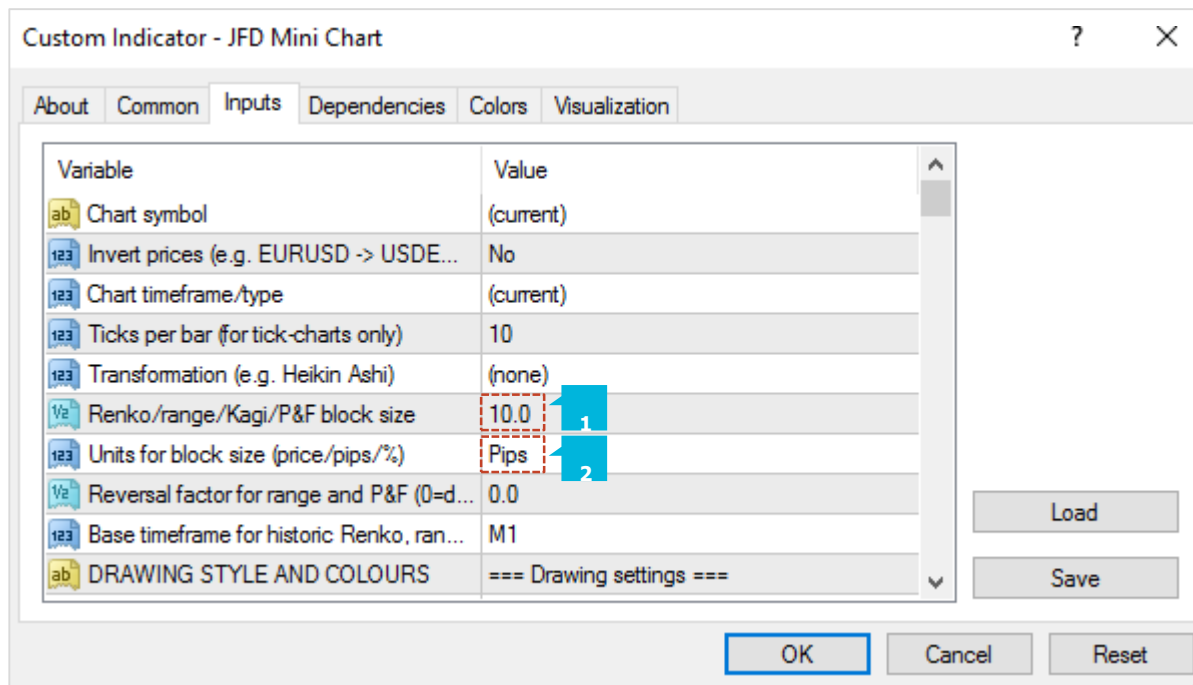
- Standard timeframes such as M5 and H1
- Extra timeframes such as M4 and H6
- Sub-minute, seconds-based time periods such as S10 and S30
- Tick-lines, i.e. lines showing each change in the ask and bid price
- Tick charts, i.e. candles which are not time-based and are instead made up of the same number of ticks
- Price-based charts such as Renko and Kagi

MT4 does not have historic data at frequencies under 1 minute (M1). Therefore, the Mini Chart cannot show a history for a seconds-period such as S30 when it loads. The indicator can only start recording and showing the data from the time that it starts running.

Tick charts draw a new bar every N ticks (i.e. they are based on activity, not on time). You need to fill in the number of ticks you want to use in the setting (1) on the **Inputs** tab. A tick-lines chart shows the ask and bid prices as separate lines, updating whenever either the ask or bid price changes (i.e. each new tick).



Renko, Range, Kagi, and Point & Figure charts are price-based rather than time-based, and draw new bars based on price movement instead of time elapsing. All of them use a “block” size, which you set using the **Inputs** tab (1). This defines the minimum price movement which is required before the chart changes. It can be set (2) either to a price amount (e.g. 0.0010), or a value in pips (e.g. 10), or to a percentage change (not applicable to P&F).



With Range charts, a new bar is drawn each time that the price rises or falls by the block size. **JFD Mini Chart** indicator also offers stacked range charts, where consecutive bars in the same direction are combined into a single bar.

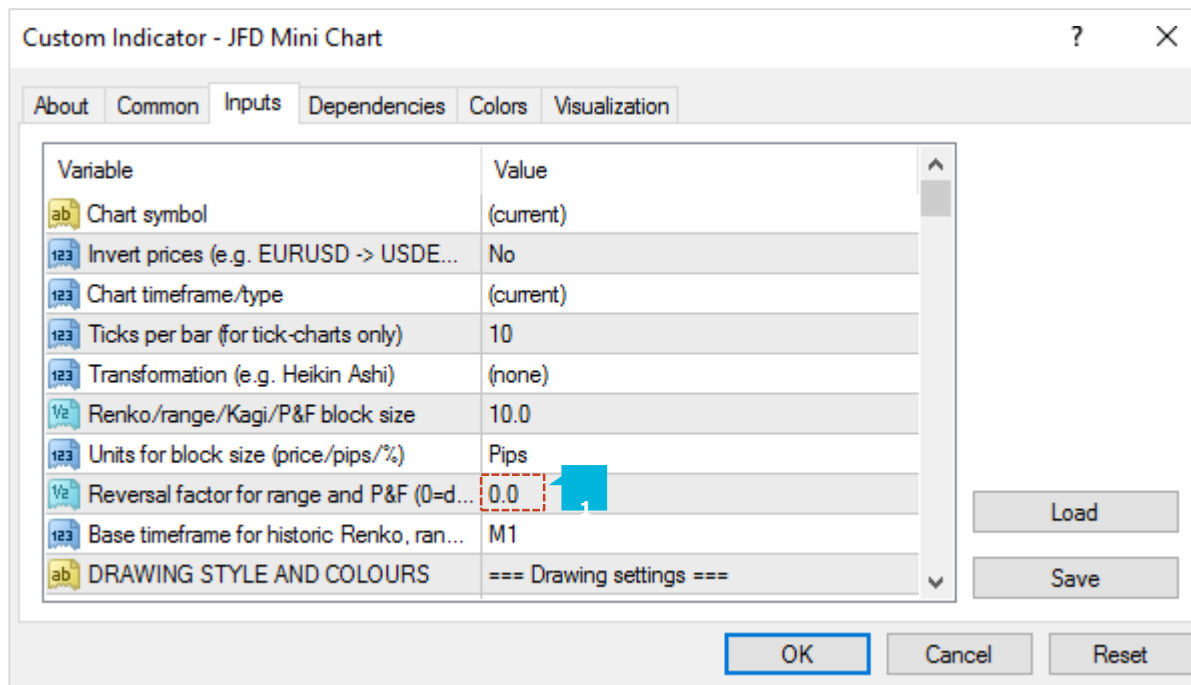
Renko charts are similar to range charts, but the price must reverse by two whole blocks before a new block is drawn in the opposite direction to the current trend. The Mini Chart indicator offers a variant on standard Renko charts which draws the “tails” on each bar, i.e. the movement in each bar against the trend.

In Kagi charts, the chart changes direction when the price reverses by the block size from the previous high/low. Each additional movement in the direction of the current trend extends the Kagi line, and therefore, unlike range or Renko charts, Kagi highs and lows are not aligned to a grid.

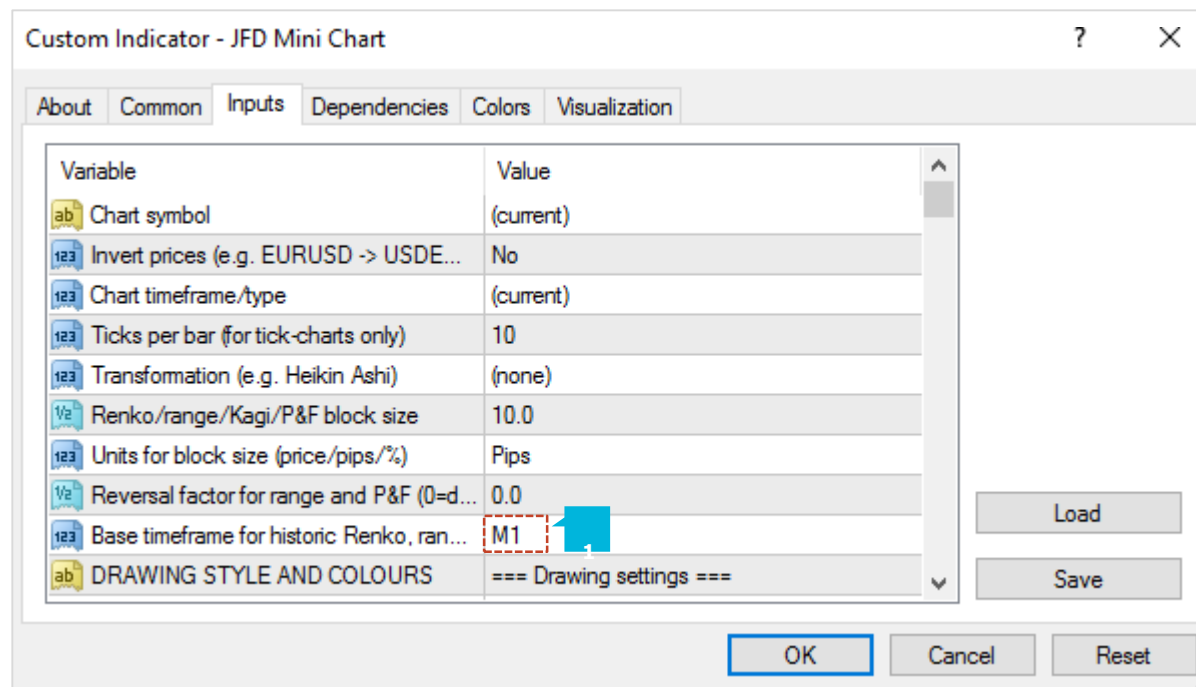
Point and Figure charts are similar to range charts, but traditionally drawn in a different way, with consecutive movements stacked rather than displayed as separate bars, and with a reversal rule where a new bar is not drawn in the opposite direction until the prices reverses by three units.



For Range and P&F charts you can also set the “reversal” amount (1) which is required before the chart changes direction. If left at zero, then Range charts will use a reversal factor of 1 – i.e. the threshold for a new block in the opposite direction is the same as for a continuation – and P&F charts will use the standard P&F reversal factor of 3 – i.e. the price must reverse by 3 units before a new column is drawn on the P&F chart.



When **JFD Mini Chart** loads, it will create historic data for Range, Renko, Kagi, and P&F charts using the price history in the trading platform. By default the history is from M1 data (1). If you use a large block size (e.g. 1 whole cent, price change of 0.01, on EUR/USD), then there may not be many historic blocks over the period covered by the M1 data in the platform. To go further back in time you can choose a longer base period such as M30 or H1. The disadvantage of longer timeframes is that the indicator cannot be certain what happened inside each historic bar. It can only “see” the high and low.



If a historic bar covers a price range such as 0.04, and the block size is 0.01, then the Mini Chart does not know, and has to guess, whether the price went up/down in four simple sequential blocks rather than bouncing up and down within the bar, creating several historic blocks.

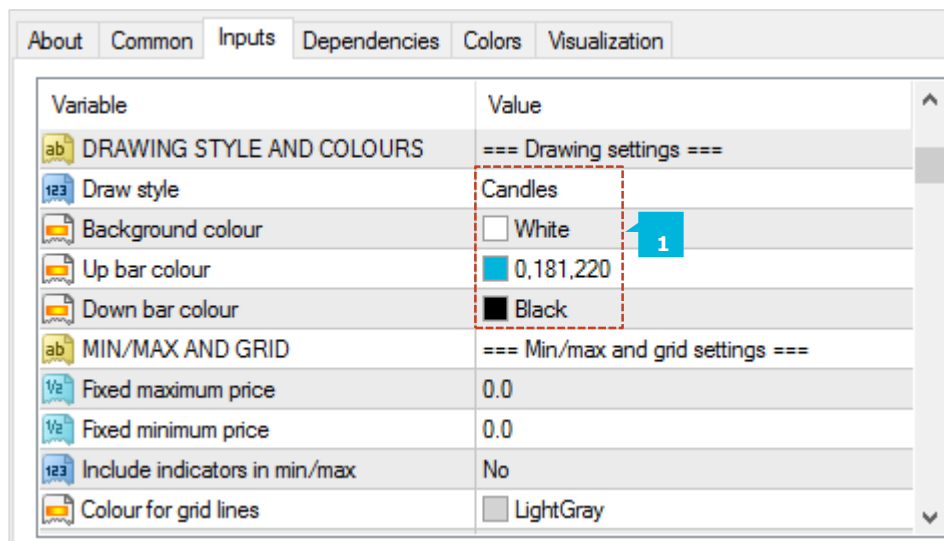
**JFD Mini Chart** provides popular transformations of the bar data:

- Heikin Ashi
- Three Line Break
- 2-bar average (i.e. each bar is the average of itself and the previous bar)
- 3-bar average

Transformations are different to chart types such as Kagi or Renko. With a chart type such as Kagi, there is a price-based rule for when/how to draw each new bar, i.e. a rule which is not simply based on time such as H1 or S30. A transformation such as Heikin Ashi takes bar data such as H1 and applies averaging to it. A Heikin Ashi chart has an underlying timeframe, such as H1. A Kagi or Renko chart does not.

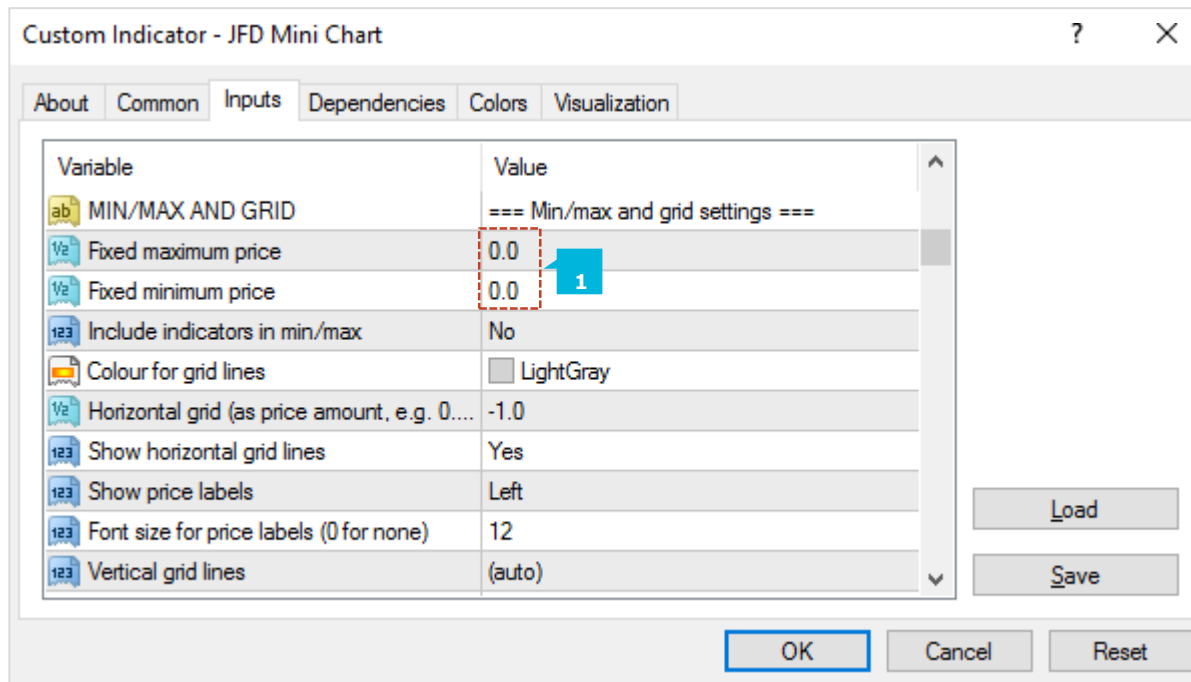
You can use the **Inputs** tab to change the style and colours (1). The Mini Chart offers a range of drawing styles:

- Candles
- Bars (i.e. a central high-low bar with open and close horizontal markers)
- A line showing each close price
- Close points (i.e. dots at each close price, without a line)
- Lines showing the high and low (but not the close)
- A filled channel showing the high and low, with a line showing the close inside the channel
- No drawing – the bars themselves are not drawn, and only indicators are displayed

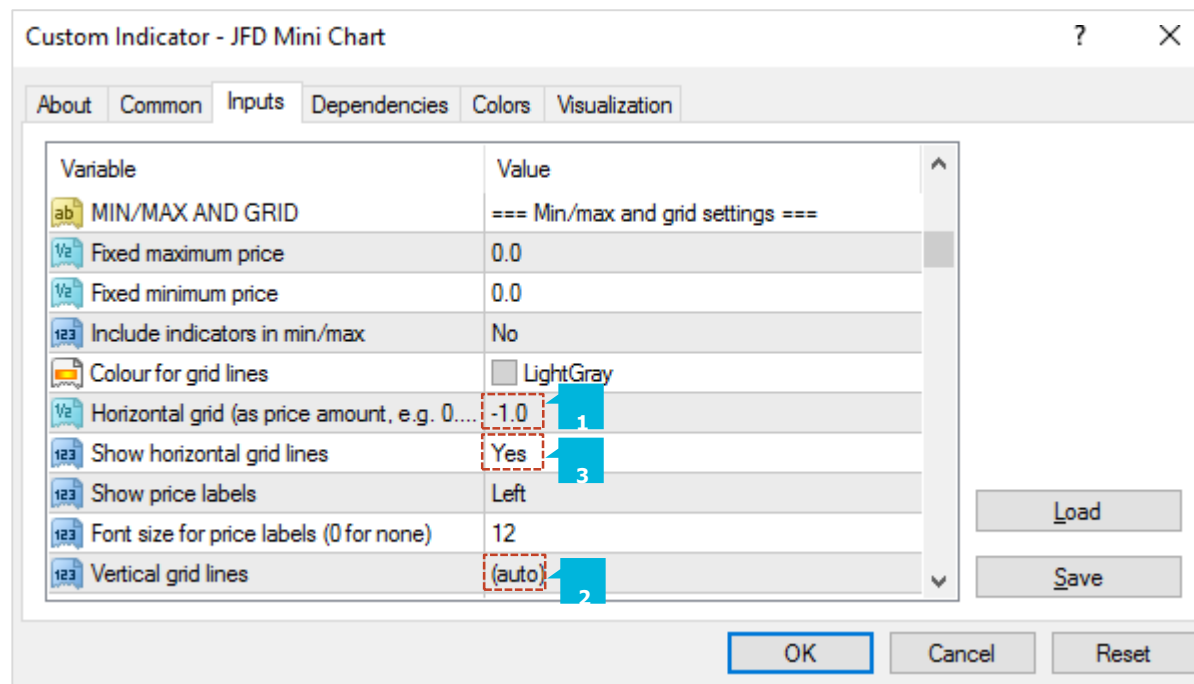


Please note that the drawing style is fixed for tick-lines, Kagi, and P&F charts. Changing the style setting has no effect for these types of chart.

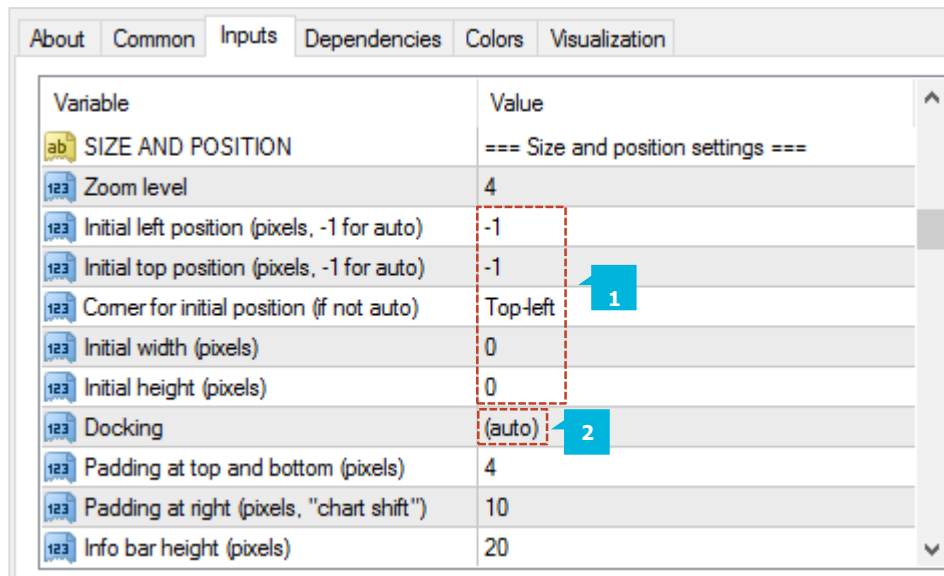
By default **JFD Mini Chart** will automatically select a high and low range to draw based on the bars which are visible (as MT4 itself does). You can use the **Inputs** tab to tell the indicator to include any values in the high-low. Otherwise, as in MT4, indicator values may be invisible off the top or bottom end of the chart. You can also set a fixed maximum and/or minimum price for the chart (1).



By default **JFD Mini Chart** will automatically draw horizontal grid lines. It will choose the nearest power of 10 (e.g. 0.01, 0.001) which does not create an excessive number of visible lines. You can set a specific grid size (1), setting the parameter to a price amount such as 0.0020, or you can turn off the grid entirely by setting the parameter to zero. By default **JFD Mini Chart** will automatically draw vertical grid lines based on the chart timeframe/type which you select. You can change the vertical grid lines (2), or turn them off (3). For chart types such as Renko and Kagi which are based on price movement rather than time, the vertical grid lines will not be evenly spaced.

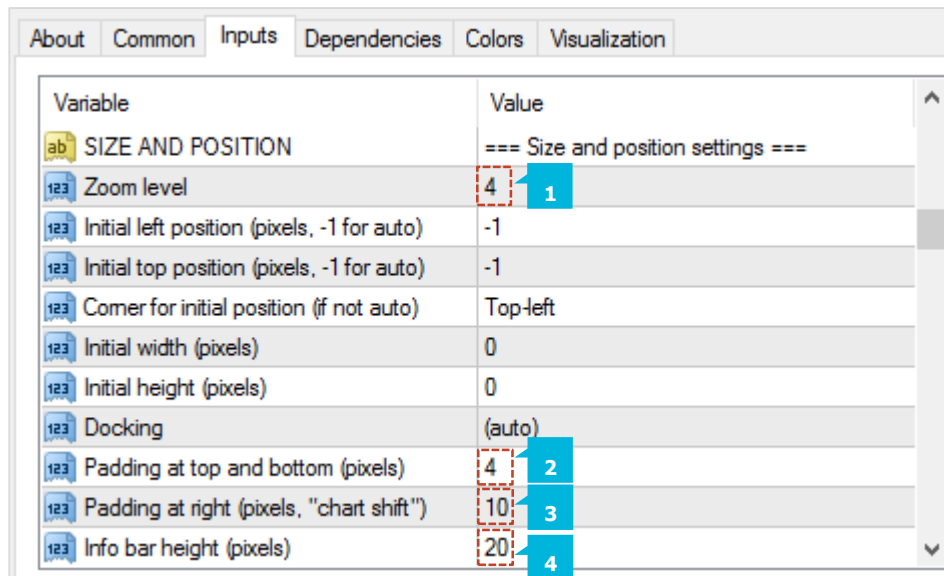


You can use the **Inputs** tab to set the indicator's initial position within the MT4 chart (1). You can define a position in terms of pixels (replacing the default values of -1) from a specific corner of the chart. **JFD Mini Chart** is both draggable and resizable, in the usual way by pressing and holding the mouse over the sub-window's title bar or border. By default the indicator will then choose a corner of the chart to "dock" itself to. For example, if you drag the sub-window close to the bottom-right corner, the indicator will then dock itself to that corner of the chart. If you resize the chart window, the indicator will automatically re-position itself so that it maintains the distance from the edge(s) of the chart. You can manually override the docking (2) using the setting on the **Inputs** tab.



You can also change the following settings for the chart:

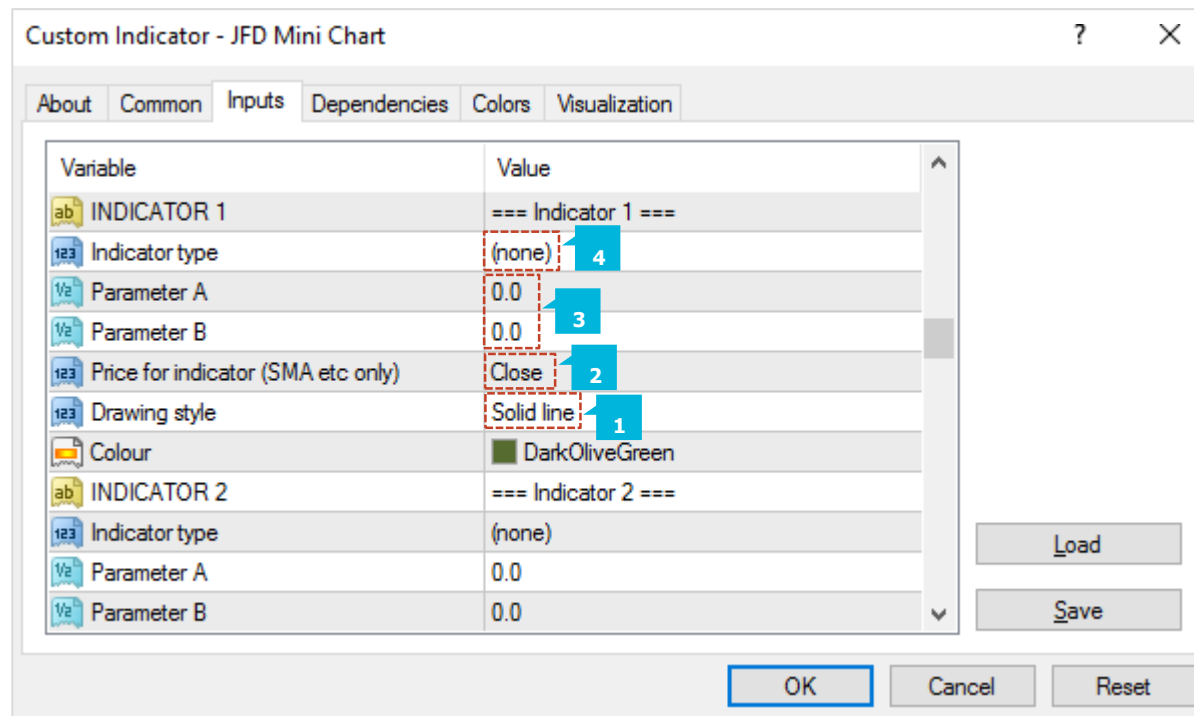
- The zoom level, i.e. how large each candle/bar is (1)
- The amount of space (in pixels) at the top and bottom of the chart (2)
- The amount of space (in pixels) at the right of the chart, i.e. equivalent to the chart-shift on MT4's own chart (3)
- The height of the bar which shows the time and price corresponding to the position of the mouse. You can turn off this information bar entirely by setting the height to zero (4)



Variable	Value
SIZE AND POSITION	=== Size and position settings ===
Zoom level	4
Initial left position (pixels, -1 for auto)	-1
Initial top position (pixels, -1 for auto)	-1
Corner for initial position (if not auto)	Top-left
Initial width (pixels)	0
Initial height (pixels)	0
Docking	(auto)
Padding at top and bottom (pixels)	4
Padding at right (pixels, "chart shift")	10
Info bar height (pixels)	20



You cannot add MT4 indicators (e.g. moving averages) to **JFD Mini Chart**, but you can use the **Inputs** tab to configure the display of popular indicator calculations. This includes drawing lines at fixed prices (1), i.e. the equivalent of drawing a horizontal line on a main MT4 chart. You can define up to 10 indicator calculations. For each one, you can choose a drawing style and a colour. For some indicators, you can change the parameters and/or or the type of price (2) – close, high, low etc – which is used in the indicator calculation. In other words, the meaning of the Parameter A and Parameter B values (3) on the **Inputs** tab depends on the type of indicator (4).



**Moving averages (SMA, EMA, SMMA, LWMA)**

The Parameter A value defines the period for the moving average calculation. You can also choose which price to apply the average to. Parameter B is unused.

**Bollinger® bands**

The Parameter A value defines the period for the average (the mid-point of the bands). The parameter B value defines the number of deviations for the bands, from the mid-point. You can also choose which type of price to use in the calculation.

**Envelopes (SMA and EMA)**

The Parameter A value defines the period for the moving average (the mid-point of the envelope bands). The Parameter B value defines the % for the envelopes, e.g. 0.1% from the moving average mid-point. You can also choose which type of price to use in the calculation

**H1 high and low**

Same as the D1 high and low, with the same meaning for the Parameter A and Parameter B values, but using H1 data rather than D1 data.

**D1 high and low**

Draws horizontal lines at the D1 high and low. The Parameter A value defines the offset, and the Parameter B value defines the number of D1 bars to include (defaulting to 1 if left at zero). For example, Parameter A = 1 and Parameter B = 3 means “the high and low of the 3 D1 bars starting yesterday”.

**Linear regression**

Draws a line showing the linear regression of the last N bars, defined by the Parameter A value. You can choose which type of price is used in the calculation (e.g. linear regression of the highs rather than the closes). The Parameter B value is unused.

**Fixed price**

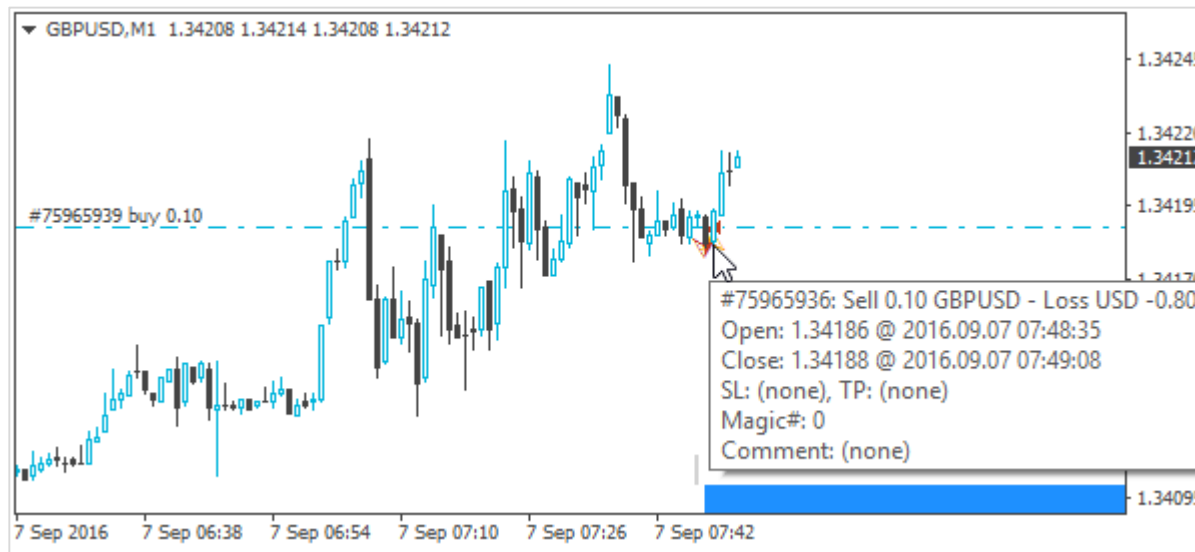
Draws a horizontal line at the fixed price specified by Parameter A, i.e. the equivalent of manually drawing a horizontal line on an MT4 chart. You can also use the Parameter B value to draw a second line at a different price.

**Current bid price**

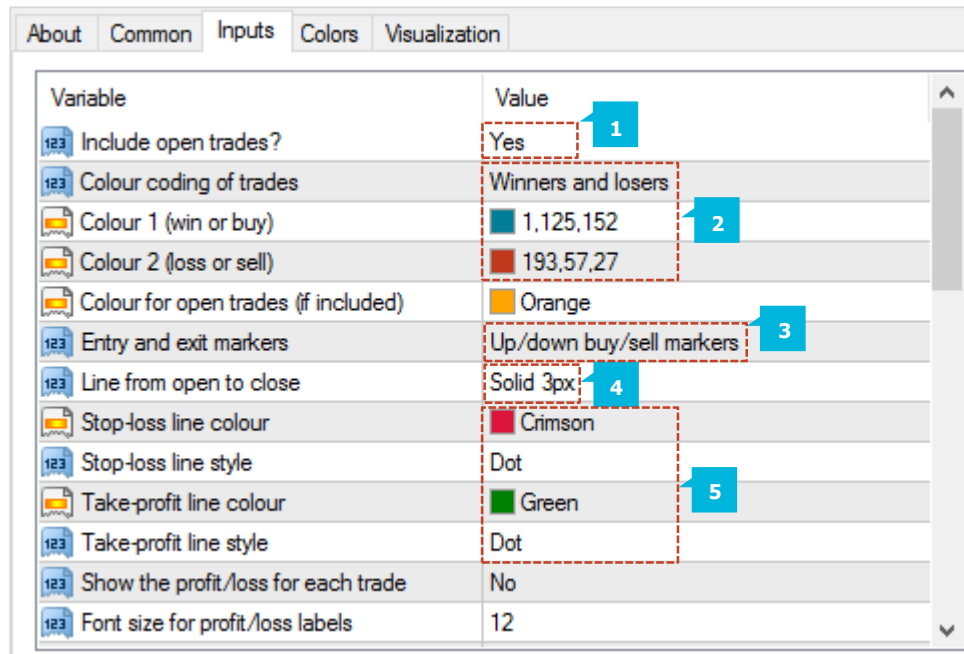
Draws a horizontal line at the current bid price (i.e. constantly changing). The Parameter A and B values and the price-type are not used.

## L. JFD ORDER HISTORY

**JFD Order History indicator** draws your historic trades on a chart, showing the entry and exit prices and times, and also displays bands which indicate when you were in and out of the market. The blue bands at the bottom of the screen indicate when there was an open position for the chart symbol, and the grey bands indicate when there was an open position in any other symbol. Switching between different chart timeframes (D1, H1, M1 etc) in effect provides a way of zooming in on historic trading activity. Hovering the mouse over a historic trade shows the details of that trade. Hovering the mouse over the blue or grey bands shows the details of the trades which were open during that period.



You can choose whether the indicator should include current open trades (1). The indicator draws entry and exit markers for each individual trade on the chart's symbol. You can choose whether these are colour-coded based on win versus loss, or on buy versus sell (2). You can also set the style of entry and exit marker - arrows, price labels etc. (3), and the width of the line between the markers (4). You can choose to turn on extra lines showing any Stop Loss and Take Profit on each trade. You can set both the style of the line and also its colour (5). The prices which are shown are the final (or current) Stop Loss and Take Profit for a trade. MT4 does not maintain a record of previous s/l and t/p levels for a trade.

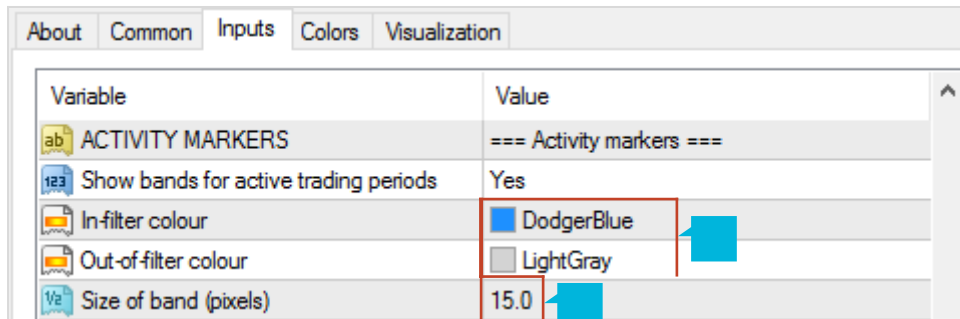


You can change the summary text which is displayed for each order (when hovering it with the mouse) using the indicator's settings. You can use the following variables in the text. Please note that these pop-up messages are limited in length by MT4, and will not be displayed if they exceed 256 characters.

VARIABLE	REPLACED BY
{CRLF}	New line
{TICKET}	Order ticket number
{BUYSELL}	Buy or Sell
{WINLOSS}	Win or Loss
{LOTS}	Trade lot size
{SYMBOL}	Trade symbol
{OPENPRICE}	Trade open price
{CLOSEPRICE}	Trade close price
{OPENTIME}	Trade open time
{CLOSETIME}	Trade close time
{PROFIT}	Gross profit
{SWAP}	Swap
{COMMISSION}	Commission
{NETPROFIT}	Net profit: gross profit plus swap plus commission

VARIABLE	REPLACED BY
{SL}	Current/final stop-loss price
{TP}	Current/final take-profit price
{COMMENT}	Order comment
{MAGIC}	Order magic number
{CURR}	Account deposit currency

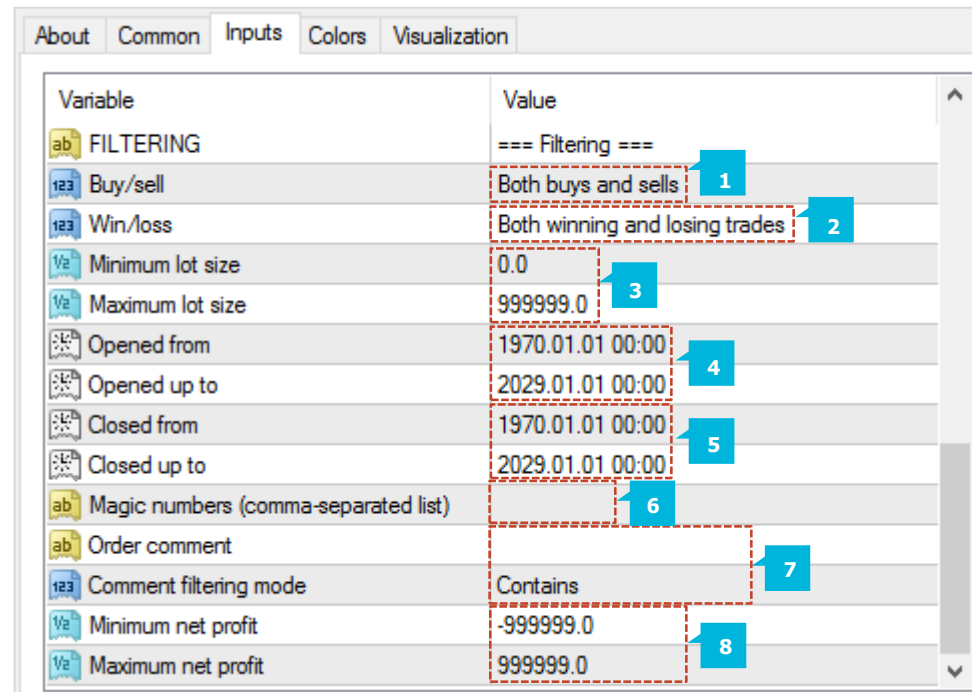
The blue and grey bands at the bottom of the chart indicate when there was an open trade for the chart symbol (blue) and for any other symbol (grey). You can control the colour (1) and size (2) of the bands using the indicator's settings. The bands are affected by any filtering which you use. The blue band in fact illustrates all the trades for the current chart symbol which match the filtering. The grey band illustrates all trades for all other symbols, plus any trades for the current chart symbol which do not match the filtering.



You can use filter to control which historic trades are drawn on the chart as markers, and which trades are included in the blue versus grey activity bands. You can filter on several different conditions:

- Buy or sell (1)
- Win or Loss (2)
- Lot size (3)
- Open time (4)
- Close time (5)
- MT4 magic number (6)
- Order comment (7)
- Amount of net profit (8)

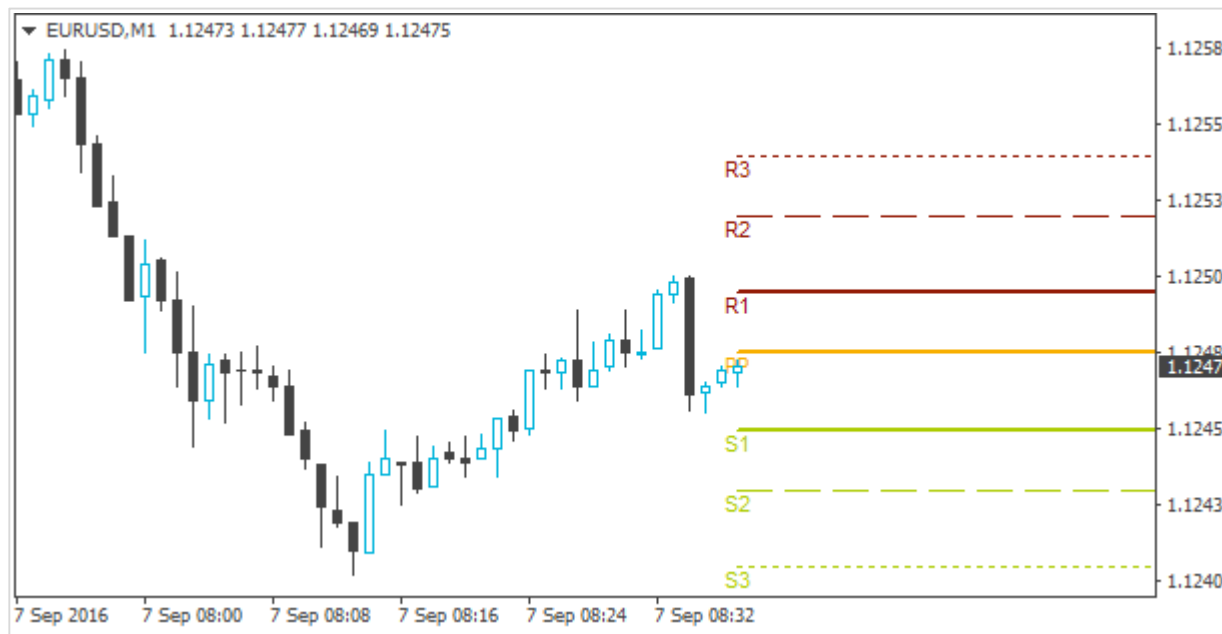
For example, you can draw only your historic losing trades by setting maximum net profit to zero.



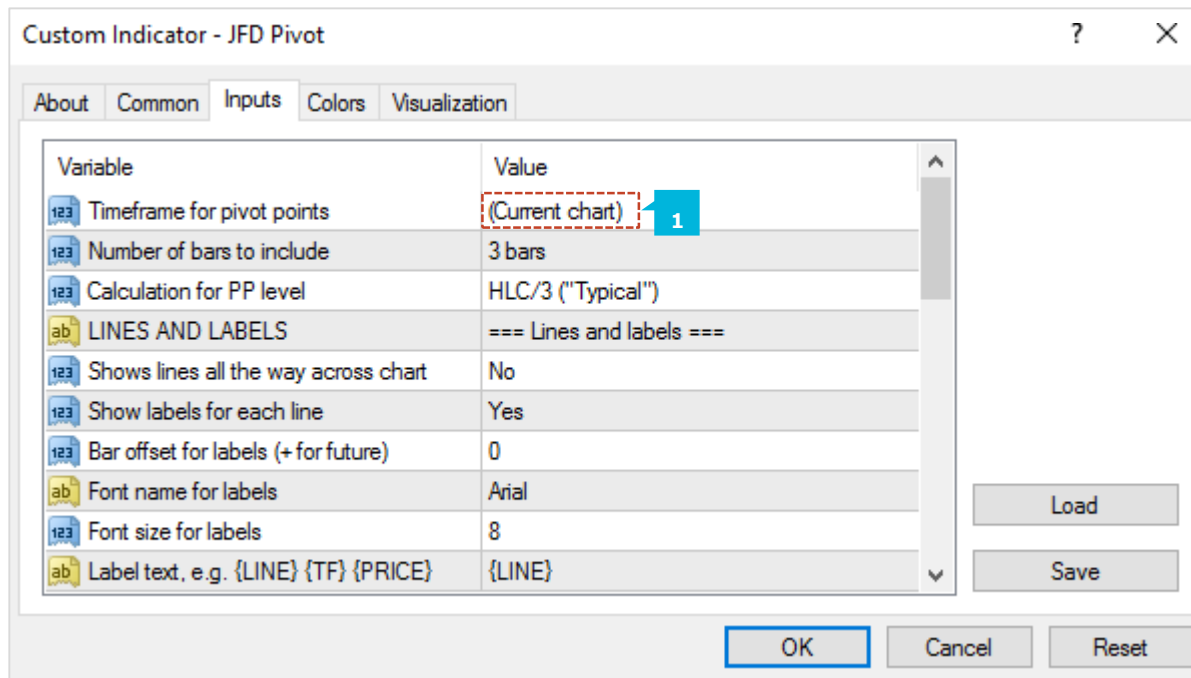


### M. JFD PIVOT

**JFD Pivot indicator** shows a classic pivot calculation based on historic price action: a central pivot price, with 3 support and resistance levels either side (R1-R3 and S1-S3). The indicator can be based on any timeframe – for example, you can choose to display H4 pivot levels on an M30 chart – and you can configure the indicator to generate alerts when the current price crosses a support or resistance level.

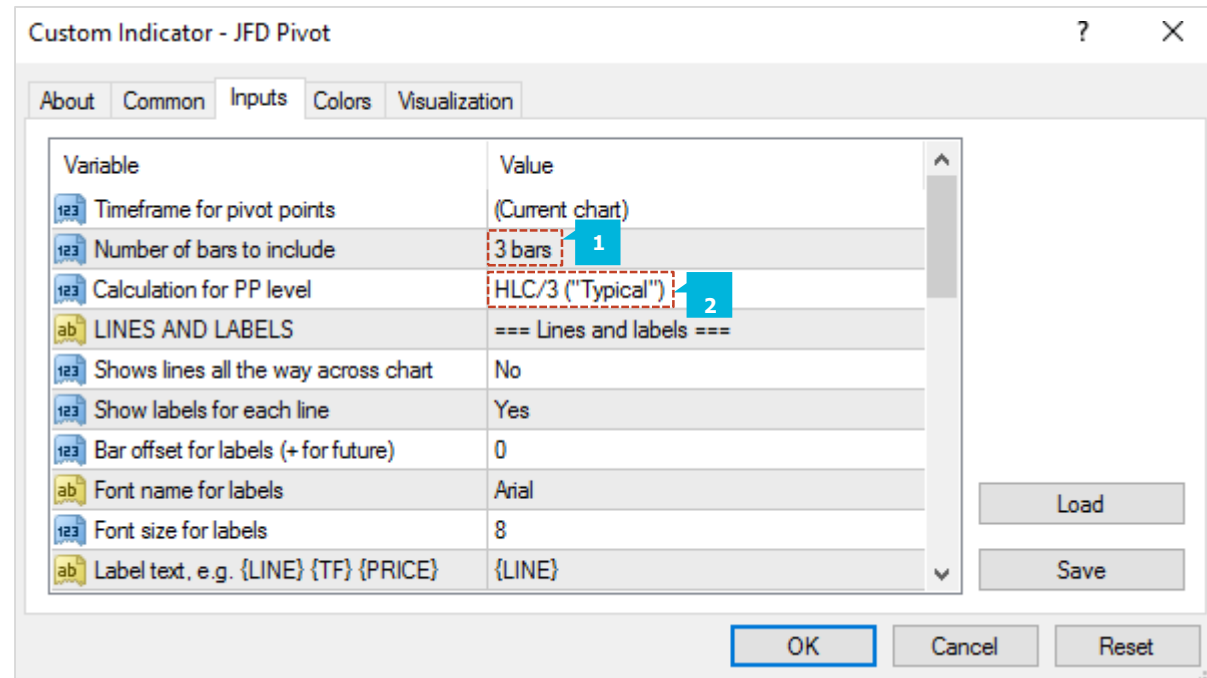


You choose the timeframe for the pivot calculating using the first of the parameters (1) on the **Inputs** tab. You can either make this the same as the current chart, so that the pivot calculation changes if you alter the timeframe of the chart, or the pivot can be a different fixed timeframe such as D1.

























You can choose how many historic bars (1) to include in the pivot calculation – 1 (standard), 2 or 3 – and you can also choose between different calculations of the central pivot point (2). The options for the pivot calculation are as follows:

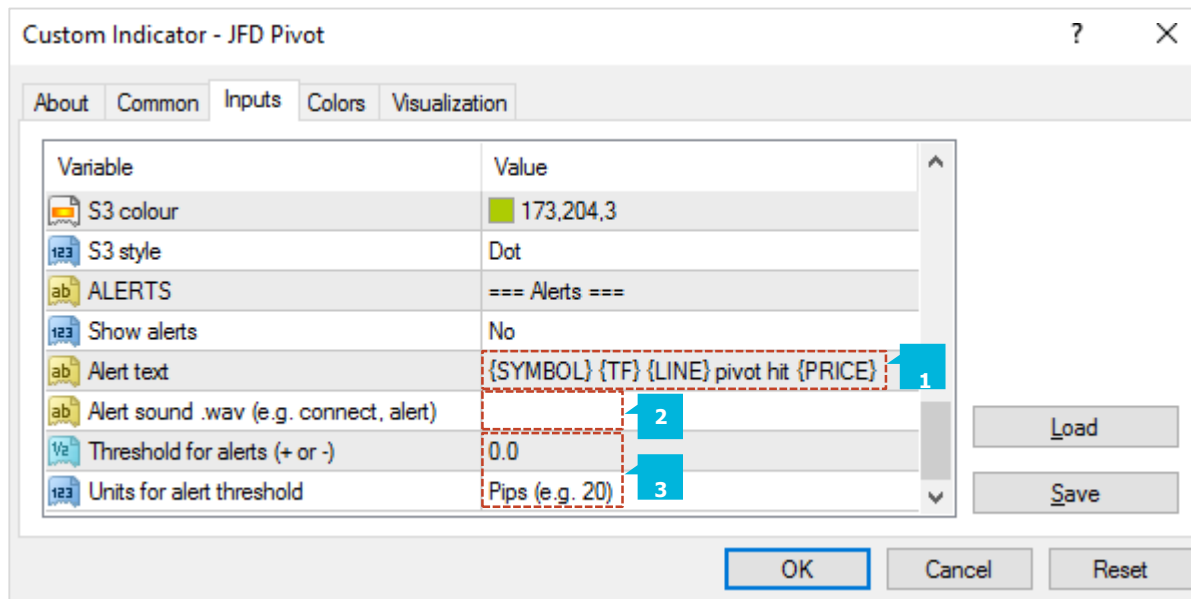
- *Typical* price of previous bar(s):  
high + low + close / 3
- *Weighted* price of previous bar(s):  
high + low + close + close / 4
- *Median* price of previous bar(s):  
high + low / 2
- Close price
- Average of close prices (same as close unless you choose to include more than one bar in the pivot calculation)



You can change the display of the pivot lines using the options on the **Inputs** tab. You can choose whether the pivot levels are drawn all the way across the chart (1), i.e. into the past, and you can whether to display labels for each point (2). Each line also has a setting which controls its colour and its style (3), i.e. solid, dashed, etc. Turning off the display of a line, by setting its colour to "None", will prevent any alerts being displayed about that pivot level.

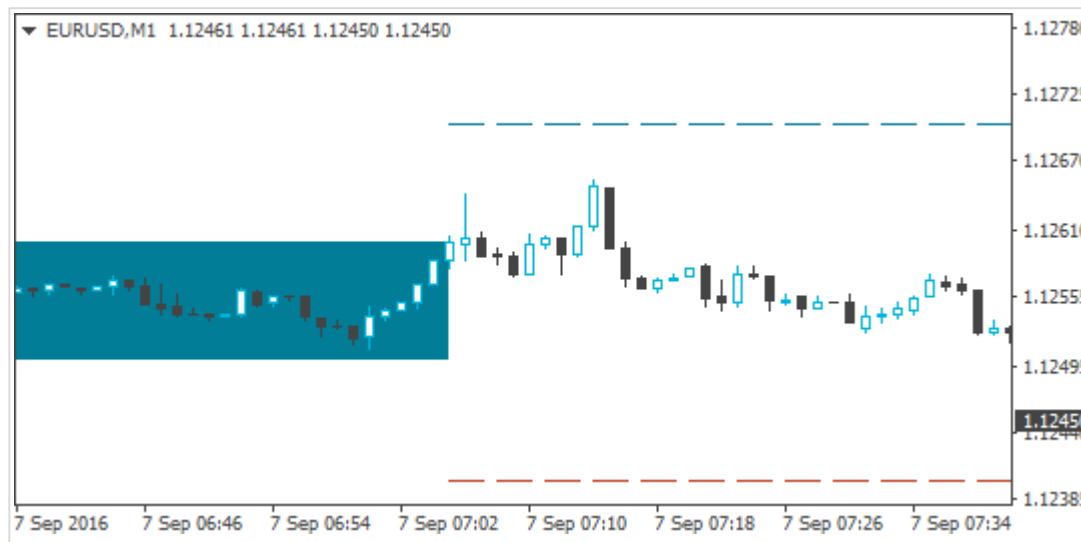
Variable	Value
 LINES AND LABELS	=== Lines and labels ===
 Shows lines all the way across chart	No <span style="border: 1px dashed red; padding: 2px;">1</span>
 Show labels for each line	Yes <span style="border: 1px dashed red; padding: 2px;">2</span>
 Bar offset for labels (+ for future)	0
 Font name for labels	Arial
 Font size for labels	8
 Label text, e.g. {LINE} {TF} {PRICE}	{LINE}
 COLOURS	=== Colours ===
 PP colour	<span style="background-color: #FFD700; border: 1px dashed red; padding: 2px;">248,175,0</span>
 PP style	Solid 2px
 R1 colour	<span style="background-color: #8B0000; border: 1px dashed red; padding: 2px;">148,27,6</span>
 R1 style	Solid 2px
 R2 colour	<span style="background-color: #8B0000; border: 1px dashed red; padding: 2px;">148,27,6</span>
 R2 style	Dash <span style="border: 1px dashed red; padding: 2px;">3</span>
 R3 colour	<span style="background-color: #8B0000; border: 1px dashed red; padding: 2px;">148,27,6</span>
 R3 style	Dot
 S1 colour	<span style="background-color: #9ACD32; border: 1px dashed red; padding: 2px;">173,204,3</span>
 S1 style	Solid 2px
 S2 colour	<span style="background-color: #9ACD32; border: 1px dashed red; padding: 2px;">173,204,3</span>
 S2 style	Dash
 S3 colour	<span style="background-color: #9ACD32; border: 1px dashed red; padding: 2px;">173,204,3</span>
 S3 style	Dot

You can choose to generate alerts if the price crosses upwards beyond a resistance level, or downwards below a support level. No alert is generated if the price is already beyond a support or resistance level when a new bar starts, or when you add the indicator to the chart. You can set the text to display in the pop-up alert message on screen (1), and you can also specify a sound to play (2). You can also choose to widen or narrow the threshold for the alert (3), e.g. so that the alert is generated 5 pips before the price hits a level, or 10 pips beyond the level. The threshold can be set either a number of pips (e.g. 20) or as a price amount (e.g. 0.0020). A positive number widens the threshold for the alert, meaning that the price has to go beyond the level. A negative number narrows the threshold, meaning that the alert is generated before the price hits the level.

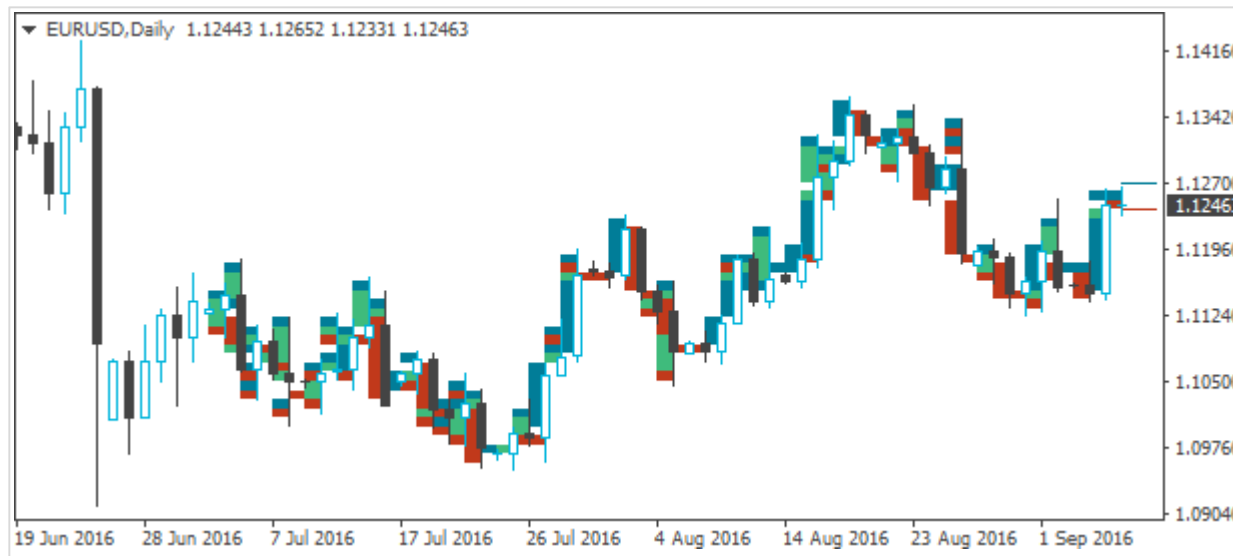


## N. JFD RENKO

**JFD Renko indicator** draws Renko blocks on a normal MT4 time-based chart. The blocks can either be drawn as continuous, or as separated elements whenever a new Renko block is completed. The blocks have varying widths, or gaps between them, because Renko bars are not time-based and have varying durations. The indicator can also be used to create an offline MT4 chart containing only the Renko blocks – a more traditional Renko chart which is not time-based like a normal MT4 chart.



The indicator calculates the Renko blocks from M1 data, regardless of the timeframe of the chart on which you use the indicator. Therefore, you need as much M1 data in your MT4 platform as possible, and you may need to use Tools / History Center in MT4 to download extra M1 data. If you only have 5 days of historic M1 data, then Renko bars will only be drawn for the last 5 days even if you are looking at e.g. an H1 chart which goes back much further. During each time-based candle on the MT4 chart, e.g. an H1 candle, there can be anything between zero and many new Renko blocks. For example, if the chart timeframe is very long (H4), the Renko block size can be very small (a few pips). As a result, there are lots of Renko bars during each chart candle, creating many red and blue Renko blocks which are overlaid. A chart such as this is unreadable because the H4 timeframe simply is not suitable for looking at a Renko block size as small as a few pips. You should use a lower chart timeframe for such a Renko size.



You set the Renko block size (1) as a number of pips, e.g. 20, rather than a price amount such as 0.0020. The indicator will automatically calculate a pip size based on the number of digits in the instrument's price. For example, if prices are quoted to 1DP, e.g. 2048.7, then the indicator will use a pip size of 0.1, and a setting of e.g. 20 pips would mean a price change of 2.0. On some non-forex symbols such as equity indices, you may want to change the pip size. For example, prices may be quoted to 2DP such as 13456.00, but you may want to use a pip size of 1.00 instead of the default 0.01. The indicator has an additional setting (2) which lets you specify your own pip size.

You can set the colours for the up and down Renko blocks on the chart (3). These colours are also used for the optional lines which show where a new Renko block will start.

Variable	Value
Renko block size (in pips)	10.0
Symbol pip size (0 for default)	0.0
Colour for up blocks	1,125,152
Colour for down blocks	193,57,27
Draw blocks as continuous	Yes
Target lines for next block	Dash
Draw on top of chart	No
Alerts on new blocks	No
Round the starting price	Yes
Reversal factor (2=Renko, 1=range)	2.0
Maximum historic blocks	1000
Build Renko data from history period	M1
OFFLINE CHART	=== Create offline chart ===
Create offline chart period	0
Update the offline chart with each tick	Yes
Show "tails" on Renko bars	No
CSV/TSV LOG	=== Create TSV/CSV history ===
Filename to write (in MQL4\Files)	
File format	TSV



By default the indicator displays lines which show the prices at which a new Renko up or down block will start. You can change the style of these lines (4), e.g. from dashed to solid, or you can turn the lines off completely. You can choose to draw the Renko blocks as semi-transparent rectangles on top of the price bars (5), instead of in the background.

You can turn on pop-up alerts (6) in MT4 which tell you whenever a new Renko block has been formed.

By default the start and end prices for each block will be set so that they are a multiple of the block size. For example, if the block size is 10 pips (0.0010) then the prices at which blocks start and end will always be a multiple of this, e.g. 1.2340, 1.2350, 1.3890, 2.2670 etc. You can turn off this rounding (7), and instead base the start and end of the Renko blocks on the first price in the M1 history. For example, if the opening price of the M1 data is 1.23743 and the block is 0.0010 (10 pips) then the start and end prices of all the Renko blocks will be x.xxx43, e.g. 1.23843, 1.23943, 2.41543 etc.

Variable	Value
Renko block size (in pips)	10.0
Symbol pip size (0 for default)	0.0
Colour for up blocks	1,125,152
Colour for down blocks	193,57,27
Draw blocks as continuous	Yes
Target lines for next block	Dash 4
Draw on top of chart	No 5
Alerts on new blocks	No 6
Round the starting price	Yes 7
Reversal factor (2=Renko, 1=range)	2.0
Maximum historic blocks	1000
Build Renko data from history period	M1
OFFLINE CHART	=== Create offline chart ===
Create offline chart period	0
Update the offline chart with each tick	Yes
Show "tails" on Renko bars	No
CSV/TSV LOG	=== Create TSV/CSV history ===
Filename to write (in MQL4\Files)	
File format	TSV

You can limit the maximum number of blocks which the indicator will draw on the chart (8). This can help to save memory on low-powered computers. Please note that this setting does not affect how much data is created in an offline chart.

As explained above, the indicator builds the historic Renko data from M1 prices in the MT4 platform. This is, in fact, configurable: you can choose to use a different base period such as M5 (9).

The advantage of a higher time period such as M5 or M30 is that the historic data may go back further in time than M1, and it may be possible for the indicator to draw more historic Renko blocks.

Variable	Value
Renko block size (in pips)	10.0
Symbol pip size (0 for default)	0.0
Colour for up blocks	1,125,152
Colour for down blocks	193,57,27
Draw blocks as continuous	Yes
Target lines for next block	Dash
Draw on top of chart	No
Alerts on new blocks	No
Round the starting price	Yes
Reversal factor (2=Renko, 1=range)	2.0
Maximum historic blocks	1000
Build Renko data from history period	M1
OFFLINE CHART	=== Create offline chart ===
Create offline chart period	0
Update the offline chart with each tick	Yes
Show "tails" on Renko bars	No
CSV/TSV LOG	=== Create TSV/CSV history ===
Filename to write (in MQL4\Files)	
File format	TSV

The disadvantage is that the Renko blocks will be less accurate during periods of high volatility. For example:

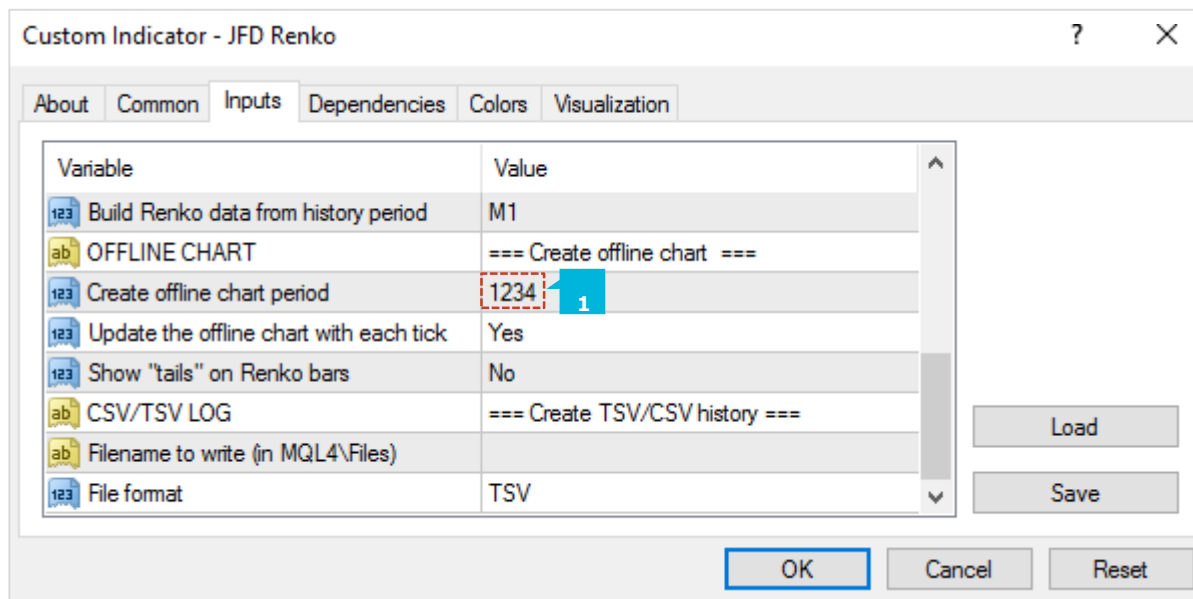
- Renko block size is 10 pips (0.0010)
- A single historic bar covers several Renko blocks, e.g. low price was 1.2056 and high was 1.2128.
- The range inside this bar was 0.0072, and therefore there were 7 Renko blocks which were formed during this single price candle in the MT4 history data. In fact, there could have been many more than 7 if the price bounced up and down during the bar.
- However, the indicator can only see the historic high and low, and it is impossible for the indicator to know in what order the blocks were formed.
- Therefore, under circumstances such as this, the indicator has to guess and simplify the Renko block history. It is possible for this to happen even on M1 data, but using higher timeframes makes the problem more frequent.

Variable	Value
Renko block size (in pips)	10.0
Symbol pip size (0 for default)	0.0
Colour for up blocks	1,125,152
Colour for down blocks	193,57,27
Draw blocks as continuous	Yes
Target lines for next block	Dash
Draw on top of chart	No
Alerts on new blocks	No
Round the starting price	Yes
Reversal factor (2=Renko, 1=range)	2.0
Maximum historic blocks	1000
Build Renko data from history period	M1
OFFLINE CHART	=== Create offline chart ===
Create offline chart period	0
Update the offline chart with each tick	Yes
Show "tails" on Renko bars	No
CSV/TSV LOG	=== Create TSV/CSV history ===
Filename to write (in MQL4\Files)	
File format	TSV

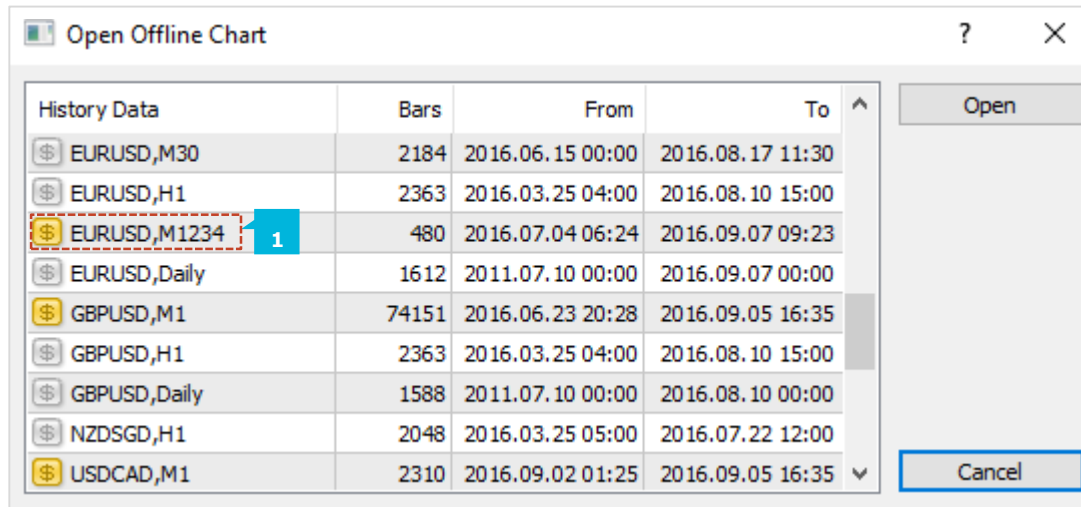
In addition to drawing the Renko blocks on a normal MT4 time-based chart, the indicator can also be used to generate an offline MT4 chart showing only the Renko blocks. This creates a more traditional Renko chart which is not time-based like a standard MT4 chart. *Offline*, in MT4 terminology, means that the price data for the chart is not being provided directly from JFD' server. The offline chart will nevertheless continue to update for as long as the indicator is running, and you should be able to use most EAs and indicators on such an offline chart.



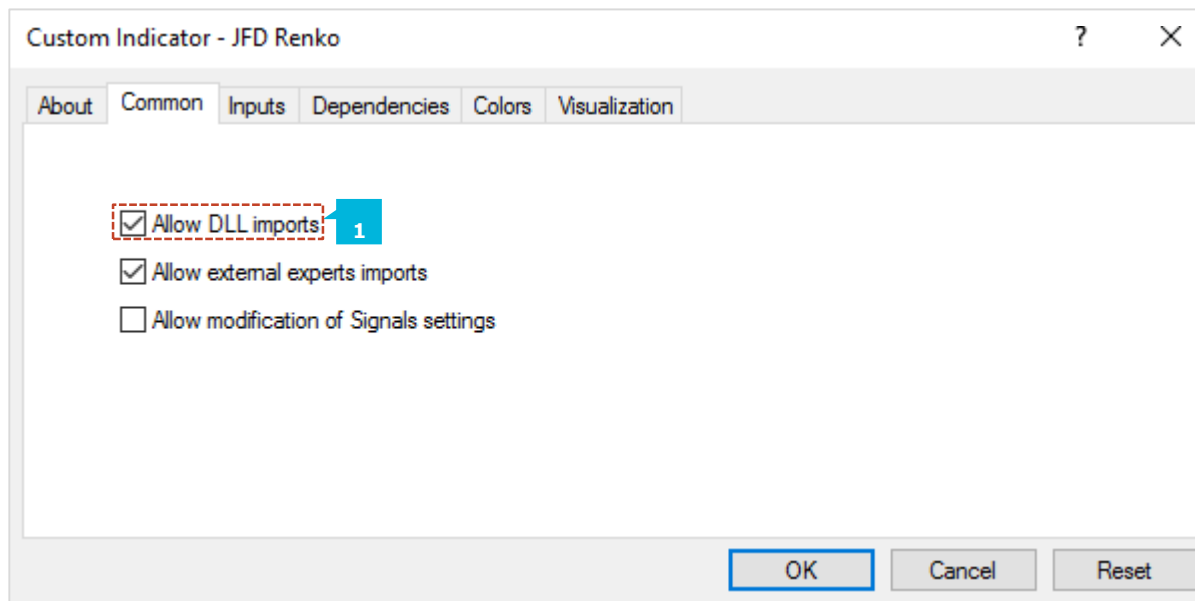
You tell the indicator to create an offline chart by entering any non-zero number of your choice (1), e.g. 1234 or 7777. The only restriction is that you cannot use a number which corresponds to the minutes in a normal MT4 chart (1, 5, 15, 15, 30, 60, 240, 1440, 10080, 43200). The offline chart continues to update with new prices and blocks for as long as the Renko indicator is running on the main price chart. If you close the normal MT4 chart which has the Renko indicator on it, then the offline chart will stop updating.



You can then view the offline chart by using **File / Open Offline** in MT4, and selecting the special chart (1) which the indicator has created, e.g. *EURUSD,M1234*.



By default the indicator will continuously update the offline chart, drawing the current price and an “in-progress” bar since the last Renko block, and updating the offline chart with all new completed Renko blocks. Please note that these updates require the **Allow DLL imports** setting (1) to be turned on.



You can also turn off these continuous updates (1). If so, the offline chart will only be updated when each new Renko block completes, and you will need to do a manual refresh of the chart to see the changes.

Variable	Value
Renko block size (in pips)	10.0
Symbol pip size (0 for default)	0.0
Colour for up blocks	1,125,152
Colour for down blocks	193,57,27
Draw blocks as continuous	Yes
Target lines for next block	Dash
Draw on top of chart	No
Alerts on new blocks	No
Round the starting price	Yes
Reversal factor (2=Renko, 1=range)	2.0
Maximum historic blocks	1000
Build Renko data from history period	M1
OFFLINE CHART	=== Create offline chart ===
Create offline chart period	0
Update the offline chart with each tick	Yes
Show "tails" on Renko bars	No
CSV/TSV LOG	=== Create TSV/CSV history ===
Filename to write (in MQL4\Files)	
File format	TSV



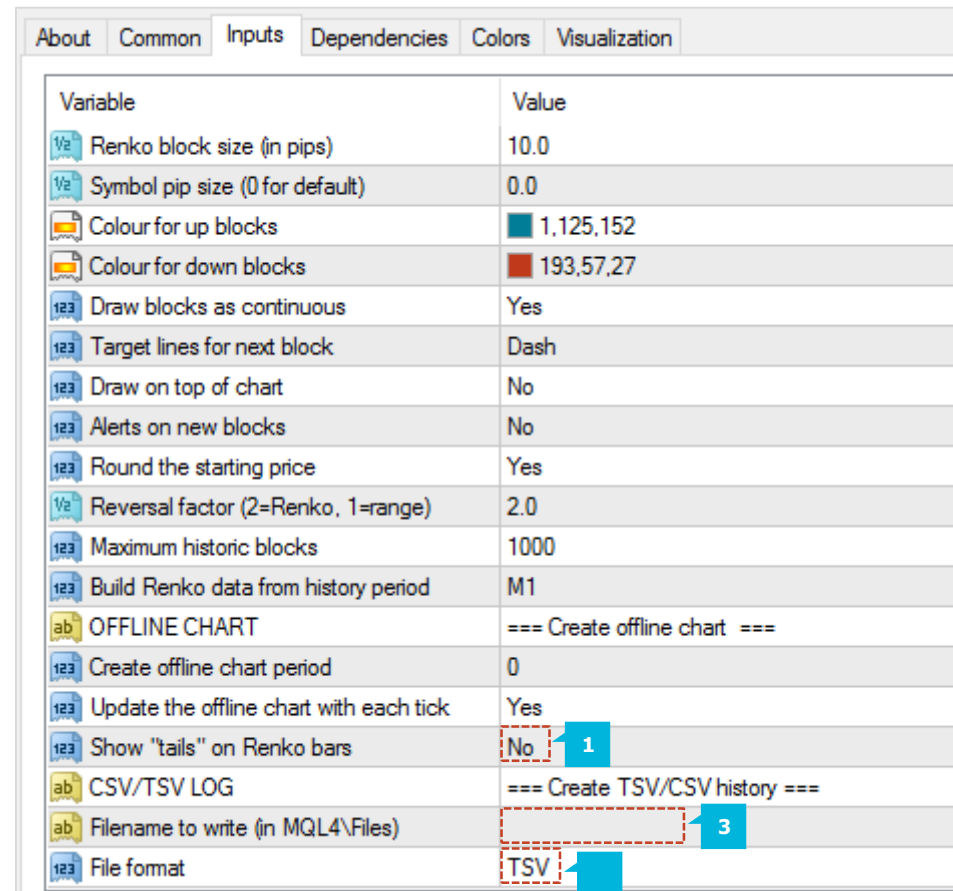
MT4 charts cannot display more than one candle per minute. If the market was very volatile and/or your block size is very small, then there can be multiple Renko blocks per minute and the offline chart will only be able to show one of them. For example, there could be a gap – a missing block (1) – if there were two Renko blocks within the same minute, because MT4 can only display one of them. You can use the TSV/CSV log to check the actual history if MT4 is unable to represent it in full.



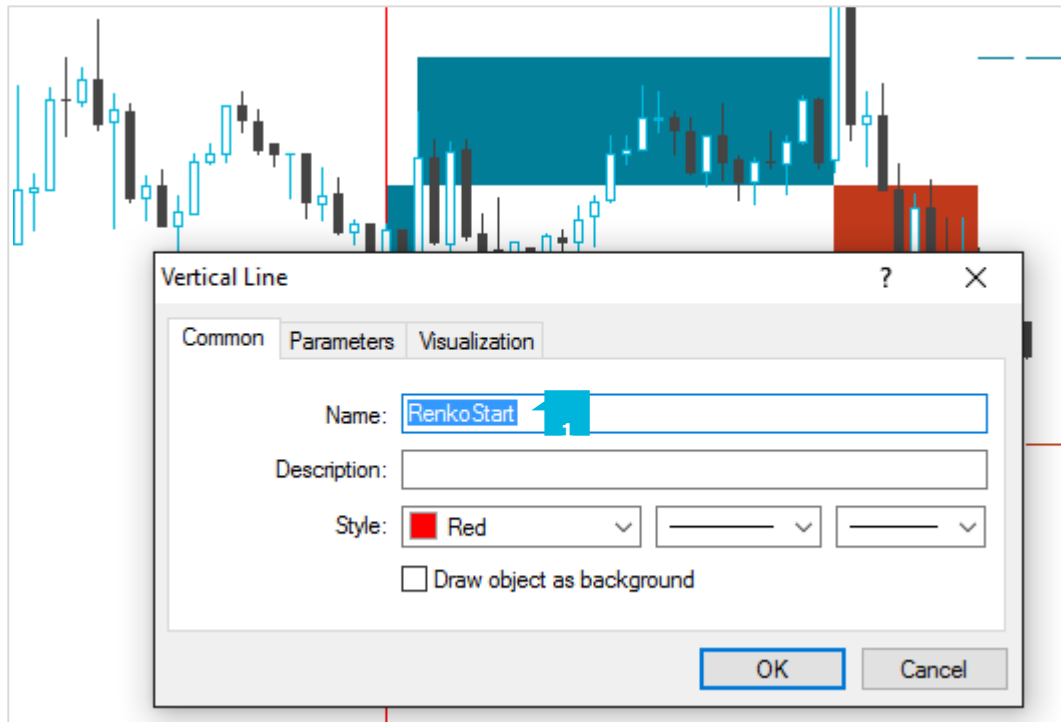
You can choose to include tails in the Renko blocks on the offline chart (1). These show the movement in the opposite direction while a Renko block was forming, and can help to indicate the strength of a move and the likelihood of a reversal.

When you no longer need an offline chart, you can delete it by using **File / Open Data Folder** in MT4, going to the history\<<broker-server> directory, and deleting the file such as *EURUSD1234.hst*.

You can tell the indicator to write a log of the Renko history in CSV or TSV format (2). You enter a filename (3), such as "audusd.tsv", and the file is created in the MQL4\Files area. You can then open it using File / Open Data Folder in MT4, and going to the MQL4\Files subdirectory. Please note that if you open the TSV/CSV file in an application such as Microsoft Excel, the indicator cannot continue to update it while it is open in Excel. It is best to take a copy of the file, and then open that copy in Excel.



You can set a start time for the Renko blocks by drawing a vertical line on the chart, and using the object properties to set the name of the line to *RenkoStart* (1). The indicator will not draw any Renko blocks before this line. The start time also affects the history which is written to any offline chart or TSV/CSV log file.



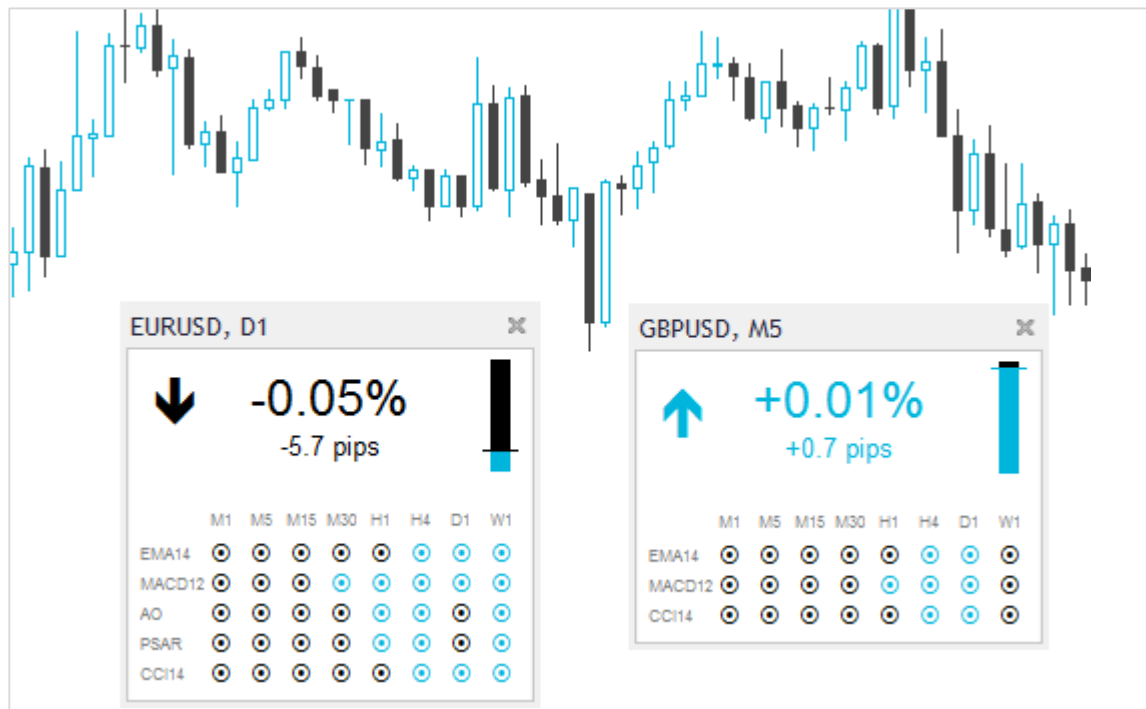
**Warning:**

Using various third-party tools, it is possible to feed custom price data into the MT4 strategy tester. For example, you can take an offline chart (the .hst file) created by the Renko indicator and use that in MT4 backtesting. Using Renko data as the input for backtesting is quite popular in the MT4 community. However, you should not do this. You will get unrealistic, very favourable results.

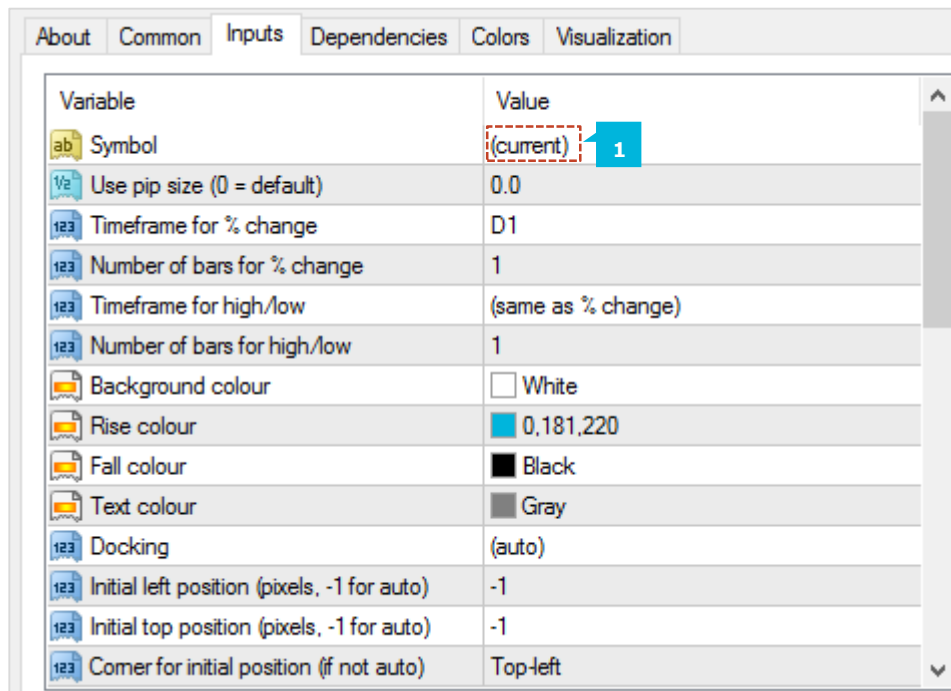
It is possible to write an EA which places 100% winning trades when backtested on Renko data rather than normal price data because the presence or absence of a gap between the current bar-open price and the last bar-close price tells you which direction the price is about to move in. More generally, EA results will tend to be unrealistic even if the EA is not deliberately trying to exploit the price clues in the Renko data. For example, measures of volatility will increase when a Renko reversal is happening because of the gap between last-close and current-open, and an EA which uses volatility as one of its strategies will in effect be looking at a characteristic of the Renko data rather than real price information which it would have had historically in real life.

**O. JFD SYMBOL INFO**

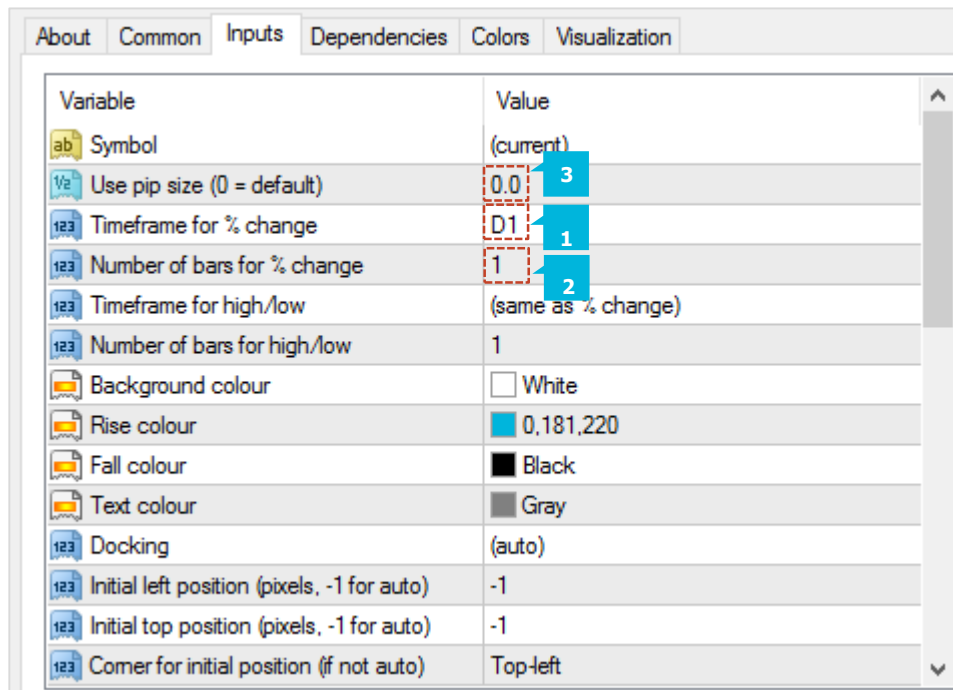
**JFD Symbol Info indicator** creates a status overview for a symbol in a draggable sub-window inside a main MT4 chart. It shows the price change, the distance from the recent high and low, plus an optional set of indicators giving a matrix of up and down signals on different timeframes. You can add any number of copies of the indicator to a chart, to display different symbols or timeframes, with any combination of different settings.



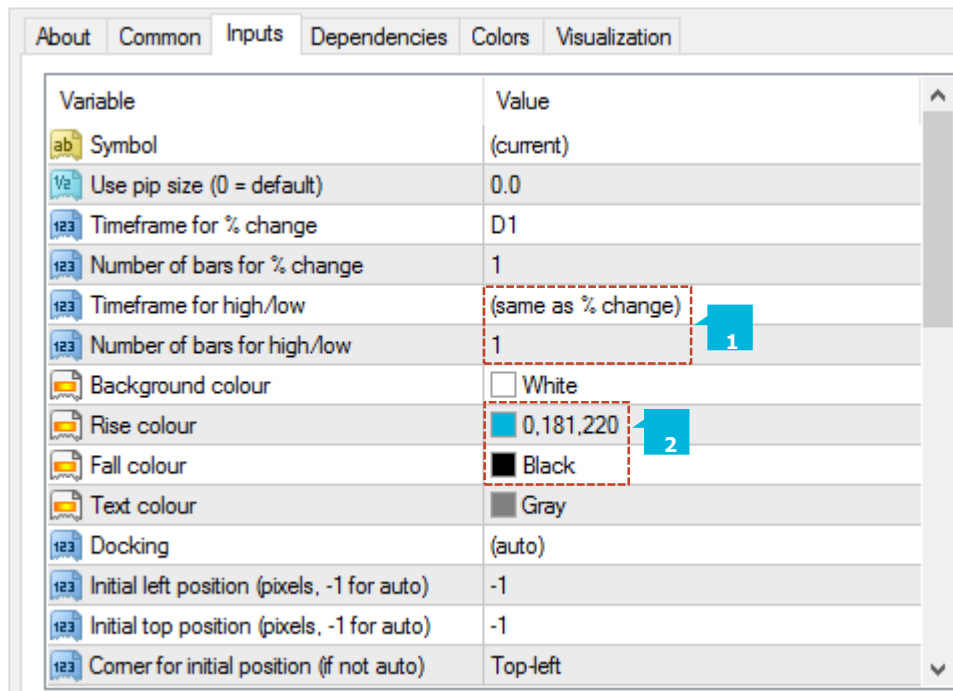
You set the symbol to display using the Symbol parameter (1) in the **Inputs** tab. The symbol must be present in the MT4 market watch. To display more than one symbol, you simply add multiple copies of the indicator to the chart. You can also leave the symbol set to (current). This will then display the same symbol as the main MT4 chart, and will change if the main chart changes.



The indicator's main display is the change in the symbol's price in % terms (and also in pips). You can choose which timeframe to use for this calculation via the parameter (1) on the **Inputs** tab, and you can also choose the number of bars (2). For example, D1 and 3 would mean *show the change since the open price 2 days ago* (today, plus the 2 D1 bars before that). The indicator shows the change in price in terms of pips as well as %. By default it will use an automatic definition of the pip size, based on the number of digits in the price (e.g. 4 or 5 digits = pip size of 0.0001). For some CFDs, you may want to override this calculation of the pip size using the respective setting (3).

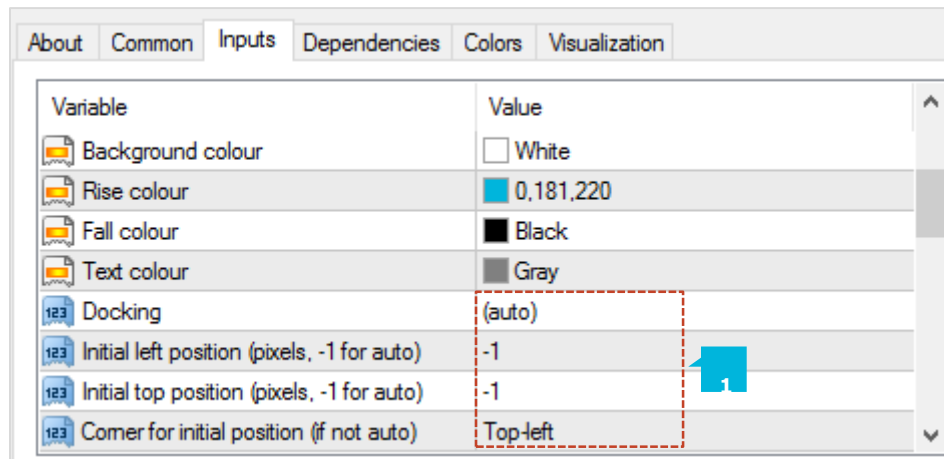


The indicator also shows the current price in relation to the high-low range. You can choose the timeframe and number of bars to use for the calculation of the high and low (1). These can be the same or different to the settings used for the % change. You can use the **Inputs** tab to change the colours which are used for rises and falls (2).





You can use the **Inputs** tab to set the indicator's initial position on the chart (1). You can define a position in terms of pixels (replacing the default values of -1) from a specific corner of the chart. Once it has been created, you can drag the sub-window around the chart in the usual way, by pressing and holding the mouse over the sub-window's title bar. By default the indicator will then choose a corner of the chart to "dock" itself to. For example, if you drag the sub-window close to the bottom-right corner, the indicator will then dock itself to that corner of the chart. If you resize the chart window, the indicator will automatically re-position itself so that it maintains the distance from the edge(s) of the chart. You can manually override the docking using the setting on the **Inputs** tab.



You can configure the Symbol Info indicator to display a matrix of indicator up & down signals on different timeframes or you can turn these off, and only have the indicator display the price change and high-low range. You can set up to 10 rows of indicator information (1). Some of the indicators, e.g. EMA or MACD, need parameters which you enter as a comma-separated list such as 12,26.

The **Price change** shows an up or down signal depending on whether the price is rising or falling on each timeframe. The parameter for the indicator is the number of bars to use for the change calculation. This defaults to 1 (i.e. current bar) if left blank. Changing/setting the parameter to 2, for example, would mean *price change since the start of the previous bar*.

The **SMA** (simple moving average) indicator shows an up or down signal depending on whether the current price is above or below a simple moving average. The parameter for the indicator is the number of bars for the average (defaulting to 14 if left blank).

Variable	Value
Indicators	=== INDICATORS ===
1 - Type	(none)
1 - Parameter	(none)
2 - Type	Price change
2 - Parameter	SMA
3 - Type	EMA
3 - Parameter	RSI
4 - Type	MACD
4 - Parameter	Awesome Oscillator
5 - Type	Parabolic SAR
5 - Parameter	CCI
6 - Type	DeMarker
6 - Parameter	Bands
7 - Type	CCI
7 - Parameter	14
8 - Type	(none)
8 - Parameter	
9 - Type	(none)
9 - Parameter	
10 - Type	(none)
10 - Parameter	

The **EMA** (exponential moving average) indicator shows an up or down signal depending on whether the current price is above or below an exponential moving average. The parameter for the indicator is the number of bars for the average (defaulting to 14 if left blank).

The **RSI** indicator shows an up or down signal if RSI is below 30 or above 70 (i.e. it treats the RSI values as an over-bought/over-sold indicator). If RSI lies between 30 and 70 then no signal is shown. The parameter for the indicator is the number of bars for the RSI calculation (defaulting to 14 if left blank).

The **MACD** (Moving average convergence/divergence) indicator shows an up or down signal depending on whether the value of MACD is above or below zero. In effect it is saying whether a "fast" (short-term) moving average is above or below a "slow" (longer-term) moving average. The parameters for the indicator are the fast and slow average periods, e.g. 12,26

Variable	Value
Indicators	=== INDICATORS ===
1 - Type	(none)
1 - Parameter	(none)
2 - Type	Price change
2 - Parameter	SMA
3 - Type	EMA
3 - Parameter	RSI
4 - Type	MACD
4 - Parameter	Awesome Oscillator
5 - Type	Parabolic SAR
5 - Parameter	CCI
6 - Type	DeMarker
6 - Parameter	Bands
7 - Type	CCI
7 - Parameter	14
8 - Type	(none)
8 - Parameter	
9 - Type	(none)
9 - Parameter	
10 - Type	(none)
10 - Parameter	

The **Awesome Oscillator** (AO) indicator shows an up or down signal depending on whether the AO value is above or below zero. This indicator does not have any parameters. The AO is simply a comparison of the 5-bar and 34-bar simple moving averages.

The **Parabolic SAR** indicator shows an up or down signal depending on whether the current price is above or below the PSAR price. The parameters for the indicator are the *step* and *maximum* values for the PSAR calculation, e.g. 0.02,0.2.

The **CCI** (Commodity Channel Index) indicator shows an up or down signal depending on whether the value of CCI is above or below zero. The parameter for the indicator is the number of bars for the CCI calculation (defaulting to 14 if left blank).

Variable	Value
Indicators	=== INDICATORS ===
1 - Type	(none)
1 - Parameter	(none)
2 - Type	Price change
2 - Parameter	SMA
3 - Type	EMA
3 - Parameter	RSI
4 - Type	MACD
4 - Parameter	Awesome Oscillator
5 - Type	Parabolic SAR
5 - Parameter	CCI
6 - Type	DeMarker
6 - Parameter	Bands
7 - Type	CCI
7 - Parameter	14
8 - Type	(none)
8 - Parameter	
9 - Type	(none)
9 - Parameter	
10 - Type	(none)
10 - Parameter	

The **DeMarker** indicator shows an up or down signal if the value of the indicator is below 0.3 or above 0.7 (i.e. it treats the DeMarker, like RSI, as an over-bought/over-sold indicator). The parameter for the indicator is the number of bars for the DeMarker calculation (defaulting to 14 if left blank).

The **Bollinger® band** indicator shows an up or down signal if the current price lies below or above the lower or upper bands (i.e. it treats the Bollinger® bands as an over-bought/over-sold reversion-to-mean indicator). If the current price lies between the bands then no signal is displayed. The parameters for the indicator are the period to use for the moving average, and the number of deviations for the bands (defaulting to 20,2 if left blank).

Variable	Value
Indicators	=== INDICATORS ===
1 - Type	(none)
1 - Parameter	(none)
2 - Type	Price change
2 - Parameter	SMA
3 - Type	EMA
3 - Parameter	RSI
4 - Type	MACD
4 - Parameter	Awesome Oscillator
5 - Type	Parabolic SAR
5 - Parameter	CCI
6 - Type	DeMarker
6 - Parameter	Bands
7 - Type	CCI
7 - Parameter	14
8 - Type	(none)
8 - Parameter	
9 - Type	(none)
9 - Parameter	
10 - Type	(none)
10 - Parameter	

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