



## Indicator Combine Merge User Guide

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# 1 INTRODUCTION

This document covers how to use/configure the runwiseFX Indicator Combine Merge that allows indicators to be combined into one, both visually and in terms of an alert/trade signal. It also features a statistics panel, showing win ratio %, profit and draw-down. This information can also be shown from other charts/symbols and displayed in one place, ordered on the most profitable first.

The product allows you to cherry pick the best indicators, stop loss/take profit/exit regime, trading hours and for which symbols/timeframes. It will then alert you when the configured indicators have all lined up. The product is also compatible with our EAs that can automatically open and close trades for you.

Don't forget if you get stuck or don't understand something then email us at: [support@runwisefx.com](mailto:support@runwisefx.com)

## 1.1 Document Conventions

The following icons are used to throughout the document:



Take note – try to remember



Very important to take note of and remember - could cause undesirable results if ignored



Top tip – shortcut or other useful information that can make the system easier to use



Advanced feature/subject – can skip over when you are first learning how to use the system



Technical 'behind the scenes' detail that you don't strictly need to know but maybe interested in

## 2 ITEMS SHOWN ON CHART

### 2.1 Main Indicator Window



The brighter color indicates that the 'confirmed' percentage of indicators have lined up (default 100%). The darker color is the 'early' percentage (default 66%). Green is used for buy/long and red for sell/short. The amber color is used when neither thresholds have been reached, i.e. indicator combination is in between buy and sell.

The gray X is where 'essential at start' has been selected for an indicator. In this case the indicator isn't included in the main mix of indicators, but simply causes and X to be shown if it does not agree with the main mix of indicators. This is very useful for upper timeframe checks, where if included in main mix, could cause a delayed alert/signal. No alert/signal happens if there is color change but the new color has the gray X. Can be used to cherry pick trading opportunities.

### 2.2 Indicator Stats & Control Panel

#### 2.2.1 Results

The result stats are calculated by examining the current chart and seeing what trades would have happened and the outcome of those trades based on the current settings for stop loss, take profit/exit, etc. Where appropriate, the results are shown for both if the early alert was traded or the confirmed alert. These values are separated by the '/'. This allows you to know whether you best taking the early alerts or confirmed alerts.

**Trade Days:** Number of trade days contained in the chart and considered when calculating the results. This can be increased in MetaTrader by Tools | Options | Charts | Max bars in chart.

**Num Trades:** This is the number of trades that occurred over the trade days

**Avg per Day:** Average number of trades per day. Simply Num Trades divided by Trade Days. Indicates how often would trade.

**Win Ratio %:** This is the percentage of trades that either resulted profit or break even, i.e. not a loss.

**Profit %:** This is the compounded profit over the trade days based on the risk per trade, which by default is 3% of the current balance of the account.

**Draw Down %:** This is the peak relative draw down that occurred during the trading days, i.e. how much the peak account balance had dropped by in percentage terms. Note, the absolute draw down can be calculated by setting input Main\_statsDrawDownRelative to false.

**Risk per Trade:** This is the amount risked per trade, which by default is 3% of the account balance.

### 2.2.2 CONFIG button

This provides access to the pop-ups used to configure the system – see next section of the document

### 2.2.3 Refresh button

Will re-read configuration and re-calculate stats

### 2.2.4 Show Other Chart Results

Will display result stats from other charts – ordered on profit. There is also a row for the average value and Change on Last, which shows the change on average after a configuration change.

## 2.3 Simulated Trades – Shown on Candles



The stats are calculated by examining the chart and simulating the trades that would have occurred. These trades are shown on the chart for your convenience. The arrow is the open price, with a dashed line leading to close price. The color represents buy/sell and if was based on early signal or confirmed signal (brighter color). The yellow horizontal line is the stop loss that was used. The profit is shown on the close candle, by default as the **percentage of account that was gown by** (negative for loss), i.e. not pips, assuming risk per trade is % terms. If risk per trade is fixed amount (no %) then profit amount will be shown.

If partial closes have been configured then additional dashed lines will be shown for these as well. The profit for these partial closes are shown in brackets. The final non-bracketed value will be the overall profit for the trade.

## 2.4 Current Stop Loss / Take Profit



The configured stop loss and take profit are show for current time. This can be used for new trades. If partial close take profit or break even targets have been set then these will be show also.

## 3 CONFIGURATION

Press the CONFIG button to see the main configuration menu pop-up:



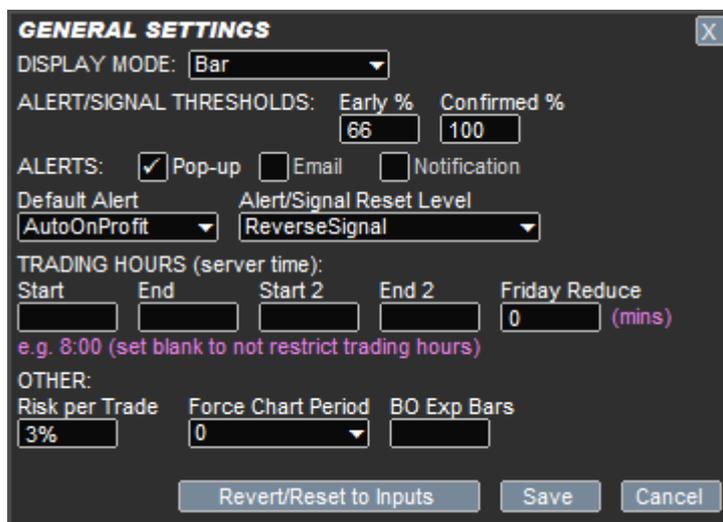
Each of the buttons is covered below. The 'Revert Configuration...' button will restore the configuration to prior to the last save. This is useful to quickly roll back a configuration change if didn't produce desirable results.

Use the X button (top right) to close the pop-ups.



The configuration is stored in a file called **runwiseFX\_IC\_Config.txt** that is located MQL4\files folder of your MetaTrader Data Folder (MQL5\files on MetaTrader 5). Indicator Combine reads this file when it is loaded onto a chart or when notified that it has been changed by another instance of the indicator.

### 3.1 General



#### 3.1.1 Display Mode

Allows histogram display mode to be selected. This additionally shows the combined indicator value where 100 is all indicators fully for buy and -100 is all for sell.

### 3.1.2 Alert Thresholds

These are for the early and confirmed alert respectively. They represent the percentage of indicators that have to be in agreement for the alert/signal to happen. For those indicators captured by value and/or with weighting other than 1 will cause a greater or lesser effect on the percentage, as appropriate.

### 3.1.3 Alerts

Allows the type of alert to be controlled. Where Notification can be used to alert your mobile, subject to MetaTrader being set with the appropriate notification settings.

### 3.1.4 Default Alert

Says which Early and Confirmed tick boxes should be ticked by default. Also possible to set to Auto so that will be set depending on which has the best profit or win ratio.

### 3.1.5 Alert/Signal Reset Level

Says how much the combined indicator has to go 'the other way', i.e. 'other direction' for the alert to be reset. When the alert is reset it means that there can be another alert/signal when the indicator comes back to the direction prior to the reset. The reset levels are progressively more severe, i.e. the combined indicator has to go further the other way and then come back for a 2<sup>nd</sup> alert. The following options are available, and as said, each offering a greater level of reset:

**Orange:** Will reset if combined value goes to orange, i.e. drops below early threshold

**Zero:** Will reset if combined indicator goes to zero, i.e. on threshold of buy/sell.

**OtherDirection:** Will reset if crosses zero, i.e. slightly goes to other direction.

**ReverseSignal:** Will reset if reaches entry threshold in other direction

**ReverseSignalEarly:** Will reset if reaches early threshold in other direction, even for confirmed signals.

**ReverseSignalConfirmed:** Will reset if reaches confirmed threshold in other direction, i.e. bright color in opposite direction. If early entry then will mean has got bright color in opposite direction before reset happens.

### 3.1.6 Trading Hours

This can be used to set the trading hours for the stats and alert/signals. Times are in chart/server time and two start/ends are provided in case which to trade morning and afternoon but miss out lunch time. The Friday Reduce allows the trading hours End to be reduced on a Friday by a set number of minutes. If fields are blank then will not be considered.

### 3.1.7 Risk per Trade

Used in stats and by our EA if connected to Indicator Combine. Can be percentage (with % after number) or set amount. The percentage is the percentage of the account balance or equity, whichever is lower. Without % then will be fixed amount of account currency. Note, profit values shown on candles at trade close will be % if risk is in % or amount if not.

### 3.1.8 Force Chart Period

If set to other than 0 will cause the charts running Indicator Combine to change to the selected period. Can be used to try configuration on different timeframes when 'show other chart results' is ticked. Note, due a limitation of MetaTrader the 'change on last' row can't be used when doing this.

### 3.1.9 BO Exp Bars (Binary Option Expiry Bars)

If set then will put Indicator Combine into Binary Options mode where it will automatically close simulated trades after specified number of bars/candles. This will be reflected in the calculation trade results, e.g. win ratio. A setting on 1 will be mean will expire trade after 1 bar/candle.



RunwiseFX does not recommend Binary Options trading as the risk reward ratio is always against you, i.e. you have to be right more times that you are wrong just breakeven. Also, BO brokers do not put any trades to the market, which creates a conflict of interest if you are consistently profitable and this can lead the broker to take measures to get rid of you, e.g. problems withdrawing funds, platform freezes/disconnects etc.

### 3.1.10 Revert/Reset to Inputs

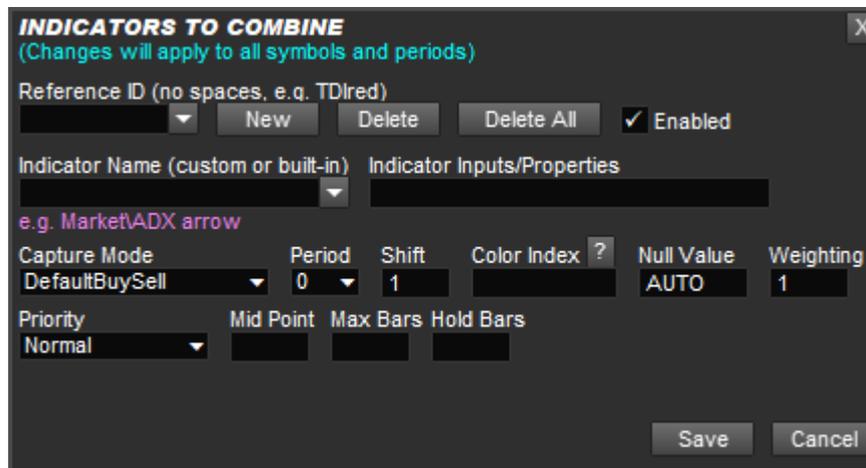
If this button is click then these settings are removed from the configuration file and the Indicator Combine will get these settings from its inputs.

### 3.1.11 Save and Close Buttons

Click Save to save setting to the configuration file and notify other charts of changes. Click Cancel to discard any changes just made can close the pop-up.

## 3.2 Indicators

The Indicators button allows you to configure the indicators to be combined, via the following pop-up:



Do get in touch if have any trouble at all configuring the indicators you wish to combine. Email us at: [support@runwisefx.com](mailto:support@runwisefx.com)

We are always happy to help. We can add to the list of examples on our website: [www.runwisefx.com/ic](http://www.runwisefx.com/ic)

### 3.2.1 Reference ID

Use the ▼ button to see the indicators already configured. Click on its ID to view and edit its settings. The reference ID is used to refer to the item being captured and must not contain spaces or a full stops.

If adding new indicator then choose something that represents what the indicator is, e.g. if TDI green line crossing 50, you might put 'TDIgrn'.

### 3.2.2 New Button

Use this to set the pop-up to defaults in order to enter details of a new indicator to add to what is combined.

### 3.2.3 Delete Button

Will delete the indicator show in the Reference ID box

### 3.2.4 Delete All Button

Will delete all configured indicators. Will ask for confirmation first, via pop-up list.

### 3.2.5 Enabled Tick Box

Can be used to temporarily disable an indicator for being included in the mix, both in terms of the stats and alert/signals. This is useful to see if an indicator is helping or not but without having delete it and then possibly having to re-add.

### 3.2.6 Indicator Name

For Custom Indicators this is the name of the indicator as appears in the Indicator section of the Navigator frame of your MetaTrader. Note, if indicator has been purchased from Market, or is stored in another sub folder, then you will need to add this. In the case of Market that means adding Market\ to the indicator name.

Standard indicators can be accessed via selection list by clicking the ▼ button. They are denoted by F: in Indicator Name (F meaning function). These are captured directly in our product and do not require anything extra installed on your system. See **Appendix B** which details each of the built-in indicators, including examples.

### 3.2.7 Indicator Inputs/Properties

These are comma separated. In the case of Custom Indicators, if left blank then the defaults of the indicator will be used. If specified then should be in the order they are listed in the Inputs tab of the indicator. You only need to specify up to the ones you want to change.

We have a separate tutorial that covers this in more detail:

[https://www.runwisefx.com/tutorials/indi\\_inputs.htm](https://www.runwisefx.com/tutorials/indi_inputs.htm)

### 3.2.8 Capture Mode

A variety of capture modes are available to say how the indicator value should be captured/interpreted.

We have a separate tutorial that covers this in more detail:

<https://www.runwisefx.com/tutorials/capture.htm>

### 3.2.9 Period

This is the timeframe that the capture will be performed for. If 0 then will be current period of the chart, else can be set to something else. Can be used to check that other timeframes are in agreement.



Even if an indicator allows the timeframe to be set via input property, we suggest using our Period setting instead and leaving the indicator set to current chart period (0). This is more efficient and will reduce load on MetaTrader.

### 3.2.10 Shift

Shift 1 means candle just closed. We recommend keeping at shift 1 unless it is stated in the documentation for the indicator you wish to combine that is doesn't repaint. If that is the case then can use shift 0 which means live/current candle. Note, some indicators don't output a value for shift 0, so shift 1 will be required for those also.



If you set Shift=0 but the indicator repaints on live candle then can get stats which are overly optimistic, as effectively looking a candle ahead. For realistic stats, only set shift=0 when you are sure the indicator does not repaint, i.e. always shows close candle values. You can always examine an indicator in the Strategy Tester to see if its value repaints (changes) on the live candle.

### 3.2.11 Color Index

This is the color/buffer index of the color of the indicator wish to capture. Can be comma separated, where first item gives buy color and second is sell. Note, -1 can be used to signify price. This is useful for price crossing indicator values (see Caputre Mode = OpenCloseCross)

### 3.2.12 Null Value

This is used for capture mode of Distance or UseNotNull, where it gives the value the indicator has when the color is not shown. AUTO should be fine where it checks for 0 or EMPTY\_VALUE. Note, EMPTY\_VALUE is the official way an indicator should indicate that the color is not be shown. Note, for some indicators that display in their own window, the 0 could be a legitimate (non-null) value. In this case the field should be set to EV for EMPTY\_VALUE. A few indicators use -1 for their null value, so need to set to that in those cases.



You can use MetaTrader's Data Window (Cntrl+D) to see what color indexes have what values by moving the mouse over the chart. If blank is shown then that means EMPTY\_VALUE. The color indexes are shown in order from top to bottom in the Data Window.

### 3.2.13 Weighting

Can be used to add more or less importance to an indicator. If left at 1 then will keep unadjusted. Entering 2 will be the same as adding the indicator twice. Fractional values are supported.



Weighting can be useful for an indicator that is really intended to signal exit. With a weighting set high (e.g. number of indicators you are combining) then will force overall indicator combine value to other direction if the exit indicator goes in the opposite direction. Note, see section 3.4.2 about setting to exit when indictor combine value goes to the other direction.

### 3.2.14 Priority (formally Essential for Trade?)

Allows you pick out certain indicators that are high priority. Possible settings are:

**Normal:** Indicator is simply included in the mix and it will signal a trade when the set threshold % of indicators are in agreement.

**High:** Will not show buy/sell color or alert/signal if this indicator is not present and in that direction. This is great for when interested in 4 out of 5 (80%) indicators lining up, for example, but want to set that a particular indicator must be present in that 4 out of 5.

**HighAndStart:** With this option the indicator isn't included in the main mix, but will cause a gray X to appear if not in agreement with the color of main mix. There will be no alert/trade if there is color change but there is a gray X shown. This is useful (say) for upper timeframe checks where don't want alert/signal if indicator not in agreement with upper timeframe when there is a color change. This prevents severely delayed entries that you could get if you simply included the upper timeframe check in the main mix of indicators.



The **HighAndStart** isn't just for upper timeframe checks, it can be used to cherry pick entries where the alert/signal won't happen if indicators set with this option are not in agreement at the moment the other indicators cause a color change (buy/sell transition).

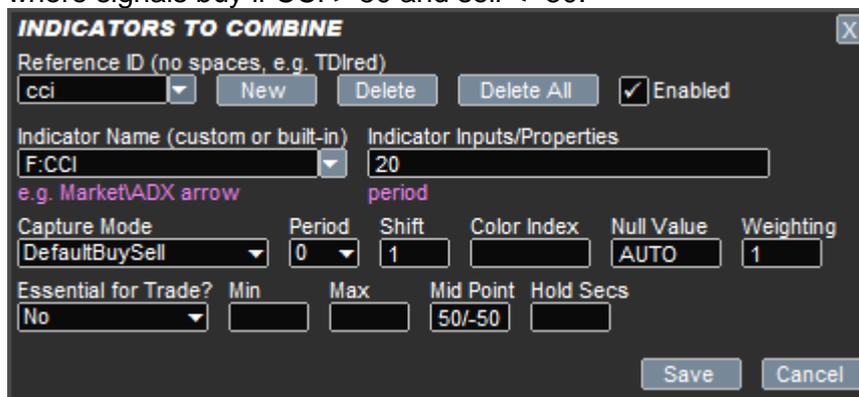


Don't set Priority unnecessarily to High, say for all indicators - it makes no sense to make all indicators high priority. Remember the combined indicator value won't be 100% if all indicators are not in agreement, even when Priority is Normal. The Priority=High if for when your entry threshold is less than 100% (of indicators lined-up), but want to make sure that a particular indicator is in that 75% (say). Then that particular indicator you should set to Priority=High.

### 3.2.15 Mid Point

Gives the mid point where the indicator transitions from buy to sell, if such a mid point exists, i.e. doesn't need to be set if indicator has (say) one color index for buy and color index sell and uses that to signify buy/sell.

It's also possible to use this to set buy if value above 50 (say) and sell if below -50 (say), by setting Mid Point to 50/-50. Here are the settings to combine CCI indicator where signals buy if CCI > 50 and sell < -50:



If / is used but first value is less than second then will be assumed to be reversal strategy. If the following example will signal buy when Stochastic value < 20 (oversold) and sell when > 80 (overbought):

**INDICATORS TO COMBINE**

Reference ID (no spaces, e.g. TDlred)  
 stochRev     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
 e.g. MarketADX arrow %K,%D,slowing,sma|ema|smma|lwma,lohi|close

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

If \ is used, e.g. 80\20, then will signal buy when value < 80 and signal sell when > 20. In the following example it will contribute to signal if Stochastic not reached overbought/oversold levels:

**INDICATORS TO COMBINE**

Reference ID (no spaces, e.g. TDlred)  
 stochChk     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
 e.g. MarketADX arrow %K,%D,slowing,sma|ema|smma|lwma,lohi|close

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

If \ is used but first value is less and second, e.g. 20\80, then will signal buy when > 20 and sell when < 80 (mid point between 20 and 80 used as transition from buy/sell):

**INDICATORS TO COMBINE**

Reference ID (no spaces, e.g. TDlred)  
 stoch     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
 e.g. MarketADX arrow %K,%D,slowing,sma|ema|smma|lwma,lohi|close

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

### 3.2.16 Max Bars

Maximum number of bars/candles that the indicator can signal for in the same direction before the indicator is regarded as void. Useful for ensuring signals come close where an indicator transitions from buy to sell or visa versa.

### **3.2.17 Hold Bars**

If set will hold onto the indicator value for set number of bars/candles. Can be used for indicators that only briefly show the value you are interested in. The hold feature allows that value to be remembered and continue to contribute to the combined value, whilst other indicators have yet to line up.

Examples of indicators that this might be useful for are those that put arrow/dots on the chart, but just at the start of the move, or oversold/overbought indicators, where might just move out of oversold/overbought before other indicators line-up, yet still want the signal.

You can enter the number of bars the value should be held on to for before being forgotten, or if set to \* then will hold until indicator goes to the other direction.

### **3.2.18 Save/Cancel Buttons**

Click Save to save changes to configuration file, or cancel to close pop-up without saving.

### 3.3 Stop Loss

Allows stop loss to be set used both calculating the stats and by our EAs if they are present on the chart and set to consider Indicator Combine. The stop loss can be specified either as automatic or set number of pips.



#### 3.3.1 Automatic

Various automatic stop loss calculation methods are available and can be selected by the Calculation Method selection list. The Min/Max fields allow you to constrain the calculated value between a set min/max value. If the field is blank then there will be no constraint. The Offset field allows you to add additional pips to the calculated value to make the stop loss further away. Note, a negative value for this will make the stop loss closer.

The following calculation methods can be selected:

**ATR:** Average True Range. Use indicator inputs StopLoss\_propATRAvgPeriod to period used by ATR and StopLoss\_propATRFactor that is used to multiply the ATR value by, i.e. larger value will mean bigger stop loss.

**HiLowMovingAverage:** Uses high low from moving averages with period set by input StopLoss\_propMAPeriod and the method and shift set by StopLoss\_propMAMethod and StopLoss\_propMAShift, respectively.

**HiLowSwing:** Sets stop loss to recent swing hi/low

**CustomIndicator:** Allows specified custom indicator to be used for the stop loss, as specified by input StopLoss\_customIndicatorName. The color index that gives stop loss for buy should be set via input StopLoss\_customIndicatorBuyColorIndex and index of sell with StopLoss\_customIndicatorSellColorIndex. You can change inputs to the custom indicator if want different to default via input StopLoss\_customIndicatorProperties, should be comma separated. Only need to include those up to what you want to change from default.

#### 3.3.2 Fixed Pips

Will set stop loss to fixed number of pips from current price. A percentage can also be supplied by adding '%' after number, which will be a % of daily Average True Range. This allows the stop loss to be relative to the personality of the symbol.

#### 3.3.3 Trail Stop Loss

If ticked then will trail stop loss as trade moves into profit. This only happens based on candle close price due to the limitations of examining the chart.

### **3.3.4 Revert/Reset to Inputs**

If this button is click then these settings are removed from the configuration file and the Indicator Combine will get these settings from its inputs.

### **3.3.5 Save and Close Buttons**

Click Save to save setting to the configuration file and notify other charts of changes. Click Cancel to discard any changes just made can close the pop-up.

### 3.4 Take Profit/Exit

Allows the exit regime to be defined. This can be combination of take profit and/or exiting when combined indicator has changed to the opposite direction. A break even target can also be specified. The settings are use for producing the stats and will also be used by our EAs if they are present on the chart and set to consider Indicator Combine.

**CONFIGURE TAKE PROFIT / EXIT**

TAKE PROFIT:

	Value	Mode	% to Exit
Target 1:	1.46	RiskRewardRatio	100
Target 2:		RiskRewardRatio	0

EXIT ON OPPOSITE/REVERSE SIGNAL:

	Threshold %	% to Exit
Target 1:	100	100
Target 2:		0

If threshold is blank then will use threshold of entry

RAISE TO BREAK EVEN ON TARGET REACHED:

	Value	Mode
Target:	1	RiskRewardRatio

Revert/Reset to Inputs Save Cancel

#### 3.4.1 Take Profit

Will close or partially close trade when a target price has been reached. That target can be expressed as a risk reward ratio or pips. Risk reward ratio is based on the stop loss used at trade open and is a ratio of that. For example, if stop loss was 20 pips and risk reward ratio is 1.5 then will exit at 30pips profit.

Use Value text box to enter either risk reward ratio or pips and use the selection list to say which of those two it is. The % to Exit box is the percentage of the trade to exit with the target is reached. 100 means complete close. Two targets are provided so can (say) exit 50% when first target is reached and 100% on second target.

#### 3.4.2 Exit on Opposite/Reverse Signal

This will examine the current combined indicator value and exit when 'gone the other way', i.e. other direction. The threshold for the reversal can be specified where 100 means all the indicators have gone the other way, i.e. for the opposite direction. If left blank then will use the configured threshold that was used for entry. Note, if use negative value then will mean that indicators don't need to have gone the other way just dropped below the threshold give by the negative value. For example, -75 will exit when less than 75% of indicators are in agreement.

Again partial closes can be specified where will exit 50% when (say) 75% of indicators have gone the other way and exit 100% when they all have.

#### 3.4.3 Raise to Break Even On Target Reached

Will set for break even when trade has reached a target price. Like take profit this can be expressed either as a risk reward ratio or in pips. The break even causes the stop loss to be raised to the open price. The break even includes the effect of the spread.

### 3.4.4 Revert/Reset to Inputs

If this button is click then these settings are removed from the configuration file and the Indicator Combine will get these settings from its inputs.

### 3.4.5 Save and Close Buttons

Click Save to save setting to the configuration file and notify other charts of changes. Click Cancel to discard any changes just made can close the pop-up.

## 3.5 Options

**'Allow configuration to bet set per symbol/period'** – when enabled it will add symbol and period boxes to main CONFIG button pop-up so set configuration on a symbol /period basis. See section 4

**'Auto copy config changes to... Strategy Tester'** – with this option ticked then whenever you save configuration it will copy it to a common folder that will be automatically picked up by the MetaTrader's Strategy Tester. It has to be done this way as the Strategy Tester isn't allowed to access MLQ[4/5]\files.

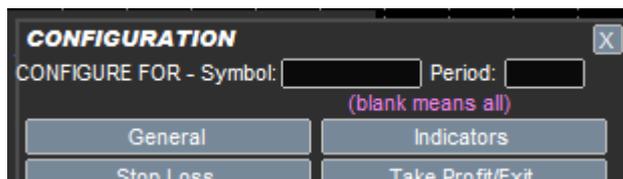
**'Only calculate on open of new candle/bar'** – normally the combined indicator value is evaluated per tick from the market. However, with this option ticked when will only evaluate on new bar, i.e. you will only get alerted on a new bar.

**'Use open price instead of close price'** - this is relevant for indicators that give buy/sell indication depending on whether price has crossed them or not. Normally will use close price historically for this but with this option ticked will use open price of the following candle. Recommend ticking this option if you are using Renko Median charts, as this will give more accurate statistics.

# 4 DIFFERENT CONFIGURATION FOR DIFFERENT SYMBOLS/PERIODS/STRATEGIES

## 4.1 Different Configuration per Symbol/Period

In V4.0 it is possible to configure on a per symbol and/or period, e.g. have different stop loss for different symbols and/or timeframes. To activate this go to CONFIG | Options and enable 'Allow configuration to be set per symbol/period' and click Save. The when you click CONFIG you will see the following:



You can then enter the symbol and/or period you would like any following configuration changes to be for. Then any changes you make with the pop-ups will just be for the set symbol/periods. Note, to go back to make changes for all symbols/periods then blank out the boxes Symbol/Period boxes as appropriate, i.e. blank means all.

For example, to change stop loss just on EURJPY then set Symbol to box to EURJPY and then click Stop Loss to make change and click Save. TIP: If wanted the configuration change to affect all JPY pairs then can just set symbol to JPY.

Period (timeframe) can also be set and it possible to include multiple timeframes. For example, to set configuration for H4 and D1 set period box to H4D1

If you want to remove symbol/period specific settings the again fill out Symbol and Period box appropriately and use 'Revert...' button on pop-ups and it remove settings relevant to the set symbols/periods.

Note, whilst it's not possible to have different indicator lists for different symbols/periods you can set whether an indicator is enabled or not on per symbol/period basis.

## 4.2 Different Configuration File for Different Strategies

Whenever you click Save on the configuration pop-ups it saves the settings in a file, which is located in **MQL4\files** folder (MQL5\files on MT5) of your MetaTrader Data Folder. The default filename is **runwiseFX\_IC\_Config.txt**. However, indicator input **Main\_configFileName** can be used to specify a different filename – both in terms of what is loaded from at start-up and what is used when settings are saved. You can use different files for different strategies.

Note, you can find/open your MetaTrader Data Folder by going to File | Open Data Folder menu in MetaTrader.



It is also possible to save/load configuration to special common folder/area that is accessible to all MetaTrader's running on your computer. Set input `Main_configFileInCommon` to true to turn on save/load files to/from this area. Note, to open the common data folder click `Open Common Data Folder` in File menu in MetaQuotes Language Editor (press F4 to start Language Editor)

## 5 SUPPORT FOR INDICATOR VALUES CROSSING OTHER INDICATOR VALUES

It is possible check if an indicator value has crossed another indicator value, e.g. signal based on whether RSI period 14 has crossed RSI period 100. This achieved by first capturing the indicators value of interest, yet with weighting box set to 0 so aren't directly used for the combine value. Then adding blank/none indicator for the cross but uses the values from the other indicators being captured.

It sounds complicated but here are some great examples to explain.

### 5.1 Example 1 – Signal buy/sell on RSI(period 14) crossing RSI(period 100)

As mentioned we begin to configure this with capturing RSI(period 14), which we'll call rsiFast and RSI(period 100), we'll call rsiSlow. The Capture Mode DefaultValue is used to record the value. Also the Weighting box is set to 0 so the value will be recorded but won't itself contribute the main combined total.

The image shows two screenshots of the 'INDICATORS TO COMBINE' dialog box. The top screenshot is for 'rsiFast' with a period of 14. The bottom screenshot is for 'rsiSlow' with a period of 100. Both configurations have 'Capture Mode' set to 'DefaultValue' and 'Weighting' set to 0. The dialog box includes fields for Reference ID, Indicator Name, Indicator Inputs/Properties, Capture Mode, Period, Shift, Color Index, Null Value, Weighting, and Essential for Trade? with sub-fields for Min, Max, Mid Point, and Hold Secs. There are 'Save' and 'Cancel' buttons at the bottom of each dialog.

Finally a third blank/none indicator is added with Capture Mode OpenCloseCross that references the other indicators for the cross. This is achieved by setting color index in the form of `i.ref1,i.ref2`, which are the reference IDs of indicators we are interested in, i.e. rsiFast and rsiSlow in our example. So you end up with:

**INDICATORS TO COMBINE** [X]

Reference ID (no spaces, e.g. TDlred)  
 rsiCross [New] [Delete] [Delete All]  Enabled

Indicator Name (custom or built-in) Indicator Inputs/Properties  
 none [ ]

e.g. MarketADX arrow

Capture Mode Period Shift Color Index Null Value Weighting  
 OpenCloseCross 0 1 i.rsiFast,i.rs AUTO 1

Essential for Trade? Min Max Mid Point Hold Secs  
 No [ ] [ ] [ ] [ ]

[Save] [Cancel]

Note, the Color Index box reads: **i.rsiFast,i.rsiSlow**

Note, Indicator Name doesn't need to say *none*, can just be blank.

Note, the Weighting box is 1 as we want this to contribute to the Indicator Combine outputted

## 5.2 Example 2 - Moving Average (MA) Crossing MA on High Price for Buy and MA Low Price for Sell

Here is what the moving averages look like on the chart:



The blue lines are smoothed Moving Average period 80 on high and a second one on low price, which in the configuration below is referred to as **mah** and **mal**, respectively. The purple line is Moving Average period 25, which is referred to **mav** below.

So, to configure Indicator Combine to signal buy when **mav** cross **mah** and sell when **mav** crosses **mal**, we need the following configuration, which begins by capturing the three moving averages, again with weighting set to 0:

**INDICATORS TO COMBINE** X

Reference ID (no spaces, e.g. TDlred)  
     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
e.g. MarketADX arrow period,maShift,sma|ema|smma|lwma

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

**INDICATORS TO COMBINE** X

Reference ID (no spaces, e.g. TDlred)  
     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
e.g. MarketADX arrow period,maShift,sma|ema|smma|lwma

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

**INDICATORS TO COMBINE** X

Reference ID (no spaces, e.g. TDlred)  
     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
e.g. MarketADX arrow period,maShift,sma|ema|smma|lwma

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

We now need to add the indicator that will actually look for the cross and provide the buy/sell signal to Indicator Combine. This is configured as follows:

**INDICATORS TO COMBINE** X

Reference ID (no spaces, e.g. TDlred)  
     Enabled

Indicator Name (custom or built-in)  Indicator Inputs/Properties   
e.g. MarketADX arrow period,maShift,sma|ema|smma|lwma

Capture Mode  Period  Shift  Color Index  Null Value  Weighting

Essential for Trade?  Min  Max  Mid Point  Hold Secs

Note, the Color Index box is set to **i.mah,i.mal,i.mav**. This causes the values captured above to be looked at for the cross.

Note, the Capture Mode of OpenCloseCross will, if given three color indexes, signal buy if third index crosses above first index and sell if third index crosses below second.

Note, Weighting box is set 1 so the outcome will contribute to combined total.

## 6 EXAMPLE STRATEGIES

This section gives some example strategies and how you would go about configuring Indicator Combine to follow them and produce the appropriate entry/exit signals and outcome trade results.

**Note, we will be adding to the section significantly over the coming weeks.**

### 6.1 Enter on fast Moving Average (MA) crossing slow & medium MA & exit on fast MA cross medium MA

In this example the fast MA is 10, medium is 50 and slow is 100

- Add indicator with reference MafastSlow and the following properties:  
Indicator Name=F:MACross (*use selection list*) / Input Properties=10,100,0,ema
- Add 2<sup>nd</sup> indicator with reference MafastMed and the following properties:  
Indicator Name=F:MACross (*use selection list*) / Input Properties=10,50,0,ema
- Go to Take Profit/Exit and untick Take Profit and Tick 'Exit On Opposite...' and set Target 1 = 0 and % to Exit = 100
- Go to General and Alert/Signal Reset Level to 'Other Direction', or for more frequent entries (say after retracement) set to 'Zero'

**How it works:** By setting exit level to work when yellow/orange appears (combined is 0) then it signals the exit when one of the MAs have crossed in the opposite direction. By the nature of the MAs that will be the Fast crossing the Medium.

**Ideas for improvement:** 1) Add confirmation in upper time frame. 2) Use ADX to filter out flat/choppy markets 3) Still set a take profit for quick moves over few bars, say with 1:4 risk reward ratio

**How it works:** This example is doing multiple checks on the Stochastic main value and you should trade when Indicator Combine is at 100%, i.e. indicator has recently gone oversold/overbought and is now moving back the 'other way'. This is a great example of using the Hold Secs field to remember if indicator has just been doing one thing, i.e. gone oversold/overbought, and is now doing something else, i.e. reversed in opposite direction.

## 7 INDICATOR INPUTS/PROPERTIES

Don't worry if you don't understand anything we can help! Inputs shown with a † can also be configured using the CONFIG button shown on the panel of the indicator. This always supersedes what is configured via the inputs. The config pop-ups have a button to revert back to indicator inputs.

Variable	Description
Main_alertConfirmedPercentage†	% of indicators that have to in agreement for the Confirmed alert/signal
Main_alertEarlyPercentage†	% of indicators that have to in agreement for the Early alert/signal
Main_alertResetLevel†	What level combined indicators need to go in other direction for a reset to occur. A reset allows another alert/trade signal if the indicator comes back to the Main_alert*Percentage thresholds.
Main_averageTrueRangeDays	Used in calculating the ATR that is used when stop loss / take profit pips are expressed as a percentage.
Main_binaryOptionModeBars	If non zero then will calculate trade as a binary option where input give number of bars/candles for the expiry.
Main_binaryOptionRiskRewardRatio	Used in binary option mode to calculate the profit and give the risk reward ration for a win.
Main_configFileName	Allows an alternative configuration file to be used. The default (if left blank) is <b>runwiseFX_IC_Config.txt</b> and is located in the Files folder of you MetaTrader data folder. The configuration file is used to store any changes made with the CONFIG button pop-ups.
Main_configFileInCommon	If true then will read the configuration file from a common area that is common to all MetaTraders running on your computer.
Main_defaultAlert†	Specifies which of the Early Alert and Confirmed Alert tick boxes, on the panel, should ticked by default.

Variable	Description
Main_disableSpreadAskBid	If false then will display spread and current ask/bid prices on the chart.
Main_displayMode†	Allows the main indicator display to be switched between colored bars and a histogram.
Main_drawBackground	If false then won't draw the background color of the panel
Main_forceChartPeriod†	Will change the current chart period to this, if set to other than <i>chart</i>
Main_riskAmount†	Risk per trade used in producing stats. Can be percentage (of account) or fixed amount. Value will also be used by our EAs if run alongside.
Main_maxBarsToCalc	Maximum number of bars to calculate combined indicator value for, i.e. how far back Indicator Combine window will be populated/set. If set to -1 then will use value from Main_statsBarsToCalcBack or Main_statsDaysToCalcBack
Main_maxBarsToSearch	Used in capture method of 'distance to not null' to say how far to look back through chart for last arrow/dot that a configured indicator shows. Value can be increased if using indicators that show their dots/arrows very infrequently.
Main_maxExecTimeMS	Maximum execution time when calculating stats
Main_otherChartsResultsOrder	Specifies that should be used to order results shown from other charts.
Main_spreadPipsForCalcs	Spread pips to be used for simulating trades and producing the statistics
Main_statsBarsToCalcBack	If > -1 then will restrict how far back through the chart the stats are calculated for, measured in bars/candles

Variable	Description
Main_statsDaysToCalcBack	If > -1 then will restrict how far back through the chart the stats are calculated for, measured in days
Main_statsDateEnd	Allows date to be specified where stats will be shown up to. Format yyyy.mm.dd Set to blank if not required.
Main_statsDateStart	Allows date to be specified where stats will be shown from. Format yyyy.mm.dd Set to blank if not required.
Main_timerFrequencyMS	How frequently our internal time process is called. Default value should be fine
Main_tradeTime*†	Trading hours for simulated trades and used by our EA if run alongside. Two start/ends provided in case wish to trade morning and afternoon, missing out lunch. 'Friday Reduction' allows trading end time to be reduced on a Friday, measured in minutes.
Main_writeToHiddenObjectsForEA	Must true for interfacing with our EAs
Option_*	Options as configured via Options button in CONFIG pop-up. Note, any obscure ones that cannot be set in pop-up are shown below.
Option_- usePrevClosedForStatsTradeOpenPrice	Set this to true if using Menden Renko charts as this will improve the accuracy of the shown statistics. Otherwise, leave it set to false.
StopLoss_*	Settings for stop loss as configured via Stop Loss button in CONFIG pop-up
TakeProfitExit_*	Settings for take profit/reversal based exit as configured via Take Profit/Exit button in CONFIG pop-up
Display_maxTrades	Maximum number of simulated trades to be displayed on candles (doesn't affect stats – just relates visually)
Box_*	Allows the position of the matrix to be changed

<b>Variable</b>	<b>Description</b>
Color_*	Allows the color of various items to be changed
Gen_alert*	Allows the alert to be sent to mobile / email

## 8 CONTACTS

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## A. APPENDIX: Settings for Popular Custom Indicators

Please see our dedicated webpage for the product with the necessary settings for popular custom indicators. Link: [www.runwisefx.com/ic](http://www.runwisefx.com/ic)

## B. APPENDIX: Built-in Indicators

Here is more information and example usage of the built-in indicators that can be selected from the pop-up list in the Configure Indicators pop-up form. These are obtained direct from MetaTrader and don't require a custom indicator to be installed on your system. The appendix also includes details of OBJ: items there are also available in the selection list.

### 1. F:ADXcross

Will signal buy when ADX (Average Directional Movement Index) DI+ crosses over ADX DI- and visa versa gives the sell condition. Should be used with Capture Mode = DefaultBuySell

### 2. F:ADXmain

Will examine main ADX value, which indicates if the market is trending or not.

**Example:** Only signal a trade if  $ADX > 25$ . The Capture Mode is set to ValueAboveMid and Mid Point is where the 25 is entered. Optionally, the Essential for Trade? can be set to YesAndAtStart to avoid late entries, i.e. won't signal if market not trending at the point other indicators line up.

**INDICATORS TO COMBINE**

Reference ID (no spaces, e.g. TDired)  
ADXvalue     Enabled

Indicator Name (custom or built-in) Indicator Inputs/Properties  
F:ADXmain 14  
e.g. MarketADX arrow period

Capture Mode Period Shift Color Index Null Value Weighting  
ValueAboveMid 0 1  AUTO 1

Essential for Trade? Min Max Mid Point Hold Secs  
YesAndAtStart   25

### 3. F:AwesomeOscillator

Will signal buy if Awesome Oscillator crosses above zero or sell if crosses below. Note, this indicator does not have any inputs/properties. Use Capture Mode DefaultBuySell, but optionally can use IncDec if interested in value sloping up for buy and down for sell.

### 4. F:BollingerBand

Will return buy if price is above upper band and sell if price below lower band. Use Capture Mode DefaultBuySell

Optionally, if Mid Point is set to ! then get reversal type signal, i.e. sell if price goes above upper band.

#### **5. F:CCI**

With Capture Mode DefaultBuySell it will return buy if CCI (Commodity Channel Index) is  $> 0$  and sell if  $< 0$ . With Capture Mode DefaultValue then the CCI value will be directly incorporated into the mix, e.g. CCI will need to 100 for contribution to combined indicator to be 100. With Capture Mode is IncDec will return buy if CCI is increasing and sell if decreasing.

#### **6. F:MACD**

With Capture Mode is DefaultBuySell it will return buy if MACD (Moving Averages Convergence/Divergence) is  $> 0$  and sell if  $< 0$ . If Capture Mode is IncDec then will return buy if MACD is increasing and sell if MACD is decreasing.

#### **7. F:Momentum**

With Capture Mode is DefaultBuySell it will return buy if  $> 100$  and sell if  $< 100$ . If Capture Mode is IncDec then will return buy if Momentum is increasing and sell if Momentum is decreasing.

#### **8. F:MovingAverage**

With Capture Mode is DefaultBuySell it will return buy if close price is above moving average and sell if below moving average. Note, if shift 0 and under Options 'only calculate on open of new bar' is not ticked then will use current bid price instead of close price.

If set Mid Point box to ! then will signal sell if price above MA line and buy if below, e.g. for reversal type strategy.

With Capture Mode IncDec then will return buy in MA is increasing (sloping up) and sell if MA is decreasing.

#### **9. F:MovingAverageCross**

With Capture Mode is DefaultBuySell will return buy if fast period cross above slow period and sell if fast crosses below slow.

#### **10. F:OsMA**

With Capture Mode is DefaultBuySell it will return buy if OsMA (Moving Average of Oscillator)  $> 0$  and sell if  $< 0$ . If Capture Mode is IncDec then will return buy if OsMA is increasing and sell if decreasing.

#### **11. F:ParabolicSAR**

With Capture Mode is DefaultBuySell it will return buy if price is above PSAR and sell if below PSAR

## 12. F:RSI

With Capture Mode is DefaultBuySell it will return buy if RSI (Relative Strength Index) > 0 and sell if < 0. If Capture Mode is IncDec then will return buy if RSI is increasing and sell if decreasing.

## 13. F:StochasticCross

With Capture Mode is DefaultBuySell it will return buy if stochastic main crosses above signal line and sell if crosses below.

## 14. F:StochasticValue

Examines value of stochastic main. With Capture Mode is DefaultBuySell it will return buy if stochastic main crosses above 50 and sell if less than. With capture mode DefaultValue will apply Stochastic main value directly into combine mix. With capture mode IncDec will return buy if Stochastic increasing and sell if decreasing. With capture mode AboveBelowReversal will look at Mid Value that gives an overbought/oversold. In the following example will signal sell if Stochastic goes into overbought of 80 and sell if oversold of 20:



If you find that Stochastic has just left oversold/overbought before other indicators line up then set Hold Secs box to remember oversold/overbought condition whilst other indicators are lining up. Hold Secs says how long should remember that oversold/overbought has been reached, in this example.



It's now possible to configure reversal oversold / overbought with capture mode DefaultBuySell by simply setting Mid Point to 30/70. The system will then see that buy 30 < sell 70 and will assume reversal type strategy, i.e. will signal buy if < 30 and sell if > 70



There are more examples of Mid Point being used to check Stochastic Value in section 3.2.15

### **15. F:WilliamsPercentage**

With Capture Mode is DefaultBuySell it will return buy if Williams Percentage is above -50 and sell if below.

### **16. OBJ:Arrow**

Will examine chart for arrows that an indicator has placed there. The Indicator Inputs is used to specify part of object name to look out for (leave blank for any) followed by buy arrow code and sell arrow code, all comma separated. You can find arrow codes from: <https://docs.mql4.com/constants/objectconstants/wingdings>

### **17. OBJ:Color**

Will examine chart arrow type objects but will check for color of object, e.g. useful if object is a dot that is the same arrow code for buy and sell except that it is a different color. The Indicator Inputs is used to specify part of object name to look out for (leave blank for any) followed by buy color and sell color, all comma separated. You can find color codes, e.g. clrRed from: <https://docs.mql4.com/constants/objectconstants/webcolors>

### **18. OBJ:Price1And2**

For use with Capture Mode AboveBelowReversal and will examine object (e.g. Fib) and will use price 1 and price 2 of the object. Returns sell if price cross price 1 of objectg and buy if crossed price 2.

### **19. OBJ:Trend**

Similar to OBJ:Color but will look for trend lines placed on chart and will examine color of line to know if buy or sell. Input properties format is the same as OBJ:Color

**END OF DOCUMENT**