runwiseFX™

USER GUIDE FOR OUR EA

Welcome to probably the most powerful trade utility for the MetaTrader platform

Intuitive for beginners - yet with all the features an advance trader could wish for

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1 INTRODUCTION

This document covers our trade utility EA for MetaTrader. We go through the panel from top to bottom, we explain the lines on the chart and then go through the configuration pop-ups shown via the CONFIG button on the panel.

We have released a few variations of our EA with different features, which are priced accordingly. These are as follows:

Product Variation	Trade Panel	Mobile App & Signals	Indicator Capture & Automation	Statistics & Auto Optimization
Ultimate Trade Manager + Mobile	✓	✓	✗	✗
Ultimate Trade Manager + Mobile plus purchased Indicator Combine	✓	✓	✓	✓
Strategy Builder + Optimizer	✓	$99 per year	✓	✓
Strategy Automator (MT4/MT5) Panel + Configurable Automation (MT5)	✓	$99 per year	✓	✗

We also have our free Trade Panel Pro, which is trade panel only with limitations of number of take profit targets, can't access our library (except Close All Trades on Account button), no master/slave mode, can't control trades from other EAs.

Please ensure you use our EA on demo account first until you have familiarised yourself with its operation, in a variety of trading setups.

Installation

Please see the instructions when you download the product with regards to installation. The manual assumes to product is installed and can be added to your charts.

Other Documents

Windows & Mobile App: https://runwisefx.com/runwiseFX_App.pdf
Our app allows the EAs in MetaTrader to be controlled centrally from our Desktop app or remotely on our mobile app for iOS and Android. You can download the apps from here: https://www.runwisefx.com/app

Other Links

Main Website: https://runwisefx.com

1.1 Document Conventions

The following icons are used to throughout the document:

Take note – try to remember

Very import 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

1.2 Concepts and Conventions

1.2.1 Use of Period for Decimal Point

Floating point numbers should be specified with period (full stop) rather than a comma. For example, one and half should be specified as 1.5 rather than 1,5.

1.2.2 Pips vs Points

Our system uses the classic definition of pips, where 1 pip is a 0.0001 change in EURUSD, for example. This means a 20 pip stop loss is same whether you are using a '4 digit' broker or a '5 digit' one. This in contrast to MetaTrader itself that uses points, where the size of a point varies depending on your broker.

★ ★ ★ ★ ★
top tip

It's possible to change the definition of a pip via CONFIG button on panel and the Advanced pop-up. See section 5.14 - Point to Pip Divider.

For symbols that have no digits after the decimial point for their ask/bid prices then 1 pip will be 1 unit change in the price if EA input **Gen_pointToPipDivider1for0digits** is set to *true* (default).

1.2.3 Alternative to Pips - % of Average Daily Range

Our system optionally supports specifying pips as a percentage of the average daily range (ADR). Simply add '%' to the pip value when configuring the system. This allows your configuration to automatically adjust to the characteristics of asset being traded.

For example, at the time for writing the ADR of GBPNZD is 117 pips, yet EURUSD is only 66 pips. This means if you simply specified a stop loss of 30 pips it would be quite a large stop loss on EURUSD but less so in GBPNZD. However, if you specified the stop loss as 30% then would give 35 pips stop loss on GBPNZD and 20 pips on EURUSD, i.e. the stop loss would be automatically scaled to the range that the symbol typically moves and thus your strategy would perform more consistently.

1.2.4 Risk Reward Ratio

By default, a 1:1 risk reward ratio will set the take profit to recover the stop loss + spread, i.e. risk is SL + current spread. This means the 1:1 TP shown in pips will be higher than SL pips to achieve this. Remember, you have to pay the spread on the wining trade as well, so TP needs spread adding to risk pips for true 1:1 risk reward ratio. This can be turned off by setting EA input **Main_tpAddSpread** to false. Additional pips can be added to TP via EA input **Main_tpExtraPipsToAdd**.

1.2.5 Synonyms and Acronyms

There are quite a few terms that mean the same thing and also some common acronyms. Here is a list:

Asset = Symbol = Currency Pair

Buy = Long = Bull = Up = Call

Sell = Short = Bear = Down = Put

Candles = Bars = Shift
Note, with shift = 0 refers to live candle and shift 1 is candle just closed and shift 2 is candle before that, etc.

Color Index = Buffer Index (concerns how indicators output information)

Entry = Open

Exit = Close

Magic Number = Expert ID

Lots = Position Size

Properties = Inputs = Parameters = Attributes

Time frame = Period

ADR = Average Daily Range

EA = Expert Advisor

EV = Empty Value (value indicator returns when it doesn't wish to show a color)

SL = Stop Loss

TP = Take Profit

1.2.6 Colors

Our system defaults to showing items relating to Sell as red and Buy as green (lime). Orange is a warning color and yellow is used for trade in loss, e.g. in status text. Orange is also used when showing overall indicator value for when on the cusp of buy and sell. Yellow is used for our stop loss line and cyan for take profit. Blue for buy pending orders and magenta for sell pending orders. On news events, red is high impact news, yellow medium and orange is low.

These colors are configurable.

2 SYSTEM SPECIFIC NOTES

2.1 MetaTrader 5

If using the MetaTrader 5 version of our EA then we recommend under MetaTrader 5 | Options | Charts that you set 'Show trade level' drop-down to something other than 'Enable dragging of trade level'. The reason being is that if this is not done then the trade level lines can prevent button presses on the panel even though the panel is on top of the lines. This is a small bug in MetaTrader 5, which may be fixed in later releases.

MetaTrader 5 doesn't give enough time for our EA to de-initialise itself if you remove it from a chart. Therefore, you may see panel objects left over if using our EA. It's only a cosmetic problem and is fine if close the chart, rather than remove the EA.

2.2 Windows 7

If you are still running Windows 7 then recommend setting EA input **Gen_forceResourceToHaveUnqiueName** to true to prevent certain panel items from disappearing. Note, this setting does use up a little more memory per chart.

3 UNDERSTANDING THE PANEL

Let's begin by going through the EA's panel from top to bottom.

Tool Bar >>

News Events >>

Status Lines >>

Controls per Direction >>

The tool bar at the top can be used to move panel around with the familiar click & drag. The buttons are explained in 3.1.

The main part of the control panel provides news events, status text and controls for interacting with the EA, which we will go through.

Extra controls can be added to panel to allow on-the-fly changes to SL, TP etc. and also controlling auto entry & exit. To enable go to CONFIG button | Display | Panel Items and tick the options there and Save. You can also enable multi-timeframe trend arrows – see 5.7.3. With all this enabled you will get:

Again, these controls are explained more in the following sections. Note, even more controls can added from our Library (https://www.runwisefx.com/library) such as in the Script Rules section, where there are things like 'Close All Trades on Account' button. We cover more about our amazing Library later.

3.1 TOOLBAR BUTTONS

3.1.1 Lines

The Lines button allows you to toggle between displaying horizontal lines, such as SL & TP, or not. This is just visually to declutter the chart. It does NOT turn off SL, TP, etc. – it's just cosmetic.

★★★★★ You can display dual Lines buttons for sell & buy by ticking the option in CONFIG button | Display | Show dual 'Lines' buttons …. There are also other options there to control visibility of SL & TP and even change the text shown on the line labels.

3.1.2 + - and Minimize

The + allows you to make the panel bigger and - to make smaller. The minimize button shown on the far right will allow you make the panel smaller by reducing what is shown. Will toggle to restore.

3.2 NEWS EVENTS

The first part of the panel is news events. These are useful when trading currency pairs and shows news events that are relevant to the two currencies. Shows time of news event which will change to count down closer to the event. Red events are high impact, yellow is medium and orange is low impact.

To get news events to show you will need to add **http://runwisefx.com** to allowed web URLs, via MetaTrader Tools menu | Options menu | Expert Advisors tab | 'Allow WebRequest for listed URL'. Simply tick the box and use the green + button to add the URL. This only needs to be done once.

The setting will also allow you access trade rules from our library: https://www.runwisefx.com/library

Don't forget you need to include the **http://** but do not add 'www.' to the URL - must be entered as: **http://runwisefx.com**
Note, specify http rather than https.

Can turn news events off via CONFIG button | Display and set lines for news to 0.

You can get the system to recapture news events from the web via CONFIG button | Tools | News Capture button.

★★★★★ If you would like to include news from a currency not mentioned in the chart's symbol name then you can set this in EA input **News_currenciesToAdd**. For example, if trading NASDAQ-100 and want to see USD news then set this EA input to **USD**. Can add extra currencies comma separated.

★★★★★ You can control what severity of news events are shown via EA input **News_impactsToStoreAndShow.** By default shows high and medium severity.

3.3 STAUS TEXT

The cyan colored status lines will report status for both the buy and sell direction. This includes the profit of any open trades and the status of any configured trading rules. It also indicates what the EA is waiting for a trade signal, e.g. our default rules with say waiting (no rsi,tdiYlw,macd) would mean waiting for indicators with reference IDs rsi, tdiYlw and macd. If get open signal then will say OPEN. If can't open a trade, e.g. spread too high then say the reason in brackets, e.g. OPEN(spread too high). The status of any loaded filters will also be shown, e.g. fltNews. If filter is active and blocking trades then will say fltNews:active, else will say 'okay' instead of 'active'.

Changes in status text get logged to the Experts log so can be viewed later. See Appendix B for more details.

3.4 MULTI-TIMEFRAME TREND ARROWS

Shows the direction the market is moving in, for particular time frames, using our built-in indicator. The numbers are the pips that the market has moved in that direction, since the direction was signalled. If the market has moved a lot of pips already then is shows that the trend might not last much longer.
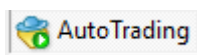
Note, the muti-timeframe trends arrows are not displayed by default as can delay start-up of EA on a new system. You can enable via CONFIG | Display | Trend Arrow Indicators – see section 5.7.5
You can reduce any start-up delay by reducing number of bars/candles shown in chart via Tools| Options | Charts | Max Bars in Chart. Set to something like 10000.
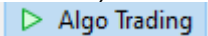
3.5 CONFIG BUTTON

Used to configure the EA via our easy-to-use configuration pop-ups rather than messing about with endless and fiddly EA inputs. This allows you to set things like the default stop loss, take profit, lots / risk, indicators to examine, etc. Please see section 5 for full details.

3.6 SMILEY FACE ☺ - okay to trade

Make sure a smiley face is shown on the panel as that means the EA can open & close trades, whether that be manually or automatically (uses same mechanism). If you see a sad face then check the 'AutoTrading' button is showing a green play button on the MetaTrader toolbar, or 'Algo Trading' in MT5. Tick the button if not.

In MT4 AutoTrade needs to show green play button (click if not):
In MT5 Algo Trading needs to show green play button:

If still see sad face then use F7 in MetaTrader to bring up the Expert properties pop-up and go to the Common tab. Make sure 'Allow live trading' is ticked for MT4 and in MT5 need to make sure 'Allow Algo Trading' is ticked.

Remember, even if just using EA for manual trading then need to have smiley face. If you still see a sad face then contact your broker to make sure the use of Expert Advisors has been enabled on your account. Also make sure you are not using the read-only/investor password.

3.7 MANUAL TRADE BUTTONS

Example is where buy trade is open – hence Close and ScaleIn buttons shown

3.7.1 Trade Open (MARKET/PEND SELL/BUY – shown when trade not open and pending order not set)

The SELL MARKET and BUY MARKET buttons can be used to open a trade manually based on the lot size shown in the Lots text box.

The SELL PEND and BUY PEND buttons can used to quickly setup manual pending order by allowing a line to be moved on the chart. The SL & TP are also set unpinned so can be moved manually if need be. After pressing Pend you'll see the pending line appear on the chart, which you can click and drag to desired price. Will change between limit and stop type automatically depending on current market price. On the pending line you'll see X, R and SET:
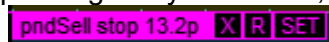
Click X to cancel, R to reverse, i.e. change from sell to buy or buy to sell and click SET when happy with position of lines and want to set pening order. Note, by default, we use hidden pending orders are managed by our EA. This can be changed to broker pending order in CONFIG | Pending Orders | Implementation.

Note, if see orange text for MARKET buttons then this means no stop loss is set. This can happen in auto stop loss mode, where the stop loss only calculates for the current direction the market is moving in, e.g. ParabolicSAR calculation method.

The magic number (Expert ID) and trade comment used for the trade is set CONFIG | General Settings.

If a pending order has been set then will show button with the price. Clicking that button allows the pending order to be managed. Once a trade has been opened the buttons are replaced by a Scale-In and a Close button and a + button, which are explained below.

3.7.2 Scale-In (only shown when trade open)

The Scale-In appears when a trade is open and allows additional tickets to be opened in the same direction, in order to add to the position. The size of the scale-in ticket is expressed as a percentage of the original trade, e.g. if the original lot size was 1 lot and Scale-In is pressed with 20% then an additional ticket will be opened of

0.2 lot size. To scale-in further then the percentage needs to be increased, i.e. 40% would open another 0.2 lots, in the example, creating a total of 40% extra scale-in.

Obviously, scaling-in adds to the risk relating to the trade if the stop loss is still in the original location.

★ ★ ★ ★ ★
top tip

If you would like to hide the Scale-In button, say for discipline reasons, then set EA input **Obscure_hideScaleInButton** to true.

3.7.3 Trade Close including Partial Close (only shown when trade open)

The close button also has a percentage setting associated with it. This is the percentage of the trade to be closed. 100% will completely close the trade and 50% will close half the total trade size, i.e. it will scale-out 50%. Note, the total position will include any scaled-in tickets.

To progressively scale-out of the trade the close percentage will need to be increased, i.e. it is the percentage of the original trade that was opened rather that what is left open.

3.7.4 The + Button (only shown when trade opened or pending order is set)

This can be used to put the EA into multi-trade mode, if not already in that mode, and allow another independent trade (with its own SL/TP/magic number) to be opened or another pending order to be setup, in the same direction. Note, this is different to scale-in which is an additional ticket but with the same SL/TP as the main trade and is managed with the main trade, e.g. close will affect scale-in as well.

3.8 MONEY MANAGEMENT (Risk:/Lot:)

Lot: 0.27 ▼   Risk: 2% ▼   Lot: 0.27 ▼
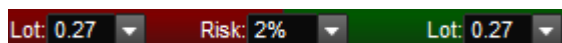
The EA will calculate the lot size for you based on the percentage of your account balance (or equity – whichever is lower) you wish to risk. The percentage is shown the Risk text box and can also be selected via the pop-up, which is activated by pressing the ▼ button. You can also enter a fixed amount of the account currency by simply typing the amount in and omitting the % sign. The default value is set CONFIG button | Risk / Lots – see section 5.4

The pips at risk that is used for the lot size calculation comes from the current position of the hidden stop loss line (yellow) and the current price.

To manually enter a lot size, simply clear the Risk text box and enter the required lots value into the Lots text box. Or use the selection list on Lots box which will auto clear the Risk box if sued.

If the value in the Lot box is colored orange then this means it is being limited by available margin on your account, i.e. limited by the current setting of EA input **Main_minMarginToKeepFreePrct** and what the broker says your free margin is. Note, inputs like this are explained in section 14.

★ ★ ★ ★ ★
top tip

Selection lists, like for the Risk and Lots, can be altered via EA inputs **Main_selection***

3.9 AUTO ENTRY MODE SELECTION (Entry:)

Entry Mode: ALT ▼   Entry Mode: ALT ▼

It is possible to display auto entry control on the panel for on-the-fly changes via CONFIG | Display | Panel Items | Auto Entry tick box.

The following auto entry modes are available that relate to the level of automation of the EA. Essentially, it allows you to tell the EA what you want it to do when the configured rules issue a trade command, such as TRADE_OPEN, SCALE_IN, etc. This allows you switch (say) from the rules to just alerting you, to actually taking the trade automatically. If taking the trade, this can be as a one-off (semi-automatic) and continuously (fully automatic) as each fresh trade signal arises.

MAN	Manual Mode. This turns off the rules engine for when ticks coming in form the market or on regular time intervals (both for entry & exit). However, rules can still be executed on 'script basis', i.e. executed when a user configured button is pressed. Note, does not affect stop loss, pending orders or take profit.
	MAN mode is **purely** for manual trading. Only use **MAN** if you <u>don't</u> want do automatic alerting/trading both in terms of entry & exit, including account management rules. Use **EVL** mode if don't want to alert/trade at the moment but may want to later on. EVL mode is so the EA can keep track of whether the market is in the buy or sell situation, which it can't do if you turn off rules via **MAN** mode.

| EVL | Evaluate Mode. Rules are evaluated on incoming price ticks and regular intervals. However, TRADE_OPEN, SCALE_IN commands will be ignored, in terms of raising alerts or opening/closing trades. However, the alert lines will still be set on the chart.

This mode is useful for semi-automatic trading, where don't want alert/trade at the moment but may do later. With this mode the EA can still keep track of the market, so when you do enable alerting/trading it knows where it is up to.

EVL mode is the mode to select when you don't want the EA to alert/trade a particular direction – but may do later or have enabled alert/trade in other direction. |
|---|---|
| ALT | Alert Mode. Any TRADE_OPEN and SCALE_IN commands will result in an alert but won't actually open trades. Note, the alert will only happen on a fresh signal, i.e. where 'reset' has happened. By default, reset means a signal in the opposite direction. |
| PND | Pending Mode. Will setup a pending order when TRADE_OPEN is issued by a rule. The pending order will be offset from the market price the value set in CONFIG \| Pending Orders \| Offset. Note, it is also possible to configure a text box on the control panel to supply this value instead. Just needs to be named **rwfxPendOffset**. |
| TOE | Trade Once then Evaluate Mode. This will act up on TRADE_OPEN SCALE_IN commands but after trade closed the mode will switch to **EVL**. This can be used to authorise the EA to do a one-off action, which we refer to as semi-automatic. If you wanted it to take future trades (say) then you would need to set back to TOE (say). |
| TOA | Similar **TOE** but after trade close the mode will be switched to **ALT**. |
| TC | Trade Continuous Mode. This will act up on TRADE_OPEN and SCALE_IN and keep doing so until mode is changed.

It is important that you test your rules well before this mode is selected, which we refer to as automatic, as will keep trading. |

3.10 AUTO EXIT MODE SELECTION (Exit:)

Exit Mode: AUTO ▼   Exit Mode: AUTO ▼

Allows auto exit to be control, i.e. what to do when configured trade rules signal exit. By default the 'AUTO' setting will exit the trade but can be set to ALERT, where will just alert or OFF. Note, trade exit rules, e.g. indicator based exit, has nothing to do with stop loss, break even or take profit, which operate independently of the trade rules.

Note, displaying of Exit Mode on the panel needs to be turned on via CONFIG | Display | Panel Items | Auto Exit tick box.

3.11 SL Mode (SL:)

Click the **SL:** selection box will display the Stop Loss edit box, which allows on-the-fly changes to made to stop loss. Note, the default stop loss is set by CONFIG button | Stop Loss – see section 5.5. The stop loss is also visualized on the chart by a horizontal yellow price line whose label can be clicked to show this pop-up or unpinned and moved manually to a different price – see section 4.

The EA uses a hidden stop loss (sometimes called virtual or stealth) which is hidden from the broker – *your broker is not your friend*. We still set a broker stop loss, as a backup, but it's a configurable distance away from the actual/hidden level. The hidden SL works on the bid price, which is the price you see in the charts. So, can set from chart candles/indicators without having to worry about spread. Using bid price also avoids being triggered by spikes in the ask price, which is a common trick from brokers, as doesn't appear in the charts.

This pop-up is shown when **SL:** is clicked. Also shown if you click the label of the yellow hidden stop loss line shown on the chart.

Use the radio button 'Stop Loss Mode' selection to switch between setting stop loss automatically, specific price, pips from current market price, amount in account currency, trading rule (if loaded from library) or off.

Note, for AUTOMATIC, the calculation method used and properties is set via CONFIG button | Stop Loss. See section 5.5.

For PIPS, you can use the [v] drop-down selection list to chose from a list which can be set via EA input **Main_selectionSLmodePips**

You can turn on trail stop loss via 'Trail stop loss' tick box. Finally, you set for break even. Note, our break even mechanism is separate to the stop loss, so you can change your mind easily and untick it, i.e. don't need to remember where stop loss was originally if had to move that instead.

Use the **OK** button to save the changes or use Cancel or ⊠ button to close without making changes.

3.12 Trail Tick Box

The Trail tick box can be used to turn on/off trailing for the stop loss. This is the same setting as 'Trail stop loss' that is shown in the SL: pop-up box, mentioned in the previous section.

3.13 HIDDEN TAKE PROFIT (TP BUTTON)

The TP button allows you edit the take profit levels on-the-fly. Note, the default take profit regime can be configured via CONFIG button | Take Profit, see section 5.6. When you press the TP button the following pop-up is shown. The take profit is also visualized on the chart by a horizontal cyan price line whose label can be clicked to show this pop-up or unpinned and moved manually to a different price – see section 4. Use the **OK** button to make any changes, or **Cancel** or ⊠ button if you change your mind and don't want to make the changes.

The EA uses a hidden take profit (sometimes called virtual or stealth) which is hidden from the broker. This is more powerful than a broker take profit, as it can do partial closes and make adjustments, e.g. set for break even. We still set a broker take profit, as a backup, but it's a configurable distance away from the actual/hidden level. The hidden TP works on the bid price, which is the price you see in the charts. So, can set from chart candles/indicators without having to worry about spread.

The take profit pop-up shows the settings for each of the TP levels (targes), plus a master on/off control.

3.13.1 MASTER Tick Box

If this is unticked then the hidden take profit feature/levels will all be switched off.

3.13.2 Target *n*:

The first value and selectable list is where amount, price, pips or rrr (risk reward ratio) can set for the take profit level/target. The amount (amnt) is in account currency. In the example above the take profit targets are set to risk reward ratio of 1,2,3 and 4 respectively. As with other areas of the system, when pips is selected you can add a '%' sign, which will be the percentage of the Average Daily Range in pips.

3.13.3 Exit %

If ticked this will perform the partial close of the trade using the percentage of the trade to close shown with the tick box, when the target price is reached. If 100% is selected then this will close the entire trade. If 0 or the box is unticked then no close will take place.

If you specify a negative percentage then when the target is reached the trade will scale-in by that percentage (non negative), i.e. add to your position. To scale-in specific lots when target reached then enter in Exit % box but to letter 'l' afterwards, e.g. 0.5l will scale-in 0.5 lots when target is reached.

It's perfectly fine to have the exit % as 0 but still use the profit target to adjust the stop loss or set for break even. Best to think of the hidden take profit as take action when profit target is reached. Note, if the MASTER tick box is unticked then no action will be taken when the targets are reached.

3.13.4 Stop Loss Adjustment (SL:)

If set then will adjust the stop loss when the profit target is reached. This can be used, for example, to narrow the stop loss to a certain number of pips. If RAISE is selected then will raise the stop loss to the previous target, or break even in the case of target 1. If RAISE-OC is selected then does RAISE functionality but only if candle close price reaches the take profit level.

If RAISE-OC is selected then the exit % and other settings will also only happen on candle close price reaching the level.

You can alter the SL selection list, e.g. to change available list of pips, by changing EA input **Main_selectionSLmodePips**.

3.13.5 Trail (tick box)

If set then set for trailing stop loss when the profit target is reached.

3.13.6 Break Even (BkEven tick box)

If set then will set for break even when profit target is reached. Note, this doesn't mean adjusting the SL but setting flag in the EA that will exit if trade goes down to break even, i.e. think of the as a second stop loss.

3.13.7 Reset Button

Use this to reset the level to the configured defaults, i.e. as set by CONFIG button | Take Profit

3.14 HIDDEN PENDING ORDERS (Pending:)

If you click **Pending:** selection box then pending order pop-up is displayed that allows you to setup a pending order. The EA uses hidden pending orders, which are more powerful, as can optionally just alert or work on candle close price. Hidden pending orders mean the broker isn't tempted to nudge the price/spread to trigger your broker pending order when they believe the market isn't favourable. Our hidden pending orders also work on bid price, so can be set from the price action/candles in you see in the chart, which is in bid price. Triggering on bid price avoids spikes the ask price, which can be quite common from brokers as doesn't show up in the charts.

The pending order is also visualized on the chart by a horizontal price line whose label can be clicked to show this pop-up or unpinned and moved manually to a different price – see section 4.

The following pending order pop-up is shown when click **Pending:** box on the panel:

Use Pending Mode radio button selection to select between alerting or trading when price reached, and if want to consider current market price or closed candle price. Can also select OFF to turn off the pending order. If setting new pending order then TT will be selected automatically to save you mouse click.

Use the **Pending Trigger** radio button selection to select between providing the trigger as a price or pips offset from the current market price. If supply negative value for pips then will set up a limit order, else a stop order. Any % supplied the pips box will be % of average daily range. Note, the default value for pips can be set in CONFIG button | Pending Orders – see section 5.8.

The **Expiry** section can be used to set any expiry for the pending order. This can be supplied in variety of different ways, as selected via the drop-down selection box next the Expiry input box. You can supply as date/time timestamp both in server/chart time or local time. Of just time if current day. Can also supply as offset from current time or number bars/candles. You can use the Enabled tick box to temporarily

disable the expiry. You can delete/forget the expiry by selecting <<BLANK>> from the selection list. If an expiry has been set then it will be shown as a vertical line on the chart and can be moved by doubling-clicking it to select the line and moving it with your mouse. Note, the default expiry can be set in CONFIG button | Pending Orders – see section 5.8.

Setup bracketed….: If ticked then will set up both buy and sell pending orders based around a supplied number of pips. If One Cancel Other is configured in CONFIG | Pending Orders then the sell pending order will be automatically cancelled if the buy pending order is reached, for example.

Preview SL/TP/lots…: If ticked then the system will show the SL and TP based on the pending order, rather than current market price. The lots will also be appropriately calculated based on that as well. Note, if the SL is from an indicator then the SL will still be based on the current market situation.

Use the **OK** button to save the changes or use Cancel or ⊠ button to close without making changes. The **OFF** button can quickly be used to turn off pending order.

3.14.1 Automatic Scale-In on Price Reached

The EA can be set to automatically scale-in when a target priced is reached on an open trade. Simply set a pending line as you would normally (previous section) and this will be place a 'pending scale-in' line on the chart that can be positioned to the desired price. When that price is reached the EA will either alert or perform the scale-in, depending on what was selected from the **Pending:** list. The scale-in percentage is that which is shown next to the manual Scale-In button. Essentially, it's like the EA presses the Scale-In button for you when the pending scale-in price is reached.

3.15 BREAK EVEN (BkEven tick box)

The 'Breakeven' tick box can be used to set a trade for breakeven where the trade will be exited when the price comes back to its open price. If you change your mind whilst the trade is still open, simply untick the breakeven checkbox. Note, if you tick the box when a trade is not in profit then will close the trade if trades improves and comes back to the open price. Note, break even takes spread into consideration and exits on genuine break even after spread is paid.

 Our break even mechanism is separate to the stop loss, i.e. stop loss won't move when break even is activated. Best to think of it as a secondary stop loss that will exit when open price reached (offset by spread). The reason for this is that if you change your mind about break even you can just untick to the box, rather than having to put the stop loss back to where it was.

3.16 TRADE RULE CONTROLS (bottom of panel)

The bottom of the panel is where any controls for configured trades rules will appear.

If indicators have been configured to be captured then the default rules 'Entry on Indicators' and 'Exit on Indicators' will appear. This default rule will signal entry/exit

when the configured indicators are in agreement, subject to the thresholds in CONFIG | General Settings (default 100%). The Auto Entry Mode setting in CONFIG | General Settings will say whether the signal will cause an alert (default), set-up a pending order, trade one off or trade continuous. The Exit Mode in CONFIG | General Settings says what should happen on exit signal, e.g. alert or close trade or off/ignore. Note, the default rules may not show if you have the manual trading version of our EA, such as our Ultimate Trade Manager.

You can add more functionality to Trade Rule Controls by downloading filters and trade rules from our library at: http://runwisefx.com/library. These are easily added to the EA via our 'Quick Load Codes' that can be entered via CONFIG pop-up and the Code box & Download button.

We recommend the following filters and rules:

- News Avoid Filter – quick load code: **f-na** *(as news events can blow your trade out of the water)*

- Exit Before News – quick load code: **e-n**

- Close Trades Before Weekend - quick load code: **e-t** *(as market gaps can happen over the weekend that can exceed your stop loss)*

Other popular rules are:

- Exit All Trades On Equity Target – quick load code: **e-gtp**

- Close All Trades Button – quick load code: **bi-ca**

The Rule GUI controls at the bottom of the panel are for on-the-fly changes. If you wish to change the default value, so will get used by default and when generating statistics, then set this via CONFIG button | Rule GUI Controls. See section 5.11.

4 LINES SHOWN ON CHART

The main horizontal lines are shown on the chart are for the hidden stop loss, take profit and any pending orders, so can see the price they are set to. These can be shown to the right of the price/candles by using MetaTrader's Chart Shift option – enabled via F8 Common tab and tick 'Chart shift'. This will allow you to move the candles to the right.

You can click on the label to bring up the appropriate pop-up to manage the line. It's also possible to unpin the lines by clicking on the pin icon ⚲ so it becomes ⚲ and then you can click on the label to move the line to a new price with your mouse. After finished moving, click on pin icon again to lock in place. When line is unpinned a ▼ icon appears, so you can still access pop-up if click that.

The line labels will not overlap so you can read them easily. The dotted line will show the actual price and the label will be positioned as close to that line as possible, but without overlapping other labels.

4.1 Yellow Hidden Stop Loss Line (slBuy/slSell)

The hidden stop loss is shown by a yellow dotted line on the chart and label. The line will go dashed when a trade is open to indicate it's active. The line shows the number of pips for the size of the SL and the number of lots that have been calculated based on it. If you've set the system with fixed/dynamic lots then the amount the SL represents will be shown instead. Use the pin icon as described above.

The hidden stop loss, pending lines and take profit all work on the bid price. This prevents these items from being triggered by spikes in the ask price, which could come from broker manipulation as the ask price is not shown on the charts or in the history. The bid price is also the price shown by the candles, so it means you do not have to account for the spread when setting lines from what you see on the chart including indicators that are calculated from the candle prices e.g. moving averages.

When you open a trade the EA will also set the broker stop loss, which is deliberately further away than the hidden/actual level. This is so your broker doesn't know where you true stop loss is. Remember your broker is not your friend and you should hide a much as possible from them. See our video if you want to know why: https://www.youtube.com/watch?v=hWVNYWEVG9A~
The additional offset from hidden level can be configured in CONFIG button | Stop Loss – see section 5.5.11.

4.2 Cyan Hidden Take Profit Lines (tpBuy*n*/tpSell*n*)
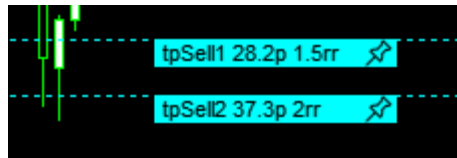
The hidden take profit lines are show as cyan dotted lines on the chart. If there are multiple take profit levels then number (*n*) next to tpBuy or tpSell will say which level the line relates to. The line will go dashed when a trade is open to indicate it's active. The line shows the number of pips for the size of the TP and the risk/reward ratio that represents. Use the pin icon as described earlier to unpin the line to move to different price.

 When you open a trade the EA will also set the broker take profit, which is deliberately further away than the hidden/actual level 100% exit level. The addition offset from hidden level can be set in CONFIG button | Take Profit – see section 5.6.3.

4.3 Hidden Pending Order Lines (pendBuy/pendSell)

For buy: For sell:

The hidden pending lines are show as dashed lines on the chart, colored blue for buy and magenta for sell. The line will show if it's of limit or stop type, which will depend where it is placed in relation to current market price. The number of pips from current market price will also be shown. If the pending order has an expiry then this will be shown as an additional vertical line, which can be selected with double-click and moved to different time, should you wish.

4.4 Red/Green Support & Resistance Lines (S1-3,R1-3)

Theses show daily support & resistance lines. They need to enabled via CONFIG | Display | Horizontal Lines, as not shown by default. The market can often reverse around these lines so can be good place set take profits, e.g. partial, and break even.

4.5 Brown/Cream Pivot Lines (* Pivot)

Daily, weekly and monthly pivot lines are calculated shown. They need to enabled via CONFIG | Display | Horizontal Lines, as not shown by default. Again the price can bounce off these lines and may not 'break through'. Good idea not open trade in same direction as market if price close to one of the these lines, as price may reverse.

5 CONFIGURING THE EA

The EA can be configured using pop-up forms, available when you press the CONFIG button on the panel. This makes the EA much easier to configure than the old way of using endless EA inputs! EA inputs are still there and are used if not made changes via CONFIG button.

5.1 Main Config Pop-up

Pressing the CONFIG button shows the main pop-up that allows the various areas of the system to be configured. The sub sections that follow will go through each of these buttons.
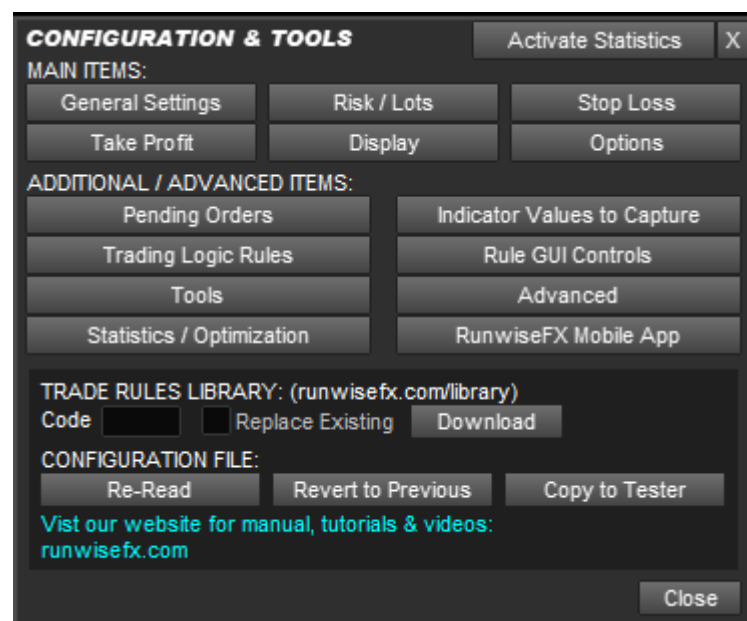
Also in main config pop-up, it is possible to download rules from our library:

5.1.1 Downloading Configuration/Trading Rules from Our Library

Ready-made rules can easily be loaded into your EA from our rules library webpage: http://runwisefx.com/library.

To load rules you will need to have added **http://ruwnisefx.com** to the list of URLs that the EA can access via Tools | Options | Expert Advisors tab | 'Allow WebRequest for listed URL'. This only needs to be done once.

Enter the quick load code, shown in the library (right column) in the '**Code**' text box and press the **Download** button. Click OK in the Confirm the download message box.

The tick box **Replace Existing** can be ticked to replace any rules are already configured, such as the built-in rules that EA ships with. This is recommended if downloading rules that perform an automatic entry if other entry rules are already loaded.

Our library also contains the supplied rules that EA ships with, in case you want to re-add later. You'll see them at the bottom of the library.

5.1.2 CONFIGURATION FILE - Re-Read Button

This will re-read configuration, which is stored in a file, into the memory of the EA. However, this button doesn't normally need to be pressed, as by default, the EA will automatically re-read the file if it detect a date/time change on the file.

The filename of the configuration file is shown above the button and is store in the MQL4\files folder of your MetaTrader Data Folder (or MQL5\files in MetaTrader 5).

It is possible to have different configuration files and switch between them, both in terms of reading and writing, via EA input Main_configFileName. This can even come from a special common folder that is accessible by all MetaTrader instances installed on you computer, when EA input Main_configInCommonFolder is set true.

5.1.3 CONFIGURATION FILE - Revert to Previous

If pressed then will revert to previous configuration file before last change was made. Useful (say) if downloaded incorrect rule.

5.1.4 CONFIGURATION FILE – Copy to Tester

Will copy EA's configuration file to MetaTrader's Strategy Tester. Note, the EA's configuration file can't be directly read when using the EA in the MetaTrader Strategy Tester Tool. However, this button will copy the current configuration into a special common folder that can be accessed by the Strategy Tester when the next test is run.

Click this button when you are happy with your configuration and wish to try out in the Strategy Tester.

When using the Strategy Tester the EA's configuration file is read/written from/to folder **tester\files**, in your MetaTrader Data Folder, as MQL4\files cannot be accessed by the Strategy Tester. In MetaTrader 5 the location of tester\files varies, so recommend using Copy Config to Strategy Tester button.
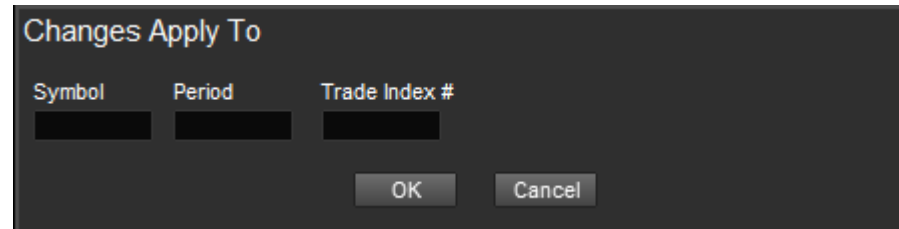
5.2 CHANGES APPLY TO

Most CONFIG button pop-ups have a Changes Apply To at the top:

CHANGES APPLY TO: All Symbols & Periods ▼

This allows you to make changes just for a particular symbol and/or time frame period. It's also possible to make changes per trade index (per magic number) when in multi-trade mode – see section 7.

When you click the selection list it will present some possible symbols or periods. However, there is also a <Select…> option where you can enter specificly what you need:

Changes Apply To

Symbol	Period	Trade Index #

OK   Cancel
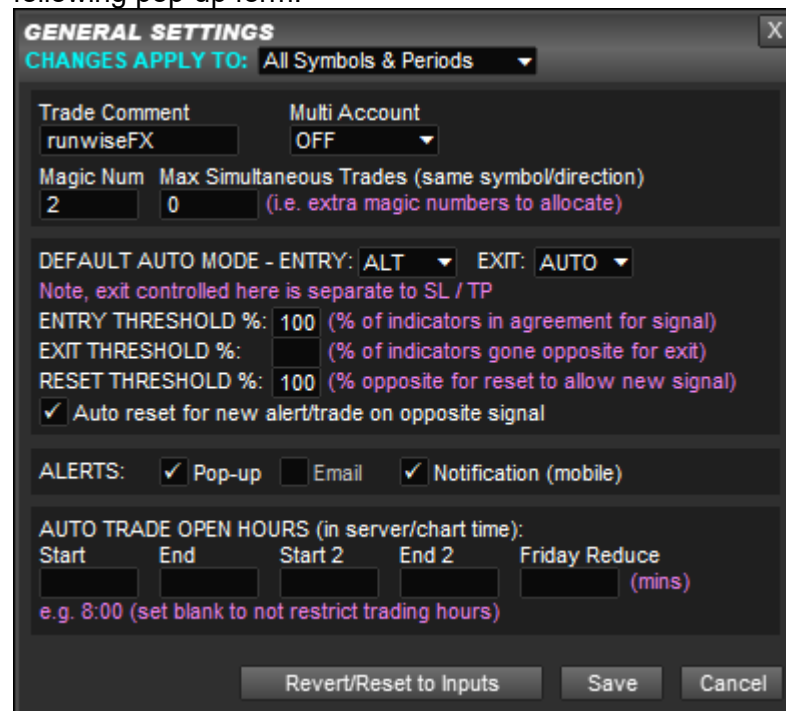
Note, the Symbol box also supports just entering a currency, e.g. JPY and in Period can enter multiple periods if separated by underscore, e.g M15_M30. The Trade Index # is numbered 0 and above and allows different configuration for each magic number/trade index when in multi-trade mode – see section 7.

'Changes Apply To' works for changes to the boxes (fields) on the pop-up panel for **existing** items. So, if only want to use indicator for certain symbol/period then add indicator for all symbols & periods and use a change to the Enabled tick box to only turn on for the required symbols/periods.

5.3 General Settings

Let's go through each of the buttons in main CONFIG pop-up, beginning with General Settings. This allows general/main settings of the EA to be changed via the following pop-up form:

5.3.1 Trade Comment

The trade comment that is used when trades are placed on MetaTrader and is shown in the comment tab of the Terminal frame in MetaTrader. If using a Binary Options broker then specifies the expiry time for the order. See section 15 for more details.

5.3.2 Multi Account

Can be used to place the EA in multiple account mode where manual trades and adjustments can be automatically copied to slave accounts on other MetaTrader instances on the same computer. See section 13 for more details.

5.3.3 Magic Num[ber]

Specifies the magic number, as known as the Expert ID, that the EA will use for trades that is manages.

5.3.4 Max Simultaneous Trades

This allows additional magic numbers to be allocated that allows multiple trades in the same direction on the same symbol to be managed, i.e. with separate stop loss / take profit. This includes having multiple hidden pending orders in the same direction/symbol.

Entry the number of additional trades/pending orders you want to permit on the same symbol/direction. If greater than 0 then this places the EA in multi-trade mode, see section 6.

5.3.5 DEFAULT AUTO MODE

This tells the EA what to do what a trade signal occurs, e.g. should it just alert you or should it auto trade. The trade signals come from the configured trade rules, which by default will follow any configured indicators, i.e. by default, signal entry when all configured indicators are in agreement and signal exit when all gone opposite.

The auto mode is set separately for entry and exit, so allowing a flexible choice over automation, e.g. manual entry on alert, but auto exit. See section 3.9 for an explanation of what the entry modes do. The exit mode can be one of OFF, no auto exit or even alert, ALT to alert or AUTO to automatically close trade when exit signal occurs. Note, exit just means by the loaded trade rules and doesn't affect SL/TP.

As mentioned in section 3.9, be careful about setting auto entry mode to MAN (manual) as this will turn off our rules engine for both entry & exit. For example, this would stop our account management rules from working. Set to EVL (evaluate only) instead.

5.3.6 THRESHOLDS

The entry, exit and reset thresholds are used by our built-in 'Entry on Indicators' and 'Exit on Indicators' rules. The percentages refer to what percentage of indicators need to be in agreement for trade signal to happen or exit if indicators gone in opposite direction. The reset is about when can trade again. If reset threshold is 100% then indicators need to all go opposite for a trade to happen later on when they come back. If set to 0 then indicators just need to go to cusp of buy/sell and come back for trade to be signalled.

The 'Auto reset for new/trade on opposite signal' will also do reset when signal happens in opposite direction. If ticked this means trades will still happen if Reset Threshold % is blank.

The following video says more about thresholds and this concept of 'reset': https://www.youtube.com/watch?v=gHQec21cj7k

An indicator will only contribute to given threshold when the 'use indicator for' is corresponding ticked for entry, exit and/or reset in CONFIG | Indicator Values to Capture. Plus Weighting box needs to non zero value and of course the indicator enabled.

5.3.7 ALERTS

Allows you specify what should be done when the EA wishes to raise an alert. Can select between alert pop-up box in MetaTrader (and sound), email and/or notification, i.e. send to a configured mobile.

5.3.8 TRADING HOURS

Allows you to select the trading hours that any configured rules are allowed to open trades for. Possible to specify two start and ends so can say configure a morning session and afternoon session. Note, the EA will not close a trade already open based on these times – it just relates to opening a new trade. Note, the times are server/broker time.
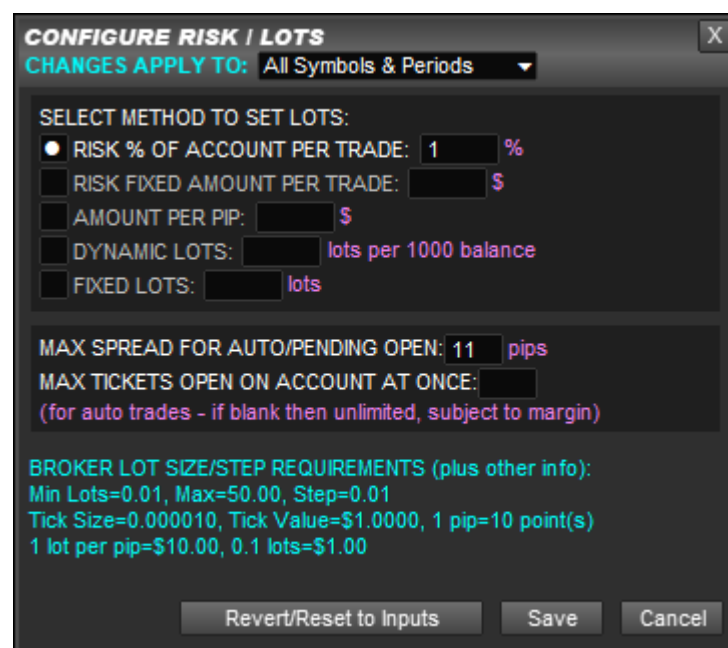
The Friday Reduce allows the end time to be adjust down on Fridays. This is useful as a of traders don't like to open new trades close to the weekend market close.

5.3.9 Revert/Save/Cancel Buttons

This pop-up form and others have these buttons. The Revert will remove configuration items of the pop-up form from the configuration file and revert to what is configured in the EA inputs. The Save button will save any changes to the configuration file and Cancel will close the form without doing a save. Pressing [X] button will also do a cancel.

Note, when the Save button is pressed it will trigger a re-read of the configuration file, which will also, by default, be performed by other instances of the EA, when they detect a date/time change in the file modification timestamp.

5.4 Configure Risk / Lots

Allows you specify the default method for setting trade position size method, i.e. lots size to use. Use radio button style selection list to select between:

- Risk % of account balance/equity (whichever is lower) to risk per trade

- Risk fixed amount of account currency per trade

- Amount of account currency per pip

- Dynamic lots, i.e. how many lots per 1000 of account balance

- Fixed lots

Max Spread For Auto Open: Allows the max spread to be specified when the EA is automatically opening a trade. This can be used to avoid entering trade when spread is too high.

Max Tickets Open at Once: Is the maximum tickets that can opened on the whole account for trades that are initiated by the EA. This can used to limit your account exposure.

Finally, the cyan color text shows important values, such as your broker's lot size requirements, where step is the smallest increment allowed in lot size.

5.5 Configure Default Stop Loss

Allows default stop loss mode to selected, using radio button style selection list. Plus other items related to the SL.

5.5.1 Automatic SL

Sets SL automatically based on the selected calculation method. Some of those methods have associated properties which can also be set. The methods supported are:

ATR	Average True Range for supplied period and multiplied by supplied factor. Suitable for both trend following and reversal strategies and stop loss is calculated in both directions. Note, can use EA input **Property_SLATRAvgTimeframe** to change which time frame the ATR comes from.
BollingerBands	Set from lower and upper Bollinger Bands indicator lines

Envelopes	Set from Envelopes indicator
Fractals	Set from Fractals indicator
MovingAverage	Based on high/low price moving average
ParabolicSAR	Popular indicator for setting stop loss for trend following strategies, i.e. only calculated in the direction the market is moving in.
RecentHiLow	Based on recent high / low prices. Note, number of bars will come from EA input **Property_SLRecentBarsNum**.
RunwiseFX	Our own calculation method that adds on PSAR type check. Only calculated in the direction the market is moving in.
SwingHiLow	Based on swing high/lows also know as fractals. Uses EA input **Func_swingLength** to say how many lower highs or higher lows are needed on either side of swing candle that the SL price is comes from. EA input **Func_swingMaxSearchBack** says how far should search back for swing high/low.
CustomIndicator	Will set stop loss based on configured indicator if the indicator provides a stop loss value, i.e. SL Indexes box in the Indicator Values to Capture pop-up has been populated. See section 5.10.19 💣 Don't select this option unless an indicator has indeed been configured to provide an SL. Otherwise, will end up with no stop loss calculated and no trades will possible.

5.5.2 Fixed Pips

Allows you set a fixed pip stop loss. Can also use a % to set percentage of the Average Daily Range of the symbol.

5.5.3 Fixed Amount

Fixed amount based on current lot size. Will size stop loss based on what the amount equates to in pips.

💣 Needs lot size to be known in order to work, i.e. not based on risk % or amount per trade in CONFIG | Risk / Lots.

5.5.4 Percent

Will size stop loss based on what the supplied % of account balance equates to in pips. Alternatively, if set EA input **Gen_treatDoublePrctAsPrctOnPrice** to true then will be % of current price instead of account balance.

Needs lot size to be known in order to work, i.e. not based on risk % or amount per trade in CONFIG | Risk / Lots.

5.5.5 Rule

Allows stop loss to be set by trading rules that have been loaded, say from our library. Only select Rule if you know that you've configured/downloaded a rule that does indeed do this. Note, rules in our library that need this will update selection to Rule when you download from the library.

5.5.6 Off

Allows you to trade without a stop loss. Not compatible with setting SL based on risk % or amount per trade, as the risk is infinite without a stop loss!

We do not recommend trading without a stop loss, as your 'stop loss' would be your entire account. Remember there can a sudden move in the market of any size and that exit indicators might not be quick enough to respond to, especially if the indicator is non-repainting and only calculates on candle close.

5.5.7 Min/Max/Offset

Allows the automatically calculated stop loss, or that from a trading rule to be constrained within a min or max value in pips. Can also specify as percentage of Average Daily Range by adding %. The Offset allows you to add extra pips to the calculated value. The min/max trim is applied after the offset.

The min/max is useful to avoid a calculated stop loss that is either too shallow or too big than you would be comfortable with. A shallow stop loss can result in a large position size if set to risk certain percentage or amount per trade.

5.5.8 Trail Stop Loss on By Default

If ticked then will turn trailing stop loss on by default. If not ticked then trailing SL will be off initially, but can manually turned on by using the SL Trail tick box on the panel or in the pop-up shown when you click on the label of the yellow SL horizontal line. Note, to display SL Trail box on the panel, you will need to enable this in CONFIG button | Display | Panel Items | SL / TP.

5.5.9 Trail Step

Allows a trail step to be supplied, where trail will happen stages, e.g. if set to 5 then trail will only happen after price moved by 5 pips each time.

5.5.10 When Trailing Use Latest Auto/Rule Value

Tick this option if would like any trailing SL to move with the latest SL value from an indicator (auto) or rule. This is useful if want the SL to follow something like a Parabolic SAR or Bollinger Band, where the SL moves with the latest value from the indicator. Note, trail SL also needs to be on as well, i.e. tick 'Trail Stop Loss on By Default'.

When this option is not ticked any SL trail will use the number of pips auto/rule gave at the time of trade open and only move the SL as price improves.

5.5.11 Broker SL Offset from Hidden

The EA will set a broker stop loss that is a given distance away from the hidden level, where the offset is supplied by this box. If % is given then instead of pips, will be percentage of actual stop loss. For example, if set to 50% then broker SL will be 50% bigger than hidden SL level. The broker stop loss is useful if MetaTrader loses internet connection to broker or stops running.

5.5.12 Auto Optimize Stop Loss

Available to Strategy Builder users, will automatically optimize the stop loss by trying the various settings, including various properties of the calculation methods to see which provides the best profit without increasing draw-down. Any improvement is saved to the configuration file on a per symbol/period basis.

5.6 Configure Default Take Profit

Allows default take profit regime to configured, including the number of take profit levels. Partial closes are supported via **Exit %** box. Note, it is possible that take profit level doesn't actually exit the trade, but is used to adjust stop loss, set for break even and/or set for trail stop loss. Best to think of 'take profit' as 'take action' when target price is reached. Note, lots of examples are contained in Appendix A of this manual.

If configuring the EA on per trade index basis, i.e. via 'Changes Apply To', then keep number of take profit levels/targets the same for all trade indexes. However, can set a take profit target not do something, if need be, for certain trade index.

The target price can be expressed as Risk Reward Ratio (RRR), pips, % of account or amount in account currency. If a negative value is supplied then the take profit line will act as additional stop loss line, e.g. can be used a partial stop loss.

Exit % is percentage of original trade (+ any scale-in) to exit. To scale-out of trade then need to increase %, e.g. exiting 25% as each target is reached out of 4 then would need exit % of 25, 50,75,100, respectively for each target.

The Exit % box can also be used to indicate you wish to scale-in when target is reached, i.e. add to your position with an additional ticket. This is achieved by setting Exit % to a negative value, e.g. setting Exit % to -100 will open an additional ticket, when target is reached, to increase your position by 100%.

The **SL:** box allows the stop loss to be adjusted when the target is reached. Use ▼ selection list to see what options are available. If set to number then the stop loss will be set to that when TP target is reached. Appendix A in the manual has some examples.

Advanced stop loss adjustments are supported, where if set **SL:** box to -5 (say) will reduce stop loss by 5 pips when target is reached. Or, if set to -5% will reduce stop loss by 5% of Average Daily Range when target reached. A double % sign can be used to mean adjust SL by % of its current value, e.g. -50%% would reduce size of SL by 50% when target reached.

If double %% sign is used without + or – then will be treated as percentage of account balance or if EA input **Gen_treatDoublePrctAsPrctOnPrice** to true then will be % of current price instead.

Trail SL will start trailing the stop loss after target has been reached.

Break Even will turn on our break-even mechanism for the trade when the target has been reached. Note, this is a separate mechanism to the stop loss. Think of it as a secondary stop loss. Note, the break even is just based on comparison with the original trade open price and doesn't take into consideration any partial closes or scale-ins.

Note, once Trail SL or Break Even ticked then don't need to be ticked on next targets, i.e. will stay on once set.

5.6.1 Set TP from Indicator If It's Configured for That

This can safely be left ticked. It will only alter take profit target price if an indicator has been configured that provides a take profit, i.e. has TP Indexes box populated in CONFIG | Indicator Values to Capture has been set. If such an indicator has been configured then can untick this box to switch to using risk reward/pips target.

5.6.2 Break Even Profit Pips

Allows profit in pips to be captured if price moves to break even point. The profit is after spread has been paid. For example, a value of 1 can cover trade commission. So, break even close will be trigger when the profit in pips reaches 1 or lower.
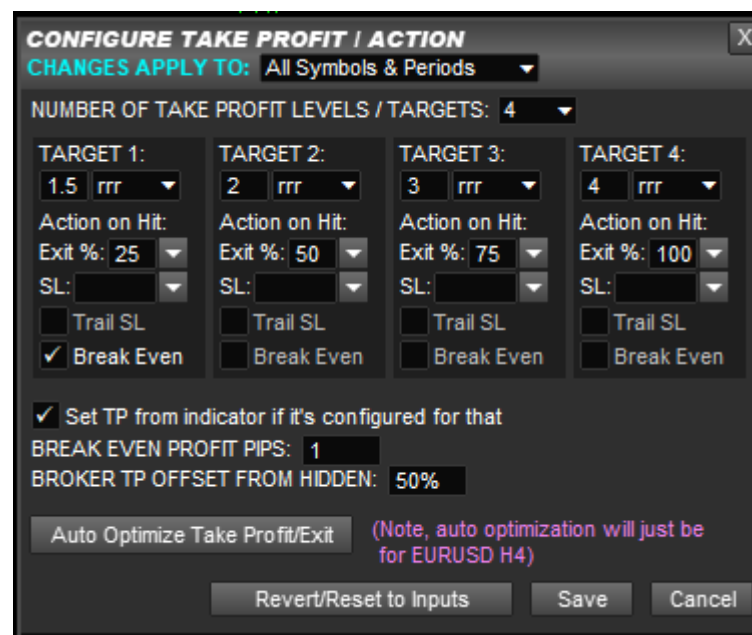
5.6.3 Broker TP Offset from Hidden

The EA will set a broker take profit that is a given distance away from the hidden level, where the offset is supplied by this box. If % is given then instead of pips, will be percentage of actual 100% exit take profit. For example, if set to 50% then broker TP will be 50% bigger than hidden TP level. The broker take profit is useful if MetaTrader loses internet connection to broker or stops running. A broker take profit is only set if there is take profit level where the Exit % is 100.

5.6.4 Auto Optimize Take Profit / Exit

Available to Strategy Builder users, will automatically optimize the take profit setting by trying the various settings. This includes trying partial closes and turning on/off indicator based exit, raise to break even, etc.

5.7 Display Settings

Allows you to remove/size various items that the EA shows on the chart.

5.7.1 Number of Text Lines to Show on Panel

Allows you to specify the number of news lines and the number of status lines (cyan colored) to show on the panel. Smaller numbers will make the panel smaller.

5.7.2 News Vertical Time Lines for Impacts

Controls the vertical dash/dot lines shown on the chart for news events coming up. Here you can select the various impact levels to be shown. By default high impact events are red lines, medium are orange and low impact events are yellow.

5.7.3 Other

Extra tick boxes are shown for controlling the visibility of other items shown on the chart. Namely, average daily range (by default top left), spread (top right) and Ask/Bid prices in big numbers (bottom right).

5.7.4 Panel Items

Allows various buttons/controls on the panel to be added both for sell and buy that allow on-the-fly changes, e.g. change stop loss for a particular trade to one that is different to the default stop loss set via CONFIG button, or to change the Auto Mode so can set to only trade in one direction.

5.7.5 Trend Arrow Indicators

Controls the visibility of our built-in indicators for the direction the market is moving in and number of pips moved that is shown on the panel. Unticking 'show on panel' will hide the arrows, where the 'periods to calc' box gives the timeframes to be calculated, comma separated. Note, calculating these arrows does use CPU time, so set the minimum you are interested in.

5.7.6 Horizontal Indicator Lines to Show

Allows you turn off the horizontal dotted lines for pivots and support & resistance shown on the chart and also stop them from being calculated. Recommend turning them off if not needs as will reduce chart clutter and improve (slightly) CPU performance.

5.7.7 When Panel Minimized Hide

Allows you to specify additional items that should be hidden when the minimize button is pressed in the top right of panel. This can include the various horizontal lines to help declutter the chart.

5.8 Options
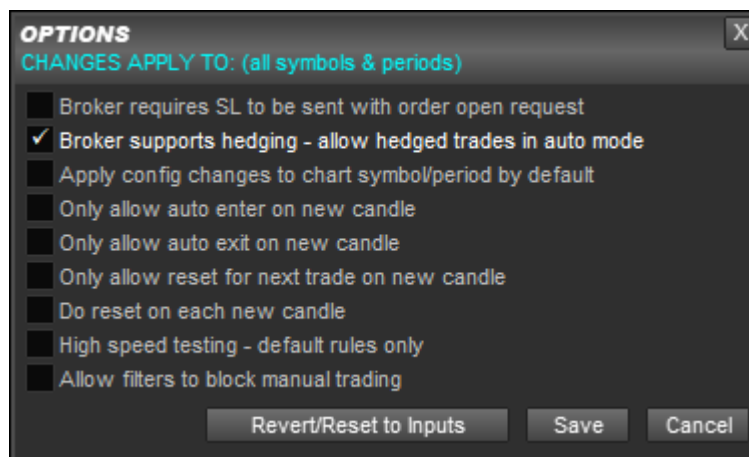
Allows various options to be changed which relates to how the EA works.

Broker requires SL to be sent with order…: Some EU brokers require this option to be ticked. However, classic ECN brokers don't support this being ticked. In the latter case, the EA send a Order Modify immediately after trade open to set the broker SL/TP.

Broker supports hedging: Tick this option to allow auto buy and sell orders at the same time.

Apply config changes to chart symbol/period by default: *** Need to set EA input Obscure_showOptionPerSymPeriod to true to see this option as prone to misuse*** If ticked then 'Changes Apply To' shown at the top of CONFIG pop-ups will be set to 'Per symbol/period' by default. If not ticked then changes will be set to 'All Symbols & Periods'. Of course, we are just talking about the default, you can set 'Changes Apply To' to something else as need be.

 The reason this option isn't shown by default is that it can be quite toxic to have 'Per Symbol/Period' on by default, as can lead to overuse. Usually, you'll configure the system for all symbol & periods and then briefly make small changes that are genuinely needed on a per symbol / period basis.

Note, it's not possible to add indicators just for certain symbols/periods – they need to be added for all. However, you can alter the Enabled tick box in CONFIG | Indicator Values to Capture to turn indicators on or off on a per symbol/period basis and alter other settings.

Only allow auto enter on new candle: Can be used to switch entry configuration rules that will normally work on live candle (on price tick) to just work on new candle open, i.e. candle just closed. Note, won't effect pending orders, just configured trade rules, which by default will be when configured indicators signal.

Only allow auto exit on new candle: Similar to above but for indicator based exit. Note, won't affect the execution of the stop loss, break even or take profit – just related to exiting due to configured trading rules, which by default is configured

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indicators signalling opposite direction.

Only allow reset for new trade on new candle: Similar to above but for when will reset, i.e. when can alert/trade again. If ticked then will ensure don't get more than one alert per candle as reset can only happen on candle open.

Do reset on each new candle: Will allow a trade to happen on open of each candle if indicators are signalling. Useful for indicators that display arrows (say) on particular but potentially consecutive candles in the same direction and wish to open trade for such candles, i.e. if in multi-trade mode – see section 7. Without this option there would be no opportunity for a reset on consecutive candles, i.e. no gap or opposite signal, which would normally be required to say okay to trade again.

This option is intended only for the type of indicator mentioned which puts an arrow/dot on discrete candles that are to be traded. If set this option for indicators that continually signal buy or sell then could get repeated entries on consecutive candles if the stop loss or take profit is hit. This can lead to severe overtrading (potentially trade per candle) where the non-perfect execution of live accounts could turn a profitable strategy into a non-profitable one.

High speed testing – default rules only: If set then will only trade with default rules, i.e. entry/exit on configured indicators. It won't take any filters or other trade rules, e.g. stop loss adjustment, loaded from our library into consideration when testing.

Allow filters to block manual trading: If set and you have downloaded filters from our library then will block manual SELL/BUY buttons if filters are indicating trades shouldn't be opened. You will get an alert which says which filters are active and blocking trading. The SELL/BUY button go grey if blocked in this way. Tip: You can use EA input **Obscure_blockManualTradesOnFiltersEtc** instead, which gives more control like blocking based on trading hours. Tip: Can download rule **m-mfc** from the library if you would like a tick box on the panel for this, so can change on-the-fly.

5.9 Pending Orders
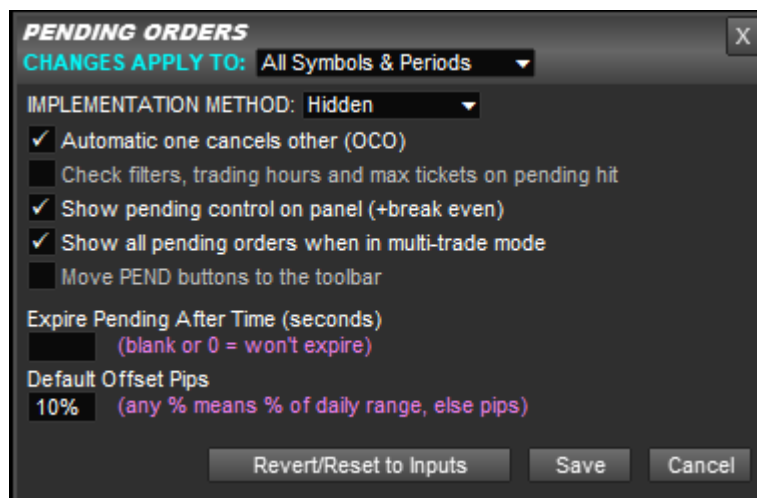
Allows options relating to the EA's hidden pending order functionality to be changed.

Implementation Method: Allows you to switch between hidden pending orders that are managed by the EA, with maximum features, or set pending order with broker. There is also an option of BrokerSpread that will add spread for buy pending orders, so can set target price based on the bid price you seen in the charts and that indicators calculate to. Buy broker pending orders are taken with Ask price reaches target price. Hidden pending orders always operate on the bid price, so can set from the charts which are also bid price.

Automatic one cancels other: If ticked means that is you set both a sell and buy pending order that as soon as one is triggered the other will be deleted/cancelled.

Checking filters…. on pending hit: If ticked system will check any filters loaded from the library, trading hours set in General Settings and max tickets in Risk/Lots. If those items are blocking trading when pending price is reached then the pending order will be cancelled. Note, only works for hidden pending orders that are managed by the EA.

Show pending control: Show pending control on panel, including the break even tick box as well. Can untick if not interested in setting pending orders (or break even) from then panel. Will make the panel smaller.

Show all pending orders….: If ticked then will show all pending orders when in multi-trade mode, i.e. have multiple pending orders for the same direction. See section 7.

Expire Pending After Time: Allows default expiry time to be specified for pending orders. Value is in seconds.
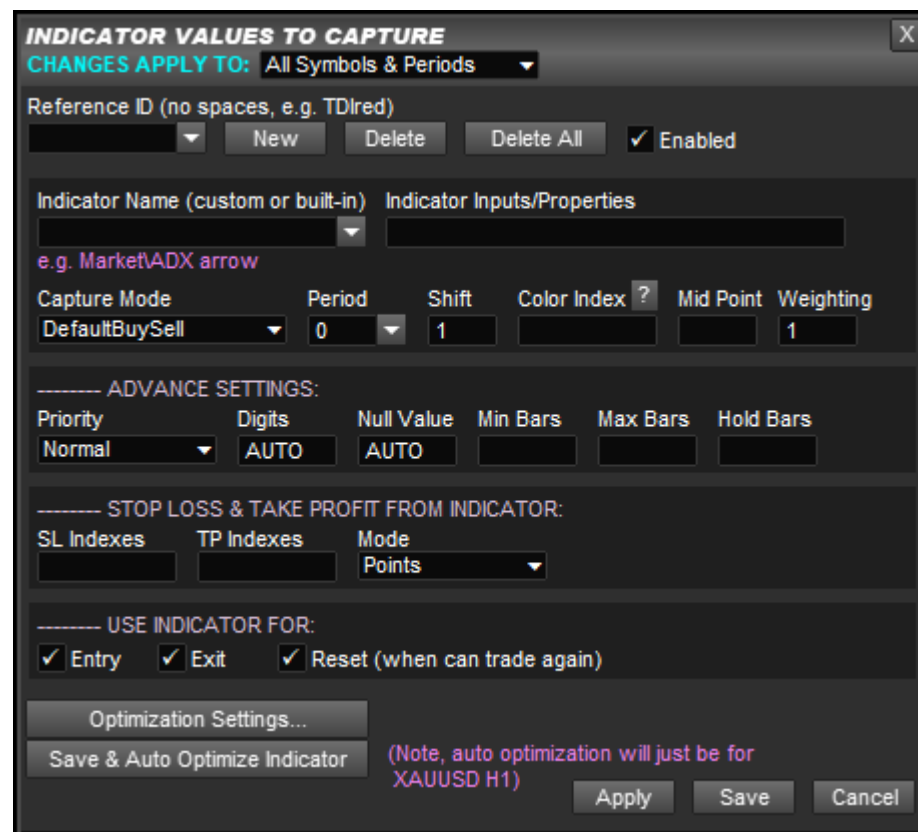
Default Offset Pips: Allows the default offset from market price to be specified. This is both in the Pending: pop-up and for Auto Mode of PND which will set a pending order instead of immediately opening a trade when the configured trading rules signal. This setting gives the pips offset that is used for the pending order based on market price at time of signal. As with other places where you can specify pips, a %

can be added which will use the specified % of the average daily range of the symbol.

It's also possible to configure bracketed pending orders with both buy and sell pending orders set at a configurable distance away from the signal price. Just include **:** before the offset amount. E.g. **:15** will set buy and sell pending order at 15 pips either side of signal price.

5.10 Indicator Values to Capture

Allows indicator to be captured to be specified, which can be used for entry/exit signals and also setting SL and TP if the indicator provides that information. Please see our Videos section on our website (https://www.runwisefx.com/videos.htm) for a tutorial video on configuring custom indicators

Note, Ultimate Trade Manager users will also need our Indicator Combine product for this to work. Not available in our free version of the panel - contact us for upgrade.

The Apply button allows you to save changes without closing the pop-up, so you can then select/create a different indicator.

5.10.1 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'.

5.10.2 New Button

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

5.10.3 Delete Button

Will delete the indicator show in the Reference ID box.

5.10.4 Delete All Button

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

5.10.5 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.

5.10.6 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 http://www.runwisefx.com/rules/si.htm?md=csa for details of each of them.

5.10.7 Indicator Inputs/Properties

Allows indicator inputs to be specified that are different from the indicator's default, which is what you get if you leave blank. The inputs should be supplied comma separated in the order they appear in the Inputs tab of the indicator. Only need to supply up to and including the one you need to change. As setting indicator inputs is common between our products, we have a separate tutorial online for this:
https://www.runwisefx.com/tutorials/indi_inputs.htm

5.10.8 Capture Mode

A variety of capture modes are available to say how the indicator values should be captured/interpreted. For example, if color change red/green gives buy/sell or lines crossing gives buy/sell then these would require different capture modes. As the mode/methods are common between our products, we have a separate tutorial online for this:
https://www.runwisefx.com/tutorials/capture.htm

5.10.9 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.

5.10.10 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.

★★★★★
top tip
Our Shift Helper tool can be used to check the shift setting is correct and should help give reliable stats. See section 6 for more details. You can also examine an indicator visually in MetaTrader's Strategy Tester to see if its value repaints on the candle you are capturing from.

Be careful about supply a negative value to Shift, including in indicator inputs where the indicator also has a shift setting. Negative values look into the future but most indicators don't provide any signal in the future, so won't get any trades if you trade live. Negative value also means stats will look overly good, as effectively looking ahead at happened in the market, which is not possible when trading live.

5.10.11   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 = CrossBuySell)

Note, can click [?] button to activate the Color Index Helper tool what will show you what the color index buffers are saying based at the candle where the vertical cursor line is positioned. Note, by default this will be place at the most recent candle and will have the color set by EA input **Indi_colorIndexBufferCursorColor**. Using this tool you can see which color index is providing the buy and/or sell signals you require. Move the white cursor line by double clicking line to select it, so can see values from different candles, e.g. candles in the buy situation and candles in the sell situation.

5.10.12   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.

5.10.13   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. Can be blank if don't want to include directly in the indicator mix, but want to use the value later, say when checking if one indicator is crossing another one.

The Weighting box can also be used to specify any moving average that is to be applied to the indicator value. This can be configured by adding <maPeriod,maShift,maMode>. Where maMode can be one of sma, ema, smma or lwma. For example, to apply a 10 period exponential moving average, you would put: <10,0,ema>

5.10.14   Priority

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 (in CONFIG | General Settings) are in agreement.

High: Will not show buy/sell color or alert/signal if this indicator is not present in that direction. This is only relevant when Entry Threshold in CONFIG | General Settings is set less than 100. For example, if interested in 4 out 5 (80%) indicators lining up but want to set that a particular indicator *must* be present in that 4 out of 5 then set its priority to High.

HighAndStart – i.e. act as a filter: Will void signal from other indicators if HighAndStart priority indicator(s) aren't in agreement when others signal. With this option the indicator isn't to be included in the main mix, but will cause a grey 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 grey 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).

Do not set all indicators to have priority HighAndStart. Otherwise, there will be no 'start', i.e. no indicators to give the main signal. In other words, nothing to filter, so won't get any alerts/trades or statistics.

5.10.15   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 then second then will be assumed to be reversal strategy.

If \ is used, e.g. 80\20, then will signal buy when value < 80 and signal sell when > 20. Note, \ is only support by DefaultBuySell capture mode, no OnCross.

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)

Mid point can also contain a colon give value required for buy first and value required for sell second. For example, **1:2** would mean indicator would need to be returning value of 1 for buy signal and value of 2 for sell. This is useful for MetaTrader 5 indicators that return index buffer that is one value for one color and another value for a second.

5.10.16   Min Bars

Minimum number of bars that indicator needs to signal for before it will be included into indicators total. This can be used to make sure the indicator has given a signal for number of bars before a trade can happen based upon it.

Note, if the indicator briefly goes to 0 rather than opposite direction then count doesn't get reset but the indicator will contribute 0 to the indicators total until it returns back. Only if the indicator goes to the other direction does the count get reset.

5.10.17   Max Bars

Maximum number of bars that indicator can signal for in a certain direction before indicator regarded as void (not signalling). Used to limit trades close to where indicator transitioned for buy to sell or visa versa. If blank then no max bars limit.

5.10.18   Hold Bars

If set will hold/remember the indicator value for a specified 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 indicators total, 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.

5.10.19   Stop Loss and Take Profit from Indicator

If the indicator provides a stop loss value that you are interested in then you can use 'SL Indexes' box to specify the color indexes that give the SL. If two buffers are used

then specify buy SL color index first followed by comma and the sell color index second.

Similarly, can set TP indexes that give take profit if indicator provides that. If multiple take profit levels are provided then simply comma separate the indexes that provide them. If different indexes are required for buy and sell then use ':' to separate them and provide buy ones first, e.g. **1,2:3,4**

Both SL and TP indexes boxes support providing object name, by specifying o(*objectName*), e.g. SL index could be set to **o(buySL),o(sellSL)** this would look for an object called buySL to provide SL for buy trade and sellSL for sell trade. Note, if using this don't forget to set Mode to price, as mentioned below. If the indicator places multiple objects on the chart, say historically, and just want latest then set EA input **Indi_SLTPobjFindLatest** to true and set EA input **Indi_SLTPobjFindType** to type of object. Note, in this latter case only need to supply part of the object name.

Mode box allows you to say how the indicator provides the SL/TP, as some may give it points (or pips) or some the specific price. Note, if an indicator happens to provide both SL/TP as either prices or points/pips then we recommend choosing points/pips in preference to price.

For the stop loss from indicator to work you also need to select the auto calculation method to CustomIndicator in CONFIG | Stop Loss and have AUTO selected in the radio selection list. For Take Profit need to have 'Set TP from indicator if it's configured for that' in CONFIG | Take Profit. Also for take profit set number of levels/targets to what the indicator provides also set 'action on hit' section for each target.

5.10.20   Use Indicator For

This allows you specify if the indicator should contribute to the totals for entry, exit or reset. Exit are the indicators that need to go opposite for an exit to happen. Reset concerns what indicators need to go opposite before another trade can happen later on, i.e. used to detect fresh move/trade.

Be careful about specifying an indicator for exit but not entry. Could mean that both entry and exit could be signalled at the same time. In theory that would cause a trade to be open and then immediately exit, which is obviously not good. Worse still this could in theory repeat if exit was also reset. Our EA does protect against this and will block a trade entry if will immediately exit due to exit criteria. However, only meant to last resort safety check and not intended to be relied on.

5.10.21   Optimization Settings

Use Optimization Settings… to give the start/step/stop of the inputs you wish to vary during optimization. Input # is the input number where 1 is the first one, 2 second, and so on. Start/Stop is the range to be tried when optimizing and Step is the step to be used to between each calculation pass. Optionally, you can just Step box to the values you wish to try, separated by **|**.

For example, to optimize F:MovingAverageCross with Indicator Inputs set to **8,24,0,ema** you could set the following:

This is vary the first input (number 8) from 5 to 12 with a step of 1 and the second input (number 24) from 15 to 40 with a step of 2. For the forth input, Step has been set to try various values separated by a **|**, e.g. sma|ema|smma|lwma.

Can set Input # to 0 in order to optimize Mid Point value. Note, if Mid Point is oversold/overbought (say) then keep Start and Stop blank and just set Step to, for example, 40/60|35/65|30/70|25/75|20/80

You can use the 'Save & Auto Optimize…' button to optimize a particular indicator. Our start optimization in bulk via CONFIG | Stats / Optimization – see section 5.15.

5.11 Trading Logic Rules

Can be used is disable any trade rules that have been loaded. Note, if you would like to delete a Quick Load Code from your configured then use Remove button in CONFIG | Tools.

Enabled: If unticked then will disable the rule

Void signal if filter not in agreement: If ticked and rule is a filter then will void signal (say from indicators) if the filter is not in agreement at the time of the signal.

5.12 Rule GUI Controls
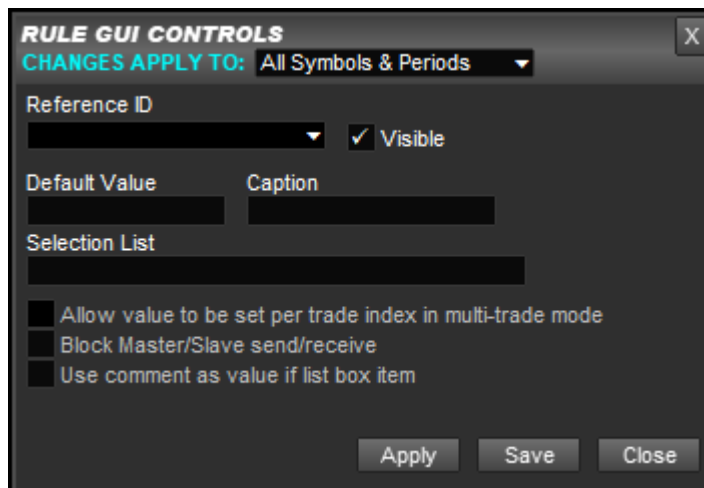
Allows any configured Rule GUI (Graphical User Interface) Controls, which appear at the bottom of the panel, to be altered, e.g. to change default value. Use Reference ID to select the control you wish to amend.

Visible: Can unticked so that item isn't seen at bottom of panel and Default Value will just be used. This can make the panel smaller and less cluttered.

Allow value to set per trade index in multi-trade mode: If unticked then any value will be used for all trade indexes (magic numbers) when in multi-trade mode – see section 7. However, when ticked can specify values for each selected trade index.

Block Master/Slave send/receive: If ticked then will block rule GUI item changes from being sent from Master or received by Slave, when in multi-account mode.

Use comment as value if list box item: If ticked and rule GUI item is a selection list then will return comment of list item if GUI item is referred to in the rules. The comment is the text after the hyphen in the Selection List.

The Apply button can be used to save changes without closing the pop-up box. This allows you to then select a different Reference ID and make changes to that too.

It's possible to have the Default Value come from EA inputs. If set Default Value to {c.user_configStr1} then will use value from EA input **User_configStr1** – up to 10 provided. Can also specify (say) {c.User_configNum1} for numeric inputs, **User_configNum1**, and {c.User_configBool1} for boolean (true/false) inputs, **User_configBool1**.

5.13 Tools
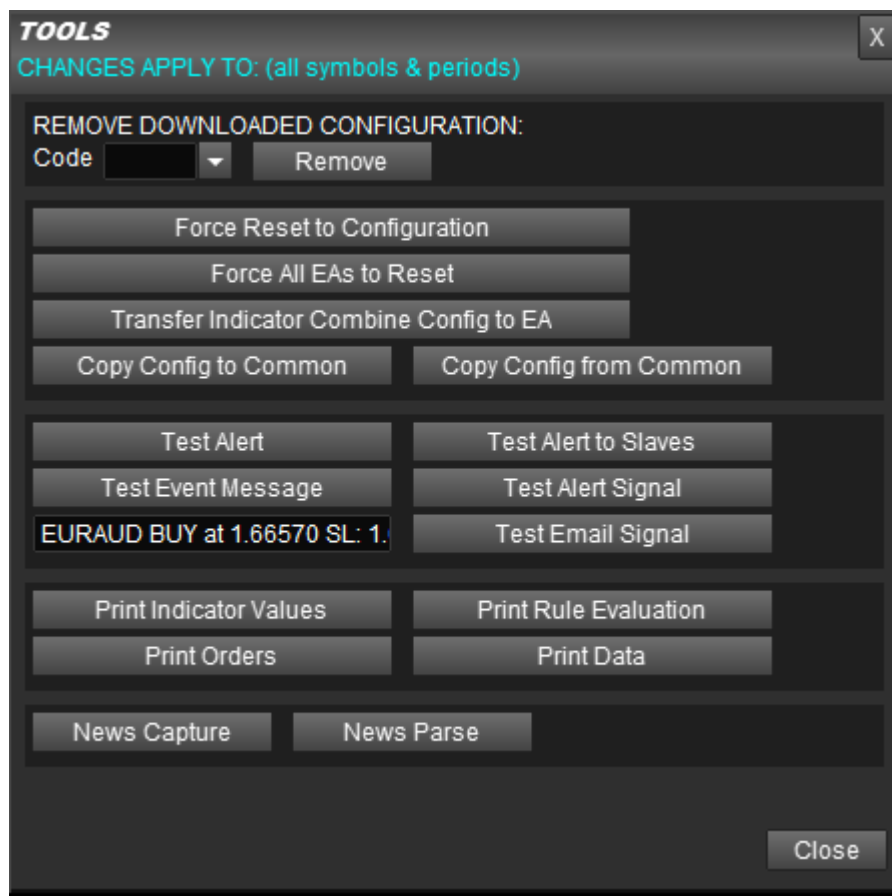
Contains various tools that you won't normally need to use, but may be asked by us to use, e.g. to help diagnose a problem (say). The exception is 'Remove Downloaded Configuration'. With this you can enter a quick load code in Code box and click Remove button to remove that configuration from your current configuration. There is also a [v] selection list of code that have been loaded. The following addition codes can be selected:

Code	Outcome
.	Will remove any symbol/period specific configuration items, i.e. will end up with same configuration values for all symbols/periods.
*.	Will reset configuration values to defaults, e.g. SL / TP etc. (excludes rules and indicators, i.e. will leave those alone)
*	Will delete configured trade rules and trade GUI controls. Indicators will remain, plus settings for SL/TP, etc.
**	Will reset configuration file to default, i.e. what you get when you add EA to chart for first time.

<u>Other buttons that maybe useful:</u>

Force Reset to Configuration: Will reset EA to configured defaults even if a manual change has been made, unless trade is open. Normally, when configuration is re-read any on-the-fly manual settings, e.g. moving SL line or adjust auto entry mode will be preserved. However, this button will blindly reset all EA's data the defaults specified in the configuration file. The only exception is where a trade is open, as it's essential to preserve things like the current stop loss (otherwise could increase risk). A reset will happen when the trade is closed.

Force All EAs to Reset: Similar to 'Force Reset to Configuration' but will be performed by all EA instances running on the platform.

Test Alert Signal: Use this button to generate an alert shown in the text in the box to the left. This can be used to test your Signals configuration of our Windows app.

Test Email Signal: Use this button to send an email with the text in the box to the left. This can be used to test your Signals configuration of our Windows app. The button calls the same SendEmail function of MetaTrader that indicators would use, so is a realistic test.

Transfer Indicator Combine Config to EA: Useful for users that have made the switch from our Indicator Combine product to our EA. This will copy over the configuration and implement on the EA.

News Capture: Will get latest news from our website and store locally in a file and parse into memory. Note, this is done every 24 hours automatically.

News Parse: Will just parse the local file with news events into memory.

5.14 Advanced
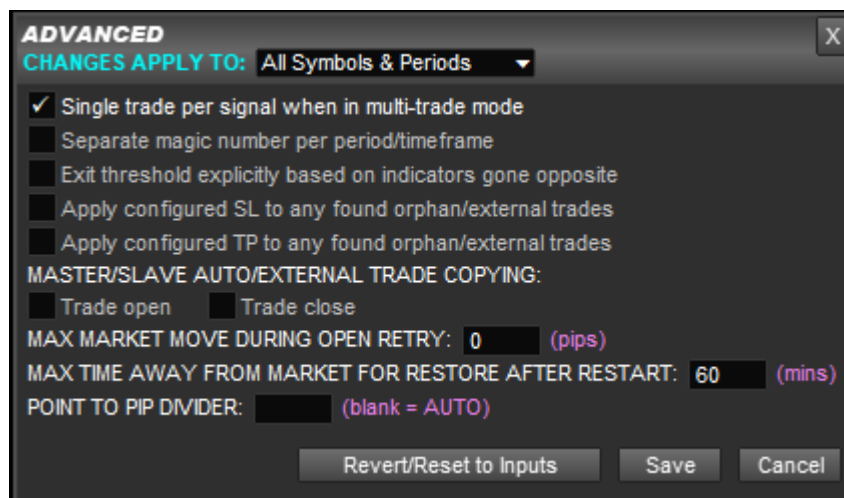
Single trade per signal when in multi-trade mode: If ticked then will automatically allow a trade signal to only enter on one of the available trades, when in multi-trade mode. If unticked then will open multiple trades if get trade signal, when in multi-trade mode.

Separate magic number per period/timeframe: If ticked then will auto allocate a different magic number depending on the chart period. Useful if wish to trade multiple time frames at the same time. Different magic numbers will allow the trades from the different time frames to be managed separately.

Exit threshold explicitly based on indicators gone opposite: If ticked then will change how exit threshold is calculated. The indicator will have to have gone opposite direction to be counted for exit, i.e. if indicator no longer signalling buy or sell then it won't be considered.

Apply configured SL to any found orphan/external trades: If ticked then will apply configured stop loss to found orphan/external trades, i.e. trades not opened by our EA. This allows our EA to 'take over' the trade and use the SL you have configured. If unticked (default) then will just use any SL the trade had.

Apply configured TP to any found orphan/external trades: If ticked then will apply configured take profit to found orphan/external trades, i.e. trades not opened by our EA. This allows our EA to 'take over' the trade and use the TP you have configured, including partial closes. If unticked (default) then will just use any TP the trade had.

Master/Slave Auto/External Trade Copying: If using our Master/Slave mode, mentioned in 5.3.2, then will open/close trades on the Slave(s) if sees trade open/close on the Master, even if those trades are from external source (e.g. from other EA) or automatic (e.g. due to configured trade rules). Provides trade copying of automated trades seen on the Master. Can tick if open and/or close should be copied. Note, doesn't not copy SL or TP. Will just use SL/TP configured on Slave. However, if trade closed on Master due to SL/TP then will close on Slave(s) if 'Trade close' has been ticked.

Max Market Move During Open Retry: If a trade can't be opened immediately, e.g. spread too high, slippage or broker returned temporary error, this input says how many pips the market can move against you for the retry to still be allowed.

Max Time Away from Market for Restore After Restart: If not blank then will restore settings if restart MetaTrader or close chart and re-open. For example, will restore any pending orders or manually set SL, etc. This is done intelligently, so if pending order reached whilst MetaTrader/PC was restarting then will be cancelled when EA is running again. The value is the number of minutes can be away from live market for this restore happen. Past this time the saved data is regarded as old and won't be restored. Note, time only includes when market is open, so fine to have your PC turned off over the weekend if market closed, without increasing this time.

Point to Pip Divider: Can be used to override our auto setting of what a pip is regarded as. If blank then automatically sets to classic pips, i.e. where 1 pip is a 0.0001 change for EURUSD, regardless of whether using '4 digit' or '5 digit broker'. So, if set stop loss to 20 pips then would exit EURUSD trade if price deteriorated by 0.0020. If set Point to Pip Divider to 1 then points will be used throughout the system, where, for a '5 digit broker', 1 pip is 0.00001 change on EURUSD. So, would need to set stop loss to 200 to get the same exit as described for classic pips. Users trading indices asset class might benefit setting this to 100 which will make each 'pip' one basis points. Values should be multiples of 10, i.e. 1,10,100,1000 etc., with blank being auto.

For symbols that have no digits after the decimal point for their ask/bid prices then 1 pip will be 1 unit change in the price if EA input **Gen_pointToPipDivider1for0digits** is set to *true* (default) and Point to Pip Divider box is *blank*, i.e. auto.

5.15 Statistics / Optimization

Used to control the statistics calculation and optimization. Note, Ultimate Trade Manager users will also need our Indicator Combine product for this to work. Not available in our free version of the panel. Contact us for upgrade.

Provides options to activate Strategy Builder mode by default on start-up and whether to use a temporary file for configuration changes so doesn't interfere with current trading.

How far back the statistics calculation goes can be specified either in terms of bars or days. Note, if both are supplied then bars will be used, so blank bars out if want to use Days. The Days box can also contain a date range instead. Note, the end date can be omitted, e.g. can just put 2021.01.15-

The Model Quality should be set to High if you are using a trailing stop loss. The High mode uses M1 chart to more accurately following fluctuations in the price – needed for trailing SL. Note, in MetaTrader 4 you may need to use the History Centre to download chart data for the chart symbol so the M1 chart is fully populated.

Use the 'Scope' selection list to select what should be optimized and use START button to begin optimization. If 'Send bulk optimization Start press to all EAs' then will automatically request other instances of the EA on other charts to start optimizing as well.

Optimization trigger allows optimization to be triggered automatically when market closes, i.e. at the weekend. There is also an option to optimize continuously. Note, if

optimizing continuously then will increase CPU load but the EA is designed to prioritise live trading.

A 'max draw down for profit improvement save' allows you to specify a maximum draw down where improvement profit will be saved, during optimization, provided draw down does not exceed the given value and the improvement in profit is bigger than any increase in draw down. If left blank then improvements in profit will only be save if draw down remains the same or is less.

Activate Shift Setting Helper when run MT strategy test: Will activate a tool described in the next section when you run a strategy test using MetaTrader's Strategy Tester. See next section for full details. Market processing off option will turn of live/demo trading and use all CPU for optimization.

The results of the optimization, i.e. the settings that yielded improvement, get saved to runwiseFX_optimResults.csv file in the MQL4\files of your MetaTrader data folder (or MQL5\files on MT5). With each improvement recorded on a separate row. Any fields with * means that item did not change for the original run at start of the optimization. The file is comma separated values that can imported into other programs, such as a spreadsheet.

Note, 'Market processing off' option will prevent MetaTrader's Strategy Tester from being able to produce any results, as that simulates live trading.

We don't recommend trying to optimize the M1 timeframe. M1 is generally regarded as random, so really no chance of optimized settings being helpful going forwards.

5.15.1   Advance Optimization Settings

This allows you full control over the optimization process. The pop-up allows you specify the items you wish to optimize, with each item on a separate row. Examples of optimization items include indicator inputs, indicator priority, stop loss method, take profit amount, etc.

After setup advance settings you use the 'Advanced' item in the Scope selection list when using Start button to start optimizing.

So, let's look in detail how you configure advance optimization. Here is the advance optimization configuration pop-up. As mentioned, separate rows are used for each configuration item:

Groups are used to prevent the number of combinations from getting out of hand. Each group is optimized in turn. So for example, could tick Group A for indicator inputs and SL then use Group B for take profit. Tick which group you wish the item to belong to. You can tick more than one to say re-optimize SL after other items have been optimized.

The item column is where you select the item you wish to optimize. The following items are available for selection via the [v] button:

i.*	Indicator input optimization. Use # column to set which input wish to optimize, number 1 upwards.Note, make sure you've configured the indicator with the inputs up to and including the one you would want to optimize in the Indicator Inputs box in CONFIG | Indicator Values to Capture.
i.*.midPoint	Allows Mid Point box of the indicator to be optimized.
i.*.period	Allows Period box of indicator to be optimized. Recommend leaving Min & Max blank and setting Step say to M15|M30|H1 etc., this will try those time frame periods in turn.
i.*.priority	Allows Priority box of indicator to be optimized. 0 is Normal, 1 is High and 2 is HighAndStart. To optimize Normal and HighAndStart then set Min/Max to blank and set Step to 0|2
SL	SL method, where -1 is fixed pips and 0 and above are the various auto calculation methods, as follows: 0 = MovingAverage, 1=RunwiseFX, 2=ParabolicSAR, 3=ATR, 4=SwingHiLow, 5=RecentHiLow, 6=CustomIndicator, 7=BollingerBands,

	8=Envelopes, 9=Fractals
SL.value	This will give the pips to use for fixed stop loss or if auto then will be used to try the various properties of the calcuation method. Note, the system will automatically scale the supplied min/max to what is appropriate to the auto calcuation method.
SL.trail	Optimize if stop loss trail should be on by default. Recommend setting Min/Max to blank and set Step to 0|1
TP	Take profit size, i.e. pips if Important_tpRiskRewardAsPips EA input is set or risk reward ratio. Don't forget to set # column with target wish to optimize. If blank then will assume target 1.
TP.exit	Take profit exit percentage.
TP.SL	Take profit adjust of stop loss when take profit target is reached
TP.trail	Take profit turn on trailing when target reached. Recommend setting Min/Max to blank and setting Step to 0|1
TP.brkEven	Take profit break even when target reached. Recommend setting Min/Max to blank and setting Step to 0|1
exitThresh	Exit threshold. If which to try exit on indicaotr on/off during optimization then set Min/Max to blank and set Step to |100 This will try Eixt threshold of blank, i.e. off, and 100, where will exit when configured indicators have gone in opposite direction.

The # column needs to be set if optmizing indicator inputs to say which input. Or, if optmizing take profit to say which target. Note, all are numbered 1 and upwards.

Min/Max/Step gives the values to try during optimization. Note, you have the option of leaving min/max blank and setting Step with values to try seperated by |. For example, if optimizing moving average method could to set Step to `sma|ema|smma|wma`, which would try those methods in turn.

Here are some examples:

Example 1) Optimize auto SL settings but keeping method the same, e.g. ATR
Firstly, configure system with the SL auto calcuation method you want to use via CONFIG | Stop Loss. Then set the following line in Advance Optimization Settings
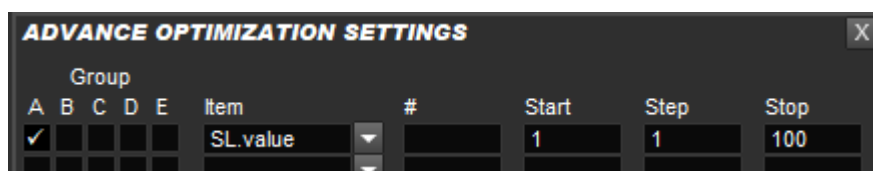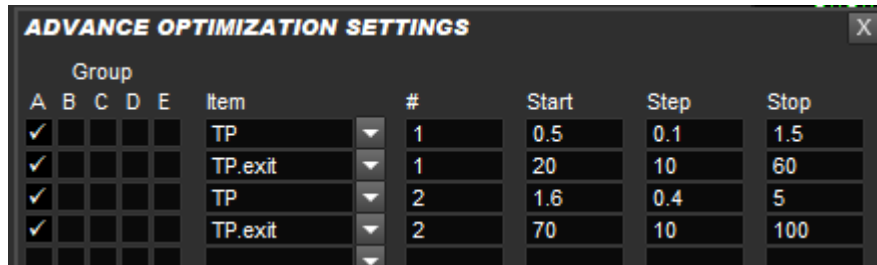
The system will automatically map the 1 to 100 to meaningful values for the propreties that the auto calcuation method has, e.g. for ATR will try appropriate

period and multiplers.

Example 2) Optimize TP profit levels
Again configure take profits via CONFIG | Take Profit, e.g. two levels using risk/reward. Then need to add entries in Advanced Optimization for each level (use # column to specify level number)
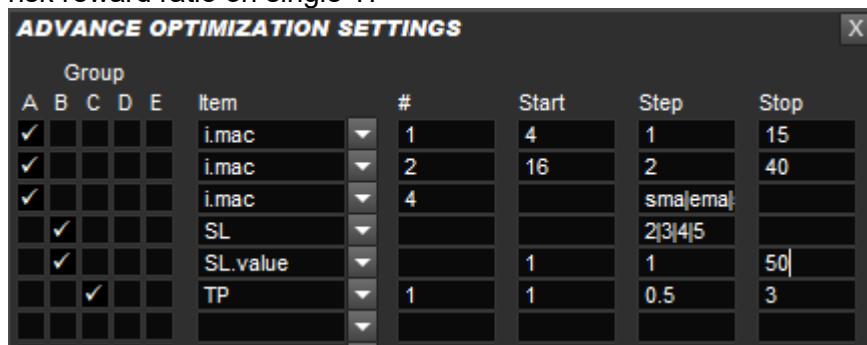
ADVANCE OPTIMIZATION SETTINGS							X
Group							
A B C D E	Item		#	Start	Step	Stop	
✔	TP	▼	1	0.5	0.1	1.5	
✔	TP.exit	▼	1	20	10	60	
✔	TP	▼	2	1.6	0.4	5	
✔	TP.exit	▼	2	70	10	100	
		▼					

This will try various risk/rewards and exit % for two levels.

Example 3) Optimize indicator, SL & TP
Optimize F:MovingAverageCross built-in indicator, with certain different SL types and risk reward ratio on single TP

ADVANCE OPTIMIZATION SETTINGS							X
Group							
A B C D E	Item		#	Start	Step	Stop	
✔	i.mac	▼	1	4	1	15	
✔	i.mac	▼	2	16	2	40	
✔	i.mac	▼	4		sma|ema|		
✔	SL	▼			2|3|4|5		
✔	SL.value	▼		1	1	50	
✔	TP	▼	1	1	0.5	3	
		▼					

Note, the step box on the third line is sma|ema|smma|wma

5.16 RunwiseFX Mobile App

Show status of mobile app connection to the EA. Our mobile app requires installing our Windows application as well, which acts as a communications gateway and allows you to configure password access. Please see www.runwisefx.com/app.

6 SHIFT SETTING HELPER TOOL

The shift helper tool allows you to make sure the Shift box setting is correct in Indicator Values to Capture pop-up, when capturing custom indicators. Having the shift set incorrectly can cause misleading stats and trade entry/exit that doesn't match the indicator when you look back through the chart.

The tool displays the following panel which shows rows for each configured indicator and if the various possible shift settings (5 to 0) are ok or repaint (!!). The 'current' column shows if your current setting is ok and will advise if change required, e.g. in the screenshot below the 'ts' indicator needs its shift setting changed from 1 to 2 as the current setting of 1 is repainting as '!!' is shown. And indicator 'tdig' can have it's shift setting lowered from 2 to 1 as 1 isn't repainting and want lowest possible value that doesn't repaint. Note, if see – then means shift isn't giving buy/sell.

Here are the steps to use the tool:

- Got to CONFIG | Statistics / Optimization pop-up and tick 'Activate Shift Setting Helper when…' option and click Save

- Click CONFIG | Copy to Tester button (towards lower right of that pop-up)

- Then run the EA in the MetaTrader's Strategy Tester with Model set to 'Control points…' in MT4 or '1 minute OHLC' in MT5. The symbol doesn't matter. Recommend period of M15. Also run in visual mode. You'll see the above Shift Setting Helper panel appear on the chart, while the test is running.

- Keep test running until 'bars/candles checked…' comment in shift helper has reached at least 250 but 1000-2000 better

After you've used to the tool you can update the Shift settings that were recommend. Of course, do this on a normal chart, not in the Strategy Tester chart, so changes get saved to configuration that will be used going forwards.

Be careful with indicators that check upper time frames. They often repaint but that repaint isn't apparent to Shift Helper Tool, as happens after many more than the 5 candles that the tool checks. **Tip:** If wishing to check upper time frames it is much better to use indicators that work on the current time frame and set our Period box in CONFIG | Indicator Values to Capture.

Our Shift Helper tool goes a long way to making sure your Shift setting is correct and the indicator value being captured is stable. However, we always recommend still running your finished strategy in the Strategy Tester in visual mode to check the trades made match your indicators and also match the simulated trades if using our Strategy Builder mode – see section 11

7 MULTI-TRADE MODE

The EA can be configured to operate in a 'multi-trade' mode, where it can manage multiple trades/pending orders for the same symbol and direction (buy/sell). Each trade/pending order can have its own stop loss and take profit settings and operate independently. [This is in contrast to opening additional tickets by Scaling-In, where the same stop loss and take profit is used for all scaled-in tickets.] Each trade will have a separate Magic Number (Expert ID), so the EA can keep track of which stop loss / take profit relates to which open ticket.

Note, you can still scale-in in multi-trade mode, where the additional tickets will have the same magic number as the trade they relate too.

To configure multi-trade mode, click CONFIG button | General Settings button and enter number of additional trades/pending orders wish to have for any given symbol/direction in the 'Max Simultaneous Trades' box. You can also enter multi-trade mode by using the + button that appears when trade is open or pending order is set.

In multi-trade mode a 'Selected Trade' selection box appears on the panel that allows you to select which trade you wish to manage via the panel and see lines on chart. For example, to change the stop loss for Magic Number 3 then select it first with Selected Trade and then use the control panel/line on chart to adjust the stop loss. Note, as always, moving a stop loss line on the chart will only work if SL mode is set to MAN (manual).
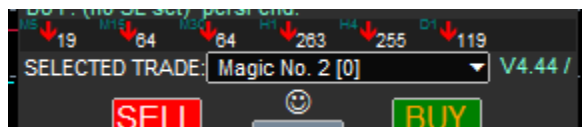
 Selected Trade selection box

Note, any trade rule controls shown at the bottom on the panel are, by default, not specific to the selected trade, i.e. relate to all trades. However, they can be configured to be per selected trade. This is done on a per control basis.

> **The dreaded FIFO rule:** If you live in the US or use MetaTrader 5 (with netting type account) then the FIFO rule can get in the way of being able to manage separate trades on the same symbol on the same account. The FIFO rule prevents a trade from being closed if there is an earlier trade (ticket) still open. Please bear this in mind if your broker requires you to follow the FIFO rule and you wish to use multi-trade mode.

8 BUILT-IN INDICATORS

The EA is supplied with several built-in indicators. The first is shown within the control panel that gives the direction the market is moving in with arrows on multiple timeframes. The number next to the arrow is the pips moved in that direction and can used to know how much of the move has been missed. Note, the timeframes shown can be configured via the input property **via CONFIG | Display | periods to calc**.

Daily support & resistance lines can be shown via CONFIG | Display and also Daily, Weekly & Monthly Pivots.

The average daily range is shown in the top left of the chart, together the percentage of that range that the symbol has already done. If that percentage is approaching 100% or exceed 100% that it can be an indication that the symbol may not move much more in the current trading day. Finally, the current spread is shown top right, color coded if spread is high. The current ask/bid prices are show bottom left in large text. Again color coded if the price is going up, down or the same (yellow). These items can turned on/off in CONFIG | Display | Other tick boxes (top right of Display pop-up).

9 IMPORTANT CONSIDERATIONS

The EA must remain on the chart of the symbol for which a trade has been opened. Otherwise, the hidden items, including breakeven and auto exit will fail to work.

Your internet connection and login status with your broker must remain in place for the hidden items, including breakeven and auto exit to work. The broker stop loss and take profit will be the fallback if this fails.

A smiley face ☺ is shown in the top right of the EA's control panel that indicates that the EA is allowed and is able to trade (including being able to a close trade (say) when a hidden stop loss is hit).

If you see a sad face ☹ then check trading allowed/login and internet status, as the EA believes it is unable to trade and the hidden items including auto exit and breakeven will not work.

10 STRATEGY AUTOMATION

The built-in rules that the EA supplied with are capable of entering and exiting trades when the configured indicators are in agreement. You can download additional rules, e.g. exit before news or close all trades when equity target on account is reached from our library at: http://www.runwisefx.com/library

Our EA can also be configured with more complex, bespoke, trading rules that can alert, open/close trades, setup pending lines, adjust stop loss and more, based on indicator/chart object values, candle values and other information from MetaTrader. The rules can also be interactive with extra control panel items, such as tick boxes, input boxes, buttons, etc. that the rules can act upon. If you are interested in amending/writing your own rules the please see our document: http://www.runwisefx.com/runwiseFX_CSA_Rule_Writing_Guide.pdf

We can also write bespoke configuration for you. Email us at: support@runwisefx.com

11 STRAEGY BUILDER

This section covers the Strategy Builder version of EA. This allows you see real-time statistics of Win Ratio/Profit/Draw Down of the configuration currently loaded. This is achieved much more conveniently and faster than using MetaTrader's own Strategy Tester.

11.1 Activating Strategy Builder Mode

Click CONFIG button and Click 'Activate Statistics' button shown at the top of the pop-up. This will switch to Strategy Builder mode that will calculate and display statistics for currently configured strategy/settings, i.e. currently configured indicators and stop loss and take profit/exit regime, along with trading hours set in CONFIG | General Settings.

You can de-activate Strategy Builder mode by press CONFIG button and press button again.

Note, our stats works by looking back at the chart and using signals from indicators shown on close of candle. It also can look at built-in stop loss methods and configure take profit regime. It requires you to use non-repainting indicators. For more complicated setups, e.g. using rules from our library or repainting indicators or trading during candle then can use MetaTrader's Strategy Tester.

11.2 Understanding Statistics Shown

- Trade Days is number of days tested. You can increase this by CONFIG | Statistics / Optimization and setting STATS CALCULATION – how far back.

If Trade Days isn't as high as you are expecting then you can use History Centre of MetaTrader 4 or scrolling back if MetaTrader 5 to get more chart data loaded. However, recommend restarting MetaTrader after this. Also, make sure in MetaTrader Tools | Options | Charts | Max Bars in Chart that the value there is large enough to accommodate the number of bars you wish to test over.

- Num Trades is number of trades that occurred during trades days

- Trades per Day is the average number of trades that happened per day

- Win Ratio % is the percentage of trades that did not result in loss

- Consec Win/Loss: Is the largest number of consecutive wins followed by largest number of consecutive losses during the test days.

- Profit % is the profit made on the account start balance. The value in brackets is the change since the previous configuration, which will go orange color if worse. Note, if risk per trade is set to fixed amount then profit will be in that amount. If risk per trade is set to fixed lots then profit will be shown in pips.

- Draw Down % is the maximum draw down that occurred during the test period. The value in brackets is the change since the previous configuration, which will go orange if worse, i.e. higher. As with profit, if risk per trade is set other than percentage then will be shown in the same units as profit.

11.3 Refresh & Revert Button

The Refresh button will recalculate that the statistics, say if you have download history data from the history centre. Note, refresh automatically happens if there are any configuration changes.

The Revert button will re-load the configuration prior to the most recent change. This button is useful if you make a configuration change that make profit and/or draw-down worse (will go color orange) then simply press Revert to restore previous configuration.

11.4 Show Other Chart Results

Use this tick box to see results from other EAs running on different charts. This allows you test multiple symbols / timeframes at the same time. The pop-up also has 'Change on Last' row, which is the improvement (or not) of profit and drawn down (DD) after a configuration change. **Tip:** You can use the Revert button to go back to previous configuration if the change made things worse.

The Other Chart Results pop-up is as follows:

	Profit %	DD %
EURUSD/H1	217	20.69
EURJPY/H1	187.3	18.44
EURJPY/M30	84.27	10.68
EURGBP/H1	68.16	10.89
EURUSD/M30	58.7	16.16
GBPJPY/H1	48.76	5.57
GBPUSD/H1	43.31	4.41
EURGBP/M30	30.85	21.95
GBPAUD/H1	21.96	1.54
GBPJPY/M30	21.18	6.32
EURAUD/M30	16.05	9.84
GBPUSD/M30	8.93	9.97
GBPAUD/M30	0.39	5.3
EURAUD/H1	-2.23	12.13
AVERAGE	57.47	10.99
Change on Last	.....	.....

11.5 EA Inputs for Strategy Builder

There are some extra EA inputs for Strategy Builder users:

Variable	Description
StratBuild_advOptimMaxLines	How many rows are available to be edited when click Advance Optimization button
StratBuild_arrowFontExtra	Increase value to make arrows bigger showing where simulated trades where opened
StratBuild_binaryOptionRiskRewardRatio	Risk reward ratio to be used for profit calculation when in Binary Options mode. Value of 0.85 would mean you get 85% return on amount risked if trade successful.
StratBuild_closeTradesStillOpenAtEndOfTest	If *true* then will close any virtual trades that are open at the end of the test and add them to the statistics. Note, can cause fluctuations in stats if trade is indeed still open as profit will depend on current live market price, if market is open.
StratBuild_commissionPips	If set then will reduce balance by broker's commission charge based on trade position size (lots) when trade is opened. Commission is expressed in pips, i.e. amount of pips that gives the amount of commission. A value of 0.5 is usually appropriate.
StratBuild_displayMaxTrades	Maximum trades to display on chart – does not affect statistics.
StratBuild_highModelPipResolution	Increasing this value (say to 2) can increase speed of testing in high resolution mode, but at the expense of accuracy.
StratBuild_indicatorDisplayBars	Number of bars/candles to show combined indicator value at the bottom of the chart – does not affect statistics

Variable	Description
StratBuild_indicatorDisplayHeight	Height in pixels of combined indicator value shown at the bottom of the chart
StratBuild_logDisplayLines	How many lines to show when 'show log' is ticked. This is used for debugging.
StratBuild_logDisplayWidth	How wide log should be in pixels
StratBuild_maxDrawDownAuto-MaxConsecLosers	If 'Max Draw Down for Improvement Save' is set to AUTO then will allow solution if profit improvement is greater the DD deterioration provided no more than this number of consecutive losing trades were encountered.
StratBuild_onByDefault	If *true* then will calculate and show statistics when EA added to chart, i.e. on start-up. If *false* then need to manually activate statistics via CONFIG button
StratBuild_optimCopyIndiInputsTo OtherInstances	If *true* then when optimizing indicator it will copy the inputs to other instances of the same indicator, provided they don't have optimization settings configured.
StratBuild_optimResultsAllInProfit	If *true* then will output all optimization runs that were profitable.
StratBuild_optimResultsConsecWinLoss	If *true* then will output peak consecutive wins and loses to the optimization results CSV file.
StratBuild_optimResultsOnlyOutputChanges	If *true* then will just output * for any columns in optimization runs where value didn't change.
StratBuild_optimResultsWinRate	If *true* then will output win rate % to the optimization results CSV file.
StratBuild_otherChartsResultsOrder	Controls how 'other chart results' table is ordered, i.e. if on profit or draw-dawn. This can be used to show best performing symbols/periods at the top.

Variable	Description
StartBuild_processDurationMS	How long (in milliseconds) should the EA calculate stats for before allowing EA to do something else. Can decrease to make EA more responsive during stats calculation, and increase it to focus CPU on calculating stats.
StratBuild_showExpertsLog	If *true* then will show Experts log of status change messages and alerts that happened when running stats. Can be help to know why not trading at a particular point.
StratBuild_showQuickConfigButtons	If *true* then will show extra buttons to quickly access configuration pop-ups rather than having to CONFIG button first.
StratBuild_spread	The spread to use when simulating trades, in pips.
StratBuild_startBalance	Start balance to be used when calculating statistics. Shouldn't need to change, unless risking very big amounts (not percentage) per trade and balance is getting down to 0.
StratBuild_statsBarsToCalcBack	How far back in bars/candles to run stats over
StratBuild_statsDaysToCalcBack	If not -1 then will use the as number of days to test for
StratBuild_statsDrawDownRelative	If *true* then will show draw dawn relative to current balance, instead of absolute which is start balance.
StratBuild_symbolWidth	Allows width of Symbol column to be adjusted that is shown in the 'Other Charts Results' pop-up.

Variable	Description
StratBuild_tradesFileOutput	If set to *On* then will output simulated trade details, including profit, to CSV file in MQL4|5\files\runwiseFX folder of your MetaTrader data folder. File name will begin with 'testTrades_' and include symbol and period. The first row of the CSV are the column headings that should be self-explanatory.
StratBuild_ usePrevClosedForStatsTradeOpenPrice	If *Yes* then will use close price of previous candle for open price of simulated trade used in the statistics. Recommend setting this to true for Renko charts, especially Median Renko where open price of current candle isn't very realistic. Can also be 'Yes And For Close' where will also be used for close price if closed due to trade rule (not SL/TP).

12 USING WITH MT STRATEGY TESTER

The EA can be run in the MetaTrader Strategy Tester. Don't confuse with this our stats/optimizer in 'Strategy Builder' mode. This section refers to using the Strategy Tester that MetaTrader is supplied with.
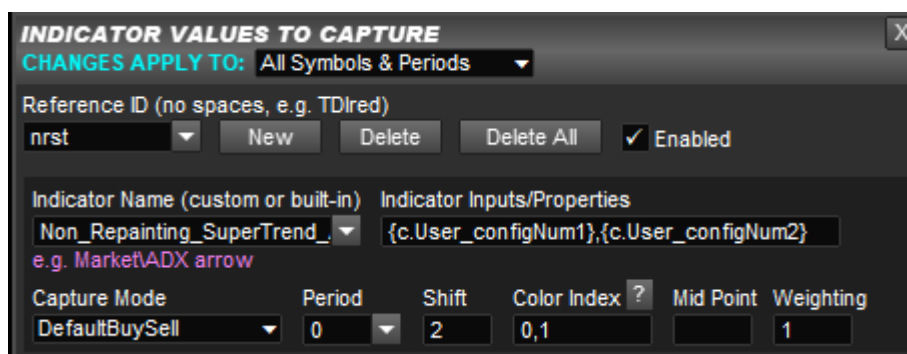
The strategy tester can't access any EA configuration you may have when the EA is running on a normal chart. This is because the files folder the tester has access to is in a different place to the files folder used on a normal chart. However, if you click **CONFIG** button on the panel on a normal chart and click **Copy Config to Strategy Tester** button. This will copy the EA configuration from files folder of normal charts to the files folder used by the Strategy Tester.

For the EA panel buttons to work in the Strategy Tester then a test needs to be running at least at market speed.

Don't forget to use the Expert Properties button in the Strategy Tester frame to set any EA inputs you require.

12.1 Optimizing Indicator Inputs

A number of User_* EA inputs are available that can be used to pass values from MetaTrader's optimizer into indicator inputs. For example to optimize an indicator called Non_Repainting_SuperTrend_Alerts that has two numerical inputs you can configure the indicator as follows, where **{c.User_configNum1}** and **{c.User_configNum2}** expressions are used to provide values from the corresponding EA inputs:

Then in the optimzer you can set the start/step/stop values like this:

---

13 MULTI-ACCOUNTS

Multiple instances of the EA on different accounts, i.e. on different instances of MetaTrader, can talk to each other provided they are on the same computer. This can enable actions on one account to be automatically replicated on the other accounts, using a master/slave principle. This approach works better than a trade copier, as trades can be opened/closed at the same time, where a trade copier needs to see the trade opened on one account before it can be opened on the other and similar for close - creating an inherent delay.

To activate multi account support set the Multi Account box in CONFIG | General Settings to Master for instance of MetaTrader that is the master (a M should appear above the CONFIG button) and similarly set to Slave on the slave instance (a S should appear). Actions performed on the master account should then be replicated on the slave accounts.

If using multi-trade mode then make sure number of additional trades is the same on Master and on Slaves

You can test the link via the CONFIG button | Tools popup on the Master and click 'Test Alert to Slaves' button. This should cause an alert on the Slave if comms link between master and slave is okay.

You can set EA input **Obscure_masterSlaveSendMask** to control what is sent from the Master to Slave. Useful if want to make changes on the Slave, e.g. adjust TP, that aren't overwritten by similar changes on the Master. See the description of the EA input in section 14 if interested.

If the symbols are different between master and slave (often the case with indices) then you can use EA input **Gen_brokerSymbolTranslate** on the slave to handle this. For example, if set input to DE30=GER30 then will convert DE30 from Master to GER30 on Slave. Can add extra symbols by comma separating them.

It's possible to have more than one Master on the same machine talking to a different set of slaves by using EA input **Gen_commsChannel**, which should be set the same on a master and its slaves then a different value on the other master and its slaves, e.g. use s1 an s2 for (say) Strategy 1 and Strategy 2.

It is possible to share the same configuration file across multiple instances of MetaTrader on the same computer. To do this set Main_configFileName EA input property to the configuration filename and set Main_configInCommonFolder input property to true. The configuration file should be placed in the common data folder. The common data folder can be found by going to the Tools | MetaQuotes Language Editor and then in that tool clicking on to File | Open Common Data Folder menu.

14 EA INPUT PROPERTIES

Many of these configuration items can now be more conveniently set via the CONFIG button on the panel and the corresponding configuration pop-ups. We recommend using this route to configure the system as more user friendly. The inputs remain for backwards compatibility and for more obscure/cosmetic items, such as colors used.

Configuration changes made via the CONFIG button pop-up take precedence over what is set in these EA inputs. However, you can use the 'Reset/Revert to Inputs' button at the bottom of the CONFIG pop-ups to clear CONFIG changes and use the EA inputs instead.

Any changes to the EA input properties can be applied to other charts by saving a template within MetaTrader and then applying that template to other charts. Please consult the MetaTrader help file on this.

Variable	Description
StratBuild_*	See section 11.5 if these inputs are present
Important_brokerSLTPSetOnOrderSend	Set to *true* if your broker requires stop loss/take profit to be set in the order send command – some European brokers require this else will return error. If *false* then any broker stop loss/take profit will be set immediately after trade open – ECN accounts usually require this.
Important_brokerSupportsHedging	Set to *false* if your broker does not support hedging. This will prevent the EA from trying to automatically open trades in the opposite direction to any that are currently open.
Important_defaultStopLossMode	Default stop loss mode
Important_defaultStopLossTrail	Default setting for the stop loss trail tick box
Important_magicNumberToUse	Magic number for trades that the EA opens. The EA will ignore trades with a different magic number (now often called Expert ID).

Variable	Description
Important_magicNumberToUseMax	If not set to -1 then activates multi trade support with each trade having a different magic number (now often called Expert ID). This input gives the maximum that will allocated and represent the maximum number of trades the EA can handle. Note, a different trade is required if want two or more trades in same direction (e.g.. buy) with different stop loss / take profit / pending orders.
Important_lots	Lot size to be used if risAmount is not set (blank). If this input is set the Important_riskAmount should not be, i.e. be blank. The value can still be changed on the control panel.
Important_riskAmount	Risk amount to be used. Can be % of account/equity (whichever is smaller) or fixed amount (omit percentage). The value can still be changed on the control panel.
Important_strategyTestTradeContinuous	If set then when strategy testing the auto mode will be set to 'trade continuous', regardless of the setting of Main_defaultMode
Important_symbolForTrade	If supplied then will use this symbol for open/close/modify rather than current chart symbol. Useful for MT5 Renko charts (say) where chart symbol can be synthetic and the symbol it's based on needs to used with the broker.
Important_tpRiskRewardAsPips	If set then any supplied values in EA input Important_tpRiskRewardRatios will be regarded as pips rather than as risk reward rations.
Important_tpRiskRewardRatios	Take profit risk reward ratios (comma separated) for each level. If value followed by 'p' then will be regarded as pips (this happen without the 'p' if Important_tpRiskRewardAsPips is set).
Important_tpExitPrcts	Take profit exit percentages (comma separated) for each level

Variable	Description
Important_tpAdjustSLasTargetsReached	Stop loss adjustment to be made when take profit target price is reached. Values are comma separated for each level. Can be number of pips to set SL to, or can be set to RAISE to raise SL to previous target, or open price if first target. Can be set to STEP to trail stop loss just when profit target is first reached. Can also contain | followed by BE or TRAIL or BETRAIL. This will set break even tick box or/and trail tick box when take profit line is reached.
Main_additionalGUISizing	Additional pixels to add between control panel GUI items. Useful if system font sizing above normal is being used.
Main_alert*	Allows various alerts to be turned on and off
Main_alertTextTradeSignal	Allows the trade signal alert text to be changed. Supports curly bracketed operands in order to insert extra information. For example, to include the account number in the alert text then set to: *Trade open signalled on #{a.acctNum} {t.symbol} for {t.buySellUC}{t.tradeID} @{t.alertPrice}*
Main_autoClearAlertOnOppositeSignal	Will permit another alert/trade when rules signal in the opposite direction. If this is set to false then rules will need to issue RESET_ALERT command in order to permit a trade on a fresh move.
Main_autoClearOnlyOnNewCandleOrConfig	If set then auto clear will only happen on new candle or configuration change. This will prevent repeated alerts when rules are straggling the buy/sell situation on a per tick basis, as the reset will only happen on a new candle.
Main_averageDailyRangeDays	Days used for ADR calculation. Recommend leaving as is.
Main_averageRangeCorner	Chart corner where ADR is displayed

Variable	Description
Main_averageRangeMode	Switch from ADR to ATR (Average True Range)
Main_averageRangePeriod	Period used for ADR/ATR calculation, e.g. number of days if daily (D1) time frame.
Main_averageRangeTimeFrame	Time frame used for ADR/ATR calculation. If set to current then will use time frame of chart EA is running on.
Main_averageRangeX	X location of ADR
Main_averageRangeY	Y location of ADR
Main_breakevenThresholdPips	Pip profit below which breakeven close will occur (if set)
Main_brokerModifyMinFreqSecs	Minimum number of seconds between requests to broker to modify trade, i.e. set broker stop loss / take profit. Acts as safety net to prevent broker from being bombarded with modify requests too frequently. Leave as is.
Main_brokerSLTPAdjustmentThresholdPips	Pips difference between calculated broker SL/TP and actual for modification to happen
Main_brokerStopLossExtraPips	Extra pips to add to hidden SL for broker SL (or % of Daily Range)
Main_brokerStopLossMoveWithHidden	If *true* will modify broker SL if hidden SL is moved
Main_brokerTakeProfitExtraPips	Extra pips to add to hidden TP for broker TP (or % of Daily Range)
Main_brokerTakeProfitMoveWithHidden	If *true* will modify broker TP if hidden TP is moved
Main_confirm*	Allows various confirmation message boxes to be turned on and off

Variable	Description
Main_configAutoReReadUponChange	Says if configuration file should be auto re-loaded by the EA on changes made by another instance of the EA. Can be set to No, 'On File DateTime Change', when it sees date/time on file has changed or 'On Config Change' where other EA has sent out message to say file changed. Recommend last option, as the file date/time can cause unnecessary re-reads, say if another instance has updated config to save it's optimization settings, which only relate to it.
Main_configFileName	If set then this file will be used as the configuration file for the EA.
Main_configInCommonFolder	If set the common data folder will be used when reading/writing the configuration file of the EA. This can be used to share the same configuration file for multiple instances of the EA on different accounts.
Main_configInUnicode	Should be set if configuration file has been save in Unicode (international) format
Main_defaultMode	Default rule mode to be used when EA loaded onto chart
Main_defaultPeriod	Default period to be used when EA loaded onto chart
Main_diagnosticMode	This is for use by RunwiseFX. We may ask you put in diagnostic mode but the file generated is only suitable for us to read.
Main_fifoMode	Control how trades are closed. 'When Possible' will follow FIFO rule, where possible, i.e. won't go as far as closing trades not managed by EA, where 'strict' will. The 'first in last out if scaled' will close last opened ticket on a scaled-in trade first.
Main_GUIautoConnect	If set then will automatically connect with Windows GUI if present

Variable	Description
Main_magicNumbersForSignalService	Comma separated list of magic numbers that will be used for signal service. Used if corresponding value on GUI is blank. Note, must have allocated magic numbers using Important_magicNumber*
Main_manualStopLossAfterOpen	If set then will put stop loss to manual mode when a trade is opened. This allows it to be adjusted by moving the line on the chart.
Main_manualTakeProfitAfterOpen	If set then will put take profit to manual mode when a trade is opened. This allows the take profit lines to be adjusted by moving the lines on the chart.
Main_minMarginToKeepFreePrct	If > 0 then will keep free margin of specified percentage. The lot size will be reduced accordingly on newly opened trades. If lot size is being limited in this way then will show in orange color on the panel. The formula looks at existing open trades and subtracts the negative affect they could have on balance. If < 0 negative value then will use different formula based on current free margin and reducing lots such that the supplied percentage of margin will be left free. Again if lots is being limited by this input then will show as orange on the panel.
Main_maxSlippagePips	Maximum slippage when opening tickets, if negative value then means multiple of current spread, e.g. if set to -1.5 then allowed slippage will be 1.5 * current spread.
Main_martingaleBreakevenMaxPips	If >= 0 then will give the maximum number of pips that a trade will be regarded as breakeven for the purposes of the Martingale calculation. If breakeven then will not reset Martingale but won't count it as losing trade either, i.e. won't increase martingale level.

Variable	Description
Main_martingaleLotsAdjust	Used to control how lots are adjusted for Martingale. If left blank then turns Martingale off. Can either be a numeric value which is multiplied by lots of last losing trade for symbol, e.g. if set to 2 then will open trade with double previous losing trade lot size. Or, it can be a comma separated list of lots, which are indexed by number of consecutive losing trades. If reaches end of list then no Martingale will be performed.
Main_martingaleMax	If >= 0 then gives maximum number of Martingale levels that are allowed.
Main_martingaleMaxAction	Says what to do after Martingale maximum number of levels has been reached. Can either reset to first level or stop Martingale, where lots will stay as configured on the panel.
Main_maxSpreadForAutoTradeOpen	Maximum spread for which a trade open will be allowed to go ahead, in pips. Useful to prevent the EA from automatically opening a trade when the spread is especially bad.
Main_maxSpreadForManualTradeOpen	As Main_maxSpreadForAutoTradeOpen but for when a trade is manually being opened. If -1 then will turn check off, i.e. won't check spread on manual trade open button press.
Main_pendingBuyOnBid	If *true* will alert/trade pending when bid price reaches target price
Main_pendingCancelOther	If *true* will cancel pending order in opposite direction when pending price is hit.
Main_pendingCancelIfHitButDisabled	If *true* then when trading rules have temporarily disabled pending orders, e.g. due to indicator value, then if pending order target price is hit then the pending order will be cancelled.
Main_pendingExpirySecs	If > 0 then will automatically expire pending orders after this amount of time. Note, this is for both pending orders set manually and via rules.

Variable	Description
Main_pendingOnCloseActOnPrice-AtOrBeyondClose	If *true* and pending order set to operate when closed price is beyond target price then it will ensure that price hasn't gone back after close. This is achieved by changing pending mode to TT (trade on touch) when close price has reached target pending price.
Main_pendingOnCloseUseHeikenAshi	If *true* then if pending set to TC (trade on close), or AC, then will use Heiken Ashi close price (as configured by input Obscure_indicatorHeikenAshiClose) rather then close price of ordinary candle.
Main_indiDirPeriods	Comma separated list of periods for which the built-in direction arrows should be calculated and shown for
Main_indiDirShow	If set the will shown the built-in direction arrows on the control panel of the EA
Main_hideAlertSignalLines	If *true* then will hide horizontal alert/signal price lines that indicate the price at which an alert/signal happened.
Main_hideSLTPUnlessPendOrOpen	If *true* then will hide SL & TP lines unless pending order is set or trade is open
Main_hideTPLinesIfTradeNotOpenUnlessSetManual	If set then the hidden take profit lines will not be shown until a trade is open or if it has been set to a specific price. This can be useful to de-clutter the chart prior to trade open.
Main_hideTPLinesWhenTaken	If take profit line has been reached/taken and trade still open then the take profit line will no longer be displayed.
Main_maxSlippagePips	Maximum slippage allowed when opening/closing trades, in pips
Main_lineTextStopLoss	If not empty will allow format the stop loss line to this text. Can include curly bracketed expressions, e.g. to show current profit. See Appendix D for examples.

Variable	Description
Main_lineTextTakeProfit	If not empty will allow format the take profit line(s) to this text. Can include curly bracketed expressions, e.g. to show current profit. See Appendix D for examples
Main_lots[Min|Max]	If not -1 then can be used to limit the calculated lots between a supplied min and max value. Note, if Main_riskAmntAsAmntPerPip is set then gives min/max amount per pip. If set to -2 then will use min/max lots as supplied from your broker. Note, for Main_lotsMin this could mean rounding up lots that are calculating below minimum to the minimum, which could increase intended risk.
Main_optimizedProcessing	If *true* then will only capture indicator values on new one minute candle, or if price reached new low or new high in that candle. Can be useful for reducing processor load when lots of indictors are being captured on many charts.
Main_panelShowDualRiskSettings	If *true* then will allow risk setting to be changed on the panel on per direction basis
Main_panelShowPeriodSettings	If *true* then will allow period setting to be change on the control panel. The period setting is used for such things as the time frame for automatic stop loss calculation and the pending order on candle close
Main_pendingBrokerSetSLTP	If *true* then will set broker SL & TP with broker pending order if EA input Main_pendingImplementation is set for broker.
Main_pendingCancelOther	If *true* then opening of pending will cancel any in other direction
Main_pendingExpirySecs	If > 0 then will give an expiry for pending orders, where they will be automatically deleted after the specified duration of time (in seconds). The timer starts when the pending line is placed on the chart either manually via the panel or via a configured rule.

Variable	Description
Main_pendingImplementation	Controls if hidden or broker pending orders should be used. Hidden allows max features and isn't susceptible to spikes in spread/ask price. Hidden always works with bid price, which is the price you see in the charts and what indicator calculate to. Hidden pending orders are managed by the EA, where opens market order when pending target reached. Broker means setting pending order with the broker. Can select to add on spread of buy pending orders, as those work on ask price if set with the broker.
Main_pendingOffsetOnSignalPips	If the EA is in auto mode 'PND' then this gives the number of pips to offset the pending order from the market price, which is placed when there is trade open signal. The value can be expressed as pips or as a percentage of the Average Daily Range of the symbol.
Main_performance*	Used to control log message and alert if processing is taking too long both on receiving tick from market and in timer processing. Simply leave as is and only change if directed by us. Values are in milliseconds and say how long processing has to take before log message and/or alert. Set to -1 to turn off alerts.
Main_pipValPerLot	If -1 then will get pip value per lot from broker but will verify with recent trades, as sometimes value from broker (tick value) can be wrong. If 0 then will only user value from broker. If > 0 then will use this value. Pip value is amount a pip is worth in the account currency for 1 lot traded.
Main_resetAfterTradeClosed	If *true* will reset settings, e.g. SL & TP, to default after trade closed

Variable	Description
Main_restoreStateMaxMins	If > 0 then will save & restore settings if shutdown/restart MetaTrader. The value is how many minutes you are allowed to be away from the live open market for restore to happen. This prevents sudden trades if been away for too long and restored data would be out of date. If outside this time limit then data set to default. Note, time limit does include weekends when market is closed, i.e. can shut computer down over weekend without penalty, but watch out don't run into Australian session that starts Sunday evening. If set to -1 then turns this feature off. Also see Main_restoreStateMaxMovePrct below.
Main_restoreStateMaxMovePrct	This is used when EA input Main_restoreStateMaxMins has been set, i.e. not -1. It says how much price is allowed to have moved, whilst MetaTrader was shutdown, for Auto Mode to be kept on auto. This is used to prevent sudden entries at a terrible price. The value is a percentage of how much the price is allowed to have moved. If beyond this then EA will be put into alert only mode for that symbol and you will be alerted this has been done.
Main_riskAmntAsAmntPerPip	If *true* will interpret any supplied risk setting that is not a percentage, i.e. is an amount, as the amount per pip that the lots should be calculated for.
Main_riskMinPips	If not blank then will be used for the minimum risk pips used in the lot size calculation. Can be used to limit lot size if the stop loss is very shallow.
Main_scaleInPrctDefault	Default percentage to scale-in by
Main_scaleInLotsInsteadOfPrct	If *true* will interpret scale-in percentage value directly as lots
Main_screenShotExtraText	Additional text to be included in screenshot file names

Variable	Description
Main_screenShotOn*	Take screenshot when particular events happen. Set to *true* to take screenshot for event that the particular input relates to, e.g. auto trade open. Screenshots appear in the MQL[4|5]\files directory of the Data Folder and start with 'rwfx_ss_'. Further control of screenshots can be made via inputs Gen_screenShot*.
Main_screenShotOnManualOpen	Take screenshot when trade is opened manually.
Main_selection*	Allows various selection lists to be altered
Main_show*	Allows various items to be shown or not
Main_stopLossMinManualPips	Used when stop loss is set manually (moving line on chart) and trade is not open yet. Won't open trade if stop loss is less than this, e.g. market price come very close to the set stop loss. Can be used to avoid a very shallow stop loss with potentially high lot size calculation and a quick close due to stop loss.
Main_stopLoss[Min|Max]Pips	Min/max of calculated stop loss (can be % of Daily Range). This is applied in both AUTO and RULE stop loss modes.
Main_stopLossCalcOnClosePrice	Controls whether the close price or market price is used when setting stop loss. Can be No, i.e. use market price, Yes or TrailOnly, where the close price will be used but only when trailing, else market.
Main_stopLossOffsetPips	Will offset the AUTO stop loss by the supplied number of pips. If positive value then will increase stop loss and a negative value will reduce. Note, the new value will then be subject to the configured min/max.
Main_stopLossOnClose	If set to true then will only check for hidden stop loss hit on candle close, i.e. new candle has opened.

Variable	Description
Main_stopLossTrailStep	If set then will trail stop loss at discrete steps of size supplied by this input. Can be expressed as pips or percentage of daily range if % sign added.
Main_stopLossTrailStepMode	If not blank and Main_stopLossTrailStep not blank then will change stop loss mode to this when trail step occurs. Can be used to (say) tighten stop loss when step level first reached.
Main_stopLossUseCalcValueAtOpenForTrail	If set then when trailing SL in mode of AUTO or RULE it will use the stop loss pips at the time the trade was opened as the trail distance. If false then the any trailing SL will move based on the latest indicator value being used for the stop loss.
Main_strategyTestOutputResults	Will write result totals, e.g. profit factor, of MetaTrader Strategy Test to a 'runwiseFX' folder in the Common Data Folder. The file will start with 'testerResults_'. This input is not related to our Strategy Builder functionality, i.e. our own statistics.
Main_strategyTestOutputAltName	If set then will be used in filename of the results file mentioned in Main_strategyTestOutputResults, instead of including test symbol.
Main_strategyTestHighSpeed	If set then will speed up MetaTrader's Strategy Test but without reducing accuracy of testing.
Main_strategyTestHighSpeedExtraLowHr	If set to other than -1 then will only evaluate rules on bar open when strategy testing if hour of server time is less than this hour.
Main_strategyTestHighSpeedExtraHighHr	If set to other than -1 then will only evaluate rules on bar open when strategy testing if hour of server time is greater than this hour.

Variable	Description
Main_TradeOnlyOnFreshSignal	If *true* then only trades (including alert, etc., if Auto Mode set to that) if fresh signal, i.e. reset has happened. If *false* then will continuously trade (again depending on Auto Mode) if entry conditions are valid even if say after a SL or TP hit. Recommend keeping to true so EA doesn't over trade.
Main_tradeOpenRetryMaxMovePips	If trade open fails with error or spread too high (see Main_maxSpreadFor*) then gives the maximum number of pips that price can move from original attempt for a retry to be allowed (can be specified as pips, e.g. 6 or % of Daily Range, e.g. 5%).
Main_tradeOpenRetrySecs	If trade open fails then gives how long will open will be retried for. This is in seconds, but if negative value then number of bars/candles, e.g. value of -1 will retry for number of seconds in one of chart candles, which would be 900 seconds if EA running on a M15 chart.
Main_tradeDays	Allows you to specify the trading days, i.e. days of the week, that the EA is allowed to auto trade. The values are comma separated, which gives day of week where Sunday=0,Monday=1 etc. For example, to only trade Tue-Thu, set Main_tradeDays=2,3,4 If left blank then will trade any day.
Main_tradeTime*	Allows trading time to specified. Up to two start and ends per day are supported. All times are in server/broker time. For example to only trade between 10:00-19:00 server time, set: Main_tradeTimeStartHours=10 Main_tradeTimeEndHours=17 Another example, to only trade 10:30-12:30 and 14:30-16:30,set: Main_tradeTimeStartHours=10 Main_tradeTimeStartMins=30 Main_tradeTimeEndHours=12 Main_tradeTimeEndMins=30 Main_tradeTimeStart2Hours=14 Main_tradeTimeStart2Mins=30 Main_tradeTimeEnd2Hours=16 Main_tradeTimeEnd2Mins=30

Variable	Description
Main_tradeTimeFridayReduceMins	Can be used to reduce end time of when EA is allowed to auto trade on a Friday. This is useful to finish trading earlier on Friday before markets close for the weekend. The value is in minutes, so to stop trading an hour early than specified in Main_tradeTime*, set Main_tradeTimeFridayReduceMins=60
Main_tradeWithoutStopLossAllowed	If *true* will allow a trade to be opened where a stop loss has not been set.
Main_timer*	Allows processing performed periodically to be adjusted in terms of frequency performed. Shouldn't need to change theses.
Main_tpAddSpread	If *true* will add spread to calculated take profit risk reward ratio prices
Main_tpExtraPipsToAdd	Extra pips to add to the calculated take profit price, when calculated using a risk reward ratio. Can be used to add extra pips to cover commission, for example.
Main_useAskForSLTP	Use Ask price for hidden stop loss and take profit where it would be used if broker
Box_*	Use to position GUI control panel where you would like
Style_*	Use to control the style of the various lines
Color_*	Use to control the color of various items
Obscure_addSpreadToSLWhenDeterminingRisk	If *true* will add spread to stop loss when determining risk, as spread needs to be paid when stop loss is hit

Variable	Description
Obscure_advLabelSpacingBars	Shifts advance labels, say for SL/TP/Pending, over to the right of the price action. Value of 2 will mean labels are offset by 2 from live candle thus creating one candle gap. Note, input only used if MetaTrader's Chart Shift has been set to create sufficient space for the setting.
Obscure_advLabelMoveWithChart	If *true* then will move SL/TP/Pending line labels if you scroll back your chart, such tha the line labels remain visible & accessible.
Obscure_allowNonVisualTesting	If *true* will allow the EA to be used in the strategy tester in non-visual mode. Note, this is set to *false* by default so the EA doesn't fail submission test to Market.
Obscure_applyMinMaxOffsetToSLInRuleMode	If *true* then will apply any configured min/max/offset in CONFIG | Stop Loss pop-up to the stop loss when in RULE mode. If *false* then only applies those in AUTO mode.
Obscure_autoFixConfiguration	If *true* will auto add default trade rules if indicators defined for buy/sell but not rules present to act up on them.
Obscure_blockClicksAfterGUIcreateMS	If greater than 0 then will block any click events for a short time after GUI re-create. Value is in milliseconds, e.g. set to 1000. Input added for a user whose system sent in a spurious click after GUI was re-created, which happens on things like panel move, Lines button press, etc.
Obscure_blockManualTradeCloseOnExitFilters	If *true* will block manual trade close if any exit filters are active (blocking exit), i.e. from 'Filters – Exit' section of our library.
Obscure_blockManualTradesIfNoAutoEntryMode	If *true* will block manual trades if auto entry mode is not set to trade. Useful to prevent accidental manual trades if (say) draw down limit reached and account management rule has turned off auto trading.

Variable	Description
Obscure_blockManualTradesOnFiltersEtc	If set then will block manual trades if items like filters and trade hours are not in agreement. The SELL and BUY buttons will go grey if manual trades are blocked. If set to 'Set Based on CONFIG | Option' then will block on filters if option is ticked in CONFIG | Options | Allow filters to block manual trading.
Obscure_breakEvenDontAllowUntickOnceTicked	If *true* then won't allow break even to be unticked once it has been ticked
Obscure_captureDailyRange	If *true* then will capture daily range which is used at the top left corner of the chart (by default) and if % used when specifying pips. Can set to *false* to use bit less CPU.
Obscure_chartForegroundAdjustOkay	If *true* then will adjust chart foreground if panel positioned to the left, so that candles appear behind the panel.
Obscure_closedTicketsFromEntireAccount	If *true* then will look at all tickets on the account when looking at trades that have closed, e.g. used for account profit/loss, martingale, etc. If *false* then will only look at closed tickets with the magic numbers that the EA is configured for.
Obscure_consecLosingTradesForSymbolOnly	If *true* then check on consecutive losing trades will be for the symbol only.
Obscure_createPendingUnpinned	If *true* then if creating pending order the line will be unpinned by default with a view to the line being moved manually to the correct price. Just saves you from unpinning line first, i.e. saves you from an extra click.
Obscure_displayBlockABackground	If *true* set background rectangles to be behind candles as well
Obscure_displayInputsLen	Used in library rules such as d-i that display indicator inputs on the chart. Gives maximum number of characters to be shown.

Variable	Description
Obscure_dualEdit*	If *true* uses dual edit boxes to get over 64 character limit of edit boxes shown in CONFIG pop-ups. The dual edit boxes are shown next to each other and are concatenated together on save. Note, if configuration contains long items then these inputs will automatically be set to true, so configuration can be successfully edited without truncation.
Obscure_exitFilterAdditionalScope	Allows any loaded exit filters from the library to not just block exit rules, e.g. indicators gone opposite, but also hidden SL, TP, break even, multi trade account closures, etc.
Obscure_guiListBoxPopupWidth	Width in pixels of the pop-up selection list for rule GUI controls of type List Box.
Obscure_hideScaleInButton	If *true* then will hide Scale-In button on the panel when trade is open.
Obscure_indicatorHeikenAshiClose	Custom indicator to use in order to Heiken Ashi Close price, when configured to do so. Format is comma separated with indicator name for MT4,color index for MT4, indicator name for MT5, color index for MT5
Obscure_keepSuppResPivotLinesShown	If *true* then will keep support, resistance and pivot lines shown even if Lines button on toolbar has been toggled to hide other lines, such as SL & TP.

Variable	Description
Obscure_masterSlaveSendMask	Controls what is sent from Master to Slave when in multi-account master/slave mode. Useful if want to make some adjustments on Slave, e.g. take profit, which is not overwritten by a similar change on the Master. Works as a bitfield, where if bit is set then will send to slave. Only needs to be set on the Master. Set to the sum total of what you want to send. 1=open, 2=close, 4=scaleIn, 8=GUI button clicks, 16 (reserved), 32=SL mode/price, 64 = SL trail on/off, 128 = break even on/off, 256 = pending orders, 512 = auto entry mode changes, 1024 = exit mode changes, 2048=take profit, 4096=GUI tick box clicks, 8192=GUI edit box changes, 16384=GUI select list changes. For example, to send open, close and SL mode/price then set input on the Master to 1+2+64, i.e .67, as this will set the necessary bits. The default of 65535 will set all the first 16 bits, i.e. enable everything mentioned.
Obscure_masterSlaveAutoSendCheckFilters	If *true* then will check entry configured filter rules okay before sending trade to slaves, when in Master mode and enabled sending on auto trades.
Obscure_masterSlaveAutoSendCheckMaxTickets	If *true* then will check max tickets on account before sending trade to slaves, when in Master mode and enabled sending on auto trades.
Obsure_newBarTickCount	Number of ticks of current bar/candle for when regarded has having new bar. If > 1 then allows extra ticks after new candle formed before EA will execute rules that start with 'New Bar' (N) flag. Useful if indicators need extra ticks to calculate before can be examined.
Obscure_pendingButtonsOnToolbar	If *true* then place SELL and BUY PEND buttons on toolbar rather than on main part of the panel. Especially users that don't usually require pending orders may wish to this to true.

Variable	Description
Obscure_pendingFastModeSelection	If *true* then will show our original compact selection list for selecting pending mode when panel 'Pending:' drop-down is clicked. This is a shade faster as doesn't require a Save button click. However, our new pop-up has more options.
Obscure_pendingPreviewDefault	If *true* then will, by default, calculate SL/TP and lots based on pending order if pending is set. You can make on-the-fly change to 'preview pending' via 'Pending:' drop-down list on the panel.
Obscure_riskRewardRatioDisplayDigits	Used visually when risk reward is being displayed, e.g. on the panel / horizontal line text. Gives number of digits to be shown after the decimal point.
Obscure_shiftForSLAuto	Used when capturing standard indicators (not custom) to provide stop loss. Value of 0 means live candle and 1 is closed candle. If using our stats to tune your strategy then recommend setting this to 1 as this will match the closed candle values that stats works with.
Obscure_showAllControls	(used by us when recording videos – please ignore)
Obscure_showOptionPerSymPeriod	If *true* then will show option in CONFIG | Options which if ticked allows configuration to be set for current symbol/period by default. However, have to be careful with this option as danger can end up making changes per symbol/period that are actually meant for all charts.
Obscure_signalsTPhandleVaryingNumberOf Levels	If *true* then will recalculate Exit % for take profits based on number of take profit levels contained in the signal alert text, when using the Signals system of our Windows app.

Variable	Description
Obscure_simulateRealTicksInTimer	Can be used for offline charts, e.g. Renko charts, where the chart may not be receive market ticks. If *true* then will simulate these ticks using the EA's timer processing. Note, you shouldn't need to set this input anymore as auto detection of simulate real ticks required has been added.
Obscure_snapPixels	How close mouse needs to be to Open/High/Low/Close (OHLC) for snap to happen, in pixels
Obscure_snapBars	How many extra bars/candles will look back for a OHLC to snap to, when mouse is to the right of the candles. If mouse is on a candle that will snap to OHLC of that candle.
Obscure_snap*	Sets whether snap is turned on/off by default. Three inputs are provided for snap on stop loss, take profit and/or pending.
Obscure_snap*Offset	Default pip offset for the snap. Can be used to add extra pip(s) to OHLC price. Set to number of pips required. If positive value then will be treated as breakout offset, e.g. added to high price and subtracted from low price. If negative then offset done the other way around.
Obscure_snapToTickSize	If set to -1 (default) then will snap SL/TP and pending lines to tick size as reported by the broker. Or can set to manual value, e.g. 0.25 will move lines in steps of 0.25. If set to 0 then turns feature off and will just use MetaTrader default. Note, if turn on snap to high/low then will override this mechanism.
Obscure_slFastModeSelection	If *true* then and if SL box shown on panel then clicking that will bring up a mode/pip selection list immediately, rather than a pop-up.
Obscure_slManualMoveOnlyCloser	If *true* then and attempt to manually move SL line further away after trade open then will snap back to prior price. Will only be able to move SL line closer.

Variable	Description
Obscure_sltpManualMoveOnlyCloserNoPopup	If *true* then if Obscure_*ManualMoveOnlyClose also *true* then will turn off pop-up if trade open.
Obscure_stopLossIgnore	If *true* then will not show hidden stop loss or act up on it. Can be used if still want TPs calculated on risk/reward, but not actually exit on SL being reached. Note, you may also wish to set broker SL offset to blank in CONFIG | Stop Loss to turn that off also.
Obscure_tpManualMoveOnlyCloser	If *true* then and attempt to manually move TP line further away after trade open then will snap back to prior price. Will only be able to move TP line closer.
Obscure_tickValueDiscrepancyAllowed	If tick value from Broker appears to more than this factor out based on previous recent trades then will value from recent trades. Note, use if wrong then factor of 10 out.
Obscure_updateAsMoveSLTPlines	If *true* then will recalculate stop loss/take profit as SL/TP line is moved on the chart, i.e. the mouse is moved with line clicked. This includes updating the text shown below those lines.
Obscure_useOrderCalcProfitForPipValue	ONLY FOR MT5 VERSION. If *false* then will use 'Tick Value' from broker to work out how much a pip is worth per lot. If true then uses UserCalcProfit function of MetaTrader which is regarded as better and includes cost of commission. Used for calculating lots based on risk per trade.
Rules_amountForNoDigits	When using {d.amnt}, say in SL text, will give threshold where no fractional digits will be displayed.
Rules_ignoreMessageConfirm	If *true* then any rules which have a confirmation pop-up, e.g. close all trades, will simply go-ahead without displaying confirmation pop-up.

Variable	Description
Rules_maxLoopIterations	Maximum iterations when rule is marked for loop but LOOP_END command hasn't yet been encountered in the rule.
Rules_logRuleOutcomeChanges	Logs changes in the rule status comment. Note, changed in values that are in brackets will not be regarded as a change so the status comment text.
Rules_testingServerToLondonHourOffset	Offset to be applied to server hour in order to get London hour when using the strategy tester.
Rules_testingServerAutoAmericanDSThandling	If set then will adjust testingServerToLondonHourOffset (say) further if Europe DST (daylight saving time) is on but American DST isn't, or visa versa. Recommend setting to true if server time changes with American DST.
User_*	Various configuration items that can be referenced in the rules. Designed for user to use and is great if using the Optimizer of the Strategy Tester, as the rules can be automatically tested with a variety of possible values.
Block_*	Used to control block A and B which are spaces above/below (A) and to the left/right (B) of the EA chart control panel that can be used to output additional information. The blocks auto move if the corner that the EA control panel is positioned to is changed.
Property_SL*	Used to set the properties of the indicators used for setting the stop loss automatically (dependant on calc method)
RWFX_*	Special configuration items that are used in the built-in rules supplied with the EA or in rules in our ready-made rules library.
Gen_*	(Can generally be left as is. Some more significant ones are explained below)

Variable	Description
Gen_accountCurrencyDigits	Number of digits to show after decimal point when displaying account balance, etc.
Gen_accountManagedTradesOnly	If *true* then any functions and commands that work on whole account will be only be for trades with configured magic numbers. Otherwise, will will be all trades on the connected account, regardless of magic number.
Gen_brokerSLTPStep	If not 0 then will apply step to any broker SL/TP price, so it is in multiples of supplied step value. Can be set if broker requires SL/TP to be multiples of certain value.
Gen_brokerSymbolAdd	Used in master/slave trade copy mode. Can be set on slave to add to symbol received from master. However, not normally required as system can auto handle where master has different symbol extensions to slaves. For example, if master has EURUSD but a slave requires EURUSD.r then that is fine and handled automatically.
Gen_brokerSymbolTranslate	Used in master/slave trade copy mode. Can be set on slave to symbol translation from master, e.g. broker for master uses DE30 symbol and slave it's GER30 then can set this input on slave to be DE30=GER30. Other items can be added separated by a comma. Note, generally don't need to add where brokers have different extensions on end of symbol, as this is handled automatically. However, in some cases may need to include the extension on the slave, e.g. US500=SPX500.p where on Master symbol is US500.r
Gen_commsChannel	Can be used in Master/Slave multi account mode. Where can have more than one Master on the same machine by using different channels. Set one master to have a channel value and the slaves the same. Then set other master and slaves with a different channel. Recommend just using a short string, e.g. s1 and s2 (for strategy 1 and 2)

Variable	Description
Gen_GUIFontSize	Master font size used for the panel
Gen_GUIFont	Font used for GUI panel
Gen_GUIScaleX	Horizontal scale of GUI panel. -1 means automatic. Can use value 0-1 to make panel smaller, or greater than 1 to make panel bigger.
Gen_GUIScaleY	Vertical scale of GUI panel. -1 means automatic. Can use value 0-1 to make panel smaller, or greater than 1 to make panel bigger.
Gen_fallbackPointToPipDivider	If the EA can't work out automatically how to convert points to pips then this value will used. The default is 10, which is correct for '5 digit brokers', i.e. that quote 10th of a pip. For '4 digit brokers', i.e. who don't quote fractional pips, then this value would need to be 1.
Gen_forcePointToPipDivider	Used to control the definition of a pip. If -1 then will workout automatically using definition of pip as 0.0001 change in EURUSD. Some users that trade indexes may wish to set this 100, as the definition of pip is typically different. If not -1 then will convert points to pips by dividing the points with the value specified.
Gen_periodOffsetMainTFsOnly	If *true* then any offset supplied in Period, e.g. 0+2, will only result in a main timeframe, e.g. if current chart is M6 and offsetting by 2 then would give M30, rather than M10. If *false* then will (if MT5) take minor timeframes such at M3,M4,M6,M8,M20, etc., into consideration for offset and possibly return them, i.e. would indeed return M10 in the example.
Gen_pointToPipDivider1for0digits	If *true* and number of digits after decimal point for chart symbol prices is 0 then will set 'point to pip' divider to 1. This will mean one unit change in price is one pip.
Gen_lineLabelFontSize	Font size used for horizontal line labels

Variable	Description
Gen_lineLabelRightShift	Will move horizontal line labels by number of supplied bars/candles. Can use negative value if want to move left.
Gen_lineLabelWidth	Width to allow for horizontal line labels. Reduce to move line labels to right.
Gen_selListMaxItemsPerColumn	Sets the maximum number of items that can appear per column when a pop-up selection list is shown
Gen_screenShot*	Used to control screenshots when EA has been configured to take them
Gen_treatDoublePrctAsPrctOnPrice	If *false* then any %%, e.g. setting SL in percent terms, will be based on account balance. If *true* then will be percentage adjustment of current price.
News_currenciesToAdd	Additional currencies to be included in news events listed and acted up on by any loaded rules. Can be comma separated. Use uppercase.
News_impactMaxForAllCountriesEvents	Gives the impact that should be used for news events that affect multiple countries (currencies), e.g. G7 conference.
News_strategyTesterAllow	If *Auto* will the will read news when strategy testing or using our built-in stats if CSV file is present. Else if *On* then will read only if weekly xml is present. Otherwise set to *Off*. See Appendix D for more details.
News_strategyTesterGMTOffsetHrs	Will be used when using MetaTrader Strategy Tester and looking at news or when using our internal statistics and the market is closed. Gives the number of hours to adjust news time (GMT) to server/chart time.
News_strategyTesterGMTNewYorkSummer	If *true* will apply an additional -1 offset from server time if New York summer time is in effect for tester time.

Variable	Description
Func_tradesProfitUseCloseTime	If *true* then functions tradesProfitPrct, tradesNum and tradesProfit will use close time instead of open when deciding if trades that should be looked at.
Indi_bufferObjectsDuringNormalTrading	If *true* will buffer objects during live trading. This can help if seeing performance issues with indicators that show objects on the chart.
Indi_checkErrorReturnFromICustom	If *true* will won't disable indicator if returns error, e.g. can't initialise. This can be necessary for indicators that are slow to initialise and give this error initially buy are eventually fine if carry on capturing.
Indi_colorIndexBufferCursorColor	Allows the color of the vertical cursor line of the Color Index Helper tool to be changed.
Indi_forceUsingValueIfWeightingBlank	If *true* will return raw value from indicator if weighting box is blank. Note, will do this anyway if DefaultValue capture mode is used. If *false* then will get 100 of buy and -100 for sell for non DefaultValue capture modes.
Indi_maxBarsToSearch	Maximum number of bars/candles to search back when using capture modes Distance and DistanceMidPoint, i.e. how far back to search for buy/sell indication.
Indi_numHelperBuffers	How many color index buffers should be shown in our Color Index Helper Tool.
Indi_searchBarsBuffer	If *true* then will search our buffer when using capture modes Distance and DistanceMidPoint. If *false* then will search chart as is. Usually, latter is better because these capture modes are often used when indicator repaints and really need to see what indicator is saying on chart, rather than relying on our internal buffer. However, using buffer is more CPU efficient.

Variable	Description
Indi_SLTPobjFindLatest	Used when chart objects from an indicator are providing SL and/or TP. If *true* then will search chart to find latest object that contains supplied name. This is useful for indicators that show multiple historical SL/TP, so need to look at latest.
Indi_SLTPobjFindType	Used when input Indi_SLTPobjFindLatest is set to true to provide the type of object being searched the latest of. The type is required so this search can be done efficiently.
Color_*	Colors for support, resistance and pivot lines
Style_*	Style for pivot and support/resistance lines
Comms_App_Machine	Computer name where our Windows RunwiseFX App is located. If **.** then means current computer. If blank then turns ff communication with our app.
Comms_App_alertSendIfConnected	If *true* then will send alerts to our Windows RunwiseFX app if connected
Comms_App_alertEmailPushLocally	If *true* then will still send alerts to email (if configured) even when sending alerts to our Windows RunwiseFX app
Comms_App_alertLocalIncBracketedDetails	If *true* then will include extra information in square brackets when raising alert locally on the Terminal because Windows RunwiseFX app is not connected
Comms_App_connectIfStrategyTesting	If *true* then still connect to Windows RunwiseFX app when running EA in MetaTrader's Strategy Tester. Will see account name/server as 'Tester'.

Variable	Description
Comms_App_serverAdd	Allows extra text to be added to server name used in account selection in our Windows RunwiseFX app. Useful if trying to connect two MetaTrader terminals to our app but where they are logged into same account. Set second instance to (say) to 2 so will appear as two separate accounts in the app.
Signal_lotsToUse	Lots to be used when opening signalled trade. If left blank then will be proportional to source account balance/leverage compared to your own
Signal_maxSlippageFromSourcePips	Maximum slippage allowed from the original source signal open price.

15 USING OUR EA TO CONTROL ANOTHER EA's TRADES

It is possible for our EA to control trades opened by another EA. This allows the hidden SL / TP of our EA to be used and configurable exit criteria. You'll also need to have to multiple charts open: One for our EA (per symbol wish to trade) and another chart of the third party EA.

The magic numbers (Expert ID) of our EA and third party EA need to match, i.e. the magic number our EA is configured with via EA input Important_magicNumberToUse or via CONFIG | General Settings buttons must match trades open by third party.

★★★★★
top tip

You can tell what the magic number (also known as Expert ID) is by hovering the mouse pointer over the trade and it will pop-up has a hint.

Some care is needed when controlling trades from another EA, as both could be trying to update stop loss (say) e.g. if third party EA trails the stop loss. Also, if the other EA is poorly coded then the other EA could try to re-open a trade if our EA closes it. This could result in repeated opening and closing.

Recommend testing thoroughly on a demo account.

When a trade is open you will get 'orphan trade detected' alert for our EA and it will set the hidden stop loss and take profit based on the broker stop loss and take profit of the trade detected. The close and scale-in button should appear on our EAs panel. If this doesn't happen then highly likely the magic number our EA is configured with EA does not match that of the trade that has been opened by the third party EA.

Note, you can turn off the orphan detected alert by setting EA input Main_alertOrphanTradeDetected to false.

16 CONFIGURING FOR BINARY OPTIONS BROKER

runwiseFX does not recommend Binary Options (BO) trading/brokers. The risk reward ratio is always less than 1 which breaks a golden rule of trading, i.e. you have to be right more times than you are wrong just to break even. Secondly, BO brokers do not put any trades to the market so if you win they lose. This creates a conflict of interest and we've had lots of reports of brokers doing anything they can to get rid of you if you start consistently withdrawing profits, e.g. making it difficult to withdraw, platform disconnects/freezes, etc.

That being said it is possible to configure our EA for Binary Options:

The lots is used to notify the Binary Options broker of the amount you wish to risk.

The expiry can be set by Trade Order Comment, which is used to set the comment on the ticket/trade. The format most Binary Options brokers use is:

BO exp:Expiry

Where Expiry is in seconds. Therefore, to configure the EA to place a Binary Options that will expire in 5 minutes, set BO exp:300

To set the Trade Comment click CONFIG button | General Settings button and there is a box for the Trade Comment.

17 ADDITIONAL CAPABILITIES

17.1 Indicators Crossing Other Indicators

We support configuring an indicator that actually derives its trade signal from the crossing of other indicators. Here are some examples:

Example 1: *Capture TEMA custom indicator (a type of moving average) with two different periods (fast and slow) and trade when those cross each other, i.e. buy when fast crosses above slow and visa versa for sell. To achieve this we need to add three indicator references. One to capture slow TEMA and a second to capture fast TEMA and then a third to generate the trade signal with slow and fast cross each other. Here is how we configure this:*

Firstly, need to add new indicator reference (slowT) to capture slow TEMA, where indicator input for the period is set to 20. Notice, Weighting box is set blank so this doesn't directly give buy/sell – just interested in recording its value. Also Capture Mode set to DefaultValue to that end.

Secondly, in similar fashion, we need another indicator reference (fastT) to capture fast TEMA with period input set to 8:

Finally, we are ready to add the indicator reference (crossT) that will look at these two values and give the trade signal when they cross. Notice now the Weighting box is set to 1, so contributes to trade signal, and the Color Index box is set to **i.slowT,i.fastT** to reference the previous entries and Capture Mode is set to CrossBuySell, as we need the trade signal based on the cross. Indicator Name is blank as it's not capturing an indicator itself but using the two values caputred with reference IDs slowT and fastT:

Example 2: *Trade when price closes above moving average high for buy and closes below moving average low for sell. Again, this achieved by first capturing the required moving averages (based on high & low price) and then adding third indicator reference to give trade signal based on close price, in relation to the moving averages (MAs).*

Firstly, lets add indicator capture for the moving average based on the high price. We'll use reference ID of maHi to label it. Notice, Capture Mode is set to DefaultValue as just interested in moving average price and Weighting box is blank so isn't used directly into buy/sell determination:

Next, need to capture moving average again but getting moving average on low price – notice in Indicator Inputs box when specified low in there. The reference ID of maLo is uesd for this:

Finally, just need third reference that will use both the moving average values and signal trade when price close above maHi for buy and below maLo for sell. Notice, using Caputre Mode of CrossBuySell to say interested in value crossing and Color Index is set to what the cross is about. This is where we reference maHi and maLo and -1, whitch means closed price (if shift 1). Note, in the screenshot the Color Index box is set to **i.maHi,i.maLo,-1**. Also notice Weighting box is now set 1 which means this indicator referecen will contribute to the buy/sell determination :

Top tip: If you specify -2 instead of -1 in Color Index box then will use Heiken-Ashi close instead regular candle close.

Example 2b: Variation on example 2 where, instead of price, check that a third moving average has crossed the high/low.

To achieve this you will need an additional entry in CONFIG | Indicator Values capture similar to **maHi** but call it **ma** and set change high to close in the Indicator Inputs box. This is capturing the moving average that needs to go beyond high/low. Then modify **priceMAx** entry and set Color Index to **i.maHi,i.maLow,i.ma**
So, you've replaced price, represented by -1, with the value from the new **ma** reference ID.

Top tip: If interested in reversal, i.e. buy when MA goes below low and sell when goes above high then set Mid Point box to **!** of the **priceMAx** entry.

Example 3: *Trade when EMA has crossed upper Bollinger Band for sell and trade buy when EMA cross lower Bollinger Band, i.e. reversal strategy*

To achieve this need to configure the following four indicators, via CONFIG | Indicator Values to Capture | New:

1) Reference ID: bbUp | Indicator Name: F:BollingerBand | Indicator Inputs: 20,1,0,close,upper | Capture Mode: DefaultValue | Weighting: *(blank)*

2) Reference ID: bbLo | Indicator Name: F:BollingerBand | Indicator Inputs: 20,1,0,close,lower | Capture Mode: DefaultValue | Weighting: *(blank)*

3) Reference ID: ema | Indicator Name: F:MovingAverage | Indicator Inputs: 6,0,ema,close | Capture Mode: DefaultValue | Weighting: *(blank)*

4) Reference ID: bbSig | Indicator Name: *(blank)* | Indicator Inputs: *(blank)* | Capture Mode: CrossBuySell | Color Index: i.bbUp,i.bbLo,i.ema | Mid Point: ! | Weighting: 1

Note, the reversal strategy comes from setting Mid Point to ! in indicator 4 (bbSig). You can set Shift boxes to 0 if want live to work on current live value of Bollinger / EMA, rather than closed values.

Example 4: *Trade when Bollinger Band of faster 20 period crosses Bollinger Band of slower 50 period. Only one of the Bollinger lines needs to have crossed for signal*

To achieve this need to configure the following five indicators, via CONFIG | Indicator Values to Capture | New:

1) Reference ID: bbSUp | Indicator Name: F:BollingerBand | Indicator Inputs: 50,1,0,close,upper | Capture Mode: DefaultValue | Weighting: *(blank)*

2) Reference ID: bbSLo | Indicator Name: F:BollingerBand | Indicator Inputs: 50,1,0,close,lower | Capture Mode: DefaultValue | Weighting: *(blank)*

3) Reference ID: bbFUp | Indicator Name: F:BollingerBand | Indicator Inputs: 20,1,0,close,upper | Capture Mode: DefaultValue | Weighting: *(blank)*

4) Reference ID: bbFLo | Indicator Name: F:BollingerBand | Indicator Inputs: 20,1,0,close,lower | Capture Mode: DefaultValue | Weighting: *(blank)*

5) Reference ID: bbSig | Indicator Name: *(blank)* | Indicator Inputs: *(blank)* | Capture Mode: CrossBuySell | Color Index: i.bbSLo,i.bbSUp,i.bbFUp,i.bbFLo | Mid Point: ^ | Weighting: 1

Note, if want reversal strategy then set Mid Point for bbSig to !^

Example 5: *Trade when fast moving average (period 8) has crossed slower moving average (period 24) and by certain number of pips, e.g. 5.*

To achieve this need to configure the following three indicators, via CONFIG | Indicator Values to Capture | New. Where need to capture fast moving average, slow and then a third indicator to reference those two and signal when crossed by certain number of pips:

1) Reference ID: maFast | Indicator Name: F:MovingAverage | Indicator Inputs: 8,0,ema,close | Capture Mode: DefaultValue | Weighting: *(blank)*

2) Reference ID: maSlow | Indicator Name: F:MovingAverage | Indicator Inputs: 24,0,ema,close | Capture Mode: DefaultValue | Weighting: *(blank)*

3) Reference ID: maX | Indicator Name: *(blank)* | Indicator Inputs: *(blank)* | Capture Mode: CrossBuySell | Color Indexes: i.maSlow,i.maFast | Mid Point: 5p | Weighting: 1

The Mid Point box of indicator reference ID maX gives the number of pips need to have crossed by if you supply that value followed by lettter p.

17.2 Having Separate Entry & Exit Indicators/Criteria

Example 1: *Open sell trade when price closes above upper Bollinger Band and buy when price closes below lower band. However, exit when price closes beyond middle band.*

To achieve this need to capture Bollinger Band for entry via the following, but notice only ticked for Entry and Reset in the 'Use Indicator For' section. Also Mid Point is set to ! as this is a reversal strategy:

Then need to capture Bolligner Band middle line by changing Indicator Inputs to reference that. Notice that is ticked for Exit:

Note, the Shift box setting of 1 means consider candle closed price. If interested in price touching lines for either entry and/or exit then set Shift box to 0.

Note, for this strategy would recommend setting Reset Threshold to 0 in CONFIG | General Settings, so that it resets for next alert/trade when price in the middle of the two bands.

Example 2: *An indicator provides entry & exit on color index 3, where it shows 1 for buy, 2 for buy exit, -1 for sell and -2 for sell exit.*

As in the previous example, this would be achieved by adding two entries via CONFIG | Indicator Values to Capture | New – one for entry and one for exit.

For entry one: The Capture Mode would be set to **DefaultBuySell**, Color Index set to **3** and Mid Point box set to **1:-1** and the 'Use Indicator For' have Entry & Reset ticked and Exit not ticked.

For exit one: The Capture Mode would be set to **DefaultBuySell**, Color Index set to **3** and Mid Point box set to **-2:2** and the 'Use Indicator For' have just Exit ticked.

Note, Indicator Name would of course be set to the name of the custom indicator in question.

Note, again it would be good idea to set Reset Threshold to 0 in CONFIG | General Settings, so that it resets for next alert/trade when neither 1 or -1 are returned from the indicator.

18 WINDOWS & MOBILE APP

View & control our EA from your mobile with our new app! Plus see charts from your desktop MetaTrader, including custom indicators. Also see account details, trades, alerts and news. Multiple accounts are supported and you can set equity targets on the accounts, etc.

Main page for app including download links: https://runwisefx.com/mobile/
Also features install video.

Windows & Mobile App Manual: https://runwisefx.com/runwiseFX_App.pdf

Screenshots from our Windows & Mobile App:

19 FAQ

Q1) How do I have different configuration for different charts/symbols?

A1) This first method is use our 'Changes Apply To' option shown at the top of the configuration pop-up forms, which allows you to have different values for the various configuration fields/boxes depending on chart symbol, currency and/or chart period. Note, this just covers changes to the fields, rather than adding new sections to the configuration, e.g new indicators. So, in order to have different indicators for different symbols then add all the indicators you need. Then change the Enabled tick box on a per symbol/currency/period basis.

If that is insufficient, then the second method is where you have more than one instance of MetaTrader, say for each strategy. This will give you a different data folder and different configuration file for each instance. Note, if connected to same account then change the magic number (via CONFIG | General Settings) so the trades from the two instances don't interfere with each other. Note, this may not be possible if your broker has a FIFO rule in place.

Third method is where you want to keep to a single instance of MetaTrader but apply different configuration (file) on a per chart basis. Here you can change EA input Main_configFilename to tell the system to use a different configuration file to load from or save to. If blank then will use runwiseFX_CSA_Supplied_Rules.txt file, but could set to (say) strategy_1.txt, strategy_2.txt, etc. Note, the configuration is a single text file located in the MQL4\files folder of your MetaTrader data folder, or MQL5\files on MT5. You're welcome to copy theses files around and make backup copies.

If you would like to learn more about the format/structure of the configuration file then see section 2 of the following document:
https://www.runwisefx.com/runwiseFX_CSA_Rule_Writing_Guide.pdf

Q2) How do I copy EA's configuration from one instance of MetaTrader to another and get the same statistic results?

A2) You need to copy the EA's configuration file (runwiseFX_CSA_Supplied_Rules.txt) to the other instance of MetaTrader. The file located in the MQL4\files folder of your MetaTrader data folder, or MQL5\files on MetaTrader 5. Of course, also need to copy any indicators and make sure work okay on all instances. If the stats doesn't match between the two instances of MetaTrader then it's usually down to the chart data loaded inside MetaTrader. On MT4 you use History Centre to download the latest chart data. Recommend doing on both machines. On MT5 need to scroll back on the various charts. Finally, if stats still not same then may need to delete MetaTrader history files, where chart data is stored. This will trigger recapure of the data from MetaTrader server. To delete: On MT4 these are .hst files stored in the history folder (sub folder per broker server) that need deleting. On MT5 it is .hcc files located in Bases folder, again with in sub folder per sever and per symbol. Tip – can use Window file search function ot locate the files. Restart MetaTrader after deleted.

Q3) How can I limit the number of alerts/trades per candle?

A3) An alert/trade (depending on Auto Entry Mode) can only happen after 'reset' has happened, i.e. reset for fresh alert/trade. Our 'Tutorial: Thresholds, Indicator Priority and Reset' video in our video section (https://www.runwisefx.com/videos.htm) explains the concept of reset. Therefore, need to limit reset happening just once per candle at the most. This can be done by ticking 'Only allow reset for next trade on new candle' in CONFIG | Options. And unticking 'Auto reset for new alert/trade on opposite signal' in CONFIG | General Settings.

We also have some relevant rules in our library (https://www.runwisefx.com/library/) that can also help on this. Filter rule quick load code **f-mtg** allows you to set the minimum gap in candle between trades. We also have alternatives to our built-in trade rule that will wait before exiting trades, e.g. wait certain number of candles and/or certain risk reward ratio has been achieved. See rules **bi-2** and **bi-3**. Note, our built-in rule trades on configured indicators. It's automatically added when you configure indicators where you see 'Entry on Indicators' and 'Exit on Indicators' appear the bottom the panel. Finally, you can tick 'Only allow exit on new candle' in CONFIG | Options, which won't allow indicator based exit during candle – only when it opens.

Q4) Can the EA trade different symbols from a single EA instance on one chart?

A4) Our EA can only trade the symbol of the chart it is attached to. We really recommend trading this way for the following reasons:

- EAs only process information when a tick comes in from the market for the symbol of the chart they are attached to. Therefore, an EA could react slowly if trading a different symbol to the chart, as ticks (price changes) could be coming in at different times thus creating delay.

- In MetaTrader, each EA gets its own thread, i.e. is multi-threaded and everything gets processed in parallel. If you have a single EA, and consequently single thread doing all your trading, then that would be potentially be overloaded and would respond slower for this reason as well.

Q5) Is it possible to speed up the statistics calculation?

A5) You can speed the stats up by the following ways:

- Enable high speed testing in CONFIG | Options

- Can disable Market Processing in CONFIG | Stats / Optimization whilst configuring the system/testing, but remember to re-enable when ready to resume trading

- Reduce the number of bars in your charts to what you are running stats for via MetaTrader | Tools | Options | Charts tab | Max Bars in Chart (need to restart MetaTrader after changed)

- Switch from MT4 to MT5

- Laptops aren't brilliant as can suffer from thermal throttling and tend not to have as many cores as their desktop counterparts

Q6) Why doesn't the stop loss line move when break even is activated?

A6) Our break even mechanism is like a secondary stop loss. The reason being is that if you change your mind you can just untick the break even control on the panel. However, if the stop loss was moved instead then would need to remember where it was originally if wanted to change mind on the break even. Also, if our break even is activated when trade is in loss then will close when trade recovers to the open price. Finally, there is 'break even profit pips' box available in CONFIG | Take Profit that allows a pip or so profit to be captured at break even level.

Q7) Why do the trades/statistics from the EA not match when EA run in MetaTrader's Strategy Tester?

A7) Here are few things for you to check to help with this:

- Use our Shift Helper Tool to make sure Shift setting is correct when capturing indicators. See section 6

- Make sure spread setting in Strategy Tester matches **StratBuild_spread** EA input. Note, spread setting is only on MT4 Strategy Tester. Remember on MetraTrader such values are in points where in our EA they are in pips, e.g. typically 0.5 pips is 5 points on a 5 digit broker. On MT5, spread comes from chart data. You can set max spread for auto trade in CONFIG | Risk / Lots.

- If using trailing stop loss or looking at lower time frames than chart then set Model Quality to 'Max – per pip' in CONFIG | Stats / Optimization.

- Look at some sample trades and compare between our stats and what happens in MT Strategy Tester. You can use rule **d-i**, from the library, to display what indicators are signalling and see where any discrepancy is coming from. The cyan colored status text on the panel also says which indicator/filter the trading logic is waiting for.

Q8) Why does the EA use all my margin when I've set risk % per trade?

A8) The risk % is based on account balance and stop loss size and is the amount of account balance to risk per trade. The margin usage depends on the leverage that your broker provides for the asset/symbol you are trading, so is separate. However, you can ask EA to leave some margin free via EA input **Main_minMarginToKeepFreePrct** - see section 14.

Q9) I am using master/slave mode but the slave broker uses a different symbol name to the master. How do I map the symbol names?

A8) You can set EA input **Gen_brokerSymbolTranslate** on the slave to translate the symbol from the master to what the slaves uses. Format is comma separated paris masterSymbol=slaveSymbol, e.g. DE30=GER30

Q10) Why did the EA enter late compared to what the indicators say on the chart?

A10) Here are a few things too look at with regard to late entries, or entries that appear late:

- Firstly, make sure the entry is actually late. With way we have to render our color bar that the bottom of the chart you have to look to the candle right of the color change. Also remember everything is done on candle close. So entry should be on the closure of the candle to the right of the color change.

For example:
The color transition appears midway through the candle with the white vertial line but with the way MetaTrader renders color changes between candles it's the candle to the right that is the signal candle. Then have to wait for candle close, i.e. close of the signal candle, so entry arrow is correct.

Note, this also applies to indicators that signal buy/sell via color changes to a line – need to look to the candle to right of the color change for where the signal should be expected.

- Our cyan colored status text says what the EA is waiting for. We log changes to this status which can be examined retrospectively via the procedure in Appendix B of this manual.

- You can use our Shift Helper Tool (see 6) to check the Shift setting is correct. This governs which candle is examined when reading buy/sell from the indicator.

- If you've changed any of the inputs of the indicator on your chart that affects the indicator calculation (when it signal buy/sell) then this must be set in the Indicator Inputs box of CONFIG | Indicator Values to Capture. Otherwise, the EA entries may not match what the indicator shows on the chart.

- Repainting indicators can also cause entries to appear late, i.e. where indicator wasn't signalling at the time but later repainted to appear that entry should have happened earlier. Recommend running your setup in MetaTrader's Strategy Tester, in visual mode, to see what the indicator were

saying at the time. TIP: If you save your chart in a template called Tester then this will be automatically loaded when you run a test on the EA and you'll see all your indicators on the chart.

- The stop loss can also cause a delay if not ready. Calculation methods like Parabolic SAR and Moving Average only provide a stop loss in the direction the market is going in. If your indicator(s) signal earlier than the stop loss does then that can use a delay if the stop loss is required to calculate risk per trade, as the system is waiting for the stop loss to be ready.

- Finally, make sure late entry wasn't a re-entry as a trade was already open in the direction, e.g. late entry occurred after take profit was hit (say). Normally, the system won't re-enter like this but if set the system to reset on each new candle in CONFIG | Options or loaded a rule from the library that resets on take profit it then could see this kind of late entry as what re-entry to signal that started earlier on.

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APPENDICIES NOW FOLLOW WITH EXTRA INFORMATION

Appendix A – Example Take Profit Settings

Here are examples of how to configure various take profit regimes, including adjust stop loss/trailing and break even as targets are reached and even scale-in (adding to your position).

Example 1) Single take profit of 35pips:

Simply select 'pips' instead of 'rrr' (risk reward ratio) and enter value

Example 2) Close 50% of trade at 1:1 risk reward ratio and total close at 2:

Here two targes have been confired. The first at 1:1 risk reward ratio will exit 50% of the trade when reached. The second will close a 100% at 1:2 risk reward ratio. Note, the exit percent is of the original trade (plus any scale-in).

Example 3) Set for break even and trail SL at when 25 pips profit reached:

Here the exit % is 0 which means won't actually close any part of the trade but will still set stop loss to start trailing and also set our break even. Note, our break even is like a second stop loss, so doesn't touch SL (in case change mind) but just monitors

trade and does close when profit goes back to 0 – see Section 3.13.6. Note, if you would rather move the stop loss then set SL box to RAISE and untick Break Even.

Example 4) Scale out of trade by 25% as each risk reward ratios of 1, 2 3 and 4 are reached and raise stop loss to previous target:

As mentioned before the Exit % is based on original trade (+ any scale-in) so to exit 25% on each target you need to specify exit % as shown. SL box set to RAISE will raise SL to break even when target 1 is reached. Raise SL to target 1 when target 2 is reached and so on. Sometimes this is refered to a jumping stop loss. Note, the SL RAISE on target 4 isn't strictly necessary as will be closing remainder of trade.

Example 5) Set stop loss to 7 pips and trail when 30 pip take profit is reached:

If a value is placed in the SL box then the stop loss will be set to the number of pips below current market price when target is reached. Other adjustments to SL are possible, see section 5.6. For example, if set SL box to -50%% then will reduce stop loss by 50% [Note, the double %% is not a typo, if set -50% then would reduce stop loss by 50% of the average daily range instead].

Example 6) Scale-in (open additional ticket) to double position size when 0.5 risk reward ratio is reached and then close trade when risk reward ratio of 2 is reached:

To achieve the scale-in use a negative value for the exit %, where -100 means double pisition size. If -50 then would increase position by 50% of original trade, e.g. if traded 1 lots then would open 0.5 lots when target 1 reached. Target 2 is set to exit

100% which includes any scale-in.

Example 7) Scale-in at multiple levels if market moves against you & exit if goes 10 pips for:

This uses negative pips (or can be negative risk reward ratio or negative amount) as target, i.e. triggered as an SL would be, and negative exit % to scale-in, i.e. open additional tickets to add to your position. In this example will scale-in 100% if trade goes negative 10 pips and scale-in another 100% (total 200%) at 20 pips loss and again at 30 pips loss. Finially, there is a take profit if goes back in your favour and goes to 10 pips profit, i.e. 10 pips from open price and spread covered. **Tip:** You can tick break even on target 1,2 or 3 and will then if trade goes back to break even it will exit. Where break even is defined as going back to original open price + spread and any 'profit pips' set in 'Break Even Profit Pips' box, also shown in pop-up.

Example 8) Scale-in if trade goes into loss by 10 pips and close when goes back to entry else exit 10 pips in profit

Target 1 has the -100 for Exit % which means scale-in 100% (double position) if trade goes into loss by 10 pips (as given by -10 for target value). Target 1 will also set for break even, which means trade will exit when goes back to entry price (allowing for spread). This means origianl ticket will be at 0 profit but scale-in ticket will be 10 pips in profit. Notice 'Break Even Profit Pips' box is set to 0. Alternatively, if trade gets to 10 pips profit then will exit trade. If you would like the stop loss to be 20 pips, for example, then this can be set in CONFIG | Stop Loss | Fixed Pips of 20. Note, of course for take profit targets can replace pips with risk reward ratio, etc.

Example 9) When 1:1 risk/reward target is reached then trial stop loss by low of closed candle for buy and high of closed candle for sell

To achieve this, you first need to tick the following option in CONFIG | Stop Loss:

Then need to download the **m-slhl** rule from our library, which will set stop loss based on closed candle high/low for sell/buy, respectively, when stop loss is in 'RULE' mode. Do this via CONFIG pop-up and enter m-slhl in the Code box and click Download button.

Finally, in CONFIG | Take Profit, need set take profit target at 1:1 RRR which will switch stop loss to RULE mode and set to trail:

Example 10) Set 5 TP targets at 25, 50,75, 100 and 150pips. When 1ˢᵗ target reached reduce SL by 50%, 2ⁿᵈ target set to beakeven, 3ʳᵈ target close 70% and set SL to target 1 price, 4ᵗʰ target to target 3 price and the 5ᵗʰ target should close remaining trade.

Reducing SL by 50% can be achieved by setting the SL box to -50%%. Our system supports raising SL to previous TP target by setting SL box to RAISE. So, would be configured like this:

NUMBER OF TAKE PROFIT LEVELS / TARGETS: 5 ▾				
TARGET 1:	TARGET 2:	TARGET 3:	TARGET 4:	TARGET 5:
25 pips ▾	75 pips ▾	100 pips ▾	50 pips ▾	150 pips ▾
Action on Hit:	Action on Hit:	Action on Hit:	Action on Hit:	Action on Hit:
Exit %: 0 ▾	Exit %: 70 ▾	Exit %: 0 ▾	Exit %: 0 ▾	Exit %: 100 ▾
SL: -50%% ▾	SL: RAISE ▾	SL: RAISE ▾	SL: ▾	SL: ▾
☐ Trail SL	☐ Trail SL	☐ Trail SL	☐ Trail SL	☐ Trail SL
☐ Break Even	☐ Break Even	☐ Break Even	✓ Break Even	☐ Break Even

Note, the reason target 4 is the 50 pips one is because the RAISE works to set SL to previous TP target. Note, our break even mechanism is separate to our SL and works as a secondary stop loss.

Appendix B – Using Experts Log in MetaTrader

The Experts log is very useful for finding out why the EA didn't take a trade at particular time or alternatively why it closed trade if you didn't expect that.

The log contains a running time stamped commentary of the status of EA and will say why the EA didn't take a trade, e.g. an indicator hadn't lined up or spread too high and will also contain any errors, e.g. errors returned from the Broker when the EA tried to open the trade. It will also log the reason for closure, e.g. stop loss hit, break even ticked or due to trade rule, e.g. configured indicators changed direction.

All log messages are in time in order and can be searched for a particular symbol. Remember the log is in local time which may need to be offset (say) by a couple of hours from server time, i.e. the time shown on the chart.

Log messages are in the format (example):

```
2016.08.15 14:44:54.949   runwiseFX_Strategy_Automator EURJPY,H1: TDI(B): red not
crossed yellow
2016.08.15 14:44:53.539   runwiseFX_Strategy_Automator EURJPY,H1: TDI(S): not crossed
50
```

Lines that contain (B) refer to buy situation and lines that contain (S) refer to the sell situation. Therefore, if looking why didn't take a buy at certain time then need to find last log message marked with (B) just before that time. Note, a log message gets added when the trade status (rule outcome) changes. All messages are designed to be human readable, e.g. 'ema not crossed', 'waiting for tdi' etc.

To access the Experts log go to the Expert tab on MetaTrader in the Terminal/Toolbox Panel. Right click and select View option. The following pop-up will be shown:
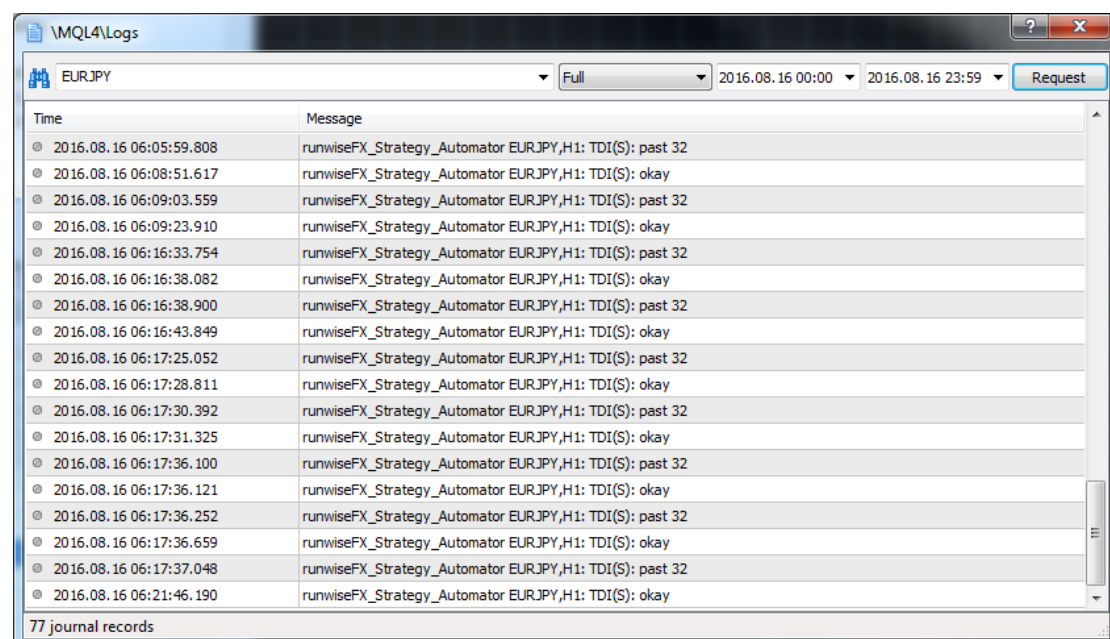
Enter the symbol in the box in the top left and enter the date range/time range of interest and click Request. This will then show you messages for that time range. Remember everything is local time so need to apply appropriate offset from server time. Locate the last message just before where you think it should have traded (say) and that will be what the rule was waiting for.

If EA is sometimes not opening trades when expected, e.g. when indicators have lined up: The usual reason for this is due to allowed slippage or maximum spread being exceed. The system will retry in this case but only if market price hasn't moved too much from where the entry should been originally. This prevents the EA from opening a trade at a terrible price. The following EA inputs control all of this – see section 14 for more details: **Main_maxSlippagePips**, **Main_maxSpreadForAutoTradeOpen**, **Main_tradeOpenRetryMaxMovePips** and **Main_tradeOpenRetrySecs**.

If EA is sometimes opening trades when it appears it shouldn't have, e.g. doesn't look like indicators had lined-up when look back at chart: The usual reason for this is that one or more of the indicators is sometimes briefly repainting. You can use our Shift Helper Tool to verify Shift the setting it correct and are using a stable shift value when capturing the indicator value – see section 6.

Appendix C – Adjust Text on SL/TP Lines

This can now be done more easily via by CONFIG | Display | SL/TP Text. However, if wish to use our EA inputs for this then here are some examples settings for Main_lineTextStopLoss and Main_lineTextTakeProfit EA inputs that can used to set the text shown on the SL and TP lines, respectively. Note, if either input is left blank then will show system default, i.e. pips from current / open price / pending price (if set).

Example 1) SL line risk amount, pips and lots:

```
Main_lineTextStopLoss=Rsk={f.formatFixed({f.mathMulti({f.pipDiffAuto({t.openOrCurrent}
;{t.slPrice})});{t.amntPerPip})};2)} Lt={t.lots}
{f.pipDiffAuto({t.openOrCurrent};{t.slPrice})}p
```

Example 2) SL/TP showing profit they represent, where SL will be positive if been trailed past the open price:

```
Main_lineTextStopLoss=Profit={f.formatFixed({f.mathMulti({f.pipDiffAuto({t.slPrice};{t
.openOrCurrent})});{t.amntPerPip})};2)}
```

```
Main_lineTextTakeProfit={f.mathMulti('{f.pipDiffAuto({t.tpPrice};{t.openOrCurrent2})}'
;{t.amntPerPip};2)}
```

Example 3) SL/TP showing profit and pips:

```
Main_lineTextStopLoss={f.pipDiffAuto({t.slPrice};{t.openOrCurrent})}p
({f.formatFixed({f.mathMulti({f.pipDiffAuto({t.slPrice};{t.openOrCurrent})});{t.amntPe
rPip})};2)})
```

```
Main_lineTextTakeProfit={f.mathAddInt({t.tpLevel};1)}:{f.pipDiffAuto({t.tpPrice};{t.op
enOrCurrent2})}p
{f.mathMulti('{f.pipDiffAuto({t.tpPrice};{t.openOrCurrent2})}';{t.amntPerPip};2)}
```

Appendix D – Understanding Our Retry Mechanism

Like many EAs our EA will retry a trade open if there is some temporary problem, e.g. slippage or spread too high. As our product is professional grade, we do one extra check during retry – that a retry isn't attempted if market has moved from the original open price to a worse price, as this **would defeat** the slippage & spread checks. When this happens you will see the following alert:
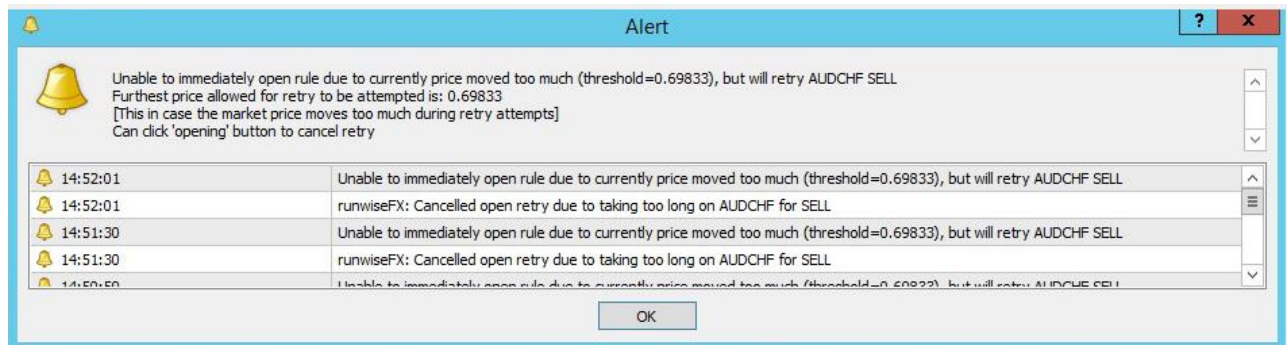
This alert means the EA is waiting for price to improve before retrying trade open so that your max spread & slippage requirements are not defeated.

You can increase the value in CONFIG | Advanced | 'Max Market Move During Open Retry' to permit a worse price for the retry if you wish. Note, the time allowed for retry is also limited to 1 bar/candle, by default. This can be set via EA input **Main_tradeOpenRetrySecs**, which if negative gives number of bars/candles, else number of seconds.

Appendix E – Back Testing with Historical News Events

It is possible to back test with user supplied historical news events in a CSV file. This includes testing with MetaTrader's Strategy Tester and our built-in stats. The CSV file should be saved into MQL4\files (or MQL5\files on MT5) of your MetaTrader data folder for use with or built-in stats or tester\files folder for use with MetaTrader Strategy Tester. The file should be called **news.csv**

The CSV file can use semi-colon or comma to delimit the fields. Format needs to be:

```
Date;Time;Currency;Impact
e.g.
20061231;15:00:00;NZD;H
```

The time needs to in GMT/UTC. The system will automatically see what your broker is offset by from GMT and apply that offset to news time. However, it does need the market to be open to work this out. So, if back testing at the weekend or using MetaTrader Strategy Tester then please set EA input News_strategyTesterGMTOffsetHrs. So, if your broker is 2 hours ahead of GMT then this should be set to 2.

Note, if EA input News_strategyTesterGMTNewYorkSummer is true (default) then it assumes your broker operates on New York Daylight Saving, so will adjust offset automatically for daylight saving based on when news event occurred. If false then assumes European daylight saving.

The Impact should be H for high, M for medium, L or low. File can contain extra fields and header row, which are currently ignored.

Note, if using our built-in stats then recommend setting Model Quality in CONFIG | Stats/Optimization to High at least.

END OF DOCUMENT