



Configurable Strategy Automator EA

User Guide

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1 INTRODUCTION

This document covers how use the runwiseFX Configurable Strategy Automator EA that is available in the MetaTrader Market Place. The EA allows trading rules to be automated, which are read from a text file as if you wrote them down on a piece of paper. The EA also provides full trade and money management features via a interactive control panel. The EA can also handle multiple accounts, where actions be replicated on multiple instances of MetaTrader for different accounts, on the same computer.

The EA can also be used in manual mode, providing a great manual trade panel with lots of essential features, such as hidden stop loss, scale-in and out, auto/trailing stop loss, hidden pending orders, news events and more.

Please ensure that you use the EA on demo account until you have familiarised yourself with its operation, in a variety of trading setups. If you have written your own rules then use strategy tester to test them thoroughly.

Link to the product on the MetaTrader Market Place:

<https://www.mql5.com/en/market/product/9602>

Line to free demo that can be used on a regular chart (include video):

<https://www.mql5.com/en/market/product/10040>

Note, the product currently supports the MetaTrader 4 platform.

If you only wish to only use the EA for manual trading then we have a manual only version of the EA available, which is cheaper to buy than the full 'Automator' version:

<https://www.mql5.com/en/market/product/7570>

This manual can still be referred to for describing how to use the manual aspects of the EA.

1.1 Document Conventions

The following icons are used to throughout the document:



Take note – try to remember



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



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



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



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

2 SET-UP & CONFIGURATION

The EA has been designed to be ready to go 'straight out of the box', as much as possible. By default the stop loss is set automatically and any trade will scale-out as risk reward take profit targets are reached. However, this set-up can easily be changed via the EA's input properties. Note, a full list of EA inputs is in section 11.

Here are some configuration changes you may wish to make:

2.1 Adding forexfactory.com to Allowed URLs for News Events and Adding runwisefx.com

A big feature of the EA is that it can display and act upon news events. *[If you don't currently consider news events in your trading then we recommend you do! We've witnessed a high impact news event wipe out most of a live account due to a gap in market that exceeded broker stop losses. Don't wait until it happens to you!]*

In order that the EA can obtain news events, the following URL **<http://forexfactory.com>** needs to be added on MetaTrader via 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.

We also recommend adding **<http://runwisefx.com>** as that will allow you to download rules from our [rules library](#) directly via the EA.



Don't forget you need to include the **http://** but do not add 'www.' to the URL - must be entered as shown above.

2.2 Changing position on chart of the EA panel

Can be done via Box_* EA inputs. Allows you to set corner and X,Y offset.

2.3 Setting risk percent/amount/lots

Change EA input **Important_riskAmount** to the required amount to risk per trade. This can be either a percentage of your balance/equity, whichever is lower. Or, it can be a fixed amount; just omit the % sign. To set a particular number of lots instead, set **Important_riskAmount** to blank and set **Important_lots** to the required position size.

2.4 Setting stop loss

By default the EA will set the stop loss automatically using a moving average on the high & low price. To set the stop loss to a specific number of pips; set **Important_defaultStopLossMode** to (say) 20 for 20 pips. Note, this is pips not points, as the system automatically handles 4 & 5 digit brokers.

2.5 Setting take profit

Please see Appendix A

3 LOADING RULES FROM OUR LIBRARY

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

To load rules you will need to have added **http://runwisefx.com** to the list of URLs that the EA can access via Tools | Options | Expert Advisors tab | 'Allow WebRequest for listed URL' (see section 2.1). This only needs to be done once.

Then click the **CONFIG** button on the EA and enter the quick load in the 'code' text box under 'Get Configuration Direction from runwisefx.com' and press the **Download** button. Confirm the download.

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, as our built-in rules will do that also.

Any downloaded rules will be saved into the configuration file for the EA (**runwiseFX_CSA_Supplied_Rules.txt** by default) and will be loaded whenever the EA is added to a chart.

3.1 Using Downloaded Rules in the Strategy Tester

Downloading rules only works when using the EA on regular chart. If you wish to use downloaded rules in the strategy tester then you need to copy **runwiseFX_CSA_Supplied_Rules.txt** file [the place where download rules get saved to] from the **MQL4\files** folder to the **tester\files** folder in your Data Folder in MetaTrader. Note, you can access your Data Folder by going to MetaTrader and selecting Open Data Folder from the File menu.

4 CONTROL PANEL

News Events >>

Status Lines >>

Multi-Timeframe Trend

Indicator & Pips Moved >>

Controls per Direction >>

Configurable Controls >>

(shown here are the
default supplied rules)

The screenshot displays the EA Control Panel interface. At the top, it shows news events: '02:30 Wed AUD CPI q/q', '02:30 Wed AUD Trimmed Mean CPI q/q', '02:30 Thu AUD Import Prices q/q', and '09:29 Thu EUR German Prelim CPI m/m'. Below this, status lines indicate 'SELL: 105p risk rwxEntry: off rwxSLRev:' and 'BUY: (no SL set) rwxEntry: off rwxSLRev:'. A multi-timeframe trend indicator shows price movement with arrows and values like 150, 135, 123, 85, 44, and 1. The main controls are divided into 'SELL CONTROLS' and 'BUY CONTROLS'. Each section includes a 'Risk' dropdown (set to 3.33%), a 'Lot' input (0.1), a 'Mode' dropdown (ALT), a 'Period' dropdown (0), an 'SL' dropdown (AUTO), a 'Trail' checkbox (TP), and a 'Pending' dropdown (OFF) with a 'BkEven' checkbox. A 'RULE CONTROLS' section at the bottom has 'Auto Entry' and 'Auto Exit' dropdowns (both OFF), an 'SL Reverse' checkbox, and a 'Close All Trades' button. The version 'V4.2 /' is shown in the bottom right.

The control panel provides news events, status, indicator values and GUI controls for interacting with the EA. The main controls are repeated for each direction, i.e. SELL and BUY. This allows for flexible hedging if your broker supports hedging. There is also a Rule Controls section that allows you to interact with rules that have been configured. The rule controls shown above are the default rules that are supplied with the EA.

4.1 MANUAL TRADING BUTTONS

4.1.1 Trade Opens (SELL/BUY)

The SELL and BUY buttons can be used to open a trade manually based on the lot size shown in the Lots text box. If no stop loss is set then the button will be colored orange and it will not be possible to open a trade in that direction. This can happen in auto stop loss mode (default) where the stop loss only calculates for the current direction the market is moving in.

The magic number (Expert ID) used for the trade is configured in the EA input **Important_magicNumberToUse** and is used by the EA to detect that the trade relates to it and should be managed by the EA.

Once a trade has been opened the corresponding SELL/BUY button is replaced by a Scale-In and a Close button.

4.1.2 Scale-In

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.

4.1.3 Trade Close including Partial Close

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 than what is left open.

4.2 MONEY MANAGEMENT (Risk:/Lot:)

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 should be entered in 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 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.

4.3 AUTO RULE MODE SELECTION (Auto Mode:)

The following modes are available that relate to the level of automation of the EA. Essentially, it allows you to tell the EA what you to do when the configured rules issue a trade command, such as TRADE_OPEN, SCALE_IN or TRADE_CLOSE, 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 fresh trades signal arise.

MAN	Manual Mode. This turns off the rules engine for when ticks coming in from the market or on regular time intervals. However, rules can still be executed on 'script basis', i.e. executed when a user configured button is pressed.
------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

EVL	<p>Evaluate Mode. Rules are evaluated on incoming price ticks and regular intervals. However, TRADE_OPEN, SCALE_IN, and TRADE_CLOSE commands will be ignored, in terms of raising alerts or opening/closing trades. However, the alert lines will still be set on the chart.</p> <p>Note, if a rule uses the FORCE_CLOSE command then this can still cause the trade to be closed unless in manual mode. Rules should only use FORCE_CLOSE if there is a tick box placed on the control panel that can be used to turn this behaviour off, or if called upon a user interaction, e.g. button press. We recommend keeping the EA on at least EVL mode, so that the close features of the supplied rules will still work, e.g. Close All Trades button.</p>
ALT	<p>Alert Mode. Any TRADE_OPEN and SCALE_IN, TRADE_CLOSE commands will result in an alert but won't actually open/close trades. Note, the alert will only new move, e.g. was buy but now rules are signalling for a sell. Note, if any rule issues a FORCE_CLOSE issued command issued by a rule will still close the trade.</p>
PND	<p>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 by Main_pendingOffsetOnSignalPips EA input. 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.</p>
TOE	<p>Trade Once then Evaluate Mode. This will act up on TRADE_OPEN SCALE_IN and TRADE_CLOSE (and FORCE_CLOSE) 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).</p>
TOA	<p>Similar TOE but after trade close the mode will be switched to ALT.</p>
TC	<p>Trade Continuous Mode. This will act up on TRADE_OPEN and, SCALE_IN, TRADE_CLOSE commands and keep doing so.</p> <div style="display: flex; align-items: center;">  <p>It is important that you test your rules well before this mode is selected, which we refer to as automatic.</p> </div>

4.4 PERIOD SETTING (Period:) – Optional via EA Input

This is the default period used by the automatic stop loss and rules engine. If set to 0 then this will be the timeframe of the chart that the EA has been placed on.



If set to 0 then any change to the timeframe of the chart the EA is running on will cause the stop loss and rules to be calculated on that new timeframe. This could cause a trade to be opened/closed if the direction is different on the new timeframe, assuming mode is set to

something that would permit open/close. To avoid this, either be careful changing the timeframe of the chart the EA is running on or select a particular period rather than 0.

4.5 HIDDEN STOP LOSS

The hidden stop loss is shown by a yellow dashed line on the chart, labelled **hsl**. This label will also indicate the number of pips from current bid price, or open price if a trade is open, and if trailing mode has been enabled. The hidden stop loss is used as the basis for calculating the risk pips, which is in turn is used to calculate the lot size based on the specified risk



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.

4.5.1 SL Mode (SL:)

By default the EA will calculate the stop loss automatically (AUTO) by using a built-in professional grade indicator and do so based on the timeframe selected by the **Period:** selection list. Other stop loss modes can be selected as follows:

OFF	Turns off stop loss. Can be used to remove unnecessary lines from the chart.
AUTO	Automatic. Uses our built-in indicator to set the stop loss.
RULE	Set by rules. Allows rules to set the stop loss using the SET_HIDDEN_SL command.
MAN	Manual. Allows the stop loss to be set by manually moving the line on the chart.
n Pips	<p>Simple linear stop loss based on the selected number of pips from the current bid price.</p> <p>★★★★★ top tip The list of pips from current price can be configured by the Main_selectionSLmodePips EA input property.</p>

4.5.2 Trailing (Trail tick box)

If the **Trail** tick box is ticked then the stop loss after a trade has been open, depending on the stop loss mode selected.



The trail mode won't ever set the stop loss to be further away, regardless of settings. Therefore, if you were trailing by 10 pips but then selected 20 pips, you would need to move the stop loss further away manually. This is a safety feature as an increased stop loss could potentially increase risk.

★★★★★

**top
tip**

Tailing with AUTO mode is great to capture profit over a number of candles as in automatic mode it gives the trade some breathing room to begin with before the stop loss starts to move. Even then the stop only moves significantly after candle close. However, if you wish to the trailing stop to capture profit of the current live candle or previously closed candle then a set number of pips from bid price would be better, as it works faster.

4.6 HIDDEN TAKE PROFIT (TP BUTTON)

The hidden take profit lines are show as cyan dashed lines on the chart, labelled **htp**. This label will also indicate the number of pips from current bid price (or open price when trade is open) and the auto risk reward (rr) setting if set.

By default four lines are shown (configurable) that permit the trade to be scaled out. The hidden take profit settings are contained within a pop-up that is shown when you press the **TP** button. 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 take profit pop-up shows the settings for each of the exit levels.

★★★★★

**top
tip**

The EA input properties can be used to change the default values used for the various tick boxes and selection fields. This even includes the number of take profit levels – by default 4 but can be set to a lower number.

4.6.1 MASTER Tick Box

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

4.6.2 Auto Ratio

If ticked then the take profit target is set automatically based on the risk reward specified next to the tick box. If unticked then the target can be set manually by moving the line on the chart.

If EA input **Important_tpRiskRewardAsPips** is set to true then the value will be the number of pips rather than risk reward ratio.

4.6.3 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.

4.6.4 Stop Loss Adjustment (SL:)

If set then will adjust the stop loss when the profit target is reached.

4.6.5 Break Even (BkEven tick box)

If set then will set for break even when profit target is reached.

4.6.6 Trail (tick box)

If set then trail the stop loss as the market moves in the favour of the trade, based on the stop loss set.

★★★★★
**top
tip**

If you just want to set the stop loss to trail (or raise) when a certain price is reached but not partially close then simply set the exit % to 0 or untick the tick next to the exit percent, i.e. take profit line is still active even if no exit % is set. However, if MASTER tick box is unticked then this will turn this feature off.

4.7 BROKER STOP LOSS & TAKE PROFIT

The EA will also set the broker stop loss and take profit, but further away than the hidden settings. In the case of take profit, it is the take profit line that is set to exit 100% of the trade that is used. The extra distance from hidden should make it less tempting/able for the broker to deliberately hit your stop loss or avoid your take profit.

4.8 HIDDEN PENDING ORDERS

In addition to hidden stop loss and take profit, the EA also supports hidden pending orders. The reason for using hidden pending orders is so that broker isn't tempted to nudge the price/spread to trigger your broker pending order when they believe the market isn't favourable.

To set a hidden pending order, simply tick the hidden pending buy and/or sell checkboxes. This will show the pending line on the chart that can then be moved to

the desired price. The mode will automatically change between Limit and Stop depending which side of the current price you place the line.

The EA can either open a trade or alert when the target price is reached. This is controlled by toggling the ALERT/TRADE toggle box that is shown next to pending checkboxes. There are also options to trigger when the price has closed above/below the pending price.

4.8.1 AUTOMATIC SCALE-IN ON PRICE

The EA can be set to automatically scale-in when a target price is reached. To use this feature tick the corresponding Pending checkbox for the direction that the trade is open for. This will 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 the ALERT/TRADE toggle box setting. The scale-in in percentage is that which is shown next to the manual Scale-In button. Essentially, in auto mode the EA presses the Scale-In button for you.

★★★★★
**top
tip** It is best to leave the ALERT/TRADE toggle box set to ALERT whilst you position the line, just in case the market moves and touches the default price where the line is placed. When you are happy with the line position you can switch to TRADE.

4.9 BREAK EVEN (BkEven tick box)

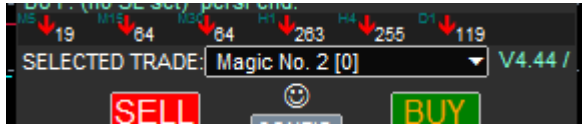
The 'Breakeven' checkbox can be used to set a trade for breakeven where the trade will be exited when the price comes back to its open price. If you change your mind whilst the trade is still open, simply untick the breakeven checkbox.

5 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. 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 – in this case 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.

Multi-trade mode can be configured (switch on) by setting EA input **Important_magicNumberToUseMax** to a value greater than **Important_magicNumberToUse**. For example if **Important_magicNumberToUse**=2 and **Important_magicNumberToUseMax**=6 then this will allow 5 trades to be managed with Magic Numbers (Expert IDs) of 2 through to 6.

In multi-trade mode a 'Selected Trade' selection box appears that allows you to select which trade you wish to manage with the control panel and 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.



Selected Trade selection box

Note, the Rule Controls by default are not specific to selected trade, i.e. relate to all trades. However, they can be configured to be. This is done on a per control basis.



The dreaded FIFO rule: If you live in the US or use MetaTrader 5 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.

6 BUILT-IN INDICATORS

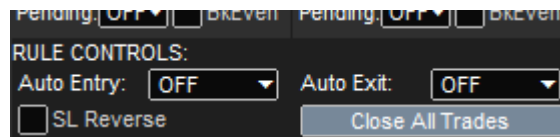
The EA is supplied with several professional grade indicators that are built into the EA. The first is shown within the control panel that gives the direction the market is moving in, on multiple timeframes. A solid arrow is where there has been a reversal and a hollow arrow is where it's just currently a retracement. The number next to the arrow is the pips moved in that direction and can be used to know how much of the move has been missed. Note, the timeframes shown can be configured via the input property **Main_indiDirPeriods**.

On the chart, the daily, weekly and monthly pivots are shown and the daily support and resistance lines (S1-3 and R1-3). These lines are useful as it can be the price at which a move may stop and not break through, i.e. pivot fail/bounce.

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). Both of these indicators can be turned off.

7 SUPPLIED RULES



The EA is supplied with rules that permit trades to be opened or closed when the trend changes direction for the chart period the EA is running on (unless set differently by the Period selection list). The detection of the trend change is achieved using our built-in indicator, shown by the trend direction arrows on the control panel. Note, the period does need to be shown by the arrows, i.e. in **Main_indiDirPeriods**.

Use the Auto Entry selection list to set the EA to signal on the next trend change. Two options are available that relate to trend strength, i.e. retracement and reversal. Retracement will signal on retracement strength and selecting Reversal will only alert/trade when it appears the market has actually changed direction. Note, for the alert/trade to actually happen the Mode selection box also needs to be set to something above EVL (evaluate), e.g. ALT for alerting, or (say) TC to trade on every trend change.

The Auto Exit can be used to perform an exit based on the same criteria, just in the opposite direction. The rule uses a command called FORCE_CLOSE which means the close will have even if just EVL (evaluate) mode, or above.

The SL Reverse tick box

The Close All Trades button will signal to this instance and other instances of the EA on other symbols to close all trades that the EAs are managing, i.e. trades with the magic number that is set for the EA. The FORCE_CLOSE command is again used, so will work if the EA is above manual mode.

8 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.

9 STRATEGY AUTOMATION

A big part of the EA is that it can be configured with your 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.



Remember we are here to help! This part of the system can seem a bit daunting and there is a learning curve. However, feel free to contact us if you are suck / don't understand: support@runwisefx.com

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

10 MUTLI-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. This creates an inherent delay and the potential for slippage between accounts.

To activate multi account support set the **Main_multiAccountMode** input property of the EA to Master on the account you want to be master (a M should appear above the CONFIG button) and set **Main_multiAccountMode** to slave on the other accounts (a S should appear). Actions performed on the master account should then be replicated on the slave accounts.



**top
tip**

You can test the link via the CONFIG button and then click Test Alert to Slaves button on the Configuration & Tools popup.



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.

11 EA INPUT PROPERTIES



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

Variable	Description
Important_brokerSupportsHedging	Set to false if you broker does not support hedging. This will prevent the EA from trying to automatically open trades in the opposite direction to any trade already 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).
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.

Variable	Description
Important_strategyTestTradeContinuous	If set then when strategy testing the mode will be set to 'trade continuous', regardless of the setting of Main_defaultMode
Important_tpRiskRewardRatios	Take profit risk reward ratios (comma separated) for each level.
Important_tpExitPrcts	Take profit exit percentages (comma separated) for each level
Important_tpAdjustSLasTargetsReached	Take profit stop loss adjust on target setting (comma separated) for each level. Can be number of pips to set SL to. Can also contains BE to set for break even, RAISE to raise SL to previous target, or break even if first target and TRAIL to trail stop loss. If want to set to break even and trail then separate with . E.g. BE TRAIL,RAISE,RAISE in this example will set to break even and trail when first target is reached, will set SL to target 1 when target 2 is reached and so on.
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_averageDailyRangeDays	Days used for ADR calculation. Recommend leaving as is.
Main_averageRangeCorner	Chart corner where ADR is displayed
Main_averageRangeMode	Switch from ADR to ATR (Average True Range)
Main_averageRangeX	X location of ADR
Main_averageRangeY	Y location of ADR

Variable	Description
Main_averageTrueRangeDays	Days used for ATR calculation. Recommend leaving as is.
Main_breakevenThresholdPips	Pip profit below which breakeven close will occur (if set)
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 <i>true</i> 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 <i>true</i> will modify broker TP if hidden TP is moved
Main_confirm*	Allows various confirmation message boxes to be turned on and off
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	Deafult period to be used when EA loaded onto chart

Variable	Description
Main_GUIautoConnect	If set then will automatically connect with Windows GUI if present
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_maxSlippagePips	Maximum slippage when opening tickets, if - 1 then uses spread
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
Main_pendingBuyOnBid	If <i>true</i> will alert/trade pending when bid price reaches target price
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_hideTPLinesIfTradeNot OpenUnlessSetManual	If set then the hidden take profit lines will not be shown until a trade is open. 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.

Variable	Description
Main_maxSlippagePips	Maximum slippage allowed when opening/closing trades, in pips
Main_panelShowDualRiskSettings	If <i>true</i> then will allow risk setting to be changed on the panel on per direction basis
Main_panelShowPeriodSettings	If <i>true</i> then will allow period setting to be change on the control panel. The period setting is used for such things as the automatic stop loss calculation and the pending order on candle close
Main_pendingCancelOther	If <i>true</i> then opening of pending will cancel any in other direction
Main_resetAfterTradeClosed	If <i>true</i> will reset setting to default after trade closed
Main_scaleInPrctDefault	Default percentage to scale-in by
Main_screenShotOnAutoOpen	Take screenshot when trade is opened automatically. Screenshots appear in the MQL\files directory of the Data Folder and start with 'rwx_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_stopLossCalcTimeframe	Default timeframe for auto stop loss

Variable	Description
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)
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_strategyTestOutputResults	Will write results of strategy test to runwiseFX folder in the Common Data Folder
Main_strategyTestOutputAltName	If set then will be used in filename of strategy test results file, instead of symbol.
Main_strategyTestHighSpeed	If set then will speed up 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.
Main_timer*	Allows processing performed periodically to be adjusted in terms of frequency performed. Shouldn't need to change theses.
Main_tpAddSpread	If <i>true</i> will add spread to calculated take profit risk reward ratio prices

Variable	Description
Main_tpExtraPipsToAdd	Extra pips to add to calculated TP (say to cover commission)
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 happen (can be % of Daily Range).
Main_useAskForSLTP	Use Ask price for hidden stop loss and take profit where it would be used if broker
Main_variableIdxPerDirection	If set the variables will be stored on a per direction basis. Saves having to create separate variables for sell and buy.
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
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.

Variable	Description
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.
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_fallbackPointToPipDivider	If the EA can't work out automatically how to convert points to pips then this value will be used. The default is 10, which is correct for '5 digit brokers', i.e. that quote 10 th of a pip. For '4 digit brokers', i.e. who don't quote fractional pips, then this value would need to be 1.

12 WINDOWS GUI APPLICATION

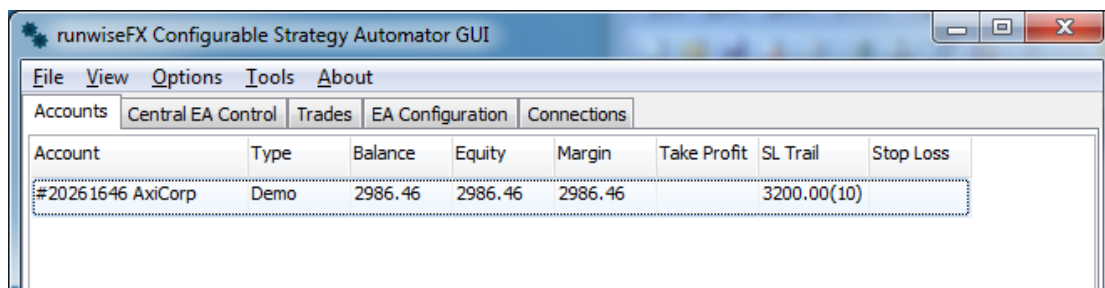
Our new Windows GUI application allows the EA to be more easily configured and also provides real-time central control of multiple EAs running on different charts, including different accounts. The GUI can also monitor your account equity and can be set to take action when equity targets are reached, e.g. close all trades.

The GUI can be downloaded from <http://runwisefx.com/csa/setup.exe>

Note, all our executables are digitally signed by us – vendor: Runwise Ltd.

12.1 Account Tab

List connected accounts. The Take Profit cell can be used to set an equity target which will cause all open trades that the EAs are managing to be closed when reached. The SL Trail cell offers similar, but instead of closing trades it will set the stop loss to trail mode. You can optionally enter in brackets how many pips to trail by, for example:



In the screen shot the stop loss on any open trades will set to trail by 10 pips when the equity of the account reaches 3200.

A stop loss column allows you to set the equity below which all open trades will be closed.

12.2 Central EA Control Tab

Lists each EA connected and shows you the status lines of the EA. You can also set the mode and period of the EA by clicking the value in the cell.

12.3 Trades Tab

Lists open and recently closed trades

12.4 EA Configuration Tab

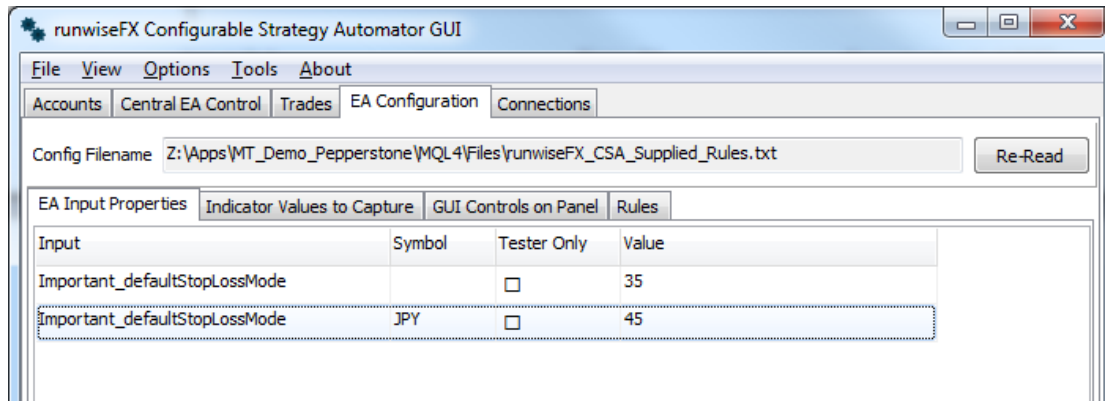
This allows you to configure the EA. By default the currently connected EA config will be editable.

The configuration is achieved by the following four sub-tabs.

12.4.1 EA inputs Sub Tab

Allows you configure EA inputs. The symbol column can be used to set values that only get used when the EA is run on chart containing that symbol. The tester tick box will only use the value if in Strategy Tester mode.

For example, the following will set the default stop loss to 35 pips, but for Japanese currency pairs it will be set to 45 pips.



12.4.2 Indicators to Capture Sub Tab

Allows you to specify the indicator to capture. Once an indicator is being captured in that can be used in the trading rules to take action.

12.4.3 GUI Controls Sub Tab

Allows you configure the GUI controls, e.g. tick boxes, text boxes, etc., that you would like placed at the bottom the EA control panel on the chart. The rules can then reference those controls and behave differently depending on what the control are set to. For example, a tick box can be place on the control panel that will turn on/off an automated exit.

12.4.4 Rules Sub Tab

Allows the rules to be specified that contain what you would the EA to do automatically or on (say) a button press. Click the [EDIT] cell to edit the logic lines of the rule.

12.5 File Menu

Allows you to open an EA configuration file form a different location

The 'Auto Save Config for Strategy Tester...' will, when you press the Save button, save the file in the MQL4\files folder of your Data Folder and also the tester\files folder at the same time.

The Save Desktop options will save the size and location of the open forms and restore them when the GUI is next run.

12.6 View Menu

Allows you to open the News Events and Alert Window. Note, the Alert Window is a replacement for the one in MetaTrader and allows you see the price the alert

happened, how many pips the market has moved since the alert and you can double click the alert to bring the chart to the front. Note, you can also right click the alert to open a trade for the symbol and direction shown in the alert.

The View Menu also allows you to open additional pop-up forms for accounts, central control and trades.

The Logging Form provides diagnostic information.

12.7 Tools Menu

Allows you ask the connected EAs to re-read their configuration, so that they can pick-up and start using any config changes you have made.

13 CONTACTS

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Appendix A – Example Take Profit Settings

Normally take profit is expressed as a risk reward ratio. However, if EA input **Important_tpRiskRewardAsPips** is set to true the number of pips can be supplied via **Important_tpRiskRewardRatios**. The percentage of what a trade should be exited by is controlled by **Important_tpExitPrcts**. The stop loss, trailing and break even can be set as the profit targets are reached, this is configured by **Important_tpSLAdjustmentOnTargetsReached**.

Here are some common examples of settings:

Single Take Profit on Risk Reward Ratio of 1:1

Important_tpExitPrcts=100
Important_tpRiskRewardRatios=1

Single Take Profit on 30 Pips

Important_tpExitPrcts=100
Important_tpRiskRewardAsPips= true
Important_tpRiskRewardRatios=30

Partial Take Profit (50%) and Breakeven on 1:1 Risk Reward and Full Take Profit on 1:2

Important_tpExitPrcts=50,100
Important_tpSLAdjustmentOnTargetsReached=BE
Important_tpRiskRewardRatios=1,2

Partial Take Profit and Breakeven and Trailing SL on 1:1 Risk Reward and Full Take Profit on 1:2

Important_tpExitPrcts=50,100
Important_tpSLAdjustmentOnTargetsReached=BE|TRAIL
Important_tpRiskRewardRatios=1,2

4 Take Profit Levels With Jumping Stop Loss as Targets Reached

Important_tpExitPrcts=25,50,75,100
Important_tpSLAdjustmentOnTargetsReached=RAISE,RAISE,RAISE,RAISE
Important_tpRiskRewardRatios=1,2,3,4

4 Take Profit Levels With Jumping Stop Loss as Targets Reached also Trail After 1:1 Reached

Important_tpExitPrcts=25,50,75,100
Important_tpSLAdjustmentOnTargetsReached=RAISE|TRAIL,RAISE,RAISE,RAISE
Important_tpRiskRewardRatios=1,2,3,4

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