

TSO Loss Management

v2.0

Quick Start Guide

Contents

About this Expert Advisor	2
Inputs	3
Input Mode	3
Basic Order Management	3
Static Balance	3
Stop Loss & Take Profit Units	3
ENABLE Trailing Stop	4
ENABLE Parabolic Trailing Stop	4
Time Filter (Away From Markets)	4
ENABLE Time Stop (Number of Bars) [0 = Disable]	4
Percentage Static Balance to Stop	4
Lot Size Features	5
Initial Lot Size	5
ENABLE Dynamic Lot Size	5
Loss Management	7
ENABLE Loss Management System	7
ENABLE Dynamic Distances	8
ENABLE Dynamic Lot Size [$X_n = a * X_{n-1} + b + c$]	10
ENABLE Averaging	11
ENABLE Swings	11
Secure Ratio (0 = Disable) [ONLY IF SWINGS ENABLED]	12
ENABLE Economy Mode 1	13
ENABLE Economy Mode 2	13
Entry Signal Settings	14
Exit Signal Settings	16
ENABLE Exit Signals	16
Custom Indicator Settings	17
Custom Indicator Name	17
Buffer	17
Buy / Sell Order Handle	17
Operator 1/2	17
Buffer Price Threshold 1/2	17
ENABLE Manual Panel	18
ENABLE Comments	18

About this Expert Advisor

Loss Management is an expert advisor that incorporates advanced grid system mechanics to eliminate losses from losing trades. It incorporates all the basic tools of the Signal Builder EA, adding the dimension of negative management.

The Signal Builder EA offers a large number of indicators as well as advanced position management, allowing to build an almost infinite amount of strategies. More information on the Signal Builder EA can be found in its page in the Metatrader market.

In essence, Loss Management opens multiple trades in the same direction as the original losing trade at pre-set price levels and this happens until the price moves in favour of the open positions. All positions are closed when their total results in zero losses or profit. This is an example of the most basic functions of the Loss Management system.

The Loss Management EA incorporates a vast amount of mechanics that can adapt to different market conditions and micromanage each trade opened so that the loses are covered as fast as possible but also with minimum risk. Detailed explanations for all the features of the expert advisor can be found in the input descriptions.

If for any reason the EA is shut down unexpectedly it can be restarted as long as the Expert Properties have not been changed. Then it will continue normally, taking into account the previous orders it created. This feature has been added only to cover for unexpected circumstances. This expert advisor can result in open trades that can last from hours to weeks and it requires to be open throughout that period. It is possible to run from a PC if it can be constantly open and online but using a VPS is highly recommended.

Inputs

Input Mode

- Custom: The EA runs based on the parameters input by the user.
- Default: The EA ignores all inputs and follows the default parameters that are recommended.
- Manual Trades: The EA ignores all inputs and a manual trading panel appears when the EA is executed. Positions are opened only manually through the panel and losing positions are managed through the Loss Management.
- Custom Indicator: Entry signals are based on an external indicator only. The *Entry/Exit Signal Settings* are not used. Losing positions are managed through the Loss Management system.

Basic Order Management

The first section of the Expert Properties is Order Management. In this section, the order conditions can be selected, e.g. the lot size, stop loss and take profit.

Table 1: Basic Order Management Inputs

BASIC ORDER MANAGEMENT		//////////	BASIC ORDER MANAGEMENT	/...
Ma	Magic Number		123456789	
St	Static Balance		0.0	
ab	-----		-----	
St	Stop Loss & Take Profit Units		Pips	
St	Stop Loss Value [0 = Disable]		0.0	
St	Take Profit Value [0 = Disable]		0.0	
ab	-----		-----	
St	ENABLE Trailing Stop		Disable	
St	Trailing Stop Activation Level		0.0	
St	Trailing Stop Distance		50.0	
ab	-----		-----	
St	ENABLE Parabolic Trailing Stop		false	
St	Acceleration Factor Step		0.02	
St	Acceleration Factor Maximum		0.2	
ab	-----		-----	
St	Time Filter (Away From Markets)		false	
ab	Use only COMMA(,) and DASH(-) to separate months,days and hours		e.g Hours = 21 - 23 , 0 - 9 , 15 (The second term of the dash must be greater than first)	
ab	Months			
ab	Days Of The Month			
ab	Days Of The Week			
ab	Hours			
St	Time Stop (Number Of Bars) [0 = Disable]		0	
ab	-----		-----	
St	Percentage Of Static Balance To Stop [0 = Disable]		0.0	
ab	████████████████████		████████████████████	

Static Balance

The initial balance available. It is recommended to always update this value in case the EA is stopped while trades are still active. It allows the EA's mechanisms that need an initial balance input to "remember" the original initial balance before the EA was stopped, instead of the balance available when restarted. Notice that the Magic Number of the EA when restarted should also be the same as the one it had before it was stopped for it to be able to manage positions that have been left open.

Stop Loss & Take Profit Units

Sets the units for the following two inputs, i.e. *Stop Loss (SL)* and *Take Profit (TP)*.

- Pips: the input values for SL and TP represent pips in the unfavourable or favourable direction respectively.

- **Percentage:** the input values for SL and TP represent a percentage of the opening price in the unfavourable or favourable direction respectively.

Stop Loss Value [0 = Disable]

Stop-loss for the initial trade in pips or as a percentage. This value is not used if the Loss Management system has been activated. Set to 0 to disable stop-loss.

Take Profit Value [0 = Disable]

Take-profit for the initial trade in pips or as a percentage. Set to 0 to disable take-profit.

ENABLE Trailing Stop

- **Disable:** No trailing stop is used.
- **Pips:** Activate trailing stop for the initial trade. The Loss Management system will not engage if the trailing stop is triggered, whether it results in profit or loss. The activation level and distance will be measured in pips in the following inputs.
- **Percentage:** Activate trailing stop for the initial trade. The Loss Management system will not engage if the trailing stop is triggered, whether it results in profit or loss. The activation level and distance will be measured as a percentage of the opening price in the following inputs.

Trailing Stop Activation Level

The amount of pips in the favourable direction to activate the trailing stop.

Trailing Stop Distance

Distance of trailing stop from the Maximum Favourable Excursion (MFE) in pips. A smaller value creates a tighter stop while a larger value creates a wider stop.

ENABLE Parabolic Trailing Stop

Trailing Stop based on the Parabolic SAR indicator. The trailing stop value is equal to that of the Parabolic SAR based on the acceleration factor step and maximum given in the following two inputs.

Time Filter (Away From Markets)

Enter the time periods (months, days of the month, days of the week, hours) when the EA should not open new positions. The inputs should be numbers, e.g. for months January = 1, for days of the week Monday = 1, for hours 01:00 – 01:59 = 1. Commas (,) and dashes (-) can be used. Dashes are inclusive of the first and last numbers and the second number should always be larger than the first. For example, to avoid trades between 21:00 – 10:00 (not including 10:00) and 15:00 – 16:00 (not including 10:00) the *Hours* input would be 21-23, 0-9, 15.

ENABLE Time Stop (Number of Bars) [0 = Disable]

The number of bars at which the initial trade will be closed, irrespective of profit or loss. The bar within which the position is opened is also counted. The position will be closed at the start of the following bar after the set number of bars has been reached. For example, if this input is set to 5, the bar within which the position was opened will be counted as the first bar, another 4 complete bars will follow and the position will be closed at the start of the 6th bar. The Loss Management system will not engage if the time stop is triggered, whether it results in profit or loss.

Percentage Static Balance to Stop

The net profit at which the EA will stop working. It is measured as a percentage of initial balance. For example, if the initial balance is \$10,000 and this parameter is set to 60, then all trades will be closed once their net profit together with the current balance equal \$16,000. Set to 0 to disable.

Lot Size Features

Table 2: Lot Size Features Inputs

Initial Lot Size	0.01
ENABLE Dynamic Lot Size	Disable
Percentage Of Risk [ONLY FOR RISK MANAGEMENT]	5.0
Adjust Lot Size At Every Balance Change Of [ONLY FOR EQUATION]	100.0
a [ONLY FOR EQUATION]	1.0
b [ONLY FOR EQUATION]	1.0
c [ONLY FOR EQUATION]	0.0
ab	

Initial Lot Size

The starting lot size of the initial trade. It will apply to all initial trades if Dynamic lot size is disabled in the following input.

ENABLE Dynamic Lot Size

- Equation: The lot size is adjusted based on the equation $X_n = a * X_{n-1}^b + c$, where X_n is the lot size for the position to be opened and X_{n-1} is the lot size of the last position opened. The lot size remains constant ($X_n = X_{n-1}$) for $a = 1, b = 1, c = 0$
- Risk Management: The lot size of the initial order is adjusted so that a pre-set percentage of the current balance is always risked based on the stop loss set for the order. A stop loss value must be set for this mechanism to work. For example, if the current balance is \$10,000, the risk is set to 5% (i.e. \$500) and the stop loss is set to 50 pips, the lots of the new order will be calculated so that they return a loss of \$500 once the stop loss is reached. This allows for a more dynamic lot size adjustment that increases or decreases proportional to the current balance.
- Adjustable: Lot size is set to hold the proportionality ratio of the initial lot size (previous input) relative to the initial balance (*Static Balance* input in *Basic Order Management*). For example, if the lot size is initially set to 0.1 and the initial balance is \$100,000, then the lot size will be 0.15 when balance reaches \$150,000.
- Disable: Lot size remains constant for the initial trades.

Percentage of Risk [ONLY FOR RISK MANAGEMENT]

The percentage of current balance that will be risked if the *Risk Management* mechanism has been selected in the *ENABLE Dynamic Lot Size* input. For example, a value of 5 would mean that 5% of the current balance will be risked. Used only if *Risk Management* has been selected from the *ENABLE Dynamic Size* drop-down list.

Adjust Lot Size At Every Balance Change of [ONLY FOR EQUATION]

The amount by which the balance has to increase or decrease for the lot size to be increased or decreased respectively. Used only if *Equation* has been selected from the *ENABLE Dynamic Size* drop-down list.

a [ONLY FOR EQUATION]

The amount by which the new lot size (X_n) is a multiple of the previous lot size (X_{n-1}). It cannot be a negative number because this would result in a negative lot size.

For $a > 1$: the lot size is increased for each balance increment

For $a = 1$: $X_n = a * X_{n-1}^b + c$, i.e. the multiplication factor is neutralised and X_n is affected only from b and c.

For $0 < a < 1$: the lot size is decreased for each balance increment

For $a = 0$: $X_n = c$, therefore the lot size will get a fixed value c once the balance changes by the amount specified in the previous cell.

$a < 0$ is not accepted as a value because it would result in a negative number for the lot size, which is impossible.

b [ONLY FOR EQUATION]

The factor by which X_n increases exponentially relative to X_{n-1} .

For $b > 1$: the lot size is increased exponentially for each balance increment.

For $0 < b < 1$: the lot size is increased exponentially for each balance increment.

For $b = 1$: $X_n = a * X_{n-1} + c$, the exponential multiplication factor is neutralised and X_n is affected only from a and c .

For $b = 0$: $X_{n-1} = 1$, therefore the lot size becomes constant ($X_n = a + c$) after the first lot adjustment.

c [ONLY FOR EQUATION]

The amount added each time to the lot size.

For $c > 0$: the lot size is increased for each balance increment.

For $c < 0$: the lot size is decreased for each balance increment.

For $c = 0$: the lot size is not affected by c , $X_n = a * X_{n-1}^b$

Loss Management

Table 3: Loss Management Inputs

	ENABLE Loss Management	false
	Distance To Activate Loss Management (pips)	50
	Distance Between Loss Management Orders (pips)	20
	-----	-----
	ENABLE Dynamic Distances	Disable
	Order after which Dynamic Distances Start [ONLY FOR EQUATION]	1
	a [ONLY FOR EQUATION]	1.0
	b [ONLY FOR EQUATION]	1.0
	c [ONLY FOR EQUATION]	0.0
	Number Of Bars (Odd number) [ONLY FOR SMART]	15
	-----	-----
	ENABLE Dynamic Lot size $[X(n)=a*X(n-1)^b+c]$	false
	Number Of Orders Per Lot Size	3
	a	1.0
	b	1.0
	c	0.0
	Lot Size Stabilizer (lots) [0 = Disable]	0.0
	-----	-----
	ENABLE Averaging	false
	Averaging Target Profit (pips)	5
	-----	-----
	ENABLE Swings	false
	Order At Which Swings Start	3
	Swings Target Profit (pips) [0 = Disable]	0
	ENABLE Swings Profit Adjustment [ONLY FOR DYNAMIC DISTANCES]	false
	ENABLE Swing Trailing Stop	false
	Swing Trailing Stop Activation Level (pips)	20
	Swing Trailing Stop Distance (pips)	10
	-----	-----
	Secure Ratio (0 = Disable) [ONLY IF SWINGS ENABLED]	0.0
	(Open Loss) %_of_Balance for Secure Ratio Activation	10.0
	-----	-----
	ENABLE Economy Mode 1 [ONLY IF SWINGS ENABLED]	false
	ENABLE Economy Mode 2 [ONLY IF SWINGS ENABLED]	false
	(Open Loss) %_of_Balance for Economy Mode Activation	10.0
	Balance Mode	Dynamic
	-----	-----

ENABLE Loss Management System

This will enable the Loss Management System in its most basic form, as shown in figure 1. Assume a short position has been opened based on one or a combination of signals available – first red arrow at the purple line level. Also assume Take Profit at 50 pips and a Loss Management activation distance of 50 pips.

1. If the price decreases (i.e. moves favourably) by 50 pips, then the Take Profit will be executed and the position will be closed with profit.
2. However, if the price increases (i.e. moves unfavourably) by 50 pips, this would enable the Loss Management System. At this point the Loss Management System would open a second short order. This is because the price was expected to decrease based on our original signal. If the price continues to increase, then new positions will be opened on predetermined distances between each other (dashed green lines). This will happen until the price decreases so that the total open loss from all positions is zero at the average (yellow line).

The scenario explained above is based on the most basic features of the Loss Management system. As explained in the discussion for the following inputs, there are many ways the Loss Management System can be used. Notice that for the Loss Management System to operate correctly Stop Loss should be disabled. Trailing stop can be enabled but if it results in losses, Loss Management is not triggered.

Distance to Activate Loss Management (pips)

The loss at which the Loss Management System will be activated. Measured in pips. Not used if the *Smart* option has been selected in *Dynamic Distances*.

Distance Between Loss Management Orders (pips)

The initial distance between Loss Management orders. It remains constant if *Dynamic Distances* are disabled in the following input or changes based on the Dynamic Distance Mode.



Figure 1: Loss Management – Simple Dynamic Distances

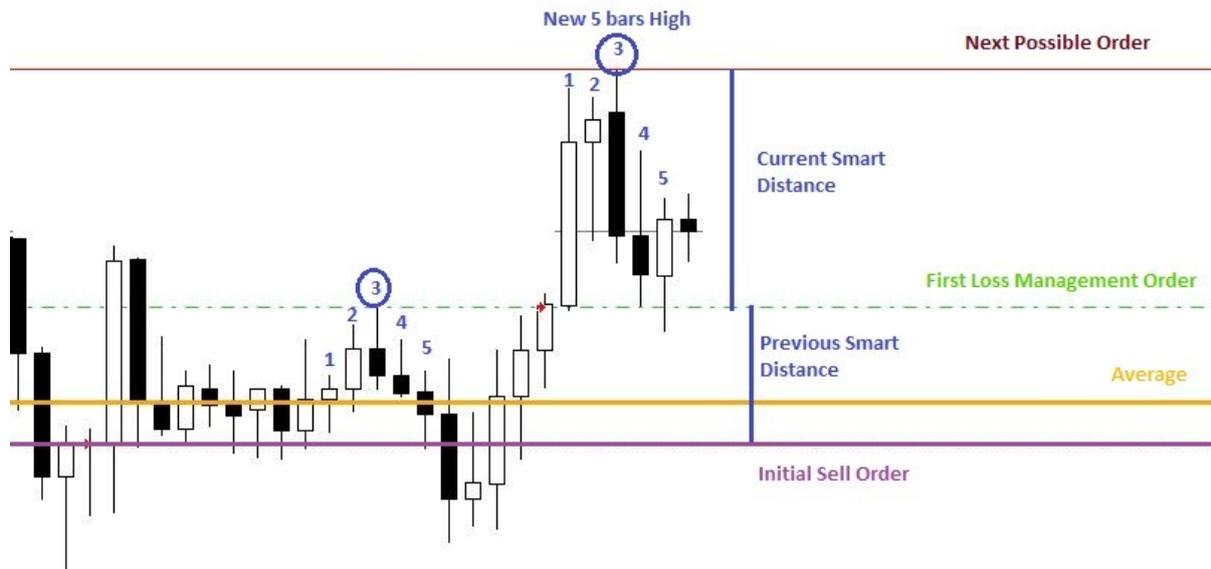
ENABLE Dynamic Distances

If enabled, one of the two modes available will be followed. The dynamic change in distances is isolated within each Loss Management cycle. If the EA exits a Loss Management cycle it will enter the following cycle based on the initial value of the distance – not based on the last value of the distance for the previous cycle.

- Simple: the distances are adjusted based on the equation $X_n = a * X_{n-1}^b + c$. X_n is the distance from the last position at which the next position will be opened. X_{n-1} is the distance between the last position opened and the one before it. The equation mechanics are the same as for the dynamic lot size equation.

For example, in figure 1 the Loss Management system is activated at the pre-set distance of 50 pips. The *Distance Between Loss Management Orders* (above input) is set to 20 pips, therefore the distance between the first two Loss Management positions (dashed green lines) is 20 pips. The equation parameters have been set as $a = 2$, $b = 1$, $c = 0$, i.e. $X_n = 2 * X_{n-1}$. As a result, the distance between the second and third loss management orders is 40 pips (two times the previous).

- Smart: The positions of the orders opened from the Loss Management system will be at the lines of support and resistance based on the positions of previous lowest lows and highest highs. If the initial order is short, then a new short position will be opened at each highest high, as shown in figure 2. The *Distance to Activate Loss Management* is not taken into account in this case, i.e. the Loss Management system makes its first trade immediately when the price reaches a previous support / resistance.
- Disable



Loss Management
Example : Smart Distances
 - Sell Orders
 - Number Of Bars (Odd Number) = 5

* The Loss Management Activation Distance is not taken into account

Figure 2: Loss Management - Smart Distances

Order after which Dynamic Distances Start [ONLY FOR EQUATION]

The number of orders that is opened at constant distances (including the initial position) before the distances start being readjusted. Distance are readjusted based on the equation $X_n = a * X_{n-1}^b + c$. Used only if the *Simple mode of Dynamic Distances* has been selected.

a [ONLY FOR EQUATION]

Affects the distance similar to the dynamic lot size. Relates only to the Simple mode of Dynamic Distances. Used only if the *Simple mode of Dynamic Distances* has been selected.

b [ONLY FOR EQUATION]

Affects the distance similar to the dynamic lot size. Relates only to the Simple mode of Dynamic Distances. Used only if the *Simple mode of Dynamic Distances* has been selected.

c [ONLY FOR EQUATION]

Affects the distance similar to the dynamic lot size. Relates only to the Simple mode of Dynamic Distances. Used only if the *Simple mode of Dynamic Distances* has been selected.

Select no of Bars (Odd Number) [ONLY FOR SMART]

Sets the number of candles required to determine the lowest lows and the highest highs. For example (as shown in figure 2), if it is set to 5, then a highest high would be determined as the highest price of

a candle that has two candles with lower highs before it and two after it, i.e. 5 candles in total. This means that the value must be an odd number and at least 3. A higher number ensures a stronger support / resistance but also means longer distances between positions. Used only if the *Smart mode* of *Dynamic Distances* has been selected.

ENABLE Dynamic Lot Size [$X_n = a * X_{n-1}^b + c$]

Allows to increase or decrease the lot size of the positions opened within a Loss Management cycle. It is based on the equation $X_n = a * X_{n-1}^b + c$, where X_n is the lot size of the position to be opened and X_{n-1} is the lot size of the previous position. In figure 3, the equation is set to $X_n = 2 * X_{n-1}^1 + 0$, meaning that the lot size is doubled each time. The dynamic change in lot size is isolated within each Loss Management cycle. If the EA exits a Loss Management cycle it will enter the following cycle based on the initial value of the lot size – not based on the last value of the lot size for the previous cycle.



Figure 3: Loss Management - Dynamic Lot Size

Number Of Orders Per Lot Size

The number of positions that is opened at each lot size before the lot size is readjusted based on the equation $X_n = a * X_{n-1}^b + c$. For example, in figure 3 it is set to 2, therefore the lot size changes on every second position opened. Used only if the *Dynamic Lot Size* has been enabled.

a

Affects the lot size for the Loss Management orders the same as the dynamic lot size for the original orders. Used only if the *Dynamic Lot Size* has been enabled.

b

Affects the lot size for the Loss Management orders the same as the dynamic lot size for the original orders. Used only if the *Dynamic Lot Size* has been enabled.

c

Affects the lot size for the Loss Management orders the same as the dynamic lot size for the original orders. Used only if the *Dynamic Lot Size* has been enabled.

Lot Size Stabilizer (lots) [0 = Disable]

The lot size at which the lots will stop being readjusted and will remain constant for the rest of the Loss Management trades. It is good practice to always set a reasonable maximum / minimum lot size. This prevents opening very large orders which can expose the account to great risk or very small orders that make it very difficult to cover for losses and exit the Loss Management cycle. Used only if the *Dynamic Lot Size* has been enabled.

ENABLE Averaging

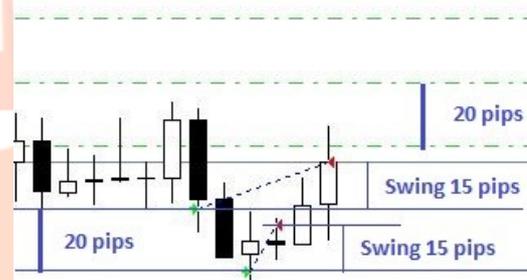
The net loss or profit of all Loss Management orders is calculated and the Loss Management system cycle is closed (i.e. all orders are closed) once the target value (set in the following input) has been reached.

Averaging Target Profit (pips)

The net profit (in pips) to be gained after all orders are closed through averaging. Set to 0 for all orders to close at 0 profit / loss or set a negative number to set a loss in pips. Used only if *Averaging* has been enabled.

ENABLE Swings

The Swings mechanism sets a profit target for each position opened through the Loss Management system and closes each position once the target has been reached, capturing the profit. For example, as shown in figure 4, the Loss Management system opens new positions at a constant distance of 20 pips from each other. If the profit target for the swings is set to 15 pips, then each position that reaches a profit of 15 pips will be closed, capturing the profit. The positions closed are opened again if the price reaches again the set price level - at 20 pips apart in this example. This mechanism allows to capture profit even in situations where the market is trending sideways.



Loss Management
Example : Swings
 - Sell Orders
 - Swing Target Profit = 15 pips

Figure 4: Loss Management - Swings

Order At Which Swings Start

The first Loss Management system order that will use the swings mechanism. For example, if the value is set to 2, the initial order and the first Loss Management system order will not capture any profit from swings but, starting from the 2nd Loss Management system order, all following orders will capture the swings. Used only if the Swings mechanism has been enabled.

Swings Target Profit (pips) [0 = Disable]

The "take profit" target for each Loss Management order in the swings mechanism, measured in pips. The target profit can be disabled if set to 0. Disabling this input combined with a swing trailing stop would allow a position to follow a strong favourable trend for as long as it lasts and close only through the trailing stop or the Averaging Mechanism (if enabled). This means that if this input is set to 0 in combination with disabling the Averaging mechanism and the trailing stop, the Loss Management system would continue to operate as if the Swings mechanism is disabled. Used only if the Swings mechanism has been enabled.

ENABLE Swings Profit Adjustment [ONLY FOR DYNAMIC DISTANCES]

This mechanism adjusts the size of the Swings target profit (above input) so that it remains proportional to the distance between positions. This applies only if the *Dynamic Distances* option has been enabled - otherwise the profit target from swings remains constant, as does the distance between the Loss Management orders.

ENABLE Swing Trailing Stop

A trailing stop for each Loss Management position that follows the swing mechanism. For example, in figure 5 the last position opened (blue arrow) is in profit and the red dashed line represents its trailing stop.

Swing Trailing Stop Activation Level (pips)

The amount of pips in the favourable direction to activate the trailing stop.



Figure 5: Loss Management - Swing Trailing Stop Loss

Swing Trailing Stop Distance (pips)

Distance of trailing stop from the Maximum Favourable Excursion (MFE) in pips. A smaller value creates a tighter stop while a larger value creates a wider stop.

Secure Ratio (0 = Disable) [ONLY IF SWINGS ENABLED]

The input value represents the ratio between (Swings Captured Profit) / (Open Loss) at which the Loss Management cycle will be closed. For example, if set to 2 and the open loss is \$500 at some point after the secure ratio mechanism has

been activated, then the Loss Management cycle will be closed once a profit of \$1,000 has been captured through the Swings mechanism.

(Open Loss) %_of_Balance for Secure Ratio Activation

The open loss as a percentage of current balance at which the Secure Ratio mechanism is activated. For example, if the current balance is \$10,000 and this input is set to 20, the system will start looking to close the cycle through the secure ratio once the open loss hits \$2,000 - irrespective of whether the open loss is reduced later.

ENABLE Economy Mode 1

This mechanism uses the profit captured through swings in order to close open positions starting from the initial position and continuing through the positions opened through the Loss Management system, in the sequence they were opened (i.e. starting from the oldest and most unprofitable). An example is shown in the following figure 6.



Figure 6: Loss Management - Economy Mode 1

ENABLE Economy Mode 2

This mechanism closes the most profitable positions and the most losing position once the open profit of the former is equal to the open loss of the latter. This results in less open positions. It can be used whether using the swings mechanism or not, with or without Economy Mode 1. As shown in the example of figure 7, the four profitable open positions (green lines) are closed together the initial short order (red line) to cover its losses.

(Open Loss) %_of_Balance for Economy Mode Activation

The open loss as a percentage of initial / current balance (see following input) at which Economy Modes 1 and 2 are activated.

Balance Mode

Static: Use the initial balance for the calculation of the Economy Mode Activation level percentage.

Dynamic: Use the current balance for the calculation of the Economy Mode Activation level percentage.

Economy Mode 2 uses the profit from the 4 positions shown with green lines to close the most unprofitable position shown with the red line



Example : Economy Mode 2

- Sell Orders
- Swings Target Profit = 0 (Disable)
- Swings Trailing Stop Enable , Swings Trailing Stop Activation = 20 pips , Swings Trailing Stop Distance = 15 pips
- Economy Mode 2 Activation is 1% of dynamic balance (dynamic = the current account balance)

Figure 7: Loss Management - Economy Mode 2

TS
Trading Signals Online

Entry Signal Settings

A total of 28 indicators are offered, based on MetaTrader's default indicators. Information for all of them can be found on MT5's Help page (metatrader5.com/en/terminal/help/indicators).

- Trend Indicators
 - Average Directional Index (ADX)
 - Standard Deviation
 - Simple Moving Average (SMA)
 - Double Crossover Moving Averages
 - Bollinger Bands (Breakout – Re-entry)
 - Envelopes (Breakout – Re-entry)
 - Parabolic SAR
 - Ichimoku Kinko Hyo
- Oscillators
 - Average True Range (ATR)
 - Stochastic Oscillator
 - Relative Strength Index (RSI)
 - Moving Average Convergence / Divergence (MACD)
 - Bulls And Bears Power
 - Commodity Channel Index (CCI)
 - DeMarker
 - Force Index
 - Momentum
 - Moving Average Of Oscillator (OSMA)
 - Relative Vigor Index (RVI)
 - Williams' Percent Range (%R)
- Volume Indicators
 - Accumulation / Distribution
 - Money Flow Index (MFI)
 - On Balance Volume (OBV)
 - Volumes
 - Accelerator Oscillator (AC)
- Bill Williams Indicators
 - Alligator
 - Awesome Oscillator
 - Fractals
 - Gator Oscillator

The indicator(s) selected will determine the entry strategy followed. It is possible to enable more than one indicators for entry. Once all enabled indicators return the same signal within the same bar, then the EA will open a long or short position accordingly.

Exit Signal Settings

ENABLE Exit Signals

- **Disable:** No indicator will be used for exit. Exit will be based on Basic Order Management (i.e. Take Profit, Stop Loss, Trailing Stop etc.)
- **Auto:** The exit will be based on the indicators and the parameters set in the Entry Signal Settings. Once all indicators return a signal opposite to the currently open position within the same bar, the EA will close that position and wait for the next entry signal.
- **Reverse:** The exit will be based on the indicators and the parameters set in the Entry Signal Settings. Once all indicators return a signal opposite to the currently open position within the same bar, the EA will close that position and at the same time open a new opposite position.
- **Custom:** The exit will be based on the indicators and the parameters set in the Exit Signal Settings. If more than one indicators are enabled, then all indicators must return a signal within the same bar for the EA to close that position.

TSS
Trading Signals Online

Custom Indicator Settings

Custom automated strategies can be added as entry signals in the form of indicators. The losing orders are then managed through the Loss Management system. The indicator should return a value in one of its buffers that signals a buy or a sell order when compared with up to 2 criteria.

Custom Indicator Name

The exact name of the indicator that the EA should read without the file extension.

Table 5: Custom Indicator Inputs

ab	CUSTOM INDICATOR SETTINGS	////////////////////	CUSTOM INDICATOR SETTINGS
ab	Custom Indicator Name		
123	Buffer	0	
ab	
ab	Buy Order Handle	
123	Operator 1	None	
1/2	Buffer Price Threshold 1	0.0	
123	Operator 2	None	
1/2	Buffer Price Threshold 2	0.0	
ab	Sell Order Handle	
123	Operator 1	None	
1/2	Buffer Price Threshold 1	0.0	
123	Operator 2	None	
1/2	Buffer Price Threshold 2	0.0	
ab			

Buffer

The buffer used from the indicator to return buy or sell signals.

Buy / Sell Order Handle

Operator 1/2

The operator (<, =, > etc.) of the first/second criterion for the buffer value in order to make a buy/sell order. Set to None in Operator 2 if only 1 criterion is needed. If both criteria are used, then both should be fulfilled to make an order.

Buffer Price Threshold 1/2

The value relative to which the buffer is compared.

For example, an indicator returns the value -1 when there is a sell signal and 1 when there is a buy signal. *Operator 1* for the buy and sell order handles would be set to *equals (=)* and *operator 2* to *None*. *Buffer Price Threshold 1* would be set to *1* for buy and *-1* for sell.

ENABLE Manual Panel

If enabled (*true*), a panel for manual trading appears when the EA is executed. Manual trades are added to the pool of trades that have been opened automatically from the EA and Loss Management is applied to them as well. Features included in Basic Order Management settings, i.e. take profit, trailing stop etc., will not be applied to manual orders.

ENABLE Comments

If enabled (*true*), useful information appears at the top left of the chart relating only to the specific chart.

1. Account balance: The current balance of the account.
2. Current profit: The profit or loss from the currently opened positions.
3. Current lots: The total amount of lots in all currently open positions.
4. Max lots: The maximum amount of lots that has ever been open at the same time.
5. Max drawdown %: The maximum drawdown as a percentage of the balance.
6. Spread: The current spread.
7. Capture Profit from Swings: The profit captured from swings in the Loss Management System. (If swings have been enabled)