

Name of EA: **K&H**

Introduction:

The system uses two indicators for opening or closing trades: RSI and MACD

RSI

The level [70-100] is considered the overbought level.

The level [0-30] is considered the oversold level.

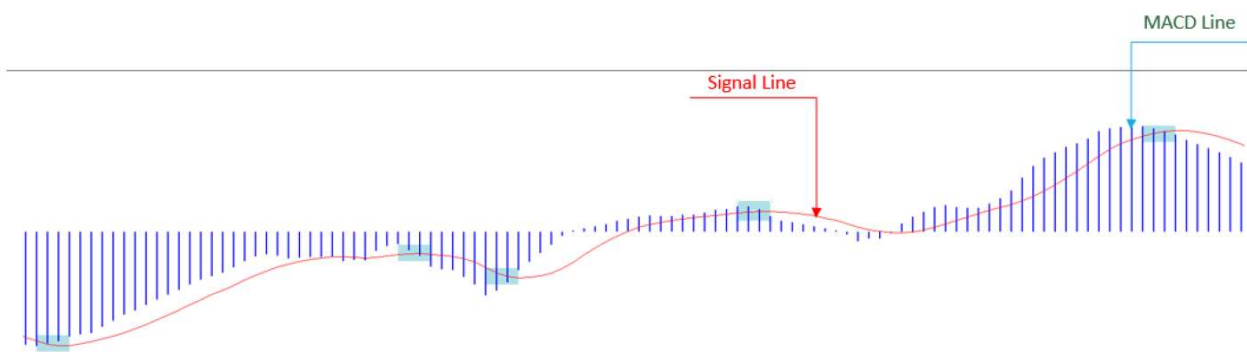
These values for oversold and overbought zones are configurable in the EA's control panel.

MACD












































K&H expert adviser uses the MACD indicator to start transactions. Being a slower indicator than RSI, it filters out more false signals in the market.

The MACD Line triggers technical signals when it crosses above or below the Signal Line.

The system also uses these signals to close trades in an area where the retracement probability is higher.



Control panel:

About		Comon		Inputs	
Variable		Value			
 ===< Trade Settings >=====		===< Trade Settings >=====			
 Magic Number		999			
 Lots		1.0			
 Profit (value in account currency)		0.01			
 Max Spread Filter		10			
 Start One Transaction or Hedge		One Transaction / Hedge			▼
 Stop after profit		No / Yes			▼
 -----< Indicators Settings >-----		-----< Indicators settings >-----			
 Use RSI		Yes / No			▼
 RSI Period		14			
 RSI Overbought activation		70			
 RSI Overbought deactivation		50			
 RSI Oversold activation		30			
 RSI Oversold deactivation		50			
 -----		-----			
 MACD Fast EMA		12			
 MACD Slow EMA		26			
 MACD SMA		9			
 -----< Strategy Settings >-----		-----< Strategy settings >-----			
 Profit Type for One Transaction		Fix / MACD / Trail			▼
 Use Break Even for One Transaction		Yes / No			▼
 Use Break Even for Hedge		Yes / No			▼
 Use MACD/Pending for Re-Hedge		MACD&Pending / Pending / MACD			▼
 Use Fix Pending for Re-Hedge		Yes / No			▼
 Nr of Candles for High / Low (x)		10			
 Nr of Candles for Break Even (y)		1			
 Pending/SL Distance (z)		50			
 BE Distance (bed)		50			
 -----< Mediation Settings >-----		-----< Mediation Settings >-----			
 Use Mediation		Yes / No			▼
 Mediation Step		1000			
 Use MACD/RSI to open Mediation Trans.		MACD&RSI / MACD / RSI			▼
 Use BE for Mediation Transactions		Yes / No			▼
 Multiplication Factor		1.00			
 Max Nr of Mediation Transactions		3			
 -----< Drawdown Stop Settings >-----		-----< Drawdown Stop Settings >-----			
 Use DD stop		Yes / No			▼
 DD type		Fix / Procentage			▼
 Fix DD stop (on account currency)		10000			
 Procentage DD stop(%) from Balance		10			
 -----< Dashboard Settings >-----		-----< Dashboard Settings >-----			
 Start X coordonate		900			
 Start Y coordonate		100			

<Trade Settings>

***Magic nr** – setting the magic number

***Lots** – setting the trades volumes opened by EA

***Profit** – setting the value for the profit tracked by a transaction or series of transactions linked together in a lock. Profit is not in pence but in account currency. The entered value can also be negative.

***Max spread filter** – setting the maximum spread value. If the spread is bigger than the set value, EA will not open or close trades.

***Start One Transaction or Hedge**

- **One transaction** – The EA will open only one trade (Buy or Sell) depending on the signals received from the indicators (RSI and MACD). After that, it will manage the transaction according to the other settings.

- **Hedge** – When on Hedge mode, the EA will directly open a lock consisting of two equal opposite orders (1 Buy and 1 Sell) without waiting signals from indicators. Instead it will use the signals from the indicators to exit the lock with the set profit (it will close or reopen the orders depending on the signals). (more detailed information in the scenarios below).

***Stop After Profit**

- **No** – after it hits a profit and closes a transaction or a lock, it starts the process all over again, endlessly.

- **Yes** – after it hits a profit and closes a trade or a lock, the EA stops. (This option is useful if the EA works on several instruments in parallel and some of them have high exposure. This way I set the other instruments to stop after completing the ongoing trade).

<Indicators Settings>

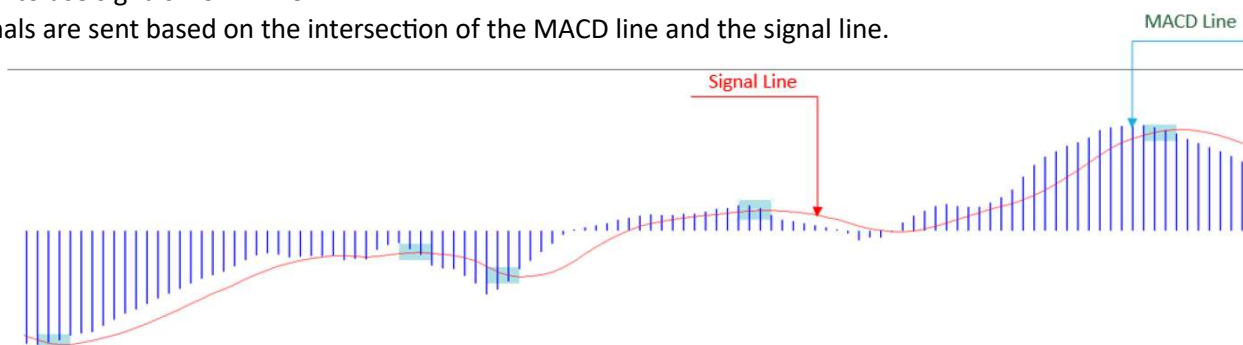
***Use RSI** – (Yes/No) - will use or not the signals received from RSI

- **No** - When the RSI is "No", then the EA opens or closes trades at the moment it receives the signal from the MACD indicator only.

- **Yes** - When the RSI is "Yes", then the EA first waits for the RSI to reach the activation value (Overbought or Oversold). At this time it is still not opening or closing trades. Only when it also receives the MACD signal, then the EA opens or closes trades. Both conditions must be met (RSI activated and MACD signal). Thus the MACD will sort out some of the false signals from the RSI.

How to use signals from MACD:

Signals are sent based on the intersection of the MACD line and the signal line.



Buy Signal = When the MACD Line crosses above the Signal Line, it sends the signal to open Buy or close Sell.

Sell Signal = When the MACD Line crosses below the Signal Line, it sends the signal to open Sell or close Buy.

***RSI Overbought activation** – It is the value set when the EA get alert and waits for a Sell signal from MACD.

***RSI Overbought deactivation** – If RSI is already on alert because it has reached the value of Overbought activation and is waiting for a signal from MACD, but in the meantime RSI reaches the value of Overbought deactivation, then it exits the alert, ignores MACD signals and waits for RSI to reach the value of Overbought Activation again. In order for the EA to open a trade, both conditions must be met (RSI activated and MACD signal).

***RSI Oversold activation** – It is the value set when the EA enters alert and waits for Buy signal from MACD.

***RSI Oversold deactivation** – If the RSI is already on alert because it has reached the Oversold activation value and is waiting for a signal from MACD, but meanwhile the RSI reaches the Oversold deactivation value, then it exits the alert, ignores the MACD signals and waits for the RSI to reach the Oversold Activation value again. In order for the EA to open a trade, both conditions must be met (RSI activated and MACD signal).

<Strategy Settings>

***Profit Type for One Transaction** – (applies only to **One Transaction** in <Strategy Settings>; does not apply to Hedge)

- **Fix** - The EA closes the transaction when the profit set in the control panel is reached, including expenses.
- **MACD** – The EA closes trade based on the signal received from the MACD. When the MACD Line crosses the Signal Line, and the trade is profitable, including expenses (swap, commissions...), then close the trade.

- **Trail** – EA uses positive SL for closing trades. When it has an open trade running on profit, it waits for a low or a high and places a positive SL at the distance (z) from that low/high, with the condition that at that distance SL is in profit with expenses included. If the chart makes a new low/high more profitable than the previous low/high, it moves the SL to the set distance (z) from the new low/high. It is a Trailing Stop that moves after lows or highs and it is recalculated after each completed candle. (more detailed information in the scenarios below).

***Use Break Even for One Transaction** – setting the option to use or not to use a Break Even Stop Loss for „One Transaction” strategy. If Break Even is not selected, then EA will use only pending orders as a protection measure. (more detailed information in the scenarios below).

***Use Break Even for Hedge** – setting the option to use or not to use a Break Even Stop Loss for lock exit strategy. (more detailed information in the scenarios below).

***Use MACD/Pending for Re-Hedge** –metod how to re-open hedge. (more detailed information in the scenarios below).

***Use Fix Pending for Re-Hedge** –metod how use pendings to re-open hedge. (more information in the scenarios below).

***Nr of Candles for High/Low (x)** – setting the number of completed candles after which the EA calculates a high or a low.

***Nr of Candles for Break Even (y)** – setting the minimum number of completed candles closed on profit to set SL for Break Even.

***Pending/SL distance (z)** – setting the distance from last high/low where to set a Pending Order or positive Stop Loss.

***BE distance (bed)** – setting the distance when to set a Stop Loss for Break Even.

<Mediation Settings>

Note: Mediation strategy is only used for exiting locks!!!

***Use Mediation** –(No/Yes) – allows EA to use the mediation strategy.

***Mediation Step** – setting the distance when to open a mediation transaction.

***Use MACD/RSI for mediaton transactions** – setting if every mediation transaction has MACD/RSI signal condition to be opened.

***Use BE for mediaton transactions** – to set a positive SL on BE when price in on (z) distance from the last mediation transaction.

***Multiplication Factor** – setting the multiplication factor. The first mediation transaction volume is equal with the initial transaction, after which the volume for each subsequent mediation transaction is multiplied by the multiplication factor.

***Max Nr of Mediation Transactions** – setting the maximum number of mediation transactions. The initial transaction is not included.

<Drawdown Stop Settings>

***Use DD stop** – setting the option to close all trades on the current chart if DD reaches a certain value / percentage.

***DD type** – setting the type of DD, either percentage or a fixed value in the currency of the account. (Note: The percentage is calculated based on BALANCE).

***Fix DD stop (on account currency)** – setting the fixed value of DD at which EA will close all open orders on that chart.

***Procentage DD stop (%) from balance** – the percentage value of DD at which EA will close all open orders on that chart.

Note: After the EA closes all trades as a result of DD Stop, the EA will stop on that chart and will not open any more orders until the user starts it again.

<Dashboard Settings>

***Start X coordonate** – setting the position of the dashboard in the chart on the X coordinate

***Start Y coordonate** – setting the position of the dashboard in the chart on the Y coordinate

Dashboard can expand or contract directly on the chart to display in two versions (simple and extended):

K&H Dashboard	K&H Dashboard
Lots Opened: 2.0	Magic Nr: 999
Set Profit: 200 / MACD / Trail	Live Spread: 10/6 (or 10/12)
History Profit: 129.15 / -	Lots Opened: 2.0
Live Profit: -300.15 / 234.74	Lots Set: 1.0
	Set Profit: 200 / MACD / Trail
	Hedge Time: 0.0 Days
	Live Swap: 123.19
	Total Swap: 256.03
	Total Comissions: 320.14
	History Profit: 129.15 / -
	Live Profit: -300.15 / 234.74
	Mediation: - / 1.00

Lots Opened – displays the number of lots opened on the chart (Buy and Sell).

Lots Set – displays the number of lots set on control panel settings for the first transaction/hedge.

Set Profit – the value of the profit set from the control panel if it's "Fix" profit. If not, it shows „MACD" or „Trail".

History Profit – shows the total profit of closed transactions up to that point related to a lock, including expenses (commissions, swap...) Applies only to locks. If it is only „One Transaction", then "-" is displayed. When lock is closed, history profit will reset back to zero.

Live Profit – the live profit of the transaction (if there is „One Transaction) or the amount profit of live transactions related to a lock in the chart, including expenses (commissions, swap...). It is displayed in red if it is negative or in green if it is positive.

Live Spread – the first number in black is the value set in the control panel. The second number is the current Spread (in green if it is less than or equal to the set value or in red if it is bigger than the set value).

Hedge Time – displays the time since a lock was opened. (it can be a directly opened lock or one resulting from one transaction plus a pending order reached later).

Live Swap – displays the amount of live Swaps of open trades on a given chart.

Total Swap – displays the amount of live Swap of open trades on a chart plus the Swap of already closed trades related to the current lock.

Total Comissions – displays the live commission of open trades on a chart plus the commissions of already closed trades linked to the current lock.

Mediation – displays "-" if no mediation is used, or displays the value of the multiplication factor set in the control panel, if mediation is used.

Basic principle when managing a lock: When an order is closed (attempt to exit the lock) we have a profit. This profit accumulates and appears in the Dashboard under History Profit. EA will calculate the sum of all trades related to a lock. For example if the set profit is 200 and the Buy position is closed at 1300, then it will close the Sell position at -1100. The sum of the two positions will be 200, expenses included.

Examples to understand how EA works:

Note: For ease of explanation, I will call:

"x" – is the Nr of Candles for High/Low

"y" – is the Nr of Candles for Break Even

"z" – is the Pending/SL Distance

"bed" – is the BE Distance

Scenario 1 (opening **Sell** order/no RSI/no BE):

<Strategy Settings / One Transaction or Hedge = **One transaction**>

<Use RSI = **No**>

<Profit Settings/Profit Type =**Fix**>,

<Use Break Even for One Transaction = **No**>

When the MACD line crosses below the signal line, it will open a Sell order with the volume set in the control panel. At this moment, it calculates the high formed by the last "x" candles and places a Buy pending order (Buy Stop with the same volume) at the distance "z" above the high.

(Note: EA don't uses regular SL for risk management. It uses pendings and opens locks when the transaction is on loss)

- a) If transaction is on profit, Sell order will close when profit is reached. Buy Stop will be deleted.
- b) If transaction is on loss, it will reach the Buy pending order and will be a lock. From here EA will manage the lock.
(Managing a lock is explained later).

Scenario 2 (opening **Sell** order/with **RSI**/with **BE**):

<Strategy Settings / One Transaction or Hedge = **One transaction**>

<Use RSI = **Yes**>

<Profit Settings/Profit Type =**Fix**>,

<Use Break Even for One Transaction = **Yes**>

Note: Scenario 2 is identical to scenario 1, but has RSI and BE conditions instead.

RSI reaches the Overbought activation set value. EA is on alert and waiting for **Sell** signal from MACD.

When the MACD line crosses below the signal line, will open a Sell order with the volume set in the control panel. At this moment, it calculates the high formed by the last "x" candles and places a Buy pending order (with the same volume) at the distance "z" above the high.

(If, while waiting for MACD signal, RSI reaches the value of Overbought deactivation, then it ignores MACD signals and does not open orders until it reaches the value of Overbought activation again).

- a) Sell is on profit. When "y" number of candles is fulfilled, the EA will calculate Break Even position, which also includes expenses (commission, swap...). If the distance between current price and calculated BE is bigger or equal than „bed” distance, it sets a positive Stop Loss on Break Even for Sell transaction. If it's smaller, it waits until distance is equal or bigger. After set of BE, Sell order will close on Profit or on BE and Buy Stop will be deleted.
- b) If transaction is on loss, it will reach the Buy pending order and will be a lock. From here EA will manage the lock.

Scenario 3 (opening **Buy** order/no RSI/no BE):

<Strategy Settings / One Transaction or Hedge = **One transaction**>

<Use RSI = **No**>

<Profit Settings/Profit Type =**Fix**>,

<Use Break Even for One Transaction = **No**>

Note: Scenario 3 is identical to scenario 1, but in the mirror (Buy instead of Sell).

When the MACD line crosses above the signal line, will open a Buy order with the volume set in the control panel. At this moment, it calculates the low formed by the last "x" candles and places a Sell pending order (Sell Stop with the same volume) at the distance "z" below the low.

- a) If transaction is on profit, Buy order will close when profit is reached. Sell Stop will be deleted.
- b) If transaction is on loss, it will reach the Sell pending order and will be a lock. From here EA will manage the lock.

Scenario 4 (opening **Buy** order/with **RSI**/with **BE**):

<Strategy Settings / One Transaction or Hedge = **One transaction**>

<Use RSI = **Yes**>

<Profit Settings/Profit Type =**Fix**>,

<Use Break Even for One Transaction = **Yes**>

Note: Scenario 4 is identical to scenario 3, but has RSI and BE conditions instead.

Scenario 4 is identical to scenario 2, but in the mirror (Buy instead of Sell).

RSI reaches the Oversell activation set value. EA is on alert and waiting for **Buy** signal from MACD.

When the MACD line crosses above the signal line, will open a Buy order with the volume set in the control panel. At this moment, it calculates the low formed by the last "x" candles and places a Sell pending order (Sell Stop with the same volume) at the distance "z" below the low. **(VISUAL NR 1)**

(If, while waiting for MACD signal, RSI reaches the value of Oversell deactivation, then it ignores MACD signals and does not open orders until it reaches the value of Oversell activation again).

- a) If Buy is on profit, when "y" number of candles is fulfilled, the EA will calculate Break Even position, which also includes expenses (commission, swap...). If the distance between current price and calculated BE is equal or bigger than „bed” distance, it sets the positive Stop Loss on Break Even for Buy transaction. If it's smaller, it waits until distance is equal or bigger. **(VISUAL NR 1)**
After set of BE, Buy order will close on Profit or on BE. Sell Stop will be deleted.
- b) If Buy is on loss, it will reach the Sell pending order and will be a lock. From here EA will manage the lock.

Profit management for scenarios 1,2,3,4:

- a) If <Profit Settings/Profit Type=**Fix**>, order is closed when profit is reached. This is the case explained on scenarios above.
- b) If <Profit Settings/Profit Type=**MACD**>, EA waits for signal from MACD to close the order.
 - If **Sell** is on profit with all expenses included (swap, commission...) when MACD line passes above the signal line, then Sell order will be closed.
 - If **Buy** is on profit with all expenses included (swap, commission...) when MACD line passes below the signal line, then Buy order will be closed.**(Caution!!!: when closing a single trade, which is not part of a lock, RSI is never used, only MACD)**
- c) If <Profit Settings/Profit Type=**Trail**>, then the EA waits for "x" number of candles to be completed and calculates the **high/low** of these candles.
 - If **Sell** is on profit, it will place a positive SL above the high, at the distance "z". The necessary condition is that this positive SL to be on profit with all costs included (swap, commission...). After each completed candle, the EA recalculates the SL position based on the high created by the last "x" candles. If the new high is smaller than the previous one, then EA moves SL according to new high. If the transaction continues on the next day, the SL calculation will always include the new swap.
 - If **Buy** is on profit, it will place a positive SL below the low, at the distance "z". The necessary condition is that this positive SL to be on profit with all costs included (swap, commission...). After each completed candle, the EA recalculates the SL position based on the low created by the last "x" candles. If the new low is higher than the previous one, then EA moves SL according to new low. If the transaction continues on the next day, the SL calculation will always include the new swap.

Scenario 5:

<Strategy Settings / One Transaction or Hedge=**Hedge**>

EA will **instantly open a lock** of two opposite and equal orders (1 buy and 1 sell) with the volume set in the control panel **without waiting for signals from RSI and MACD**. Further the EA will manage the exit from the lock according to the RSI and MACD signals. (Of course, if <Indicators Settings/Use RSI=No>, then the EA will ignore RSI signals and handle lock trades only based on MACD). (Managing a lock is explained below).

Lock management:

(This is used either in scenario 5 when a lock is opened from the start, and in scenarios 1,2,3 and 4, when the single transaction does not go to profit but activates the pending and opens a lock).

The lock consists of two opposite transactions with equal volumes (1 buy and 1 sell).

As long as the price is between trades (both trades are red), EA does nothing.

When the price goes out (one of the trades is on profit), one of the following scenarios follows:

Scenario 6 (lock management):

<Use RSI = **No**>

<Use Break Even for Hedge = **No**>

<Use MACD/Pending for Re-Hedge = **Pending**>

<Use Fix Pending for Re-Hedge = **Yes**>

- a) On lock, **Buy order is on profit.**

When MACD Line crosses below the Signal Line, it closes Buy order. At this moment, it calculates the high formed by the last "x" candles and places a pending order (Buy Stop with the same volume) at the distance "z" above the high.

It keeps in mind the profit from buy and this profit will appear also on Dashboard/History Profit.

- If price goes up, will reach Buy Stop and will be lock again.
- If price goes down, when Sell profit + Buy profit = Set Profit, it will close Sell order. For example, if <Trade Settings / Profit = 200> and Buy was closed with profit = 1100, Sell will close when = -900. (Buy+Sell=200). After closing Sell order, Buy Stop will be deleted.

b) On lock, **Sell order is on profit.**

When MACD Line crosses above the Signal Line, it closes Sell order. At this moment, it calculates the low formed by the last "x" candles and places a pending order (Sell Stop with the same volume) at the distance "z" below that low.

It keeps in mind the profit from sell and this profit will appear also on Dashboard/History Profit.

- If price goes down, will reach Sell Stop and will be lock again.
- If price goes up, when Buy profit + Sell profit = Set Profit, it will close Buy order. For example, if <Trade Settings / Profit = 300> and Sell was closed with profit = 800 Eur, Buy will close when = -500 (Buy+Sell=300). After closing Buy order, Sell Stop will be deleted.

Note:

What is the difference between <Use MACD/Pending for Re-Hedge = MACD&Pending/Pending/MACD>?

- a) <Use MACD/Pending for Re-Hedge = **Pending**> (Is scenario 6 situation explained above)
EA sets Pending (Sell Stop / Buy Stop) and when pending is reached, the Lock is re-open.
- b) <Use MACD/Pending for Re-Hedge = **MACD**>
EA will reopen lock using only MACD signals.
Example: Sell is on profit. When MACD Line crosses above the Signal Line, it closes Sell order. In this case will not set Sell Stop. It keeps in mind the profit from sell and will appear also on Dashboard/History Profit.
- If price goes up, when Buy profit + Sell profit = Set Profit, it will close Buy order.
 - If price goes down, will wait MACD signal to reopen lock. When MACD Line crosses below the Signal Line, it opens Sell order and have lock again.
- c) <Use MACD/Pending for Re-Hedge = **MACD&Pending**> (This is a combination of „a” and „b”) (**VISUAL NR 2**)
EA will reopen lock using pendings or MACD signals, depends which comes first.
Example: Sell is on profit. When MACD Line crosses above the Signal Line, it closes Sell order. In this case will set Sell Stop. It keeps in mind the profit from sell and will appear also on Dashboard/History Profit.
- If price goes up, when Buy profit + Sell profit = Set Profit, it will close Buy order.
 - If price goes down, EA will open Sell again when Sell Stop is reached or MACD Line crosses below the Signal Line. Depends which comes first.

Re-Hedge settings tells EA when to reopen Lock.

1. On pending.
2. On MACD signal.
3. Which one comes first (pending or MACD signal)

Every method has advantages and disadvantages. When EA will be ready, I will do some tests to see which one will be more profitable.

Pendings – will make lock bigger.

MACD – will make locks smaller, but if there is a false signal, I will be on lock again and maybe loose an opportunity to close the lock.

Scenario 7 (lock management):

<Use RSI = **Yes**>

<Use Break Even for Hedge = **Yes**>

<Use MACD/Pending for Re-Hedge = **Pending**>

<Use Fix Pending for Re-Hedge = **Yes**>

Note: Scenario 7 is identical to scenario 6a, but has RSI and BE conditions instead.

Buy order is on profit.

When "y" number of candles is fulfilled, the EA will calculate Break Even position for Buy order, which also includes expenses (commission, swap...). If the distance between current price and calculated BE is bigger than „bed” distance, it sets a positive Stop Loss on Break Even for Buy order. If it's smaller, it waits until distance is equal or bigger. (VISUAL NR 3)
After placing the SL on Break Even for the Buy order, if:

a) price goes up - the Sell scenario 2 is followed:

When RSI reaches the Overbought activation set value, the EA enters the alert state and waits for a signal from MACD. When MACD Line crosses below the Signal Line, the Buy order will close.

At this moment, it calculates the high formed by the last "x" candles and places a pending order (Buy Stop with the same volume) at the distance "z" above that high. (VISUAL NR 3)

(Note: If while waiting for MACD signal, RSI reaches the Overbought deactivation value, then ignore the MACD signals and do not close the Buy order until it reaches the Overbought activation value again).

If, after closing the Buy order:

a.1) price goes up, the Buy Stop Pending is touched and again enters the lock after which the scenario from the beginning resumes. (VISUAL NR 3)

a.2) price goes down, when Sell profit + Buy profit = Set Profit, it will close Sell order and delete Buy Stop.

Note: If <Use Fix Pending for Re-Hedge = **No**>, after each completed candle, EA will calculate the high formed by the last "x" candles. If the new high is lower than last one, the Buy Stop will be moved at the distance "z" above the new high. In this case pending works like a trail and will enter in lock sooner. (VISUAL NR 4)

b) price drops - the Buy order closes on Break Even. At this moment, it calculates the high formed by the last "x" candles and places a pending order (Buy Stop with the same volume) at the distance "z" above the high.

If, after closing the Buy order on Break Even:

b.1) price rises and opens the pending Buy order, the lock strategy is restarted from the beginning.

b.2) price goes down, when Sell profit + Buy profit = Set Profit, it will close Sell order and delete Buy Stop.

The Sell order remains open until the Profit (total) set in the control panel is reached, calculated as the sum of all transaction profits generated by the lock.

Note: If <Use Fix Pending for Re-Hedge = **No**>, after each completed candle, EA will calculate the high formed by the last "x" candles. If the new high is lower than last one, the Buy Stop will be moved at the distance "z" above the new high. In this case pending works like a trail and will enter in lock sooner.

Note: If <Use MACD/Pending for Re-Hedge = MACD&Pending or MACD>, see the **Note: What is the difference between <Use MACD/Pending for Re-Hedge = MACD&Pending/Pending/MACD>** explained above.

Scenario 8 (lock management):

<Use RSI = **Yes**>

<Use Break Even for Hedge = **Yes**>

<Use MACD/Pending for Re-Hedge = **Pending**>

<Use Fix Pending for Re-Hedge = **Yes**>

Note: Scenario 8 is identical to scenario 7, but in the mirror (Sell on profit, not Buy).

Sell order is on profit.

When "y" number of candles is fulfilled, the EA will calculate Break Even position for Sell order, which also includes expenses (commission, swap...). If the distance between current price and calculated BE is equal or bigger than „bed” distance, it sets the positive Stop Loss on Break Even for Sell order. If it's smaller, it waits until distance is equal or bigger.
After placing the SL on Break Even for the Sell order, if:

a) price goes down - the Buy scenario 4 is followed:

When RSI reaches the Oversell activation set value, the EA enters the alert state and waits for a signal from MACD. When MACD Line crosses above the Signal Line, the Sell order will close.

At this moment, it calculates the low formed by the last "x" candles and places a pending order (Sell Stop with the same volume) at the distance "z" below that low.

(Note: If, while waiting for MACD signal, RSI reaches the Oversell deactivation value, then ignore the MACD signals and do not close the Sell order until it reaches the Oversell activation value again).

If, after closing the Sell order:

a.1) price goes down, the Sell Stop Pending is touched and again enters the lock after which the scenario from the beginning resumes.

a.2) price goes up, when Sell profit + Buy profit = Set Profit, it will close Buy order and delete Sell Stop.

Note: If <Use Fix Pending for Re-Hedge = **No**>, after each completed candle, EA will calculate the low formed by the last "x" candles. If the new low is higher than last one, the Sell Stop will be moved at the distance "z" below the new low. In this case pending works like a trail and will enter in lock sooner.

b) price goes up - the Sell order closes on Break Even. At this moment, it calculates the low formed by the last "x" candles and places a pending order (Sell Stop with the same volume) at the distance "z" below that low.

If, after closing the Sell order on Break Even:

b.1) price goes down and opens the pending Sell order, the lock strategy is restarted from the beginning.

b.2) price goes up, when Sell profit + Buy profit = Set Profit, it will close Buy order and delete Sell Stop.

The Buy order remains open until the Profit (total) set in the control panel is reached, calculated as the sum of all transaction profits generated by the lock.

Note: If <Use Fix Pending for Re-Hedge = **No**>, after each completed candle, EA will calculate the low formed by the last "x" candles. If the new low is higher than last one, the Sell Stop will be moved at the distance "z" below the new low. In this case pending works like a trail and will enter in lock sooner.

Note: If <Use MACD/Pending for Re-Hedge = MACD&Pending or MACD>, see the **Note: What is the difference between <Use MACD/Pending for Re-Hedge = MACD&Pending/Pending/MACD>** explained above.

Use of Mediation:

Mediation is used only for exiting locks.

When one of the transactions (involved in a lock) is red and the distance between current price and the red transaction is equal or bigger than <Mediation step> value, then EA opens a mediation transaction for red order.

If <Use MACD/RSI for Mediation Transaction=Yes>, EA will wait also for signals from selected indicators to open a mediation transaction. In this case will be step + indicators conditions.

If <Use BE for Mediation Transaction=Yes> and last mediation transaction is on profit, when "y" number of candles is fulfilled, EA will calculate Break Even position for that last transaction, which also includes expenses (commission, swap...). If the distance between current price and calculated BE is equal or bigger than „bed” distance, it sets the positive Stop Loss on Break Even for that order. If it's smaller, it waits until distance is equal or bigger.

When a mediation transaction is opened using signals, logically the opposite transaction is closed on profit and set a pending. For example if Buy is on red and a mediation transaction is opened for Buy according to step and indicators signals, those signals also will close the Sell and will set a Sell Stop.

Scenario 9 (Mediation):

<Lots=1.0>

<Use MACD/RSI for Mediation Transaction = MACD/RSI>.

<Use BE for Mediation Transaction = Yes.

We have a lock: 1 Lot of **Buy is on red**, and 1 Lot **Sell is on profit**.

When distance between current price and initial Buy is equal or bigger than "Mediation Step", it waits for indicators signals also. When EA receives Buy signals from RSI and MACD, it opens a first mediation Buy order (of 1 Lot) and closes Sell order on profit. It keeps in mind the Sell profit. At this moment, it calculates the low formed by the last "x" candles and places a pending order (Sell Stop with the same volume=1 Lot) at the distance "z" below that low.

So, currently we have two Buy orders opened (1 one lot each) and 1 Sell Stop (of 1 Lots). Now, if:

a. Price goes down

Sell pending is activated and we have 1 Sell order (of 1 Lot) and 2 Buy orders (1 Lot each=2 Lots).

If the price goes the distance of one more Step (and have MACD/RSI signals), the EA will open another mediation transaction (another Buy order) with the volume equal to the Initial Volume multiplied by the multiplication factor set in the <Multiplication Factor> settings.

For example, if <Multiplication Factor> is "2.0", the **second Mediation Transaction** will have the volume = 1 Initial Lot * 2.0 = 2 Lots. In total on the chart will be: 2+1+1=4 Lots for Buy and the Sell Pending Order will be 1 Lot.

If Sell pending is activated again, we have one 1 Lot of Sell order and 3 Buy orders (4 Lots in total).

So, is new lock (unbalanced – 1 vs 4 lots), with larger volumes, but with a smaller distance between orders and easier to exit.

If <Max Nr of Mediation Transactions> is set to "2", then the EA will not continue to open any more mediation orders in the future, because this limit has already been reached.

b. Price goes up

When last Buy is on profit and "y" number of candles is fulfilled, the EA will calculate Break Even position for last Buy order, which also includes expenses (commission, swap...). If the distance between current price and calculated BE is equal or bigger than „bed" distance, it sets the positive Stop Loss on Break Even for last Buy order. If it's smaller, it waits until distance is equal or bigger.

Further, if:

b.1. Price goes down

Last Buy closes on BE and will be reopened when step and signals will meet again. When the Sell pending order is reached, we have lock again.

b.2 Price goes up

If price still goes up, when sum of all current Buys and all closed transaction (from profit history) is equal with set profit, EA closes all Buy transactions and also Sell pending.

VISUAL NR. 1

Scenario nr.4

How to set SL for Break Even:

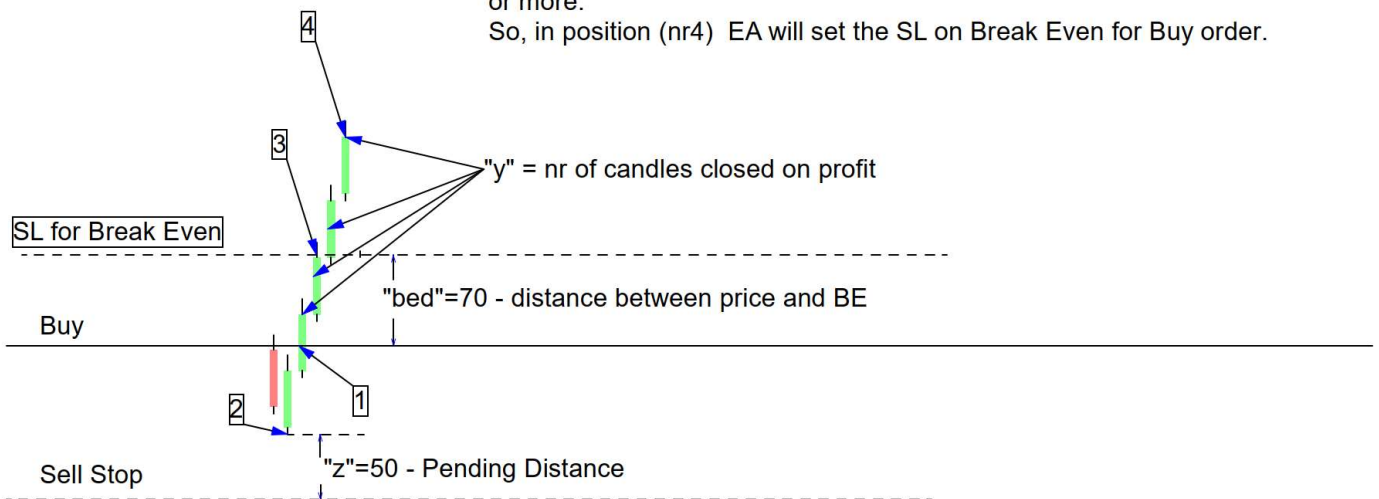
Buy is on profit. Settings: $y=4$ and $z=50$ bed = 70

When price is on position (nr1), the conditions (RSI, MACD) are met to open Buy. In that moment is set also Sell Stop below last low (nr2), at " z "=50 distance.

On position (nr3) we have "bed" distance=70, but are only 2 candles closed on profit.

When price is on position (nr4), all conditions are met to set BE. We have " y "=4 candles closed on profit. And we have the distance "bed"= 50 or more.

So, in position (nr4) EA will set the SL on Break Even for Buy order.



VISUAL NR. 2



<Use MACD/Pending for Re-Hedge = MACD&Pending>:

Settings: $x=5$, $y=3$ and $z = 50$

<Profit Settings / Use MACD/Pending for Re-Hedge> is set: MACD & Pending

When price was on position (nr1), it sets SL for BE.

When price is on position (nr2), all conditions are met to close Buy. (RSI still activated, MACD Cross, Buy on profit)

When Buy is closed, SL will disappear. Now EA will calculate the high of the last " $x=5$ " candles (nr3) and will set a Buy Stop on " $z=50$ " distance above this high.

If the price rises again, on position (nr4), and MACD sends Buy signal, EA will open a new Buy order and delete the Buy Stop.

(Note: If in <Profit Settings / Use MACD/Pending for Re-Hedge> is set: MACD, EA will not set a Pending when closing Buy to exit Hedge. Will rely only on MACD signals)

VISUAL NR. 3



<Use MACD/Pending for Re-Hedge = Pending>:
<Use Fix Pending for Re-Hedge= Yes >
<Use Break Even for Hedge = Yes>

When price was on position (nr1), it sets SL for BE.
When price is on position (nr2) , all conditions are met to close Buy (RSI still activated, MACD Cross, Buy on profit).
When Buy is closed, SL will disappear. Now EA will calculate the high of the last "x=5" candles (nr3) and will set a Buy Stop on "z=50" distance above this high.
On position (nr4) Buy Stop will be activated and we have a lock again

VISUAL NR. 4



<Use Fix Pending for Re-Hedge = No>
Moment to move the Buy Stop according to new high:
 $x=5$

On position (nr1) Buy is closed and set Buy stop above high (nr2). After each closed candle EA will calculate the high of the last "x=5" candles.

When price is on position (nr4), we have a new high (nr3) formed by the last "x=5" candles.

It compares the last high with the the previous one.

Because the last high, (nr3) is lower than previous one (nr2), EA will move Buy Stop according to the last high, at "z=50" distance from it. Note: If the high (nr3) is higher than high (nr2), the Buy Stop will not be replaced.

Of course, if the price goes more than "z" distance above high (nr2), the Buy Stop will be activated, and we are in lock again.