

# Raptor

This EA analyzes the relative position of the price and the indicator of Moving Average (MA). The analysis on each Time Frame (TF) is determined by the current state.

Time Frame may have only one of three possible states at any one time:

- an upward trend;
- a downward trend;
- lack of trend - flat.

EA analyzes the market trends in 4 Time Frames, and then the overall picture is analyzed.

The principle of the strategy is opening trades in the direction of «global» price trends. Example: all 4 Time Frames are able to trend at the same time, and the trend has the same direction at all Time Frames. However, more complex combinations are possible, where one of Time Frames in a state of no trend or even shows the opposite trend in the remaining side. Three signals of opening of the transaction are available. Each signal may be adjusted what conditions Time Frames must be in.

Time Frame signals options:

- **Signal** - a trend state, when the trend all Time Frames, the value of which is selected as the «Signal», must coincide with each other;
- **No\_opposite\_signal** - may be in a state of flat or show a tendency codirectional to other Time Frames, and the value of which is selected as the «Signal»;
  - **OFF** - any state.

The default settings are:

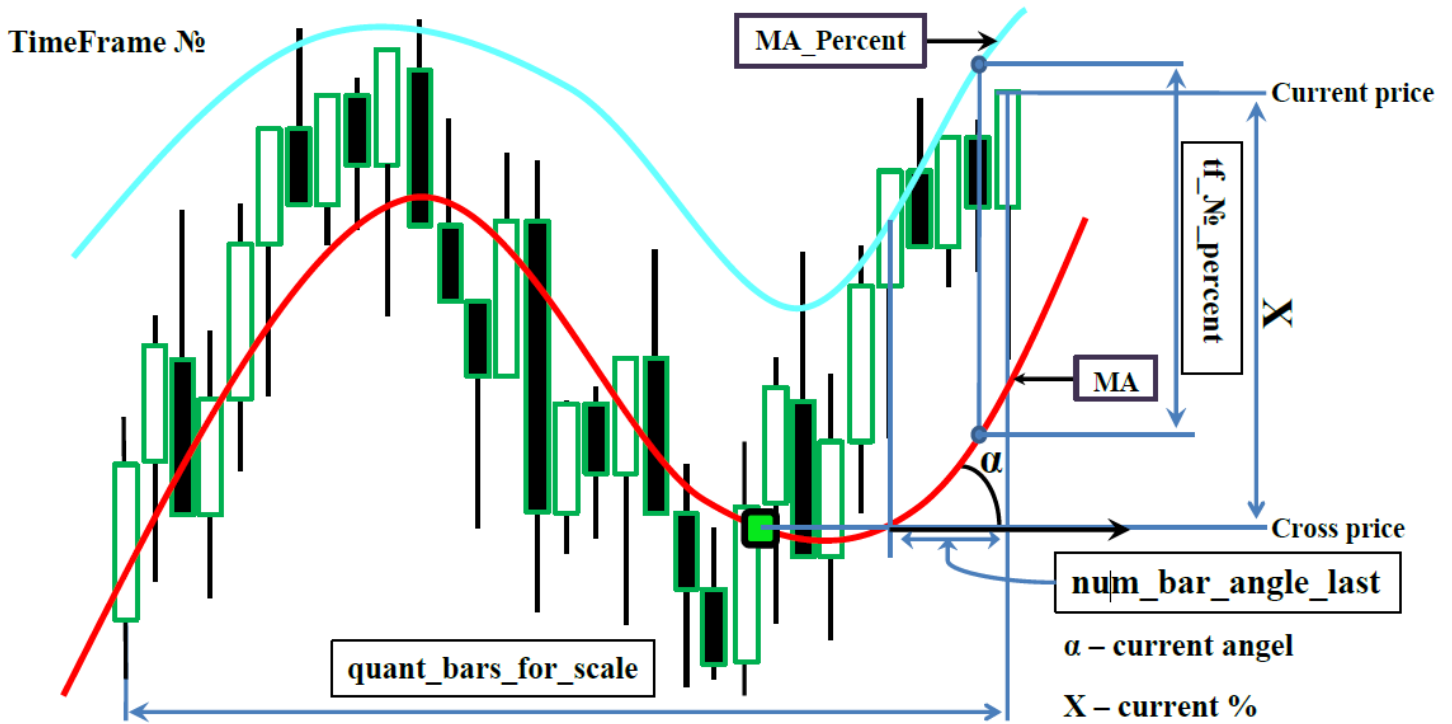
1. Signal 1
  - a. COMBO\_1\_tf\_1 = Signal
  - b. COMBO\_1\_tf\_2 = Signal
  - c. COMBO\_1\_tf\_3 = Signal;
  - d. COMBO\_1\_tf\_4 = Signal
2. Signal 2
  - a. COMBO\_2\_tf\_1 = Signal
  - b. COMBO\_2\_tf\_2 = Signal
  - c. COMBO\_2\_tf\_3 = Signal
  - d. COMBO\_2\_tf\_4 = OFF
3. Signal 3
  - a. COMBO\_3\_tf\_1 = Signal
  - b. COMBO\_3\_tf\_2 = Signal
  - c. COMBO\_3\_tf\_3 = OFF
  - d. COMBO\_3\_tf\_4 = No\_opposite\_signal

EA analyzes the tool 1. The value of each of the 4 Time Frames can be chosen, as well as setting of all parameters at each of the Time Frames. Choosing a «long» Time Frame (for example starting with «D1» and ending with M30) you can change the average time of holding the position as well as the number of transactions. On «longer» intervals EA will trade more regularly, opening the deal towards more global trends. On the other hand selecting a «short» Time Frame, starting with «H1» and ending on «M5», you can keep trading to intraday.

You can also disable Time Frame, by its condition as «OFF», and putting the same meaning for it in the signals. If you want to use less than 3 different signals, just fill in the extra signals «OFF».

**EA strategy is not designed for Time Frames younger than «M5» and older than «D1».**

The algorithm work scheme of each Time Frame analysis is below:



**Signal:**

1.  $MA\_Percent > Current\ price > MA$  – Current price between the MA and the MA\_Percent
2.  $tf\_№\_angle < \alpha$  – current angle is greater than the value
3.  $X < tf\_№\_percent\_cross\_price$  – current percent less than the value

In other cases – no signal.

TimeFrame can be in 3 condition (signal to Buy/signal to Sell/no signal), but only in one of 3 at each instant.

This is an example of the signal to buy. For the opposite signal (to sell) – a mirror picture.

EA analyzes up to 4 TimeFrames at the same time.

The algorithm is the same for all 4.

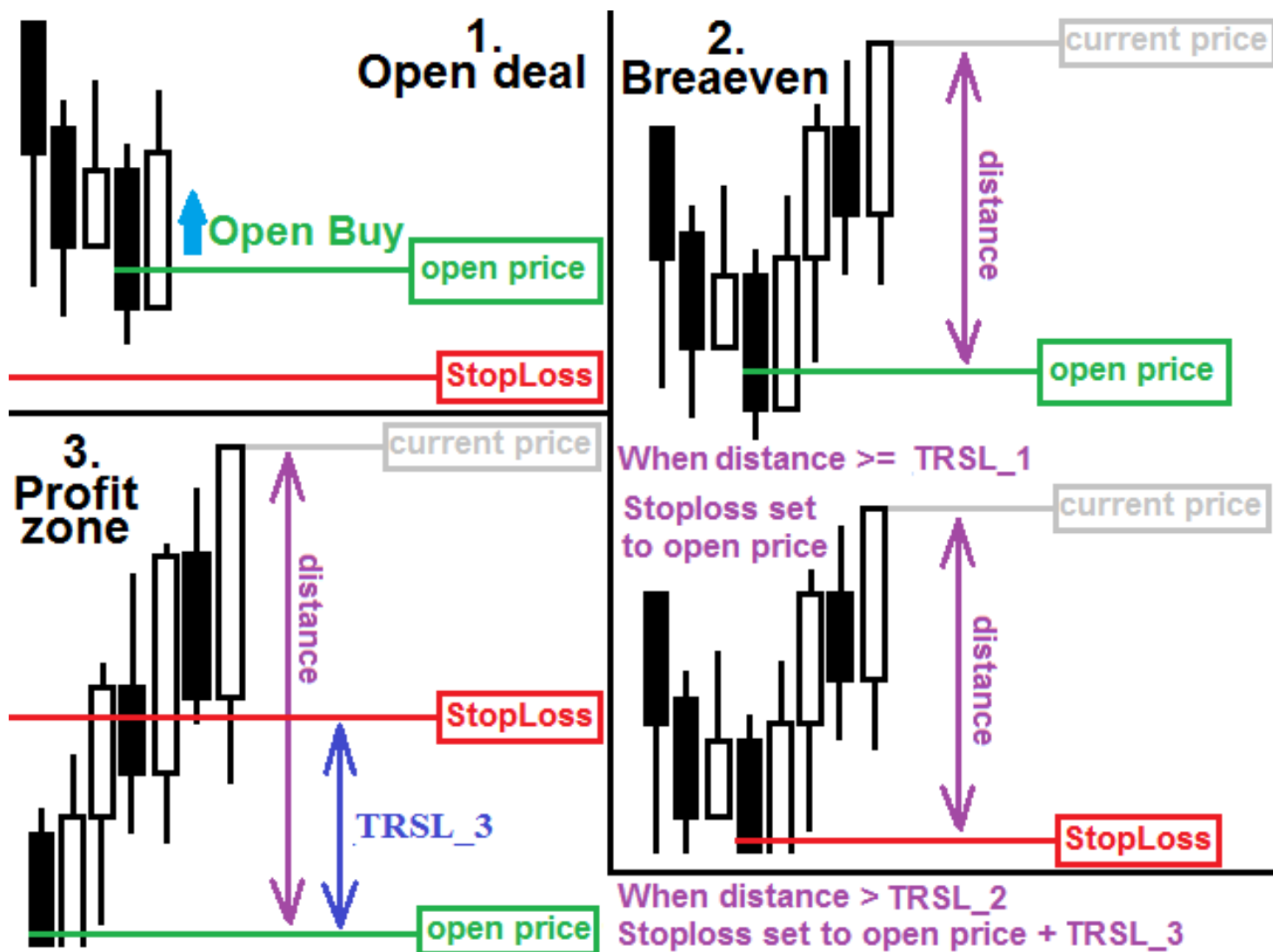
You can customize the signals matching algorithm from 4 TimeFrames.

There are several variations of the MONEY MANAGEMENT algorithm work in the algorithm.

- Classic SL - fixed Stop Loss (SL\_);
- Trailing SL - when the distance from the current price to the opening price of the transaction is higher than the value TRSL\_ parameter, Stop Loss rearranged on TRSL\_ pips from the current price;
- Breakeven - Trailing SL to the price «no loss» - when the distance from the current price to the opening price of the transaction is higher than the value TRSL\_ parameter and the current transaction is in the profit zone, Stop Loss rearranged on TRSL\_ pips from the current price. In this work MM algorithm terminates;
- Trailing SL «Jumps» - Trailing Stop Loss is very effective and tested on different strategies. The algorithm is shown in the figure below.

○ When the SL is in a loss zone and profit is in pips gap becomes greater than or equal to the value pips\_TRSL\_1, the Stop Loss is exposed to the opening price of the position (into «no loss»).

○ When the Stop Loss is in «no loss» and the distance from the current price to the opening price becomes TRSL\_2, Stop Loss order is set at a distance from the opening price so as to take pips profit equal to value TRSL\_3.



# Input parameters.

Input parameters can be divided into the 4 groups:

1. **GENERAL PARAMETERS** - the input parameters that are not involved in the optimization
  - a. need\_Comment - the value of «true» displays an error message. In the tests and optimization it is recommended to set «false» value for speed up.
  - b. optimization\_mode - it is necessary to set the «false» value when trading and the tests. Size\_of\_lot Fix\_lot parameter value switches forcibly to «true» and changes the EA operation, designed for the use of market simulation mode «only opening Time Frame M5».
  - c. EXIT\_IF\_INIT\_PARAMETERS\_INCORRECT - it is recommended to set the value of «true» to accelerate the optimization, in the case of incorrect input parameters current «run» will be forcibly terminated. Read more about the inconsistent input parameters see the section Optimization.
  - d. close\_orders\_on\_weekend - it allows you to close the deal automatically before the weekend (Friday) before the market is closed.
  - e. close\_orders\_on\_weekend\_minute - the time in minutes remaining until the close of the session, after which all transactions will be closed.
  - f. MM\_invisible - in «true» value EA does not lead to the levels of StopLoss and TakeProfit of the market, but stores them, and closes the deal to achieve valuable value in memory. The value of «false» levels of StopLoss and TakeProfit are sent to the warrant market.
  - g. Slippage - slippage (the maximum point size at which the initial opening price may be different from the broker proposal).
  - h. Size\_of\_lot - has 2 values «Fix\_lot» and «Smart\_lot\_by\_risk». The value «Fix\_lot» transaction opens a fixed amount specified in lots\_\_ parameter, «Smart\_lot\_by\_risk» volume is calculated dynamically based on the size of your capital, so that the StopLoss level in monetary terms is equal to the percentage of available capital of the max\_risk parameter. Attention, with a decrease in equity (as a result of the withdrawal of funds or losing trades) decrease in volume is not carried out, to convert the input volume value, you must restart the expert.
  - i. lots\_\_ - the value of the input volume.
  - j. max\_risk - the percentage of available capital that you risk.
  - k. magic\_number - «magic» which EA appropriates their transactions.
2. **MONEY MANAGMENT PARAMETRS** - the parameters responsible for the levels of StopLoss and TakeProfit
  - a. trailing - switches the algorithm on which the StopLoss level changes after the opening. Can have values «Classic\_SL», «Trailing\_SL», «Breakeven\_SL» and «Trailing\_SL\_by\_jumps».
  - b. TP\_ - value of TakeProfit level in points.
  - c. TRSL\_ - value TralingStop level in points.
  - d. SL\_ - value of StopLoss level in points.
  - e. TRSL\_1 - value for «Trailing\_SL\_by\_jumps» algorithm.
  - f. TRSL\_2 - value for «Trailing\_SL\_by\_jumps» algorithm.
  - g. TRSL\_3 - value for «Trailing\_SL\_by\_jumps» algorithm.

3. **MAIN PARAMETERS** - these parameters are directly responsible for the criteria along which the analysis of the market happens, on the basis of which the decision to enter the market.
  - a. Time Frame 1
    - i. Timeframe\_1 - first choice Time Frame, it is recommended to put on the first place the youngest (fast) Time Frame.
    - ii. tf\_1\_ma\_period - period moving average.
    - iii. tf\_1\_angle - the minimum angle of inclination of the moving average.
    - iv. tf\_1\_percent - a percentage of the moving average.
    - v. tf\_1\_percent\_cross\_price - the maximum percentage of the price of the previous intersection and the moving average to the current price.
  - b. For the remaining 3 Time Frames similar parameters are available.
4. **SYSTEM PARAMETERS** - parameters that are responsible for the system algorithm, they can be used to customize operation of the algorithm of the decision to open a position.
  - a. quant\_bars\_for\_scale - the number of bars on the market that takes place in the depth of the scan history.
  - b. num\_bar\_angle\_last - the number of bars between which the angle is measured.
  - c. all\_ma\_method - the type of moving average to be used. The variable sets the type for all moving averages, which are used in the EA.
  - d. all\_ma\_price - price type that will be used to calculate the moving average. The variable sets the type of price calculation of moving averages, which are used in the EA.
  - e. CUSTOM\_MAX\_trades\_per\_month - the minimum number of transactions that the robot should make a month in the optimization mode Custom max.

## Optimization method

We recommend optimizing once every 2 - 3 months, for between 20 and 28 months. To optimize, use of all parameters from the group MAIN PARAMETERS, as well as the parameters of the group MONEY MANAGEMENT PARAMETERS. However, you may make it more or less frequently, depending on the selected Time Frames, and hence the holding time positions in market place. In the case of «fast» Time Frames, optimization should be done more frequently and use a shorter period for the optimization. For «slow» Time Frames, optimization may be required less often. A period of the optimization should be increased.

### Recommendations of the criteria for selection in genetic optimization - «custom max»:

- set the model of «open prices», use TimeFrame M5. In this case, the expert should not be used TimeFrame-s «under» M5.
- optimization\_mode option to choose a «true»;
- EXIT\_IF\_INIT\_PARAMETERS\_INCORRECT option is also selected as a «true».

### It should be noted the fact that:

- 1) If you trade on a live account you want to use «hidden» levels StopLoss and TakeProfit, during the optimization MM\_invisible parameter should be selected as the «true».
- 2) If you trade on a live account you want to use Auto-trades ahead of the weekend, during the optimization should also planned to set parameters for this algorithm.
- 3) Optimization should be carried out using a fixed lot. The value is recommended to set to 0.1, and the amount of the initial deposit of \$ 1,000.

- 4) With CUSTOM\_MAX\_trades\_per\_month parameter you can limit the minimum number of transactions per month. During the period of optimization of the EA must make from 100 trades or more in some cases to optimize data will be a little objective. If EA makes less than 100 transactions for a period of optimization, it should be increased.
- 5) Use the average value of the spread your broker on the instrument during optimization in MT4, MT5 in select mode «arbitrary delay».

Buying EA in MT4 you can get our EA version MT5 tests to optimize use of all your processor cores and other advantages of MT5. «Sets» received in MT5 give similar results as in MT4.

After selecting the desired «set», you should check what result it gives in the usual test mode («Every tick» or «all the ticks on the basis of real ticks» in the case of MT5). It is necessary to set the parameter value optimization\_mode as «false».

You can further assess the stability of the selected "set" by running the optimization of brute force at the same time interval, but by small variations in key parameters. Such as: levels of StopLoss and TakeProfit, Trailing StopLoss, periods of moving averages, angles, percentages. It is necessary to set the upper and lower limits of scanning equal to the original value of the parameter  $\pm$  a quarter of the pitch in the first optimization scan, it will give you 3 steps for each parameter. If the number of steps is too large, it is possible to break this test into 2 parts, having first completed listing of parameters MONEY MANAGMENT, and then General Settings. The average result in the optimization (the sum of all non-zero result and their number) in this case must not differ from the original, more than 10-20% on profit, loss, etc.

You should pay attention to the last 2-3 months of optimization period when selecting sets, in this period of time the curve should not show a balance as a negative trend. Using the «forward» test can have a negative impact on the result of the real trade, as the time of effective work «set» has been exhausted in the «forward» testing. The usual ratio optimization period for this EA to the size of the trading window after the optimization is 9/1 - 7/1. That is, the following optimization should be done in 3 months when optimizing for the 20 months.

Standard parameter deviation, as well as step scanning, is set to «sets» of data to this description. These settings are universal for all instruments. If for any reason you are unable to perform an optimization with these settings, be sure to contact us as a developer EA for advice.

It is not recommended to optimize algorithms when optimization. So if you want to see the results with a different algorithm MONEY MANAGMENT, you should have 2 optimizations, with one and then with another algorithm. Similarly, with the signal settings, the value Time Frames, types of moving averages.

Select the Time Frames configuration, the type of moving average, set the signal configuration, and then perform optimization, change the configuration, optimization and repeat if necessary.

Some settings may conflict with each other. So for example, if the level of TakeProfit is less than TrailingStop, it is clear that the transaction will be closed before the level of TakeProfit than its StopLoss can be moved. For the optimization acceleration, the EA switch off is provided if such a combination of the parameters formed as a result of optimization. Here are all the possible combinations, at which the EA is off:

1. Timeframe\_1 = Timeframe\_2
2. Timeframe\_1 = Timeframe\_3
3. Timeframe\_1 = Timeframe\_4
4. Timeframe\_2 = Timeframe\_3
5. Timeframe\_2 = Timeframe\_4
6. Timeframe\_3 = Timeframe\_4
7. num\_bar\_angle\_last < 2
8. TRSL\_ > TP
9. TRSL\_1 > TP
10. TRSL\_2 > TP
11. TRSL\_3 > TP

If you want to receive the «set» with fewer transactions as a result of optimizing and a large expected payoff profit on each transaction slower Time Frames should be set. For example, start with the «H4» or «the D1», and end up on the M15 or M30. You can also make changes to the signals, leaving only a signal:

```
COMBO_1_tf_1 = Signal
COMBO_1_tf_2 = Signal
COMBO_1_tf_3 = No_opposite_signal
COMBO_1_tf_4 = No_opposite_signal
```

or:

```
COMBO_1_tf_1 = Signal
COMBO_1_tf_2 = Signal
COMBO_1_tf_3 = Signal
COMBO_1_tf_4 = No_opposite_signal
```

Substituting the rest «COMBO» for value «OFF» or leaving a bunch of 2 signals:

```
COMBO_1_tf_1 = Signal
COMBO_1_tf_2 = Signal
COMBO_1_tf_3 = No_opposite_signal
COMBO_1_tf_4 = No_opposite_signal
```

and

```
COMBO_2_tf_1 = Signal
COMBO_2_tf_2 = Signal
COMBO_2_tf_3 = No_opposite_signal
COMBO_2_tf_4 = Signal
```

You can also raise the minimum scan limits by increasing the lower limits of the periods and angles for the moving average (parameters «tf\_1\_ma\_period», «tf\_1\_angle»), by reducing the upper scan limit of the percent (parameters «tf\_1\_percent», «tf\_1\_percent\_cross\_price»).

## Recommendations for use

We recommend using the EA in the accounts with the most rapid execution and low spreads. As a rule, accounts ECN or NDD have these qualities. If there is a choice between the platform MT4 and MT5, we recommend using MT5. All input parameters, where the number of points is specified, for 1 point of price change 1 the last sign is taken. Thus, for accounts with a 5-digit quoting, the minimum unit price change is given integers, e.g. 150 points on the symbol EURUSD is 0.00150 in the chart for 4-digit account 150 points on the symbol EURUSD is 0,015 or 1,500 points 5-digit account. Keep this in mind when setting the parameters.

All «sets» published by us, as a developer, have been optimized in the accounts with a 5-digit quotes, for 4-digit account may require reoptimization.

If you are using the EA on an instrument with a large commission for the withdrawal of the order, or more spread, it is advisable to give priority in the optimization to «sets» where the number of transactions is less, and win expected payoff more. When testing «sets», expose the real value of commissions or spread, otherwise the result of «set» in the testing (or the result obtained by the optimizer) may be different from the results in the real trading.

Results of the «set» obtained during the optimization period should be regarded as «optimization profile» for the EA of the instrument. Data on the average profit in points a month should be reduced by 20% (as if during optimization the EA earns an average of 1000 points profit per month, you subtract from the value of 200 points and get 800 points profit per month) and the maximum drawdown on balance in items increased by 20% (as if during optimization the EA showed the maximum drawdown 250 points, you add to the value of 50 points and get 300 points). 800 points profit per month, and the sinking of no more than 300 points are those values that are needed to be taken into account when calculating the risk for trading, and if EA is beyond these limits (e.g., sags more than 300 points, or makes an order more than 800 points in a month), it is necessary to stop the trade, and to hold a new optimization, or consult with us as a developer.

We do not recommend using the risk by more than 20% of your deposit for each instrument, and more than 50% of your deposit on the entire portfolio. In the calculation of risk you should take the maximum subsidence balance translated into points, and increased by 20 per optimization period.

If after the optimization you have used «forward» testing, it should be noted that the «forward» period is deducted from the period of the «trading window», therefore, with the average relation of the optimization period to «trading window» 20 months to 3 months, the use of 2-month «forward» period reduces the period of «trading window» up to 1 month.

The length of «trading window» shall not be less than the length of the period in which the EA has made the maximum subsidence + period for which it has restored a loss. Thus, for example, EA sank for 1.5 months (6 weeks), and then restored another loss for 2 weeks. The period spent in the loss is two months. If your «trading window» is less than 2 months, you risk getting loss for the period of the «trading window» less than the allowed maximum, but the «trading window» is reached, you will need to reoptimize the EA, and use the new «set». A new «set», in turn, may also begin to sink, and the loss of the account will accumulate, and the signal to stop the trade with EA will not help, as each «set» has not gone beyond the expected subsidence.

We do not recommend using «sets» that showed a maximum subsidence of more than 30% on the optimization (for step 1 lot for \$ 1 4-digit or 10 paragraph 5 digit points (0.1 Lot), and the initial deposit of \$ 1000), spent more than 3 months for a period of subsidence and subsequent recovery had expected payoff less than 10 (in step 1 of the lot for \$ 1, 4-digit or 10-point 5-digit points (0.1 lot), and the initial deposit 1000 \$) at specified spreads and commissions both on your real account, have less than 100 transactions received value recovery factor of less than 3, had a profit of less than 100% per annum (for step lot 1 for \$ 1 4-digit item or 10 5-digit points (0.1 lot), and the initial deposit of \$ 1000), had an uneven distribution of transactions (sales several times more than the purchases, or vice versa, all profits obtained as a result of several transactions, the transaction is unevenly distributed over the period (most of the beginning or end )) do not have an



irregular curve of balance (core profit was made at the beginning, end or middle of the period, the curve has a sharp rise, after which EA goes into drawdown or curve on the consolidated balance received value) are negative for the last 1/8 of the from the optimization period (the condition is true if you have not used «forward» period to test the «sets» obtained by the optimization).

It is strongly recommended to check the «set» before the actual trade in the period of optimization, but using the model generation «all tics» (MT4) or «all tics», on the basis of real ticks in MT5 and the substituted risk parameters and closing parameters of orders before output, «hidden» levels StopLoss and TakeProfit.

It should be particularly vigilant when using the automatic calculation of the input volume of the transaction based on the current amount of the deposit. Upon receipt of the loss or removal of EA funds will not low lot. So, for example, if your account was \$ 3,000 and the amount of input was 0.2 of the contract, after closing at a loss or withdrawal of funds in the account \$ 2,500 remain, the amount of input in the deal will not be reduced, based on the \$ 2,500, and will be 0.2 of the contract. It is done to ensure that the EA needed to earn the number of points equal to the depth of subsidence in points to exit the drawdown. However, such a scheme is more risky and can lead to the exit of the pre-defined risk or lead to an increase in the shoulders, and as a result the load on the account when funds are withdrawn. Do not forget to restart the EA on all instruments after the withdrawal of funds. We would not recommend using this mode of calculation of the input volume in general. Thus we recommend making the increase in input volume by hand, at the expiration of each period of «trading window», based on the results of the EA for the past period. In the case of getting the profit for the «trading window» period capture 50% (withdrawing funds or transferring them to another account) and leave 50% on the account (reinvested).

The minimum amount bill is \$ 200 with the input amount of 0.01 to 1 instrument. This account is enough to trade by 1 instrument, with the risk of no more than \$ 30 - \$ 40 (for instance, EURUSD and GBPUSD). The recommended amount is 2,500 accounts at \$ 0.05 in volume of input for 1 instrument and trading portfolio of 3 - 5, and tools (such as EURUSD, GBPUSD, USDJPY, USDCAD and AUDUSD). The more tools you take in the portfolio (with the same amount of total risk of the portfolio), the higher degree of risk diversification in your portfolio, and therefore receiving a profit on the portfolio is more likely.

We recommend using a separate account to trade in the EA, not leading manual trading and not running on this account other EA. So you can control the risks most clearly, monitor the results of the EA, control the subsidence on the instruments and the portfolio as a whole. It is most favorable to produce withdrawal at the expiration of each period of «trading window». It will clearly monitor the EA operation result for the period of «trading window», and calculate the risk for «sets» next of «trading window» correctly. In the case of withdrawal in the middle of the «trading window», check whether there is any possibility to work without EA risk reduction (risk of the portfolio should not exceed 50% of the available capital), if such an opportunity is maintained, risk reduction can be not produced. If the risk has become too high, it should be reduced. However, this may lead to the trade result change. For example, having a loss of 100 points and \$300 cash by the time of removal, after withdrawals and 2-fold input volume decrease, to reduce the risk, the EA will get a profit of 150 points. Then its result in the points is 50 points. But it will remain negative in terms of money as a loss of 100 points in monetary terms amounted to \$300, and a profit of 150 points, due to the 2-fold decrease in the volume of the input in terms of money, is only \$225. Therefore, in terms of money, the result is minus \$75 on the account. In case if the input amount was not changed, the result in terms of money would be positive as a result of settlements, and amounted to \$150 +.

It is not recommended to lower the volume of the input during drawdowns. You must initially calculate the risk so that the amount of funds in the account was enough to withstand the maximum subsidence without lowering the input volume in the position. If, as a result of activity, the EA shows a loss greater than expected, the trade must be stopped. Stop and perform a new optimization, make the risk of payment for the new «sets» with the current amount of funds, or consult with us as a developer. Moreover, if the risk is exceeded by one of the instruments in the portfolio or more, but not the entire portfolio as a whole, you should stop trading only for

instruments for which the risk is exceeded. New optimizations for these instruments should be produced, however, at the expiration of «trading window» for other instruments portfolio to begin a new period of «trading window» at the same time for all instruments in the portfolio. If this is not necessary, the remaining risk in the portfolio of instruments, after stopping the trade in the tools of the members in it, should not be changed (the total risk remains within the permissible limit (50% of available funds)). If the risk was exceeded for the whole portfolio, you should stop all the instruments in the portfolio, and produce a detailed analysis of the causes of a given situation or consult with us as a developer.

If after the losses as a result of third-party trading account or withdraw funds, you need to make a reduction in the volume of input into a deal to reduce the risk, the risk of all the instruments can be not reduced, and you should stop the trade in some of them. This makes it possible to reduce the risk of not having to decrease the remaining volume input tools. Instruments which show a positive trend, or "zero" trend must be stopped. Trade instruments, where the profit is greater than or equal to the expected profit for the «trading window» period at the moment, are necessary to stop in the first place. You can then stop the tools that do not show a negative trend (if there is still a need). If all the instruments in the portfolio are at a loss, it is better to reduce the amount of input on each of them, rather than stopping trade on any of them. It is not appropriate to reduce the risk for it or make a stop the EA trade at this instrument, when the instrument is close to the lower boundary of the allocated maximum amount of loss to it, because as a result of these transactions the maximum loss or the profit on the contrary will be obtained.

### **We recommend paying attention to:**

- 1) For a calculated risk volumes, by instrument in terms of money, add value in terms of money fixed by the loss level StopLoss of the instrument. Use this value to calculate the risk in the portfolio. It is rational, as to achieve 99% of the maximum loss is theoretically in EA should be a chance to open one transaction, it can be profitable, and start the recovery loss, but it is worth considering that it will be closed on the order of StopLoss and the amount of maximum loss will exceed the size of the loss which is fixed by the warrant StopLoss.
- 2) All risk value (such as 50% of the existing capital at the beginning of a real trade for the total portfolio, 20% of the existing capital at the beginning of a real trade for each tool, etc.) are just our recommendations, it is the upper limit of risk from our point of view. You can reduce the risk of exposing your own limits with a similar proportion (e.g. 30% for the entire portfolio, and 13% for each instrument). Increased risk is dangerous and can lead to a shortage of funds for the opening of the transaction at a critical moment. Trade with greater risks than specified above, is not secure.
- 3) If the account is traded not only by EA data, but also by other means, it is necessary to calculate the risk of the amount of funds that may remain after reaching the maximum loss on all kinds of third-party trading volume and maximum collateral from all kinds of third-party trade. If this amount can not be calculated accurately, and it is not a static value for the «trading window» period for EA, and dynamically changes during this period, it is recommended not to conduct the EA trade on this account at all.
- 4) When using hidden levels of StopLoss and TakeProfit (MM\_invisible option - in the «true» value) in the case of EA trip (both manually and in case of failure on the equipment where the EA is working with the Internet connection problem, a problem with the connection to the bank) without closing the transaction, loss on this transaction can create any value, as there will be no StopLoss and TakeProfit market orders. We recommend using a quality VPS server to host EA (low ping to the server of your broker and insurance against loss in the event of faults in DC are positive and recommended criteria for choosing the VPS). After restarting the EA old virtual levels are not restored, the algorithm with the levels of StopLoss and TakeProfit starts working with «0». However, if the price is in the profit zone, and setting StopLoss level into the «no loss» condition is satisfied, the EA will put «no loss» level immediately after power-up. If the

price of fixed parameters Take Profit level or the level of Stop Loss is more, the transaction will be closed. If at the time of the completion of the EA StopLoss level was in «no loss», and the price has already passed this point and is in the losing zone, the transaction will not be closed, EA will wait until the price reaches the set parameter of StopLoss level or level setting condition StopLoss in point «no loss» executed again.

- 5) We recommend not transferring transactions over the weekend. Use the options «close\_orders\_on\_weekend» and «close\_orders\_on\_weekend\_minute» to close before the weekend automatically. When you stop bidding on the occasion of any holiday we recommend closing the transaction by hand, according to the schedule of trading sessions with your broker.
- 6) **Remember that the potential risk of margin trading can be equal to 100% (that is, all the funds in your account) or more, except for the case when your broker insures losses in excess of the amount of funds on the trading account.**

## From Developer

We do not assume responsibility for the results of the EA trade on your account, or a difference with the results of the EA in other trading environments (brokerage, account, etc.), but are always ready to cooperate. We can individually adapt EA to your trading account, spend optimization of tools you are interested in that help in the selection of the portfolio, or even make your changes in the algorithm, to offer «support» services (we do optimization, monitor the results of actual trading, repeat optimization if necessary, give recommendations for correction of portfolio, risk, «trading windows» period, profit-taking on the instrument in the portfolio until the end of the «trading window» «set», or risk correction for this tool). All terms and conditions of this interaction are discussed separately, but we welcome any suggestions, questions and constructive criticism.

Sets for MT4 and MT5 for couples AUDUSD, EURUSD, GBPUSD, NZDUSD, USDCAD, USDCHF, USDJPY for the period 2013-2015 and 2015-2017 are in folder «SETS» in this archive.

To get a version for MT5 EA and take the opportunity to optimize multi-threaded and use the other advantages of the tester MT5 strategies contact us by any convenient way.

**Contact us you can via e-mail [mitin.mikhail@gmail.com](mailto:mitin.mikhail@gmail.com) or send a message to account <https://www.mql5.com/ru/users/mishutka999/>**