

TakeProfit: This integer parameter is the take profit target in pips from enter price on first order only. The following orders have the first order enter price as take profit plus the difference between TakeProfit and PipsStep. If PipsStep is bigger than TakeProfit, the profit target in pips of the following orders will be smaller than the first one.

Example 1: TakeProfit = 30, PipsStep = 25.

Order	Type	Enter	Take Profit
1	Buy	1,2000	1,2030
2	Buy	1,1975	1,2005
3	Buy	1,1950	1,1980
4	Buy	1,1925	1,1955

Example 2: TakeProfit = 25 and PipsStep = 30.

Order	Type	Enter	Take Profit
1	Buy	1,2000	1,2025
2	Buy	1,1970	1,1995
3	Buy	1,1940	1,1965
4	Buy	1,1910	1,1935

Example 3: TakeProfit = 30 and PipsStep = 30.

Order	Type	Enter	Take Profit
1	Buy	1,2000	1,2030
2	Buy	1,1970	1,2000
3	Buy	1,1940	1,1970
4	Buy	1,1910	1,1940

PipsStep: Integer parameter used as fixed pips loss until a new order is entered in the same way of previous one. The system doesn't use stop loss. When you enter an order, and prices goes against your initial position by pips = PipsStep, a new order is entered expecting a retrace, when the martingale (group of related orders) will get in profit.

Why don't close the previous order: Because you enter a similar order expecting a retrace. The retrace not only give profit to the last two orders, but also to first ones.

Why don't close the previous order and reverse it: Because this goes against martingale logic. Martingale is based on the probability of a change in the events (lucky at casino / trend at forex).

There are two reasons for this relation between TakeProfit and PipsStep:

- When TakeProfit is smaller than PipsStep, reduces pips profit target on new orders. This allows trader to close the martingale with a small loss at high number of orders, if lot size grows moderately; preserving balance. If lot size grows more aggressively, it could be closed in profit.
- When TakeProfit is equal or bigger than PipsStep increases martingale profit considerably.
- Prevents closing martingale in loss when price drops more than PipsStep in a tick, entering new order at a price exceeding trader expect. In such a case, if take profit were fixed, martingale would close in loss.

MaxTrades: Integer parameter for the maximum number of orders allowed in a martingale. Trader will distribute balance in a certain number of trades. This means that when the last order number is entered, there is no more to do. Just wait for the expected retrace, close all in loss (small or giant), or if you still have balance, place one more.

The number of orders to be placed, the initial lot size and lot size growth factor are closely related. Trader must distribute the balance to risk regarding all these parameters together, according to own money management style.

EmergencyClose: Integer parameter for the order number from where the EA will close the martingale when it gets in break even or in small profit.

If you want to assure the close of the martingale when you have too much orders placed, because you are scared, stressed, or is coming soon an important event or news that could move market strongly, you have the chance to close all orders when martingale gets break even or even in profit, by setting the order number from where to do that.

These parameters reduce system profit, but preserve balance, and trader emotions.

It could happen that market never touches take profit level by a couple of pips remaining open your positions. This is particularly dangerous when martingale placed to many orders. How many times did you see market reach one or two pips before your take profit level, and then go against your position. You lost the chance to quit this risky situation (and your account balance). These parameters exist to prevent this situation.

EmergencyClose doesn't close martingale immediately. EA could open new ones, but at break-even market price, whatever the number of opened trades in a martingale, of course bigger or equal to EmergencyClose, it will close them all together.

To disable EmergencyClose use a value bigger than MaxTrades.

TrailingProfit: Boolean parameter to modify or not the take profit of all opened orders to the same price. There are two ways EA closes a martingale in profit:

- Closing all: When the last order touches its take profit price, the EA will close the rest of the martingale.
- Modifying all: When a new order is placed, the EA will modify the take profit price to the take profit of the last order entered.

Closing all Pros:

- If market makes a strong retrace on your favor, EA will close each martingale order at better prices. Back tests show much better profit results.
- You don't show your real target to your broker.

Closing all Contras (I don't know the opposite of pros):

- An Internet connection interruption or a problem with your computer (EA included) may result in no closed orders, or some missed. Perhaps this could be an improvement to develop on EA.

Modifying Pros:

- Avoid connection and computer problems (hard and software).

Modifying Contras:

- Limit profits.
- Shows your profit target to your broker.

FactorLot: Double parameter multiplier of previous lot size, used to calculate next lot. This is the lot size growth factor of the following orders. If you want to reduce the lot size growing, instead of increase it, use a decimal number, i.e. 0.80 reduces 20% lot size on next order.

If lot size is less than one profit target must be increased in order to close martingale in profit.

FactorPips: Double parameter multiplier of previous PipsStep. PipsStep can be increased or reduced on each new order. This is a way to place new orders in increasing/decreasing intervals.

Example 1: PipsStep = 25, FactorPips = 1.25, ProfitFactor = 30

Order	Type	Enter	Take Profit
1	Buy	1,2000	1,2030
2	Buy	1,1975	1,2005
3	Buy	1,1944	1,1980
4	Buy	1,1905	1,1949

Example 2: PipsStep = 25, FactorPips = 0.80, ProfitFactor = 30

Order	Type	Enter	Take Profit
1	Buy	1,2000	1,2030
2	Buy	1,1975	1,2005
3	Buy	1,1955	1,1980
4	Buy	1,1939	1,1960

Salto: Double parameter used to make an unique increase or decrease on lot size. At certain order number of martingale trader can program increase/decrease lot size. Following orders won't increase in the same way. Just the order number identified by OrdenSalto makes that change on its lot size growth.

OrdenSalto: Integer parameter identifying the order to make a unique increase or decrease on lot size.

Example 1: InitialLotSize = 0.02, FactorLot = 2, Salto = 1.25, orden salto = 3

Order	Type	Enter	Take Profit	Lots
1	Buy	1,2000	1,2030	0,02
2	Buy	1,1975	1,2005	0,04
3	Buy	1,1950	1,1980	0,10
4	Buy	1,1925	1,1955	0,20

Example 2: InitialLotSize = 0.02, FactorLot=2, Salto = 0.80, OrdenSalto = 2

Order	Type	Enter	Take Profit	Lots
1	Buy	1,2000	1,2030	0,02
2	Buy	1,1975	1,2005	0,03
3	Buy	1,1950	1,1980	0,06
4	Buy	1,1925	1,1955	0,12

I really don use them. Just use value 1 to disable them. These parameters born on initial versions, for testing the idea.

mm: Boolean parameter to enable EA manage initial lot size as a percentage of balance account. If it is disabled lot size of first order will be as defined in parameter InitialFixedLots.

This helps more on back tests work than in real trading. You have enough time to do that work.

MiniAccount: Boolean parameter that identifies the type of account to trade on. If it is a mini, it supposes can trade micro lots. Minimum lot size in a mini account is 0.01. Minimum lot size in a standard account is 0.10.

ReverseCondition: Boolean parameter for read inversed the indicator signals. If buy, then sell and vice versa.

Many often, when signal appears is too late to enter a trade. Market starts its retrace when signal is given. So it is useful read on reverse the signal for trading currency pairs with these characteristics. Same technique applies working with lazy indicators.

risk: Double parameter used to determine martingale initial lot size as a percentage of account balance. "mm" parameter must be enabled. The formula is as follow:

- Standard account: Initial lot size = Balance * risk / 1.000.-
- Mini account: Initial lot size = Balance * risk / 10.000.-

If "mm" parameter is set to false, then risk parameter is unnecessary. And it doesn't matter what value is set.

InitialFixedLots: This double parameter has two functions:

- Disabled "mm": InitialFixedLots determines the lot size on first order on each new martingale.
- Enabled "mm": InitialFixedLots determines the minimum lot size if the percentage "risk" over balance results in a minor lot size.

Example: mm=true, risk= 0.43, balance = 300, IntialFixedLots= 0.03.

Initial lot size: $300 \times 0.43/10000 = 0.0129 = 0.01$ lot. Then this is lower than InitialFixedLots, so initial lot will be 0.03 instead 0.01.

MaxLots: Double parameter to set maximum lot size admitted by trader or broker on each order. On mini accounts brokers admit up to 50 lots on a single order. If trader don't want to use lots bigger than 10, for example, it can be set.

If order lot size is bigger than MaxLots, then EA will divide it in so many orders as it is necessary to complete the lot. These orders will be considered by EA as the same one.

Example: MaxLots = 20. FactorLot = 2, InitialFixedLot = 4.57

Order	Type	Enter	Take Profit	Lots	Lots
1	Buy	1,2000	1,2030	4,57	4,57
2	Buy	1,1975	1,2005	9,14	9,14
3	Buy	1,1950	1,1980	18,28	18,28
4	Buy	1,1925	1,1955	16,56	36,56
4	Buy	1,1925	1,1955	20,00	
5	Buy	1,1900	1,1930	13,12	73,12
5	Buy	1,1900	1,1930	20,00	
5	Buy	1,1900	1,1930	20,00	
5	Buy	1,1900	1,1930	20,00	

I don't think it is necessary use so big lot sizes. Nobody use them and if your account has a \$20.000 balance, it isn't mini. Your broker will change to standard, returning to lower lot sizes.

This is to prevent an accident the day you reach \$20.000 on your mini account :). And for back tests.

Moving Average Settings:

The next parameters are integers used to set moving average indicators. They have exactly the same definition as you see on the setting indicator window:

- MAMethod: method of the moving average.
- MAPeriod: Period of the moving average.
- MAPrice: Prices of the moving average.
- MALevel: Levels up and down in pips from moving average.

StopTrading: Boolean used to stop the EA execution after the martingale opened is closed. The EA continues managing normally the current opened martingale. But when it gets closed don't start a new one if this value is set to true.

It differs from EmergencyClose because don't force martingale close at break even. StopTrading lets EA run while a martingale is open. It just doesn't allow open a new one.

This parameter was useful for me to take control when running EA simultaneously on several charts, and some of them opened too many orders at the same time. I went sleep running EA with the instruction to stop trading when finishes martingale.

Basically this parameter helps to stop trading in the rest of the charts after they close theirs martingales, controlling margin usage.

Another usage could be on Thursday evenings. If your martingale gets closed during the night or at next morning, you can ensure not start a new one during Friday, and take a peaceful weekend. The same works for the day before important news or events.

Slippage: this integer parameter is used on opening and closing orders. Recommend use a high number of slippage to ensure complete execution of the orders sends. It is best a small lost than an order uncontrolled.

ForceTypeOrder: Integer parameter indicating what kind of order to be opened manually. On this EA it is available two kinds of orders only: BUY or SELL. At next market tick, EA will open a new order as indicated, starting a new martingale.

Remember (very important) set back this value to one different than zero or one. (0/1), immediately after new order is executed. If you don't do that, a new order will be opened at the end of the recent opened.

UpdateVar: Boolean parameter force update of EA's variables values that can be lost during computer shut down. This is very useful also, when you started a martingale on a different computer. EA on new machine wouldn't recognize values of variables named LastLotSize, MaxTradeAux, PreviousOpenOrder, and MyOrderType, initialized on other machine. They aren't calculated values, so far.

Remember restore this parameter to false once update value have been done. You will see on top left corner a new enter price for next order. Before update, there is a message "No type order". This means two things:

- If a martingale has been opened: EA lost variables values. You must update them by this option.
- If there aren't opened orders: EA is working fine, waiting a trading signal from indicators. Don't need do anything.

NewLastLotSize: Double parameter to remember the EA the last lot size entered, and help calculate the next. This is a calculated value because MaxTradeAux can affect this value.

NewMaxTradeAux: Integer that identifies how many additional orders have been used on previous one, divided because its lot size exceeded the maximum size admitted. If last order was split or break in more than two orders, trader must inform how many of them are currently used. See also MaxLotSize parameter for more information. See example of MaxLots parameter.

NewPreviousOpenOrder: Integer parameter identifies the sequence number of the martingale. If EA opened two orders, PreviousOpenOrder is two also. But if lot size is too big, and it needed to split the new order in two or more, the recount of orders could be 9 at the 5th sequence of the martingale. See example of MaxLots parameter.

So in this case, the input value will be 5.

Suggested Parameters:

These are parameters tested from June 2004 to February 2008. They were tested in several ways: EA buy & sell at same test. Only buy and only sell. And start trading test on days with high number of orders or important news or events. I call last "crisis reaction".

Here are the results. My question is: could these parameters be set by a statistic method? They were found by test and error method. What degree its value.

Parameters not mentioned aren't necessary for trading. They are used for a secure trading. For example "StopTrading".

Pair	GBPUSD	USDJPY	CHFJPY	USDCHF	USDCHF	EURUSD	EURUSD	EURJPY
Time Frame	30m	30m	30m	30m	1H	30m	1H	1H
TakeProfit	34	36	36	36	36	36	36	36
PipsStep	32	34	34	28	28	34	28	34
MaxTrades	9	9	9	12	9	9	9	8
FactorLot	2,05	2,05	2,05	1,95	1,95	2,05	1,95	2,05
FactorPips	0	0	0	0	0	0	0	0
OrdenSalto	0	0	0	0	0	0	0	0
Salto	1	1	1	1	1	1	1	1
ReverseCondition	false	false	false	true	true	false	true	true
TradeOnlyBorders	false	false	false	false	false	true	false	false
risk	0,2	0,2	0,2	0,15	0,15	0,2	0,15	0,3
InitialFixedLots	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
MaxLots	50	50	50	50	50	50	50	50
MAMethod	2	2	2	2	2	2	2	2
MAPeriod	100	100	100	100	50	100	50	100
MAPrice	1	1	1	1	1	1	1	1
MALevel	120	90	90	110	120	90	120	110
slippage	40	40	40	40	40	40	40	40
Annual Profit	97%	90%	31%	53%	53%	18%	21%	100%

As this is an advance of final EA documentation (really I think it never ends), could be some parameters not specified.

Indicators Used:

MA Martingale expert advisor use a Smoothed Moving Average, on 100 bars period. Some pairs works better with a 50 SMMA.

Trading System:

The system proposed has two events giving trading signals:

1° - When price crosses up or down its SMMA(100).

2° - When price crosses over or below moving average level defined by trader.

In the next picture you can see a 100 SMMA price open in color red; 100 SMMA prices high in color blue; and 100 SMMA prices low in color yellow. Top and bottom levels in color silver or grey.

These two last are set 120 pips up and down from SMMA open.

SMMA prices HIGH and LOW are used to confirm the cross. To avoid wrong signals. Example BUY: If actual bar open higher than SMMA high, and previous two last bars have a lower price above SMMA high, and the previous to these two last has a low below SMMA, then the signal is confirmed.

Se on next chart at 12/17/2004 at 16:30 buy, and 12/21/2004 at 11:00 sell.

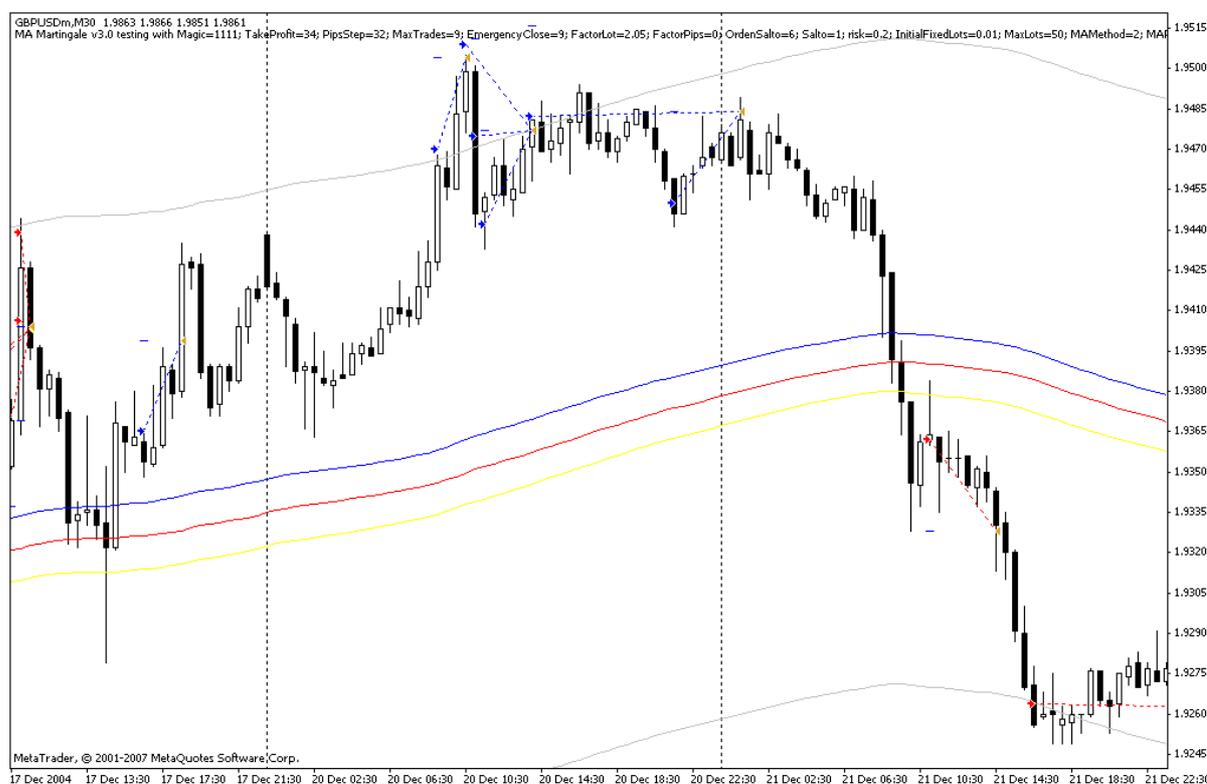
The second signal is given when prices cross over or below level set from SMMA. In this level you can go with the trend or against it. They work as a support and resistance levels.

When market is ranging, prices can reach levels from SMMA set by trader. If it is an up level, it is supposed prices will to continue going up. So go with it.

But you can choose the opposite option: go against it. Some pairs make a retrace when a support or resistance level is crossed. There is another reason to do this: at prices so high from SMMA it must retrace next to the indicator. A price over 120 pips above or below its long term moving average is, at least, psychologically over bought/sell.

See 12/20/2004 at 9:00, price crosses top level, and in this case, we go with the trend. When order take profit, a new one is opened immediately. Of course a retraces occurred, and two new orders were placed, following martingale money management.

Study your favorite pair, and set up your MA Martingale v3.0 expert.



How does it work :

This is not rocket science. It's just an opinion that worked on back test from June 2004 to February 2008, and during last 3 weeks on real trading.

If you draw a Smoothed Moving Average 100, with a top level at, for example, 110 pips and a bottom level at -110 pips from the SMMA, you will see the top and bottom prices levels were market range. The picture shows the road where market drives prices. I can't predict where prices are going. But this gives me a frame, a reference. An idea which are their limits.

The top and bottom levels from SMMA must differ from pair to pair, because they have their own volatility and prices ranges. It's a statistic work to do. Or simply test and error work, as I done, to find out the best level on each pair.

The pictures are similar to Bollinger Bands. But it doesn't use "deviation" to draw the bands. They are fixed values. Bollinger Bands get wider when prices range. This information use to be an early or late signal to enter the market. With fixed values bands, you got a long term oscillation range, with the extreme prices your position must afford if market goes against it.

Suppose bottom Bollinger band is at -35 pips of its Moving Average. And suddenly, in one hour, price fall -80. This indicator will say "it's over sold". But price continues falling for a couple of hours without retrace. Why don't you simply wait to a 110/130 fall from the middle historic price to enter.

If you buy at 120 pips below currency pair smoothed moving average, you'll be sure price must try return to that level. Read well, I say must try. This means at least a short retrace, enough to close a martingale.

This has similar trading logic of stochastic. When price drops drastically, Stoch shows an over bought area. If it starts to go out this area, then you buy. But talking about prices, this could mean that price stops its fall for a moment. Not necessary a retrace. In this case, stochastic gives a wrong signal.

Stoch neither gives you good signals when market moves in low ranges. It uses to zigzag from top to bottom. If highs are little big than lows, it will show you an over bought signal. Of course wrong, because the whole market range don't exceed 25/35 pips for the day.

No words about price levels. The over bought/sold area, doesn't tell you how many pips or at what price enter / exit. I mean, when indicator says it is over sold, from what price it is over sold. From last to ticks, last hour or last Christmas? MA Martingale, and your statistic work give you that price level.

Some pairs or time frames have so big volatility, like GBPUSD that it is the same go with the trend or against it.

For the rest I enter against the trend, included GBPJPY.

Your account balance, distributed in the number or trades you decide, must cover the difference in pips between top and bottom, to avoid blow it up. This is information for initial lot size, which omits Bollinger Bands.

For example. I use GBPUSD with +120 and -120 pips from SMA(100). That means my balance must resist enter on top and a fast drop to bottom, 240 pips below. I distribute my orders and lot size along this trip. If price retraces 30/40 pips during that way martingale gets closed in profit.

Smoothed indicator with open price gives you a lazy indicator, with no surprises. It doesn't use to turn on suddenly. And it moves slowly in the middle of the price range. Giving you enough room to resist a drawdown.

I run it on 30m or 1 hour time frames.

That's it.