

Background of EA

This EA is a martingale EA.

What is martingale?

Martingale is a strategy in which we open a new entry if current price moves against our entry. For example, when EA has opened a buy order (buy layer no. 1) and after that current price goes lower than opening price of the buy order, a new buy order (buy layer no. 2) is opened by EA. How far (in pip) layer no. 2 from layer no. 1 is controlled by PipStep setting. If PipStep setting is set for example 5 pips, only after current price goes more or equal 5 pips from the opening price of buy layer no. 1 then layer no. 2 is opened by EA. Our Take Profit is controlled by TP setting. Let say if we set TP = 6 pip. Back to previous example, let say we have one buy order only i.e. buy layer no. 1, so our TP is 6 pip above the opening price of buy layer no. 1. But if buy layer no. 1 unable to hit its TP, and current price moves lower more than PipStep, EA will open buy layer no. 2. Now we have two buy layers, what is our TP price now? Our TP will be at price where total profit of the two opened buy layers = 0 USD (breakeven price) plus 6 pip. So now you might think it is impossible for us to hit TP as more buy layers are added since TP will be far away from the current price. To make TP near the current price, we have two more settings i.e. StartingLot and Multiplier. StartingLot is the amount of lot to be opened for buy layer no. 1. The next layers will be increase in size by Multiplier setting. To understand more of these two settings and other settings, you can refer Settings section where all settings are explained in detail. So if current price goes against our entry, more and more layers will be added with bigger and bigger lot size. Thus martingale is really a high risk strategy and definitely can lead us to Margin Call (MC).

But we have more settings to reduce the risk of this strategy such as Entry Filter, EnterOpenBar, VirtualTrade, AutoTFChange, AutoPipStepChange, AutoMultiplierChange, ActiveTime, MaxNumberOfPairOpen, MaxNumberOfSameCurrencyPairOpen and etc.

If EnterOpenBar=false, VirtualTrade=false and UseEntryFilter=false, LoL will open buy and sell simultaneously. If current price moves against the entries, new layer will be added until we hit TP. This is the most dangerous way to run this EA. If we set EnterOpenBar=true, LoL will delay the adding of new layer depends on RealTradeTimeFrame settings. More settings can be manipulated to reduce our risk. I have made this EA so flexible to suit individual risk appetite.

Definition

Martingale Cycle

In this Readme, I will in several occasion use term "martingale cycle". Martingale cycle starts with layer no. 1 being opened by EA. Let say layer no. 1 is a buy order, PipStep is 4 pips and TP is 4 pips. If after layer 1 is opened and price directly goes up and hit TP price, we consider this as one completed martingale cycle. If after layer 1 is opened and price directly goes down more than 4 pips (PipStep), a new buy layer i.e. layer 2 will be opened. Then the price goes up and hit TP where both layer 1 & 2 are closed. This also we consider as one completed martingale cycle. So, as long as all positions are closed by EA by TP, we consider it as one completed martingale cycle.

Interface of this EA



Blue Line – shows TP price for buy orders.

Red Line – shows TP price for sell orders.

Aqua Line (not shown above) – will show up when there is trailing SL for buy orders.

Orange Line (not shown above) - will show up when there is trailing SL for sell orders.

“Bot name” on upper left corner – name of Telegram bot this EA is connected to.

Buttons i.e. “MANUAL MODE”, “SET TP MANUAL”, “StopNewBuyOrderAfterTP”, “StopNewSellOrderAfterTP” & “HIDE”. Their functions as follows:

MANUAL MODE button



Photo 1: Button not pressed.

Photo 2: Button is pressed.

If MANUAL MODE button is pressed and looks like Photo 2 above, this EA will stop open new layer and stop modifying TP of all orders. However, EA will still monitor current price and close all positions if current price reaches TP.

SET TP MANUAL button

If SET TP MANUAL button is pressed, EA will stop monitoring current price to TP price (which means although current price reaches TP price, the open positions will not be closed by EA). This will give us chance to modify TP manually by dragging blue/red horizontal lines on chart which represents current buy/sell TP price. When we finish dragging the lines, our TP price will be shown on panel (as in Photo 1) together with profit we get with that TP (Profit Buy/Sell TP). After setting TP manually, SET TP MANUAL button must be pressed again in order for EA to continue monitoring price and close all positions if TP is reached.

Note: If Set TP Manual button is pressed, Manual mode button will automatically being set in pressed state to avoid EA from modifying our manually set TP. Never release Manual mode button if the TP is set manually because exiting Manual mode will cause TP be automatically adjusted by EA.

StopNewBuyOrderAfterTP button

When the above button is pressed, no new martingale buy cycle will be opened after last cycle hit TP. However the current martingale buy cycle will continue i.e. new layers will be added till TP is reached (all buy positions are closed).

StopNewSellOrderAfterTP button

When the above button is pressed, no new martingale sell cycle will be opened after last cycle hit TP. However the current martingale buy cycle will continue i.e. new layers will be added till TP is reached (all sell positions are closed).

HIDE button

This button will hide the info panel and all buttons.

Settings

StartingLot

Amount of lot to be opened at the beginning of martingale cycle.

PipStep

Value of pips (1 pip=10 points for 5 decimal broker) before a new martingale layer is added if the current price goes against our entry. Example: last open BUY position of EUR/USD was at price 1.23432. If PipStep is set to 4, a new martingale buy layer will be added when current price moves to 1.23392. However if EnterOpenBar is set to true, a new martingale buy layer will only be added if the current price moves to 1.23392 or less at the new candle open of RealTradeTimeFrame.

EnableAdvancedDynamicPipStep

This function is intended to be used when **EnterOpenBar** setting is set to true. If this function is set to true, different way of opening new martingale layer will be used. Instead of opening a new layer when current price is more than PipStep after last candle was closed (**EnterOpenBar** setting set to true), EA will just record the open price of new candle and the last complete candle is called 'permitting candle' (first candle to close more than PipStep from last layer). EA will only open a new layer if next candle closes below the recorded price. User is allowed to choose how many candles to be skipped after 'permitting candle' for decision of opening new layer by changing **CandleToSkipAfterPermittingCandle** setting. By default, **CandleToSkipAfterPermittingCandle** is set to 0 which means candle after 'permitting candle' will be checked whether it's close price is more than recorded price (of permitting candle) in order to decide whether to open new layer or not. Setting to 1, will skip 1 candle and checking (more than recorded price) will happens on second candle after 'permitting candle'.

CandleToSkipAfterPermittingCandle

Number of candle to be skipped after 'permitting candle' for Advanced Dynamic PipStep function.

Multiplier

Best explained via example as follows. If StartingLot is set to 0.01, Multiplier is set to 1.5 then,

First layer will be opened at StartingLot i.e. 0.01.

Second layer will be opened at: Starting Lot X Multiplier = $0.01 \times 1.5 = 0.015 = 0.02$ lot (rounded)

Third layer will be opened at: Starting Lot X Multiplier X Multiplier = $0.01 \times 1.5 \times 1.5 = 0.0225 = 0.02$ lot (rounded).

TypeOfTP

There are two options can be chosen i.e. 'TP in Pip' or 'TP in USD'. If 'TP in Pip' is chosen, then value of TP in pip will be taken from **TP** setting. If 'TP in USD' is chosen, then value of TP in USD (or your account base currency) will be taken from **TPusd** setting.

TP

I.e. TakeProfit, value of pips below/above breakeven price (the price at which total profit for all layers = 0 USD) for sell/buy respectively. If there are many layers, all layers will be closed by EA when current price reaches breakeven price plus/minus TP pips for buy/sell orders respectively. Note that some of the layers may be closed in loss, however overall, we will be in profit.

TPusd

I.e. TakeProfit value in USD (or your account base currency) after breakeven price (the price at which total profit for all layers = 0 USD) for sell/buy respectively. If there are many layers, all layers will be closed by EA when total profit for all layers is equal to TPusd value.

FixedSLAllLayer

Set this to true, if you want Stop Loss for your open positions. The Stop Loss value in pips will be taken from **SL** setting. Stop Loss will be placed **SL pips away from breakeven price for all layers** (the price at which total profit for all layers = 0 USD). Note that in martingale strategy, new layer will be added after PipStep, hence breakeven price will change after new layer is added, Stop loss also will adjust according to new breakeven price.

SL

Stop Loss value in pips for FixedSLAllLayer setting.

HiddenTP

By default, I set this value to 'false' which means EA will try to put TP for all open entry at broker's server. If set to 'true', no TP is placed for open entry at broker's server. Instead, EA will monitor current price continuously (this requires EA to be online at all time) and if current price reaches TP price, EA will close all positions (this is what I meant by HiddenTP).

HiddenSL

By default, I set this value to 'false' which means EA will try to put trailing SL (Stop Loss) for all open entry at broker's server. If set to 'true', no trailing SL is placed for open entry at broker's server. Instead, EA will monitor current price continuously (this requires EA to be online at all time) and if current price reaches trailing SL price, EA will close all positions (this is what I meant by HiddenSL).

Note: Hidden TP/SL has their own risk. If current price moves very fast (volatile) or connection between EA with broker's server is slow, EA might not be able to close all positions at same time. This may lead to loss.

EnterOpenBar

If set to true, this EA makes decision whether to open new position/layer after candle is closed (also open of new candle/bar) at the time frame of the chart it is attached to. Example, if this EA is executed on 15 minutes time frame chart and the last layer opened was a buy layer, it will check whether the current price is less than PipStep pip from the last buy layer's order open price only after the 15 minute candle closed. So, if the price is lower than PipStep pip before 15 minute candle closed, a new layer will not be added. In other words, checking is only carried out when a new bar is formed.

If set to false, this EA will continuously monitoring every price tick and once the price tick exceeds PipStep pip from last layer's open price, a new layer will be opened.

RealTradeTimeFrame

The default value for this setting is 'current' which means EA will use the timeframe of chart it is placed to. This setting is intended to be used together with **EnterOpenBar** setting. So **EnterOpenBar** setting must be set to true for this setting to have effect on EA operation. Time frame set in this setting determines time in which EA checks whether current price is pipstep more than the last layer or not. For example if this setting is set to 5 minutes, EA will check every 5 minutes whether current price is pipstep more than the last layer or not.

EnterAtSpecificTime

If this setting is set to true, EA will only open position at one specific time in a day. The time is controlled by the following EnterHour & EnterMinute settings. Time used by EA is time of the local computer that your MT4 platform running on. Time format is 24 hours format.

EnterHour & EnterMinute

For example, if EnterHour=7 & EnterMinute=20, EA will only open position at 7:20 a.m. of your local computer running MT4 every day.

BypassEnterOpenBarNEnterAtSpecificTimeWithEntryFilter

The way I code EA LoL is that when EnterOpenBar setting is set to true, EA will only enter position when candle close. However this will limit certain type of Entry Filter that meet their conditions in between candle open and candle close. For example, iStoch filter, let say iStoch filter reach value OverBought (OB) at 90 and at that time, candle in which RealTradeTimeFrame is set to, is still not close, EA LoL will not open sell position. EA LoL will only open sell position when candle closed and at that close time, stoch value reaches 90 (meets Entry Filter condition). This will make entry time of particular EntryFilter not accurate i.e. late entry. So I create this setting whereby when it is set to true, EA will bypass EnterOpenBar filter for the first entry (when meets Entry Filter conditions) but next layering follows EnterOpenBar and RealTradeTimeFrame conditions.

MaxSpread

Maximum Spread (Ask minus Bid) in pips that will be accepted to open a position. Example: if this EA wants to open any new position/layer, it will check current spread whether less or equal MaxSpread setting, if more, no new position/layer will be executed.

Slippage

Slippage integer value in **Points** that will be used when EA opens order and close orders. Note that this value is in points and an integer. For 4 decimal broker, 1 pip = 1 point but for 5 decimal broker, 1 pip = 10 points.

MagicNumber

Is a number assigned to an open position to distinguish it from an open position which was not opened by this EA.

TradeComment

This will set the text comment in all trades opened by this EA. This is to distinguish between trades being opened by this EA and other trades (manual trades or trades opened by other EA). It is compulsory to put some text in this setting (cannot be blank). **Please avoid using “-” (dash) symbol in the comment.**

WaitTillAllClose

This setting is created to be used when UseEntryFilter = false & VirtualTrade = false. When these two settings are set to false, EA will open buy & sell simultaneously. When one of them (open positions) hit tp, for example after buy order hit TP, a new buy order will be opened. At the same time, new sell layer will be added if we met our PipStep setting. With this WaitTillAllClose being set to true, the new buy order (after previous one hit tp) will not be opened until all sell layers being closed due to hit TP. We will start fresh with pair of buy and sell every time after previous pair of buy and sell hit TP.

AddNewLayerOnlyIfOppositeSideAlreadyHitTP

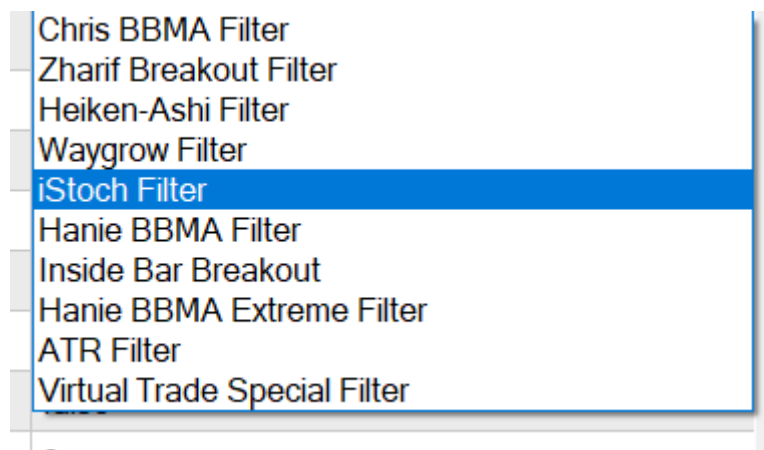
This setting is created to be used when UseEntryFilter = false & VirtualTrade = false. When these two settings are set to false, EA will open buy & sell simultaneously. If we set AddNewLayerOnlyIfOppositeSideAlreadyHitTP = true, EA will only add new layer according to other rules only after one of our buy & sell hit TP. For example, if buy hit TP, only after that new sell layer will be added to our first sell layer.

UseEntryFilter

If set to 'true', EA will use entry filter as being set in FilterType setting below.

FilterType

This is the filter to be used when UseEntryFilter is set to 'true'. Currently we have ten filters i.e. Chris BBMA filter, Zharif's Breakout filter, Heiken-Ashi filter, Waygrow filter, iStoch filter, Hanie BBMA filter, Inside Bar Breakout filter, Hanie BBMA Extreme Filter, ATR Filter and Virtual Trade Filter.



Filters in LoL

Chris BBMA filter uses 4 indicators to determine whether EA should buy or sell at any one time. So EA will only entry if the setup to entry is met.

Zharif's Breakout filter will determine the highest and the lowest price from past candles. The number of past candles being used is based on **BreakoutCheckBarCount** setting. EA will enter buy order if current price breaks the highest price and will enter sell order if current price breaks the lowest price. If there are no open position, the highest price and the lowest price are re-calculated after each completion of new candle. Timeframe of candle is based on **BreakoutTF** setting.

Heiken Ashi filter will get it's buy setup when Heiken Ashi candle change from bearish candle to bullish candle and vice versa. The timeframe of the candle is based on **HeikenAshiTF** setting.

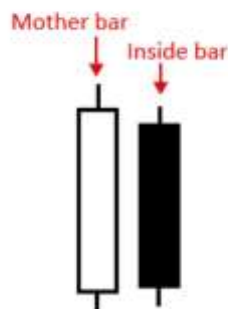
Waygrow filter uses two moving averages and candle size to determine entry point. First moving average is applied at high prices of previous candles while second moving average is applied at low prices of previous candles. These two moving averages act like two barriers for current running prices. If current price is more than upper barrier (moving average applied to high prices) and candle size is more than **WGFilter** setting, then EA will sell. If current price is less than lower barrier (moving average applied to low prices) and candle size is more than **WGFilter** setting, then EA will buy.

iStoch filter uses stochastic indicator to determine entry point. It is as simple as buy when price is oversold (OS) and sell when price is overbought (OS). The timeframe used is timeframe of chart EA being run on.

Hanie BBMA filter uses BBMA re-entry technique at ma5 & ma10 for it's entry point. This technique further verify entry point by using trend filter, Awesome Oscillator and rejection of BB line in smaller timeframe. For further info on this filter, please contact Hanie @Hanie_BBMA_WebsterFX.

Inside Bar Breakout filter will enter position when the current price reaches the high or the low of mother bar. So, this filter will look for an inside bar pattern first.

Inside Bar Patterns



Hanie BBMA Extreme will enter buy position when ma5 or ma10 (linear weightage) value is lower than bottom BB. Sell position is entered when ma5 or ma10 (linear weightage) value is higher than top BB. If HanieBBMAExtremeReverseMode setting is set to true, then the entry conditions will be vice versa.

ATR filter has two types i.e. Containment and Breakout. For Containment, the filter will enter buy position if the length of the current candle (highest price minus lowest price) is more than Average True Range (ATR) value and current price is at the lowest price. Sell position will be opened by EA if the length of the current candle (highest price minus lowest price) is more than Average True Range

(ATR) value and current price is at the highest price. If Breakout type is chosen then the entry conditions will be vice versa the Containment.

Virtual Trade Special filter will simulate martingale entry on both buy and sell in its memory based on Virtual Trade Special settings i.e. VirtualTradeSpecialStartingLot, VirtualTradeSpecialStartingPipStep, VirtualTradeSpecialMultiplier, VirtualTradeSpecialTP, VirtualTradeSpecialEntryOpenBar & VirtualTradeSpecialTimeFrame. This simulation will start once EA starts running. Once the simulated martingale entry reached VirtualTradeSpecialLayerToStartRealTrade setting, real trade will be opened. The difference between Virtual Trade Special filter and VirtualTrade is that Virtual Trade Special filter will simulate martingale entry at all times (while EA running) while VirtualTrade simulation will stop when it meets its real trade condition.

BBMATF

This setting is timeframe of Chris BBMA filter finding it's setup. If we set this as 5 minutes, the 4 indicators of Chris BBMA filter are plotted on 5 minutes chart and if setup conditions are met then only EA opens position.

ResetVirtualTradelfOppositeSignal

In LoL v3.9, ongoing virtual trade (still not meet 'open real trade' condition) will be reset if two out of four Chris BBMA indicators showing the opposite signal which is equal to setting ResetVirtualTradelfOppositeSignal = true. This will ultimately reduce number of signal for EA to open position (which is more safer, I think). I introduce ResetVirtualTradelfOppositeSignal setting since LoL v4.0 so that if it is set to false, virtual trade is maintained although two out of four indicator show opposite signal.

BreakoutTF

This setting is timeframe of Zharif's Breakout filter finding it's setup. If we set this as 15 minutes and BreakoutCheckBarCount=30, EA will find the highest and the lowest price from the past 30 15-minutes candles.

BreakoutCheckBarCount

This setting is number of candles used for Zharif's Breakout filter in determining the highest and the lowest price.

UseTrendFilter

If set to true, then EA will add conditions to Zharif's Breakout filter which will depends on current price and moving average value.

FollowTrend

If set to true when UseTrendFilter = true, then EA will entry buy only if Bid price above Moving Average value (moving average used as per setting under Zharif's filter) and vice versa.

ContainmentInsteadofBreakout

This will reverse direction of entry for Zharif's Breakout filter. Instead of buy when reaches highest price, EA will sell while when reaches lowest price, EA will buy.

HeikenAshiTF

This setting is timeframe of HeikenAshi filter finding it's setup.

WGTF1

Timeframe used to find setup for Waygrow filter.

WGFilter1

Candle size in points for Waygrow filter. For example, default value is set to 140 means 140 points or 14 pips for 5 decimal broker.

WGMAPeriod1

Period for moving averages (applied to high and low prices).

WGMAMethod1

Method of moving averages (applied to high and low prices).

Note: Other settings, WGTF2, 3, 4 ; WGFilter2, 3, 4 ; WGMAPeriod2, 3, 4 and WGMAMethod2, 3, 4 are same definition as stated above. However they are there to provide additional filters for Waygrow filter entry, be it whether different timeframe or different type of moving average or etc. If you just want to use only one filter, just set all 1 to 4 settings same.

EnableFiboFilter, FiboFilterReverseMode, HighFibo, LowFibo, StartBar, BarsBack

If this is set to true, additional entry conditions will be added to Waygrow Filter conditions depends on plotted fibonacci levels. Fibonacci levels are plotted from StartBar (0 means current bar, 1 means candle before current bar and so on) to BarsBack candle. Let say StartBar=0, BarsBack=20, fibo levels will be plotted using 20 candles from current candle. Highest price from these 20 candles will be level 100% level of fibo while lowest price will be 0% level of fibo. If FiboFilterReverseMode is set to false, EA will enter buy when Ask price more than HighFibo level and Waygrow filter condition is met; EA will entry sell when Bid price less than LowFibo level and Waygrow filter condition is met. If FiboFilterReverseMode is set to true, EA will enter buy when Bid price less than LowFibo level and Waygrow filter condition is met; EA will entry sell when Ask price more than HighFibo level and Waygrow filter condition is met.

iStoch settings

The explanation of iStoch parameters are available at <https://docs.mql4.com/indicators/istochastic>. Besides that, we have **OB** & **OS** settings. EA will sell once iStochastic value more or equal to **OB** setting while EA will buy once iStochastic value less or equal to **OS** setting.

IncludeRSIFilter

If this is set to true, additional entry conditions will be imposed on iStoch filter. This means instead EA will wait only for Stoch value to reach OB value to enter sell condition, now RSI value also needs to reach OB value. Parameters of RSI can be changed through RSIPeriod, RSIAppliedPrice & RSIShift settings.

HanieBBMATF

This setting is timeframe of Hanie BBMA filter finding it's setup.

HanieBBMAVersion

This setting is version of Hanie BBMA filter to be used. There are 12 versions and each version has different way of filtering. Please contact Hanie @Hanie_BBMA_WebsterFX for further details.

HanieBBMAEnableAOFILTER

This setting if set to 'true' will impose additional condition checking in form of Awesome Oscillator (AO) indicator value on top of filter version chosen above. This will improve accuracy of entry point of all filter version however with this, the frequency of signal generated will be less.

HanieBBMAAOFILTERVersion

There are two versions of AO filtering i.e. version 1 and version 2 can be chosen from this setting. Version 2 is stricter than version 1. This setting only applicable when **HanieBBMAEnableAOFILTER** is set to 'true'.

InsideBarBreakoutTF

This setting is timeframe of Inside Bar Breakout filter finding it's setup. Note that if **EnterOpenBar** setting is set to true, EA will only put entry after candle close although current price already more / less than mother bar's high and low.

HanieBBMAExtremeTF

This setting is timeframe of Hanie BBMA Extreme filter finding it's setup.

HanieBBMAExtremeReverseMode

This setting will reverse the effect of Hanie BBMA Extreme filter. For example, if we got buy signal, we sell and vice versa.

ATR TF

This setting is timeframe of ATR filter finding it's setup.

VirtualTradeSpecialStartingLot, VirtualTradeSpecialPipStep, VirtualTradeSpecialMultiplier, VirtualTradeSpecialTP, VirtualTradeSpecialEnterOpenBar, VirtualTradeSpecialTimeFrame

Virtual Trade Special filter will use all the settings above to simulate virtual martingale entry on both buy and sell sides once EA start running.

VirtualTradeSpecialLayerToStartRealTrade

Once number of layer in simulated virtual martingale entry reaches **VirtualTradeSpecialLayerToStartRealTrade** setting, EA will open trade.

VirtualTradeSpecialRealTradeTPFollowVirtualTrade

If set to true, real trade will follow Take Profit (TP) price of simulated virtual martingale entry. Let say, **VirtualTradeSpecialLayerToStartRealTrade = 4**, so when simulated virtual martingale reaches 4 layers, only then EA starts entry (layer no. 1). The simulated virtual martingale entry of the 4 layers has its own TP price. With

VirtualTradeSpecialRealTradeTPFollowVirtualTrade = true, entry of the EA (layer no. 1) will follow the simulated virtual martingale entry of the 4 layers. This enables us to gain more profit however probability to reach TP may be low since TP price most probably be far than current price.

TrailingSL

I.e. Trailing Stop Loss, value of pips below/above breakeven price (for all layers) where trailing stop loss will be activated. Let say we have several buy layers opened, breakeven price is 1.23456 and TrailingSL is set at 5 (pips). So when current price goes 5 pips above breakeven price i.e. 1.23506. TrailingSL will be put at breakeven price + 1 pip = 1.23466. If price continues to go up, trailingSL will follow behind current price with 5 pip distance. However, if price go down, trailingSL will stay and if price hit the trailingSL, buy layers will be closed.

PipAfterBEtoStartTSL

This setting gives user ability to determine when Trailing SL function should start. If you read explanation for **TrailingSL** setting above, Trailing SL will be put firstly at breakeven price (BE price) + 1 pip. This setting will change Trailing SL behaviour to be put at BE price + **PipAfterBEtoStartTSL** pip. This setting is in Pip, it will be automatically adjusted for 5 decimal account.

TrailingSLType

There are two types of Trailing SL can be choose from i.e. Step or Continuous. Step trailing means trailing SL will be placed behind current price only after current price being a distance (step) away. For example, let say trailing stop loss have been activated for a buy order and current price now at 1.1925 for EURUSD. Trailing stop loss is now at 1.1920 since **TrailingSL** is set to 5 pips. Under step trailing, trailing SL will be changed to 1.1925 only when current price moves to 1.1930 or above. If not, trailing SL will stay at 1.1920. While in continuous trailing, trailing SL will be updated as current price moves further away up. For example if current price moves to 1.1927 from 1.1925, at that moment EA will straight away moves trailing SL to 1.1922 from 1.1920.

TrailingSLAllLayer

If **TrailingSLAllLayer** is set to true, EA will activate trailing SL for all layers which means all layers will be closed if trailing SL is hit.

TrailingSLAllLayerWithTP

This setting will only apply if **TrailingSLAllLayer** is set to true.

If TrailingSLAllLayerWithTP is set to true, TP price will still available for all layers and if the price hit TP price, all layers will be closed. Trailing SL will also available and depends on which (TP or trailing SL) is hit first, all layers will be closed.

TrailingSLLastLayer

If TrailingSLLastLayer is set to true, this EA will apply trailing SL at last layer of the martingale cycle. For example, if we currently have 5 layers of buy orders on chart, trailing SL will only apply to layer no. 5 (last layer being opened). Trailing SL will activate when current price moves above the “open order price of layer no. 5 + TrailingSL (in pip)”, and trailing SL will be put at “open order price of layer no. 5 + 1 pip”. If trailing SL is hit, only layer no. 5 is closed by EA and TP for remaining layers will be re-calculated accordingly. Thus, this option of trailing will still has TP price.

TrailingSLLastLayerStart

This setting will only apply if **TrailingSLLastLayer** is set to true.

This setting means the number of layer to start trailing SL for last layer. Let say we set this to 5, trailing SL will only start to apply when total number of layer for buy/sell orders reach 5 layers and trailing SL will only available for layer no. 5 when conditions are met i.e. when current price moves above/below the “open order price of layer no. 5 +/- TrailingSL (in pip)”.

TrailingSLLastLayerStop

This setting will only apply if **TrailingSLLastLayer** is set to true.

This setting means the number of layer to stop applying trailing SL for last layer. This setting logically must be more than **TrailingSLLastLayerStart**. Let say we set this to 10, trailing SL will not be applied to last layer when total number of layers is 10.

VirtualTrade

Virtual trade means EA will simulate the entry to market (opens buy/sell orders) according to martingale strategy. This simulation is only happen in the 'mind' of EA. We can benefit from virtual trades by using it as our entry filter before we do real martingale entry. By using **VirtualTradeToStartRealTrade** setting, we can delay our entry to the market. This reducing our risk.

If Virtual Trade is set to true, this EA will open virtual trades based on current settings (**StartingLot**, **Multiplier**, **EnterOpenBar** and etc.). This virtual trades will be recorded by EA and is available at the info panel on chart (**Total Virtual Buy Layer** & **Total Virtual Sell Layer**). Note that if this EA is removed from chart or time frame is changed, all this virtual trade records will be no longer available and EA will start new record of martingale cycle. Virtual trade records will also be reset if the EA is outside **ActiveTime**, if **ActiveTime** setting is set to true.

If Virtual Trade is used together with **EntryFilter** i.e. **UseEntryFilter=true**, EA will wait until it met **Entry Filter** setup before starting virtual trade.

VirtualTradeStartingLot

Same as **StartingLot** setting's definition but this one is for virtual trade.

VirtualTradePipStep

Same as **PipStep** setting's definition but this one is for virtual trade.

VirtualTradeMultiplier

Same as **Multiplier** setting's definition but this one is for virtual trade.

VirtualTradeTP

Same as **TP** setting's definition but this one is for virtual trade.

VirtualTradeEnterOpenBar

Same as EnterOpenBar setting's definition but this one is for virtual trade.

VirtualTradeTimeFrame

Same as RealTradeTimeFrame setting's definition but this one is for virtual trade

VirtualTradeLayerToStartRealTrade

If VirtualTrade is set to true, this EA will not open real trade until Total Virtual Buy/Sell Layer recorded by EA exceeds VirtualTradeLayerToStartRealTrade setting. For example, if this VirtualTradeLayerToStartRealTrade = 10, real trade will only open if Total Virtual Buy/Sell Layer reaches 11 layers which is more than 10.

RealTradeCounterTrend

This setting is related to VirtualTradeLayerToStartRealTrade setting. So we have two types of virtual trades, buy or sell. If we set VirtualTradeToStartRealTrade =5, if number of virtual trade buy/sell layers exceeds 5, which means there are 6 virtual trade buy/sell layers, EA will now open real trade. But at what direction the real trade will open? This is where RealTradeCounterTrend setting is useful.

If RealTradeCounterTrend=true, EA will open real trade buy after virtual trade buy and open real trade sell after virtual trade sell. Why I call this setting RealTradeCounterTrend? This is because when virtual trade buy is developing via martingale strategy, this means current price is downtrend, so if we open real trade buy after virtual trade buy, this means we counter the trend.

If RealTradeCounterTrend=false, EA will open real trade buy after virtual trade sell and open real trade sell after virtual trade buy. When virtual trade sell is developing via martingale strategy, this means current price is uptrend, so if we open real trade buy after virtual trade sell, this means we follow the trend.

VirtualTradeLayerReset

If VirtualTradeLayerReset is set to true, Total Virtual Buy/Sell Layer will reset to 0 as soon as it exceeds VirtualTradeLayerToStartRealTrade setting (at the same time real trade opens). So, let say VirtualTradeLayerToStartRealTrade = 5, as soon as EA opens the 6th virtual layer, real trade will open and Total Virtual Buy/Sell Layer will reset to 0. As long as there is real trade, Total Virtual Buy/Sell Layer = 0. EA will only start virtual trades again after the real trade hit TP.

If VirtualTradeLayerReset is set to false, Total Virtual Buy/Sell Layer will reset to 0 only if the virtual trades hit their virtual TP. So, if VirtualTradeLayerToStartRealTrade = 5, when Total Virtual Buy/Sell Layer reaches 6, real trade will open. But Total Virtual Buy/Sell Layer will remain 6 and only reset to 0 if the virtual trades hit their virtual TP.

RecordVirtualLayerinExpertLog

If RecordVirtualLayerinExpertLog is set to true, all details of virtual layers opened by EA will be available in the Expert Log (Experts tab in MT4 Terminal). If set to false, no log will be available.

ActiveTime

This setting if set to 'true' will give us control on time we let the EA runs. Time used by EA is time of the local computer that your MT4 platform running on. We can control on what day and from what hour until what hour on each day, the EA can run (active). But note that if this setting is set to 'true', we have to define at what day the EA can run using ActiveSunday, ActiveMonday, ActiveTuesday, etc. by setting them to 'true' or 'false'. We also need to define from what hour until what hour for each day, the EA can run by using SundayStartHour, SundayStopHour, MondayStartHour, MondayStopHour, etc.

ActionOutsideActiveTime

This setting is for us to decide what happen if the EA is not in it's active time. As we know, we might have open positions (opened in active time) when EA moves into 'not active' time. So, we have 3 options i.e. CloseAllLayers, NoNewLayer and NoNewCycle. Definition of these options as follows:

CloseAllLayers – If we have open positions when EA moves into 'not active' time, EA will close all open position regardless if we are on floating loss.

NoNewLayer - If we have open positions when EA moves into 'not active' time, the open positions will be maintained but if current price moves more than pipstep from last open layer, EA will not add new layer.

NoNewCycle - If we have open positions when EA moves into 'not active' time, the open positions will be maintained and new layer will be added when current price moves more than pipstep from last open layer. But after this open positions hit TP i.e. complete martingale cycle. No new martingale cycle will start after that.

ActiveSunday

If set to 'true', EA can run on Sunday.

SundayStartHour

If ActiveSunday=true, EA will see this setting to know at what hour it can start run.

SundayStopHour

If ActiveSunday=true, EA will see this setting to know at what hour it can stop run.

The definition of setting for other days are same as above.

AutoTFChange

If **AutoTFChange** is set to true, this EA will automatically change the timeframe of chart according to **StartingTF**, **AutoTFChangeStage1Layer**, **AutoTFChangeStage1LayerTFchange**, **AutoTFChangeStage2Layer** and **AutoTFChangeStage2LayerTFchange** settings. This setting only works when used together with **EnterOpenBar**=true because with the higher timeframe, EA will open position less frequent.

StartingTF

This setting only apply if **AutoTFChange** is set to true. **StartingTF** setting is timeframe of chart when there is no layer at all i.e. total number of layers=0 until total number of layers=(**AutoTFChangeStage1Layer** – 1).

AutoTFChangeStage1Layer & AutoTFChangeStage1LayerTF

AutoTFChangeStage1Layer setting should be set to total number of layers at which we want this EA to change time frame. For example, if we set **AutoTFChangeStage1Layer**=6 and **AutoTFChangeStage1LayerTF**=4 hours, EA will change timeframe of chart from **StartingTF** to 4 hours timeframe when current total number of layers for buy/sell orders is 6.

AutoTFChangeStage2Layer & AutoTFChangeStage2LayerTF

The function of these settings are same as **AutoTFChangeStage1Layer** & **AutoTFChangeStage1LayerTF**. However this is for Stage 2 of timeframe change which means that **AutoTFChangeStage2Layer** should be **more** than **AutoTFChangeStage1Layer**. For example, if let say current timeframe of chart is 15 minutes chart (**StartingTF** also is set to 15 minutes) and we set

AutoTFChangeStage1Layer=4, AutoTFChangeStage1LayerTF=1 hour, AutoTFChangeStage2Layer=10 and AutoTFChangeStage2LayerTF=4 hours. This means that:

1. When total number of layers (buy or sell) is 1 layer to 3 layers, timeframe of chart will stay at 15 minutes chart.
2. When total number of layers (buy or sell) is 4 layers to 9 layers, timeframe of chart will be 1 hour (EA changes timeframe from 15 minutes to 1 hour when total number of layers is 4).
3. When total number of layers (buy or sell) is 10 layers and above, timeframe of chart will be 4 hours (EA changes timeframe from 1 hour to 4 hours when total number of layers is 10).
4. If after 10 layers and all positions are closed by hitting TP, EA will change timeframe of chart back to StartingTF setting which is 15 minutes.

Note: If at same time, there are both buy layers and sell layers open (virtual trade=false), timeframe will be changed according to the most layers. For example, if there are 5 buy layers and 3 sell layers with the settings in previous example, EA will set timeframe according to 5 layers timeframe which is 1 hour.

AutoTFChangeStage3Layer & AutoTFChangeStage3LayerTF

This is additional stage for timeframe change. The way it functions is same as in previously given example.

AutoMultiChange

If **AutoMultiChange** is set to true, this EA will automatically change the Multiplier used to determine the amount of lot for next layer according to **StartingMulti**, **AutoMultiChangeStage1Layer**, **AutoMultiChangeStage1LayerMulti**, **AutoMultiChangeStage2Layer** and **AutoMultiChangeStage2LayerMulti** settings. This setting is useful to increase the Multiplier as total number of layers increases in order to reduce distance from the current price to TP price. Multiplier also can be decreased as total number of layers increases to reduce risk, it depends on personal preference.

StartingMulti

This setting only apply if **AutoMultiChange** is set to true. **StartingMulti** setting is Multiplier used for layer no. 2 until layer no. (**AutoMultiChangeStage1Layer** – 1).

AutoMultiChangeStage1Layer & AutoMultiChangeStage1LayerMulti

AutoMultiChangeStage1Layer setting should be set to a layer number at which we want **AutoMultiChangeStage1LayerMulti** to be used. For example, if we set **AutoMultiChangeStage1Layer**=4 and **AutoMultiChangeStage1LayerTFMulti**=1.5, EA will open layer no. 4 with the amount of lot = 1.5 X layer no. 3 lot.

AutoMultiChangeStage2Layer & AutoMultiChangeStage2LayerMulti

The function of these settings are same as **AutoMultiChangeStage1Layer & AutoMultiChangeStage1LayerMulti**. However this is for Stage 2 of multiplier change which means that **AutoMultiChangeStage2Layer** should be **more** than **AutoMultiChangeStage1Layer**. For example, if let say we set StartingMulti=1.3, AutoMultiChangeStage1Layer=4, AutoMultiChangeStage1LayerMulti=1.5, AutoMultiChangeStage2Layer=7 and AutoMultiChangeStage2LayerMulti=1.7. This means that amount of lot to be opened by EA:

1. Layer no. 1 = StartingLot
2. Layer no. 2= StartingLot X 1.3
3. Layer no. 3= Layer no. 2 lot X 1.3
4. Layer no. 4=Layer no. 3 lot X 1.5
(note that multiplier starts to change at layer no. 4 (Stage 1))
5. Layer no. 5=Layer no. 4 lot X 1.5
6. Layer no. 6=Layer no. 5 lot X 1.5
7. Layer no. 7=Layer no. 6 lot X 1.7
(note that multiplier starts to change at layer no. 7 (Stage 2))
8. Layer no. 8=Layer no. 7 X 1.7

Multiplier 1.7 will be used until this martingale cycle is complete.

AutoMultiChangeStage3Layer & AutoMultiChangeStage3LayerMulti

This is additional stage for multiplier change. The way it functions is same as in previously given example.

AutoPipStepChange

If **AutoPipStepChange** is set to true, this EA will automatically change PipStep used to open next layer according to **StartingPipStep**, **AutoPipStepChangeStage1Layer**, **AutoPipStepChangeStage1LayerPipStep**, **AutoPipStepChangeStage2Layer** and **AutoPipStepChangeStage2LayerPipStep** settings. This setting is useful to increase the PipStep as total number of layer increases in order to reduce number of open positions. PipStep also can be decreased as total number of layer increases to expedite the closure of martingale cycle, it depends on personal preference.

StartingPipStep

This setting only apply if **AutoPipStepChange** is set to true. **StartingPipStep** setting is PipStep used to determine whether layer no. 2 has to be opened by EA until layer no. (**AutoPipStepChangeStage1Layer** – 1).

AutoPipStepChangeStage1Layer & AutoPipStepChangeStage1LayerPipStep

AutoPipStepChangeStage1Layer setting should be set to a layer number at which we want **AutoPipStepChangeStage1LayerPipStep** to be used. For example, if we set **AutoPipStepChangeStage1Layer=4** and **AutoPipStepChangeStage1LayerPipStep=5**, EA will open layer no. 4 if the current price more/less than layer no. 3 open price by 5 pips.

AutoPipStepChangeStage2Layer & AutoPipStepChangeStage2LayerPipStep

The function of these settings are same as **AutoPipStepChangeStage1Layer & AutoPipStepChangeStage1LayerPipStep**. However this is for Stage 2 of pipstep change which means that **AutoPipStepChangeStage2Layer** should be **more** than **AutoPipStepChangeStage1Layer**. For example, if let say we in buy mode, we set StartingPipStep=4, AutoPipStepChangeStage1Layer=5, AutoPipStepChangeStage1LayerPipStep=8, AutoPipStepChangeStage2Layer=7 and AutoPipStepChangeStage2LayerPipStep=10. What will happen is:

1. Layer no. 2 will open after current price moves 4 pips below order open price of Layer no. 1.
2. Layer no. 3 will open after current price moves 4 pips below order open price of Layer no. 2.
3. Layer no. 4 will open after current price moves 4 pips below order open price of Layer no. 3.
4. Layer no. 5 will open after current price moves 8 pips below order open price of Layer no. 4.
(note that pipstep is changed to 8 pips in order to open Layer no. 5 (Stage 1))
5. Layer no. 6 will open after current price moves 8 pips below order open price of Layer no. 5.
6. Layer no. 7 will open after current price moves 10 pips below order open price of Layer no. 6.
(note that pipstep is changed to 10 pips in order to open Layer no. 7 (Stage 2))
7. Layer no. 8 will open after current price moves 10 pips below order open price of Layer no. 7.

PipStep 10 will be used until this martingale cycle is complete.

AutoPipStepChangeStage3Layer & AutoPipStepChangeStage3LayerPipStep

This is additional stage for pipstep change. The way it functions is same as in previously given example.

AutoTPChange

If **AutoTPChange** is set to true, this EA will automatically change TP used to close open positions according to **StartingTP**, **AutoTPChangeStage1Layer**, **AutoTPChangeStage1LayerTP**, **AutoTPChangeStage2Layer** and **AutoTPChangeStage2LayerTP** settings. This setting is useful to decrease TP as total number of layer increases in order to increase probability of the open positions hit TP. TP also can be increased as total number of layer increases to increase our profit, it depends on personal preference.

StartingTP

This setting only apply if **AutoTPChange** is set to true. **StartingTP** setting is TP pips used to close open positions from total number of layer = 1 until total number of layer = **AutoTPChangeStage1Layer** - 1.

AutoTPChangeStage1Layer & AutoTPChangeStage1LayerTP

AutoTPChangeStage1Layer setting should be set to a total number of layer at which we want EA to use **AutoTPChangeStage1LayerTP** as TP pips. For example, if we set **AutoTPChangeStage1Layer**=6 and **AutoTPChangeStage1LayerTP**=5, EA will use 5 pips as TP pips when total number of layer =6 layers.

AutoTPChangeStage2Layer & AutoTPChangeStage2LayerTP

The function of these settings are same as **AutoTPChangeStage1Layer** & **AutoTPChangeStage1LayerTP**. However this is for Stage 2 of TP change which means that **AutoTPChangeStage2Layer** should be **more** than **AutoTPChangeStage1Layer**. For example, if let say we set **StartingTP**=4, **AutoTPChangeStage1Layer**=3, **AutoTPChangeStage1LayerTP**=3, **AutoTPChangeStage2Layer**=5 and **AutoTPChangeStage2LayerTP**=1. What will happen is:

1. TP=4 pips is used when total number of layer=1 to total number of layer=2.
2. TP=3 pips is used when total number of layer=3 to total number of layer=4.
3. TP=1 pip is used when total number of layer=5 until the martingale cycle completes.

AutoTPChangeStage3Layer & AutoTPChangeStage3LayerTP

This is additional stage for TP change. The way it functions is same as in previously given example.

AutoSLChange

This setting and the followings related settings will only work if **FixedSLAllLayer** is set to true. If **AutoSLChange** is set to true, this EA will automatically change **SL** used to close open positions according to **StartingSL**, **AutoSLChangeStage1Layer**, **AutoSLChangeStage1LayerSL**, **AutoSLChangeStage2Layer** and **AutoSLChangeStage2LayerSL** settings. This setting is useful to increase SL as total number of layer increases in order to decrease probability of the open positions hit SL. SL also can be decreased as total number of layer increases to limit our loss, it depends on personal preference.

StartingSL

This setting only apply if **AutoSLChange** is set to true. **StartingSL** setting is SL pips used to close open positions from total number of layer = 1 until total number of layer = **AutoSLChangeStage1Layer** - 1.

AutoSLChangeStage1Layer & AutoSLChangeStage1LayerSL

AutoSLChangeStage1Layer setting should be set to a total number of layer at which we want EA to use **AutoSLChangeStage1LayerSL** as TP pips. For example, if we set **AutoSLChangeStage1Layer**=6 and **AutoSLChangeStage1LayerSL**=50, EA will use 50 pips as SL pips when total number of layer =6 layers.

AutoSLChangeStage2Layer & AutoSLChangeStage2LayerSL

The function of these settings are same as **AutoSLChangeStage1Layer & AutoSLChangeStage1LayerSL**. However this is for Stage 2 of SL change which means that **AutoSLChangeStage2Layer** should be more than **AutoSLChangeStage1Layer**. For example, if let say we set StartingSL=20, AutoSLChangeStage1Layer=3, AutoSLChangeStage1LayerSL=30, AutoSLChangeStage2Layer=5 and AutoSLChangeStage2LayerSL=50. What will happen is:

1. SL=20 pips is used when total number of layer=1 to total number of layer=2.
2. SL=30 pips is used when total number of layer=3 to total number of layer=4.
3. SL=50 pip is used when total number of layer=5 until the martingale cycle completes.

AutoSLChangeStage3Layer & AutoSLChangeStage3LayerSL

This is additional stage for SL change. The way it functions is same as in previously given example.

UseMaxLayersOpenPerPair

If set to true will enable the effect of MaxLayersOpenPerPair feature.

MaxLayersOpenPerPair & ActionReachMaxLayers

MaxLayersOpenPerPair is the maximum number of layer can be opened in one martingale cycle. So what happen if we reach the maximum number of layer? Let say we set **MaxLayersOpenPerPair**=5. When we have 5 buy/sell layers open, EA will decide what to do based on **ActionReachMaxLayers** setting. We have 2 options for this setting as follows:

CloseAllLayers –EA will close all layers regardless if we are on floating loss as soon as layer no. 6 buy/sell opens.

NoNewLayer – All open layers will maintain open. But if current price moves more than pipstep from last open layer, no new layer will be open by EA. So all layers can only close by TP or trailing SL.

UseMaxFloat

If set to true, EA will close all open positions (cut loss) for pair it is running on when max float for that pair reaches **MaxFloat** value or **MaxFloatByPercentBalance**.

MaxFloat

Value in USD (or your base account currency) in which when being reached, EA will cut loss.

MaxFloatByPercentBalance

Value in percentage of balance in which when being reached, EA will cut loss. For example, we set it to 20, it will be calculated as 20% of Balance in your account (not equity).

MaxLots

Maximum amount of lot can be opened by EA in one order. Let say MaxLots is set to 100 lots. If EA need to open 130 lot for next martingale layer, EA will open two orders, one order of 100 lots and another lot of 30 lots. MaxLots setting can be overridden by max lot permitted by broker i.e. if max lot permitted by broker is 50 while MaxLots is set to 100, EA will respect the max lot limit by broker.

UseNumberOfPairOpenNSameCurrencyPairOpen

If set to true, will enable MaxNumberOfPairOpen and MaxNumberOfSameCurrencyPairOpen and vice versa.

MaxNumberOfPairOpen

If set to 5 for example, this EA will only allow open positions of 5 different pairs at any one time. If this EA was run on 10 pairs for example and 7 of them wants to open positions (either met virtual trade condition or met entry filter conditions) , only 5 pairs will be allowed to have open positions (first in first serve basis). **In order for this function to work properly, EA LoL must run with same MagicNumber on all pairs.**

MaxNumberOfSameCurrencyPairOpen

If set to 2 for example, only two pairs with same currency name can open at any one time. For example, we already have open positions of two pairs i.e. GBPJPY and GBPUSD, and now GBPNZD virtual trade condition is met and it want to open position, EA will not allow it because there are already two pairs with GBP currency. **In order for this function to work properly, EA LoL must run with same MagicNumber on all pairs.**

AutoCompound

If set to true, will enable Auto Compounding feature.

AutoCompoundType

User can choose either Step Compounding or Continuous Compounding.

For Continuous Compounding, StartingLot setting will be override with Account Balance times AutoCompoundMultiplier. For example, if AutoCompoundMultiplier = 0.0000001 and current balance in our account = 100,000 USD, StartingLot will change to $100,000 \times 0.0000001 = 0.01$. After trading for some time, current balance increased to 150,000 USD, then StartingLot will change to $150,000 \times 0.0000001 = 0.015 = 0.02$ (rounded). If the result of calculation is less than minimal lot allowed to open by broker, hence StartingLot will be the minimum lot limit of broker.

For Step Compounding, Step compounding will be controlled by two parameters i.e. AutoCompoundStepBalance and AutoCompoundStepLot

Let say AutoCompoundStepBalance=4000 and AutoCompound StepLot=0.01

EA will use 0.01 as starting lot if account balance is between 0 to 7999.99

EA will use 0.02 as starting lot if account balance is between 8000 to 11999.99

EA will use 0.03 as starting lot if account balance is between 12000 to 15999.99

and so on and so forth.

UseSingleEntryMM

If set to true, EA will open entry based on the following money management rules:

$\text{LotStep} = \ln \text{ Broker's lot step} / \ln 0.1$, where $\ln$ = natural logarithm.

$\text{LotSet} = \text{AccountBalance} * \text{AccountLeverage} * (\text{SingleEntryRisk}/100.0);$

$\text{LotFinal} = \text{NormalizeDouble}(\text{LotSet} / \text{Lot Size}, \text{LotStep})$

As the name of this function i.e. "SingleEntry" implies, **MaxLayersOpenPerPair** setting should be set to 1 and **ActionReachMaxLayers=NoNewLayer** in order to use this feature correctly. This function also can be used with **MaxLayersOpenPerPair** more than 1 however only starting lot of the layers i.e. layer 1 will be calculated using the above formula. Lot of next layers i.e. layer 2, 3, 4, ... will be calculated using **Multiplier** setting.

SingleEntryUseDefinedLeverage

This setting if set to true will enable us to define our own leverage for the MM formula above instead of using actual leverage of our account.

SingleEntryDefinedLeverage

The value of our defined leverage goes here. For example, if we want leverage 1:200, put 200 as the value.

SingleEntryRisk

Value to be used to calculate lot size in above formula. In percentage.

SingleEntryMinLots

Minimum lot to be open using this money management. If value calculated from above formula is less than this setting, value in this setting will be the lot size.

SingleEntryMaxLots

Maximum lot to be open using this money management. If value calculated from above formula is more than this setting, value in this setting will be the lot size.

UsePartialClose

Set this to true if you want to use partial close function for your entry. However this function only works for single entry not martingale layers. So it is compulsory to set **MaxLayersOpenPerPair=1**, **ActionReachMaxLayers=NoNewLayer** and **FixedSLAllLayer=true** in order for this function to work.

PartialClosePercentTP

This setting determines price levels which EA will do partial close. This setting is in percentage i.e. if set to 25, it means 25%. So 25% of what? Well it is 25% of "Order Open Price – TP Price". Let say your TP in pips is 100 pips, setting **PartialClosePercentTP** to 25 will make EA do partial close on your entry every 25 pips.

PartialClosePercentLot

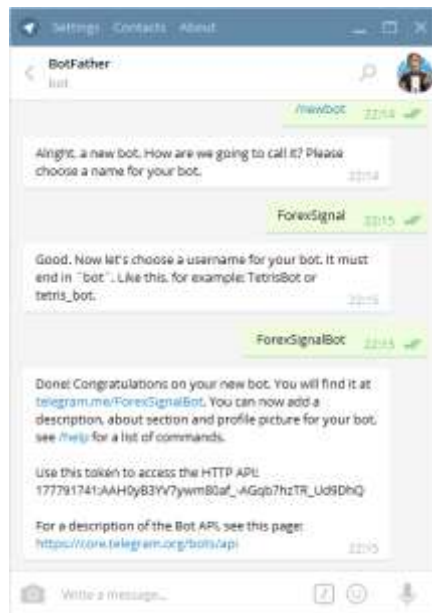
So we already have our price levels to do partial close by setting **PartialClosePercentTP**. So now we need to know how much from total lot of our entry will be closed at each price level. This is why this setting exists. For example your entry lot is 0.05 lot, if you set **PartialClosePercentLot=20**, it means every 25 pips (we use previous example, **PartialClosePercentTP** =25 for 100 pips TP), EA will close 20% of total lot of our original 0.05 entry = 0.01 lot.

EnableTelegramBot & TelegramBotInputToken

If EnableTelegramBot is set to true and TelegramBotInputToken is set accordingly, this EA will connect to telegram server and get commands given to a telegram bot by the user. This feature allows us to know the status of our EA only by chatting with a telegram bot. We will send commands to the telegram bot and at the same time, our EA will connect to telegram server to read the commands that we send to the telegram bot and reply to us via our telegram bot.

There are few things to be done in order for telegram bot feature to work.

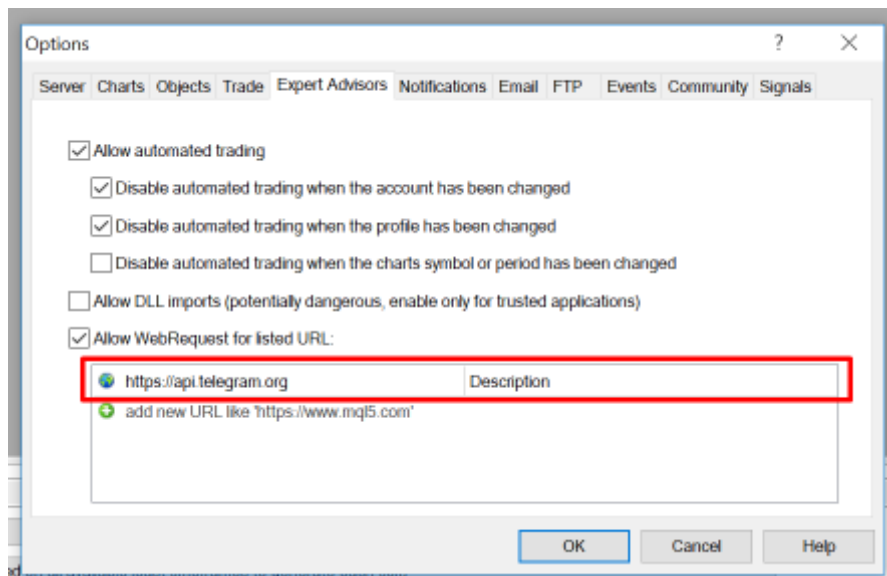
1. We need to create our telegram bot first. This is done by starting a chat in our telegram with @BotFather.



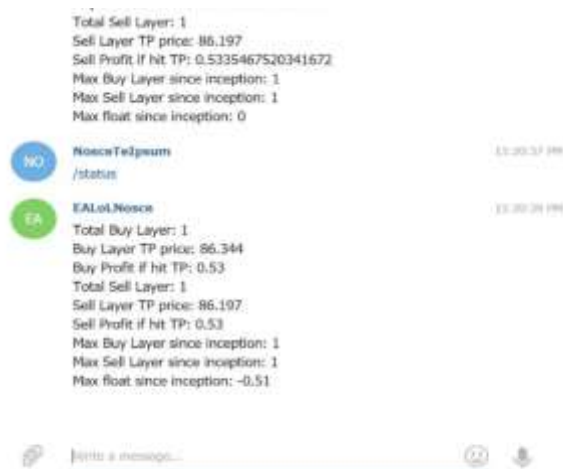
As shown above, we will send “/newbot” message to BotFather, create our new bot and give it a name. After that, we will be given token to access the HTTP API, like shown above, the token is “177791741:AAH0yB3YV7ywm80af_AGqb7hzTR_Ud9DhQ”.

We need to copy this token and put it as **TelegramBotInputToken** setting in our EA.

2. We need to allow our EA to connect to telegram server. This is done by changing MT4 setting. At your MT4, click “Tools” then “Options”. In “Expert Advisors” tab, tick “Allow WebRequest for listed URL:” and add new URL i.e. “https://api.telegram.org”.



- Then we can start run our EA in MT4 chart and open a chat with our telegram bot via our telegram. Start a chat with @Botname (which is created in Step 1 above). Type “/start” to start chatting and “/help” to find commands available. Below is the sample of chat with my telegram bot (EALoLNosce) with “/status” command:



InformIfEquityBelowThisValue

This setting only apply if **EnableTelegramBot** is set to true. Telegram bot will send message to us if our equity is below this setting.

UseNewsFilter

If set to true, EA will cut loss when we are within the time of “**MinutesBeforeNews** < Current Time < **MinutesAfterNews**”. This feature is for us to avoid news so that we don’t have any open positions in the times of news. But it will also has disadvantage i.e. your positions might hit TP just because of the news. You will also be regretful if EA cut loss when open positions are in loss amount that you cannot bear. Besides MinutesBeforeNews & MinutesAfterNews, other settings for News Filter are taken based on ForexFactory calendar indicator. You may find explanations for other settings here -> <https://www.mql5.com/en/code/15931>

Debug

If set to true, EA will produce more comment on what happens internally at Experts log. This will help us to know whether our EA runs according to our needs or not.

Backtesting

This EA will generate two files when used in MT4 Strategy Tester i.e. BTResult.txt and MartingaleCycleRecord.csv (can be opened by Microsoft Excel). These files are generated in “~MT4 Data Folder path~\tester\files\” folder.

BTResult.txt will give summary of maximum total layer happened during backtest as shown below:

```
Max float = -109045.95
Max float time = 2016.10.06 19:02:23
Max buy layer = 35
Max sell layer = 35
```

While MartingaleCycleRecord will give info on every martingale cycle happened during backtest e.g. max number of layer, max float, max float time as shown below:

	A	B	C	D	E	F	G
1	Cycle	Type	Total Layer	Max Float	Max Float Time		
2	1	sell	1	-0.65	2003.05.05 00:42:01		
3	2	buy	2	-0.87	2003.05.05 01:16:28		
4	3	sell	1	-0.58	2003.05.05 01:42:38		
5	4	buy	3	-4.31	2003.05.05 02:41:42		
6	5	sell	3	-3.73	2003.05.05 03:38:16		
7	6	buy	3	-1.76	2003.05.05 06:17:27		
8	7	buy	2	-0.56	2003.05.05 08:00:01		
9	8	buy	2	-1.5	2003.05.05 08:46:45		
10	9	sell	3	-1.06	2003.05.05 07:37:59		
11	10	sell	1	-0.45	2003.05.05 09:43:03		
12	11	sell	1	-0.39	2003.05.05 10:59:49		
13	12	sell	1	-0.84	2003.05.05 11:15:42		
14	13	buy	4	-6.32	2003.05.05 12:20:20		
15	14	sell	2	-2.53	2003.05.05 12:41:51		
16	15	buy	4	-1.25	2003.05.05 13:19:47		
17	16	buy	2	-0.17	2003.05.05 13:25:01		
18	17	sell	3	-6.01	2003.05.05 13:39:14		
19	18	sell	3	-0.53	2003.05.05 14:36:30		
20	19	sell	2	-1.41	2003.05.05 14:55:53		
21	20	sell	2	-1.25	2003.05.05 15:19:53		
22	21	sell	2	-0.17	2003.05.05 15:30:39		

These two files are generated to help EA LoL user to find optimum settings & to determine starting modal for this EA from backtest result.