

Holy Graily Bob 'n Grid User Guide

Introduction

This guide is in two parts. The first part describes inputs and features relating to the trading strategy. The second part contains details about features that are a regular part of my EA's and are reproduced from the Shell User Guide.

The Holy Grail Indicator

Download this from Bob's thread at [Nanningbob's Holy Grail Indicator forum](#). This is an indicator developed with breathtaking brilliance by milanese and elixe at Bob's request. It tells manual traders when to take a trade and when to close it. HGI gives a variety of signals; here we are concerned with:

- Blue wavy lines. These are strong trend indicators. Market is above the line: close sell and enter buy trades. Market is below the line: close buy and enter sell trades.
- Large green up arrows. Market is trending up: close sell and enter buy trades.
- Small diagonal green up arrows known as RAD arrows. Re-enter an existing up trend: close sell and enter buy trades.
- Large red down arrows. Market is trending down: close buy and enter sell trades.
- Small diagonal red down arrows known as RAD arrows. Re-enter an existing down trend: close buy and enter sell trades.
- Yellow wavy lines: market has entered a range, so close all trend trades.

There is a downside to HGI. It is only of use in the here-and-now. It may generate a signal and the conditions that generated the signal may vanish but the signal will remain on the chart until you change chart time frames or restart the platform. The signal will only remain on the chart if the conditions that created it remain at the close of the chart. Looking back through history makes it look as though HGI is pinpoint accurate; it isn't. It *is* very, very good. Also bear in mind that the position of the signal has nothing to do with the market price at the time HGI generated the signal; the market was a long way away from it and there is no way of telling what the price was.

HGI stores signal data in one of seven buffers that an EA can interrogate. If the conditions that generated the signal change, the buffer empties. HGB'nG interrogates the buffers and will show no signal when this happens, even though the signal graphic is still on the chart. It will look as though HGB'nG has taken a wrong decision; it hasn't.

There are many flavours of Holy Graily Bob EA's. Cyberevil contacted me to code this one. He both paid me for the work and generously allowed everyone to share the result; bang on the tradition of SHF, so kudos.

HGB'nG trading methods

HGB'nG is a grid trader and works by placing stop and optional limit orders on either side of the market. This gives us two trading methods:

1. Stop orders only: HGB'nG sends a grid of buy stops above the market and sell stops below.
2. Stop and limit orders. This is for US citizens who cannot use hedging and for those who prefer the, "I am right or I am out" approach:
 - Buy signal: buy stops above market; buy limits below.
 - Sell signal: sell stops below market; sell limits above.

Stop orders only – the 'hedging' option

Here is can happen following an HGI signal:

- Conditions prevail that generated the HGI signal: market takes off like a rocket and we make loads of stress-free pips.
- It is a fact that the market often moves substantially in the wrong direction, so the opposite direction trades fill. Cy's idea was to take advantage of this.
- If a bunch of trades in one direction fill and the market reverses and a bunch of trades in the opposite direction fill, we end up with a 'hedged' position – both buy and sell trades open. HGB'nG's recent development has all been about dealing with this situation.

Imagine this scenario:

- HGI has generated a buy signal, so HGB'nG has sent a grid of buy stop and sell stop orders.
- The market moved against the signal and some sell stops has filled.
- The market reverses direction and shoots upwards, filling some buy stops.

Exiting the position is easy if the two sides of the hedge are unbalanced – four open buys against two open sells for example. If the market continues to rise, the position eventually moves into profit and we can close at a pre-defined profit target.

Exiting a balanced hedge is trickier, especially if all the trades in the grid have filled. Myriad have been hedge strategies over the years; closing the successful half in blind hope has never worked.

This is where “3 level semafor” (the “3 Level.mq4 indicator in the first post of my thread”) comes in. Using the buy scenario from earlier:

- semafor is an indi that shows the highs and lows over a set period of candles by drawing a yellow dot with a '3' inside it. A forum member introduced me to this indi when I coded an EA for him privately, so the default of 34 candles is his. He is an expert trader, so I strongly recommend sticking with it.
 - A 'high' is the market reaching a point that is higher than the previous (default) 34 candles, then turning around and falling: this is the obvious place to close winning buy trades.
 - A 'low' is the market falling to a point that is lower than the previous (default) 34 candles then reversing and rising: this is the obvious place to close successful sells.
- In the case of successful buy trades we are hoping that closing the successful buys will see the market continue to fall. This allows us eventually to close the sells at an overall position profit.
- The open price of those open sell trades is a long way away. There is no guarantee that the previous high is not a fake. The market may resume steaming upwards, leaving those sells going deeper and deeper into draw down, possibly threatening the account if we have over-traded. HGB'nG has an option to combat this by sending another grid of buy stops when the buy trades are closed. The worst that can happen is that the market steams upwards again and we re-enter a hedged position. The market *will* turn around *eventually*; it always does.
- The more rising cycles resulting in buy trade closures there are, the further away those sell trades open prices are going to be. There is an option to help us deal with this. Having closed the buy trades, HGB'nG can delete all the outstanding sell stop

orders that did not fill, then place a fresh grid of sell stops much closer to the market. These trades will fill if the market continues to fall. DD on the older trades will drop; profits on the younger trades will rise; we will be able to exit the position following the next low in a much better position.

A note about semafor: Don't be conned into thinking this indi is pin-point perfect at detecting highs and lows. It is merely a variant of ZigZag and inherits all of ZZ's redrawing features. If the market rises to a new high and semafor draws a signal, then continues to rise during the next candle then semafor will delete the previous signal and draw a fresh one on the current candle. It looks in hindsight as though it is 100% accurate, but was not necessarily so in the here-and-now. I have added the Quantum indi to post 1 so you can see how semafor would have marked successive highs and lows. Quantum does the same job, but marking the points with a square box that do not get deleted if the market continues to move.

Offsetting

This is a process of offsetting winning trades against losing trades to alleviate drawdown. There are two kinds:

1. A simple offset of the loser at the top by the biggest winner at the bottom, in an unhedged position. Imagine there are 4 market buys and that no 4 has just opened:
 - No 4, the top, is the spread in the red.
 - No 3, is 20 pips in the green.
 - No 2, is 40 pips in the green.
 - No 1, the lowest, is 60 pips in the green.
 - Imagine the market retraces and the latest buy at the top of the pile is DistanceBetweenTradesPips in the red. Now the position is:
 - No 4, the top, is the 20 pips in the red.
 - No 3, is at breakeven.
 - No 2, is 20 pips in the green.
 - No 1, the lowest, is 40 pips in the green.
 - The top trade is -20. The bottom trade is + 40. Close them both and net 20 pips.
2. Offsetting biggest the losing trade on one side of a hedged position, against a combination of trades from the winning sell position. Close the loser and the combination of trades from the winning side, if the cash profit of the winners is greater than that of the losing buy.

Specific inputs

- HGI Inputs:
 - HGI_Name: this is the name of the version of HGI that you have downloaded from Bob's thread. The default will not work for you. It works for me because I have the source code and so can use a version that does not expire. You will know if you get the name wrong; HGB'nG will be exceptionally rude to you.
 - HgiReadDelaySeconds: HGI is cpu intensive, and you *really* do not want HGB'nG calling it at every tick. The default tells the bot to read the indi once a minute.
 - FridayStopTradingHour: this tells HGB'nG to ignore HGI signals after this hour on Friday, to avoid getting into trades too late on Fridays. Input this hour in your

own local time, in 24 hour format; ignore your broker time. Disable it by setting it to anything > 23.

- SaturdayStopTradingHour: the equivalent to FridayStopTradingHour for our friends in Upside Down Land.
- TradeSundayCandle: set this to 'false' if your broker has a Sunday candle and you do not want to trade it. There are equivalent inputs that allow you to disable trading on any day of the week.
- MondayStartHour: HGB'nG will not trade before this hour on a Monday. Input this hour in your own local time, in 24 hour format; ignore your broker time. Disable it by setting it to 0.
- Trading styles:
 - TrendTradingAllowed: tells HGB'nG to trade the large green and red arrows.
 - WaveTradingAllowed: tells HGB'nG to trade the blue wavy lines.
 - CloseOnYellowRangeWave: tells HGB'nG to close all open trades and delete outstanding stop/limit orders when HGI judges the market to be ranging. This does not apply to hedged positions.
 - OnlyCloseProfitablePositions: acts with CloseOnYellowRangeWave and is best limited to the stop orders only system. This prevents HGB'nG from closing groups of trades if they are not in a cash profit.
- Grid inputs:
 - GridType: here is where you select either:
 - Hedged stop orders: HGB'nG will send an opposite direction grid as well as the stop orders in line with the HGI signal.
 - Un-Hedged stop orders. This will be a grid of Buy stop orders following an HGI buy signal, or Sell stop orders following an HGI sell signal. The Non_Hedged_Stop_Orders_Only arises from an idea sent to me by ALoveSvpreme for an EA I coded for him. HGB'nG sends a grid of buy stops only after HGI generates a buy signal and sell stops only following a sell signal. Taking a buy signal as an example: if the market reverses as it so often does before turning around and going where it should, add extra buy stops as it falls. These are placed every DistanceBetweenTrades whenever the market falls by (DistanceBetweenTrades * 2). The idea is to catch the trend resumption without having first generated a few filled sell stops and avoiding all the faffing with hedging. What we lose is the opportunity to grab those sell stops that are so profitable if the reversal is a long one.
 - Stop and limit orders:
 - Buy stops above the market and Buy limits below, following and HGI Buy signal.
 - Sell stops below the market and Sell limits above, following and HGI Sell signal.
 - There is a display on the chart to remind you which choice you have made.
 - GridSize: the number of stop/limit orders to place – by default 5 above market and 5 below.
 - DistanceBetweenTradesPips: this is the distance from the current Bid price to the open price of the first pending trade, and then the distance in between subsequent trades. There is the facility to use ATR to make this a dynamic calculation and I shall describe how to use it further down. I use it, so the default value here is 0.
 - CloseOnOppositeSignal: tells HGB'nG to close/delete buy/stop/limit orders on an HGI sell signal; vice versa for sells.
 - There are Specific Hedged Stop only inputs:

- ReplaceOppositeSignalWinnersGrid and DeleteAndReplaceOppositeSignalLosersGrid are intended to work together. Imagine we are in a hedged position with (for example) 1 losing buy trade and (for example) 4 winning sell trades.:
- The sells close on a retrace from a low semafor, leaving the losing buy trade without protection.
- ReplaceOppositeSignalWinnersGrid tells HGBnG to replace the sell stop grid in case the market resumes its downward move.
- DeleteAndReplaceOppositeSignalLosersGrid tells HGBnG to delete the outstanding buy stop orders, and replace them nearer the market, in case it continues to rise.
- We are protected from large adverse movements in both directions.
- OnlyCloseProfitableOppositePositions: it is possible to have hedged positions where both sides are losing, yet one side is subject to a closure signal. This input only allows the closure if the side of the hedge is profitable.
- SoUseOffsetting: apply offsetting to both of the Stop orders methods. The EA will apply simple offsetting to an unhedged position, and offsetting the biggest loser from one side by winners from the other. I have fully described offsetting earlier in this document.
- NoOfSoOpenTradesToStartOffset: the number of trades that must be open before HGBnG starts looking for offsetting opportunities. It makes no sense to have less than four trades open. I am not sure there is any point in having separate inputs for both trading methods; I recommend you leave them at their default of 4.
- There are specific Stop and Limit inputs, inspired by this request by Krzysztof: "Hi Steve, would you be able to make payable modification of code for me for HGBnG "Stop and Limit" orders to add "Multitrade" orders in opposite direction to HGI signal with defined grid distance and TP. The idea is to have success of HGI and HGBnG in its direction and take limited benefits if price goes opposite direction before take a main direction. TP would be less than grid pips, thus leaving system with only 1 trade in opposite direction in worst situation before it catch HGI signal. Cheers." I did not charge him – he has already made several generous donations. The inputs are:
 - MultiTradeInOppositeDirection: tells the bot to send a grid of sell stops as well as the stop and limit orders when HGI generates a Buy signal. Opposite for a Sell signal.
 - NoOfOppositeTrades: the size of the grid.
 - DistanceBetweenOppositeTradesPips: the distance between the trades. There is no ATR here. The idea is to snaffle a few pips when the market takes off in the opposite direction to the HGI signal for a while.
 - OppositeTakeProfitPips: the take profit for each trade. Make sure this is less than DistanceBetweenOppositeTradesPips to ensure there is only ever one of these trades open at any one time.
- Offsetting: this means offsetting a larger losing trade with a number of winning trades, always at a cash profit. There are three kinds: simple one-sided offsetting; complex two-sided offsetting; complex one-sided offsetting. The purpose of offsetting is to reduce draw down by reducing the number of open trades that are not in profit:
 - Simple Offsetting:
 - A simple offset of the loser at the top by the biggest winner at the bottom for buy trades; vice-versa for sells. Imagine there are 4 market buys and that no

4 has just opened:

- No 4, the top, is the spread in the red.
- No 3, is 20 pips in the green.
- No 2, is 40 pips in the green.
- No 1, the lowest, is 60 pips in the green.
- Imagine the market retraces and the latest buy at the top of the pile is DistanceBetweenTradesPips in the red. Now the position is:
 - No 4, the top, is 20 pips in the red.
 - No 3, is at breakeven.
 - No 2, is 20 pips in the green.
 - No 1, the lowest, is 40 pips in the green.
- The top trade is -20. The bottom trade is + 40. Close them both and net 20 pips. There is code to ensure that this only happens when the combo can be closed in cash profit.
- Complex double-sided offsetting
 - This is offsetting a group of trades from the profitable side of a hedged position, against a loser from the other side.
 - Imagine there are 5 buys open and the group is in profit; there are 3 sells open and the group is in loss:
 - Imagine that some or all of the buy trades have a combined cash profit that will allow the buys and the worst sell trade to be closed at an overall profit. Close the relevant number of buys and the sell.
- Complex single-sided offsetting.
 - This takes care of the 'leaky toilet' market.
 - Imagine there was an HGI buy signal that triggered 3 trades before the market crashed'
 - Imagine the market has fallen a long way.
 - Lots of sells opened and closed by the simple offset method, or the sells were closed as a group by an of the closure features.
 - The market will rise eventually - it always does. HGBnG has already sent a number of buy stops, which start to fill.
 - The lowest buys in the grid become more and more profitable.
 - The loss on the highest buy trade lowers.
 - Eventually we reach the stage where a bunch of winners at the bottom can combine to close the highest loser at a combined overall profit. Stunning stuff from Bruster.
 - The inputs:
 - UseOffsetting: enables/disables offsetting.
 - AllowComplexSingleSidedOffsets: not everyone wants this, so this input allows you to turn it off.
 - MinOpenTradesToStartOffset: the smallest number of trades you want open before HGBnG goes looking for offsets. Less than 4 makes no sense.
- Hedging:
 - HedgeProfitPips: your pips target for an unbalanced hedged position.
 - OnlyCloseInCashProfit: a hedged position can be in positive pips but still losing actual cash. This input prevents a hedged position closing at a cash loss.
 - HedgeProfitCash: your cash target for an unbalanced hedged position.
 - You can set a value for both and the first one to hit will close the position.
 - CloseProfitableSideOnYellowWavy: this is an idea by cyberevil to overcome the

DD that can arise in hedged positions:

- Imagine we are hedged and that one side of the hedge is in profit - say the buys as an example.
- Along comes a yellow wavy range line, so the bot:
 - closes the buys.
 - installs a fresh grid of buy and sell stops.
 - In this example, if the market obligingly falls at the end of the range, those sell stops will fill and we will be able to exit at a profit.
 - If instead it rises, leaving the market sells further and further behind, then the buy stops fill and we are hedged again. The market may rise for some time and more profitable buys be closed, but the market will fall eventually.
- ATR (Average True Range (Terminal\Navigator window\Indicators\Oscillators) inputs:
 - UseAtrForGrid: tells HGB'nG to use ATR to calculate DistanceBetweenTradesPips.
 - GridAtrTimeFrame: the time frame to use for your ATR-based calculation.
 - GridAtrPeriod: the ATR indi Period input. My 20 period D1 ATR means I am using it calculated over the previous trading month.
 - GridAtrMultiplier: most traders using ATR multiply the basic figure to adapt to their use. I want straight ATR for my grid size, hence the default of 1.
 - There are equivalent inputs that allow you to use dynamic take profit and stop loss values. Note that you do not want a stop loss if you are using the stop orders only method that can result in hedging. You can still have one when the initial grid is sent, then subsequently HBG will remove all stop losses from hedged positions
- 3 Semafor Inputs:
 - CloseTradesOnRelevantSemafor: tells HGB'nG to close buy trades following a high semafor, and sell trades following a low semafor. He also deletes stop and limit orders.
 - CloseImmediatelySemaforAppears: tells HGB'nG to close trades immediately a relevant semafor appears on the current candle. The rationale is that the hilo of the previous 34 H4 candles is the hilo of more than a week of trading. A lot of traders will have their take profit at these levels, and I have seen the profits of a number of grids drop substantially as the market begins an immediate retrace. Note that HGB'nG will only look for a signal on the current candle if you have market orders open. This is a cpu saving measure. Calls to custom indicators are cpu-intensive, so the fewer an ea can make the better.
 - CloseOnlyInPositivePips: this is for those of us using hedging. We do not want buy trades closing on a high semafor, or sell trades closing at a low semafor, unless these trades can be closed in positive pips profit. This input tells HGB'nG only to close a group of trades if that group is in positive pips. Stop and limit traders might want to enable this.
 - DeleteAndReplaceLosersGrid: tells HGB'nG to delete any stop orders on the losing side of the hedge, and replace it with GridSize orders starting at stanceBetweenTradesPips away from the Bid.
 - The next three inputs tell HGB'nG how to behave with regard to replacing a grid after a semafor-signalled group of trades are closed. For the purpose of this description, imagine a high semafor has closed a group of buys (mentally turn

everything upside down for sell closure):

- ReplaceWinnersGrid: tells HGBnG to send a new group of buy stops to catch the trend resumption.
- ReplaceWinnersByLimitGrid: if the closed buys were a part of a hedged position, this tells HGBnG to send a group of buy limit trades at DistanceBetweenTradesPips below the market. This was Kevin's idea for dealing with the situation where the market retraces briefly after the new high is reached, then resumes its upward climb. It cuts the DD created by the existing market sells.
- AddStopOrdersToLimitGrid: there will come a point where the uptrend will end. The market will fall, filling all those limit orders leaving market buys in a selling market. This tells HGBnG to adopt Pat's idea of adding a grid of sell stops below the buy limit grid. This will add more sell trades to the basket as the markets fall, eventually allowing the position to close at breakeven and banking all the pips made whilst the market rose.
- Period3: this is the only 3 Level indi input that need concern you. Remember to change it in the EA if you change the indi setting. My advice to you is: leave it alone.
- Trend filters: there are two moving average trend filters. These are not a part of the original HGBnG specification, and so are disabled by default unless you download one of the set files from the "Full on" and "Holy Grail Bob and his Ma, in a Hedge" threads. The details:
 - tnavi's moving averages: tnavi posted about how he was enjoying considerable success by only trading in the trend direction as determined by 8 moving averages.
 - 8 are unnecessary for an EA, so this filter uses four:
 - the trend is up if two faster moving averages are above two slower ones.
 - the trend is down if two faster moving averages are below two slower ones.
 - The market is ranging if the moving averages are mixed up.
 - The inputs:
 - UseTnaviMA: turns the filter on and off.
 - TnaviTimeFrame: the time frame to use for the MA's. This defaults to the chart time frame.
 - TmaMethod: the moving average indicator's Method input.
 - TmaAppliedPrice: the moving average indicator's Method input.
 - There are two fast MA and two slow MA inputs.
 - Bob's moving average filter: this has been around for a long time now and is my favourite. Drag a 2 period LWMA moving average applied to the Open onto a monthly chart and notice how rarely the market crosses it and closes having crossed it. Whatever is your trading system, you will enjoy more success trading on the side of the line the market is on the MN1. We multiply 2 by the relevant number of days as we move down to lower time frame charts, so a 2 period on the MN1 becomes:
 - 8 on the W1 (4 trading weeks per month).
 - 40 on the D1 (5 trading days per week).
 - 240 on the H4 (6 H4 candles in a day x 5).
 - 960 on the H1 (4 H1 candles in an H4 candle x 6).
 - And so on.....
 - Bob added the 60 period faster moving average to this, in order to define

ranging as well as trending markets:

- The market is defined as trending up if it is above *both* moving averages.
- The market is defined as trending down if it is below *both* moving averages.
- The market is ranging or reversing if it is in between the two moving averages.
- Note that the relationship between the two moving averages is irrelevant, so it matters not a jot whether the faster is above or below the slower.
- The ratio of the faster to the slower moving average on other charts is 1 to 4, so
 - 10 on the D1.
 - 2 on the W1.
 - 240 on the H1.
- I am sure you can work out what the inputs mean.
- Send a pending grid. This allows us to use HGB'nG as a script to send a grid of trades to fill in a gap left behind by trade closures. The bot will ask you for confirmation that you want a grid sending, and remove itself from the chart once it has tried to send the trades. All you have to do if you send the wrong type of grid is manually delete the trades.
 - SendGrid: set to 'true' to send a grid.
 - PendingOrderType: buy or sell stop or limit orders.
 - GridStartPrice: leave this at 0 to start the grid at Bid +/- DistanceBetweenTrades. Fill this input with your grid starting price if you want to be more specific.

That is that for the strategy specific inputs. Now for the rest.

The Remainder

The use of 'criminal' in my forum to describe the brokers, is only semi-humorous. The behaviour some of these cowboys is shocking. Use of 'criminal' or 'crim' in this document refers to these people. Note that it **does not** apply to Global Prime, who are scrupulously honest.

Inputs

Enter all pip inputs as pips. Forget the x digit crap so beloved by the crims; my EA's all convert your pips into the points required by your crim. We are indebted to Lifesys for the code.

- **General Inputs**
 - **TradingTimeFrame:** the chart time frame you wish to trade.
 - The default of zero means the current chart, so changing time frames might muck up the ea.
 - If set to one of the standard chart tf's, the ea will continue to trade that tf even if you change the chart tf.
 - **EveryTickMode:** this will appear in ea's that only trade at the opening of a new candle. If enabled, it allows the ea to trade at every tick.
 - **Lot:** your chosen lot size. Make sure your lot size is acceptable to your criminal.
 - **RiskPercent:** this tells an EA to calculate the lot size as a risk percentage of your account balance. It uses the pips count in StopLossPips.
 - **LotsPerDollopOfCash:** you can have your lot size automatically calculated this lot size per amount of cash in the account balance or equity. The default settings would deliver 0.01 lots per \$1,000. A zero input turns this feature off.
 - **SizeOfDollop:** the cash increments used.
 - **UseBalance:** use the account balance for the calculation.
 - **UseEquity:** use the account equity for the calculation.
 - Example of use, choosing the equity:
 - equity = \$2133.56
 - LotPerDollopOfCash = 0.01.
 - SizeOfDollop = \$1,000.
 - Calculated lot size is 0.02.
 - **StopTrading, TradeLong and TradeShort:** these allow you to control the trading direction or even stop trading altogether if all you want this EA to do is manage an open trade.
 - **TakeProfitPips:** your take profit.
 - **StopLossPips:** your stop loss.
 - **Magic number and trade comment:** leave these alone unless you know what you are doing.
 - **IsGlobalPrimeOrECNCriminal:** set this to true if your criminal insists on two-stage order-sending. This is irrelevant if you do not use StopLoss and TakeProfit. Remember that IBFX are ECN even though they do their best to hide this fact and stop all their 'valued clients' actually sending any trades; the EA has code to detect IBFX as the crim and set this input accordingly. It will also detect Global Prime accounts.
 - **MaxSlippagePips:** 'slippage' is the price changing in between you sending off your trade and it being accepted by the market maker on the other side of your trade. The trade is cancelled if slippage exceeds this figure.

- **Safety features**
 - **MinMinutesBetweenTradeOpenClose:** occasionally, a strange concatenation of coding bug, poor logic or criminal behaviour by your market maker will cause trades to open then close immediately for the loss of the spread. This can occur hundreds of times, draining your account. The EA scans your platform's History tab and triggers a 'rogue trade' event if it finds a trade that has opened and closed within MinMinutesBetweenTradeOpenClose. You will hear an alert and the EA will show a flashing message that says, " ***** ROBOT SUSPENDED. POSSIBLE ROGUE TRADING ACTIVITY. REMOVE THIS EA IMMEDIATELY ***** "
 - **MinMinutesBetweenTrades:** is the post close sleep period. The EA scans the order history tab for the latest closed trade, and will not attempt to trade again until MinMinutesBetweenTrades has passed.
- **'Stealth technology'** The EA can hide your real stop loss and take profit from your criminal:
 - **HiddenPips:** the EA sends a 'hard' stop loss and take profit with the trade. Your inputs have HiddenPips added to them. The EA draws sl and tp lines on your chart at the correct values, and closes the trade when one of the lines is crossed. It will respond appropriately if you move the lines manually.
- **The Moving Average:** Nanningbob's trend detection filter.
 - Works like this:
 - time frame = H4: Period = 240: applied to the Open price.
 - Market > the the MA: buy trades only.
 - Market < the the MA: sell trades only.
 - **MaTF:** Moving Average Time Frame. Defaults to H4.
 - **MaPeriod:** Moving Average Period. Defaults to 240.
 - **MaShift:** for highly specialised use and will rarely be visible.
 - **MaMethod:** Moving Average Method. Defaults to LWMA.
 - **MaAppliedPrice:** Moving Average Applied Price. Defaults to Open.
- **Trading hours.** This is fantastic functionality provided by Baluda.
 - Sort these out for yourself, using the information here. *Never* ask questions about it in my threads. You will regret doing so should you ignore this warning.
 - use the 24 hour clock format.
 - Enter trading periods in your own local time. Forget broker server time and GMT offsets.
 - Enter as many trading times as you want:
 - precede trading start times with a '+' e.g. +08.00
 - precede trading stop times with a '-' e.g. -13.15
 - separate each value with a comma. **Do not leave spaces.**
 - An example. Imagine you want to trade between 7 and 11 am and 1 and 5.30 pm, your input will look like this:
 - +07.00,-11.00,+13.00,-17.30
- **Trade balance filters:** these help you to avoid entering trades that could prove detrimental if the market turns against you for a particular currency, and to avoid entering trades at news-release times.
 - **UseZeljko:** named after Zeljko who corrected the code for this filter and made it work. This filter ensures 'balanced' trading. The easiest way to describe it is to use hypothetical trades. Imagine that:
 1. this EA buys GBPUSD.
 2. this EA buys GBPJPY. You are now heavily exposed to GBP.

3. Something unexpected happens (and something unexpected *always* happens in Forex) and the pound plummets, dropping like a stone into the abyss. Both your trades scream into huge drawdown.
 4. To avoid this, having taken the GBPUSD trade, this EA will not buy another GBPxxx pair. Imagine instead that a Sell GBPJPY trade arises, just before the market plummets. This time, your GU trade is screaming into the abyss, but your GJ trade is going stratospheric. One trade 'balances' the other in the event of something dramatic happening.
- **OnlyTradeCurrencyTwice:** works in conjunction with UseZeljko. Again, imagine the above scenario nos 1 & 4. Now you have a GU Buy and a GJ sell open – perfectly balanced trades. If you now further trade any pair involving GBP, you will unbalance your trading again, leaving you exposed to unexpected events. This filter prevents a third trade being opened involving GBP.
 - Note: both UseZeljco and OTCT work more deeply than the example I have just given. For example, now you have a GU buy open, balanced trading does not allow a further buy xxxUSD trade to open, only a sell xxxUSD – then OTCT kicks in again..... Got a headache yet?
- **Swap filter:** some pairs have dreadful swap in one direction. This filter allows you to avoid trading pairs in the direction that would cost a fortune in swap. How much relevance this has to a system that could follow a trend for hundreds of pips is open to debate, but once you have seen one of these adverse-swap pairs hang around going nowhere for a couple of weeks, you will see why a lot of us want nothing to do with them.
 - **Margin checks:** these help avoid over-trading by limiting the number of trades that can be opened. this EA will make the calculations before sending a trade and abort if there is insufficient margin to allow further trading. There are two to chose from; the default indicates my preference.
 - **Scoobs** check: scooby-doo is a former pro trader with the big banks; we have benefited hugely from his advice. This filter compares the current account margin with the free margin divided by 100, and aborts the trade if the margin is greater than the result of this calculation.
 - **ForexKiwi** check. ForexKiwi contributed this filter. It looks at the margin percent figure and aborts the trade if yours is less than the figure you specify in FkMinimumMarginPercent.
 - **Average spread inputs:** We do not want an EA trading during a stop hunt. To learn about the crim's stop hunting tactics, go to CJ's thread at <http://www.stevehopwoodforex.com/phpBB3/viewtopic.php?f=59&t=1572>. There is code to calculate the average spread and store it for retrieval every time you restart the bot.
 - The first time you run the ea it will take time to calculate the average spread. The screen will display a message telling you how far into the process it is.
 - **RunInSpreadDetectionMode:** run the EA with this set to 'true' occasionally to make sure the average spread is up to date. The easiest way to force a recalculation is to delete the Global Variable that stores the average. Perform this when you know there are no major news events coming up.
 - Press the F3 key to open the Global Variables window.
 - The relevant GV's begin with the chart symbol then " average spread" e.g. "EURUSD average spread". Highlight the GV and delete it. Close down and restart your platform and RRTnP will detect the need for a recount.
 - **TicksToCount:** the number of ticks to use as the averaging period.
 - **MultiplierToDetectStopHunt:** this multiplies the average spread and pauses

the bot if the spread exceeds this.

- The EA keeps a running tally of the spread and recalculates the average every 500 ticks. The chart includes a display of the average, along with a notification of the widest spread since the EA was last started/restarted.
- **Chart snapshots after opening and closing trades:**
 - The EA can take a picture of your chart when it opens or closes a trade. Use this to take pictures if you suspect that the EA has not behaved as expected. There is a section of inputs just underneath the minimum pips section, with inputs to turn this feature on/ off and to adjust the height and width of the snap. Files are saved with the name "ChartScreenShot" and the ticket number, when the EA opens or closes a trade. Navigate to the files via File/Open Data Folder/MQL4/Files. Remember to delete these files from time to time to avoid clogging up your disk drive.
- **Email thingies:** these features need enabling via Tools|Options on your platform.
 - **EmailTradeNotification:** tells the EA to email you an alert when it has sent a trade.
 - **SendAlertNotTrade:** tells the EA not to send a trade when it discovers a trigger. Instead it will:
 - sound an alert on your platform.
 - Send you an alert via email.
 - **AlertPush:** sends either/both the above alerts and sends a 'push' to the latest mobile devices such as iPad etc.

Trade Management

The remaining inputs are all about individual trade management. Management is a cut-down module from Multi-purpose trade management EA available from <http://www.forexfactory.com/showthread.php?t=89371>. The full management EA has a wide range of extra features, and there is a User Guide to describe it.

Features included here:

- **Break even settings:** set a break even stop loss after the price reaches the setting in BreakEvenPips. You can use this in conjunction with the Part-closure routine (details later), as well as a stand-alone routine.
 - **BreakEven:** set to true to enable this facility.
 - **BreakEvenPips:** the number of pips you want the market to move in your favour before setting the stop loss to the order entry price, ensuring the trade cannot turn into a loss.
 - **BreakEvenProfit:** will add this to the stop loss to a buy order, subtract it for a sell order. My default of 2 pips means the sl is set to break even + 2, ensuring a minimum of 2 pips profit. Set it to 0 if you do not want this feature.
 - **HalfCloseEnabled:** will close half the trade when the market reaches your breakeven point. It is up to you to ensure that your lot size allows this.
- **Jumping stop loss settings:** this will jump the stop loss by JumpingStopPips when the price moves in your favour by that number of pips. Many traders consider this to be a better option than a straight trailing stop. The first time this option is triggered by the market price, it will set the stop loss to break even. After that, it will increment the sl by JumpingStopPips every time the market moves sufficiently in your favour.
 - **JumpingStop:** set to true to enable this facility.
 - **JumpingStopPips:** the number of pips to jump. For example, my default of 300 works like this:

- Market price hits order open price + 300: moves sl to break even.
- Market price hits order open price + 600: moves sl to + 300.
- Market price hits order open price + 900: moves sl to + 600.
- **AddBEP:** adds BreakEvenPips to the break even if set to 'true'.
- **Candlestick jumping stop.** This jumps the stop at the close of a candle:
 - **UseCandlestickTrailingStop:** turns this on/off.
 - **CstTimeFrame:** this allows you to use a different time frame to that of the chart. Use integer values to correspond with your chosen time frame I.e. 1 for M1, 240 for H4, 1440 for D1 etc.
 - **CstTrailCandles:** the number of candles ago to use as the trail. For example, you are in a buy trade and want the stop loss to trail the default of 1, then the EA will set the stop at the low of the previous candle, so long as this is higher than the current stop loss.
 - **TrailMustLockInProfit:** tells the EA to start moving the stop loss only when it will be moved to > break even.
- **Trailing stop loss settings:** works like the conventional trailing stop you can enter into the MT4 platform.
 - **TrailingStop:** turns this on/off.
 - **TrailingStopPips:** your trail distance.

Chart feedback display.

The shells place information about the EA's inputs on the chart. You have the option to use the general Comment text, which you cannot personalise, or the text function provided by Paul Bachelor (lifesys) at SHF.

- **DisplayAsText:** tells the EA to use Paul's display function. This puts text into labels drawn on the chart; these sometimes split words and so sometimes appears a little strange.
- **KeepTextOnTop:** stops the chart candles from obscuring Paul's text.
- The remaining inputs control the start point, font and colour of the text in Paul's labels. Play with these to personalise your feedback.

Disclaimer and Risk Disclosure:

Trading foreign exchange on margin carries a high level of risk, and may not be suitable for all investors. The high degree of leverage can work with as well as against you. Before deciding to invest in foreign exchange you should carefully consider your investment objectives, level of experience, and risk appetite. The possibility exists that you could sustain a loss of some or all of your initial investment and therefore you should not invest money you cannot afford to lose. You should be aware of all the risks associated with foreign exchange trading, and seek advice from an independent financial advisor should you have any doubts.

I will put this a tad more bluntly:

Most Forex traders lose all their money.

- Using this EA in trading Forex does not guarantee success.
- Trading with this EA could lead to serious financial loss.
- Trading this EA without understanding its underlying trading strategies *guarantees* traders will lose their money.

Good luck. Have fun.