Steve Hopwood's AshFX V2 Auto-trading Robot

Welcome to my robot. Let's hope that together, we can refine it so that the bot becomes as faithful a reflection of manual trading as possible.

I shall start with what is becoming a familiar refrain to me these days. **Do not try to trade with this robot until you have traded Ash's system manually.** If you do not understand the system, you cannot understand how the robot works. Go to Ash's thread at **http://forexmoments.com/forums/systems/144-ashfx-system-version-ii.html** to read about the trading system. Read the first 30 or so pages of the thread; in these, Ash provides all the support information you need to fill gaps in your understanding, then you can cut to the end. All the instructions in this user guide make the assumption that you know what I am talking about.

Note: in this document, 'criminals' refers to brokers.

The part close function is a bit of a blunt instrument for the time being, and needs further refinement.

You need separate instances of the robot running on every chart you wish to trade. The robot uses one magic number for all charts, so separate ones are not needed. In fact, you cannot have separate ones, even if you want them.

Here is a description of the inputs:

1. **TradeLong & TradeShort:** these inputs is to allow you to turn off trading in either direction. For example, going long when the market is at a historically high point is probably not a great idea, so you would turn TradeLong to false.
2. **Lot:** your chosen lot size. This needs to be divisible by Close_Lots (described later).
3. **MinStopLoss:** the smallest stop loss you will accept if you are not using hedging to manage losing trades.
4. **TradeComment:** your choice of trade comment. Change this from the default if you go live with the robot, to hide as much information as possible from the criminals.
5. **MagicNumber:** in combination with the chart symbol, this setting tells the robot which trades it 'owns'. You can use the default on a demo account. On a live account, the robot will demand that you input a fresh one.
6. **MaxSpreadAllowed:** the maximum spread you will allow the criminals to inflict upon you before a trade is cancelled. I developed the robot using a 5 digit criminal, so 4 digit account users need to divide this figure by 10. Given that this system is a Daily system, sending trades as soon after midnight as possible, I am not sure that this setting is useful. Set it to a ridiculous value to turn it off.
7. **Robot-calculated lot size:** this allows the trade size to increase as the balance of the account increases. The default settings for **LotsPerCurrencyUnit** & **CurrencyUnit** are not recommendations; *something* has to be the default. The defaults would give lot sizes on 0.02 on accounts up to $999.99; 0.04 between $1,000 & $1,499.99 and so on.
    - **RobotCalcLotSize;** turn this to true to use this feature; the robot will ignore your Lot setting.

8. **Hedging:** Instead of sending a stop loss with the original trade, the robot can use hedging to try to avoid a loss. This is something of an experimental technique that needs probably refining It works like this (remember to mentally divide all the numbers by 10 if yours is a normal 4 digit criminal):
    - The trade goes 2000 pips into dd, so the robot sends a hedge trade of 50% of the lot size of the original. From here, one of two things will happen:
        1. If the market returns in favour of the original trade, then eventually it and the hedge will reach breakeven and the robot will close them both.
        2. If the market continues against the original trade and the hedge reaches +500, then the hedge trade is closed. The original has a take profit set at breakeven + BreakEvenProfitPercent. The hope is that the market has moved so far against the trade that it will now return, taking out the trade at breakeven. Overall profit is therefore the value of the successful hedge trade. If the return fails to happen, the robot waits until the market moves a further 2000 pips in the wrong direction and sends a further hedge trade. This process can continue until both trades eventually close.

    Hedging inputs:
    - **HedgeNotStopLoss:** set this to true to use this feature. The robot will not send stop losses with AshFX trades, but instead will attempt to alleviate losses by hedging as described above.
    - **StartHedgingAtLossPips:** the number of pips you are prepared to see the trade go into dd before starting the hedging process.
    - **HedgingIncrementPips:** the step in pips that you want hedging to follow.
    - **BreakEvenProfitPercent:** this is a percentage of the account balance. The robot will close a hedged pair at breakeven + this figure. For example, balance = $1000, so the robot will close the pair when their combined profit = $10. Set this to 0 to make the robot close the pair immediately breakeven is achieved.
7. **Trading candle length:**
    - **CandleLengthLookBackBars:** the robot calculates the average length of the candles over the value of this input, The robot uses this in deciding whether to send a trade or not, and aborts the trade when the trading candle is longer than the average. Turn this setting to 0 (zero) to turn this feature off.
    - **CandleLengthOverAverage:** the percentage over the average length you will allow the trading candle to go before a potential trade is cancelled. The default is pure guesswork.
    - **AllowableWickPercentage:** one of the features of Ash's guidance is his consideration of wick length. This setting tells the ea to send, say, a long trade only if the percentage of the upper wick is less than the setting in AllowableWickPercentage. The default is pure guesswork and suggestions for refinement are especially useful here. **Subsequent research by moondog suggests this is incorrect and that a long wick is actually a good thing.** For sure, once I started setting this to 100, the robot started taking successful trades that it was rejecting previously. It is not hard to imagine why. By the time all the indis line up on the D1, a substantial move has already taken place and the market is preparing for a retrace. A long wick indicates this retrace has already taken place and this is a good point to enter the market.

8. **Jumping stop settings:** the robot can set a jumping stop based on your setting in JumpingStopPips. Remember to adjust your settings for 4 digit criminals. This feature is not a part of Ash's live manual strategy.
   I. **JumpingStop:** set this to 'true' to use this feature.
   II. **JumpingStopPips:** the number of pips the stop must jump by.
   III. **JumpAfterBreakevenOnly:** defaults to 'true' and stops the robot from jumping the sl until the trade is already at breakeven, which will happen at the end of the candle if the trade is in profit.

9. **Part close settings:**
   I. **PartCloseEnabled:** this addresses the part of the system that closes half the trade at the end of the first candle in which the trade is in profit. What happens depends on these two settings:
   II. **Close_Lots:** the proportion of the trade to close. The robot will do this with every new candle until the trade is left with only Preserve_Lots lots.
   III. **Preserve_Lots:** the lot size beneath which the robot will not close any more of the trade.
   IV. **BreakEvenProfit:** this allows you to lock in some of the profit at breakeven time. It tells the robot to add\subtract this figure from the breakeven stop loss.
   V. **AutoCalculatePartClose:** set this to true to tell the robot to calculate 50% of a successful open trade to close at the end of the candle. This figure will grow with the growing lot size if the robot is also automatically calculating the lot sizes. This will only function if enabled when the trade is sent; sending a trade and then setting this to true will not work. **PartCloseEnabled** must be true for this function to work.
10. **ShowAlerts:** set this to false to turn off alerts.
11. **DisplayGapSize**: the space from the left to indent the on-screen user feedback.

Using horizontal line support and resistance

The robot allows you to use the mt4 horizontal line drawing tool to indicate levels support and resistance that are significant to you. You can draw as many as you want. Here is what to do:

- turn UseHorizontalLineSR to false (the default).
- Click the mt4 horizontal line tool and drop a line onto your chart to indicate a s\r level, then double-click the line and select 'Horizontal line properties':
  - Select the 'Common' tab and select a colour that will be unique to your s\r horizontal lines. This colour must be unique to the lines, or the robot will become confused and use inaccurate data. **Do not change the line's name – leave this alone as the robot uses it.**
  - Select the 'Parameters' tab and enter the exact price you want the line to represent – this save a lot of not-quite-getting-the-damn-thing-in-the-right-place.
  - Click OK and each subsequent line you draw will be the same colour.
- When you have finished adding your lines, go to the robot's inputs and change the **SrLineColour** setting to that of the horizontal lines you have drawn.
- **HlAllowablePipsAway** is the minimum number of pips away from resistance (for a buy) or support (for a sell) you will allow a trade to be sent. Set this to suit yourself, as the default is pure guesswork.
- Turn **UseHorizontalLineSR** to true. You will see the nearest s\r lines in the user feedback display. Move the lines, add to them, remove them and you will see the information updated.

Using 'big number' support and resistance

'Big numbers' are round numbers. Examples: GU 1.400, 1.500, 1.600; GJ 160, 170, 180. These points act as considerable support and resistance. Read a good article at **http://hass.forexfloor.com/2009/08/26/the-big-figure-trade/** for information and illustration, then go back to some charts; you will see great examples of what the writer describes all the time.

Big number settings:

- **UseBigNumbers:** set to true (the default) to use this filter.
- **BnAllowablePipsAway:** the minimum number of pips away from a big number you will allow the robot to send a trade. The default is pure guesswork on my part.

Editing Global Variables

The robot uses global variable for a variety of purposes. The one you are most likely to want to edit is the magic number. To do this:

- Press the F3 key to bring up the gv window..
- Double click on the box in the Value column whose value you with to edit.
- Click 'Close'.

For the coders reading this

Here are the assumptions I have made about taking readings from the AO, AC and PSAR indicators:

1. **AO and AC:**
    - If the current value is >= that of the previous candle close, then the display colour must be green.
    - If the current value is < that of the previous candle close, then the display colour must be red.
2. **PSAR direction indication:**
    - If the Ask is > PSAR, then the market must be above the PSAR.
    - If the Bid is < PSAR, then the market must be below the PSAR.
3. **PSAR flip detection:**
    - If the market was above PSAR at the close of the previous candle, PSAR has 'flipped' when the *Bid* falls below PSAR.
    - If the market was below PSAR at the close of the previous candle, PSAR has 'flipped' when the *Ask* rises above PSAR.

If any of you feel these assumptions are incorrect, or if you have more accurate methods of extracting\using the indis in code, then please say so.

Actually sending a trade is a two-stage process:

1. PSAR can 'flip' at any time during the candle. When this happens, the robot sets a global variable containing either: 0 for a potential long trade; 1 for a potential short trade. The gv names start with “AshFX pending “ and have the Symbol() added, e.g. “AshFX pending EURUSD”.
2. At the first tick into the candle after the one in which PSAR flips, the robot checks: AO and AC colours for agreement; Stochastic for direction and overbought\sold; that the candle length is no longer than the average candle length; that the wick in the appropriate direction is no longer than the maximum allowed. If any of these filters are incorrect, the robot deletes the gv so the trade is cancelled, and the process begins again.

By default, the average candle length is calculated by: adding the candle lengths of the previous 100 candles, then dividing the result by 100. This method has the obvious disadvantage of including in the calculation, those 'rogue' spike candles of exceptional length. If any of you have the code for a more accurate method of calculation this average, then I will cheerfully replace mine with it.