<div align="center">**<u>Title</u>**</div>

Introduction

Caterpillar trend trade entries

El Dee contacted me to code a trade sender/manager that gradually opens new trades and moves the stops candle by candle – a caterpillar-style movements. This is attached to post 1 and you can use it to send and manage manual trades.

Imagining a sell trade, here is how Cat works:
- drag the robot onto the chart, and set TradeLong to false and TradeShort to true. Cat waits until the formation of a new candle before looking for a trade trigger. First of all, it draws a line at the previous candle's low - (spread - 1 pip).
- at any point after the start of the next candle, the market breaks below the line, so trade 1 is sent. Cat redraws the line at new low - (spread - 5 pips), then stops trading until the start of the next new candle.
- at any point after the start of the next candle, the market breaks the new low and trade 2 is triggered.
  - The stop of trade 1 is moved to breakeven.
  - A new line is drawn at new low - (spread - 5 pips), then stops trading until the start of the next new candle.
- at any point after the start of the next candle, the market breaks the new low and trade 3 is triggered.
  - The stop of trade 2 is moved to breakeven.
  - The stop of trade 1 is moved to the high of the candle one step to the right or the candle in which it was opened.
  - A new line is drawn at new low - (spread - 5 pips), then stops trading until the start of the next new candle.
- at any point after the start of the next candle, the market breaks the new low and trade 4 is triggered.
  - The stop of trade 3 is moved to breakeven.
  - The stop of trade 2 is moved to the high of the candle one step to the right or the candle in which it was opened.
  - The stop of trade 1 is moved to the high of the candle one step to the right or the candle whose high represented the trade's previous stop.
  - A new line is drawn at new low - (spread - 5 pips), then stops trading until the start of the next new candle.
- This process continues until MaxTrades is reached. At this point:
  - Trade MaxTrade's stop is move to b/e asap.
  - As each new low is formed, each trade's stop is moved to the high of the candle after the one that was providing the previous stop. There is always the same distance in candles between the candle-high stops of each trade.
- Eventually, a market retrace will take out all the trades one after the other in reverse order to their opening - either that or the trader has made so much money that he closes the entire position and retires to the Seychelles.

Note: you can adjust the Cat lines manually; both bots will respond to your changes and look for fresh trades at the new price.

The Hanover Recent Strength Module

In this thread, http://www.forexfactory.com/showthread.php?t=163158 hanover (David) posted his Recent Strength indicator. You need to visit David's thread to learn to use the indi in detail, but what it gives us is a graphical representation of the relative strength of the major currencies.

We have all read the mantra, "Trade the strongest currency against the weakest." Using this tool presents us with the opportunity to do so.

Setup
Take a lot of care with this. Get it wrong and your readings will be wrong, and so will the data the EA is working with:
1. Download David's Recent Strength indi into you Indicators folder.
2. Download David's Build Strength Preset File.mq4 into your Scripts folder.
3. Download the EA zipfile and extract whichever EA interests you, into your Experts folder.
4. Close down then restart your platform, assuming it was open whilst you downloaded the files.
5. There are some inputs common to script, indi and EA that are the same, or have the same purpose even if named differently. These *must* all have the same input value:
   - NumPoints. I suggest you go with the defaults of 25.
   - OutputFile. Don't confuse this with OutputFileName at the head of the list of inputs in the Build script. Mine is the default that comes with the Build script I.e. Output---Recent Strength.CSV.
6. Using David's Build script
   - Drag the Build script onto the charts. Unless you *really* know what you are doing, then leave the defaults alone, apart from these two inputs:
      - **PairSuffix**: insert any pair suffix used by your criminal. For example, IBFX mini accounts end with 'm' I.e. GBPUSDm. You need to place m in this input. Forget to do this and the indi will sulk forever without displaying any values. Guess how I know?
      - **UseOutputFile:** this *must* be set to 'true'. There will be a reason why the default is 'false' but I have not read David's thread and do not know what it is. Leave this input set to 'false' and Recent Strength will do nothing.
   - Even better than entering these inputs manually, go into the source code, change the defaults in the code and re-compile. This means you will never forget to make the changes. Go to my mptm thread if you cannot do this. There is a pdf there that tells you how to edit external variables; learning to do so will save you hours in the future.
7. Setting up Recent Strength:
   - Start a new chart and make it as large as you can. Chart and time frame are irrelevant. Blot out the candles by pressing the F8 key and changing all the candle colours to that of your chart background.
   - Drag the indi onto a chart
      - Check your NumPoints input to make it match that of the Build script. I do not actually *know* if this matters, but it makes sense to have them set to the same value.
      - OutputFile must be the same as you have in your Build script. Copy/paste Output---Recent Strength.CSV into this input.

- Click OK to run the indi. I change time-frames to make sure it initialises properly; this probably is not necessary. You will have to experiment with scrunching up the chart to see all the time-frames. Leave RS to go through its initial calculations for 30 minutes or so. When first run, RS takes a while to calculate all the data points but it only has to do so once.
- Remember these two points: they are *really* important:
  - You have done something wrong if the RS is displaying all zero values, and probably need to start again.
  - You only need 1 instance of RS per criminal account running on your entire machine. Once up and running, you can refer to this single chart every time you want to consult the indi (remember that many criminals - the naïve call them 'brokers' - have different data-feeds for live and demo accounts, so you may need a separate one on a live account for your live trading). Eventually, all of my auto-traders will have a Hanover module; they will all refer to the same RS output file I.e. Output---Recent Strength.CSV if you go with this default file name.
- You have to leave the indi running on a chart in order to generate output. This goes to the output file – you can view this in Excel if you want (Experts/Files).

The EA invokes Hanover at trade trigger time, to confirm the trade is being taken in accordance with the strength and weakness of the two currencies that comprise the pair.
- It will allow buy trades only if the first currency is strong and the second weak.
- It will allow sell trades only if the first currency is weak and the second strong.

A note about screen feedback. Recent Strength is a resource-hog, so by default it calculates values once a minute. For the same reason, this EA only reads the output file once a minute; these events will rarely coincide, so H's display is sometimes out of sync for a few seconds.

Specific Hanover module inputs are:
- **UseHanover:** set this to false if you do not want to use RS.
- **TimeFrames:** always use upper case letters and separate the inputs with a comma. Spaces in between are irrelevant, as is a trailing comma right at the end. The inputs you can use are: M1, M5, M15, M30, H1, H4, D1, W1, MN. Especially, remember to use 'H1' for the hourly, not 'M60'.
- **SlopeConfirmationCandles**: If the value of this input is \> 0, H will check your strongest and weakest currencies for their slope before allowing a trade, so that the strongest has to be rising and the weakest falling. Turn this off by inputting zero.
- **StrongThreshold and WeakTreshold:** you can think of these as being the equivalent of RSI?Stochastic overbought/sold levels. The EA will only trade if the strongest currency is >= StrongThreshold and the weakest <= WeakThreshold. Turn these filters off by setting them to zero.

Remaining Inputs

Most of the inputs are straightforward. Some that might need explanation are:
- **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.

- **Magic number and trade comment:** leave these alone unless you know what you are doing.
- **CriminalIsECN:** 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..
- **MaxSpread:** this is the maximum spread you will accept on a trade. It should be set on a pair-by-pair basis when trading live. Some pairs have narrow spreads, whilst others are quite wide, whilst others are *monstrous* and best avoided. At major news-release time, the crims will typically widen their spreads to ruinously wide extents, so this filter helps avoid trading at times of extreme volatility,
- **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.
- **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 Zeljco 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.
- **Volatility:** this is calculated by adding the range of the D1 candles specified in LookBackDays together and dividing this figure by LookBackDays. To give you an idea of what the values mean:
  - the calculated average is usually below 300 pips movement a day, so:

- ▪ <75 means the pair is somnolent and rarely has the energy to breathe, let alone move.
- ▪ >250 means the pair is psychotically deranged and probably needs psychiatric help.
- **Trend detection:** you can set this manually using RisingTrend or FallingTrend. If you opt for automated trend-detection by enabling UseTrendDetection, there is a variety of trend-detection functions available:
  1. **Rsi:** defaults to a D1(20) Rsi:
     - Value > 55: trend is rising.
     - Value is < 45: trend is falling.
     - In between, the market is ranging.
  2. **Nanningbob V10:** this involves a faster SMMA and a slower SMMA on the D1 chart. If the whole of the D1 candle is trading above both the moving averages, the market is trending upwards; below it is trending downwards; if any part of the candle is within the MA's, the market is ranging.
  3. **Slowkey:** when the fast SMA is above the slow SMA, trend is up and vice-versa.
  4. **AllAverages:** if the line is brown, the trend is falling; if it is green, the trend is rising. You need the indi in your Indicators folder; you do not need it on your chart. The default inputs calculate the trend on a D1 chart using a 50 period SMA – or 10 weeks. This is an especially strong trend detection feature.
  - ○ **Caterpillar:** this is the implementation of the separate EA I described earlier. The inputs that concern you are:
    - **MaxTrades:** the maximum no of caterpillar trades you wish to see open.
    - **MinPipsBetweenCandles:** the minimum number of pips between the open price of new trades following the break of the new hi-lo.
    - **CatTimeFrame:** you can look for new highs and lows at the start of different time-frames. Enter your chosen tf in minutes, so the default is the H1; H4 would be 240; D1 would be 1440 and so on.
  - ○ **Hedging losing trend trades:**
    - ▪ This is not currently available to US citizens. Instead of accepting a loss when there is a change of trend-direction, this EA offers the facility to hedge the losing trade at a greater lot size. Once the hedged pair reach breakeven or better, this EA will close the trades. To take advantage of this:
      - select one of the trend trade strategies (osthafen, Dragosd1 etc). I suggest the Opposite trade signal, as this does not look at closing the trade until there is a clear trend-change. Then set your inputs:
        - ○ **UseHedging:** true to use hedging.
        - ○ **HedgeLotMultiplier:** the multiplication factor for the lot size of the original trade. The default of 3 appears to work remarkably well in back-testing, but is really just a guess.
        - ○ **HedgeProfitTarget:** your breakeven target. Pure breakeven would be a value of zero. The default of 100 locks in a decent profit.
- •
  - ○ **Recovery:** there is a brief description of how this works at the end of this guide, but you really need to have studied Bob's threads to understand it fully.
    - ▪ **UseRecovery:** turns this on/off.
    - ▪ **RecoveryLevels:** this is a new slant on previous Recovery coding and allows users to have unlimited levels of Recovery. Simply enter your levels into the box, separated by a comma and this EA will construct them for you. L1 is implied by the first range trade, so the default of "2,6" implies 1.2.6 Recovery, or trades up to and including L3. A couple more examples:

- "1,2,4" implies 1.1.2.4, or trades up to and including L4.
- "2,6,12" implies 1.2.6.12, or trades up to and including L5.
        - **ReEntryLinePips:** sets where to draw the re-entry line. Leave at zero and this EA will calculate this for you based on the daily Volatility calculation.
        - **ReEntryLineVolMult:** rather like those Atr multipliers, this allows you to use multiples of Volatility to calculate where the re-entry line should go.
- **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.
- **Trading hours:** allow you to specify when this EA is allowed to trade. These are best left to trade 24 hours by default, but users can specify trading times if they wish.

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. There is a User Guide to describe the inputs, so please download this to see how this EA's mptm features work.

The RECOVERY SYSTEM for Range trading

Nanningbob's Recovery system is based on this very simple principle: no matter how far a market moves, it *will* retrace eventually. As I often put it, "Dem markets dey go up, den dey go down again, den dey go up again, den.........."

So, rather than insert a conventional stop loss and crying when it is hit, Recovery allows you to ride the move against you and enter with additional trades when the moment is right.

In Nanningbob-style trading, we talk about trades at Level 1, Level 2, Level 3 and Level 4. Level 1 is the initial trade. Levels 2+ are Recovery trades. Early Recovery grids were 1.1.3.3. and 1.1.2.4 The digits in the 1.1.3.3 and 1.1.2.4 refer to multipliers of the initial lot size So:

- in 1.1.3.3 (would be represented in RecoveryLevels as "1,3,3"):
- 1 is the L1 trade (Level 1 or initial trade) at your chosen lot size
- 1 is the L2 trade at your chosen lot size
- 3 is the L3 trade at your chosen lot size x 3
- 3 is the L4 trade at your chosen lot size x 3

- in 1.1.2.4(would be represented in RecoveryLevels as "1,2,4"):
- 1 is the L1 trade (Level 1 or initial trade) at your chosen lot size
- 1 is the L2 trade at your chosen lot size
- 2 is the L3 trade at your chosen lot size x 2
- 4 is the L4 trade at your chosen lot size x 4

this EA will only send Recovery trades when:

- The trade has moved ReEntryLinePips against you **and**
- The conditions are correct to enter a L1 trade. It will **not** merely send a trade because the market has moved x pips against you. In other words, it trades Recovery as it trades normally.

Here is how it works. Imagine you are using 1.1.2.4 and RecoveryLinePips = 100 (proper pips, not 5 digit wally-plonker-dipstick-crim points):. For the purpose of this example, imagine that 1 pip = $1:

- An L1 sell trade fills. The market continues to rise and goes 100 pips against your trade.
- this EA looks for an opportunity to enter an L2 sell trade at your normal lot size. This arises, so you have two trades open:
- L1 is -$100
- L2 has just opened at your normal lot size.
- The market co-operates and begins to fall. If falls 50 pips. At this point:
- L1 is -$50
- L2 is +$50
- so the position is at breakeven and can close
- Suppose the market refuses to cooperate and rises another 100 pips, so now:
- L1 is -$200
- L2 is -$100
- this EA looks for an opportunity to enter an L3 sell trade at double your normal lot size. This arises, so you have three trades open::

- L1 is -$200
- L2 is -$100
- L3 has just opened
- The market co-operates and begins to fall. Because your L3 trade is at double your lot size, we double the effect of the L3 on the open basket of trades. The market falls 75 pips
- L1 is -$125
- L2 is -$ 25
- L3 is +$150
- so the position is at breakeven and can close
- Suppose the market refuses to cooperate and rises another 100 pips, so now:
- L1 is -$300
- L2 is -$200
- L3 is -$200
- this EA looks for an opportunity to enter an L4 sell trade at four times your normal lot size. This arises, so you have four trades open::
- L1 is -$300
- L2 is -$200
- L3 is -$200
- L4 has just opened
- The market co-operates and begins to fall. Because your L4 trade is at double your lot size, we quadruple the effect of the L4 on the open basket of trades. The market falls 90 pips
- L1 is -$210
- L2 is -$110
- L3 is -$20
- L4 is +$360
- so the position plus a few, is at breakeven and can close

The reality is that L3 is rarely reached, although it does happen occasionally. I have yet to reach L4 in my live or demo trading. It will happen one day, but you can see that this involved a *huge* movement against my original trade.

This process is self-limiting and holds within it the means to get out of an increasingly nasty situation. Once a your maximum Recovery trades are sent, this EA can do no more and it is up to traders to manage their way out of the situation. Turn off the bot. Suppose the market continues to move against the trade and moves a further 100 pips against us?
- Now we have:
- L1 is -400 (original lotsize)
- L2 is -300 (original lotsize)
- L3 is -200 (original lotsize x 2)
- L4 is -100 (original lotsize x 4)
- From here, we start closing trades in the order of oldest first. A re-entry opportunity arises so we::
- Close the L1 trade and cry
- Mentally move all the trades down a level, so the old L2 is now L1, old L3 is now L2 and old L4 is now L3
- We start the lot size process afresh, so the new L4 trade is the original lot size.

Reaching the point described in the last paragraph would not be a happy experience, but it

is important to remember that **there will never be more than 4 trades open**, so we cannot blow our accounts unless we start with an oversized lot size to kick off with. The worst losing trades always get kicked off the end. It will make a dent in the account, but will take a long time; in the meantime, other successful trades are continually adding to the balance to offset the problem.

Mind, if *this* does not convince you to trade tiny lot sizes, then you are an idiot and should be shot.

Also, if it makes you want to use stop losses instead then go ahead and try them. You *might* keep it up for a week, if you are absolutely determined to ignore the advice of all the experienced traders that sl's and this trading system do not go together; I doubt it.

<u>Disclaimer and Risk Disclosure:</u>

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.