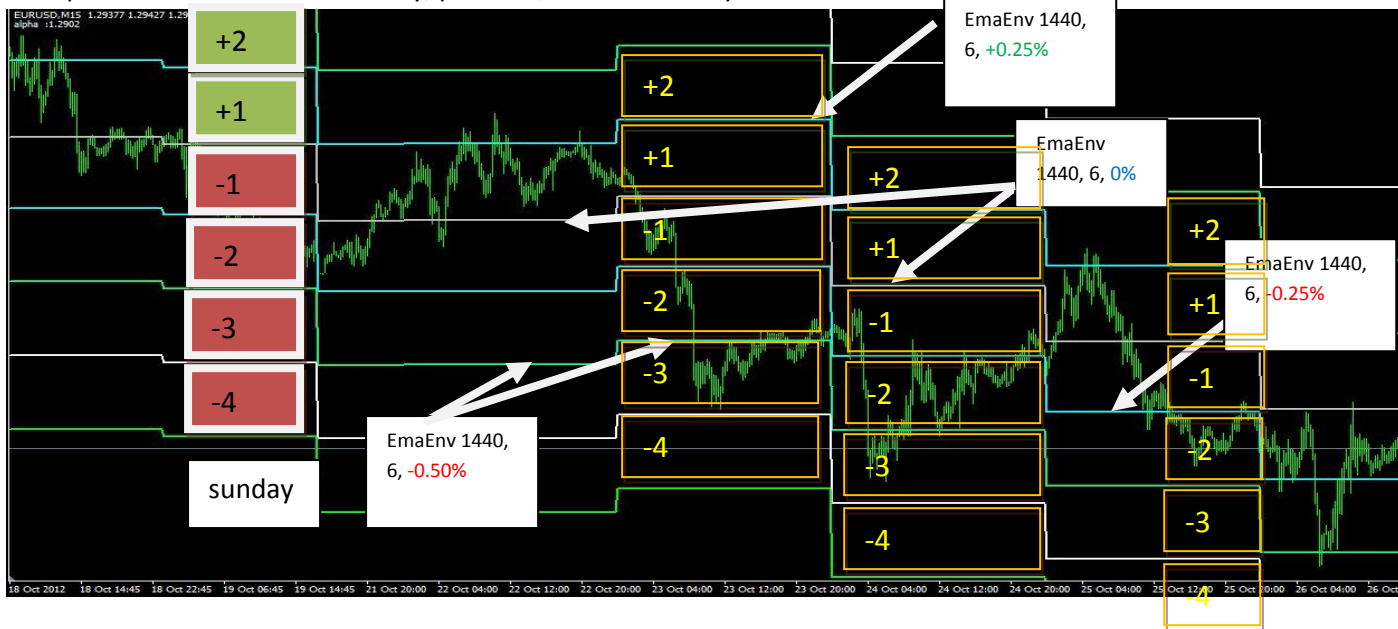


1. EA is attached to chart and start immediately. An invisible grid set by user is applied on the chart. This grid is the representation of EMA Envelopes using open price, no shift.

Example on 15 minutes. GRID: daily, period 6, deviation every 0.25%



In this example we have 1440, 6, 0.25 but the user can choose any timeframe, period or percentage he wishes in the control panel to draw this grid.

A LEVEL is the difference between 2 lines. You notice that EmaEnv 1440,6,0% is between Level +1 and Level -1.

-> THE EA BUYS OR SELLS LEVELS, TAKES PROFIT OR STOPS LOSS AT LEVELS.

The EA detects when the price changes of sector. It takes action when it steps in another segment. When the EA starts, it analysis its position on the grid. Once the EA has the authorization to buy or sell following user's instructions, it sets pending orders, following the BUY or SELL SEQUENCE instructions, as well as the Take Profit and Stop Loss orders. It's like the EA is in an elevator, the market chooses the floor number and when the doors open, the EA sees a red or a green wall paper with instructions printed on it. An order is triggered as soon as the Bid matches the ticket. Once a TP or a SL is filled, the EA closes all the positions, take profit or loss, remove all pending orders and waits for the new bar before starting a new cycle.

When to buy or sell a level?

It depends on the MODE. The user can choose 2 MODES: CONDITION MODE OR BREAK MODE. These 2 modes cannot be true at the same time. Either the EA buys or sells if certain conditions are true (CONDITION MODE) OR it simply buys when the price breaks up a level or sells when the price break down a level (BREAK MODE).

The CONDITION MODE:

1. It has 2 sections: BUY CONDITIONS AND SELL CONDITIONS

2. These 2 sections takes **3 variables**: price type (open, high, low, close), sign (> or <), a set of EmaEnvelopes (timeframe, period, deviation in %).

The developer must find a convenient way to express the conditions in the parameters window. It could look like this :

CONDITION MODE[true] BREAK MODE[false]

BUY IF open > EmaEnv(240, 6, +0.125%)

SELL IF open < EmaEnv(240,6,-0.125%)

Buy what, sell what?

ALL LEVEL CROSSED by 1 pip, no matter if it's catching up by the top or the bottom of a level. Once the buy conditions are met, the EA must buy every level in sight. Same if the sell conditions are met. If SL=-2, the EA buys even at level-1

The user must be allowed to set up to 5 blocks of conditions either for buy or sell. The blocks can be switched on and off with the Boolean true/false. Only the first block must be true, otherwise the EA returns an error.

Example of BUY CONDITIONS in the parameters window (or any convenient interface the developer may think about)

OPERATOR	PRICE TYPE	SIGN	EMA SETTINGS	BOOLEAN
IF	OPEN	>	240,6,+0.125	true (must be true)
AND IF	OPEN	>	1440,6,+0.25	true
AND IF	HIGH	<	240,6,+0.25	false
AND IF	CLOSE	<	15,4,+0.125	true
AND IF	LOW	>	43200,3,+1	true

SPECIAL IMPORTANT NOTE: If BUY CONDITIONS and SELL CONDITIONS happen to be true at the same time (which is highly improbable), the EA takes no action and waits for only one section to be true.

Same thing for the SELL CONDITIONS.

How many lots to buy or sell?

The user must be allowed to set a BUY SEQUENCE AND A SELL SEQUENCE. These sequences takes 2 variables: the level number and the lots size for a total of 12 steps. The user only has to set the lots size (as low as 0.01 lot)

Example of a BUY SEQUENCE, the developer must find a convenient interface to express this sequence.

LEVEL	LOTS
LEVEL 1	1
LEVEL 2	0
LEVEL 3	1.5
LEVEL 4	0
LEVEL 5	2
LEVEL 6	3
LEVEL 7	3
LEVEL 8	4
LEVEL 9	5
LEVEL 10	6
LEVEL 11	6
LEVEL 12	7

In this example, if the BUY CONDITION section or the BREAK MODE is valid, the EA will buy 1 lot at the first level crossed, won't do anything at the second level, will buy 1.5 lot at the third level, won't do anything at the fourth level. If TP=5, the EA doesn't buy 2 extra lots at level 5 but closes the position instead.

0 means no action is taken at the specified level. Same thing for SELL SEQUENCE.

How to set take profit and stop loss?

Take profit and stop loss are measured in level crossed. TP=1 means the EA closes the position 1 level above the entry point (long position), 1 level below the entry point (short position). SL= 4 means the EA closes out position 4

levels below the entry point (long position), 4 levels above position (short position). **TP and SL HAVE ABSOLUTE PRIORITY OVER BUY OR SELL SEQUENCE.**

If a TP or a SL is hit, the EA must delete all pending order and wait for a new bar before taking any action.

OPTIONS

1. CONSECUTIVE LOSS SEQUENCE.(true/false option)

The user must be allowed to instruct the EA to set a specific amount of lots after each consecutive loss. The principle is the same than the BUY SEQUENCE:

CONSECUTIVE LOSS	LOTS
CL1	1
CL2	1
CL3	0
CL4	1.1
CL5	0
CL6	1.5
CL7	2
CL8	2.5
CL9	3
CL10	3.5
CL11	5
CL12	6
Up to CL20	

2. EXIT MARKET OPTION (true/false)

If the EA has entered the market because the BUY OR SELL CONDITIONS were valid, this option, when true, forces the EA to exit the market if the conditions are no longer met no matter what the profit of the loss could be. The EA must exit market, delete all pending orders (if any)and will re-enter the market once the conditions are true again. If this function is called, it affects the CLS counter. Exit Market function, just like the Break Even function is considered to be a loss and affects the CLS counter.

3. VOLUME OPTION: the EA starts or shuts down if the tick volume of the previous bar is outside a specific range. This option takes 2 inputs: start at volume, exit at volume. **If a trade is running, this option cannot force the EA to exit market.**

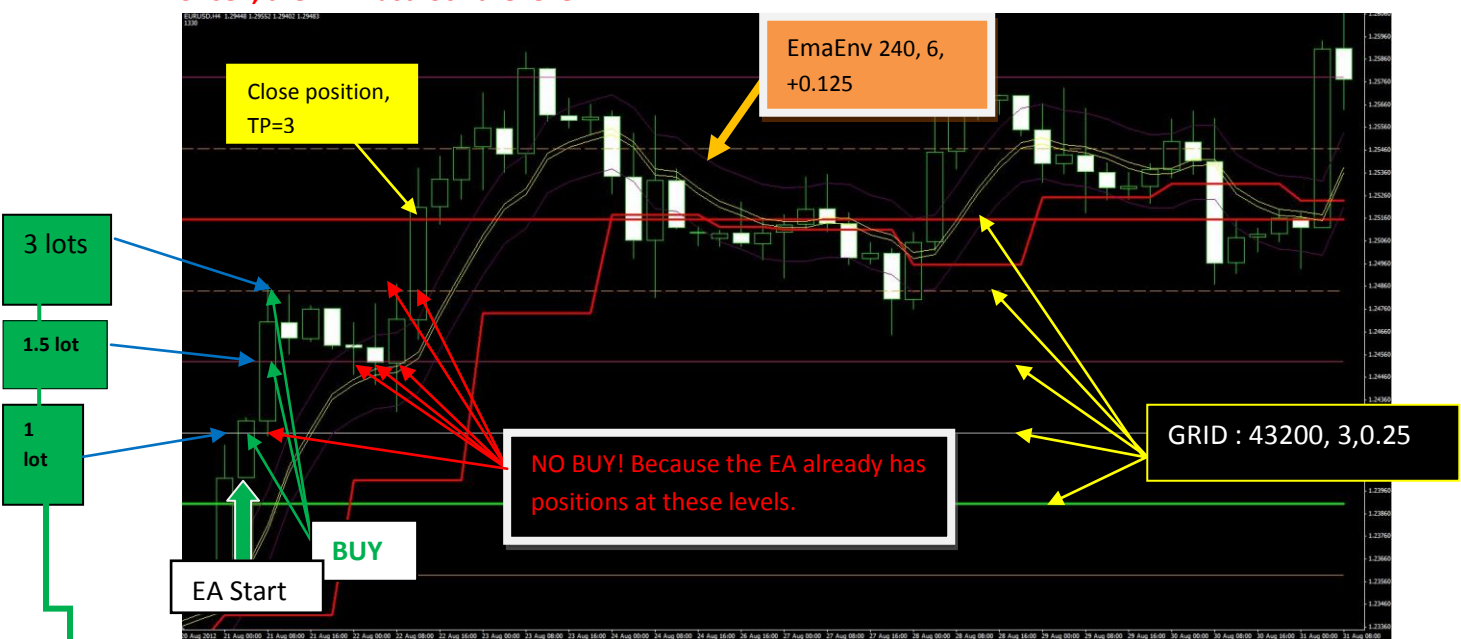
4. BREAK EVEN OPTION(true/false): The Break Even should be expressed in Levels like the TP and the SL and can accepts double number from 0.1 to 20 like TP and SL.If additional orders are taken by the system, the system adjusts the break even accordingly.

SPECIAL NOTES /

1. THE EA ALWAYS WAITS FOR A NEW BAR TO RE EVALUATE THE SITUATION. Therefore, in BREAK MODE, the EA can only reverse position if the new bar has crossed a level in the opposite direction of the current trade. If 2 or more positions are opened and that the EA detects a break in the opposite direction, the EA must close all the positions, remove all pending orders(if any) and re enter the market with the minimum lot and obey to the CLS if set on true.
2. BREAK MODE just like CONDITION MODE, obeys to the BUY AND SELL SEQUENCE.
3. The EA must have the common options like Broker Compatible, Trading Time filters etc...
4. The EA must display a graphic history on the chart including Level bought or sold, consecutive loss sequence number, break even order, entry and exit point.
5. Once a take profit or a stop loss is set, it remains the same even if the levels change before they get hit.
6. Finally, the EA must be able to monitor several pair at the same time by being attached to several different currency pair but can only trade one pair at a time. If 2 signals come at the same time, the EA must choose the pair with the highest hourly tick volume.

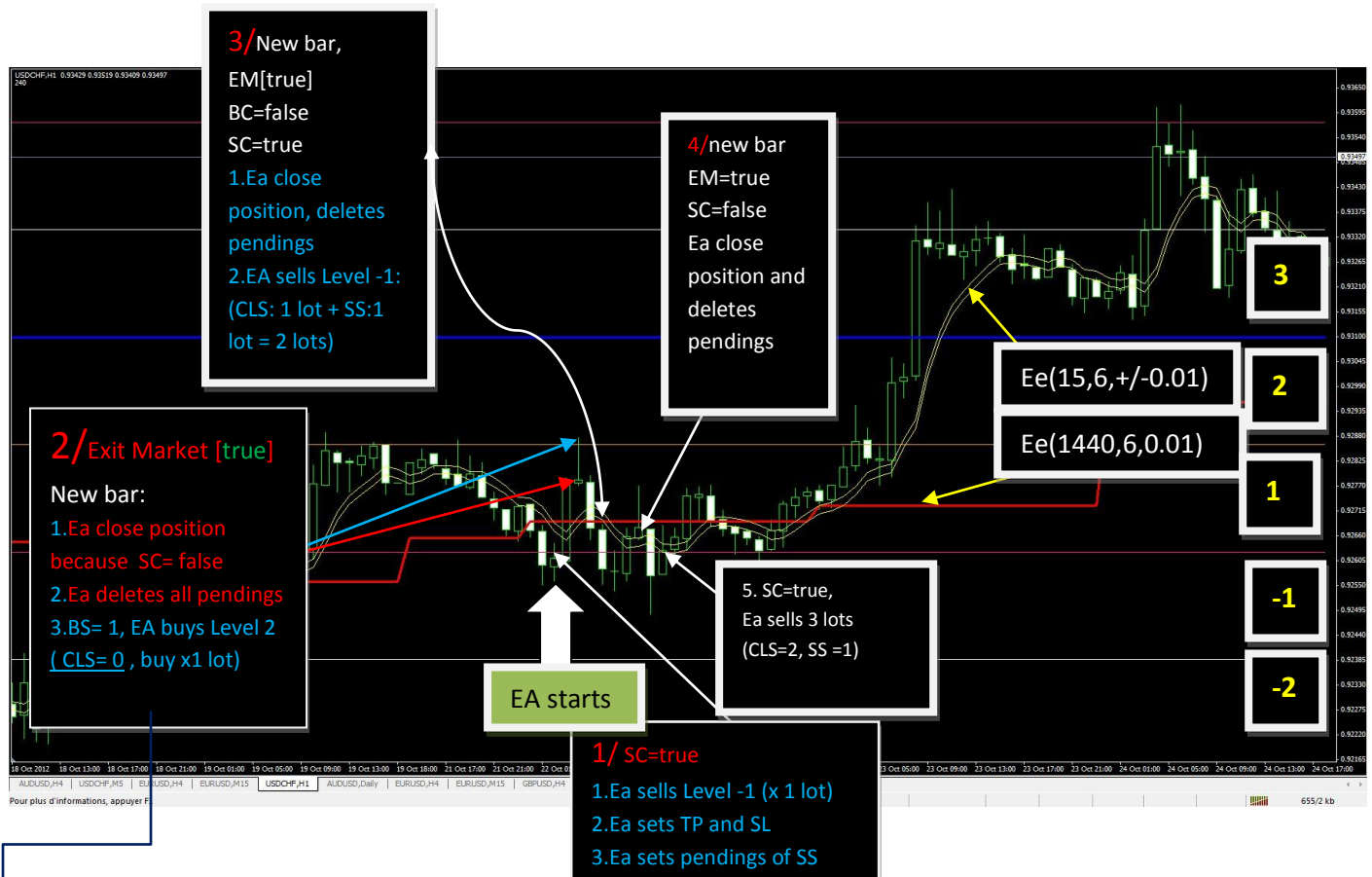
Special Notes, some other important precisions:

1. Once the EA has entered the market, it sets the take profit and stop loss as well as the orders that will trigger at each level following the instructions of the Buy or Sell Sequence. All these pending orders don't have to be changed or adjusted if the value of the levels changes overnight. Once a TP or a SL or an exit market option has forced the EA out, then the EA uses the last known values of the grid.
2. In the BUY or SELL CONDITIONS panel, the user must be allowed to set a negative deviation for the EmaEnvelopes.
3. If the CONSECUTIVE LOSS SEQUENCE is set on true, the EA enters the market with the amount of lots specified by this sequence AND also add the amount of lots specified by the BUY or SELL SEQUENCE (depending on the signal).
4. **THE EA IS NOT ALLOWED TO ACCUMULATE POSITIONS AT THE SAME LEVEL. Once a level has been bought or sell, the EA must lock the level.**



In this example, let's assume there is only one BUY CONDITION: if open > EmaEnv (240,6,+0.125), buy sequence [1,1.5,3,7], TP=3, Exit Market[false], SL=1, GRID 43200,3,0.25

EA in pictures



CONDITION MODE [true], BREAK MODE [false] , BUY SEQUENCE [1,2,2,4,6,8](BS),SELL SEQUENCE [1,2,4,8](SS),
CONSECUTIVE LOSS SEQUENCE [0,1,2,2,5,3,3,5,4](CLS)[true], TP=2, SL =1,Break Even =0.5[true],Exit Market[true](EM),
GRID[43200,3,0.25)

Ee= EmaEnvelopes

BUY CONDITIONS (BC)

If open > Ee(15,6,0.01)[true]

And if open > Ee(1440,6,0.01)[true]

SELL CONDITIONS (SC)

If open < Ee(15,6,-0.01)[true]

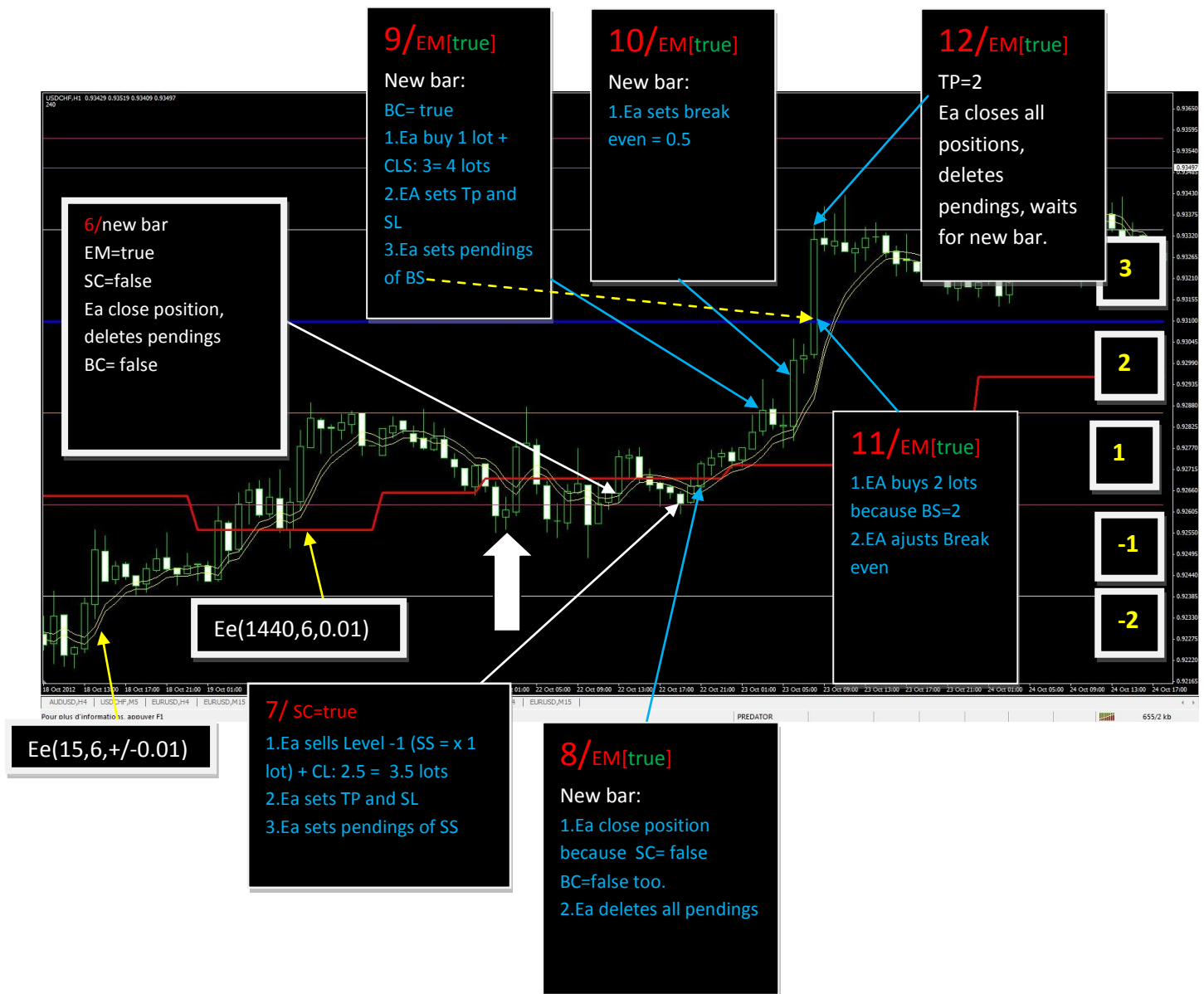
And if open < Ee(1440,6,-0.01)[true]

NOTE:

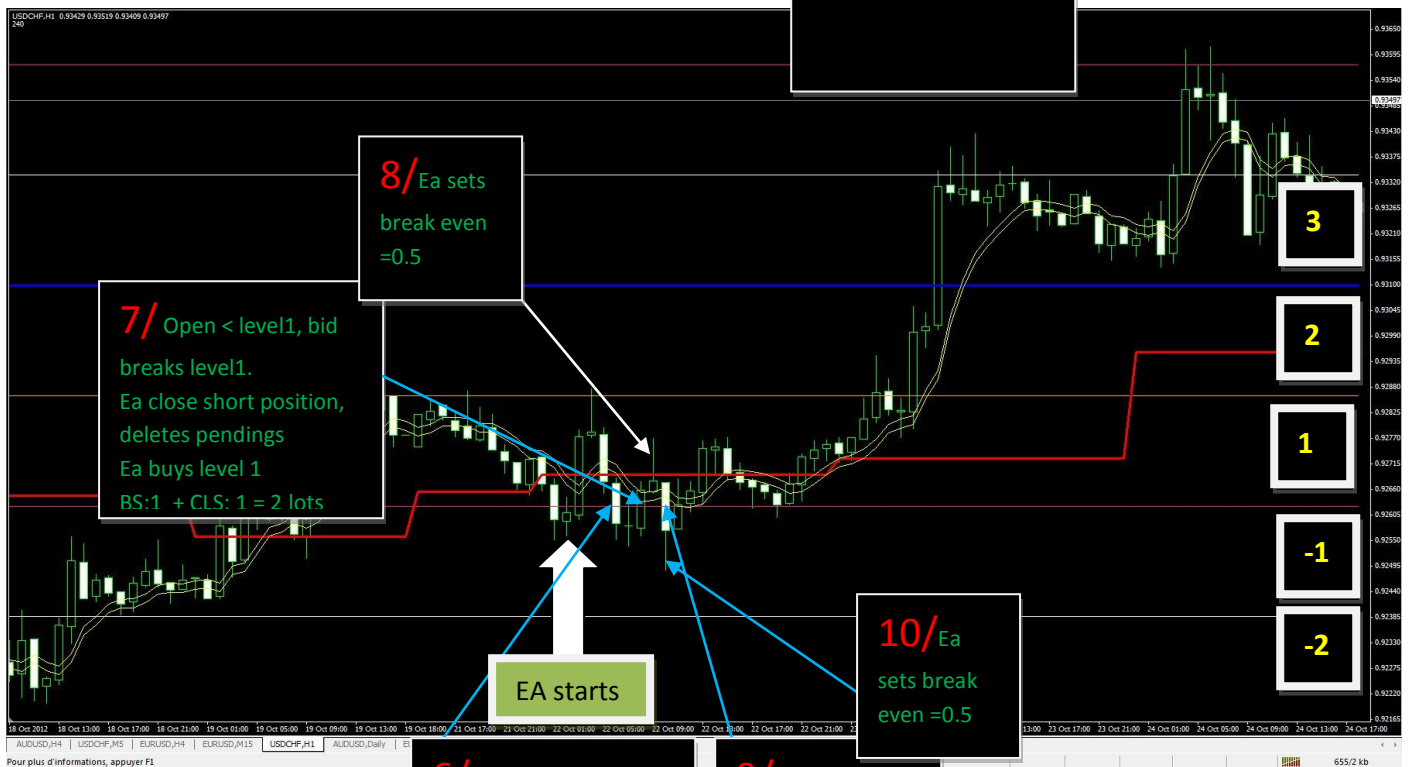
1.Ee(1440,6,-0.01) is not represented. We assume the EA uses (1440,6,0.01) as if it was (1440,6,-0.01), for the example.

2. The pending orders issue: Actually all the orders are pending. Once the EA has the authorization to buy or sell, it sets the all the orders accordingly, if the conditions are no longer met , the authorization is denied (in the case the Exit Market option is true)and the EA must delete pending order and wait for a new bar to re evaluate the situation.

3.Exit Market option is especially designed for large time frame as specific conditions are likely to change on small timeframe.



Break Mode



6/ open > level -1, bid breaks level -1, Ea sells level -1
SS:1 + CLS:0 = 1 lot

9/ Ea close at Break even.
open > level -1, bid breaks level -1, Ea sells level -1
SS:1 + CLS:2 = 3 lots

NOTE: The EA can reverse position only one time per bar. A close at break even is considered like a loss and affects the CLS. Just like CONDITION MODE, the EA cannot accumulates position at the same level.

The BREAK MODE, like CONDITION MODE, sets all the pending orders that can be anticipated but must react as soon as a break in the opposite direction of the trade occurs at the new bar.

