



Forex AI for MetaTrader 4 User Manual

Version 3.0

By Gary White

Forex AI

support@forex-ai.com

www.forex-ai.com

© Forex-AI 2009



Revision History

Version	Date Release	Change Notice	Remarks
1.0	September 2006	N/A	1 st Internal Version
1.1	January 2007	Add Alternative Symbol	2 nd Internal Version
1.3	July 2007	Change Parameter names	3 rd Internal Version
1.4	January 2008	Add Automatic Lot Sizing	4 th Internal Version
2.0	October 2008	Add Installation Notes	1 st Publication
2.1	December 2008	Add FAQ Section	2 nd Publication
2.3	January 2009	Add MicroLot Manual Support	3 rd Publication
3.0	February 2009	All	4 th Publication

Confidentiality Statement

All information provided in this document by Forex Ai is provided on a commercial-in-confidence basis, as its release into the general commercial environment may be advantageous to Forex-Ai competitors and harmful to our business.

This document and any electronic version thereof, may only be copied and/or provided to you. It may not be provided to any other person, organization and competitor without the prior written permission of Forex Ai.

Legal Disclaimer

Forex, futures, and options trading have large potential rewards, but also carry large potential risks. You must be aware of the risks and be willing to accept them in order to invest in the Forex, futures and options markets. Do not trade with money you cannot afford to lose. This Forex Ai system is neither a solicitation nor an offer to Buy/Sell currencies, futures or options. No representation is being made that any account will or is likely to achieve profits or losses similar to those discussed in this document. The past performance of any trading system or methodology is not indicative of future results.

CFTC RULE 4.41 - HYPOTHETICAL OR SIMULATED PERFORMANCE RESULTS WHICH ARE PRESENTED HERE IN PART HAVE CERTAIN LIMITATIONS. UNLIKE AN ACTUAL PERFORMANCE RECORD, SIMULATED RESULTS DO NOT REPRESENT ACTUAL TRADING. ALSO, SINCE THE TRADES HAVE NOT BEEN EXECUTED, THE RESULTS MAY HAVE UNDER-OR-OVER COMPENSATED FOR THE IMPACT, IF ANY, OF CERTAIN MARKET FACTORS, SUCH AS LACK OF LIQUIDITY. SIMULATED TRADING PROGRAMS IN GENERAL ARE ALSO SUBJECT TO THE FACT THAT THEY ARE DESIGNED WITH THE BENEFIT OF HINDSIGHT. NO REPRESENTATION IS BEING MADE THAT ANY ACCOUNT WILL OR IS LIKELY TO ACHIEVE PROFIT OR LOSSES SIMILAR TO THOSE SHOWN.



Table of Contents

1	INTRODUCTION	4
2	INSTALLATION	5
3	INPUT PARAMETERS	9
3.1	MODEHELP	9
3.2	MODE.....	9
3.3	USEMICROLOTS.....	10
3.4	RISKPERTRADEPERCENT	10
3.5	FIXEDSIZELOTS	10
3.6	STOPLOSS	11
3.7	SLMODEHELP.....	11
3.8	SLMODE	11
3.9	TAKEPROFIT	12
3.10	CLOSEPOSITIONSONLY	12
3.11	PRIMARY NETWORK PARAMETERS	13
3.12	ALT_SYMBOL	13
3.13	ALTERNATIVE NETWORK PARAMETERS.....	13
3.14	MAGICNUMBER	14
4	TRAINING THE FOREX AI AUTOTRADER.....	15
4.1	SELECTING THE TIME PERIOD TO TRAIN THE NETWORK ON	15
4.2	SELECTING ALTERNATIVE TIME SERIES DATA.....	17
4.3	THE TRAINING STEP-BY-STEP	19
4.4	HOW OFTEN TO TRAIN THE NETWORK?.....	26
5	LICENSING.....	27
6	FREQUENTLY ASKED QUESTIONS.....	29
6.1	Q. I RUN THE OPTIMIZATION, BUT IT DIDN'T LIST ANY RESULT. WHY?	29
6.2	Q. DO I SELECT THE LOWEST DRAWDOWN % OR THE HIGHEST PROFIT?	29
6.3	Q. WHAT IF NONE OF THE RESULTS LOOK OK?	29
6.4	Q. MY BROKER USES 5 DIGITS ON THE EURUSD PAIR. DO I NEED TO USE 900 AS A STOPLOSS?	30
6.5	Q. WHAT ARE THOSE F:-0.35573443 A:120.04323 NUMBERS?	30
6.6	Q. I RUN THE OPTIMIZER AND IT JUST RUNS THROUGH FAST AND ALL RESULTS ARE DISCARDED.....	30
6.7	Q. WHEN I CHANGE THE MAXIMAL DRAWDOWN IN THE STRATEGY TESTER TO 30, THE NUMBER JUST POPS BACK TO 70?	31
6.8	Q. WHAT ALT-SYMBOL SHOULD I USE WHEN MY BROKER DOESN'T SUPPORT GOLD OR CRUDE?	31



1 Introduction

Congratulation on your purchase of one of the worlds most advanced automated trading systems utilizing Artificial Intelligence.



Do not install the Expert and definitely do not use it for live trading before you have read this user manual in full. Incorrectly configured Forex-AI expert will not produce profitable trading in the long run, so it is essential that you have followed the instructions in this manual to install, configure and train the expert correctly.

Forex AI Automatic Trading system for MetaTrader 4 is an advanced piece of application which uses Neural network to make decisions as to when to buy or sell a specific currency pair through your Forex broker.

It works with most Forex brokers that use MetaTrader 4 as a trading platform.

The Forex AI Autotrader you received initially will work with any Forex account, but you will need to register it within 4 to 8 weeks of purchase. Once registered, the software will be locked to your actual trading account. For more information, please see the Licensing section.



Do not use the Forex AI Automatic trading system on your live account until you have completely familiarized yourself with how to train, configure and use the system. We recommend running this system on a demo accounts for at least 4 weeks.



2 Installation

Copy the **Forex-AI-EURUSD-v3.0.ex4** and **forex-ai.lic** files into:

D:\Program Files*Broker Name*\experts directory

Copy the **Forex-Ai.dll** file into:

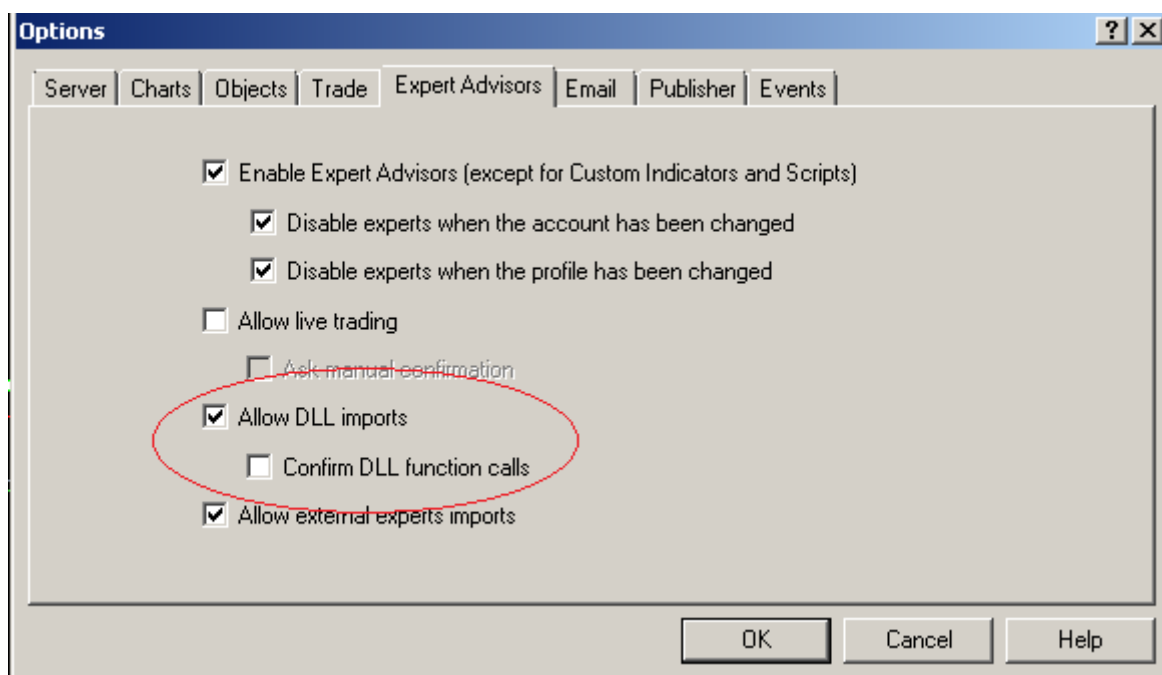
D:\Program Files*Broker Name*\experts\libraries directory

Forex-Ai-EURUSD-v3.0.ex4	The main MetaTrader Expert file
Forex-Ai.dll	Includes some of the trading, neural network and license verification routines.
Forex-Ai.lic	The license file authorizing the Forex-Ai AutoTrader to work on your account(s).

Before you can use the Forex-Ai Autotrader please click Tools -> Options and select the “Expert Advisors” tab.

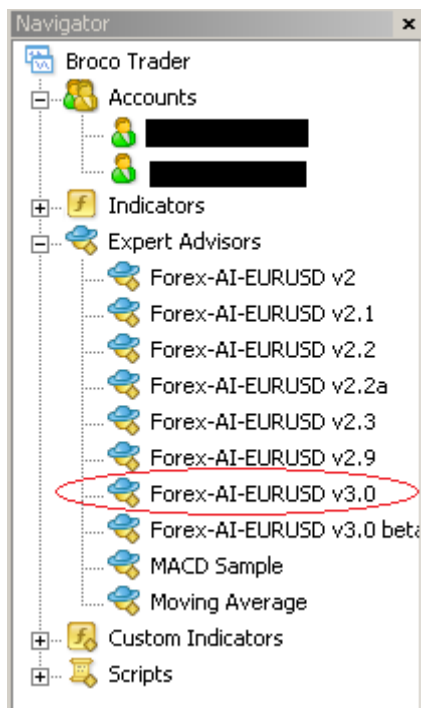
Check – “Allow DLL imports

Un-Check – “Confirm DLL function calls, as per picture below.





Close MetaTrader and start it again for the Forex-Ai AutoTrader to appear in the Navigator window Expert Advisors section.



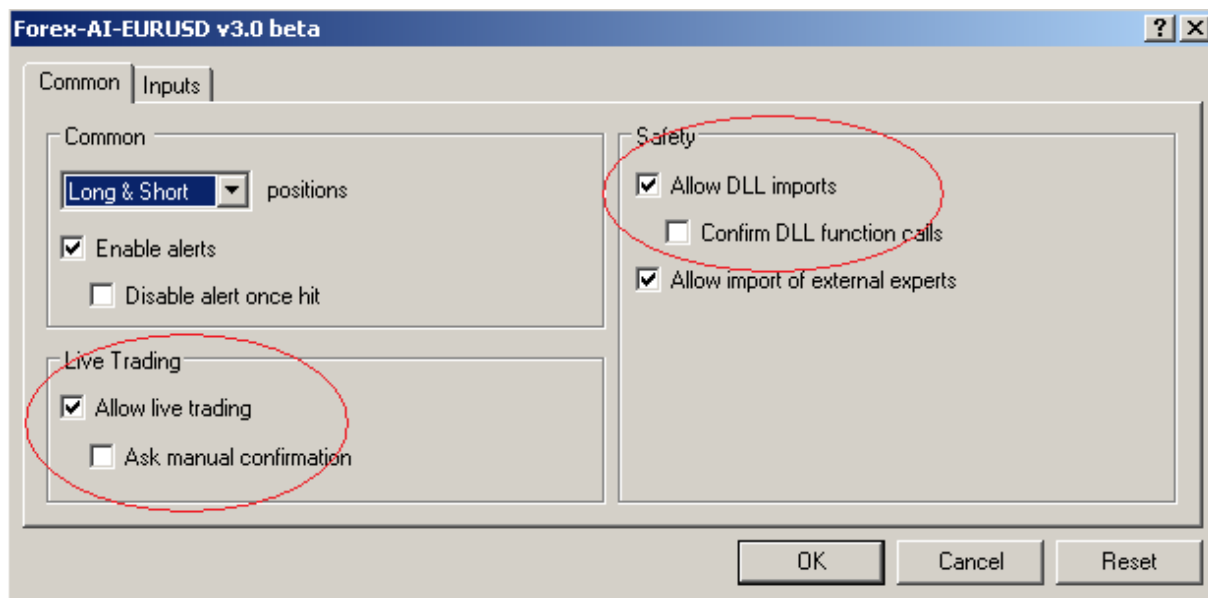
If the navigator window is not visible, select View->Navigator to make it visible.



If the icon next to the AutoTrader is gray, it just means that you do not have the source code. It is not a fault.

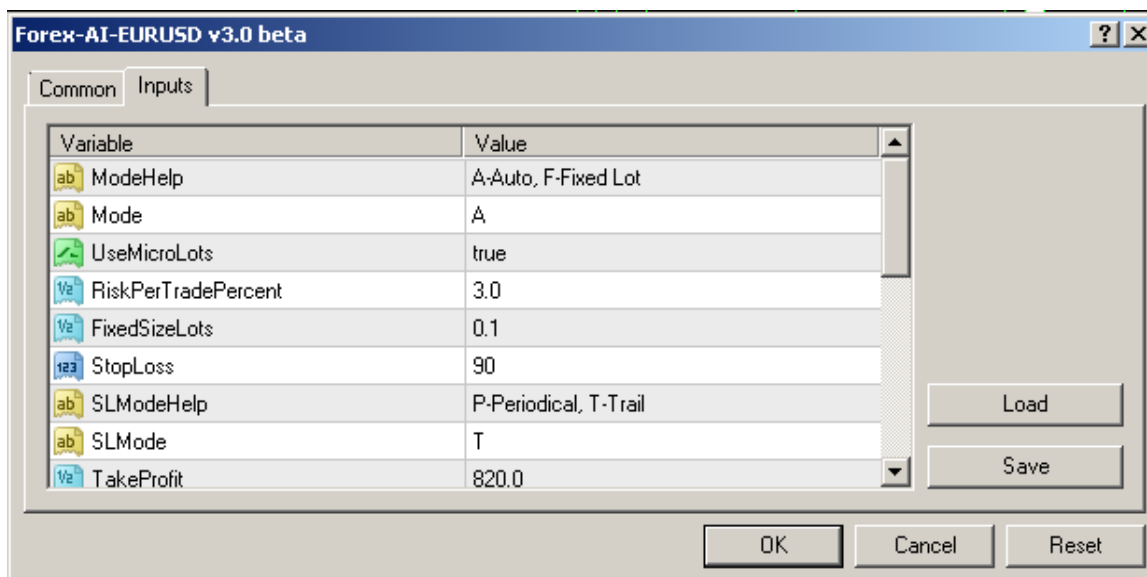
Open a new EURUSD chart and select H4 to show the 4 hours chart.

Drag the Forex-AI-EURUSD v3.0 expert onto the EURUSD H4 chart. When you release the mouse button, it will display the following window.



Click on “Allow live trading” on the Common tab. You can also verify or change the DLL settings here if you haven’t done it in the Tools->Options settings. It is better to do it at the Options, so you don’t have to do it every time you start the EA.

Then select the Inputs tab



Set the input parameters as per “Input Parameters” section



It is important to set the Input Parameters correctly, otherwise the Forex Ai expert will not work profitably.



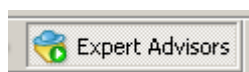
Click ok.

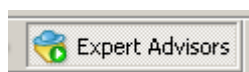
Check the smiley face on the upper right hand corner of the chart.



If it is a sad face, you forgot to click on “Allow live trading” as per previous instructions.

If it is an “x” you have the Expert Advisor disabled.



Make sure to click on  to enable the expert and check for the smiley face.

Now you are ready to go. All you have to do is leave it alone and let the Forex AI Autotrader do the rest.



If you want to see the EURUSD pair in other timeframe than 4 hours, open another EURUSD chart. DO NOT change the timeframe on the chart while the Auto trading is on. It will not enter new positions nor will it close any open positions if you do that.



It is quite important that the Forex AI is running on a computer that has a good Internet connection, ideally one dedicated to the task at hand.



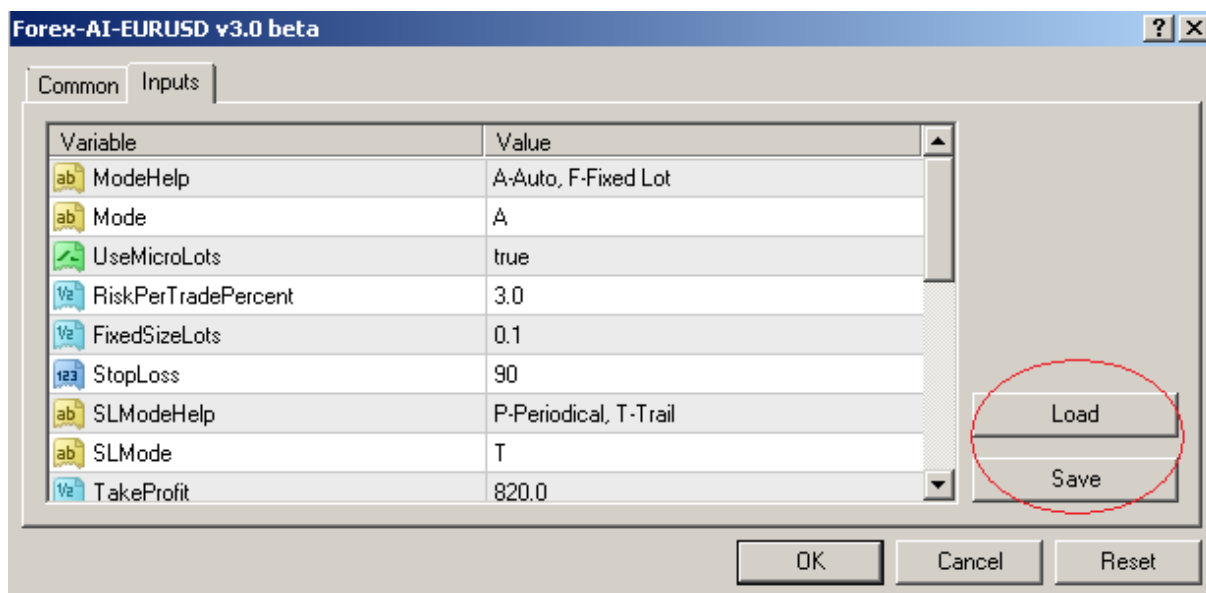
For our own trading, we are using a Virtual Private Server (VPS), dedicated to do nothing else, but to run the Autotrader. Some VPS providers unfortunately log you out if you disconnect and therefore your MetaTrader will be closed down as well. After lengthy research, we found one which appears to be reliable for our purposes and costs about \$30/month. If you would like to know which provider we're using here, at the Forex AI, please email support@forex-ai.com.



3 Input Parameters



These input parameters need to be set each time you attach the Forex AI Autotrader expert to the chart. You can however save them and load the saved copy when you need it next time.



3.1 ModeHelp

It is a short help info telling you what options are available as a Mode parameter.

Currently it has two options: A – Auto and F- Fixed lot size, described below.

3.2 Mode

A Automatic lot size mode

Use Automatic lot size mode only if you let the Forex AI to trade on the account on its own. If you are also trading manually or perhaps use another expert to trade on the same account simultaneously (not recommended) DO NOT use Automatic mode.

In AutoMode, the Account Free Margin, Stop Loss level and the RiskPerTradePercent parameter is used to determine the Lot size to trade.

F Fixed size lot for each trade.



Use Fixed Lot size if you want to be in control of the Lot size the Expert will trade with. The parameter called Lots will determine the size of each trade. Default is 0.1 Lot.

3.3 UseMicroLots

In Automatic Lot Size mode we need to decide whether to round the lots mini or micro lots.

Some brokers only support mini lots, 0.1, 0.2, 0.3 etc. as the smallest order quantity.

Some other brokers however support the micro lot sizing, 0.01 increments. Using a broker who supports micro lots, it allows you to trade with small amount to test things out.



Using 1 micro lot and the default 90 pips S/L your risk per trade is \$9.

With a \$300 account each trade is risking 3% of your balance. This is about the smallest account balance you should trade with, once you finished the 4 weeks papertrading.

3.4 RiskPerTradePercent

By default it is 3% which is a little bit higher what professional traders risk on each trade, but more suitable for small accounts, up to maybe \$5,000. It is strongly discouraged to use higher than 5% risk per trade, although the EA doesn't restrict you to do that in case you have a different method for risk management.

The following is a known technique amongst traders to use the following alternative money management.



Set aside your risk capital say \$2,000, but only send 20% (\$400) to the broker and keep the remaining amount in your regular savings account. Say your risk per trade is 2% on the \$2,000 or \$40. If your broker only has \$400, you need to set 10% risk in the Forex-AI Autotrader to achieve the 2% risk per total risk capital. This is why we are not limiting the percentage of risk per trade.

3.5 FixedSizeLots

This parameter is only used when the trader is set to Mode F, Fixed size lot. In case you choose Fixed lot size, (not recommended) use the following lot sizes based on the amount of money you have available in your account:



Account Size	Lot Size
\$3,000	0.1
\$10,000	0.4
\$25,000	1

3.6 StopLoss

By default we have set the StopLoss value to 90 pips, which we believe is the appropriate value for our strategy. Using a smaller value would result in a lot of premature exits of profitable positions.

A larger value would probably improve our profitable trades, but would also include a few large losses, which could result in large draw downs in our portfolio.

You could experiment with larger StopLoss values with an aim to generate larger profits as long as you understand that you may experience larger portfolio draw downs if you experience a large losing strakes.

3.7 SLModeHelp

It is a short help info telling you what options are available as a Stop Loss method.

Currently it has two options: P – Periodical and T- Trail as described below.

3.8 SLMode

P - Periodical means that we are only moving the Stop Loss (S/L) every 4 hours. We are moving the S/L when the new 4 hours started, based on the closing price of the previous 4H bar, not the high or low of the bar.

T – Trail, it means the S/L is moved every time the price hits new high or low since we entered into the trade. This method may generate a lot of Order Modify calls to the broker. Our experience is, that some brokers don't like this method and may eventually move your



account into manual execution mode, which means, each trade execution may take up to a few minutes to execute.

3.9 TakeProfit

If you set this parameter to 0, it will not use T/P

If you set it to a positive number, it will use it as a profit target. There is often a minimum profit target set by the broker, around 5-10 pips, but we want much larger profit target than that.

Because we use 4H chart and 90 pips S/L, anything less than 120 pips doesn't make sense. We prefer to let the trade run to maximize our profit when there is a significant movement, but we recognize, that it has often happen that our profit has run up to close to 900 pips and a sharp downturn before our S/L was set took away 2-300 pips profit away from us.

So by default we have set the T/P to 820 pips. It is not optimized in any way, just an observation based on the past 3-4 month behavior.

3.10 ClosePositionsOnly

This parameter is false and should be left false most of the time.

If you are planning to go away for a week or two and do not want to leave your Autotrader on, you have two choices:

- You can either remove the expert from your chart and manually close the position you are in; or
- You can turn "ClosePositionsOnly" to true and the AutoTrader will find the best possible exit for you. It will close the position when the Forex AI system is about to reverse or may get stopped out.



You may want to close positions for the weekends. In this case, it is best to change the "ClosePositionsOnly" to true on Thursday to let the expert focus on closing the existing position only. You may miss a Friday trade, but Fridays are typically weak in terms of trading opportunities anyway.



3.11 Primary Network Parameters

alpha, beta, gamma, delta

These parameters need to be set using the values we get as result of the training of the neural network. They control the behavior of the primary network. To see how to get these parameters, please look up the “Training the Forex-AI AutoTrader” section in this manual.

3.12 Alt_Symbol

This is the symbol name of the alternative data series to improve the probability of the prediction.

We found that the best alternative data series when predicting the EURUSD currency pair, are other symbols which are correlating well with EURUSD or reverse correlating to the highest extent.

Professional traders typically use Crude Oil or Gold as an indicator where the major currency pairs are going. Not every Forex broker gives you continuous Crude Oil or Gold prices, so if it is doesn't, you need to use another currency pairs as an alt_symbol.



Read the FAQ section on this document as to how to select an alternative symbol.

3.13 Alternative Network Parameters

alt_alpha, alt_beta, alt_gamma, alt_delta

These parameters need to be set using the values we get as result of the training of the neural net. They control the behaviour of the secondary or alternative net. To see how to get these parameters, please see the “Training the Forex-Ai AutoTrader” section in this manual.



3.14 MagicNumber

This number is added to each trade entered into by the Forex-Ai AutoTrader. This way it can identify which trade positions are its own and only modifies / closes the trades it entered.

Using this technique we can run several Experts on one user account without having them interfere with one another.

Obviously each Expert needs to have its unique ID, called MagicNumber. So if you are running other experts on your account, make sure to check their MagicNumber and if you find it to be the same, just change it to something different.



4 Training the Forex AI Autotrader

Training the AI network in this expert is the most important part of the Forex AI AutoTrader and your success in using this application depends on whether you follow the instructions here properly or not.

Many trading applications that use Artificial Intelligence, Neural networks give you too many options, are confusing and in the end you give up simply because you do not know which one of the several thousands of parameters to tweak. With Forex AI, we have done the hard work for you and this section describes clearly how to optimize the network for maximum gain.

4.1 Selecting the Time Period to train the network on

Before explaining the steps you need to take in order to train the network, let's start with some real life examples first.

Select the H4 chart of the EURUSD currency pair and zoom out, so you can see 6 months on your chart.



In the example above, I've charted EURUSD between March and August. As you can see, we have a relatively range-bound market move. If we train our network and the market behavior does not change significantly, the Forex-AI expert will produce good profit.



Now have a look at the June-November 2008 time frame.



As you can see, this period contained a trending stage between mid July and end of October. November was range-bound again.

Why am I showing you this? If the network has only seen range-bound markets and suddenly we have a large drop in price and the market starts trending downwards, the system may not be able to produce a profit because the market conditions have significantly changed in a way that the network hasn't learned how to deal with yet. If, however, we train the network on both range-bound and trending markets, it has a better chance of producing profitable results.

Throwing too much data at the neural network will make it irrelevant and will not work well. Using too little data may not be representative of the future price movements. In the neural network world this phenomenon is often called Curve Fitting. We don't want that.



More than 6 months' data on a 4 hours chart can often result in irrelevant prediction of the Forex AI network.



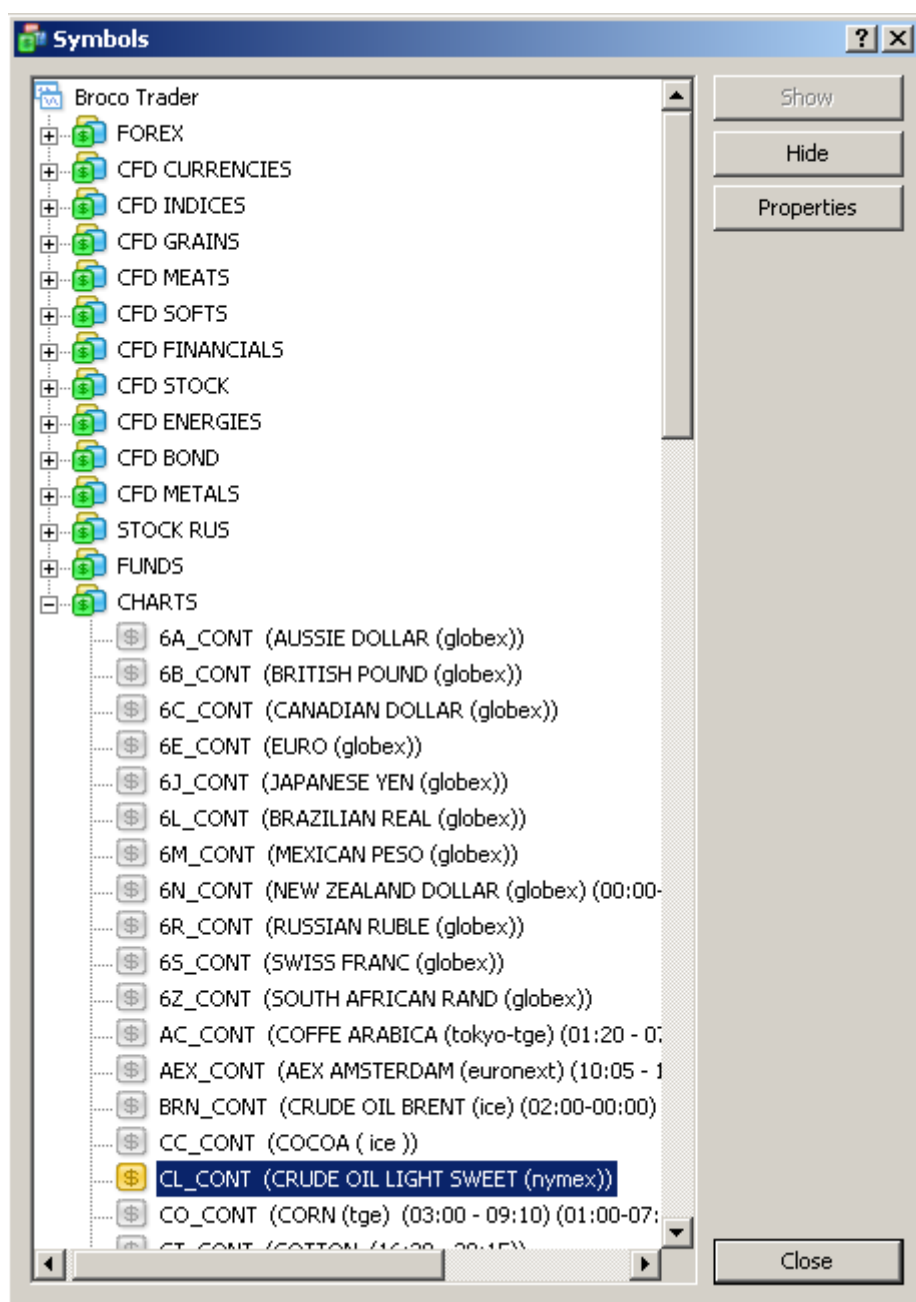
Less than three months' data may not be enough to learn about the rules, so use between 4 to 6 months' data to teach the AI network about the past behavior.



4.2 Selecting Alternative Time Series Data

Go through the available Market Symbols of your broker and see if you have Crude oil or Gold continuous price available.

It maybe disabled by default, so to explore all symbols available, right click on the “Market Watch” window and select “Symbols”.





As you can see, a lot of symbols are grayed out, meaning they are not visible when you select new chart.

Highlight the CL_CONT symbol and click on the “Show” button.

Create a new chart based on this symbol and test it to make sure it is available for trading 24x5.



If you are thinking of using one of the futures symbols, please be aware that they may only trade 12 hours a day and thus not suitable for our purpose.

If you do not have CL_CONT or GOLD spot price available, read on, we will explain how to use other currency pairs as an alt_symbol.



Gold sometimes has a symbol GOLD, but more often Forex brokers are using XAU, XAUU, XAUUSD for Gold as well.



As mentioned earlier, other currency pairs may be suitable as an alternative symbol (e.g. GBPUSD or EURGBP). Read the FAQ section of this document on how to select which is the best.



4.3 The Training Step-by-Step

- Select View -> Strategy Tester
- Select Forex-Ai-EURUSD v3.0 as your Expert Advisor
- Select EURUSD as a symbol
- Select H4 as a period
- Model – Open prices only
- Click on Optimization
- Select the date range. From: 3-6 month past, To: current date

As you can see picture below.



If you are using “T” Trailing stop loss instead of “P” Periodical, you should change the model to “Every Tick” otherwise the training will not be accurate.

It will take the training much longer than a few minutes. We usually train using the Periodic Stop Loss to speed things up.



Click on Expert Properties button.

On the Testing tab select as below:

Select Drawdown percent from the dropdown box.

Make sure Genetic algorithm is ticked.

The image shows the 'Forex-AI-EURUSD v2.1' Expert Properties dialog box with the 'Testing' tab selected. The 'Initial deposit' is set to 10000 USD. The 'Positions' are set to 'Long & Short'. In the 'Optimization' section, the 'Optimized parameter' is 'Drawdown Percent' and the 'Genetic algorithm' checkbox is checked. The 'OK', 'Cancel', and 'Reset' buttons are at the bottom right.

On the Inputs tab:

The image shows the 'Forex-AI-EURUSD v3.0' Expert Properties dialog box with the 'Inputs' tab selected. It displays a table of variables and their values, along with 'Load', 'Save', 'OK', 'Cancel', and 'Reset' buttons.

Variable	Value	Start	Step	Stop
<input type="checkbox"/> ModeHelp	A-Auto, F-Fixed Lot			
<input type="checkbox"/> Mode	F			
<input type="checkbox"/> UseMicroLots	true			
<input type="checkbox"/> RiskPerTradePercent	3	3	0	0
<input type="checkbox"/> FixedSizeLots	0.1	0.1	0	0
<input type="checkbox"/> StopLoss	90	90	0	0
<input type="checkbox"/> SLModeHelp	P-Periodical, T-Trail			



Check the checkbox on the following Input parameters:

alpha, beta, gamma, delta

alt_alpha, alt_beta, alt_gamma, alt_delta

Set the start value for all 8 selected symbol to 0

Set the Step value to all 8 symbols to 1

Set the Stop value for all 8 symbols to 200



*Due to some bug in MetaTrader 4 the Start value has to be set twice to stick.
Double check it twice to make sure the values you have entered are the correct ones.*

Make sure to set the alt_symbol to the symbol you have selected in the previous point to continuous Crude Oil, Gold (XAU) or another Forex pair you have selected.



On the Optimization tab:

Limitation	Value
<input type="checkbox"/> Balance minimum	200
<input type="checkbox"/> Profit maximum	10000
<input type="checkbox"/> Minimal margin level %	30
<input checked="" type="checkbox"/> Maximal drawdown	30
<input type="checkbox"/> Consecutive loss	5000
<input type="checkbox"/> Consecutive loss trades	10
<input type="checkbox"/> Consecutive win	10000
<input type="checkbox"/> Consecutive win trades	30

Click the checkbox on “Maximal drawdown” and set its value to 30.

This means that it only allows a maximum portfolio value drop by 30%.

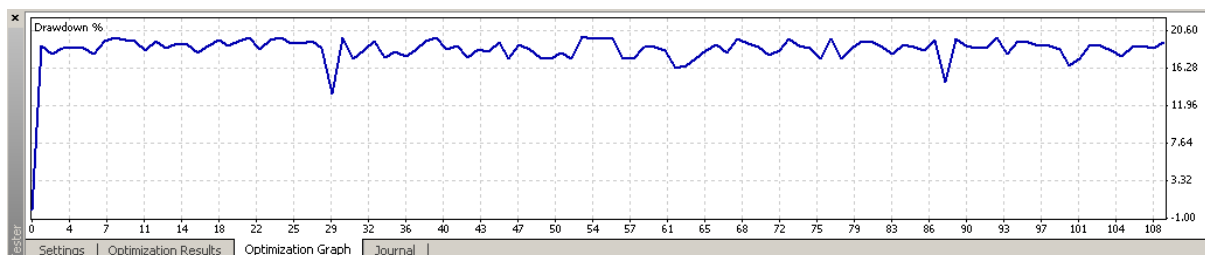
Then hit OK and click the Start button to start the optimization.

Optimization may take 10-15 minutes, depending on how fast computer you have, but you only have to do this once a week or maybe once a month.

During optimization, the Genetic Algorithm will go through 10,000 times on the entire data set and will optimize its parameter out of billions combinations. If you couldn't find an acceptable result, you can re-run the optimization and will get a different result. In fact every user of this Forex AI is likely to get a different optimization result, therefore if I use this system to trade, my trading will probably be differently to yours, but both systems can be profitable.



During the optimization you can click on the ‘Optimization Graph’ to see if the system had found any suitable combination which resulted in less than 30% portfolio drawdown.



As you can see, we have plenty of results around the 17% drawdown range in our example and one around 13%, plus another one around a 14% mark.



If you don't see the chart like the one above, right click on the chart area and de-select 2D surface.

Click on the ‘Optimization Results’ tab to analyze the results further.

If you sort the results by ‘Drawdown %’ you can see that the 13.33% drawdown resulted a \$9,963 profit on an initial 10,000 investment or about 100% profit in 5 months. Not bad!

The next line down resulted 168% profit in 5 months, but the drawdown was 14.66%, a slightly higher risk, but not much.

Pass	Profit	Total trades	Profit factor	Expected Payoff	Drawdown \$	Drawdown %	Inputs
29	9663.09	94	1.65	102.80	2383.66	13.44	alpha=66; beta=101; gamma=117; delta=28; alt_alpha=194; alt...
88	16811.22	105	1.90	160.11	3194.00	14.66	alpha=66; beta=101; gamma=149; delta=27; alt_alpha=194; alt...
62	12636.55	90	1.87	140.41	3889.27	16.32	alpha=41; beta=166; gamma=191; delta=28; alt_alpha=128; alt...
63	6653.35	95	1.46	70.04	2659.94	16.59	alpha=174; beta=54; gamma=171; delta=51; alt_alpha=10; alt...
100	6653.35	95	1.46	70.04	2659.94	16.59	alpha=174; beta=54; gamma=171; delta=51; alt_alpha=8; alt...
31	9268.71	94	1.66	98.60	2947.75	17.48	alpha=174; beta=54; gamma=171; delta=67; alt_alpha=14; alt...
46	9268.71	94	1.66	98.60	2947.75	17.48	alpha=174; beta=54; gamma=171; delta=67; alt_alpha=13; alt...
50	9268.71	94	1.66	98.60	2947.75	17.48	alpha=174; beta=57; gamma=171; delta=67; alt_alpha=13; alt...
52	9268.71	94	1.66	98.60	2947.75	17.48	alpha=174; beta=54; gamma=171; delta=67; alt_alpha=15; alt...

Both of them are pretty good.

Now sort the results by profit, showing the largest profit on the top of the list.



Pass	Profit	Total trades	Profit factor	Expected Payoff	Drawdown \$	Drawdown %	Inputs
88	16811.22	105	1.90	160.11	3194.00	14.66	alpha=66; beta=101; gamma=149; delta=27; alt_alpha=194; alt...
45	15395.22	128	1.55	120.28	4812.22	19.28	alpha=70; beta=60; gamma=185; delta=181; alt_alpha=52; alt...
109	15312.55	118	1.59	129.77	5276.24	19.37	alpha=143; beta=13; gamma=196; delta=50; alt_alpha=31; alt...
49	15019.17	116	1.70	129.48	3821.00	17.55	alpha=61; beta=121; gamma=52; delta=164; alt_alpha=197; alt...
74	13923.08	117	1.60	119.00	3675.62	18.94	alpha=143; beta=13; gamma=196; delta=44; alt_alpha=31; alt...
94	13731.81	104	1.70	132.04	3919.12	17.92	alpha=41; beta=166; gamma=191; delta=28; alt_alpha=121; alt...
51	13292.65	123	1.59	108.07	4597.03	18.10	alpha=61; beta=121; gamma=52; delta=164; alt_alpha=177; alt...
97	12687.65	120	1.55	105.73	3642.75	18.94	alpha=143; beta=13; gamma=180; delta=51; alt_alpha=31; alt...
62	12636.55	90	1.87	140.41	3889.27	16.32	alpha=41; beta=166; gamma=191; delta=28; alt_alpha=128; alt...

It appears that the highest profit in this case was one of the safest with a drawdown % of 14.66%.

You will most probably agree that 168% profit with the 14.66% Drawdown is our best choice.

Now take note of the 8 parameters:

alpha = 66, beta = 101, gamma = 149, delta = 27

alt_alpha = 194, alt_beta = 8, alt_gamma = 67, alt_delta = 191

Go back to the “Settings” tab and click on “Expert Properties” again.

This time select the Inputs tab and enter in the Value for each of the 8 Variables.

Variable	Value	Start	Step	Stop
<input checked="" type="checkbox"/> alpha	66	0	1	200
<input checked="" type="checkbox"/> beta	101	0	1	200
<input checked="" type="checkbox"/> gamma	149	0	1	200
<input checked="" type="checkbox"/> delta	27	0	1	200
<input type="checkbox"/> alt_symbol	CL_CONT			
<input checked="" type="checkbox"/> alt_alpha	194	0	1	200
<input checked="" type="checkbox"/> alt_beta	8	0	1	200

Click OK and then on the Setting tab click on the Start button.

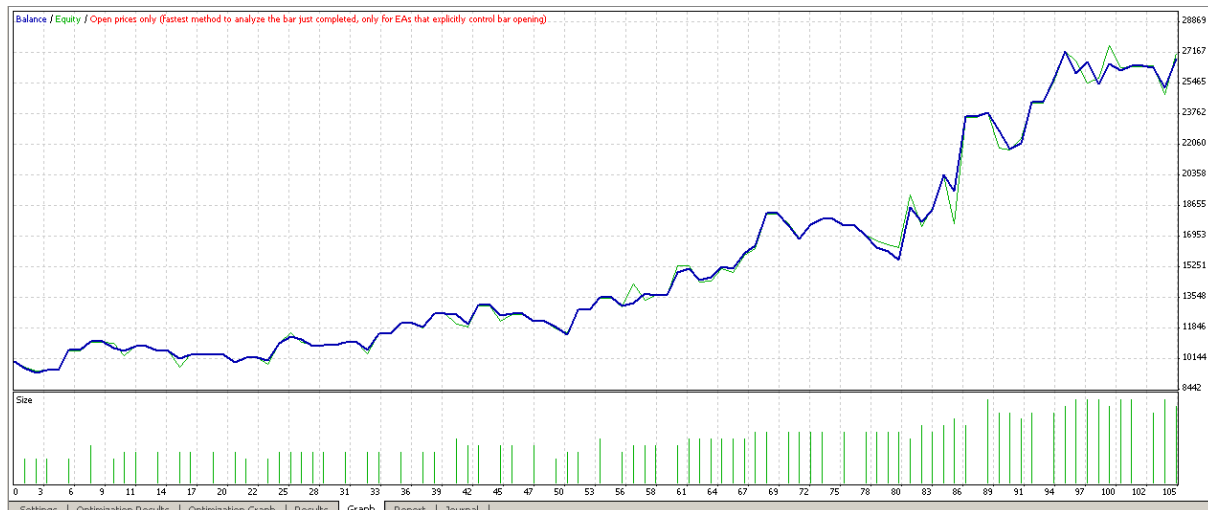
This time it went through the last 5 months and places trades based on the optimization parameters we have set.



This time we didn't have the Optimization checkbox clicked.



Note that the 10,000 balance has grown to almost \$27,000.



Selecting the Report tab you can see that:

63% of the trades were profitable, but when we made profit it was almost twice as big as the losses (Profit Factor 1.9).

Bars in test	1684	Ticks modelled	2368	Modelling quality	n/a
Mismatched charts errors	0				
Initial deposit	10000.00				
Total net profit	16811.22	Gross profit	35503.91	Gross loss	-18692.70
Profit factor	1.90	Expected payoff	160.11		
Absolute drawdown	647.14	Maximal drawdown	3194.00 (12.77%)	Relative drawdown	14.66% (2692.90)
Total trades	105	Short positions (won %)	42 (80.95%)	Long positions (won %)	63 (50.79%)
		Profit trades (% of total)	66 (62.86%)	Loss trades (% of total)	39 (37.14%)
		Largest profit trade	4149.38	loss trade	-1196.00
		Average profit trade	537.94	loss trade	-479.30
		Maximum consecutive wins (profit in money)	6 (1752.58)	consecutive losses (loss in money)	4 (-1902.62)
		Maximal consecutive profit (count of wins)	5421.53 (5)	consecutive loss (count of losses)	-2024.00 (2)
		Average consecutive wins	2	consecutive losses	1

Now you have the 8 numbers optimized to the current market conditions.



Don't be concerned about the Modelling quality N/A. The Forex AI system is only making transactions at the beginning of each 4-hour block, except for the StopLoss order, which can be filled at any time. We have run the optimization using "Every Tick" and produced the same result, but the optimization took significantly longer (Hours instead of minutes)



You will often see a 4-500% profit in 4-6 month training period. The example above is a very conservative.



4.4 How often to train the network?

We used to retrain the network every week until December 2008. Since then the market has stabilized a bit and we are only training it fortnightly. Our tests show that monthly training is probably enough, but given the current market turmoil of the past few months we felt training it more frequently gives the network a chance to learn the market behavior quicker.

Best practice would be to train your network every fortnight or week if the market shows significant changes, otherwise once a month is sufficient.



5 Licensing

The pricing of the Forex-AI system is worked out on the basis that you can only use it on one Forex broker account.

The Forex AI version that you have downloaded initially from the website will work between 4 to 8 weeks. This 4-8 week period gives you a chance to experiment with any broker without any limitation.

Once the 4-8 week period expires, the Forex-AI expert will notify you by displaying the message:

"This trial version has expired! If you have purchased the licensed copy, please email:
support@forex-ai.com"

When you are ready to activate your version of Forex AI Automatic Trading system send an email to support and request your permanently activated version of license file.

In order for us to be able to process your request we need:

Your Payment ID

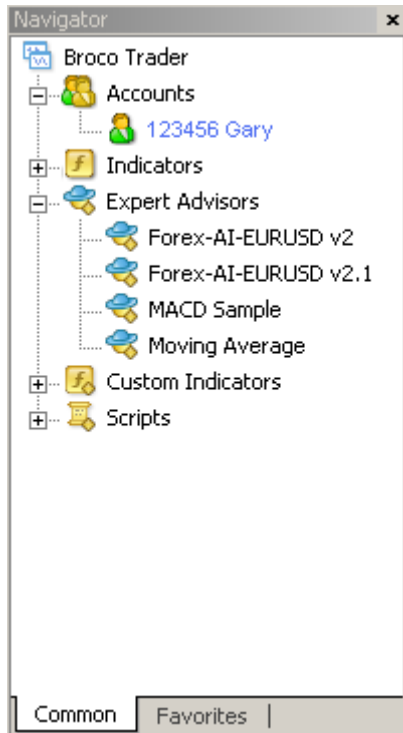
Your Name

Account Number for your live trading account

Account Number for your paper trading account



Your account number is displayed in the Navigation window under Accounts showed in blue (only in our screenshot is blue).



You can activate up to two Forex trading accounts with each Forex-AI purchase: one for Paper Trading account and one for live trading. All you need to do is emailing support@forex-ai.com with your account numbers and proof of purchase.



Using Forex-AI with more than 2 account numbers is possible for an additional \$50/account fee. Simply email support and we will email you a link for the payment and we will send you an updated license file to support up to 6 accounts per license file once payment is made. If more account is needed, we just need to use multiple license files.



6 Frequently Asked Questions

6.1 Q. I run the optimization, but it didn't list any result. Why?

A. The optimization has a strict criteria that only lists results as valid if the Portfolio Drawdown % is less than 30. There could be several reasons why nothing is reported:

- You have selected a longer than 6 month time frame
- The alternative Symbol is not set correctly
- The market conditions changed so much that you need to select smaller than 6 month time frame for optimization.

You can just try to re-run the optimizer again.

6.2 Q. Do I select the lowest Drawdown % or the highest Profit?

A. It depends on your risk tolerance. We prefer to select one of the lowest Drawdown %, but if only 1 or 2 extra percentage draw down produces twice as much profit, we sacrifice the extra safety for a potentially much larger return. The example above was quite typical. An extra 0.8% drawdown resulted almost twice as much profit, so we have selected that one.

6.3 Q. What if none of the results look OK?

A. It sometime happens that the lowest Drawdown % resulting a minor profit only. You do one of the followings:

- Run the optimizer again up to 5 times and if you still find no good results, then reduce the period by one month.
- Review the time frame selection. Maybe you have to lower the training time frame to as low as 4 month if the seriously trending market has just moving sideways in the last 3-4 month.



6.4 Q. My broker uses 5 digits on the EURUSD pair. Do I need to use 900 as a StopLoss?

A. No. We have included a routine in the Forex-Ai system to check how many digits are used for the EURUSD currency pair and making all adjustments internally, so you still need to use 90 for the StopLoss and not 900.

6.5 Q. What are those F:-0.35573443 A:120.04323 numbers?

A. They are the outputs of the two neural networks used by Forex-AI.

The first number is the EURUSD neural network, the second number is the alt_symbol network output. They both have to agree before a new trade is entered.

If both F and A are positive, the EA will go long in the next 4 hours bar

If both F and A are negative, the EA will go short in the next 4 hours bar

If they have a different sign, there will be no trade until they agree.

If A is 0, that means the alt_symbol is set to an invalid one, so no data is coming in on that symbol

6.6 Q. I run the optimizer and it just runs through fast and all results are discarded.

- A. Check to make sure your account is valid and allows trades. It must display the Trade and Account History tabs at the bottom.
- B. Drag the EA to the chart (if it is a demo account) and see what message it displays. Maybe your temporary license has expired.
- C. Check to make sure your account allows micro lots when UseMicroLots is selected. Try entering an order with 0.01 lot. If the order button is grayed out, it doesn't allow MicroLot orders.
- D. Make sure you are running the Expert on the EURUSD symbol. It also allows EURUSDm and EURUSD-fx. All other symbols are disabled.



6.7 Q. When I change the Maximal drawdown in the Strategy Tester to 30, the number just pops back to 70?

A. Press <enter> not just click to another cell when changing this value.

6.8 Q. What alt-symbol should I use when my broker doesn't support Gold or Crude?

A. There are two ways you can approach this. The simple way and the scientific way. The objective is to find a well correlating or inverse correlating currency symbol to EURUSD.

You can just pup up EURUSD and another currency pair on the screen using 6-month 4H chart and visually see if the correlation exist or not.

Or you can download the data to excel spreadsheet of both symbols to determine the exact correlation. Here is how:

Select the EURUSD 4H pair and click File->Save As to save its data in a csv file

Do the same for say AUDUSD 4H pair

Open MS Excel and File Open, select csv and open the EURUSD pair

Open another sheet and open the AUDUSD pair as well.

On a third page, paste 6 months' worth of data of the closing price of each symbol. To make sure you have done it right, leave the date time columns there as well, so you can check if it is shifted due to data error or not.

Then use “=correl(A1:A774, B1:B774)” where A is the EURUSD closing prices and B is the AUDUSD closing prices to get the correlation between the two symbols.

From August the 4th 2008 till the 2nd of February 2009 I got a 92.73% correlation between these symbols.

You can use other symbols to see which ones are the best and it will likely to change time to time, so it is advisable that you do your research every couple of month as to what symbol to use to get the best result.