

FxPro MT4 Backtest

A backtesting guide for MetaTrader 4

User Guide



Disclaimer

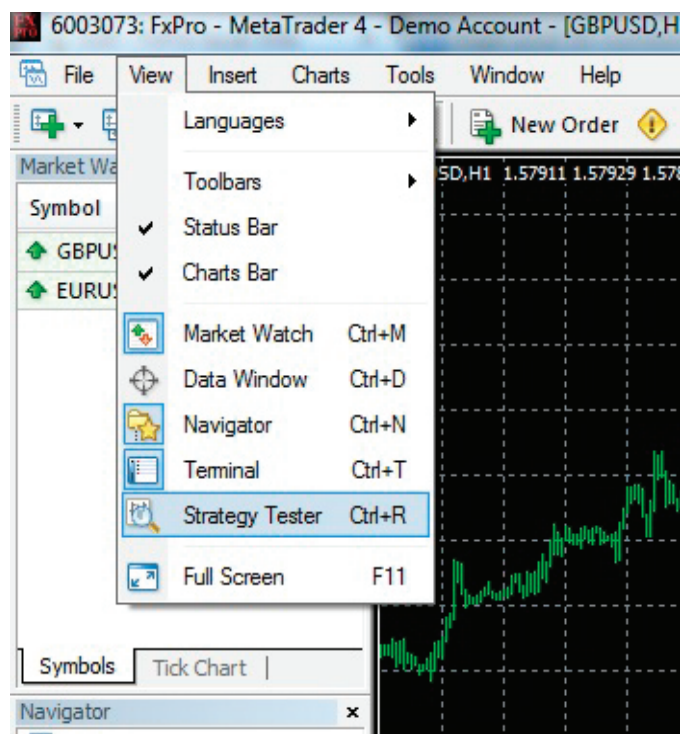
Under no circumstances, the backtesting process described in this guide should be interpreted as an indication of the potential profitability of any Expert Advisor. Past performance is not indicative of future results. FxPro cannot guarantee the accuracy of performance and/ or results of the process described herein. Your individual circumstances and trading objectives have not been considered. Therefore, this should not be considered as a personal recommendation or investment advice.



- The backtesting functionality of the Metatrader 4 platform allows a trader to check how an EA (Expert Advisor) would have traded in the past. It allows to test how different indicator inputs and other EA parameters may affect profitability as well as allowing developers to test for any errors in the logic of their strategy.
- Backtesting can save a lot of time, since it allows a trader to see trade results quickly, without having to test it real-time on a demo to gain results. It can also be used as a research tool, allowing a strategy developer to check how a given setup will work in a range market as opposed to trending market as well other market conditions.
- The following guide will take you through the main steps in backtesting a strategy, as well as some of the common problems encountered.

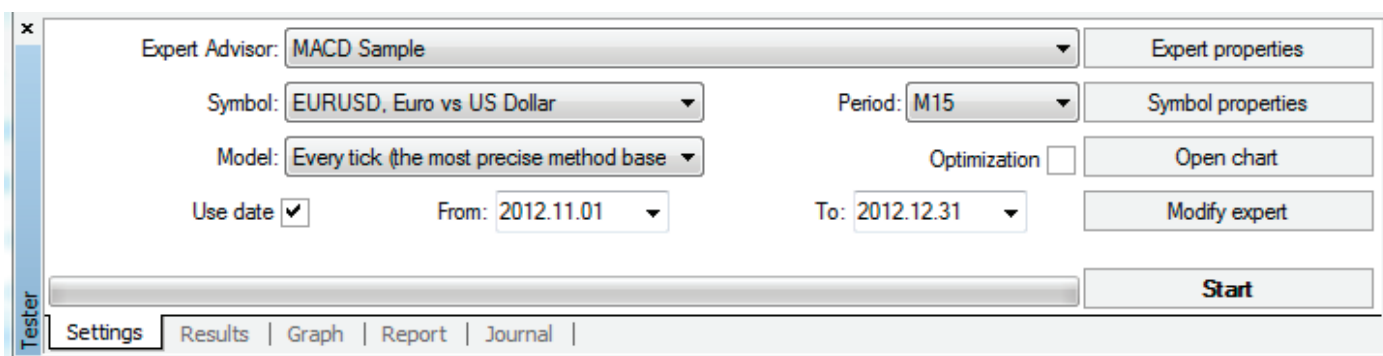
Enable Strategy Tester

If the Strategy Tester does not appear on the screen, you can enable it by selecting View->Strategy Tester



or simply click **Ctrl+R**

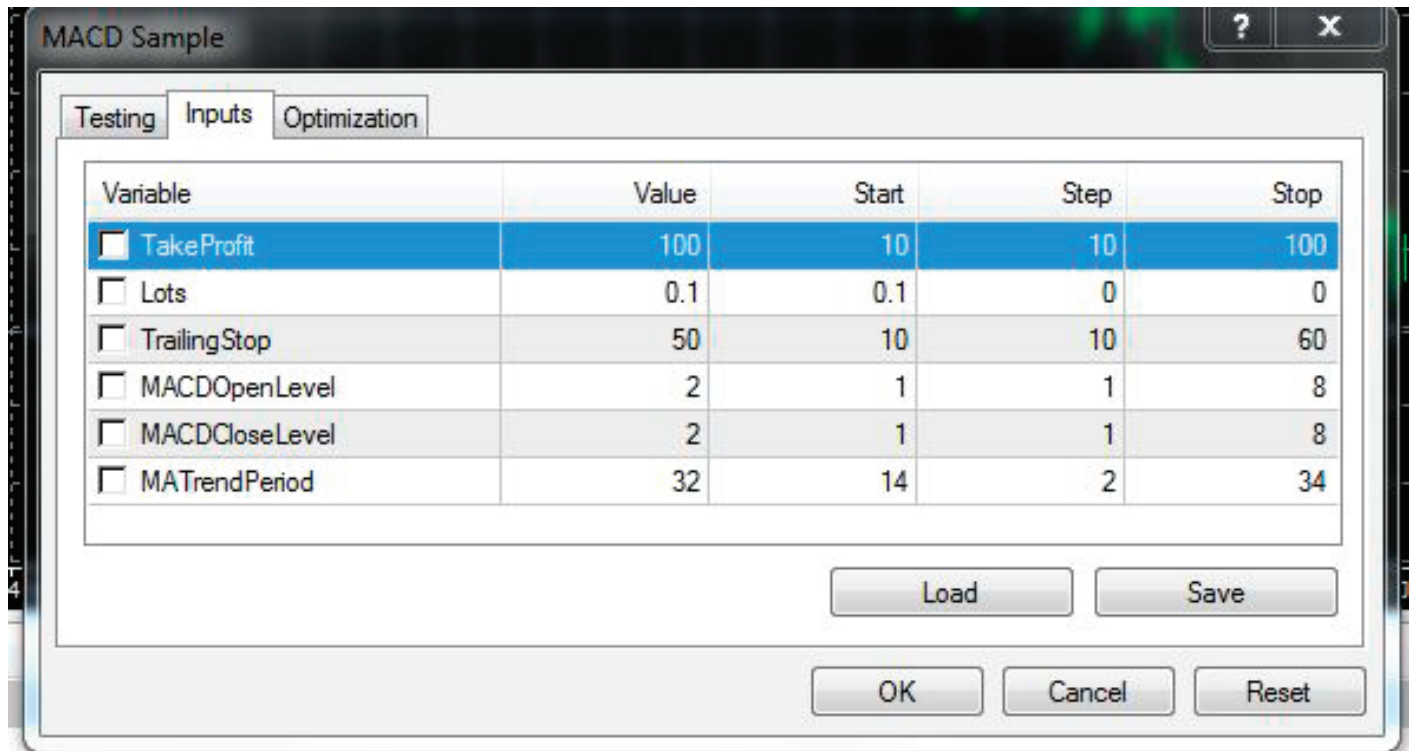
the Strategy Tester window should appear similar to this:



Set Inputs

To set the backtest input values for the EA, click on Expert properties -> Inputs tab.

Here you can set the value for each of the EA inputs or simply use the default ones. Only the 'Values' column will be used and other columns are used for optimization and are irrelevant for the backtest.



Select the Expert Advisor from the list:



If the Expert Advisor that you wish to select is not in the list, make sure that its placed in the right folder eg: C:\Program Files\FxPro - Metatrader 4\experts.

Select Symbol/Currency pair:

You can specify the symbol that you wish to be used for the backtest by selecting it from the drop down menu

The screenshot shows a trading software interface with a dropdown menu open for selecting a currency pair. The menu lists various currency pairs, with 'EURUSD, Euro vs US Dollar' highlighted in blue. Below the menu, the 'Symbol:' field displays 'EURUSD, Euro vs US Dollar'. The 'Model:' field is set to 'Every tick (the most precise method based on all available least timeframes to generate)'. On the left side, there are sections for 'Favorites', 'Account History', and 'Expert Advisor'.

Symbol	Description
USDCHF	US Dollar vs Swiss Franc
GBPUSD	British Pound vs US Dollar
EURUSD	Euro vs US Dollar
USDJPY	US Dollar vs Japanese Yen
AUDUSD	Australian vs US Dollar
EURJPY	Euro vs Japanese Yen
GBPCHF	British Pound vs Swiss Franc
EURGBP	Euro vs British Pound
USDCAD	US Dollar vs Canadian
NZDUSD	New Zeland Dollar vs US Dollar
EURCHF	Euro vs Swiss Franc
GBPJPY	British Pound vs Japanese Yen
EURAUD	Euro vs Australian Dollar
EURCAD	Euro vs Canadian Dollar
GBPAUD	British Pound vs Australian Dollar
GBPCAD	British Pound vs Canadian Dollar
CHFJPY	Swiss Franc vs Japanese Yen
AUDJPY	Australian Dollar vs Japanese Yen
CADJPY	Canadian Dollar vs Japanese Yen
AUDCAD	Australian Dollar vs Canadian Dollar
USDSGD	US Dollar vs Singapore Dollar
USDNOK	US Dollar vs Norwegian Krone
USDSEK	US Dollar vs Swedish Krona
USDDKK	US Dollar vs Danish Krone
GOLD	SPOT Gold Ounce vs US Dollar
GOLDEURO	SPOT Gold Ounce vs Euro
SILVER	SPOT Silver Ounce vs US Dollar
SILVEREURO	SPOT Silver Ounce vs Euro

Balance: 50 000.00

Symbol: EURUSD, Euro vs US Dollar

Model: Every tick (the most precise method based on all available least timeframes to generate)

Select data generation model:

Expert Advisor: MACD Sample

Symbol: GBPUSD, British Pound vs US Dollar

Model: Every tick (the most precise method based on all available least timeframes to generate each tick)

Use date: Control points (a very crude method based on the nearest less timeframe, the results must not be considered)

Visual mode: Skip to: 2013.01.30

Open prices only method will check the prices and react to them only at the open of each bar. 'Every tick' method will do so at every tick. Please note that MT4 does not use historical tick data and instead simulates tick based on 1 minute bars.

For more details about different data models used during testing see: <http://articles.mql4.com/70>

Time Period restrictions:

If you want to restrict the EA to backtest over a specific time period ,select 'Use date'.

Model: Every tick (the most precise method based on all available least timeframes to generate each tick)

Use date From: 2012.11.01 To: 2012.12.31

Visual mode Skip to: 2013.01.30

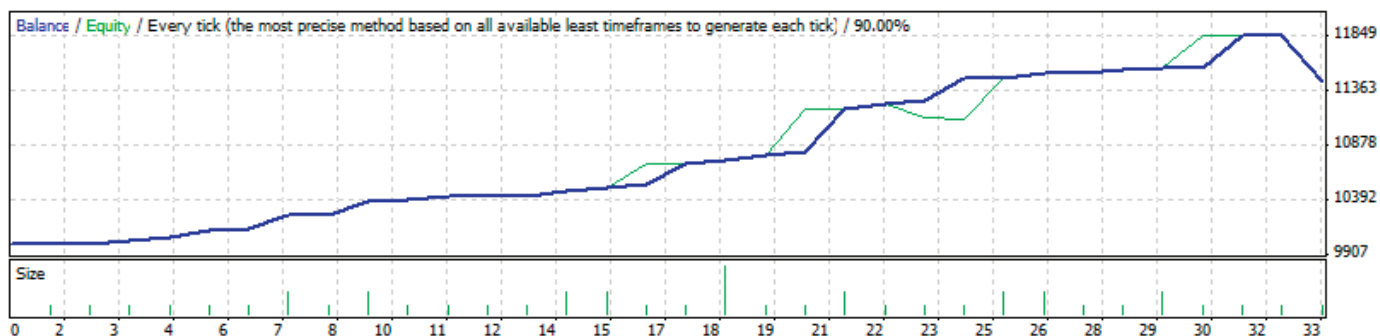
Now you can press Start (bottom right corner) and you should see the backtest start.

Viewing results

If your backtest was successful , you can view all the results in the results tab.

#	Time	Type	Order	Size	Price	S/L	T/P	Profit	Balance
1	2013.03.05 08:34	sell	1	0.10	1.30311		1.30261		
2	2013.03.05 12:44	t/p	1	0.10	1.30261		1.30261	5.00	10005.00
3	2013.03.05 15:35	buy	2	0.10	1.30398		1.30448		
4	2013.03.05 15:44	t/p	2	0.10	1.30448		1.30448	5.00	10010.00
5	2013.03.05 15:44	buy	3	0.10	1.30468		1.30518		
6	2013.03.05 16:51	t/p	3	0.10	1.30518		1.30518	5.00	10015.00
7	2013.03.05 19:59	buy	4	0.10	1.30311		1.30361		
8	2013.03.05 20:22	t/p	4	0.10	1.30361		1.30361	5.00	10020.00
9	2013.03.06 13:53	buy	5	0.10	1.30461		1.30511		

See the balance graph in the Graph tab



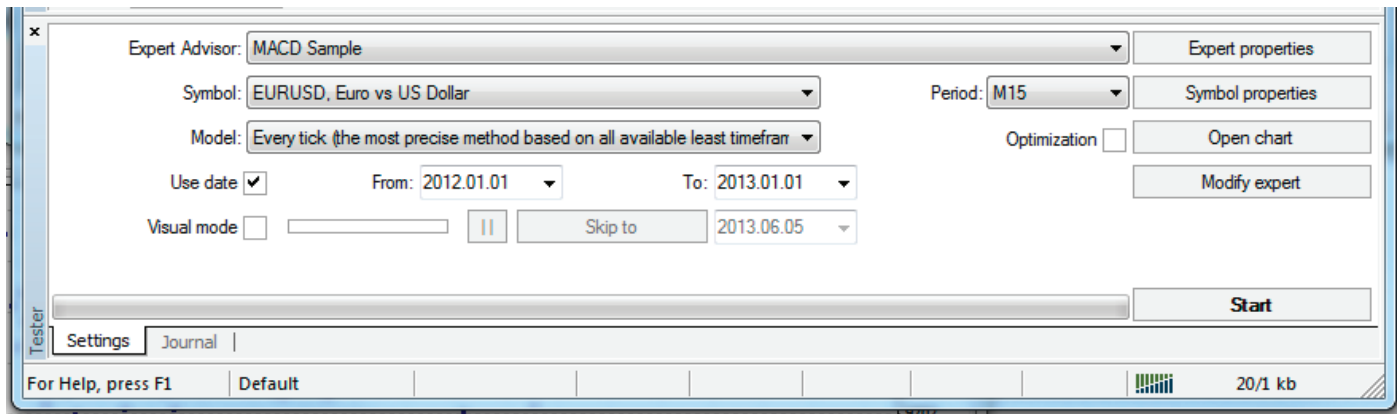
You can view the backtest summary report in the Report tab:

Bars in test	11039	Ticks modelled	3724584	Modelling quality	90.00%
Mismatched charts errors	0				
Initial deposit	10000.00				
Total net profit	3610.51	Gross profit	9127.95	Gross loss	-5517.45
Profit factor	1.65	Expected payoff	28.65		
Absolute drawdown	1124.35	Maximal drawdown	2542.35 (22.27%)	Relative drawdown	22.27% (2542.35)
Total trades	126	Short positions (won %)	61 (88.52%)	Long positions (won %)	65 (95.38%)
		Profit trades (% of total)	116 (92.06%)	Loss trades (% of total)	10 (7.94%)
	Largest	profit trade	650.00	loss trade	-1002.04
	Average	profit trade	78.69	loss trade	-551.74
	Maximum	consecutive wins (profit in mo...	36 (2617.59)	consecutive losses (loss in mo...	2 (-1501.47)
	Maximal	consecutive profit (count of w...	2617.59 (36)	consecutive loss (count of los...	-1501.47 (2)
	Average	consecutive wins	15	consecutive losses	1

Here you can see the total net profit that the EA generated during the backtests, as well as other key performance metrics such as 'Profit factor', 'Drawdown' and 'win percentage'. For more information about what all of these numbers mean, please refer to the following article:

<http://articles.mql4.com/83>

Backtest chart:



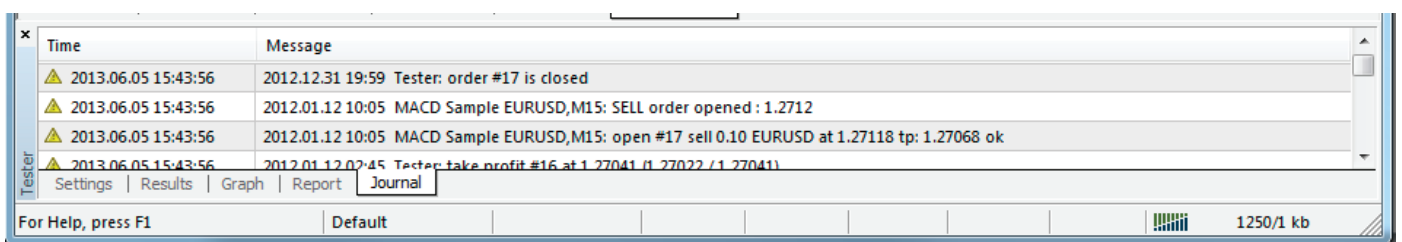
To view the historical trades plotted on the chart, simply click the 'Open Chart' button on the right hand side.



A new chart window will be opened and trades will be drawn on the chart you can scroll back and forth to review the historical trades of the EA.

Backtest troubleshooting:

If the backtest does not show any trades or does not happen at all, click on the Journal tab to check for any errors:

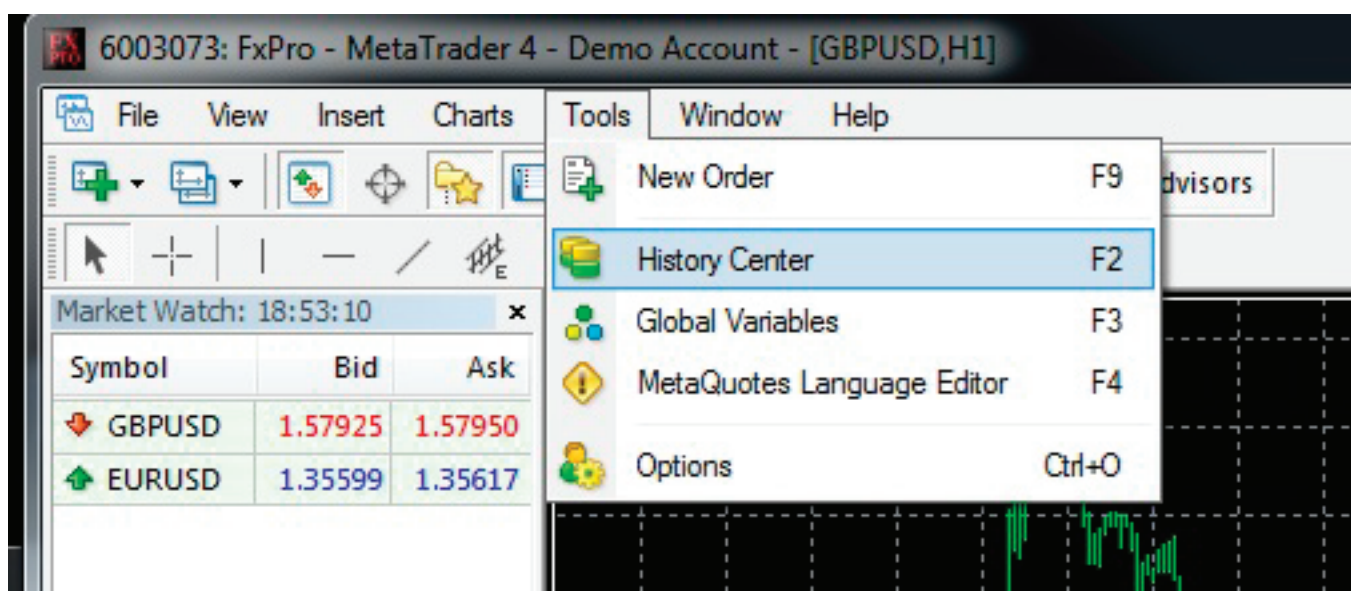


If click the 'Start' button and backtest does not start, the most likely issue is that there is no data in the history centre



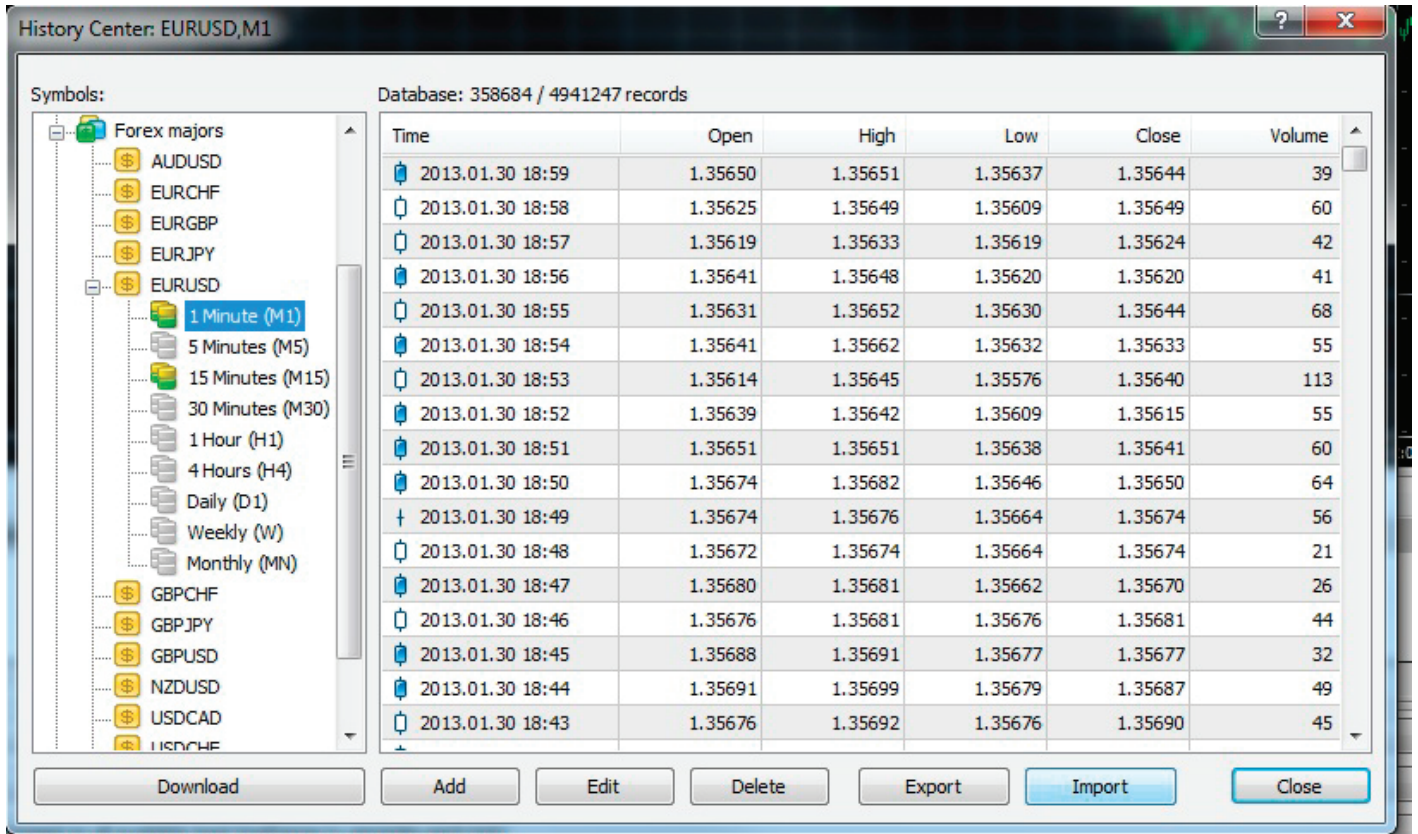
In this case you will need to either **Download** or **import the data**

To download historical data go to Tools -> History Centre



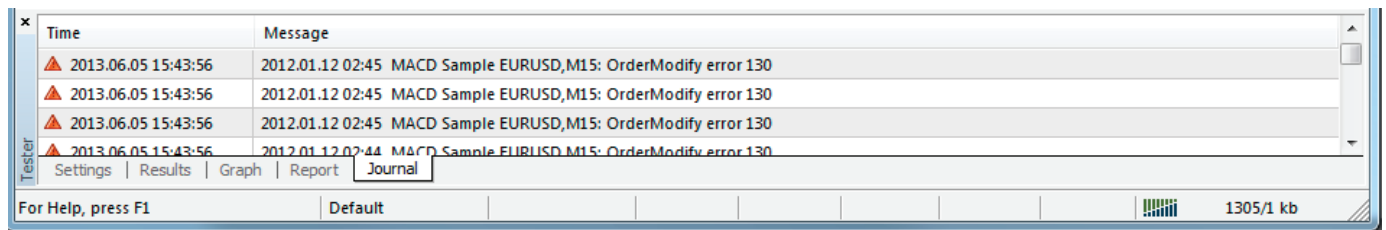
Select the Symbol that you wish to backtest for and the download dialog box will appear.

Select the timeframe that you wish to backtest by double-clicking on it

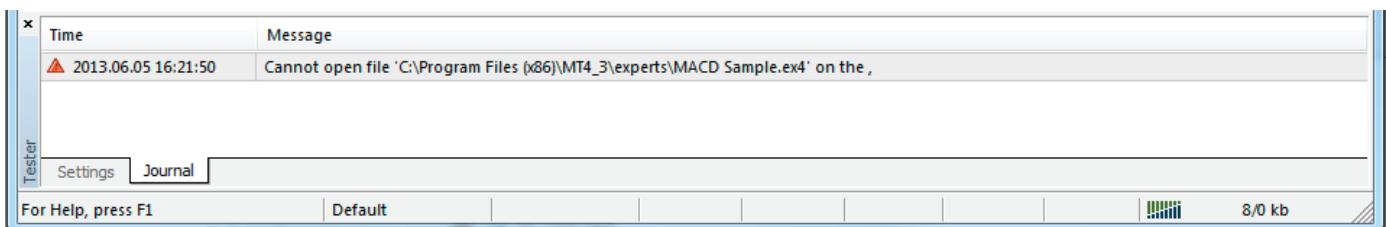


Then simply click **Download**

If during your backtest you get 'Order Send error 130' or 'Order Modify error 130', the take profit or stop loss is too close to the opening price of the trade or to the current price.

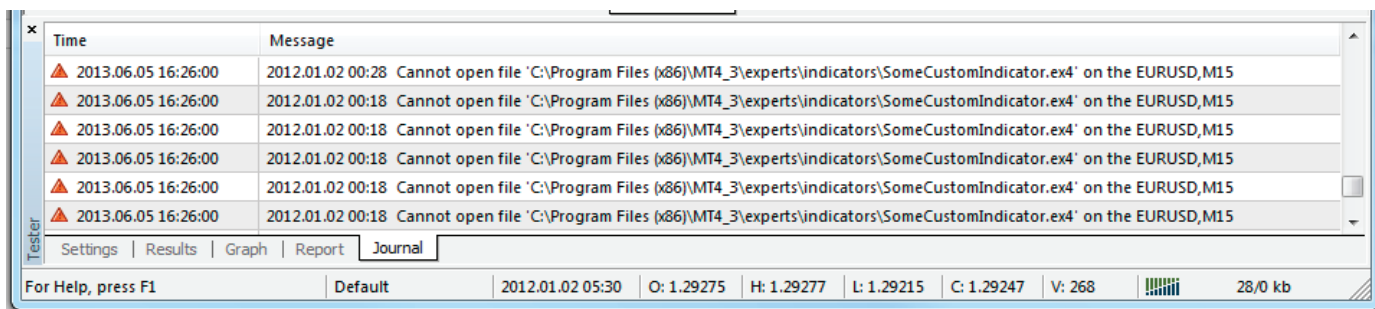


If you see an error similar to this one



There must be an error in the code of the EA and it cannot compile. You will not be able to backtest the EA until the error is resolved.

If you see an error similar to this one:



The EA needs a custom indicator to be present in order for it to work. Please put the relevant indicator into the 'indicators' subfolder of the 'experts' folder where your EA is.



for **serious** traders

Contact us today

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